Hotel Technology next generation™

Property Web Services Specifications
Release 2009B
Issue 2

Issue 2 includes an addendum to Single Guest Itinerary (Part 2), and a minor update to the 'About HTNG' section.

September 24, 2009

HTNG gratefully acknowledges significant contributions of pre-existing work by the following companies, in support of specific portions of these specifications.

micros®

PAR Springer-Miller

NEWMARKET® INTERNATIONAL

Reservation Assistant

Property Web Services Workgroup

About HTNG

Hotel Technology Next Generation ("HTNG") is a non-profit organization with global scope, formed in 2002 to facilitate the development of next-generation, customer-centric technologies to better meet the needs of the global hotel community. HTNG's mission is to provide leadership that will facilitate the creation of one (or more) industry solution set(s) for the lodging industry that:

- Are modeled around the customer and allow for a rich definition and distribution of hotel products, beyond simply sleeping rooms
- Comprise best-of-breed software components from existing vendors, and enable vendors to collaboratively produce world-class software products encompassing all major areas of technology spending: hotel operations, telecommunications, in-room entertainment, customer information systems, and electronic distribution
- Properly exploit and leverage a base system architecture that provides integration and interoperability through messaging; and that provides security, redundancy, and high availability
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Document History

Issue 1	September 24, 2009	Initial Release
Issue 2	May 27, 2010	Updated ‘About HTNG’ Section, added Addendum to the Single Guest Itinerary Specification

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HTNG gratefully acknowledges significant contributions of pre-existing work by the following companies, in support of specific portions of these specifications:

- MICROS Systems, Inc.
- PAR Springer-Miller Systems
- Newmarket International
- TAC GmbH (Reservation Assistant)

Chapter 1 Introduction

This document is Release 2009B of the HTNG Property Web Services Specifications.

For convenience, these are presented as a single multi-part document, with each part comprising a different specification.

The 2009B Release comprises the following parts:

1. Web Services Framework, Version 2.1.1
2. Single Guest Itinerary, Version 2.2.1
3. Digital Signage, Version 1.0
4. Open Data Exchange, Version 1.4.2
5. Back Office Integration, Version 2.0
6. Guest Self Service, Version 1.0.3
7. Food and Beverage Ordering, Version 1.0
8. Guest and Room Status Messaging, Version 1.0

Note: All parts listed above are unchanged from the versions published in HTNG Property Web Services Version 2009A, with the exception of Guest and Room Status Messaging Version 1.0, which is included for the first time.

Part 1: Web Services Framework, Version 2.1.1

Chapter 2 Document Information (Part 1)

2.1 Change History

Version	**Date**	**Summary of Changes**	**People/Companies Involved**
2.1.1	May '08 – August '08	Minor updates to the specification	Sophie Grigg, PAR Springer-Miller Systems
		Various small edits	Tom Gresham, MICROS Systems, Inc.
		Update to Change Management (Chapter 6)	Brian Alessi, Delaware North
		Re-work of Chapter structures	Haken Lindestaf, OpenCourse Solutions
			Rod Tate, Symon MessageLink

2.2 Contributors

A key group of technologists from across the industry were formed into a workgroup to revise the methodology for system interconnection via Web Services.

The initial group involved in preparing this specification included the following people representing the following companies:

Name	**Company Represented**
Kristofer Agren	OpenCourse Solutions
Sophie Grigg	PAR Springer-Miller Systems
Alex Lobakov	PAR Springer-Miller Systems
Alex Shore	Newmarket International
Tom Gresham	MICROS Systems, Inc.
Andreas Hagedorn	Trust International
Brad More	Theodatus
Mark Pullen	InfoGenesis

Doug Rice	HTNG

The group met together during 2006 and 2007 to prepare this specification material. During Hitec (June 2006) various vendors were able to demonstrate the use of the new Framework 2.1 methodology to interface systems for various HTNG initiatives. In addition, a number of workgroups have either used this Framework as their connectivity mechanism or plan to do so.

2.3 Referenced Documents

The following table shows the documents upon which this document depends:

Name	**Location**
SOAP 1.1	
SOAP 1.2	
Web Services Addressing 1.0, Core W3C Working Draft: 2006-05-09	www.w3.org/TR/2006/REC-ws-addr-core-20060509

Chapter 3 Overview

3.1 Framework 2.1

This specification describes the Framework 2.1 methodology. It remains a working document that receives updates on a regular basis.

This specification outlines a set of existing open standards, patterns, and practices that have gained significant acceptance throughout the IT industry that must be supported by an implementer to claim HTNG Framework 2.1 compliance. The framework prescribes a service-oriented architecture implemented using Web Services.

An HTNG Framework 2.1-compliant Web Service MUST adhere to the following:

1. Support both SOAP 1.1 and SOAP 1.2
2. Be expressed fully in WSDL and XML Schema
3. Support WS-Addressing (Web Services Addressing 1.0 – Core: 2006-05-09 (www.w3.org/TR/2006/REC-ws-addr-core-20060509)
4. Be accessible using synchronous and/or asynchronous HTTP as described below
5. There is an assumption that you are processing XML messages correctly utilizing best practices and known conventions

The following is RECOMMENDED:

1. Usage of WS-Security to authenticate messages and secure message content (Only the WS-Security 1.0 specification is supported within the context of this specification.)
2. Usage of asynchronous HTTP as described below
3. Usage of SOAP faults as described below
4. Usage of the XML Schema and WSDL construction best practices as described below
5. Vendors conform with v1.1 of the WS-I Basic Profile specification (www.ws-i.org/Profiles/BasicProfile-1.1.html)

3.2 WS Addressing

The group reviewed many of the specifications in place and in use across many industries. It was felt that the use of existing standards was the optimal way to create the most effective communication standard. This documentation uses the standards described in the Web Services section of www.w3.org.

The group decided that guidelines defined within Web Services Addressing were appropriate for Framework 2.1. The W3C Recommendation of May 2006 (2006-05-09 – www.w3.org/TR/2006/REC-ws-addr-core-20060509) was chosen as the WS-Addressing version to use because it provided a platform that was well supported by many of the common software platforms the members were using to develop their software.

Synchronous and Asynchronous communications are in use actively by many HTNG members using the existing HTNG header. Framework 2.1 provides support for both communication patterns. In addition, we have provided guidelines that should make the communication process more robust and standardized.

3.3 HTTP Communication Patterns

The synchronous pattern, whilst straightforward, is included here for reference and to aid in communicating a best practice approach. As different web service frameworks handle asynchronous communication differently, the approach described in the "Async pattern" section is recommended. Whilst an implementer may choose to support other async patterns, if a product is claiming Async compliance (which may or may not be required for a particular technical specification), then at the very least this async pattern must be supported.

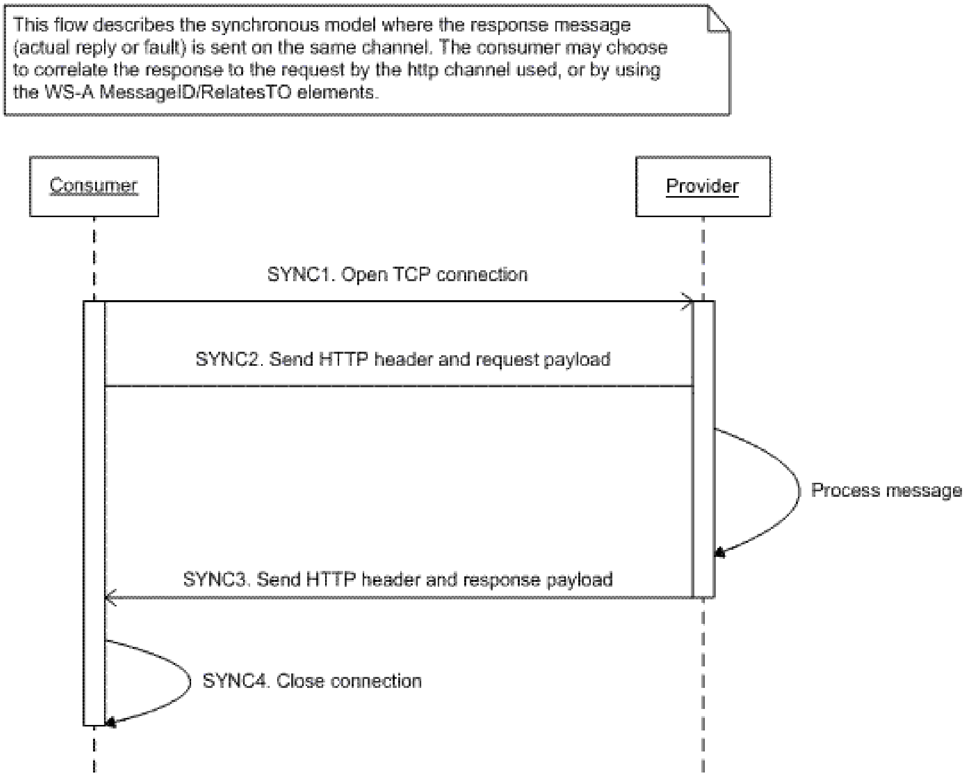
The full details of Asynchronous communication and the associated fault handling is detailed within this specification along with some sample applications that demonstrate an implementation. Synchronous communications are defined in Chapter 4. Asynchronus communications are defined in Chapter 5.

Chapter 4 The Synchronous Communication Process

Synchronous communication is defined as a request/response over the same channel. The overall principals in this communication are defined as follows:

- Each message will supply a unique MessageID. Should the same message be transmitted with a different MessageID (many organizations utilize a GUID for this purpose), this will be treated as a separate message by the recipient.
- If reply to element contains the anonymous URI, then the response will be provided on the same channel; by definition this becomes a Synchronous transaction. See www.w3.org/TR/2006/REC-ws-addr-core-20060509 (Section 3, Message Addressing Properties).

Diagrammatically this can be represented via the following sequence diagram.



This flow describes the synchronous model where the response message (actual reply or fault) is sent on the same channel. The consumer may choose to correlate the response to the request by the http channel used, or by using the WS-A MessageID/RelatesTO elements.

Consumer
Provider
SYNC1. Open TCP connection
SYNC2. Send HTTP header and request payload
Process message
SYNC3. Send HTTP header and response payload
SYNC4. Close connection

NOTE: Examples provided in the specification are from the original Framework 2.0 specification, 1.0.8; as such the soap Envelope references the 2004-08 namespace. This has been maintained in the example(s) for backward compatibility.

4.1 SYNC1

The caller sends the request message, and indicates that the response should be sent on the same connection by supplying the WS-Addressing “anonymous” URI in the wsa:ReplyTo element. Note that if the anonymous URI is used and there is both a wsa:ReplyTo and wsa:FaultTo element, both wsa:ReplyTo and wsa:FaultTo elements MUST use the anonymous URI; i.e., it is not possible to use the anonymous URI for wsa:ReplyTo but not wsa:FaultTo, or *vice versa*.

Sync – Sample Message with HTTP Header

```
POST /MyService.asmx HTTP/1.1
Content-Type: text/xml; charset="utf-8"
Content-Length: nnnn
Connection: close
SOAPAction: http://xyz/MyService/SayHello

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing";>
    <soap:Header>
        <wsa:MessageID>uuid:214A50B2-E62E-4f8b-BD97-62ABE31E15C2</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://xyz/MyService</wsa:To>
        <wsa:Action>http://xyz/MyService/SayHello</wsa:Action>
    </soap:Header>
    <soap:Body>
        <m:SayHello xmlns:m="http://xyz/MyService">
            <m:MyName>John Doe</m:MyName>
        </m:SayHello>
    </soap:Body>
</soap:Envelope>
```

4.2 SYNC2

The Web Service sends back the response on the same connection on which the request came in.

Sync – Sample Message with HTTP Response Header

```
POST /MyService.asmx HTTP/1.1
Content-Type: text/xml; charset="utf-8"
Content-Length: nnnn
Connection: close
SOAPAction: http://xyz/MyService/SayHello

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing";>
    <soap:Header>
```

```
        <wsa:MessageID>uuid:214A50B2-E62E-4f8b-BD97-62ABE31E15C2</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://xyz/MyService</wsa:To>
        <wsa:Action>http://xyz/MyService/SayHello</wsa:Action>
    </soap:Header>
    <soap:Body>
        <m:SayHello xmlns:m="http://xyz/MyService">
            <m:MyName>John Doe</m:MyName>
        </m:SayHello>
    </soap:Body>
</soap:Envelope>
```

Sync – Sample Fault with HTTP Response Header

```
HTTP/1.1 200 OK
Date: Wed, 10 May 2006 11:30:07 GMT
Content-Length: nnnn
Content-Type: text/xml; charset="utf-8"
```

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing">

    <soap:Header>
        <wsa:MessageID>uuid:AF6F10EE-B2A8-4080-BEA0-0A5F03100C60</wsa:MessageID>
        <wsa:RelatesTo>uuid:214A50B2-E62E-4f8b-BD97-62ABE31E15C2</wsa:RelatesTo>
        <wsa:To>http://abc:1234/MyClient</wsa:To>
        <wsa:Action>http://www.w3.org/2005/08/addressing/fault</wsa:Action>
    </soap:Header>
    <soap:Body>
        <soap:Fault xmlns:m="http://xyz/MyService">
            <faultcode>m:MyNameNotSet </faultcode>
            <faultstring>No name was specified, unable to say hello</faultstring>
            <detail>
                <m:MyNameNotSet>
                    <m:SomeElement>Some additional information</m:SomeElement>
                </m:MyNameNotSet>
            </detail>
        </soap:Fault>
    </soap:Body>
</soap:Envelope>
```

Chapter 5 The Asynchronous Communication Process

Asynchronous behavior is accomplished by implementing three “normal” web service methods: one on the service side that gets called by the consumer to start the asynchronous process (the method should have the _SubmitRequest suffix), and two methods that are implemented by the consumer to receive the result (suffixed _SubmitResult) or a fault (_SubmitFault).

5.1 ASYNC1

The response/reply message in each message exchange (the _SubmitRequest message exchange and _SubmitResult/_SubmitFault message exchange) is treated like normal and is correlated using WS-Addressing. In the sample, a UUID was used for CorrelationID.

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
 xmlns:htng="urn:tobedetermined">
    <soap:Header>
        <wsa:MessageID>uuid:214A50B2-E62E-4f8b-BD97-62ABE31E15C2</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://htng.org/abcspec</wsa:To>
        <wsa:Action>http://htng.org/abcspec/XYZ_SubmitRequest</wsa:Action>
        <htng:CorrelationID>uuid:2D11751F-916F-4c1f-B1FD-9D6D051AC90A</htng:CorrelationID>
        <htng:ReplyTo>
            <wsa:Address>http://abc:1234/MyClientAsync</wsa:Address>
        </htng:ReplyTo>
        <htng:FaultTo>
            <wsa:Address>http://abc:1234/MyClientAsync</wsa:Address>
        </htng:FaultTo>
    </soap:Header>
    <soap:Body>
        <m:XYZ_SubmitRequest xmlns:m="http http://htng.org/abcspec">
            ... The request ...
        </m:XYZ_SubmitRequest>
    </soap:Body>
</soap:Envelope>
```

5.2 ASYNC2

The provider receives the message, initiates the asynchronous process, and sends back an “empty” SOAP message.

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
 xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" >
    <soap:Header>
        <wsa:MessageID>uuid:9971BF72-F42D-49ee-99DB-BEC28B6EDAF7</wsa:MessageID>
        <wsa:RelatesTo>uuid:214A50B2-E62E-4f8b-BD97-62ABE31E15C2</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsa:Action>http://htng.org/abcspec/XYZ_SubmitRequestResponse</wsa:Action>
```

```
(07)     </soap:Header>
(08)     <soap:Body/>
(09) </soap:Envelope>
```

5.3 ASYNC3

The provider completes the asynchronous process, and invokes the _SubmitResult method on the consumer (the address was specified by the htng:ReplyTo element in the original _SubmitRequest method).

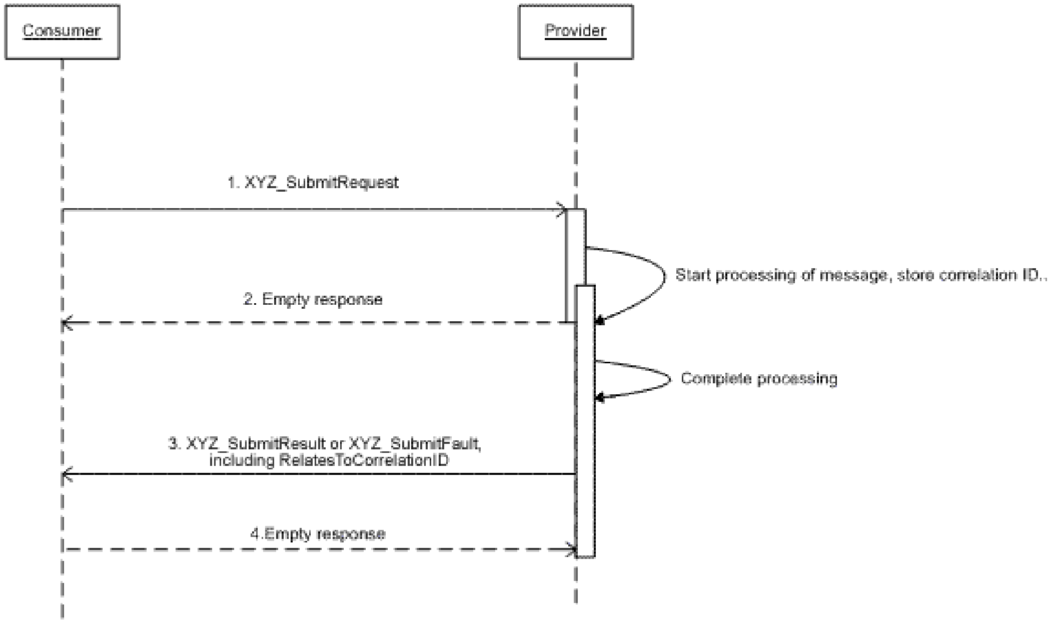
```
(01) <soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
       xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
       xmlns:htng="urn:tobedetermined" >
(02)     <soap:Header>
(03)         <wsa:MessageID>uuid:C15EE2B2-B41C-44c4-901E-1032159CCC6A</wsa:MessageID>
(04)         <wsa:ReplyTo>
(05)             <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
(06)         </wsa:ReplyTo>
(07)         <wsa:To>http://htng.org/abcspec</wsa:To>
(08)         <wsa:Action> http://htng.org/abcspec/XYZ_SubmitResult</wsa:Action>
(09)         <htng:RelatesToCorrelationID>uuid:2D11751F-916F-4c1f-B1FD-9D6D051AC90A</htng:RelatesToCorrelationID>
(10)     </soap:Header>
(11)     <soap:Body>
(12)         <m:XYZ_SubmitResult xmlns:m="http://htng.org/abcspec">
(13)             ... The result ...
(14)         </m:XYZ_SubmitResult>
(15)     </soap:Body>
(16) </soap:Envelope>
```

5.4 ASYNC4

The consumer sends back an “empty” SOAP response message.

```
(01) <soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
       xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing">
(02)     <soap:Header>
(03)         <wsa:MessageID>uuid:6F400F52-8912-4dab-BEEB-FEDEC356979F</wsa:MessageID>
(04)         <wsa:RelatesTo>uuid:C15EE2B2-B41C-44c4-901E-1032159CCC6A</wsa:RelatesTo>
(05)         <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
(06)         <wsa:Action>http://xyz/MyService/XYZ_SubmitResultResponse</wsa:Action>
(07)     </soap:Header>
(08)     <soap:Body/>
(09) </soap:Envelope>
```

Diagrammatically this can be represented via the following sequence diagram:


Consumer
Provider
1. XYZ_SubmitRequest
Start processing of message, store correlation ID..
2. Empty response
Complete processing
3. XYZ_SubmitResult or XYZ_SubmitFault,
including RelatesToCorrelationID
4.Empty response

5.5 Asynchronous Fault Handling

There are four places where a fault can be reported:

1. In the response to _SubmitRequest method; i.e., the provider throws a fault back to the consumer. This fault will be sent back instead of the “empty” message. If this happens, the consumer can assume that NO asynchronous process was started and there will thus be no _SubmitResult or _SubmitFault call.
2. In the _SubmitFault method; i.e., the provider signals the consumer that the asynchronous operation completed as the result of a fault.
3. In the response to the _SubmitResult method; i.e., the consumer returns a fault back to the provider as a response to the _SubmitResult method.
4. In the response to the _SubmitFault method; i.e., the consumer returns a fault back to the provider as a response to the _SubmitFault method.

5.6 Asynchronous WSDL Structure

Create two port types, one that will hold the methods implemented by the providers and one implemented by the consumer to receive completion and error callbacks. For each _SubmitRequest method in the provider, create two callback methods, _SubmitResult and _SubmitFault, on the consumer's side.

5.7 Asynchronous WSDL Example

```
<!--"Normal" port type that the provider implements.
     Contains both synchronous methods and the initiating method of asynchronous methods-->
<portType name="ReservationProviderPortType">
   <!--This is the normal synchronous version-->
   <operation name="CreateReservation">
      <input/>
      <output/>
      <fault/>
   </operation>
   <!--This is the asynchronous version-->
   <operation name="CreateReservation_SubmitRequest">
      <input message="tns:CreateReservation_SubmitRequestInputMessage"/>
      <output message="tns:EmptyMessage"/>
   </operation>
</portType>
<!--"Callback" port type that the caller implements to be able to receive completion
     callbacks (successes and failures) on asynchronous methods-->
<portType name="ReservationAsyncCompletionPortType">
   <operation name="CreateReservation_SubmitResult">
      <input message="tns:CreateReservation_SubmitResultInputMessage"/>
      <output message="tns:EmptyMessage"/>
   </operation>
   <operation name="CreateReservation_SubmitFault">
      <input message="tns:CreateReservation_SubmitFaultInputMessage"/>
      <output message="tns:EmptyMessage"/>
   </operation>
</portType>
```

5.8 Simple HTNG Framework 2.1 Asynchronous Sample

A sample application is contained in the file *HTNG_Framework_2.0_Simple_Async_Sample.zip* in the *HTNG_Framework_2.0_Samples.zip* archive which can be downloaded from the same location as this specification.

The sample illustrates an implementation of the HTNG Framework 2.1 asynchronous pattern in WSE 3.0. In this sample, the notion of a “provider” and a “consumer” is used. The provider represents the “service” that is providing some business functionality; in this particular sample the business functionality consists of a dummy method called “CreateReservation”. The consumer represents the client application that is calling the provider to create a reservation.

The asynchronous pattern in the HTNG Framework 2.1 specifies an asynchronous operation as two separate message exchanges:

1. The consumer makes a regular synchronous http Web Service call (where the reply is received on the same connection on which the request was sent) to initiate the asynchronous request. An empty reply is sent back to indicate successful receipt of the request. The provider will kick off the asynchronous process.

2. The provider will make a regular synchronous http Web Service call (where the reply is received on the same connection on which the request was sent) to the consumer when the asynchronous process is completed to deliver the successful result or the unsuccessful fault of the asynchronous process.

The web methods that the provider and the consumer implements are described in separate portTypes in the WSDL to clearly separate the difference in the two roles that the consumer and provider plays in the message exchange.

This sample would have been fairly straightforward if WSE3 had out-of-the-box provided a way to accept http requests to a non-ASP.NET hosted process (by simply adding an “http” URI to the WSE “SoapReceivers” in the same way that it is possible to add a “soap.tcp” SoapReceiver, for example). While this is supported in WCF/Indigo, WSE3 does not support it, so this sample also contains a small Class Library “HttpSysTransport” originally written by Aaron Skonnard (with some minor enhancements) to make this possible in WSE3.

Chapter 6 Ensuring Consistent Behavior(s) through Standardized Approaches

This chapter of the specification details some practices and approaches that should make the use of Web Services by different vendors more consistent and therefore produce a more predictable result when connecting systems and completing integration projects.

6.1 Overall Fault Handling

SOAP Faults will be provided as a mechanism for handling error conditions. We **highly recommend that faults are declared in the WSDL.** These may include faults that are business-dependent. For example, methods that create reservations may want to return failures for defined failure reasons like "missing arrival or departure date". Since faults relating to transportation are not (typically) known ahead of time, these would not normally be declared in the WSDL.

A response that contains a fault should be sent to the same address as a reply, unless a specific wsa:FaultTo element was specified in the header of the request message.

Documentation describing an example of SOAP fault handling is attached in Appendix A.

6.2 HTTP as Recommended Transport

We strongly recommended the use of HTTP for transporting messages. This specification primarily focuses on Web Services using HTTP as the transport medium.

6.3 WSDL Construction and Change Management

Recommendations for Change Management for Documents and Specifications Involving Web Services

A workgroup is responsible for the WSDL and XML Schema that it delivers together with a specification. A new version of the specification results in a new WSDL and XML Schema with new namespaces. Since a new version will have a new namespace, no two versions are syntactically compatible. It is up to the workgroup to define a migration path (if one exists) in the specification.

It is highly recommended, but not required, that the target namespaces for the WSDL and XML Schema adhere to the following format:

- WSDL:http://htng.org/<workgroup acronym>/<year and target release>/<specification name>
- XML Schema: http://htng.org/<workgroup acronym>/<year and target release>/<specification name>/<schema name>/Types

For specifications under development, we recommend that the year and target release of the intended certification point be used. The following namespace format is recommended:

- WSDL: http://htng.org/<workgroup acronym>/<year and targeted certification release>/<specification name>
- XML Schema: http://htng.org/<workgroup acronym>/<year and targeted certification release>/<specification name>/<schema name>/Types

For example, if the Property Web Services Workgroup publishes a standard for Single Guest Itinerary for the 2008B release of the specification, the namespaces for the WSDL and XML Schema would be:

- WSDL: http://htng.org/PWS/2008B/SingleGuestItinerary
- XML Schema(s): http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types

These URIs both serve as a unique identifier for the namespace as well as the URLs for retrieving the WSDL and XML Schema.

Release Process

- Release of draft specification – A draft specification is assumed to consist of at least three artifacts: a document explaining the specification, a WSDL file, and an XML Schema file. Before the release is made, the WSDL and XML Schema namespaces should be updated.
- Review process
- Changes to draft specification, if needed
- Ratification process
- Release of ratified specification – Update namespace of WSDL and XSD, and upload WSDL and XML Schema to the htng.org site (if and when this is available) so that in the best case, it is possible to use the namespace URIs to retrieve the WSDL and XML Schema.

Once a specification has been ratified, it becomes static and any changes would need to be considered for the next version. Once it is determined that a new release should take place, a new target release is established (i.e., 2008A or 2008B), and the release process starts over from the beginning.

Should a technical specification (e.g., Single Guest Itinerary) not require changes between specification publication points, the namespace(s) within the technical specification will remain unchanged. Concurrently, if any part of a WSDL or XML schema requires an update, the complete package (WSDLs and XML Schemas) must be updated to use the targeted certification release as per Section 0.

Change Management

Changes to a specification can be proposed by a vendor, either by submitting an extension (as described in Section 0) or by submitting a written request to HTNG. The workgroup responsible for the specification will periodically review any suggested changes, and if deemed to be of use to a wider audience, the changes are incorporated into a new version.

All extensions that are considered to become part of the standards will be assimilated into the standard XML Schema and will then live in the same namespace as the standard.

Extensibility

Once a specification has been ratified and released, it is likely that vendors implementing the specification would like to enhance the specification either by augmenting the message content or even adding completely new functionality.

For Writers of a Specification

It is recommended that the following guidelines are taken into account when building the XML Schema for a specification to ensure that the message content is extensible.

At the bottom of a complexType that should be extensible, use the construct and specify that other elements are allowed as long as they are from another namespace.

An Example follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema targetNamespace="http://htng.org/PWS/2008A/SomeSpecification/schema name/Types"
xmlns:tns="http://htng.org/PWS/2008A/SomeSpecification/schema name/Types"
xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified" attributeFormDefault="unqualified">
 <xs:element name="Customer">
   <xs:complexType>
     <xs:sequence>
      <xs:element name="LastName" type="xs:string"/>
      <xs:element name="FirstName" type="xs:string"/>
      <xs:element name="Address" type="tns:AddressType"/>
      <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other"/>
     </xs:sequence>
   </xs:complexType>
 </xs:element>
  <xs:complexType name="AddressType">
     <xs:sequence>
      <xs:element name="Street" type="xs:string"/>
      <xs:element name="ZipCode" type="xs:string"/>
      <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other"/>
     </xs:sequence>
  </xs:complexType>
</xs:schema>
```

It is highly recommended that this pattern is used in as many (if not all) complexTypes that are defined in the XML Schema to allow for maximum extensibility.

NOTE: This model was chosen for its simplicity. There are other extensibility models that would work as well, but the <xs:any> version is straightforward and does not require dependency on some common XML Schema.

For Implementors of a Published Specifiction

Extending the XML Schema

Assuming that the simple model described above has been used, it is recommended that if a vendor wishes to extend an existing complexType they go through the following steps.

- Create a new schema
- Assign a unique specific namespace. There are no specific guidelines for what namespace is used as long as it is ensured to be globally unique.
- Create elements for all of the extra content that will go into the messages. Add annotations to each new element and describe the purpose of the element and where it will be used.
- If the vendor would like to make the extension public, the vendor can upload the specification at the HTNG extensions area at www.htng.org.

Example

Let’s assume a vendor would like to extend the (partial) schema described in the section above. The vendor would create the following schema to describe the additional elements needed:

```
<xs:schema targetNamespace="urn:some:unique:namespace"
  xmlns:tns="urn:some:unique:namespace"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified" attributeFormDefault="unqualified">
    <xs:element name="MiddleName">
      <xs:annotation>
        <xs:documentation>This element extends the "Customer" element defined in the XYZ specification version X.Y.</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="Country">
      <xs:annotation>
        <xs:documentation>This element extends the "AddressType" complexType defined in the XYZ specification version X.Y.</xs:documentation>
      </xs:annotation>
    </xs:element>
</xs:schema>
```

The extended “Customer” element could then look like this:

```
<Customer
 xmlns="urn:some:unique:namespace"
 xmlns:a="urn:some:unique:namespace">
    <LastName>Smith</LastName>
    <FirstName>John</FirstName>
    <Address>
      <Street>123 Main Street</Street>
      <ZipCode>11111</ZipCode>
```

```
(07)      <a:Country>USA</a:Country>
(08)    </Address>
(09)    <a:MiddleName>Gary</a:MiddleName>
(10) </Customer>
```

Extending the WSDL

If a vendor needs to add functionality, it is highly recommended that a new WSDL is created with a new and unique namespace that will hold the new portType that will only contain the new/changed operations. The new WSDL may reference the WSDL and/or XML Schema that are part of the specification.

Suggested Workgroup Acronymns

Workgroup	**Acronym**
Architecture	ARC
Distribution Content Management	DCM
In-Room Technology	IRT
Payments	PMT
Property Distribution	PDS
Property Web Services	PWS

Guidelines for Composing WSDL and XML Schemas

References to Other WSDLs/Schemas

It is recommended to refrain from referencing WSDLs and/or XML Schemas that are part of other specifications. In the case that this is necessary, it is recommended to explicitly state the dependency on other standards in the specification text.

WSDL Structure

It is recommended that the following WS-I guidelines (www.ws-i.org) are observed. In addition, it is strongly suggested that **types are defined in a separate schema and not in the WSDL.**

XML Schema

We recommend the following normanclature approaches:

- Element names should use Pascal casing; i.e., capitalize the first letter in a word.

- Attribute names should use Camel casing; i.e., capitalize the first letter in a word except the first letter.
- Elements be given names that can be easily understood.

6.4 Security (if in use)

We recommend the use of WS Security as part of the normal development process. Below is a sample Synchronous message that uses the UsernameToken element as per WS-Security 1.0. WS-Addressing headers are also included. Note that the message is only using WS-Security for authentication; therefore, no in-message signature or encryption is performed. The password is provided in clear text, and implies that the communication is secured at the transport level.

Security XML Example

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing"
   xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
   xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <soap:Header>
    <wsa:Action>http://htng.org/PWSWG/2006/05/BanquetEventOrder#BeoRequest</wsa:Action>
    <wsa:MessageID>urn:uuid:29f43cdc-a621-4e2c-80af-3653545d5502</wsa:MessageID>
    <wsa:ReplyTo>
      <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
    </wsa:ReplyTo>
    <wsa:To>http://127.0.0.1/NIIS/BeoService/BeoService.asmx</wsa:To>
    <wsse:Security soap:mustUnderstand="1">
      <wsu:Timestamp wsu:Id="Timestamp-9f540437-93c5-4b9d-9d57-afad42eb007b">
        <wsu:Created>2006-10-30T16:07:46Z</wsu:Created>
        <wsu:Expires>2006-10-30T16:12:46Z</wsu:Expires>
      </wsu:Timestamp>
      <wsse:UsernameToken
      xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd"
      wsu:Id="SecurityToken-9d1092c8-afdd-421c-9d78-044f6c25d777">
        <wsse:Username>TestUserName</wsse:Username>
        <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">TestPasswordValue</wsse:Password>
        <wsse:Nonce>+c1BfJJI3Slsm6J4l9Wk2w==</wsse:Nonce>
        <wsu:Created>2006-10-30T16:07:46Z</wsu:Created>
      </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
  </soap:Body>
</soap:Envelope>
```

6.5 Routing

Limited discussion has taken place to date on routing. The discussions to date have determined:

- If routing (or any type of intermediary forwarding mechanism) is used, a next-hop approach is highly recommended; i.e., every entity in the chain knows only of the next hop in the chain.
- Every end point should be treated in the same way; i.e., there is no discernible difference between an intermediary (e.g., a router) and the logical final recipient.

6.6 Reliability

Discussion has taken place with respect to the applicability of WS-Reliability within Framework 2.1. The group determined that specific individual vendors may wish to agree and implement WS-Reliability within a particular workgroup or against an agreed set of messages. This should be able to take place within the existing Framework 2.1 Header structure. Unless an agreement is specifically in place, WS-Reliability is not a requirement for either Synchronous or Asynchronous processing.

A workgroup may include other SOAP headers within a Framework 2.1 message in order to implement other functions as required by their own implementation of an interface.

6.7 Handling Attachments

The workgroup recommends the use of MTOM as the methodology for handling attachments with messaging.

Appendix A SOAP Fault Handling

It is recommended to use the standard SOAP fault model as described in the SOAP 1.1 and 1.2. This specification divides faults into two categories:

1. Faults that are known ahead of time, which are typically business-specific faults and are specific to each Web Service. These faults are well defined in the WSDL and XML Schema of the Web Service.
2. Faults that are not known ahead of time, which are typically implementation-specific faults; e.g., communication faults, etc.

A.1. Declarative Approach

Faults that are known ahead of time and are business-specific should be declared in the WSDL to let the consumer of the Web Service know what types of business-related faults can be expected by calling a specific method. Each fault must also have a corresponding XML Schema element declared that uniquely describes the fault. Consider the following WSDL definition of a Web Service Method where there are two faults declared in the WSDL:

```
<operation name="CreateReservation">
    <input message="tns:CreateReservationInputMessage"/>
    <output message="tns:CreateReservationOutputMessage"/>
    <fault name="NoAvailability" message="tns:NoAvailabilityFaultMessage">
        <documentation>Thrown if there is no longer any availability;</documentation>
    </fault>
    <fault name="InvalidData" message="tns:InvalidDataFaultMessage">
        <documentation>Thrown if one or more fields in the data are not
                   filled in or did not validate.
                   The contents of the fault will contain more
                   information
      </documentation>
    </fault>
</operation>
```

The message definition for the NoAvailabiltyFaultMessage and InvalidDataFaultMessage look like this:

```
<message name="NoAvailabilityFaultMessage">
    <part name="parameters" element="tns:NoAvailabilityFault"/>
</message>
<message name="InvalidDataFaultMessage">
    <part name="parameters" element="tns:InvalidDataFault"/>
</message>
```

And the XML Schema elements NoAvailabilityFault and InvalidDataFault look like this:

```
<xs:element name="NoAvailabilityFault">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="FirstAvailableDateAndTime" type="xs:dateTime"/>
        </xs:sequence>
```

```
   </xs:complexType>
</xs:element>
<xs:element name="InvalidDataFault">
   <xs:complexType>
      <xs:sequence>
         <xs:element name="Field" maxOccurs="unbounded">
            <xs:complexType>
               <xs:sequence>
                  <xs:element name="Reason" type="xs:string"/>
               </xs:sequence>
               <xs:attribute name="name" type="xs:string" use="required"/>
            </xs:complexType>
         </xs:element>
      </xs:sequence>
   </xs:complexType>
</xs:element>
```

A SOAP 1.2 envelope containing the SOAP fault for InvalidData would look like this:

```
<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope"
 xmlns:t="http://new.webservice.namespace"
 xmlns:xml="http://www.w3.org/XML/1998/namespace">
… WS-Addressing, Security, etc headers omitted …
   <env:Body>
      <env:Fault>
         <env:Code>
            <env:Value>env:Sender</env:Value>
            <env:Subcode>
               <env:Value>t:InvalidData</env:Value>
            </env:Subcode>
         </env:Code>
         <env:Reason>
            <env:Text xml:lang="en">Some of the fields were
                            invalid</env:Text>
         </env:Reason>
         <env:Detail>
            <t:InvalidDataFault>
               <t:Field name="FirstName">
                  <t:Reason>A first name must set</t:Reason>
               </t:Field>
               <t:Field name="DOB">
                  <t:Reason>The date of birth cannot be in the
                        future</t:Reason>
               </t:Field>
            </t:InvalidDataFault>
         </env:Detail>
      </env:Fault>
   </env:Body>
</env:Envelope>
```

And the SOAP 1.2 envelope for the NoAvailability fault would look like this:

```
<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope"
     xmlns:t="http://new.webservice.namespace"
     xmlns:xml="http://www.w3.org/XML/1998/namespace">
  ... WS-Addressing, Security, etc headers omitted ...
    <env:Body>
        <env:Fault>
            <env:Code>
                <env:Value>env:Sender</env:Value>
                <env:Subcode>
                    <env:Value>t:NoAvailability</env:Value>
                </env:Subcode>
            </env:Code>
            <env:Reason>
                <env:Text xml:lang="en">There was no availability
                                      left to complete the reservation.
               </env:Text>
            </env:Reason>
            <env:Detail>
                <t:NoAvailabilityFault>
                    <t:FirstAvailableDateAndTime>2006-12-17T09:30:00Z</t:FirstAvailableDateAndTime>
                </t:NoAvailabilityFault>
            </env:Detail>
        </env:Fault>
    </env:Body>
</env:Envelope>
```

NOTE: The example above represents the SOAP message carrying a fault as it might look in a synchronous session, or in an asynchronous session if the fault were to occur in the context of the call.

Fault(s) that occur in the asynchronous process initiated by an asynchronous call would be submitted to the consumer via the _SubmitFault operation, therefore the SOAP message might look close to the following:

```
<env:Envelope xmlns:env="http://www.w3.org/2003/05/soap-envelope"
     xmlns:t="http://new.webservice.namespace"
     xmlns:xml="http://www.w3.org/XML/1998/namespace">
  ... WS-Addressing, Security, RelatesToCorrelationID etc. headers omitted ...
  <env:Body>
    <m:XYZ_SubmitFault>
      <env:Fault>
        <env:Code>
          <env:Value>env:Sender</env:Value>
            <env:Subcode>
              <env:Value>t:NoAvailability</env:Value>
            </env:Subcode>
          </env:Code>
        <env:Reason>
          <env:Text xml:lang="en">There was no availability left to complete the reservation.</env:Text>
        </env:Reason>
        <env:Detail>
          <t:NoAvailabilityFault>
            <t:FirstAvailableDateAndTime>2006-12-17T09:30:00Z</t:FirstAvailableDateAndTime>
          </t:NoAvailabilityFault>
        </env:Detail>
      </env:Fault>
    </m:XYZ_SubmitFault>
  </env:Body>
</env:Envelope>
```

Appendix B SOAP Exception Handling

A sample application has been created that provides an example of SOAP exception handling.

This example is contained in the file *HTNG_Framework_2.0_SOAP_Fault_Handling_with_WSE_Sample.zip* in the *HTNG_Framework_2.0_Samples.zip* archive which can be downloaded from the same location as this specification.

The package contains examples and utilities for how to more easily use structured SOAP exceptions in the Microsoft WSE environment. Microsoft WSE does not fully implement structured SOAP exceptions (those exceptions that are identified by the contents of the <Detail> element in the SOAP fault element).

The method described in the example is intended to be similar to what is seen in other web service toolkits; e.g., AXIS, and Microsoft's upcoming communication framework "WCF" (previously known as "Indigo"). Once WCF is released, porting structured SOAP exception handling using this method will be straightforward. In order to make this work, this method consists of two parts:

1. A utility to generate the exception classes that correspond to a WSDL <fault> element that refers to a message with an XML Schema element describing the content. This utility is provided in this package as a console application with full source called "GenerateFaultWrappersFromWsdl". The exception classes that are created all inherit from SoapException, so it is easy and straightforward to use them on the service side; simply "throw" the strongly typed exception and you are done. A little bit more work is required on the client side to translate the SoapException to a strongly typed exception; for this purpose, the GenerateFaultWrappersFromWsdl utility also generates a class to map a SoapException to a strongly typed exception.

2. In order to make the translation of the exception on the client side happen seamlessly to the caller of the web service proxy, the proxy class that gets generated by the Wsdl/WseWsdl3 utilities needs to be extended. With .NET2 this can be done in a non-invasive way since the proxy web service class is generated with the "partial" attribute. Please see the MathServiceExtension.cs source file in "Contract.Client".

NOTE: One alternative to this could also be to implement a custom Policy Assertion in WSE3 and throw the strongly typed exception from there. Unfortunately, WSE3 will wrap all non-SoapException exceptions thrown from a policy assertion, which would not let the caller use the plain try {} catch {} pattern.

This will allow service implementers use the following style of code:

```
throw new MyStronglyTypedException(…);
```

And client implementers use the following style of code:

```
try
{
   Mywebserviceproxy.SomeCall(…);
}
catch(MyStronglyTypedException myException)
{
    // The content of the exception is in the myException.TypedDetail property
}
```

Appendix C Math(A+B) Sample Project

A sample application is provided that implements a simple A+B application. This application should be used as a minimum primer to become familiar with Framework 2.1.

This example is contained in the file *HTNG_Framework_2.0_Math_A+B_Sample.zip* in the *HTNG_Framework_2.0_Samples.zip* archive which can be downloaded from the same location as this specification.

This example contains:

- Custom UserTokenManager that demonstrates and discusses how to implement proprietary authentication
- Custom Policy implemented in code to require SOAP action header and UsernameToken
- Web service implementation of add, subtract, multiply, divide
- Console application client that demonstrates how to call the service with a username token, etc.

Appendix D Payment Posting Example

A sample application is provided that implements the payment posting message. This message has been most recently used by the Single Guest Itinerary workgroup.

The sample is contained in the file *HTNG_Framework_2.0_Payment_Posting_Sample.zip* in the *HTNG_Framework_2.0_Samples.zip* archive which can be downloaded from the same location as this specification.

The example implements a Web Service at htng.org/PWSWG/2006/04/SingleGuestItinerary#PostPayment and was developed using a small part of Activity.wsdl designed by Guest Itinerary Workgroup. The WSDL that was used can be found in the Schema subfolder.

NOTE: No custom Fault conditions were defined in the WSDL.

The following pre-requisites are required on the system in order to build and run the sample:

- MS IIS
- MS .NET Framework v2.0
- MS Visual Studio 2005
- MS Web Service Enhancements v3.0

Appendix E Additional Examples

Additional examples have been provided by the Workgroup to assist in people's understanding of Framework 2.1.

HTNG 2.0 OTA Ping Service

This example is contained in the file *HTNG_Framework_2.0_OTA_Ping_Sample.zip* in the *HTNG_Framework_2.0_Samples.zip* archive which can be downloaded from the same location as this specification.

The zip archive contains:

- A WSDL which describes the service and should allow the generation of the client code
- An example for the request and response including the HTTP header

To use the service, use:

- username = trust
- password = xyz

The service is programmed in Java and uses AXIS 1.4.

For addressing, schemas.xmlsoap.org/ws/2008/08 was used.

WS-Security Example

This example is contained in the file HTNG_Framework_2.0_WS_Security_Sample.xml in the HTNG_Framework_2.0_Samples.zip archive which can be downloaded from the same location as this specification.

This is a sample Synchronous message that uses the UsernameToken element as per WS-Security 1.0. WS-Addressing headers are also included. Please note that the message is only using WS-Securityfor authentication, therefore no in-message signature or encryption is performed. The password is provided in clear text, and implies that the communication is secured at the transport level.

HTNG 2.0 Asynchronous OTA Ping Sample for .NET 2.0 and WSE 3.0

This is a simple example of an OTA ping using the Asynchronous processing model 2.

Part 2: Single Guest Itinerary, Version 2.2.1

Chapter 7 Document Information (Part 2)

7.1 Change History

Revision	Description	Date	Author
1.0	Initial submission	November 8, 2006	Tom Gresham, MICROS Systems, Inc.
1.0.1	Remove “Draft”, add additional samples, revise terminology	February 5, 2006	Tom Gresham, MICROS Systems, Inc. Penka Sevova, PAR Springer-Miller Systems
2.0	Updates for version 2.0	February 12, 2008	Tom Gresham, MICROS Systems, Inc. Victor Konopik, MICROS Systems, Inc. Sergeo Khomutetsky, MICROS Systems, Inc.
2.1	Revision for 2008B	September 9, 2008	Tom Gresham, MICROS Systems, Inc.
2.2	Added missing merge profile messag	September 15, 2008	Tom Gresham, MICROS Systems, Inc.

7.2 Contributors

Company/Organization	Contributor
FCS Computer Systems	Chris Armour
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NOTE: Version 2.2.1, posted on 27 May 2010, includes an addendum to Single Guest Itinerary, which defines the roles and use cases for the specification, and which was inadvertently omitted from the original document. The addendum is posted as an additional document on the Open Group site, where Property Web Services is posted.

Chapter 8 Activity Service

The WSDL for the HTNG Activity Reservation System defines the “ActivityService” web service. This web service consists of 19 functions defined in six port types. The port types are:

- **ActivityPortType** – Generic activity functions which are implemented by both the Itinerary Consolidation System and the Activity Reservation System.
- **ActivityProviderBinding** – Activity functions only applicable to the Activity Reservation System.
- **ActivitySyncBinding** – Activity functions only applicable to the Itinerary Consolidation System.
- **NameBinding** – Support functions for guest profile information, applicable to both the Itinerary Consolidation System and the Activity Reservation System.
- **ReservationProviderBinding** – Support functions for reservation information, applicable to the Activity Reservation System.
- **ReservationSyncBinding** – Support functions for reservation information, applicable to the Itinerary Consolidation System.

8.1 Supporting Schemas

The Activity Web Service imports five schemas which define the data payloads required by the functional messages. These are:

- **Activity.xsd** – Defines messages specific to activities.
- **Common.xsd** – Defines generic types used by various other elements.
- **Name.xsd** – Defines data types specific to a guest profile.
- **PmtPosting.xsd** – Defines data required for payment posting.
- **Reservation.xsd** – Defines data applicable to a guest reservation.

Common elements used in several messages are included in the Common Schema Elements section of this document.

8.2 Soap Header

All messages must include a soap header that conforms to the WSAddressing and WSSecurity specifications. Receiving systems may optionally require that the wsa:To element match a specific destination address, and therefore this element should be configurable at run time. In addition, all sending systems must identify themselves by specifying a wsa:From element unique for their system. Typically, this is in the form of “URN:<*system*>”. The wsa:ReplyTo address may be the anonymous form described in the August, 2004 specification.

WSSecurity may be optionally implemented. Providers are only required to support basic plain text authentication with a username and password. The user credentials will be limited to a single login per system, agreed between two vendors. There is no requirement to support multiple user logins from a single vendor through this interface.

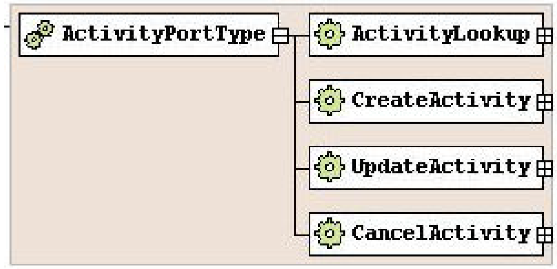
Sample Header Message

```
<soap:Header>
    <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#PostPayment</wsa:Action>
    <wsa:From>
        <wsa:Address>urn:SPASOFT</wsa:Address>
    </wsa:From>
    <wsa:MessageID>urn:uuid:e63d962e-94b6-434c-89ea-1c5ae2e0f8ba</wsa:MessageID>
    <wsa:ReplyTo>
        <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
    </wsa:ReplyTo>
    <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
    <wsse:Security soap:mustUnderstand="1">
        <wsu:Timestamp wsu:Id="Timestamp-015e2941-114a-466e-87b6-8c431b9f5c44">
            <wsu:Created>2006-10-26T12:49:17Z</wsu:Created>
            <wsu:Expires>2006-10-26T12:54:17Z</wsu:Expires>
        </wsu:Timestamp>
        <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-627f1ab1-
            338a-451f-9829-84f248e57ad8">
            <wsse:Username>HTNG</wsse:Username>
            <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#PasswordText">HTNG</wsse:Password>
            <wsse:Nonce>qls5nr9rM7VaUYAwhrHSoA==</wsse:Nonce>
            <wsu:Created>2006-10-26T12:49:17Z</wsu:Created>
        </wsse:UsernameToken>
    </wsse:Security>
</soap:Header>
```

Chapter 9 Activity Port Type

The Activity Port defines four functions which should be implemented by both the Itinerary Consolidation System and the Activity Reservation System. These are:

- **ActivityLookup** – Function to request a list of guest records with or without activities matching one or more search criteria.
- **CreateActivity** – Function to create an activity record.
- **UpdateActivity** – Function to update an activity record.
- **CancelActivity** – Function to cancel a scheduled activity.



9.1 Activity Lookup

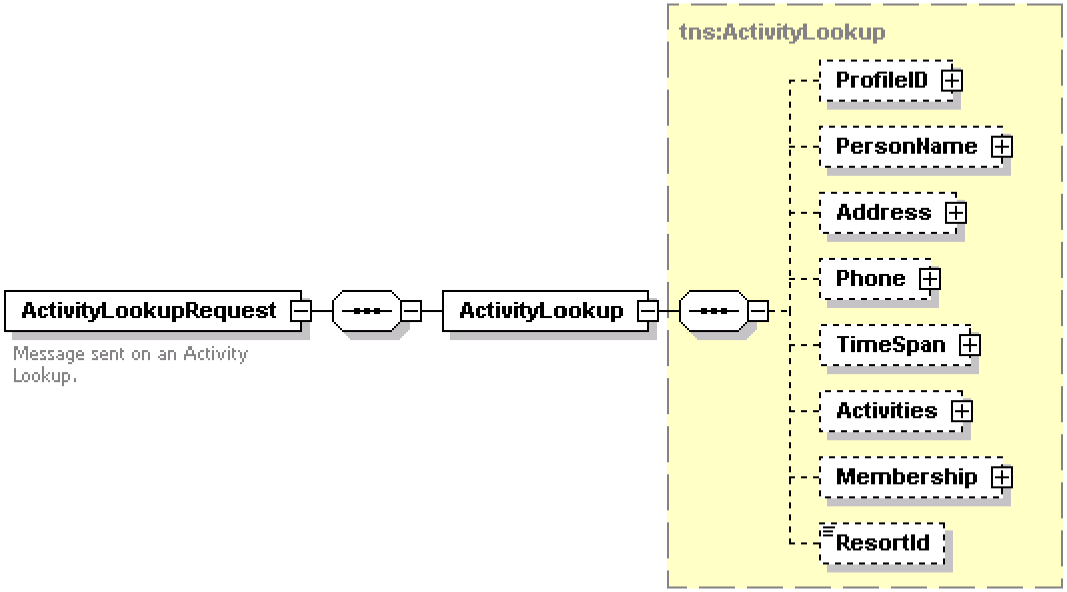
An activity lookup request message is submitted in order to return a list of activities that match one or more criteria. The items which may be submitted in the request are various aspects of the guest profile record, such as a guest's name, guest ID, telephone number, or membership number. The requesting system submits an ActivityLookupRequest message, and the responding system returns an ActivityLookupResponse. This message is applicable to both the Activity Reservation System and the Itinerary Consolidation System.

It is required, at a minimum, that the requesting system sends either a guest profile identifier valid in the external system, or a guest's last name. The receiving system may use the remainder of the filter information in order to further limit the search. However, as the request message includes a substantial number of data elements (due to message re-use), the receiving system is not required to process every filter item sent. The responding system should include profiles matching the search criteria regardless whether there are activities attached to the profile or not.

As this operation is most often performed through user interaction, it is important that the lookup respond in a reasonable timeframe. If the criteria are too broad, the responding system should limit the result set to a reasonable number of items. This reduces the time needed to collect and respond with the data, and reduces the length of the data returned. As this operation may often return a list of possible selections, the number should also be limited since an operator would not typically want to scroll through more than a few dozen records.

Port	ActivityPortType
Binding	ActivityBinding
Operation	ActivityLookup
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#ActivityLookup
Input	ActivityLookupRequest
Output	ActivityLookupResponse
Primary Schema	Activity.xsd
Role(s) Implemented	Itinerary Consolidation System, Activity Reservation System

ActivityLookupRequest


tns:ActivityLookup
ActivityLookupRequest
Message sent on an Activity Lookup.
ActivityLookup
ProfileID
PersonName
Address
Phone
TimeSpan
Activities
Membership
ResortId

```
<xs:element name="ActivityLookupRequest">
    <xs:annotation>
    <xs:documentation>Message sent on an Activity Lookup.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="ActivityLookup" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" type="q1:ActivityLookup" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ActivityLookup	element	ActivityLookup	required	Contains search criteria used for activity lookup.

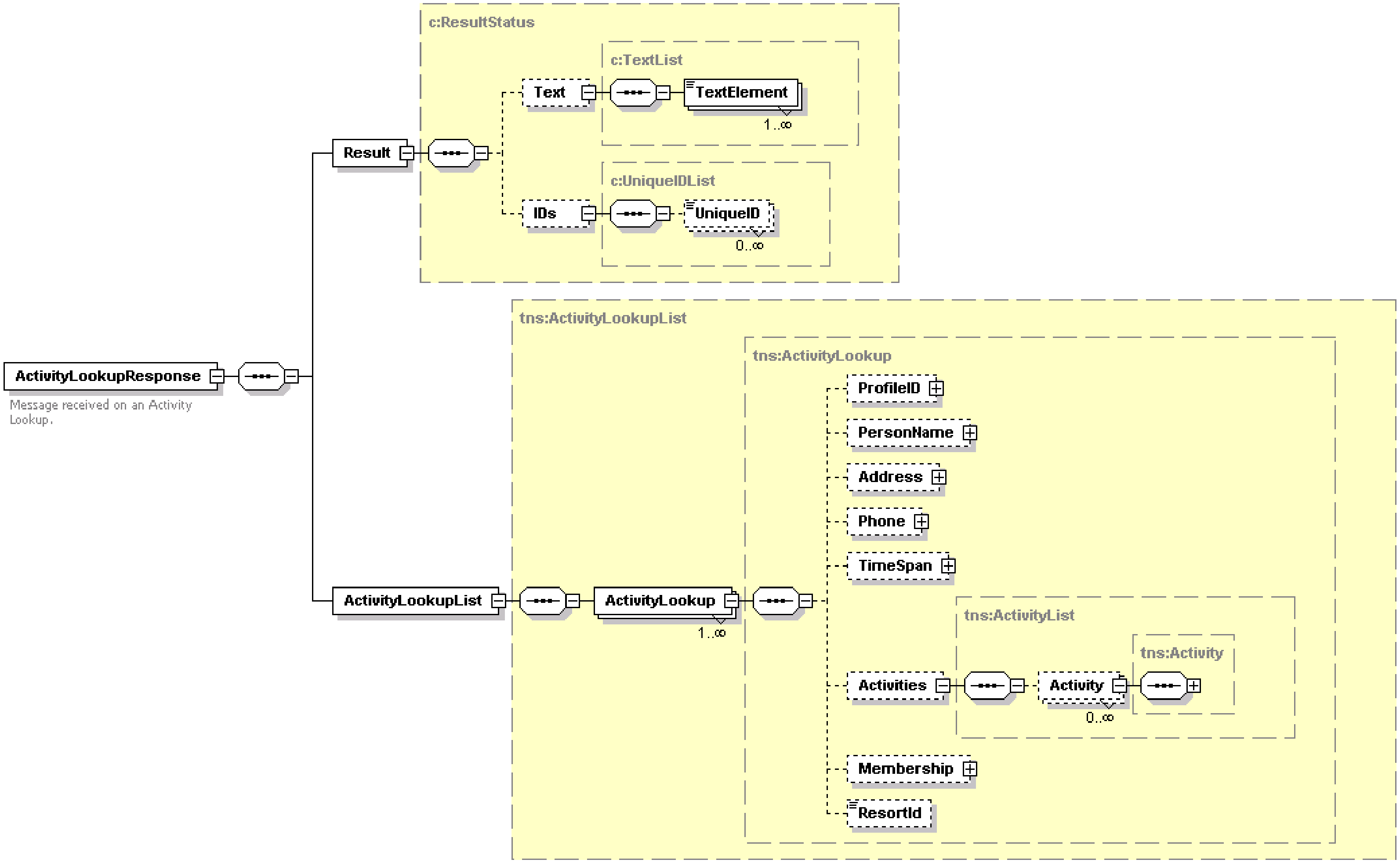
ActivityLookup

```
<xs:complexType name="ActivityLookup">
  <xs:annotation>
  <xs:documentation>Used in the request message to describe the "filter" when executing an activity lookup. Also used in the response message to return the activities matching the filter criteria.</xs:documentation>
  </xs:annotation>
  <xs:sequence>
    <xs:element minOccurs="0" name="ProfileID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueIDList" />
    <xs:element minOccurs="0" name="PersonName" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:PersonName" />
    <xs:element minOccurs="0" name="Address" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:Address" />
    <xs:element minOccurs="0" name="Phone" xmlns:q4="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q4:Phone" />
    <xs:element minOccurs="0" name="TimeSpan" xmlns:q5="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q5:TimeSpan" />
    <xs:element minOccurs="0" name="Activities" xmlns:q6="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" type="q6:ActivityList" />
    <xs:element minOccurs="0" name="Membership" xmlns:q7="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q7:Membership" />
    <xs:element minOccurs="0" name="ResortId" type="xs:string" />
  </xs:sequence>
  <xs:attribute name="externalSystemId" type="xs:string" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
externalSystemId	attribute	string	none	Not used in this context.
ProfileID	element	UniqueIDList	optional	Filter to lookup activities belonging to a specific guest profile record. The ID value applies to destination system (not requesting guest ID). Although an ID list is specified, the responding system is required to only process the first ID in the list (it may optionally process additional IDs). At a minimum, either a profile ID or a guest last name must be specified in this message.
PersonName	element	PersonName	optional	The name of the guest to search activities for. At a minimum, the guest’s last name must be specified (unless searching by profile ID).
Address	element	Address	optional	The guest address details to further limit the search. The responding may optionally process this filter but is not required to do so.
Phone	element	Phone	optional	The guest telephone number to further limit the search. The responding may optionally process this filter but is not required to do so.
TimeSpan	element	TimeSpan	optional	A period of time for which to return activities for. If this optional criterion is applied, then any activity that begins, spans, or ends during this time period should be returned.
Activities	element	ActivityList	optional	An optional filter to search for specific activity matches.
Membership	element	Membership	optional	An optional filter to enhance guest name search by including

				membership information.
ResortId	Element	string	optional	An optional filter when searching in a specific property. Typically, this is not applicable in this context.

ActivityLookupResponse


c:ResultStatus
c:TextList
Text
TextElement
1..∞
Result
c:UniqueIDList
IDs
UniqueID
0..∞
tns:ActivityLookupList
tns:ActivityLookup
ActivityLookupResponse
Message received on an Activity Lookup.
ProfileID
PersonName
Address
Phone
TimeSpan
ActivityLookupList
ActivityLookup
1..∞
tns:ActivityList
tns:Activity
Activities
Activity
0..∞
Membership
ResortId

```
<xs:element name="ActivityLookupResponse">
    <xs:annotation>
    <xs:documentation>Message received on an Activity Lookup.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
            <xs:element name="ActivityLookupList" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" type="q2:ActivityLookupList" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	Lookup result. If successful, the responding system is only required to set the resultStatusFlag as SUCCESS, and return the data in the ActivityLookupList.
ActivityLookupList	element	ActivityLookupList	required	A list of matching activity records.

ActivityLookupList

```
<xs:complexType name="ActivityLookupList">
    <xs:annotation>
    <xs:documentation>A collection of Activity Lookup items.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element maxOccurs="unbounded" name="ActivityLookup" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
            type="q1:ActivityLookup" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ActivityLookup	element	ActivityLookup	required/ multiple	A container for one or more ActivyLookup records.

ActivityLookup

```
<xs:complexType name="ActivityLookup">
    <xs:annotation>
    <xs:documentation>Used in the request message to describe the "filter" when executing an activity lookup. Also used in the response message to return the
        activities matching the filter criteria.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element minOccurs="0" name="ProfileID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueIDList" />
        <xs:element minOccurs="0" name="PersonName" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:PersonName" />
        <xs:element minOccurs="0" name="Address" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:Address" />
        <xs:element minOccurs="0" name="Phone" xmlns:q4="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q4:Phone" />
        <xs:element minOccurs="0" name="TimeSpan" xmlns:q5="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q5:TimeSpan" />
        <xs:element minOccurs="0" name="Activities" xmlns:q6="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" type="q6:ActivityList" />
        <xs:element minOccurs="0" name="Membership" xmlns:q7="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q7:Membership" />
        <xs:element minOccurs="0" name="ResortId" type="xs:string" />
    </xs:sequence>
    <xs:attribute name="externalSystemId" type="xs:string" />
```

```
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
externalSystemId	attribute	string	none	Not used in this context.
ProfileID	element	UniqueIDList	optional	The profile ID from the responding system for the activity record. This is operationally required in this context.
PersonName	element	PersonName	optional	The guest name responsible for the activity. This is required in this context.
Address	element	Address	optional	The guest's primary address.
Phone	element	Phone	optional	The guest's primary phone number.
TimeSpan	element	TimeSpan	optional	The time the activity starts and its duration. Required in this context.
Activities	element	ActivityList	optional	A list of activities scheduled for this guest.
Membership	element	Membership	optional	The guest membership information.
ResortId	element	string	optional	The property code if applicable.

ActivityList

```
<xs:complexType name="ActivityList">
    <xs:annotation>
    <xs:documentation xml:lang="en">A collection of Activity objects.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="Activity">
            <xs:complexType>
                <xs:complexContent mixed="false">
                    <xs:extension xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" base="q1:Activity" />
                </xs:complexContent>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Activity	element		optional/ multiple	A collection of activity records.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
```

```
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#ActivityLookup</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:OPERA</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:73dbe98b-7b79-409c-bf6c-0cd70c62e12e</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.springermiller.com/HTNG_2_0/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-5f1dfcd2-757c-4c97-a4ee-f932f2058ea5">
                <wsu:Created>2006-11-02T19:35:39Z</wsu:Created>
                <wsu:Expires>2006-11-02T19:40:39Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
ad2009a7-088f-41a0-accb-1ea14a7b50a0">
                <wsse:Username>OPERA</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">OPERA</wsse:Password>
                <wsse:Nonce>Z3EjAxKiTnO7p6X7TvMMPg==</wsse:Nonce>
                <wsu:Created>2006-11-02T19:35:39Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <ActivityLookupRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types">
            <ActivityLookup externalSystemId="SPASOFT">
                <PersonName>
                    <FirstName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">VERA</FirstName>
                    <LastName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">LINDEN</LastName>
                </PersonName>
                <Address>
                    <CityName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                    <StateProv xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                    <CountryCode xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                    <PostalCode xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                </Address>
                <Phone>
                    <PhoneNumber xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                </Phone>
                <Activities>
                    <Activity>
                        <TimeSpan xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
                            <Start>2006-11-02T00:00:00</Start>
                        </TimeSpan>
                    </Activity>
                </Activities>
                <Membership>
                    <MembershipNumber xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                </Membership>
                <ResortId>HTNG1</ResortId>
            </ActivityLookup>
        </ActivityLookupRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

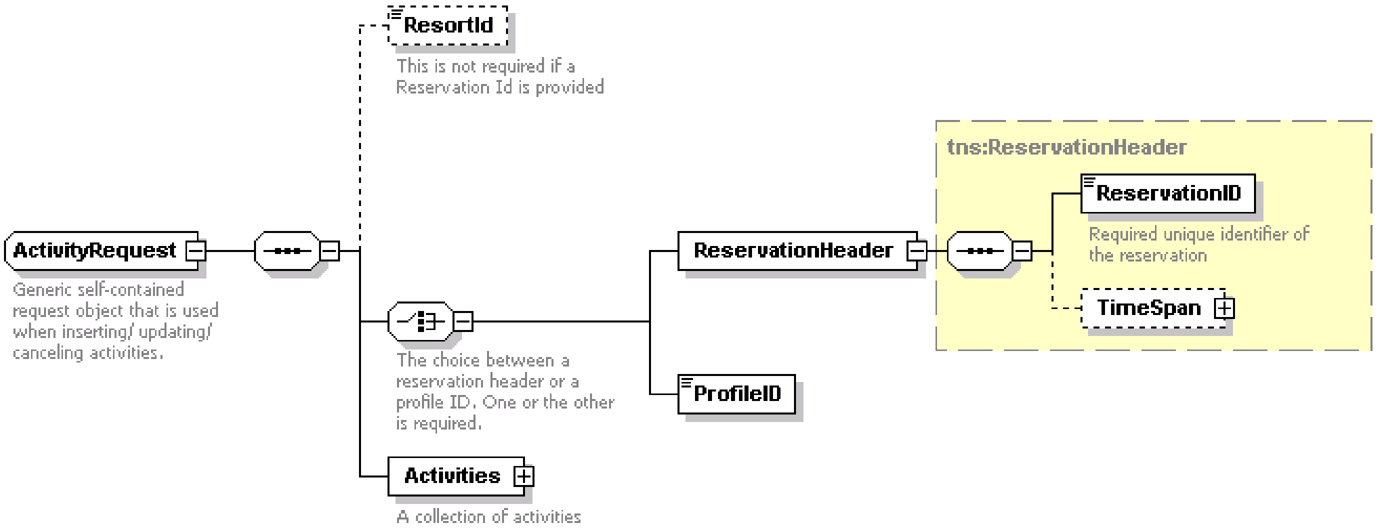
```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#ActivityLookupResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:359ee919-8a92-4be1-a489-197eeedf8c2c</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:73dbe98b-7b79-409c-bf6c-0cd70c62e12e</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-c62c11cc-ea8d-47f0-a0f6-413034ec6f0d">
                <wsu:Created>2006-11-02T19:37:08Z</wsu:Created>
                <wsu:Expires>2006-11-02T19:42:08Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <ActivityLookupResponse xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
            <Result code="String" resultStatusFlag="SUCCESS">
                <c:Text>
                    <c:TextElement language="en"/>
                </c:Text>
                <c:IDs>
                    <c:UniqueID source="SPASOFT">603</c:UniqueID>
                </c:IDs>
            </Result>
            <ActivityLookupList>
                <ActivityLookup externalSystemId="OPERA">
                    <ProfileID>
                        <c:UniqueID source="SPASOFT">603</c:UniqueID>
                    </ProfileID>
                    <PersonName>
                        <c:FirstName>Vera</c:FirstName>
                        <c:LastName>Linden</c:LastName>
                    </PersonName>
                    <Address>
                        <c:AddressLine/>
                        <c:CityName>Mount Albert</c:CityName>
                        <c:StateProv>ON</c:StateProv>
                        <c:CountryCode>CA</c:CountryCode>
                        <c:PostalCode>L0G 1M0</c:PostalCode>
                    </Address>
                    <Phone phoneRole="" phoneType="">
                        <c:PhoneNumber>752-1800</c:PhoneNumber>
                    </Phone>
                    <TimeSpan>
                        <c:Start>2006-11-02T10:15:00</c:Start>
                        <c:End>2006-11-02T10:45:00</c:End>
                    </TimeSpan>
                    <Activities>
                        <Activity status="BOOK">
                            <ActivityIDs>
                                <c:UniqueID source="SPASOFT">3632</c:UniqueID>
                            </ActivityIDs>
                            <ActivityType>Spa</ActivityType>
                            <Location>Tranquility</Location>
                            <Name language="en">Tranquility</Name>
                            <NumberOfPersons>1</NumberOfPersons>
                            <TimeSpan>
                                <c:Start>2006-11-02T10:15:00</c:Start>
                                <c:End>2006-11-02T10:45:00</c:End>
                            </TimeSpan>
                            <Duration>
                                <c:Start>2006-11-02T10:15:00</c:Start>
                                <c:End>2006-11-02T10:45:00</c:End>
                            </Duration>
                            <Description language="en">Honey Bath</Description>
                            <Amount currencyCode="US"/>
                            <Extensions>
                                <ActivitySpecific>Provider: Farrows Pierre</ActivitySpecific>
                                <ActivitySpecific>Facility: Hydrotherapy Tub 1</ActivitySpecific>
                                <ActivitySpecific>ReservationNo: R1184</ActivitySpecific>
                            </Extensions>
                        </Activity>
                    </Activities>
                </ActivityLookup>
            </ActivityLookupList>
        </ActivityLookupResponse>
    </soap:Body>
</soap:Envelope>
```

9.2 Create Activity

The create activity message is used to add a new activity record. The requesting system submits a CreateActivityRequest (ActivityRequest) message, and the responding system returns a CreateActivityResponse (ActivityResponse). This message is primarily applicable to the Itinerary Consolidation System, but may also be implemented by the Activity Reservation System. In order to create an activity in an external system, the requesting system must send either the guest profile ID or the guest reservation number, as defined in the receiving system. If successful, the response message should include a list of activity IDs created in the external system. Note that multiple activities may be created against a single reservation or guest profile with one request.

Port	ActivityPortType
Binding	ActivityBinding
Operation	CreateActivity
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#CreateActivity
Input	CreateActivityRequest
Output	CreateActivityResponse
Primary Schema	Activity.xsd
Role(s) Implemented	Itinerary Consolidation System, Activity Reservation System

ActivityRequest


ResortId
This is not required if a Reservation Id is provided
ActivityRequest
Generic self-contained request object that is used when inserting/ updating/ canceling activities.
tns:ReservationHeader
ReservationID
Required unique identifier of the reservation
ReservationHeader
TimeSpan
The choice between a reservation header or a profile ID. One or the other is required.
ProfileID
Activities
A collection of activities

```
<xs:complexType name="ActivityRequest">
    <xs:annotation>
    <xs:documentation>Generic self-contained request object that is used when inserting/ updating/ canceling activities.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element minOccurs="0" name="ResortId" type="xs:string">
            <xs:annotation>
            <xs:documentation>This is not required if a Reservation Id is provided</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:choice>
            <xs:annotation>
            <xs:documentation xml:lang="en">The choice between a reservation header or a profile ID. One or the other is required.</xs:documentation>
            </xs:annotation>
            <xs:element name="ReservationHeader" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" type="q1:ReservationHeader" />
            <xs:element name="ProfileID" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:UniqueID" />
        </xs:choice>
        <xs:element name="Activities" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" type="q3:ActivityList">
            <xs:annotation>
            <xs:documentation>A collection of activities</xs:documentation>
            </xs:annotation>
        </xs:element>
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ResortId	element	string	optional	The property code to create the activity for.
ReservationHeader	element	ReservationHeader	required	Identifies the guest reservation to create the activity against. Either this element or the ProfileID must be specified.
ProfileID	element	UniqueID	required	Identifies the guest profile to create the activity against. Either this element or the ReservationHeader must be specified.
Activities	element	ActivityList	required	A collection of activities to create for the reservation or guest specified.

ReservationHeader

```
<xs:complexType name="ReservationHeader">
    <xs:annotation>
    <xs:documentation>Used to uniquely identify a reservation using it's internal ID, it's begin date and duration or end date.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element name="ReservationID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueID">
            <xs:annotation>
            <xs:documentation>Required unique identifier of the reservation</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element minOccurs="0" name="TimeSpan" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:TimeSpan" />
    </xs:sequence>
</xs:complexType>
```

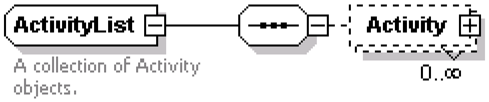
Name	**Type**	**Data Type**	**Use**	**Comments**
ReservationID	element	UniqueID	required	The reservation ID, as defined by the receiving system.
TimeSpan	element	TimeSpan	optional	Not required in this context.

UniqueID

```
<xs:complexType name="UniqueID">
    <xs:simpleContent>
        <xs:extension base="xs:string">
            <xs:attribute name="source" type="xs:string" />
        </xs:extension>
    </xs:simpleContent>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
UniqueID	extension	string		The guest profile ID, as defined in the receiving system.
source	attribute	string	none	The source attribute that identifies the receiving system.

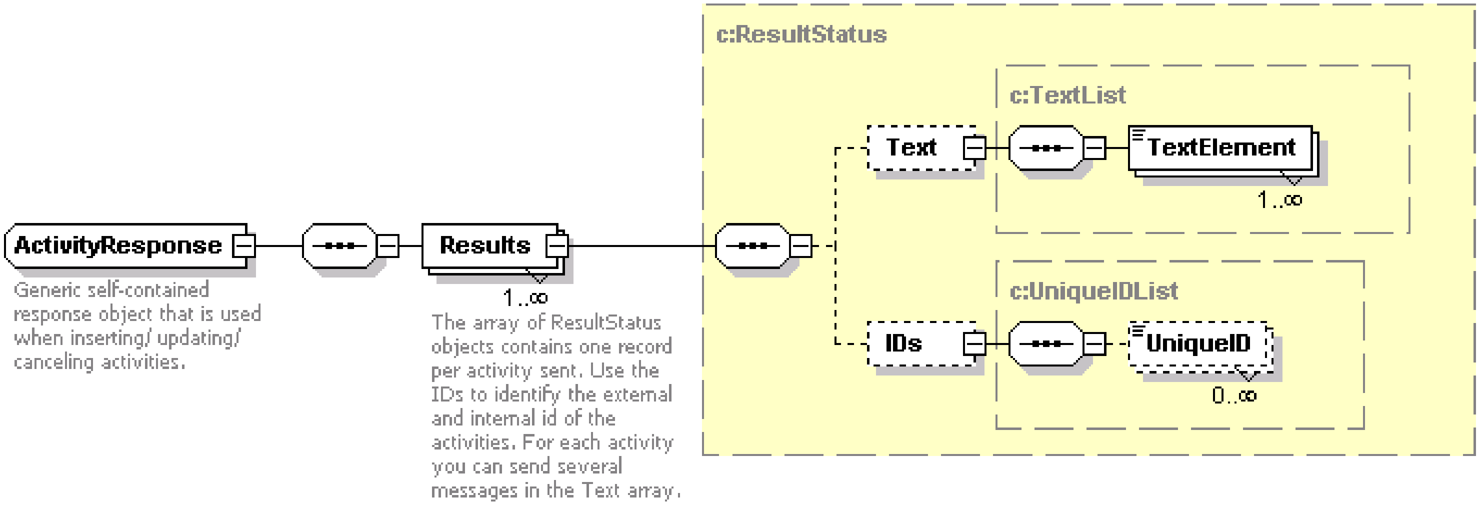
ActivityList



```
<xs:complexType name="ActivityList">
    <xs:annotation>
    <xs:documentation xml:lang="en">A collection of Activity objects.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="Activity">
            <xs:complexType>
                <xs:complexContent mixed="false">
                    <xs:extension xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" base="q1:Activity" />
                </xs:complexContent>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Activity	element		optional/ multiple	A collection of activity records to create in the external system.

ActivityResponse


c:ResultStatus
c:TextList
Text
TextElement
1..∞
ActivityResponse
Generic self-contained response object that is used when inserting/ updating/ canceling activities.
Results
1..∞
The array of ResultStatus objects contains one record per activity sent. Use the IDs to identify the external and internal id of the activities. For each activity you can send several messages in the Text array.
c:UniqueIDList
IDs
UniqueID
0..∞

```
<xs:complexType name="ActivityResponse">
    <xs:annotation>
    <xs:documentation>Generic self-contained response object that is used when inserting/ updating/ canceling activities.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element maxOccurs="unbounded" name="Results" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
            type="q1:ResultStatus">
            <xs:annotation>
            <xs:documentation>The array of ResultStatus objects contains one record per activity sent. Use the IDs to identify the external and internal id of the
                activities. For each activity you can send several messages in the Text array.</xs:documentation>
            </xs:annotation>
        </xs:element>
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
Results	element	ResultStatus	required/ multiple	A collection of result elements; one for each activity requested.

ResultStatus

```
<xs:complexType name="ResultStatus">
    <xs:sequence>
        <xs:element minOccurs="0" name="Text" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:TextList" />
        <xs:element minOccurs="0" name="IDs" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:UniqueIDList" />
    </xs:sequence>
    <xs:attribute name="resultStatusFlag" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:ResultStatusFlag" />
    <xs:attribute name="code" type="xs:string" use="optional" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
resultStatusFlag	attribute	ResultStatusFlag	none	The result (*SUCCESS* or *FAIL*) of the operation
code	attribute	string	optional	Error code for failure condition.
Text	element	TextList	optional	Error text for failure condition.
IDs	element	UniqueIDList	optional	Activity ID from requesting system, and if successful, the paired activity ID from the receiving system.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#CreateActivity</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:261335f2-bd1d-49e6-96b4-8fcdf2137f8a</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-d99e21bf-1227-410c-bea3-d8705adcf032">
                <wsu:Created>2006-11-02T20:22:14Z</wsu:Created>
                <wsu:Expires>2006-11-02T20:27:14Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
6f2c0e7f-ac98-4ea3-a726-d67076fc9c72">
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>IWGqOAykiUQXnWN5x1wS9Q==</wsse:Nonce>
                <wsu:Created>2006-11-02T20:22:14Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <CreateActivityRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
```

```
            <ResortId>HTNG1</ResortId>
            <ReservationHeader>
                <ReservationID source="OPERA">1620979</ReservationID>
                <TimeSpan xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
                    <Start>2006-11-03T09:15:00</Start>
                    <End>2006-11-03T09:45:00</End>
                </TimeSpan>
            </ReservationHeader>
            <Activities>
                <Activity status="BOOK">
                    <ActivityIDs>
                        <UniqueID xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">3633</UniqueID>
                    </ActivityIDs>
                    <ActivityType>Spa</ActivityType>
                    <Location>Tranquility</Location>
                    <Name language="en">Tranquility</Name>
                    <NumberOfPersons>1</NumberOfPersons>
                    <TimeSpan xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
                        <Start>2006-11-03T09:15:00</Start>
                        <End>2006-11-03T09:45:00</End>
                    </TimeSpan>
                    <Duration xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
                        <Start>2006-11-03T09:15:00</Start>
                        <End>2006-11-03T09:45:00</End>
                    </Duration>
                    <Description language="en">Botanical Bath</Description>
                    <Amount currencyCode="US">     45.00</Amount>
                    <Extensions>
                        <ActivitySpecific>Provider: Cook Evelyn</ActivitySpecific>
                        <ActivitySpecific>Facility: Hydrotherapy Tub 1</ActivitySpecific>
                        <ActivitySpecific>ReservationNo: R1185</ActivitySpecific>
                    </Extensions>
                </Activity>
            </Activities>
        </CreateActivityRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#CreateActivityResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:114edffa-4634-49fe-93af-a0431ab0f46b</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:261335f2-bd1d-49e6-96b4-8fcdf2137f8a</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
    <wsse:Security>
      <wsu:Timestamp wsu:Id="Timestamp-4f4401bc-e095-4db8-8f34-eb53bd8a656f">
        <wsu:Created>2006-11-02T20:20:52Z</wsu:Created>
        <wsu:Expires>2006-11-02T20:25:52Z</wsu:Expires>
      </wsu:Timestamp>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <CreateActivityResponse xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types">
      <Results resultStatusFlag="SUCCESS">
        <IDs xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
          <UniqueID source="OPERA">81453</UniqueID>
          <UniqueID source="SPASOFT">3633</UniqueID>
        </IDs>
      </Results>
    </CreateActivityResponse>
  </soap:Body>
</soap:Envelope>
```

9.3 Update Activity

The update activity message is used to modify an existing activity record in an external system. The requesting system submits an UpdateActivityRequest (ActivityRequest) message, and the responding system returns an UpdateActivityResponse (ActivityResponse). This message is equivalent to the Create Activity message, except that the receiving system may optionally return an error if the activity is not found. Alternatively, the receiving system may simply create the activity as if it was a new request.

Port	ActivityPortType
Binding	ActivityBinding
Operation	UpdateActivity
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#UpdateActivity
Input	UpdateActivityRequest
Output	UpdateActivityResponse
Primary Schema	Activity.xsd
Role(s) Implemented	Itinerary Consolidation System, Activity Reservation System

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
```

```
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#UpdateActivity</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:3661c78a-2d08-4a83-bc9c-983389fbaca2</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-1fbf61db-265b-479b-9561-bde2cf5f9fe9">
                <wsu:Created>2006-11-02T20:24:58Z</wsu:Created>
                <wsu:Expires>2006-11-02T20:29:58Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
64afe864-ae86-4380-bf21-ab5b5cb3b81e">
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>2ipy/inlnw0dPBS1isvpwA==</wsse:Nonce>
                <wsu:Created>2006-11-02T20:24:58Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <UpdateActivityRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
            <ResortId>HTNG1</ResortId>
            <ReservationHeader>
                <ReservationID source="OPERA">1621230</ReservationID>
                <TimeSpan xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
                    <Start>2006-11-03T18:30:00</Start>
                    <End>2006-11-03T20:00:00</End>
                </TimeSpan>
            </ReservationHeader>
            <Activities>
                <Activity status="BOOK">
                    <ActivityIDs>
                        <UniqueID xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">3638</UniqueID>
                    </ActivityIDs>
                    <ActivityType>Spa</ActivityType>
                    <Location>Tranquility</Location>
                    <Name language="en">Tranquility</Name>
                    <NumberOfPersons>1</NumberOfPersons>
                    <TimeSpan xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
                        <Start>2006-11-03T18:30:00</Start>
                        <End>2006-11-03T20:00:00</End>
                    </TimeSpan>
                    <Duration xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
```

```
                        <Start>2006-11-03T18:30:00</Start>
                        <End>2006-11-03T20:00:00</End>
                    </Duration>
                    <Description language="en">Thai Massage 80 Minutes</Description>
                    <Amount currencyCode="US">     150.00</Amount>
                    <Extensions>
                        <ActivitySpecific>Provider: Farrows Pierre</ActivitySpecific>
                        <ActivitySpecific>Facility: Massage 1</ActivitySpecific>
                        <ActivitySpecific>ReservationNo: R1190</ActivitySpecific>
                    </Extensions>
                </Activity>
            </Activities>
        </UpdateActivityRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#UpdateActivityResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:9f534e5b-ef7e-4468-9599-07fee7dd823f</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:3661c78a-2d08-4a83-bc9c-983389fbaca2</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-bca32201-b0a0-4d36-b51d-a98639eae83d">
                <wsu:Created>2006-11-02T20:23:31Z</wsu:Created>
                <wsu:Expires>2006-11-02T20:28:31Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <UpdateActivityResponse xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types">
            <Results resultStatusFlag="SUCCESS"/>
        </UpdateActivityResponse>
    </soap:Body>
</soap:Envelope>
```

9.4 Cancel Activity

The cancel activity message is used to remove an existing activity record from an external system. The requesting system submits a CancelActivityRequest (ActivityRequest) message, and the responding system returns an CancelActivityResponse (ActivityResponse). This message is also equivalent to the Create Activity message, except that the Activity records defined in the ActivityList need only include minimal information to uniquely identify the item(s) to be cancelled.

Port	ActivityPortType
Binding	ActivityBinding
Operation	CancelActivity
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#CancelActivity
Input	CancelActivityRequest
Output	CancelActivityResponse
Primary Schema	Activity.xsd
Role(s) Implemented	Itinerary Consolidation System, Activity Reservation System

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#CancelActivity</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:55222e43-01ea-4a15-ac6e-49bbb868eeaf</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-8098078c-028f-4b13-ace6-7ad95a75900a">
                <wsu:Created>2006-11-02T20:30:57Z</wsu:Created>
                <wsu:Expires>2006-11-02T20:35:57Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
14690222-cceb-4993-984c-a6b3e8c49def">
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>cZjtNnAd24gHWfZEhuEDHQ==</wsse:Nonce>
                <wsu:Created>2006-11-02T20:30:57Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
```

```
        <CancelActivityRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
            <ResortId>HTNG1</ResortId>
            <ReservationHeader>
                <ReservationID source="OPERA">1621230</ReservationID>
                <TimeSpan xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
                    <Start>2006-11-03T18:30:00</Start>
                    <End>2006-11-03T20:00:00</End>
                </TimeSpan>
            </ReservationHeader>
            <Activities>
                <Activity status="CANC">
                    <ActivityIDs>
                        <UniqueID xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">3638</UniqueID>
                    </ActivityIDs>
                    <ActivityType>Spa</ActivityType>
                    <Location>Tranquility</Location>
                    <Name language="en">Tranquility</Name>
                    <NumberOfPersons>1</NumberOfPersons>
                    <TimeSpan xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
                        <Start>2006-11-03T18:30:00</Start>
                        <End>2006-11-03T20:00:00</End>
                    </TimeSpan>
                    <Duration xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
                        <Start>2006-11-03T18:30:00</Start>
                        <End>2006-11-03T20:00:00</End>
                    </Duration>
                    <Description language="en">Thai Massage 80 Minutes</Description>
                    <Amount currencyCode="US">     150.00</Amount>
                    <Extensions>
                        <ActivitySpecific>Provider: Farrows Pierre</ActivitySpecific>
                        <ActivitySpecific>Facility: Massage 1</ActivitySpecific>
                        <ActivitySpecific>ReservationNo: R1190</ActivitySpecific>
                    </Extensions>
                </Activity>
            </Activities>
        </CancelActivityRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

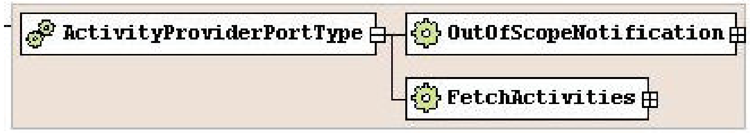
```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#CancelActivityResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:6a8d39cc-293a-43c8-bcb1-0c7ab7306bfc</wsa:MessageID>
```

```xml
        <wsa:RelatesTo>urn:uuid:55222e43-01ea-4a15-ac6e-49bbb868eeaf</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-74887dea-6abb-46bf-9191-b05595d882e9">
                <wsu:Created>2006-11-02T20:29:30Z</wsu:Created>
                <wsu:Expires>2006-11-02T20:34:30Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <CancelActivityResponse xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types">
            <Results resultStatusFlag="SUCCESS"/>
        </CancelActivityResponse>
    </soap:Body>
</soap:Envelope>
```

Chapter 10 Activity Provider Port Type

The Activity Provider Port defines two functions which are implemented only by the Activity Reservation System. These are:

- **OutOfScopeNotification** – Function to notify the Activity Reservation System of a change in scope for a scheduled activity.
- **FetchActivities** – Function to fetch a set of activities for a specific guest profile or reservation.



10.1 Out of Scope Notification

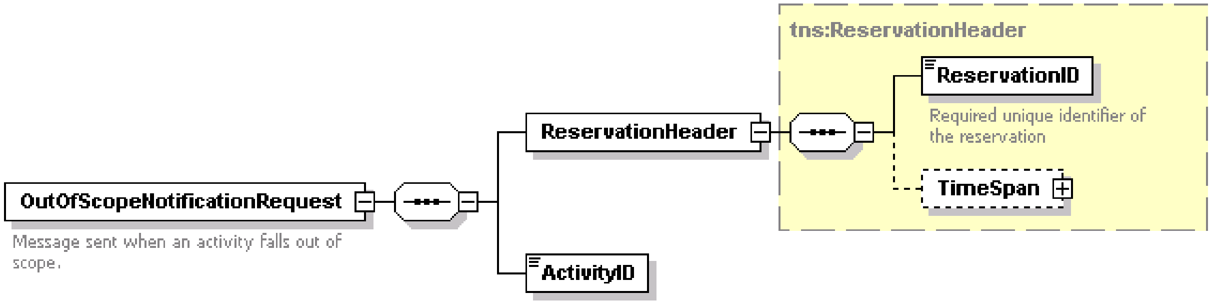
The Out of Scope Notification is a message designed primarily to inform the Activity Reservation System of a change in scope for a guest reservation to which an activity is linked. For instance, if an activity is linked to a guest reservation in the Accommodation Reservation System, and the reservation is cancelled, the Activity Reservation System should be notified as such. Furthermore, if a reservation date span is changed that formerly included an activity; the Activity Reservation System would likely need to be notified.

Notification is not required by the Accommodation Reservation System for a change in reservation scope. There are typically three possible actions: Request cancellation in the Activity Reservation System, notify the Activity Reservation System, or take no action.

The choice is typically a business operational policy, and is therefore often provided as a configuration option within the Accommodation Reservation System.

Port	ActivityProviderPortType
Binding	ActivityProviderBinding
Operation	OutOfScopeNotification
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#OutOfScopeNotification
Input	OutOfScopeNotificationRequest
Output	OutOfScopeNotificationResponse
Primary Schema	Activity.xsd
Role(s) Implemented	Activity Reservation System

OutOfScopeNotificationRequest


tns:ReservationHeader
ReservationID
Required unique identifier of the reservation
TimeSpan
ReservationHeader
OutOfScopeNotificationRequest
Message sent when an activity falls out of scope.
ActivityID

```
<xs:element name="OutOfScopeNotificationRequest">
    <xs:annotation>
    <xs:documentation>Message sent when an activity falls out of scope.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="ReservationHeader">
                <xs:complexType>
                    <xs:complexContent mixed="false">
                        <xs:extension xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" base="q1:ReservationHeader">
                            <xs:attribute name="reservationStatus" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
                                type="q2:ReservationStatusType" use="optional" />
                            <xs:attribute name="otherReservationStatus" type="xs:string" use="optional" />
                        </xs:extension>
                    </xs:complexContent>
                </xs:complexType>
            </xs:element>
            <xs:element name="ActivityID" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:UniqueID" />
        </xs:sequence>
        <xs:attribute name="outOfScopeAction" xmlns:q4="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" type="q4:OutOfScopeActionType"
            use="required" />
        <xs:attribute name="otherOutOfScopeAction" type="xs:string" use="optional" />
    </xs:complexType>
</xs:element>
```

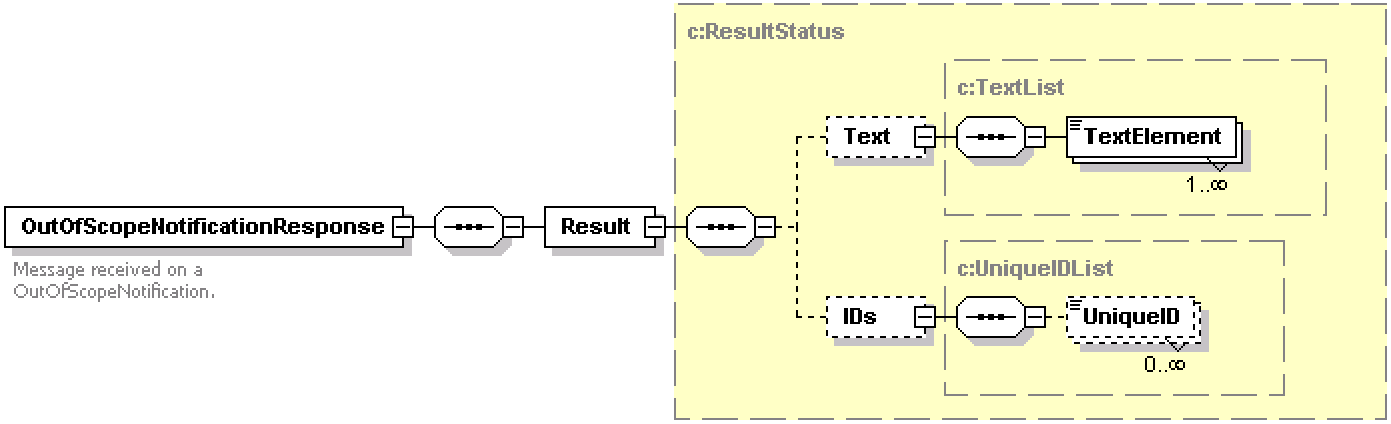
Name	**Type**	**Data Type**	**Use**	**Comments**
outOfScopeAction	attribute	OutOfScopeActionType	required	*RELEASE*, *BREAK*, *NOTIFICATION*, or *OTHER*. *RELEASE* is used to request that the activity be deleted. *NOTIFICATION* is sent to indicate a notification only. The remaining two values are not currently defined.
otherOutOfScopeAction	attribute	string	optional	Not used.
ReservationHeader	element		required	Identifies the guest’s reservation applicable to the notification.
ActivityID	element	UniqueID	required	Identifies the scheduled activity related to the notification.

ReservationHeader

```
<xs:complexType name="ReservationHeader">
    <xs:annotation>
    <xs:documentation>Used to uniquely identify a reservation using it's internal ID, it's begin date and duration or end date.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element name="ReservationID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueID">
            <xs:annotation>
            <xs:documentation>Required unique identifier of the reservation</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element minOccurs="0" name="TimeSpan" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:TimeSpan" />
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
ReservationID	element	UniqueID	required	The reservation ID, as defined by the notifying system.
TimeSpan	element	TimeSpan	optional	The time span of the reservation.

OutOfScopeNotificationResponse


c:ResultStatus
c:TextList
Text
TextElement
1..∞
OutOfScopeNotificationResponse
Result
Message received on a OutOfScopeNotification.
c:UniqueIDList
IDs
UniqueID
0..∞

```
<xs:element name="OutOfScopeNotificationResponse">
    <xs:annotation>
    <xs:documentation>Message received on a OutOfScopeNotification.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
        </xs:sequence>
    </xs:complexType>
```

</xs:element>

Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	The result from the notification. No action is typically required on the result object by the initiating system.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#OutOfScopeNotification</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:OPERA</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:33be344a-b857-4601-a64b-6f80acbac94b</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.springermiller.com/HTNG_2_0/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-abb75372-7ae1-4810-a0cd-f311c5f5e79e">
                <wsu:Created>2007-02-05T18:06:40Z</wsu:Created>
                <wsu:Expires>2007-02-05T18:11:40Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
166f2cf0-82ea-4aed-b2e4-c716c22ff737">
                <wsse:Username>OPERA</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">OPERA</wsse:Password>
                <wsse:Nonce>KnHeQA1M7kYQRVluo6Gjrw==</wsse:Nonce>
                <wsu:Created>2007-02-05T18:06:40Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <OutOfScopeNotificationRequest xmlns:r="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:n="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:p="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
outOfScopeAction="RELEASE" xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types">
            <a:ReservationHeader reservationStatus="CANCELLED">
                <a:ReservationID source="OPERA">988386</a:ReservationID>
            </a:ReservationHeader>
            <a:ActivityID source="SPASOFT">3741</a:ActivityID>
        </OutOfScopeNotificationRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#OutOfScopeNotificationResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:bf7d32d7-e340-4d88-86dc-fa0a9fb5d558</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:33be344a-b857-4601-a64b-6f80acbac94b</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-04f51b7d-ac10-4a52-9a12-d660353755ff">
                <wsu:Created>2007-02-05T18:08:10Z</wsu:Created>
                <wsu:Expires>2007-02-05T18:13:10Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <OutOfScopeNotificationResponse xmlns:r="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types">
            <a:Result code="" resultStatusFlag="SUCCESS">
                <c:Text>
                    <c:TextElement language="en"/>
                </c:Text>
                <c:IDs>
                    <c:UniqueID source="SPASOFT">3741</c:UniqueID>
                </c:IDs>
            </a:Result>
        </OutOfScopeNotificationResponse>
    </soap:Body>
</soap:Envelope>
```

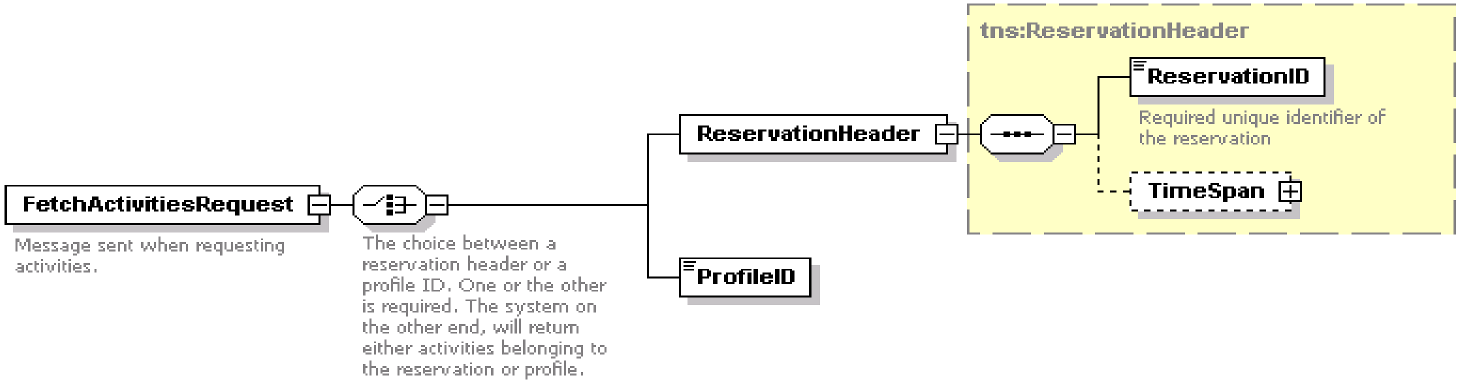
10.2 Fetch Activities

The Fetch Activities message is provided by the Activity Reservation System in order for an external system (typically the Activity Consolidation System) to query all scheduled activities for a particular guest. The request includes a choice element either indicating a guest profile ID or reservation ID, as defined in the receiving system.

Port	ActivityProviderPortType
Binding	ActivityProviderBinding

Operation	FetchActivities
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#FetchActivities
Input	FetchActivitiesRequest
Output	FetchActivitiesResponse
Primary Schema	Activity.xsd
Role(s) Implemented	Activity Reservation System

FetchActivitiesRequest


tns:ReservationHeader
ReservationID
Required unique identifier of the reservation
ReservationHeader
TimeSpan
FetchActivitiesRequest
Message sent when requesting activities.
The choice between a reservation header or a profile ID. One or the other is required. The system on the other end, will return either activities belonging to the reservation or profile.
ProfileID

```
<xs:element name="FetchActivitiesRequest">
    <xs:annotation>
    <xs:documentation>Message sent when requesting activities.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:choice>
            <xs:annotation>
            <xs:documentation xml:lang="en">The choice between a reservation header or a profile ID. One or the other is required. The system on the other end,
                will return either activities belonging to the reservation or profile.</xs:documentation>
            </xs:annotation>
            <xs:element name="ReservationHeader" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" type="q1:ReservationHeader" />
            <xs:element name="ProfileID" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:UniqueID" />
        </xs:choice>
    </xs:complexType>
</xs:element>
```

Name	Type	Data Type	Use	Comments
ReservationHeader	element	ReservationHeader	required	Identifies the reservation to fetch activities for. Either this element or the ProfileID must be sent.

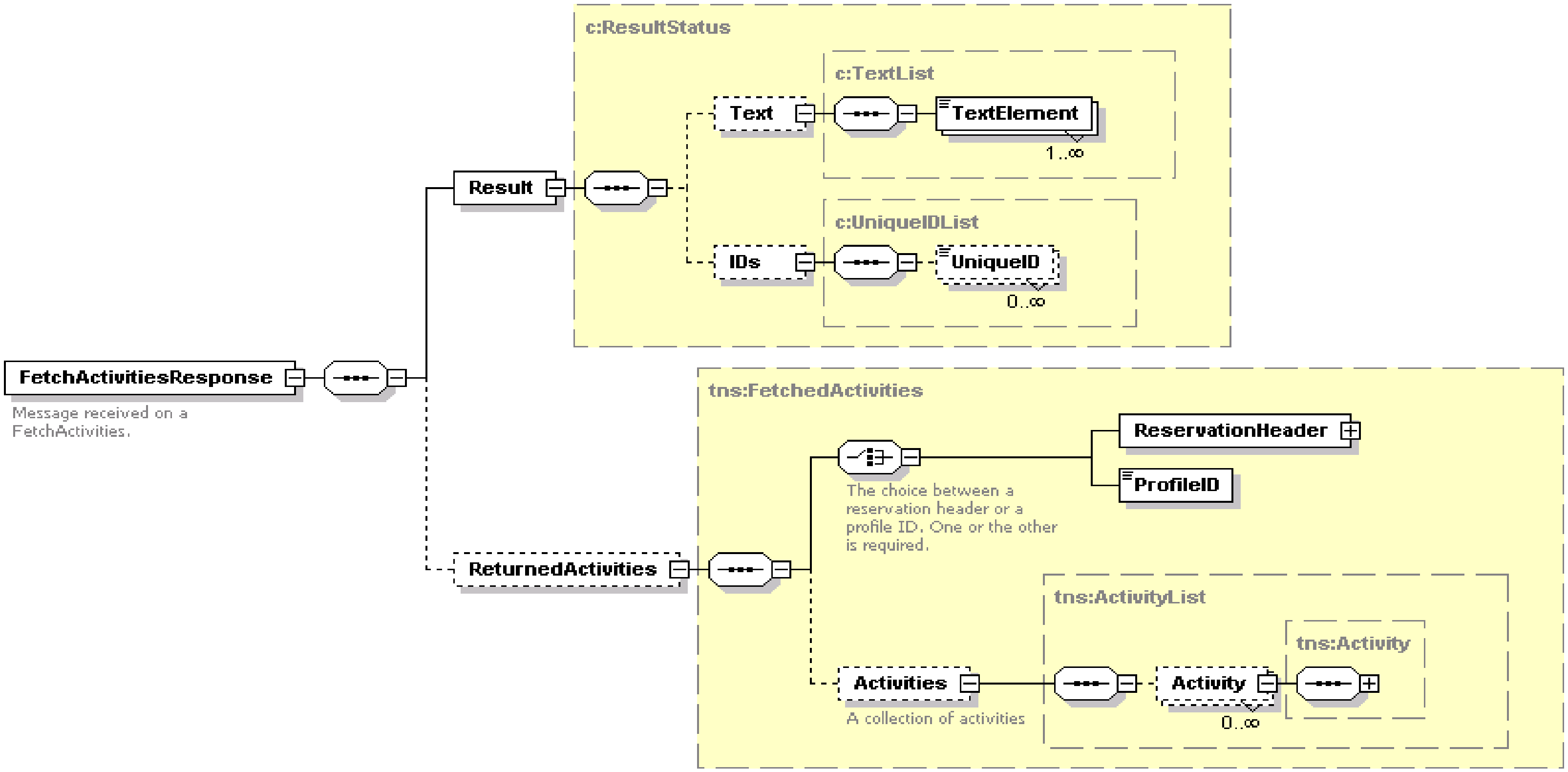
ProfileID	element	UniqueID	required	Identifies the guest profile ID to fetch activities for. Either this element or the ReservationHeader must be sent.

ReservationHeader

```
<xs:complexType name="ReservationHeader">
    <xs:annotation>
    <xs:documentation>Used to uniquely identify a reservation using it's internal ID, it's begin date and duration or end date.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element name="ReservationID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueID">
            <xs:annotation>
            <xs:documentation>Required unique identifier of the reservation</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element minOccurs="0" name="TimeSpan" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:TimeSpan" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ReservationID	element	UniqueID	required	The ID, as defined in the receiving system.
TimeSpan	element	TimeSpan	optional	The date and duration of the reservation.

FetchActivitiesResponse


c:ResultStatus
c:TextList
Text
TextElement
1..∞
Result
c:UniqueIDList
IDs
UniqueID
0..∞
FetchActivitiesResponse
Message received on a FetchActivities.
tns:FetchedActivities
ReservationHeader
ProfileID
The choice between a reservation header or a profile ID. One or the other is required.
ReturnedActivities
tns:ActivityList
tns:Activity
Activities
Activity
0..∞
A collection of activities

```
<xs:element name="FetchActivitiesResponse">
    <xs:annotation>
    <xs:documentation>Message received on a FetchActivities.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
            <xs:element minOccurs="0" name="ReturnedActivities" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
                type="q2:FetchedActivities" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	Type	Data Type	Use	Comments
Result	element	ResultStatus	required	The result of the operation.

ReturnedActivities	element	FetchedActivities	optional	A list of activities for the requested guest or reservation.

FetchedActivities

```
<xs:complexType name="FetchedActivities">
    <xs:annotation>
    <xs:documentation>Contains either a reservation header or ProfileID, indicating the owner, plus a collection of activities.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:choice>
            <xs:annotation>
            <xs:documentation xml:lang="en">The choice between a reservation header or a profile ID. One or the other is required.</xs:documentation>
            </xs:annotation>
            <xs:element name="ReservationHeader" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" type="q1:ReservationHeader" />
            <xs:element name="ProfileID" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:UniqueID" />
        </xs:choice>
        <xs:element minOccurs="0" name="Activities" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" type="q3:ActivityList">
            <xs:annotation>
            <xs:documentation>A collection of activities</xs:documentation>
            </xs:annotation>
        </xs:element>
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ReservationHeader	element	ReservationHeader	required	The reservation header (if sent in the request).
ProfileID	element	UniqueID	required	The profile ID (if send in the request).
Activities	element	ActivityList	optional	A collection of Activity records.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#FetchActivities</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:OPERA</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:46459d60-97da-42cf-b7de-529251c84421</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.springermiller.com/HTNG_2_0/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-5fabacfd-fec2-493e-b21c-611a6f035ef4">
                <wsu:Created>2007-01-25T18:57:33Z</wsu:Created>
                <wsu:Expires>2008-01-25T19:02:33Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
998fd48c-d649-4837-abb6-3109483a976e">
                <wsse:Username>OPERA</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">OPERA</wsse:Password>
                <wsse:Nonce>GNXdMfR1op/QbjurLlO7SQ==</wsse:Nonce>
                <wsu:Created>2007-01-25T18:57:33Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <FetchActivitiesRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
            <ReservationHeader>
                <ReservationID>988386</ReservationID>
            </ReservationHeader>
        </FetchActivitiesRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

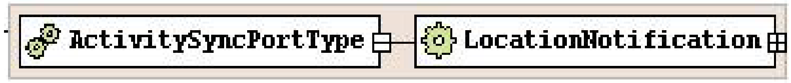
```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#FetchActivitiesResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:08f381d8-584f-4ef5-aedf-32c171a62f8f</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:46459d60-97da-42cf-b7de-529251c84421</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-36d3acd5-d1e4-4e60-b3e0-8da4ed2c4dfc">
                <wsu:Created>2007-02-05T19:19:31Z</wsu:Created>
                <wsu:Expires>2007-02-05T19:24:31Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <FetchActivitiesResponse xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
            <Result code="" resultStatusFlag="SUCCESS">
                <c:Text>
                    <c:TextElement language="en"/>
    </c:Text>
    <c:IDs>
        <c:UniqueID source="SPASOFT">3741</c:UniqueID>
        <c:UniqueID source="SPASOFT">4510</c:UniqueID>
    </c:IDs>
</Result>
<ReturnedActivities>
    <ReservationHeader>
        <ReservationID source="OPERA">988386</ReservationID>
        <TimeSpan>
            <c:Start>2007-01-25T09:30:00</c:Start>
            <c:End>2007-01-29T13:00:00</c:End>
        </TimeSpan>
    </ReservationHeader>
    <Activities>
        <Activity status="HOLD">
            <ActivityIDs>
                <c:UniqueID source="SPASOFT">3741</c:UniqueID>
            </ActivityIDs>
            <ActivityType>Spa</ActivityType>
            <Location>Tranquility Spa, Palm Springs</Location>
            <Name language="en">Tranquility Spa, Palm Springs</Name>
            <NumberOfPersons>1</NumberOfPersons>
            <TimeSpan>
                <c:Start>2007-01-25T09:30:00</c:Start>
                <c:End>2007-01-25T10:00:00</c:End>
            </TimeSpan>
            <Duration>
                <c:Start>2007-01-25T09:30:00</c:Start>
                <c:End>2007-01-25T10:00:00</c:End>
            </Duration>
            <Description language="en">Champagne Bath</Description>
            <Amount currencyCode="US"/>
            <Extensions>
                <ActivitySpecific>Provider: Edwards Serena</ActivitySpecific>
                <ActivitySpecific>Facility: Hydrotherapy Tub 2</ActivitySpecific>
                <ActivitySpecific>ReservationNo: R1275</ActivitySpecific>
            </Extensions>
        </Activity>
        <Activity status="BOOK">
            <ActivityIDs>
                <c:UniqueID source="SPASOFT">4510</c:UniqueID>
            </ActivityIDs>
            <ActivityType>Spa</ActivityType>
            <Location>Tranquility Spa, Palm Springs</Location>
            <Name language="en">Tranquility Spa, Palm Springs</Name>
            <NumberOfPersons>1</NumberOfPersons>
            <TimeSpan>
                <c:Start>2007-01-29T12:00:00</c:Start>
                <c:End>2007-01-29T13:00:00</c:End>
```

```
                        </TimeSpan>
                        <Duration>
                            <c:Start>2007-01-29T12:00:00</c:Start>
                            <c:End>2007-01-29T13:00:00</c:End>
                        </Duration>
                        <Description language="en">European Facial</Description>
                        <Amount currencyCode="US"/>
                        <Extensions>
                            <ActivitySpecific>Provider: Evans Andrea</ActivitySpecific>
                            <ActivitySpecific>Facility: Facial Room 5</ActivitySpecific>
                            <ActivitySpecific>ReservationNo: R1464</ActivitySpecific>
                        </Extensions>
                    </Activity>
                </Activities>
            </ReturnedActivities>
        </FetchActivitiesResponse>
    </soap:Body>
</soap:Envelope>
```

Chapter 11 Activity Sync Port Type

The Activity Sync port defines a single function which may be called from the Activity Reservation System in order to notify the Itinerary Consolidation System of a change in the location of an activity.

- **LocationNotification** – Function called from the Activity Reservation System in order to notify a change in the location for a scheduled activity.

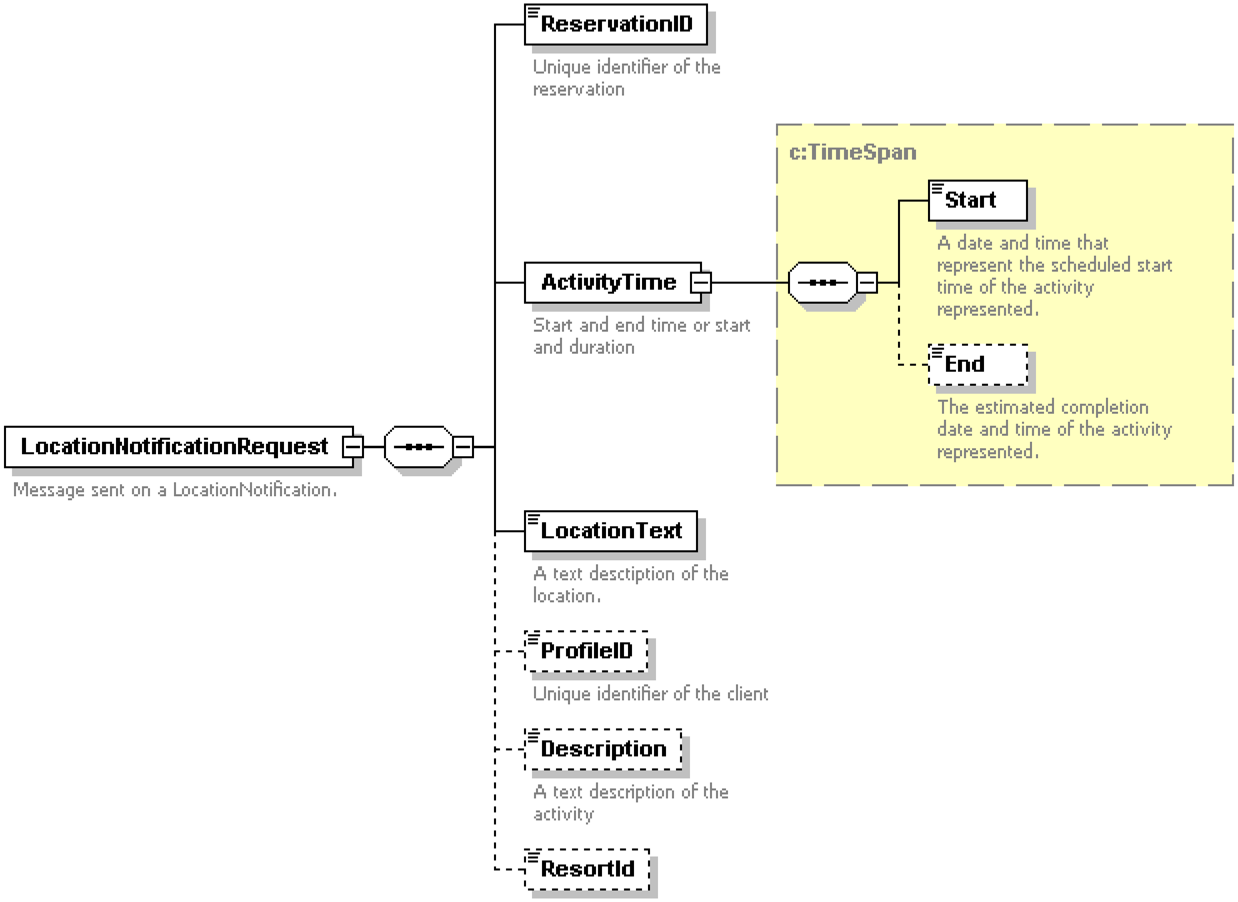


11.1 Location Notification

A Location Notification message is submitted by the Activity Reservation System in order to notifity the Accommodation Reservation System of a guest’s current physical location. Some reservation systems implement this feature in order to locate a guest in order to forward phone calls or deliver messages.

Port	ActivitySyncPortType
Binding	ActivitySyncBinding
Operation	ActivityLookup
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#LocationNotification
Input	LocationNotificationRequest
Output	LocationNotificationResponse
Primary Schema	Activity.xsd
Role(s) Implemented	Itinerary Consolidation System

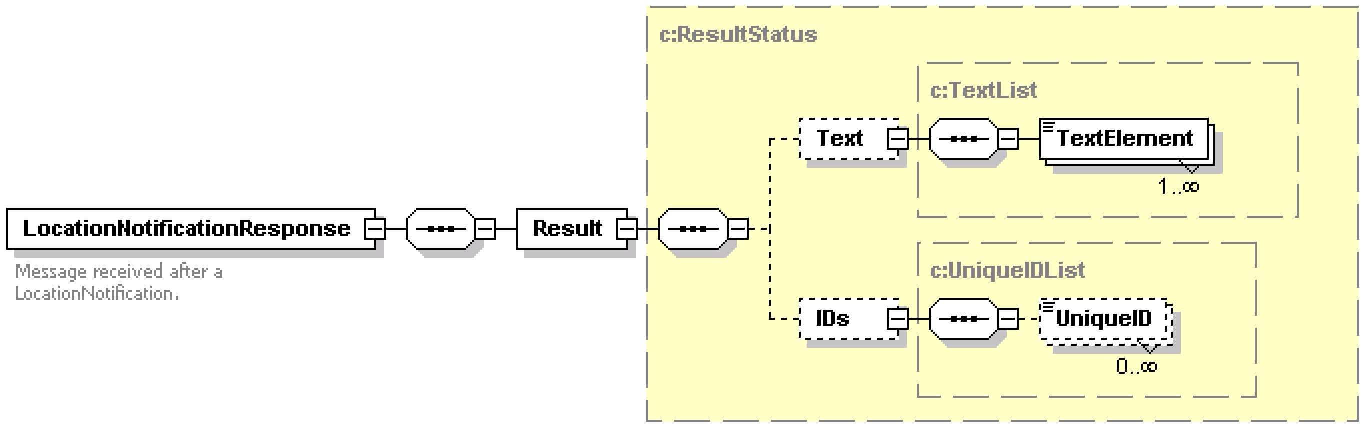
LocationNotificationRequest


ReservationID
Unique identifier of the reservation
c:TimeSpan
Start
A date and time that represent the scheduled start time of the activity represented.
ActivityTime
Start and end time or start and duration
End
The estimated completion date and time of the activity represented.
LocationNotificationRequest
Message sent on a LocationNotification.
LocationText
A text desctiption of the location.
ProfileID
Unique identifier of the client
Description
A text description of the activity
ResortId

```
<xs:element name="LocationNotificationRequest">
    <xs:annotation>
    <xs:documentation>Message sent on a LocationNotification.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="ReservationID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueID">
                <xs:annotation>
                <xs:documentation>Unique identifier of the reservation</xs:documentation>
                </xs:annotation>
            </xs:element>
            <xs:element name="ActivityTime" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:TimeSpan">
        <xs:annotation>
        <xs:documentation>Start and end time or start and duration</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="LocationText" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:Text">
        <xs:annotation>
        <xs:documentation>A text desctiption of the location.</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element minOccurs="0" name="ProfileID" xmlns:q4="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q4:UniqueID">
        <xs:annotation>
        <xs:documentation>Unique identifier of the client</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element minOccurs="0" name="Description" xmlns:q5="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q5:Text">
        <xs:annotation>
        <xs:documentation>A text description of the activity</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element minOccurs="0" name="ResortId" type="xs:string" />
    </xs:sequence>
    <xs:attribute name="locationNotificationStatus" xmlns:q6="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
      type="q6:LocationNotificationStatus" use="required" />
    <xs:attribute name="otherLocationNotificationStatus" type="xs:string" use="optional" />
  </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
locationNotificationStatus	attribute	LocationNotificationStatus	required	The options are either *SET*, *CLEAR*, or *OTHER*.
otherLocationNotificationStatus	attribute	string	optional	Not currently used.
ReservationID	element	UniqueID	required	The reservation ID, as defined in the receiving system.
ActivityTime	element	TimeSpan	required	The activity time.
LocationText	element	Text	required	A description of the guest's location.
ProfileID	element	UniqueID	optional	The ID of the guest record, as defined in the receiving system.
Description	element	Text	optional	The description of the activity.
ResortId	element	string	optional	The property ID.

LocationNotificationResponse


c:ResultStatus
c:TextList
Text
TextElement
1..∞
LocationNotificationResponse
Result
Message received after a LocationNotification.
c:UniqueIDList
IDs
UniqueID
0..∞

```
<xs:element name="LocationNotificationResponse">
    <xs:annotation>
    <xs:documentation>Message received after a LocationNotification.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	The result of the notification.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#LocationNotification</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:5518896e-eed9-4a8b-89b6-4c4a5a3f756f</wsa:MessageID>
        <wsa:ReplyTo>
```

```
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-aeadcfcd-62bb-4569-9adf-2058cfd1f130">
                <wsu:Created>2006-11-08T17:17:45Z</wsu:Created>
                <wsu:Expires>2008-11-08T17:22:45Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
3bdd620a-3146-4012-8da3-a202e5b1f896">
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>rtQ+bYWTWfGrRipi6fhngg==</wsse:Nonce>
                <wsu:Created>2006-11-08T17:17:45Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <LocationNotificationRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types D:\htng\Activity.xsd" locationNotificationStatus="SET"
otherLocationNotificationStatus="OCEAN">
            <ReservationID source="OPERA">1621229</ReservationID>
            <ActivityTime>
                <c:Start>2006-11-07T09:30:47.0Z</c:Start>
                <c:End>2006-11-07T09:30:47.0Z</c:End>
            </ActivityTime>
            <LocationText language="en-us">OCEAN</LocationText>
            <ProfileID source="OPERA">450018</ProfileID>
            <Description language="en-us">OCEAN</Description>
            <ResortId>HTNG1</ResortId>
        </LocationNotificationRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

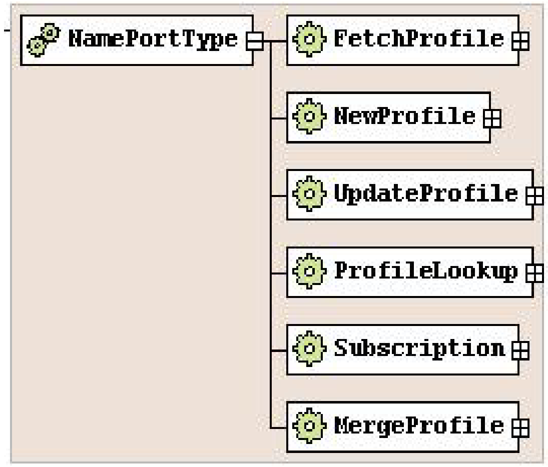
```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#LocationNotificationResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:e189f893-f319-444c-9786-51d26e6a1861</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:5518896e-eed9-4a8b-89b6-4c4a5a3f756f</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-e1fb8d71-564d-42d1-8a76-d4b305b99aab">
```

```
                <wsu:Created>2006-11-13T15:31:43Z</wsu:Created>
                <wsu:Expires>2006-11-13T15:36:43Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <LocationNotificationResponse xmlns:r="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:n="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:p="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types">
            <a:Result resultStatusFlag="SUCCESS"/>
        </LocationNotificationResponse>
    </soap:Body>
</soap:Envelope>
```

Chapter 12 Name Port Type

The Name Port Type defines five functions which provide support for guest profile-related operations. In order for notification messages to occur within the interface, a link is typically established for specific guest profile records in both systems. The Name Port includes functions to provide this link. In addition, it is often desired that changes to linked profiles be notified from one (or multiple) systems to the others. The Name Port also provides the means to create a new profile in an external system.

- **FetchProfile** – Request to fetch information for a guest profile based on an external ID.
- **NewProfile** – This function may be used to create a new profile in an external system.
- **UpdateProfile** – This function is used to notify an external system when a linked profile is changed.
- **ProfileLookup** – The profile lookup function provides for a generic lookup against several filters.
- **Subscription** – This function is provided for notification back to an external system of the internal ID for a newly created guest profile record.



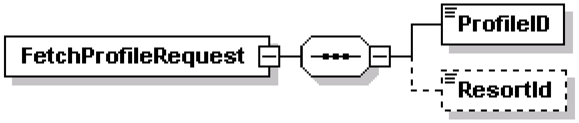
12.1 Fetch Profile

The fetch profile message is sent in order to request guest details for a specific ID, as defined in the external (receiving) system.

Port	NamePortType
Binding	NameBinding
Operation	FetchProfile
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#FetchProfile

Input	FetchProfileRequest
Output	FetchProfileResponse
Primary Schema	Name.xsd
Role(s) Implemented	Customer Profile System, Activity Reservation System

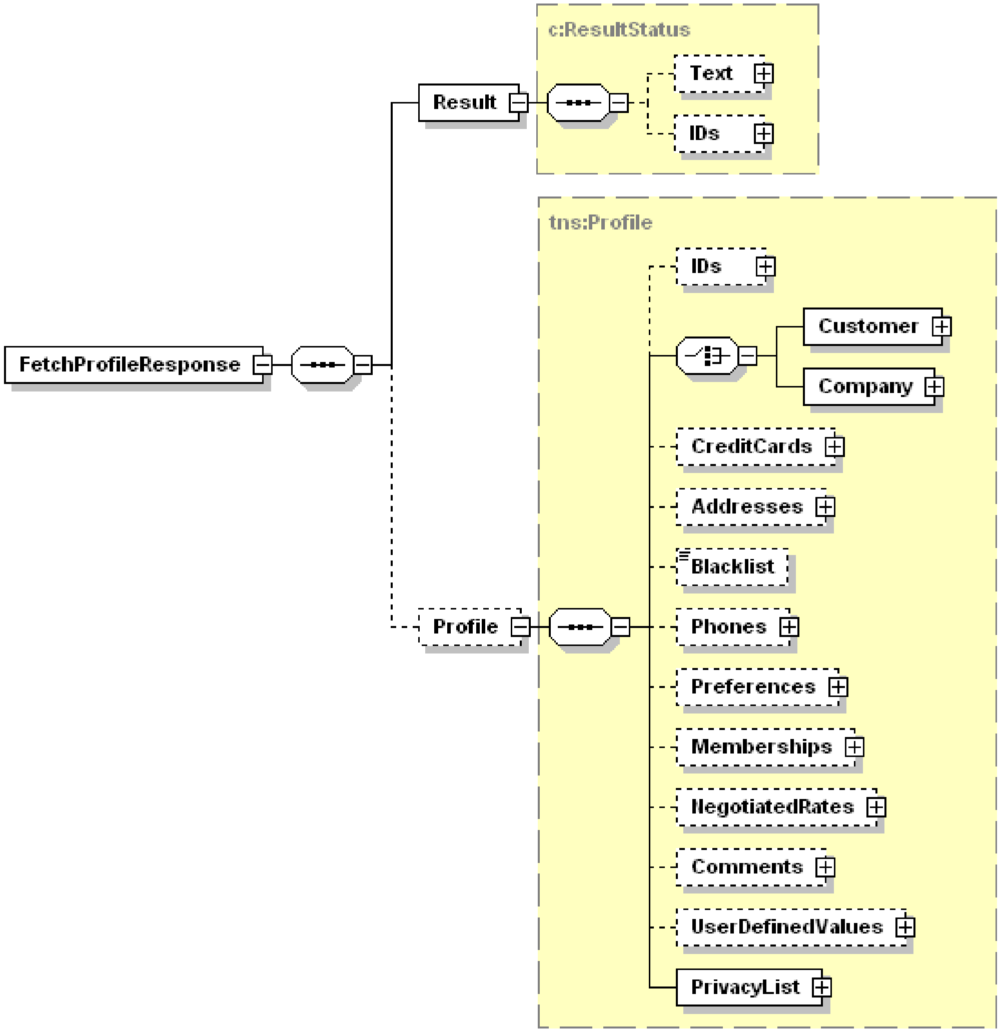
FetchProfileRequest



```
<xs:element name="FetchProfileRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="ProfileID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueID" />
            <xs:element minOccurs="0" name="ResortId" type="xs:string" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ProfileID	element	UniqueID	required	The guest profile ID, as defined in the receiving system.
ResortId	element	string	optional	The property the guest is associated with. This field is not required.

FetchProfileResponse


c:ResultStatus
Text
IDs
Result
tns:Profile
IDs
Customer
Company
CreditCards
Addresses
Blacklist
FetchProfileResponse
Profile
Phones
Preferences
Memberships
NegotiatedRates
Comments
UserDefinedValues
PrivacyList

```
<xs:element name="FetchProfileResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
            <xs:element minOccurs="0" name="Profile" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q2:Profile" />
        </xs:sequence>
    </xs:complexType>
```

```
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	The result of the operation.
Profile	element	Profile	optional	Guest profile details.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#FetchProfile</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:3661c78a-2d08-4a83-bc9c-983389fbaca2</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-1fbf61db-265b-479b-9561-bde2cf5f9fe9">
                <wsu:Created>2006-11-02T20:24:58Z</wsu:Created>
                <wsu:Expires>2008-11-02T20:29:58Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
64afe864-ae86-4380-bf21-ab5b5cb3b81e">
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>2ipy/inlnw0dPBS1isvpwA==</wsse:Nonce>
                <wsu:Created>2006-11-02T20:24:58Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <FetchProfileRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types D:\htng\Name.xsd">
            <ProfileID source="OPERA">450018</ProfileID>
            <ResortId>HTNG1</ResortId>
        </FetchProfileRequest>
    </soap:Body>
```

```xml
</soap:Envelope>
```

[Response]

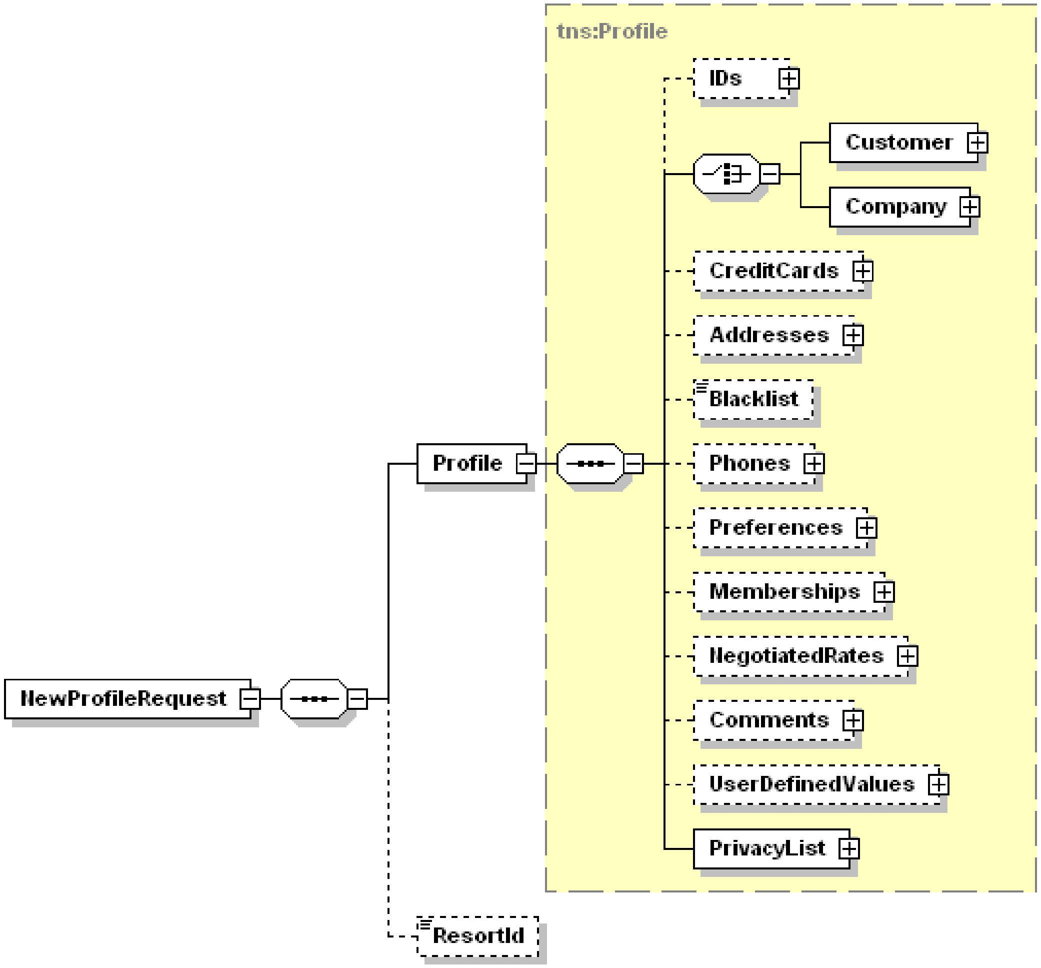
```xml
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#FetchProfileResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:e1f65b7f-5bdc-4566-9c18-9883bdd40a56</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:3661c78a-2d08-4a83-bc9c-983389fbaca2</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-a1c29de1-b460-4e67-9c7d-649c589cd564">
                <wsu:Created>2006-11-13T20:36:03Z</wsu:Created>
                <wsu:Expires>2006-11-13T20:41:03Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <FetchProfileResponse xmlns:r="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:n="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:p="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types">
            <n:Result resultStatusFlag="SUCCESS">
                <c:IDs>
                    <c:UniqueID source="OPERA">450018</c:UniqueID>
                </c:IDs>
            </n:Result>
            <n:Profile nameType="GUEST">
                <n:IDs>
                    <c:UniqueID source="OPERA">450018</c:UniqueID>
                </n:IDs>
                <n:Customer>
                    <n:PersonName familiarName="VANCE">
                        <c:FirstName>TIM</c:FirstName>
                        <c:LastName>VANCE</c:LastName>
                    </n:PersonName>
                </n:Customer>
                <n:CreditCards>
                    <n:NameCreditCard primary="true">
                        <c:CardCode>AX</c:CardCode>
                        <c:CardHolderName>VANCE/TIM</c:CardHolderName>
                        <c:CardNumber>373344556677889</c:CardNumber>
                        <c:ExpirationDate>1999-12-31</c:ExpirationDate>
                    </n:NameCreditCard>
                    <n:NameCreditCard primary="true">
                        <c:CardCode>MC</c:CardCode>
                    <c:CardHolderName>TIM VANCE</c:CardHolderName>
                    <c:CardNumber>5210000010001001</c:CardNumber>
                    <c:ExpirationDate>2007-07-31</c:ExpirationDate>
                </n:NameCreditCard>
            </n:CreditCards>
            <n:Addresses>
                <n:NameAddress addressType="W" primary="true">
                    <c:AddressLine>8512 Yellow Oak St</c:AddressLine>
                    <c:CityName>Austin</c:CityName>
                    <c:StateProv>TX</c:StateProv>
                    <c:CountryCode>US</c:CountryCode>
                    <c:PostalCode>78729</c:PostalCode>
                </n:NameAddress>
            </n:Addresses>
            <n:Phones>
                <n:NamePhone phoneType="HOME" phoneRole="PHONE" primary="true">
                    <c:PhoneData>
                        <c:PhoneNumber>800-233-0032</c:PhoneNumber>
                    </c:PhoneData>
                </n:NamePhone>
            </n:Phones>
        </n:Profile>
    </FetchProfileResponse>
  </soap:Body>
</soap:Envelope>
```

12.2 New Profile

A system may create a new guest profile record in an external system by calling the new profile function.

Port	NamePortType
Binding	NameBinding
Operation	NewProfile
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#NewProfile
Input	NewProfileRequest
Output	NewProfileResponse
Primary Schema	Name.xsd
Role(s) Implemented	Customer Profile System, Activity Reservation System

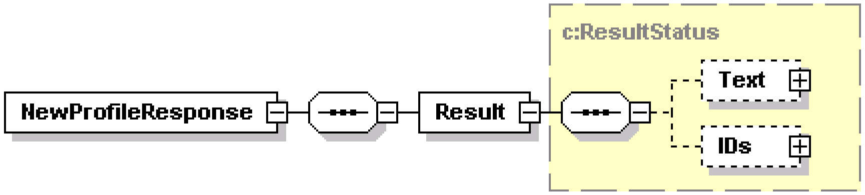
NewProfileRequest


tns:Profile
IDs
Customer
Company
CreditCards
Addresses
Blacklist
Profile
Phones
Preferences
Memberships
NegotiatedRates
NewProfileRequest
Comments
UserDefinedValues
PrivacyList
ResortId

```
<xs:element name="NewProfileRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Profile" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q1:Profile" />
            <xs:element minOccurs="0" name="ResortId" type="xs:string" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Profile	element	Profile	required	The profile record to create.
ResortId	element	string	optional	The property associated with the profile.

NewProfileResponse



```
<xs:element name="NewProfileResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	The result of the operation.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#NewProfile</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:261335f2-bd1d-49e6-96b4-8fcdf2137f8a</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-d99e21bf-1227-410c-bea3-d8705adcf032">
```

```
                <wsu:Created>2006-11-02T20:22:14Z</wsu:Created>
                <wsu:Expires>2008-11-02T20:27:14Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
6f2c0e7f-ac98-4ea3-a726-d67076fc9c72">
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>IWGqOAykiUQXnWN5x1wS9Q==</wsse:Nonce>
                <wsu:Created>2006-11-02T20:22:14Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <NewProfileRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types
D:\htng\Name.xsd">
            <Profile nameType="GUEST">
                <IDs>
                    <c:UniqueID source="SPASOFT">567</c:UniqueID>
                </IDs>
                <Customer>
                    <PersonName nameOrdered="String" familiarName="String">
                        <c:LastName>String</c:LastName>
                    </PersonName>
                </Customer>
            </Profile>
            <ResortId>HTNG1</ResortId>
        </NewProfileRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

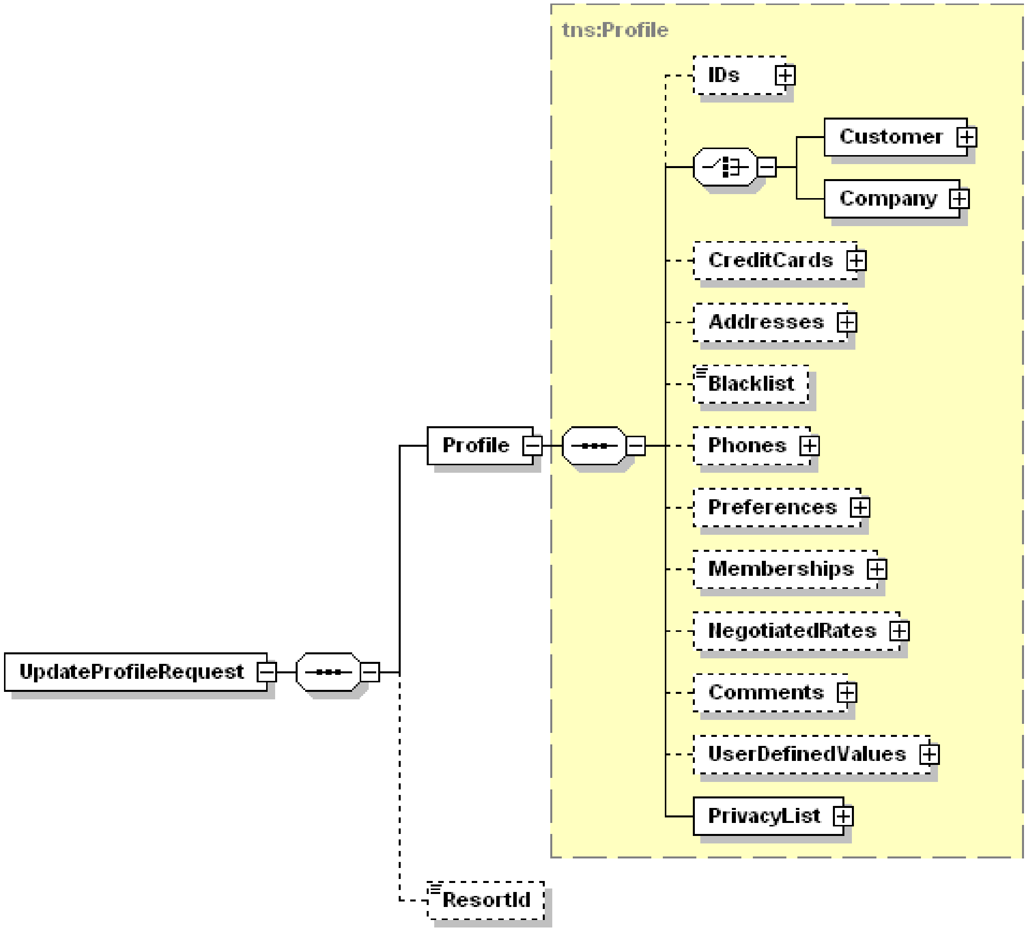
```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#NewProfileResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:2ef84640-2532-4d42-909b-8c2bfdd13338</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:261335f2-bd1d-49e6-96b4-8fcdf2137f8a</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-deda7b55-7d28-4c77-ae81-575bb4904307">
                <wsu:Created>2006-11-13T21:42:02Z</wsu:Created>
                <wsu:Expires>2006-11-13T21:47:02Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <NewProfileResponse xmlns:r="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:n="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:p="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types">
            <n:Result resultStatusFlag="SUCCESS">
                <c:IDs>
                    <c:UniqueID source="OPERA">2255583</c:UniqueID>
                    <c:UniqueID source="SPASOFT">567</c:UniqueID>
                </c:IDs>
            </n:Result>
        </NewProfileResponse>
    </soap:Body>
</soap:Envelope>
```

12.3 Update Profile

When a linked profile is changed in one system, an update profile message should be sent in order to notify all other systems of the modified record. While there may be a business practice enforced whereby updates are only made in one direction, both systems should be able to accept this message.

Port	NamePortType
Binding	NameBinding
Operation	UpdateProfile
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#UpdateProfile
Input	UpdateProfileRequest
Output	UpdateProfileResponse
Primary Schema	Name.xsd
Role(s) Implemented	Customer Profile System, Activity Reservation System

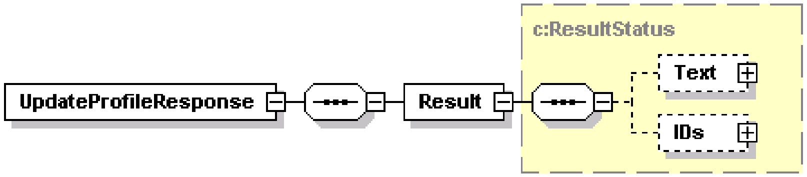
UpdateProfileRequest


tns:Profile
IDs
Customer
Company
CreditCards
Addresses
Blacklist
Phones
Preferences
Memberships
NegotiatedRates
Comments
UserDefinedValues
PrivacyList
Profile
UpdateProfileRequest
ResortId

```
<xs:element name="UpdateProfileRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Profile" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q1:Profile" />
            <xs:element minOccurs="0" name="ResortId" type="xs:string" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	Type	Data Type	Use	Comments
Profile	element	Profile	required	The profile record to update. This is a full overlay update.
ResortId	element	string	optional	The property the profile is associated with.

UpdateProfileResponse



```
<xs:element name="UpdateProfileResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	Type	Data Type	Use	Comments
Result	element	ResultStatus	required	The result of the update.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#UpdateProfile</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:OPERA</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:dcb32613-ee89-44b3-a910-abb165816024</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.springermiller.com/HTNG_2_0/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-eacdc200-555b-4439-adcb-1c27c2e76291">
                <wsu:Created>2007-02-05T21:30:16Z</wsu:Created>
                <wsu:Expires>2007-02-05T21:35:16Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
3100cb87-5e67-472b-b517-c33c94425569">
                <wsse:Username>OPERA</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">OPERA</wsse:Password>
                <wsse:Nonce>v7hqyEQlgLabyTqlptKmAA==</wsse:Nonce>
                <wsu:Created>2007-02-05T21:30:16Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <UpdateProfileRequest xmlns:r="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:n="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:p="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types">
            <n:Profile nameType="GUEST">
                <n:IDs>
                    <c:UniqueID source="OPERA">5629459</c:UniqueID>
                </n:IDs>
                <n:Customer gender="UNKNOWN">
                    <n:PersonName familiarName="Sevova">
                        <c:FirstName>Penka</c:FirstName>
                        <c:LastName>Sevova</c:LastName>
                    </n:PersonName>
                </n:Customer>
                <n:Addresses>
                    <n:NameAddress addressType="HOME" primary="true">
                        <c:AddressLine>2640 Us 41 s</c:AddressLine>
                        <c:CityName>Naples</c:CityName>
                        <c:StateProv>FL</c:StateProv>
                        <c:CountryCode>US</c:CountryCode>
                        <c:PostalCode>34119</c:PostalCode>
                    </n:NameAddress>
                    <n:NameAddress addressType="HOME" primary="false">
                        <c:AddressLine>2340 Golden Gate</c:AddressLine>
                        <c:CityName>Naples</c:CityName>
                        <c:StateProv>FL</c:StateProv>
                        <c:CountryCode>US</c:CountryCode>
                        <c:PostalCode>34119</c:PostalCode>
                    </n:NameAddress>
                    <n:NameAddress addressType="T" primary="false">
                        <c:AddressLine>2340 Golden Gate</c:AddressLine>
                        <c:CityName>Naples</c:CityName>
                        <c:StateProv>FL</c:StateProv>
                        <c:CountryCode>US</c:CountryCode>
                        <c:PostalCode>34119</c:PostalCode>
                    </n:NameAddress>
                </n:Addresses>
                <n:Phones>
                    <n:NamePhone phoneType="HOME" phoneRole="PHONE" primary="true">
                        <c:PhoneData>
                            <c:PhoneNumber>456</c:PhoneNumber>
                        </c:PhoneData>
                    </n:NamePhone>
                </n:Phones>
            </n:Profile>
            <n:ResortId>HTNGTEST</n:ResortId>
        </UpdateProfileRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

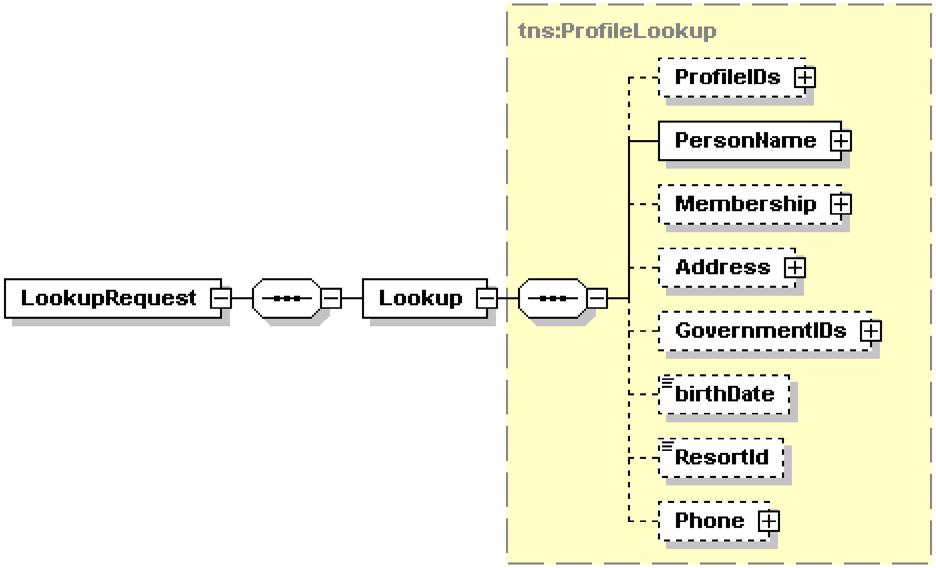
```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#UpdateProfileResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:0f166196-b066-4132-bbb0-66ef65f70c1e</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:dcb32613-ee89-44b3-a910-abb165816024</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-c5614cb2-779c-47fd-8f13-0963177e1ac4">
                <wsu:Created>2007-02-05T21:31:56Z</wsu:Created>
                <wsu:Expires>2007-02-05T21:36:56Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <UpdateProfileResponse xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
            <Result code="" resultStatusFlag="SUCCESS">
                <c:Text>
                    <c:TextElement language="en"/>
                </c:Text>
                <c:IDs>
                    <c:UniqueID source="OPERA">5629459</c:UniqueID>
                </c:IDs>
            </Result>
        </UpdateProfileResponse>
    </soap:Body>
</soap:Envelope>
```

12.4 Profile Lookup

The profile lookup message may be used in order to request a list of guest records which match a particular set of criteria.

Port	NamePortType
Binding	NameBinding
Operation	ProfileLookup
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#ProfileLookup
Input	ProfileLookupRequest
Output	ProfileLookupResponse
Primary Schema	Name.xsd
Role(s) Implemented	Customer Profile System, Activity Reservation System

LookupRequest


tns:ProfileLookup
ProfileIDs
PersonName
Membership
Address
GovernmentIDs
birthDate
ResortId
Phone
LookupRequest
Lookup

```
<xs:element name="LookupRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Lookup" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q1:ProfileLookup" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

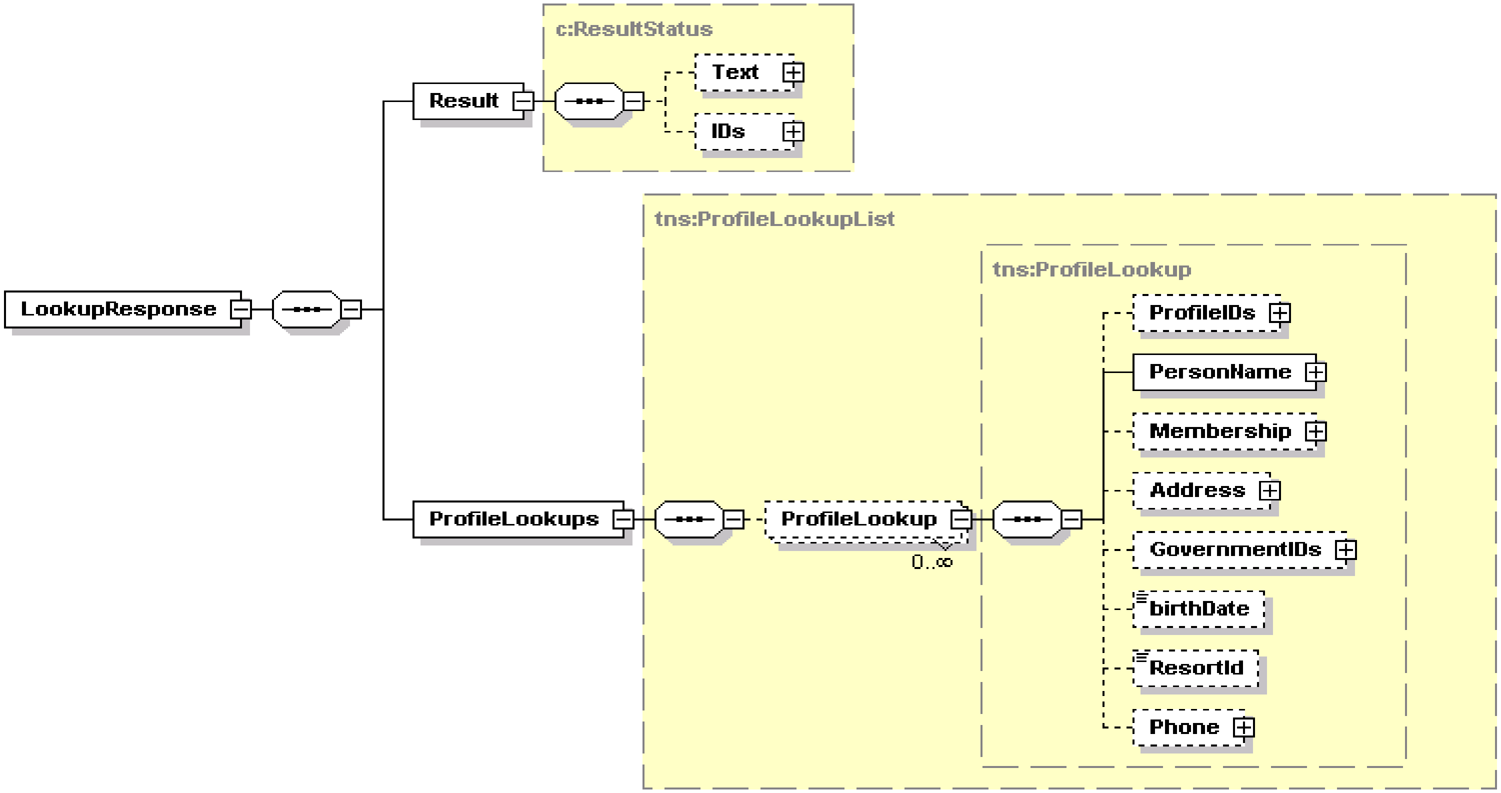
Name	**Type**	**Data Type**	**Use**	**Comments**
Lookup	element	ProfileLookup	required	The lookup filter to apply.

ProfileLookup

```
<xs:complexType name="ProfileLookup">
    <xs:sequence>
        <xs:element minOccurs="0" name="ProfileIDs" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueIDList" />
        <xs:element name="PersonName" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:PersonName" />
        <xs:element minOccurs="0" name="Membership" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:Membership" />
        <xs:element minOccurs="0" name="Address" xmlns:q4="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q4:Address" />
        <xs:element minOccurs="0" name="GovernmentIDs" xmlns:q5="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
            type="q5:GovernmentIDList" />
        <xs:element minOccurs="0" name="birthDate" type="xs:date" />
        <xs:element minOccurs="0" name="ResortId" type="xs:string" />
        <xs:element minOccurs="0" name="Phone" xmlns:q6="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q6:Phone" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ProfileIDs	element	UniqueIDList	optional	A list of IDs to lookup. The receiving system is only required to honor the first value in the list.
PersonName	element	PersonName	required	A filter for an individual’s name. The receiving system is only required to lookup by last and first name.
Membership	element	Membership	optional	Membership values to lookup. The receiving system is not required to honor this filter.
Address	element	Address	optional	Address values to lookup. The receiving system can use discretion in applying various components this filter.
GovernmentIDs	element	GovernmentIDList	optional	Government ID lookup values. The receiving system is not required to honor this filter.
birthDate	element	date	optional	Birth date. The receiving system is not required to apply this filter.
ResortId	element	string	optional	The property code.
Phone	element	Phone	optional	A telephone filter. The receiving system is not required to apply this filter.

LookupResponse


c:ResultStatus
Text
IDs
Result
LookupResponse
tns:ProfileLookupList
tns:ProfileLookup
ProfileIDs
PersonName
Membership
Address
GovernmentIDs
birthDate
ResortId
Phone
ProfileLookups
ProfileLookup
0..∞

```
<xs:element name="LookupResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
            <xs:element name="ProfileLookups" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q2:ProfileLookupList" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	Type	Data Type	Use	Comments
Result	element	ResultStatus	required	The result of the operation.
ProfileLookups	element	ProfileLookupList	required	A list of matching profiles.

ProfileLookupList

```
<xs:complexType name="ProfileLookupList">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="ProfileLookup" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
            type="q1:ProfileLookup" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ProfileLookup	element	ProfileLookup	optional/ multiple	A collection of profile lookup elements.

ProfileLookup

```
<xs:complexType name="ProfileLookup">
    <xs:sequence>
        <xs:element minOccurs="0" name="ProfileIDs" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueIDList" />
        <xs:element name="PersonName" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:PersonName" />
        <xs:element minOccurs="0" name="Membership" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:Membership" />
        <xs:element minOccurs="0" name="Address" xmlns:q4="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q4:Address" />
        <xs:element minOccurs="0" name="GovernmentIDs" xmlns:q5="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
            type="q5:GovernmentIDList" />
        <xs:element minOccurs="0" name="birthDate" type="xs:date" />
        <xs:element minOccurs="0" name="ResortId" type="xs:string" />
        <xs:element minOccurs="0" name="Phone" xmlns:q6="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q6:Phone" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ProfileIDs	element	UniqueIDList	optional	The guest record ID.
PersonName	element	PersonName	required	The guest name.
Membership	element	Membership	optional	The guest primary membership record.
Address	element	Address	optional	The guest primary address.
GovernmentIDs	element	GovernmentIDList	optional	A collection of government IDs.
birthDate	element	date	optional	The guest’s birth date.
ResortId	element	string	optional	The associated property.
Phone	element	Phone	optional	The guest primary telephone.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
```

```
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#ProfileLookup</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:4ef62b8b-72dc-4125-a403-dca797465a20</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-42887188-d0d4-4297-92e5-8091b18c963a">
                <wsu:Created>2006-11-02T20:18:21Z</wsu:Created>
                <wsu:Expires>2006-11-02T20:23:21Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
b5059290-0922-4492-845d-e4c7148a2a6d">
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>Fnacfly4VV9e1XSujzrgvQ==</wsse:Nonce>
                <wsu:Created>2006-11-02T20:18:21Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <LookupRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
            <Lookup>
                <ProfileIDs>
                    <c:UniqueID source=""/>
                </ProfileIDs>
                <PersonName nameOrdered="" familiarName="">
                    <NameTitle xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                    <FirstName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                    <MiddleName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                    <LastName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">Brady</LastName>
                    <NameSuffix xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                </PersonName>
                <Address otherAddressType="" addressType="">
                    <AddressLine xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                    <CityName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                    <StateProv xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                    <CountryCode xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                    <PostalCode xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
                </Address>
                <ResortId>HTNG1</ResortId>
                <Phone phoneRole="" phoneType="">
                <PhoneNumber xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"/>
            </Phone>
        </Lookup>
    </LookupRequest>
  </soap:Body>
</soap:Envelope>
```

[Response]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
  <soap:Header>
    <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#ProfileLookupResponse</wsa:Action>
    <wsa:MessageID>urn:uuid:1cdb442c-bab2-4e37-852b-8e85cd2693b9</wsa:MessageID>
    <wsa:RelatesTo>urn:uuid:4ef62b8b-72dc-4125-a403-dca797465a20</wsa:RelatesTo>
    <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
    <wsse:Security>
      <wsu:Timestamp wsu:Id="Timestamp-46f645d8-b426-4984-9c2e-6c60a8a7da47">
        <wsu:Created>2006-11-02T20:17:25Z</wsu:Created>
        <wsu:Expires>2006-11-02T20:22:25Z</wsu:Expires>
      </wsu:Timestamp>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <LookupResponse xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types">
      <Result resultStatusFlag="SUCCESS"/>
      <ProfileLookups>
        <ProfileLookup>
          <ProfileIDs>
            <UniqueID source="OPERA" xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">168609</UniqueID>
          </ProfileIDs>
          <PersonName>
            <FirstName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">MICHAEL F</FirstName>
            <LastName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">BRADY</LastName>
          </PersonName>
          <Address/>
        </ProfileLookup>
        <ProfileLookup>
          <ProfileIDs>
            <UniqueID source="OPERA" xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">171294</UniqueID>
          </ProfileIDs>
          <PersonName>
            <FirstName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">DON</FirstName>
            <LastName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">BRADY</LastName>
          </PersonName>
          <Address/>
        </ProfileLookup>
```

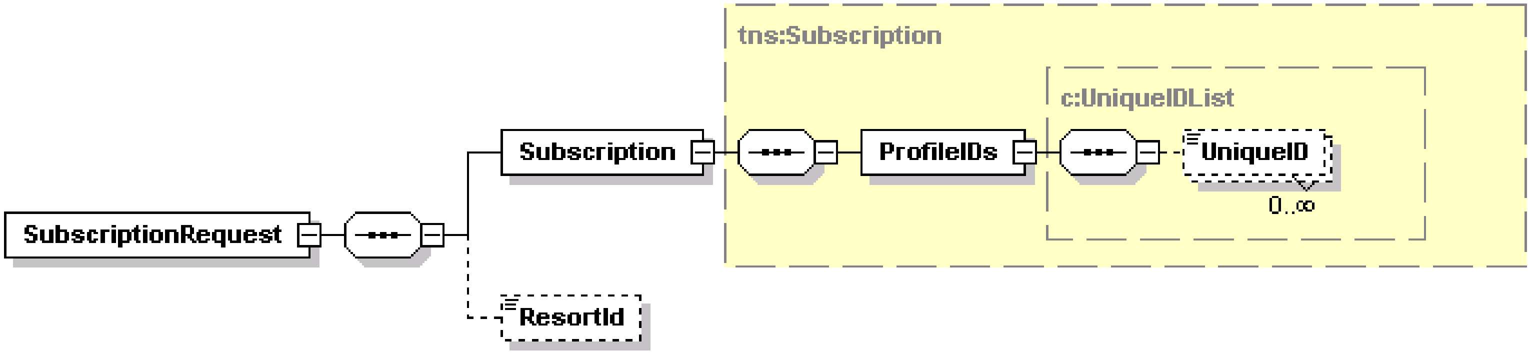
```
                <ProfileLookup>
                    <ProfileIDs>
                        <UniqueID source="OPERA" xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">172019</UniqueID>
                    </ProfileIDs>
                    <PersonName>
                        <FirstName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">ROBERT E</FirstName>
                        <LastName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">BRADY</LastName>
                    </PersonName>
                    <Address/>
                </ProfileLookup>
                <ProfileLookup>
                    <ProfileIDs>
                        <UniqueID source="OPERA" xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">383254</UniqueID>
                    </ProfileIDs>
                    <PersonName>
                        <FirstName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">RAY</FirstName>
                        <LastName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">BRADY</LastName>
                    </PersonName>
                    <Address>
                        <AddressLine xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">440 FAIR DR</AddressLine>
                        <CityName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">COSTA MESA</CityName>
                        <StateProv xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">CA</StateProv>
                        <CountryCode xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">US</CountryCode>
                        <PostalCode xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">92626</PostalCode>
                    </Address>
                </ProfileLookup>
                <ProfileLookup>
                    <ProfileIDs>
                        <UniqueID source="OPERA" xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">406967</UniqueID>
                    </ProfileIDs>
                    <PersonName>
                        <FirstName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">MATT</FirstName>
                        <LastName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">BRADY</LastName>
                    </PersonName>
                    <Address/>
                </ProfileLookup>
                <ProfileLookup>
                    <ProfileIDs>
                        <UniqueID source="OPERA" xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">406244</UniqueID>
                    </ProfileIDs>
                    <PersonName>
                        <FirstName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">LAURIE M</FirstName>
                        <LastName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">BRADY</LastName>
                    </PersonName>
                    <Address/>
                </ProfileLookup>
                <ProfileLookup>
                    <ProfileIDs>
                        <UniqueID source="OPERA" xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">413792</UniqueID>
                    </ProfileIDs>
                    <PersonName>
                        <FirstName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">VICTORIA</FirstName>
                        <LastName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">BRADY</LastName>
                    </PersonName>
                    <Address>
                        <AddressLine xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">40 PAGET RD.</AddressLine>
                        <CityName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">MADISON</CityName>
                        <StateProv xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">WI.</StateProv>
                        <CountryCode xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">US</CountryCode>
                        <PostalCode xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">53704</PostalCode>
                    </Address>
                </ProfileLookup>
            </ProfileLookups>
        </LookupResponse>
    </soap:Body>
</soap:Envelope>
```

12.5 Subscription

A subscription message is sent to notify an external system, after a new profile has been created, of the internal ID for the new record. The typical scenario consists of a sequence of three actions: a profile lookup, a profile fetch, and a subscription. Often, when a profile is fetched from an external system, it does not exist in the requesting system and must be created. The subscription record is a notification back to the other system of the record ID for the newly created guest record. While the requesting system would have both IDs, the external system would otherwise not be aware of the profile link.

Port	NamePortType
Binding	NameBinding
Operation	Subscription
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#Subscription
Input	SubscriptionRequest
Output	SubscriptionResponse
Primary Schema	Name.xsd
Role(s) Implemented	Customer Profile System, Activity Reservation System

SubscriptionRequest


tns:Subscription
c:UniqueIDList
Subscription
ProfileIDs
UniqueID
0..∞
SubscriptionRequest
ResortId

```
<xs:element name="SubscriptionRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Subscription" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q1:Subscription" />
            <xs:element minOccurs="0" name="ResortId" type="xs:string" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

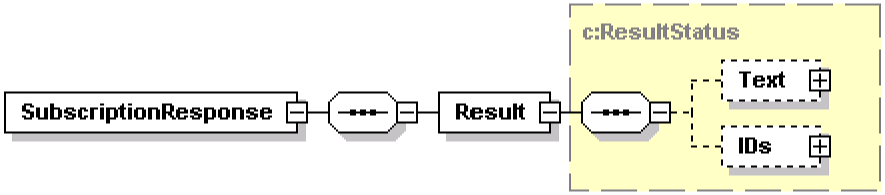
Name	Type	Data Type	Use	Comments
Subscription	element	Subscription	required	A matched pair of external and internal ID values.
ResortId	element	string	optional	The associated property code.

Subscription

```
<xs:complexType name="Subscription">
    <xs:sequence>
        <xs:element name="ProfileIDs" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueIDList" />
    </xs:sequence>
    <xs:attribute name="subscriptionAction" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:SubscriptionAction"
        use="required" />
    <xs:attribute name="otherSubscriptionAction" type="xs:string" />
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
subscriptionAction	attribute	SubscriptionAction	required	One of *OTHER*, *SUBSCRIBE*, or *UNSUBSCRIBE*.
otherSubscriptionAction	attribute	string	none	Not used.
ProfileIDs	element	UniqueIDList	required	A matched pair of internal and external guest record IDs.

SubscriptionResponse



```
<xs:element name="SubscriptionResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	The result of the subscription.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#Subscription</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:5518896e-eed9-4a8b-89b6-4c4a5a3f756f</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-aeadcfcd-62bb-4569-9adf-2058cfd1f130">
                <wsu:Created>2006-11-08T17:17:45Z</wsu:Created>
                <wsu:Expires>2006-11-08T17:22:45Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
3bdd620a-3146-4012-8da3-a202e5b1f896">
                <wsse:Username>HTNG</wsse:Username>
```

```xml
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>rtQ+bYWTWfGrRipi6fhngg==</wsse:Nonce>
                <wsu:Created>2006-11-08T17:17:45Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <SubscriptionRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
            <Subscription otherSubscriptionAction="" subscriptionAction="SUBSCRIBE">
                <ProfileIDs>
                    <c:UniqueID source="OPERA">188457</c:UniqueID>
                    <c:UniqueID source="SPASOFT">519</c:UniqueID>
                </ProfileIDs>
            </Subscription>
            <ResortId>HTNG1</ResortId>
        </SubscriptionRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

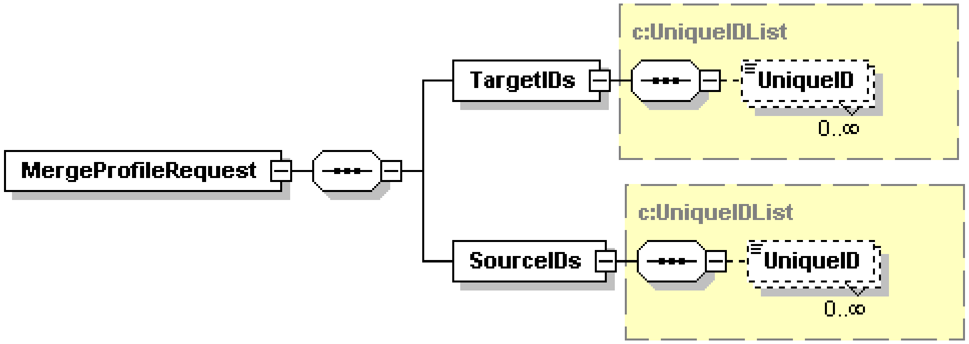
```xml
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#SubscriptionResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:0fe8b10d-2837-40ab-8d8d-2b11c80fb92b</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:5518896e-eed9-4a8b-89b6-4c4a5a3f756f</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-cde37d00-4c6f-4a48-ba04-67fd2b523f5e">
                <wsu:Created>2006-11-08T17:19:07Z</wsu:Created>
                <wsu:Expires>2006-11-08T17:24:07Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <SubscriptionResponse xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types">
            <Result resultStatusFlag="SUCCESS"/>
        </SubscriptionResponse>
    </soap:Body>
</soap:Envelope>
```

12.6 Merge Profile

A merge profile message is sent to notify an external system that two (or more) profiles have been merged into one. Occasionally, multiple profile records may be created for the same individual. When these are merged in one system, the external system should be notified of the combination.

Port	NamePortType
Binding	NameBinding
Operation	MergeProfile
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#MergeProfile
Input	MergeProfileRequest
Output	MergeProfileResponse
Primary Schema	Name.xsd
Role(s) Implemented	Customer Profile System, Activity Reservation System

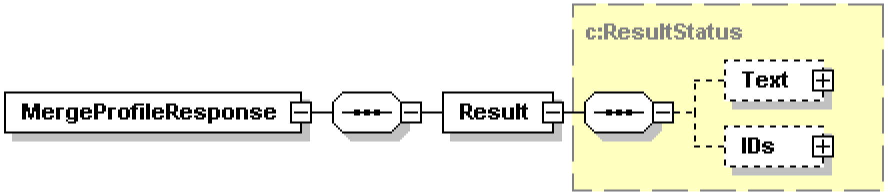
MergeProfileRequest



```
<xs:element name="MergeProfileRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="TargetIDs" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueIDList" />
            <xs:element name="SourceIDs" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:UniqueIDList" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
TargetIDs	element	UniqueIDList	required	The ID(s) of the surviving profile record.
SourceIDs	element	UniqueIDList	required	The ID(s) of the profile records to be merged.

MergeProfileResponse



MergeProfileResponse				

```
<xs:element name="MergeProfileResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	Type	Data Type	Use	Comments
Result	element	ResultStatus	required	The result of the merge.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#MergeProfile</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:TAC</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:5518896e-eed9-4a8b-89b6-4c4a5a3f756f</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-aeadcfcd-62bb-4569-9adf-2058cfd1f130">
                <wsu:Created>2006-11-08T17:17:45Z</wsu:Created>
                <wsu:Expires>2006-11-08T17:22:45Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
3bdd620a-3146-4012-8da3-a202e5b1f896">
```

```
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>rtQ+bYWTWfGrRipi6fhngg==</wsse:Nonce>
                <wsu:Created>2006-11-08T17:17:45Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <MergeProfileRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
                <TargetIDs>
                    <c:UniqueID source="OPERA">188457</c:UniqueID>
                    <c:UniqueID source="SPASOFT">519</c:UniqueID>
                </TargetIDs>
                <SourceIDs>
                    <c:UniqueID source="OPERA">188457</c:UniqueID>
                    <c:UniqueID source="SPASOFT">519</c:UniqueID>
                    <c:UniqueID source="OPERA">188854</c:UniqueID>
                    <c:UniqueID source="SPASOFT">556</c:UniqueID>
                </SourceIDs>
            <ResortId>HTNG1</ResortId>
        </MergeProfileRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

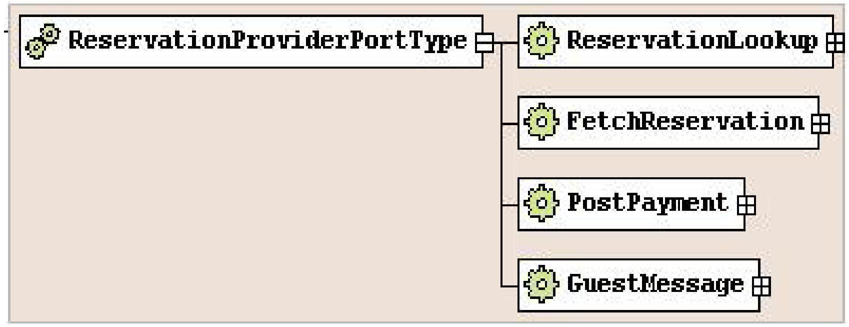
```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#MergeProfileResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:0fe8b10d-2837-40ab-8d8d-2b11c80fb92b</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:5518896e-eed9-4a8b-89b6-4c4a5a3f756f</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-cde37d00-4c6f-4a48-ba04-67fd2b523f5e">
                <wsu:Created>2006-11-08T17:19:07Z</wsu:Created>
                <wsu:Expires>2006-11-08T17:24:07Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <MergeProfileResponse xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types">
            <Result resultStatusFlag="SUCCESS"/>
        </MergeProfileResponse>
    </soap:Body>
```

```
</soap:Envelope>
```

Chapter 13 Reservation Provider Port Type

The Reservation Provider Port consists of four functions related to a guest reservation in an Accommodation Reservation System. The functions provide the means to lookup a reservation based on various filters, fetch reservation details, and post payments to a reservation.

- **ReservationLookup** – Request a list of guest reservations with match one or more input filters.
- **FetchReservation** – Fetch details for a guest reservation.
- **PostPayment** – Post a payment to a guest reservation.
- **GuestMessage** – Submit a message to be delivered to a guest and provide notification.

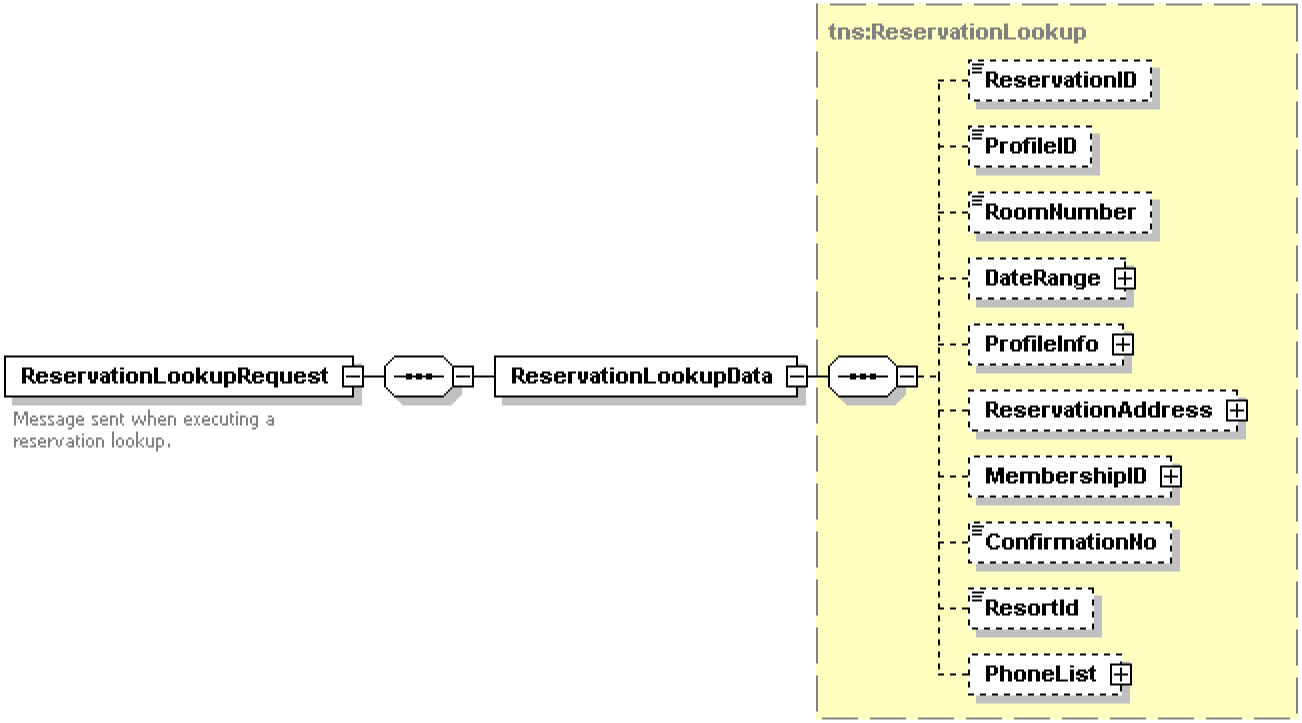


13.1 Reservation Lookup

The Accommodation Reservation System provides the reservation lookup message in order to request a list of guest reservations matching a specified set of criteria. This is often used by the Activity Reservation System to look up a guest record by room number or confirmation number.

Port	ReservationProviderPortType
Binding	ReservationProviderBinding
Operation	ReservationLookup
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#ReservationLookup
Input	ReservationLookupRequest
Output	ReservationLookupResponse
Primary Schema	Reservation.xsd
Role(s) Implemented	Accommodation Reservation System

ReservationLookupRequest


tns:ReservationLookup
ReservationID
ProfileID
RoomNumber
DateRange
ProfileInfo
ReservationAddress
MembershipID
ConfirmationNo
ResortId
PhoneList
ReservationLookupRequest
Message sent when executing a reservation lookup.
ReservationLookupData

```
<xs:element name="ReservationLookupRequest">
    <xs:annotation>
    <xs:documentation>Message sent when executing a reservation lookup.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="ReservationLookupData" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
                type="q1:ReservationLookup" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

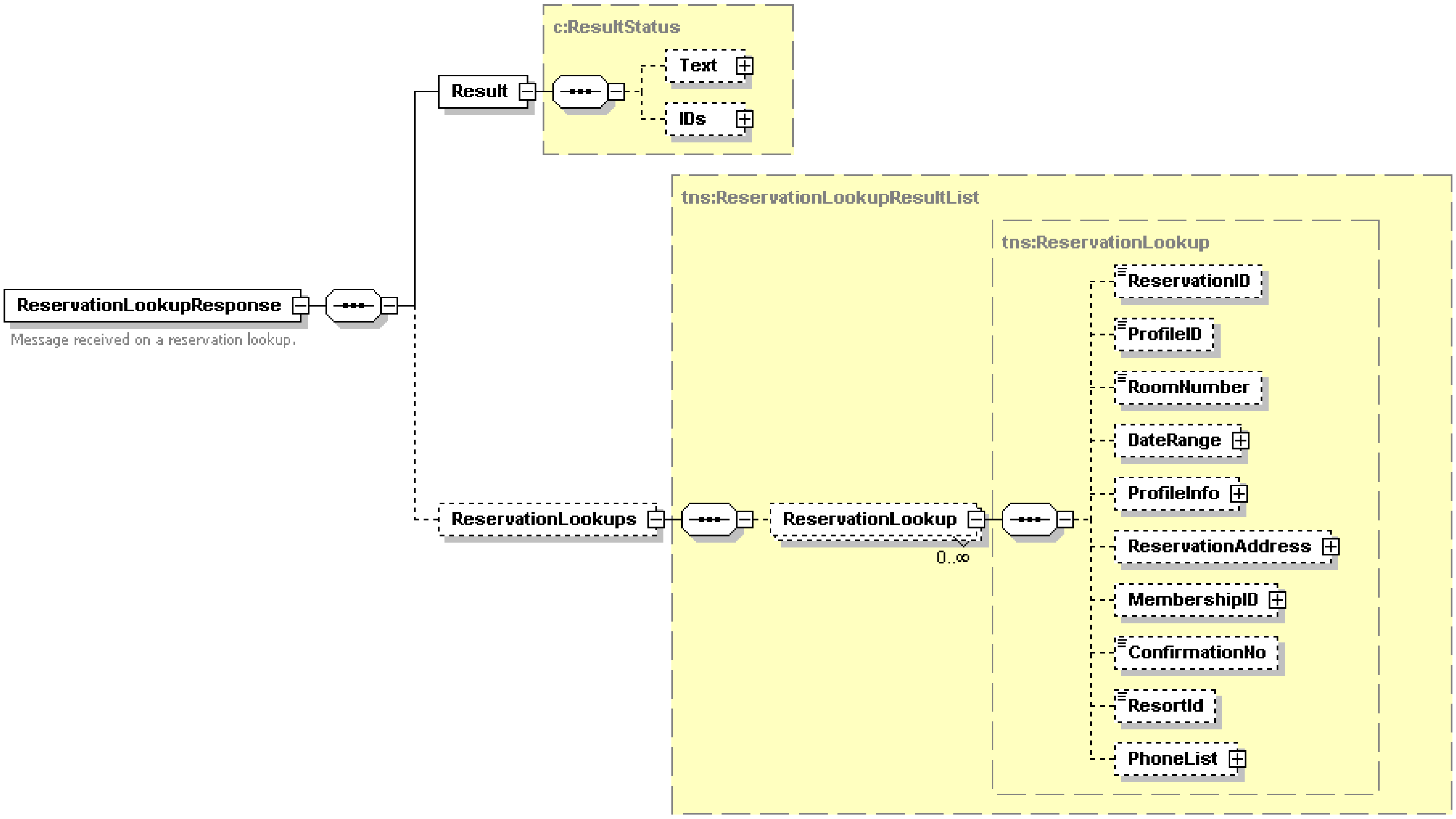
Name	**Type**	**Data Type**	**Use**	**Comments**
ReservationLookupData	element	ReservationLookup	required	Reservation lookup filter data.

ReservationLookup

```
<xs:complexType name="ReservationLookup">
    <xs:annotation>
    <xs:documentation>Defines the queryied data when executing a reservation lookup.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
      <xs:element minOccurs="0" name="ReservationID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueID" />
      <xs:element minOccurs="0" name="ProfileID" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:UniqueID" />
      <xs:element minOccurs="0" name="RoomNumber" type="xs:string" />
      <xs:element minOccurs="0" name="DateRange" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:TimeSpan" />
      <xs:element minOccurs="0" name="ProfileInfo" xmlns:q4="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q4:PersonName" />
      <xs:element minOccurs="0" name="ReservationAddress" xmlns:q5="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q5:Address"
        />
      <xs:element minOccurs="0" name="MembershipID" xmlns:q6="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q6:Membership"
        />
      <xs:element minOccurs="0" name="ConfirmationNo" type="xs:string" />
      <xs:element minOccurs="0" name="ResortId" type="xs:string" />
      <xs:element minOccurs="0" name="PhoneList" xmlns:q7="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q7:PhoneList" />
    </xs:sequence>
    <xs:attribute name="reservationStatus" xmlns:q8="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q8:ReservationStatusType"
      use="required" />
    <xs:attribute name="otherReservationStatus" type="xs:string" use="optional" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
reservationStatus	attribute	ReservationStatusType	required	Status of reservation.
otherReservationStatus	attribute	string	optional	Not used.
ReservationID	element	UniqueID	optional	Lookup by reservation ID.
ProfileID	element	UniqueID	optional	Lookup by profile ID.
RoomNumber	element	string	optional	Lookup by room number.
DateRange	element	TimeSpan	optional	Lookup by date range.
ProfileInfo	element	PersonName	optional	Lookup by guest name.
ReservationAddress	element	Address	optional	Lookup by guest address.
MembershipID	element	Membership	optional	Lookup by guest membership.
ConfirmationNo	element	string	optional	Lookup by confirmation number.
ResortId	element	string	optional	Property code to lookup from.
PhoneList	element	PhoneList	optional	Lookup by phone number

ReservationLookupResponse


c:ResultStatus
Result
Text
IDs
ReservationLookupResponse
Message received on a reservation lookup.
tns:ReservationLookupResultList
tns:ReservationLookup
ReservationLookups
ReservationLookup
0..∞
ReservationID
ProfileID
RoomNumber
DateRange
ProfileInfo
ReservationAddress
MembershipID
ConfirmationNo
ResortId
PhoneList

```
<xs:element name="ReservationLookupResponse">
    <xs:annotation>
    <xs:documentation>Message received on a reservation lookup.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
            <xs:element minOccurs="0" name="ReservationLookups" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
                type="q2:ReservationLookupResultList" />
        </xs:sequence>
    </xs:complexType>
```

```
</xs:element>
```

Name	Type	Data Type	Use	Comments
Result	element	ResultStatus	required	Result of the lookup operation.
ReservationLookups	element	ReservationLookupResultList	optional	Collection of matching reservation summary records.

ReservationLookupResultList

```
<xs:complexType name="ReservationLookupResultList">
    <xs:annotation>
    <xs:documentation>Collection of reservation lookup results.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="ReservationLookup"
            xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types" type="q1:ReservationLookup" />
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
ReservationLookup	element	ReservationLookup	optional/ multiple	Collection of ReservationLookup elements.

ReservationLookup

```
<xs:complexType name="ReservationLookup">
    <xs:annotation>
    <xs:documentation>Defines the queryied data when executing a reservation lookup.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element minOccurs="0" name="ReservationID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueID" />
        <xs:element minOccurs="0" name="ProfileID" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:UniqueID" />
        <xs:element minOccurs="0" name="RoomNumber" type="xs:string" />
        <xs:element minOccurs="0" name="DateRange" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:TimeSpan" />
        <xs:element minOccurs="0" name="ProfileInfo" xmlns:q4="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q4:PersonName" />
        <xs:element minOccurs="0" name="ReservationAddress" xmlns:q5="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q5:Address"
            />
        <xs:element minOccurs="0" name="MembershipID" xmlns:q6="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q6:Membership"
            />
        <xs:element minOccurs="0" name="ConfirmationNo" type="xs:string" />
        <xs:element minOccurs="0" name="ResortId" type="xs:string" />
        <xs:element minOccurs="0" name="PhoneList" xmlns:q7="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q7:PhoneList" />
    </xs:sequence>
    <xs:attribute name="reservationStatus" xmlns:q8="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q8:ReservationStatusType"
        use="required" />
    <xs:attribute name="otherReservationStatus" type="xs:string" use="optional" />
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
reservationStatus	attribute	ReservationStatusType	required	The reservation status.
otherReservationStatus	attribute	string	optional	Not used.
ReservationID	element	UniqueID	optional	The internal reservation ID from the message receiver.
ProfileID	element	UniqueID	optional	The internal guest record ID from themessage receiver.
RoomNumber	element	string	optional	The guest room number.
DateRange	element	TimeSpan	optional	The guest arrival and departure dates.
ProfileInfo	element	PersonName	optional	The guest name.
ReservationAddress	element	Address	optional	The guest primary address.
MembershipID	element	Membership	optional	The guest primary membership.
ConfirmationNo	element	string	optional	The reservation confirmation number.
ResortId	element	string	optional	The property code.
PhoneList	element	PhoneList	optional	Guest phone numbers

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#ReservationLookup</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:393e560b-ea97-4c8f-b5f7-16bc165c4bbc</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-41a9938a-d6d9-48a6-913f-ac1be51d663a">
                <wsu:Created>2006-11-02T14:48:24Z</wsu:Created>
                <wsu:Expires>2006-11-02T14:53:24Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
b2ebe37c-c028-457b-8fbf-45896fdea13d">
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>zqlSwFYwV50GNgVL4Fl/uQ==</wsse:Nonce>
                <wsu:Created>2006-11-02T14:48:24Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <ReservationLookupRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
            <ReservationLookupData>
                <DateRange>
                    <Start xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types">2006-11-02T00:00:00</Start>
                    <End xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types">2006-11-05T00:00:00</End>
                </DateRange>
                <ProfileInfo>
                    <FirstName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">Vernon</FirstName>
                    <LastName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">Smith</LastName>
                </ProfileInfo>
                <ResortId>HTNG1</ResortId>
            </ReservationLookupData>
        </ReservationLookupRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#ReservationLookupResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:8457a488-2db0-448e-919f-b0e94dcef734</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:393e560b-ea97-4c8f-b5f7-16bc165c4bbc</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-16b03c8a-7959-46e7-a23c-d3333c5d9170">
                <wsu:Created>2006-11-02T14:47:21Z</wsu:Created>
                <wsu:Expires>2006-11-02T14:52:21Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <ReservationLookupResponse xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types">
            <Result resultStatusFlag="SUCCESS"/>
            <ReservationLookups>
                <ReservationLookup reservationStatus="CHECKED_IN">
                    <ReservationID source="OPERA">1620979</ReservationID>
```

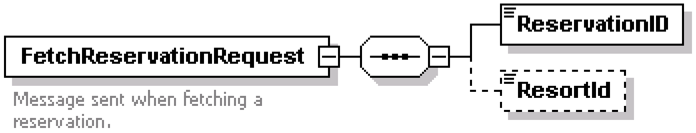
```
          <ProfileID source="OPERA">2254583</ProfileID>
          <RoomNumber>10</RoomNumber>
          <DateRange>
            <Start xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types">2006-11-02T00:00:00</Start>
            <End xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types">2006-11-05T00:00:00</End>
          </DateRange>
          <ProfileInfo>
            <FirstName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">Vernon</FirstName>
            <LastName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">Smith</LastName>
          </ProfileInfo>
          <ReservationAddress>
            <AddressLine xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">Building 2</AddressLine>
            <AddressLine xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">1234 Aligator way</AddressLine>
            <CityName xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">Vanderbilt Beach</CityName>
            <StateProv xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">FL</StateProv>
            <CountryCode xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">US</CountryCode>
            <PostalCode xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">34107</PostalCode>
          </ReservationAddress>
          <MembershipID/>
          <ConfirmationNo>2970622</ConfirmationNo>
          <ResortId>HTNG1</ResortId>
        </ReservationLookup>
      </ReservationLookups>
    </ReservationLookupResponse>
  </soap:Body>
</soap:Envelope>
```

13.2 Fetch Reservation

The fetch reservation message is used to request details for a particular reservation based on an associated ID defined within the receiving Accommodation Reservation System. In many instances, this request is made following a reservation lookup where one reservation is selected from the list provided.

Port	ReservationProviderPortType
Binding	ReservationProviderBinding
Operation	ReservationLookup
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#FetchReservation
Input	ReservationLookupRequest
Output	ReservationLookupResponse
Primary Schema	Reservation.xsd
Role(s) Implemented	Accommodation Reservation System

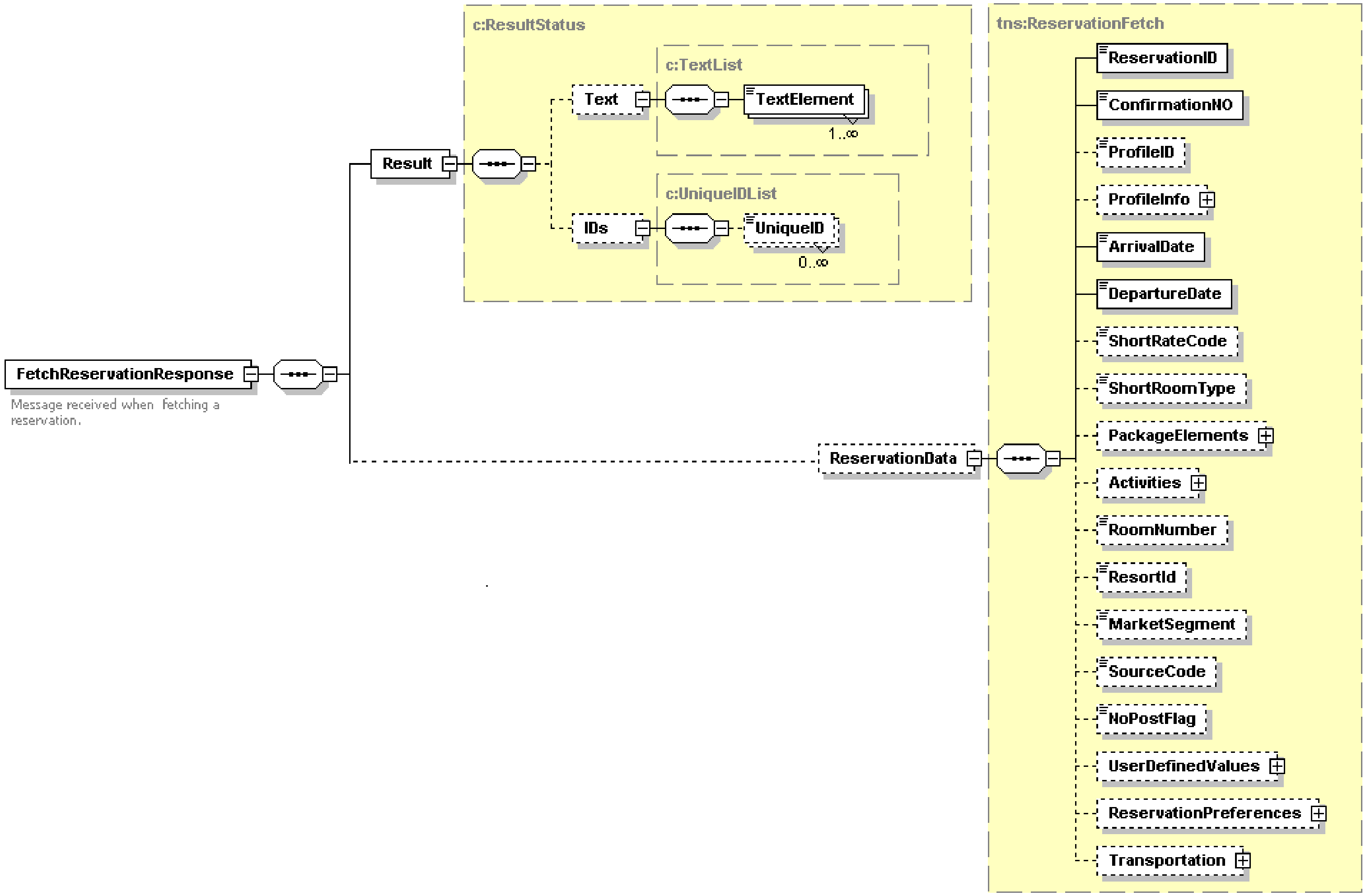
FetchReservationRequest


FetchReservationRequest
Message sent when fetching a reservation.
ReservationID
ResortId

```
<xs:element name="FetchReservationRequest">
    <xs:annotation>
    <xs:documentation>Message sent when fetching a reservation.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="ReservationID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueID" />
            <xs:element minOccurs="0" name="ResortId" type="xs:string" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ReservationID	element	UniqueID	required	The reservation ID to fetch.
ResortId	element	string	optional	The property code.

FetchReservationResponse


c:ResultStatus
c:TextList
Text
TextElement
1..∞
Result
c:UniqueIDList
IDs
UniqueID
0..∞
FetchReservationResponse
Message received when fetching a reservation.
ReservationData
tns:ReservationFetch
ReservationID
ConfirmationNO
ProfileID
ProfileInfo
ArrivalDate
DepartureDate
ShortRateCode
ShortRoomType
PackageElements
Activities
RoomNumber
ResortId
MarketSegment
SourceCode
NoPostFlag
UserDefinedValues
ReservationPreferences
Transportation

```
<xs:element name="FetchReservationResponse">
    <xs:annotation>
    <xs:documentation>Message received when fetching a reservation.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
            <xs:element minOccurs="0" name="ReservationData" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
            type="q2:ReservationFetch" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	Type	Data Type	Use	Comments
Result	element	ResultStatus	required	The result of the operation.
ReservationData	element	ReservationFetch	optional	Reservation details.

ReservationFetch

```
<xs:complexType name="ReservationFetch">
    <xs:annotation>
    <xs:documentation>Data returned when fetching a reservation.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element name="ReservationID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueID" />
        <xs:element name="ConfirmationNO" type="xs:string" />
        <xs:element minOccurs="0" name="ProfileID" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:UniqueID" />
        <xs:element minOccurs="0" name="ProfileInfo" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:PersonName" />
        <xs:element name="ArrivalDate" type="xs:dateTime" />
        <xs:element name="DepartureDate" type="xs:dateTime" />
        <xs:element minOccurs="0" name="ShortRateCode" type="xs:string" />
        <xs:element minOccurs="0" name="ShortRoomType" type="xs:string" />
        <xs:element minOccurs="0" name="PackageElements" xmlns:q4="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
            type="q4:PackageElementList" />
        <xs:element minOccurs="0" name="Activities" xmlns:q5="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" type="q5:ActivityList" />
        <xs:element minOccurs="0" name="RoomNumber" type="xs:string" />
        <xs:element minOccurs="0" name="ResortId" type="xs:string" />
        <xs:element minOccurs="0" name="MarketSegment" type="xs:string" />
        <xs:element minOccurs="0" name="SourceCode" type="xs:string" />
        <xs:element minOccurs="0" name="NoPostFlag" type="xs:boolean" />
        <xs:element minOccurs="0" name="UserDefinedValues" xmlns:q6="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
            type="q6:UserDefinedValueList" />
        <xs:element minOccurs="0" name="ReservationPreferences" xmlns:q7="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
            type="q7:PreferenceList" />
        <xs:element minOccurs="0" name="Transportation" xmlns:q8="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
            type="q8:TransportationList" />
    </xs:sequence>
    <xs:attribute name="reservationStatus" xmlns:q9="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q9:ReservationStatusType"
        use="required" />
    <xs:attribute name="otherReservationStatus" type="xs:string" use="optional" />
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
reservationStatus	attribute	ReservationStatusType	required	The reservation status.
otherReservationStatus	attribute	string	optional	Not used.
ReservationID	element	UniqueID	required	The internal reservation ID.

ConfirmationNO	element	string	required	The confirmation number.
ProfileID	element	UniqueID	optional	The primary guest profile ID.
ProfileInfo	element	PersonName	optional	The primary guest name.
ArrivalDate	element	dateTime	required	The arrival date.
DepartureDate	element	dateTime	required	The departure date.
ShortRateCode	element	string	optional	The reservatuib rate code.
ShortRoomType	element	string	optional	The room type description.
PackageElements	element	PackageElementList	optional	A collection of package elements.
Activities	element	ActivityList	optional	A collection of activities.
RoomNumber	element	string	optional	The room number.
ResortId	element	string	optional	The property code.
MarketSegment	element	string	optional	The market segment code.
SourceCode	element	string	optional	The source code.
NoPostFlag	element	boolean	optional	True or False.
UserDefinedValues	element	UserDefinedValueList	optional	A collection of user defined value elements.
ReservationPreferences	element	PreferenceList	optional	A collection of preferences attached to the reservation.
Transportation	element	TransportationList	optional	A collection of transportation elements for the reservation.

PackageElementList

```
<xs:complexType name="PackageElementList">
    <xs:annotation>
    <xs:documentation>A collection of packages attached to a reservation.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element maxOccurs="unbounded" name="PackageElement" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
            type="q1:PackageElement" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
PackageElement	element	PackageElement	required/ multiple	A collection of PackageElement records.

PackageElement

```
<xs:complexType name="PackageElement">
    <xs:annotation>
    <xs:documentation>Package data attached to a reservation.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element name="ElementCode" type="xs:string" />
        <xs:element name="ElementDescription" type="xs:string" />
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
ElementCode	element	string	required	Package element code.
ElementDescription	element	string	required	Package element description.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#FetchReservation</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:261335f2-bd1d-49e6-96b4-8fcdf2137f8a</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-d99e21bf-1227-410c-bea3-d8705adcf032">
                <wsu:Created>2006-11-02T20:22:14Z</wsu:Created>
                <wsu:Expires>2008-11-02T20:27:14Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
6f2c0e7f-ac98-4ea3-a726-d67076fc9c72">
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>IWGqOAykiUQXnWN5x1wS9Q==</wsse:Nonce>
                <wsu:Created>2006-11-02T20:22:14Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <FetchReservationRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types
```

```
D:\htng\Reservation.xsd">
            <ReservationID source="OPERA">1621229</ReservationID>
            <ResortId>HTNG1</ResortId>
        </FetchReservationRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

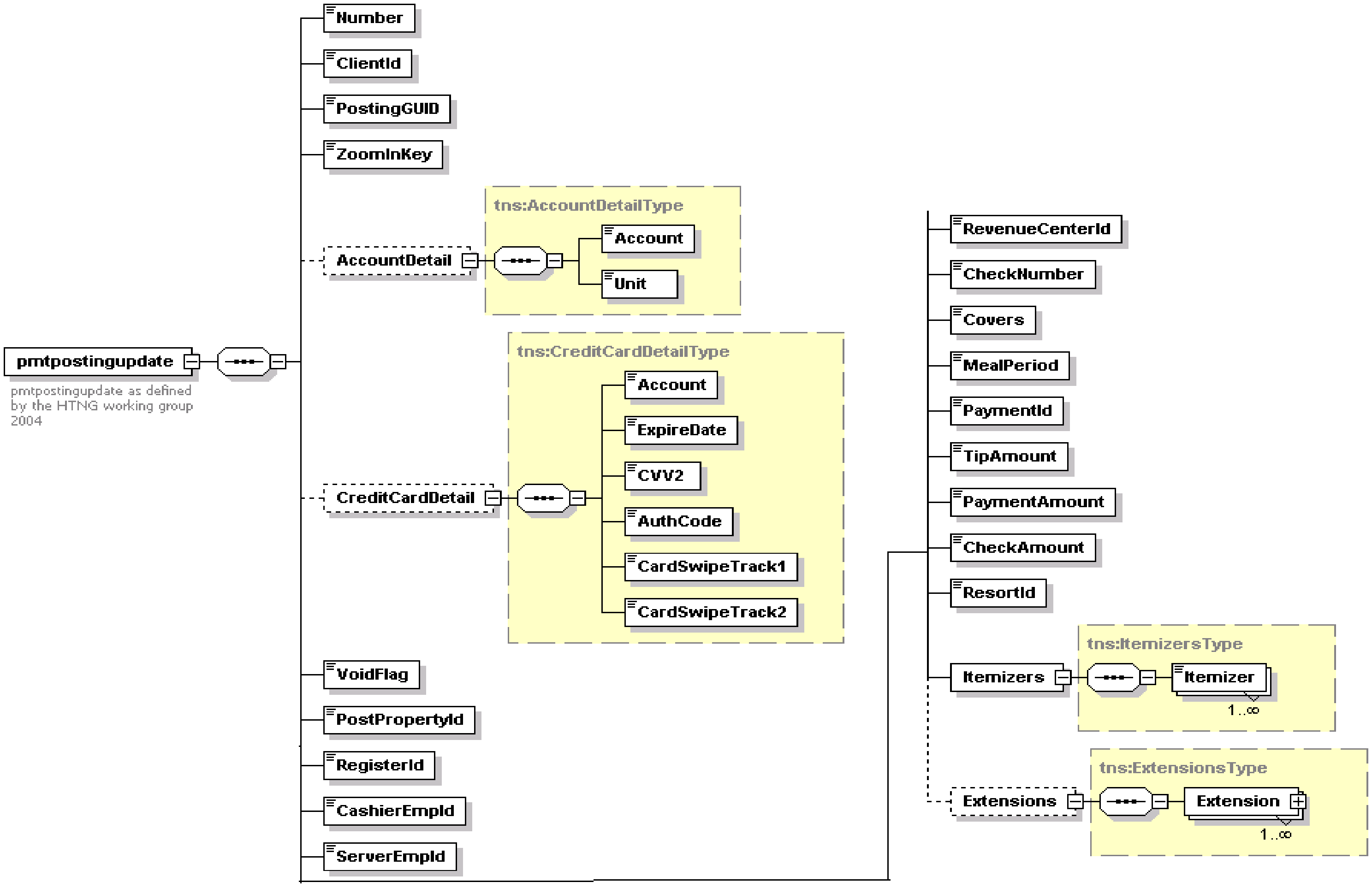
```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#FetchReservationResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:ff184ca9-18c0-4ce0-bab1-4b6dbb394135</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:261335f2-bd1d-49e6-96b4-8fcdf2137f8a</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-cd3c3098-f9c9-4c35-bb1d-a3e4b020e8f6">
                <wsu:Created>2006-11-14T13:13:45Z</wsu:Created>
                <wsu:Expires>2006-11-14T13:18:45Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <FetchReservationResponse xmlns:r="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:n="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:p="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types">
            <r:Result resultStatusFlag="SUCCESS"/>
            <r:ReservationData reservationStatus="RESERVED">
                <r:ReservationID source="OPERA">1621229</r:ReservationID>
                <r:ConfirmationNO>2970872</r:ConfirmationNO>
                <r:ProfileID source="OPERA">450018</r:ProfileID>
                <r:ProfileInfo>
                    <c:FirstName>TIM</c:FirstName>
                    <c:LastName>VANCE</c:LastName>
                </r:ProfileInfo>
                <r:ArrivalDate>2006-12-01T00:00:00</r:ArrivalDate>
                <r:DepartureDate>2006-12-05T00:00:00</r:DepartureDate>
                <r:ShortRateCode>QUEEN</r:ShortRateCode>
                <r:ShortRoomType>QUEEN</r:ShortRoomType>
                <r:ResortId>HTNG1</r:ResortId>
            </r:ReservationData>
        </FetchReservationResponse>
    </soap:Body>
</soap:Envelope>
```

13.3 Post Payment

The post payment message is used to add a charge to the guest folio. This message is generated by a Posting System and sent to the Folio System. In many instances, the Posting System role is performed by the Activity Reservation System and the Folio System is actually handled by the Accommodation Reservation System. The requesting system sends a PostPayment (pmtpostingupdate) request, and receives back a PostPaymentResponse (pmtpostingresults) response message.

Port	ReservationProviderPortType
Binding	ReservationProviderBinding
Operation	PostPayment
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#PostPayment
Input	PostPaymentRequest
Output	PostPaymentResponse
Primary Schema	PmtPosting.xsd
Role(s) Implemented	Folio System

PostPaymentRequest


pmtpostingupdate
pmtpostingupdate as defined by the HTNG working group 2004
Number
ClientId
PostingGUID
ZoomInKey
AccountDetail
tns:AccountDetailType
Account
Unit
tns:CreditCardDetailType
CreditCardDetail
Account
ExpireDate
CVV2
AuthCode
CardSwipeTrack1
CardSwipeTrack2
VoidFlag
PostPropertyId
RegisterId
CashierEmpId
ServerEmpId
RevenueCenterId
CheckNumber
Covers
MealPeriod
PaymentId
TipAmount
PaymentAmount
CheckAmount
ResortId
tns:ItemizersType
Itemizers
Itemizer
1..∞
tns:ExtensionsType
Extensions
Extension
1..∞

```
<xs:element name="pmtpostingupdate">
    <xs:annotation>
    <xs:documentation>pmtpostingupdate as defined by the HTNG working group 2004</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Number">
```

```
                <xs:complexType>
                    <xs:simpleContent>
                        <xs:extension base="xs:string">
                            <xs:attribute name="type" use="required">
                                <xs:simpleType>
                                    <xs:restriction base="xs:NMTOKEN">
                                        <xs:enumeration value="unit" />
                                        <xs:enumeration value="resno" />
                                    </xs:restriction>
                                </xs:simpleType>
                            </xs:attribute>
                        </xs:extension>
                    </xs:simpleContent>
                </xs:complexType>
            </xs:element>
            <xs:element name="ClientId" type="xs:string" />
            <xs:element name="PostingGUID" type="xs:string" />
            <xs:element name="ZoomInKey" type="xs:string" />
            <xs:element minOccurs="0" name="AccountDetail" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
                type="q1:AccountDetailType" />
            <xs:element minOccurs="0" name="CreditCardDetail" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
                type="q2:CreditCardDetailType" />
            <xs:element name="VoidFlag" type="xs:boolean" />
            <xs:element name="PostPropertyId" type="xs:unsignedInt" />
            <xs:element name="RegisterId" type="xs:unsignedInt" />
            <xs:element name="CashierEmpId" type="xs:unsignedLong" />
            <xs:element name="ServerEmpId" type="xs:unsignedLong" />
            <xs:element name="RevenueCenterId" type="xs:unsignedLong" />
            <xs:element name="CheckNumber" type="xs:unsignedInt" />
            <xs:element name="Covers" type="xs:int" />
            <xs:element name="MealPeriod" type="xs:unsignedInt" />
            <xs:element name="PaymentId" type="xs:unsignedLong" />
            <xs:element name="TipAmount" type="xs:int" />
            <xs:element name="PaymentAmount" type="xs:int" />
            <xs:element name="CheckAmount" type="xs:int" />
            <xs:element name="ResortId" type="xs:string" />
            <xs:element name="Itemizers" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types" type="q3:ItemizersType" />
            <xs:element minOccurs="0" name="Extensions" xmlns:q4="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
                type="q4:ExtensionsType" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Number	element		required	Identifies the account, room, unit, folio, or reservation to post the charge to. The context of the number is determined by the “Type” attribute, which is one of *unit* or *resno*.
ClientId	element	string	required	The ID from the requesting system.

PostingGUID	element	string	required	A unique identifier for the posting generated by the requesting system.
ZoomInKey	element	string	required	A key which can be used by the receiving system to acquire additional details for the posting.
AccountDetail	element	AccountDetailType	optional	A record which contains detailed account data such as a particular revenue bucket.
CreditCardDetail	element	CreditCardDetailType	optional	Credit card details.
VoidFlag	element	boolean	required	Flag to indicate refund (reversal) posting.
PostPropertyId	element	unsignedInt	required	Property code.
RegisterId	element	unsignedInt	required	Register ID.
CashierEmpId	element	unsignedLong	required	Cashier employee ID.
ServerEmpId	element	unsignedLong	required	Server employee ID.
RevenueCenterId	element	unsignedLong	required	Revenue center in the POS.
CheckNumber	element	unsignedInt	required	Check number.
Covers	element	int	required	The total number of guests on the check.
MealPeriod	element	unsignedInt	required	Meal period.
PaymentId	element	unsignedLong	required	Payment method ID.
TipAmount	element	int	required	Tip amount.
PaymentAmount	element	int	required	Total payment including tip.
CheckAmount	element	int	required	Check amount.
ResortId	element	string	required	Property ID.
Itemizers	element	ItemizersType	required	A list of financial classes, types, and amounts that represents the breakdown of the financial data for the transaction.
Extensions	element	ExtensionsType	optional	Optional system implemented data.

AccountDetailType

```
<xs:complexType name="AccountDetailType">
    <xs:annotation>
    <xs:documentation> Contains the details about the account to be used for posting the payment</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element name="Account" type="xs:string" />
        <xs:element name="Unit" type="xs:string" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**

Account	element	string	required	Posting account number.
Unit	element	string	required	Room number.

CreditCardDetailType

```xml
<xs:complexType name="CreditCardDetailType">
    <xs:annotation>
    <xs:documentation>Holds credit card information</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element name="Account" type="xs:string" />
        <xs:element name="ExpireDate" type="xs:string" />
        <xs:element name="CVV2" type="xs:string" />
        <xs:element name="AuthCode" type="xs:string" />
        <xs:element name="CardSwipeTrack1" type="xs:string" />
        <xs:element name="CardSwipeTrack2" type="xs:string" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Account	element	string	required	Credit card account number.
ExpireDate	element	string	required	Expiration date in YYMM format.
CVV2	element	string	required	CVV2 data.
AuthCode	element	string	required	Authorization code from authorizing agency.
CardSwipeTrack1	element	string	required	MSR track 1 data.
CardSwipeTrack2	element	string	required	MSR track 2 data.

ItemizersType

```xml
<xs:complexType name="ItemizersType">
    <xs:sequence>
        <xs:element maxOccurs="unbounded" name="Itemizer" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
            type="q1:ItemizerType" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Itemizer	element	ItemizerType	required/ multiple	A collection of itemizer records.

ItemizerType

```xml
<xs:complexType name="ItemizerType">
    <xs:simpleContent>
        <xs:extension base="xs:int">
            <xs:attribute name="class" use="required">
                <xs:simpleType>
```

```
                    <xs:restriction base="xs:NMTOKEN">
                        <xs:enumeration value="discount" />
                        <xs:enumeration value="gratuity" />
                        <xs:enumeration value="sales" />
                        <xs:enumeration value="serviceCharge" />
                        <xs:enumeration value="tax" />
                    </xs:restriction>
                </xs:simpleType>
            </xs:attribute>
            <xs:attribute name="id" type="xs:unsignedInt" use="required" />
            <xs:attribute name="name" type="xs:string" use="required" />
        </xs:extension>
    </xs:simpleContent>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ItemizerType	extension	int		The itemizer type.
class	attribute		required	The financial class. Valid values are *discount*, *gratuity*, *sales*, *serviceCharge*, and *tax*.
id	attribute	unsignedInt	required	The subtype within the class.
name	attribute	string	required	A description of the itemizer value.

ExtensionsType

```
<xs:complexType name="ExtensionsType">
    <xs:sequence>
        <xs:element maxOccurs="unbounded" name="Extension" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
            type="q1:ExtensionType" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Extension	element	ExtensionType	required/ multiple	A colelction of ExtensionType elements.

ExtensionType

```
<xs:complexType name="ExtensionType">
    <xs:choice>
        <xs:element name="MenuItemList" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types" type="q1:MenuItemListType" />
        <xs:element name="ReceiptImage" type="xs:string" />
        <xs:element name="SignatureImage" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types" type="q2:SignatureImageType"
            />
    </xs:choice>
    <xs:attribute name="class" use="required">
        <xs:simpleType>
            <xs:restriction base="xs:NMTOKEN">
                <xs:enumeration value="menuitemdetail" />
                <xs:enumeration value="receiptimage" />
                <xs:enumeration value="signatureimage" />
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
class	attribute		required	Identifies the type of extension. One of *menuitemdetail*, *receiptimage*, or *signatureimage*.
MenuItemList	element	MenuItemListType	required	A collection of menuitems.
ReceiptImage	element	string	required	A text image of the printed receipt.
SignatureImage	element	SignatureImage Type	required	Signature capture image.

MenuItemListType

```
<xs:complexType name="MenuItemListType">
    <xs:sequence>
        <xs:element maxOccurs="unbounded" name="MenuItem" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
            type="q1:MenuItemType" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
MenuItem	element	MenuItemType	required/ multiple	A collection of menuitems.

MenuItemType

```
<xs:complexType name="MenuItemType">
    <xs:sequence>
        <xs:element name="id" type="xs:string" />
        <xs:element name="name" type="xs:string" />
        <xs:element name="qty" type="xs:int" />
        <xs:element name="price" type="xs:int" />
        <xs:element name="extPrice" type="xs:int" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
id	element	string	required	The menu item identifier.
name	element	string	required	The name of the menu item.
qty	element	int	required	The quanty sold.
price	element	int	required	The menu price for a single item.

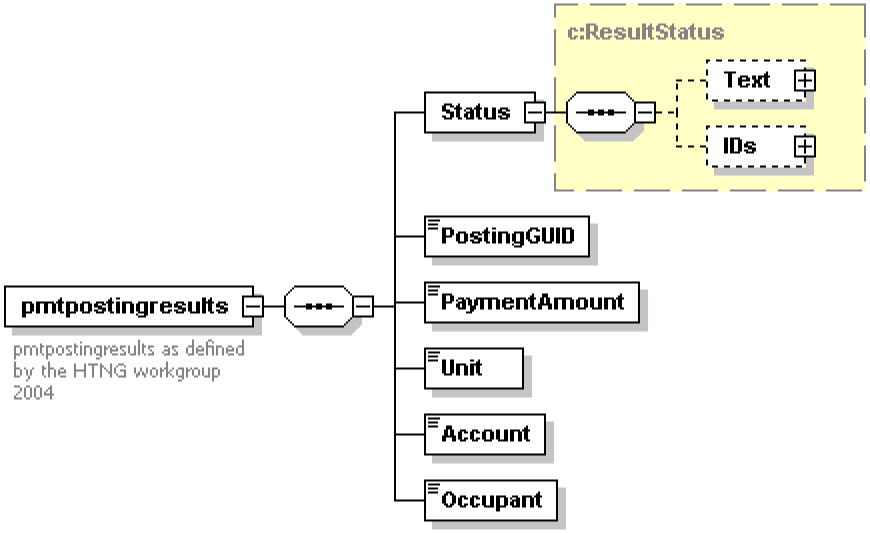
extPrice	element	int	required	Extension of quantity * price.

SignatureImageType

```
<xs:complexType name="SignatureImageType">
    <xs:simpleContent>
        <xs:extension base="xs:string">
            <xs:attribute name="encoding" type="xs:string" use="required" />
            <xs:attribute name="imageFormat" type="xs:string" use="required" />
        </xs:extension>
    </xs:simpleContent>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
SignatureImageType	extension	string		Contains the signature data.
encoding	attribute	string	required	Defines the format of the data.
imageFormat	attribute	string	required	Defines the format of the data.

PostPaymentResponse


c:ResultStatus
Text
IDs
Status
PostingGUID
PaymentAmount
Unit
Account
Occupant
pmtpostingresults
pmtpostingresults as defined by the HTNG workgroup 2004

pmtpostingresults

```
<xs:element name="pmtpostingresults">
    <xs:annotation>
    <xs:documentation>pmtpostingresults as defined by the HTNG workgroup 2004</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Status" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
            <xs:element name="PostingGUID" type="xs:string" />
            <xs:element name="PaymentAmount" type="xs:int" />
            <xs:element name="Unit" type="xs:string" />
            <xs:element name="Account" type="xs:string" />
            <xs:element name="Occupant" type="xs:string" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Status	element	ResultStatus	required	The result of the posting.
PostingGUID	element	string	required	Return of the submitted GUID.
PaymentAmount	element	int	required	The total payment amount.
Unit	element	string	required	The unit posted to.
Account	element	string	required	The account posted to.
Occupant	element	string	required	The name of the occupant.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#PostPayment</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:a57205c6-61b4-47ab-aef7-424ab4c0ac5e</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-4b9231cb-8bfd-468a-8380-9b38e4191ad2">
                <wsu:Created>2006-11-02T19:52:58Z</wsu:Created>
                <wsu:Expires>2006-11-02T19:57:58Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
d4f5d827-3e6f-47f9-a510-540377f74faa">
```

```
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>eceBCgHaKyvv2r8c6JaMwg==</wsse:Nonce>
                <wsu:Created>2006-11-02T19:52:58Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <pmtpostingupdate xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
            <Number type="resno">1620979</Number>
            <ClientId>604</ClientId>
            <PostingGUID>821072F0360F44B1A583F94F16D252E</PostingGUID>
            <ZoomInKey>1354</ZoomInKey>
            <AccountDetail>
                <Account>1620979</Account>
                <Unit>10</Unit>
            </AccountDetail>
            <VoidFlag>false</VoidFlag>
            <PostPropertyId>0</PostPropertyId>
            <RegisterId>8</RegisterId>
            <CashierEmpId>98</CashierEmpId>
            <ServerEmpId>98</ServerEmpId>
            <RevenueCenterId>1</RevenueCenterId>
            <CheckNumber>1443</CheckNumber>
            <Covers>1</Covers>
            <MealPeriod>1</MealPeriod>
            <PaymentId>5</PaymentId>
            <TipAmount>4091</TipAmount>
            <PaymentAmount>5113</PaymentAmount>
            <CheckAmount>5113</CheckAmount>
            <ResortId>HTNG1</ResortId>
            <Itemizers>
                <Itemizer id="2" name="Spa Activities" class="sales">4091</Itemizer>
                <Itemizer id="1" name="serviceCharge" class="serviceCharge">409</Itemizer>
                <Itemizer id="1" name="tax1" class="tax">286</Itemizer>
                <Itemizer id="2" name="tax2" class="tax">327</Itemizer>
            </Itemizers>
            <Extensions>
                <Extension class="menuitemdetail">
                    <MenuItemList>
                        <MenuItem>
                            <id>49</id>
                            <name>Botanical Bath</name>
                            <qty>100</qty>
                            <price>4500</price>
                            <extPrice>5113</extPrice>
                        </MenuItem>
                    </MenuItemList>
                </Extension>
            </Extensions>
        </pmtpostingupdate>
    </soap:Body>
</soap:Envelope>
```

[Response]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#PostPaymentResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:2676f529-5f9a-4214-a1da-b9320f615b0c</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:a57205c6-61b4-47ab-aef7-424ab4c0ac5e</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-c52ca723-8c70-45a7-a80e-012543bf3feb">
                <wsu:Created>2006-11-02T19:51:44Z</wsu:Created>
                <wsu:Expires>2006-11-02T19:56:44Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <pmtpostingresults xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types">
            <Status resultStatusFlag="SUCCESS"/>
            <PostingGUID>821072F0360F44B1A583F94F16D252E</PostingGUID>
            <PaymentAmount>5113</PaymentAmount>
            <Unit>10</Unit>
            <Account>1620979</Account>
        </pmtpostingresults>
    </soap:Body>
</soap:Envelope>
```

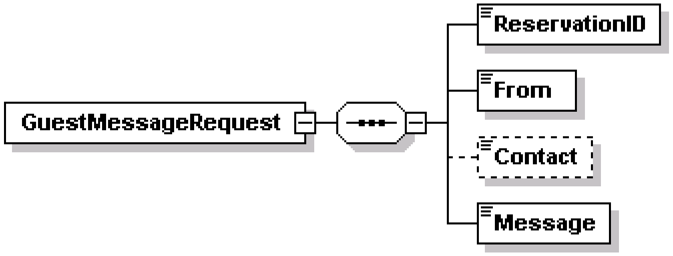
13.4 Guest Message

The guest message function is provided in order to send a message to a guest. This is typically provided by the Accommodation Reservation System and may generate a guest notification, such as turning on the message light in the guest’s room.

Port	ReservationProviderPortType
Binding	ReservationProviderBinding
Operation	GuestMessage
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#GuestMessage
Input	GuestMessageRequest

Output	GuestMessageResponse
Primary Schema	Reservation.xsd
Role(s) Implemented	Accommodation Reservation System

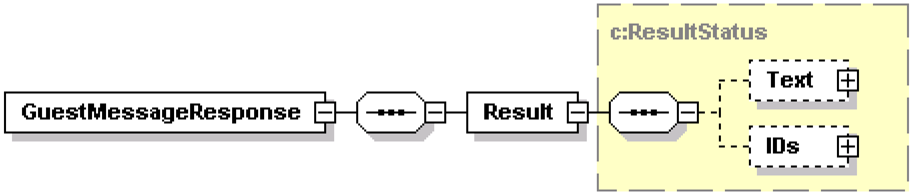
GuestMessageRequest



```
<xs:element name="GuestMessageRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="ReservationID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueID" />
            <xs:element name="From" type="xs:string" />
            <xs:element minOccurs="0" name="Contact" type="xs:string" />
            <xs:element name="Message">
                <xs:complexType>
                    <xs:simpleContent>
                        <xs:extension base="xs:string">
                            <xs:attribute name="notify" type="xs:boolean" use="optional" />
                        </xs:extension>
                    </xs:simpleContent>
                </xs:complexType>
            </xs:element>
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ReservationID	element	UniqueID	required	The reservation ID in the receiving system.
From	element	string	required	Identifies who the message is from.
Contact	element	string	optional	Identifies a contact to respond to.
Message	element		required	The message text and includes a flag to indicate whether a notification should be sent to the guest (for example, to turn on the message light in the guest’s room).

GuestMessageResponse



```
<xs:element name="GuestMessageResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	The result from the operation.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#GuestMessage</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:dc7b1331-9a8b-4fac-af05-8769dd4c8647</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-879a2d3a-aac3-4d47-9143-f63507e7fedb">
                <wsu:Created>2007-01-05T16:19:03Z</wsu:Created>
                <wsu:Expires>2007-01-05T16:24:03Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
ad5a7c5b-dc6e-4526-9e46-d98d4e7980f3">
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>7QlxcSWRwFhg4IjYlWcpHg==</wsse:Nonce>
                <wsu:Created>2007-01-05T16:19:03Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <GuestMessageRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
            <ReservationID source="OPERA">962887</ReservationID>
            <From>Tranquility Spa, Palm Springs, CA</From>
            <Contact>Tripp, Debbie</Contact>
            <Message notify="true">Dear Ms. Tripp, Thank you for visiting our Spa! We hope to see you again soon!</Message>
        </GuestMessageRequest>
    </soap:Body>
</soap:Envelope>
```

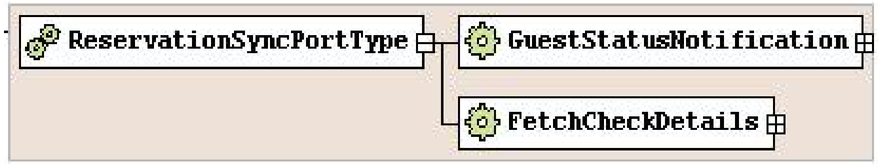
[Response]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#GuestMessageResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:029efdba-e51e-4c44-82e0-96195e0ca942</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:dc7b1331-9a8b-4fac-af05-8769dd4c8647</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-c00eea4b-e3dc-4b4f-b21c-8754593fa33e">
                <wsu:Created>2007-01-05T16:21:47Z</wsu:Created>
                <wsu:Expires>2007-01-05T16:26:47Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <GuestMessageResponse xmlns:r="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:n="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:p="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types">
            <r:Result resultStatusFlag="SUCCESS"/>
        </GuestMessageResponse>
    </soap:Body>
</soap:Envelope>
```

Chapter 14 Reservation Sync Port Type

The reservation sync port is provided to allow Accommodation Reservation System to notify of a change in the status of a guest or to provide the details of a guest check image. For instance, the Activity Reservation System may desire to know when a guest has checked in or checked out.

- **GuestStatusNotification** – This message may be sent by the Accommodation Reservation System to notify various changes in a guest's status.
- **FetchCheckDetails** – This message may be sent by the Accommodation Reservation System to fetch the details of a guest check image.



14.1 Guest Status Notification

The guest status notification message is generated by the Accommodation Reservation System to notify the Activity Reservation System of a change in the status of a guest. Status changes such as Checked In or Checked Out may be sent.

Port	ReservationSyncPortType
Binding	ReservationSyncBinding
Operation	GuestStatusNotification
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#GuestStatusNotification
Input	GuestStatusNotificationRequest
Output	GuestStatusNotificationResponse
Primary Schema	Reservation.xsd
Role(s) Implemented	Activity Reservation System

GuestStatusNotificationRequest

```
<xs:element name="GuestStatusNotificationRequest">
    <xs:annotation>
    <xs:documentation>Message sent when executing a guest status notification.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="GuestStatus" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types" type="q1:GuestStatusNotification"
```

```
                />
            </xs:sequence>
        </xs:complexType>
    </xs:element>
```

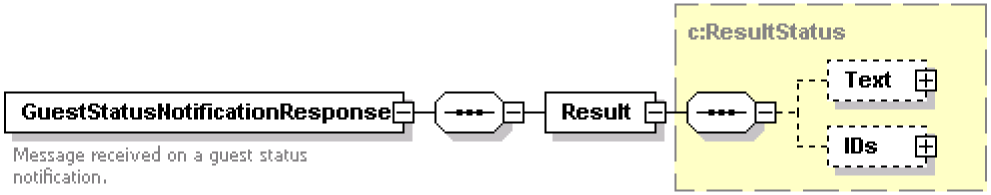
Name	Type	Data Type	Use	Comments
GuestStatus	element	GuestStatusNotification	required	The guest status record.

GuestStatusNotification

```
<xs:complexType name="GuestStatusNotification">
    <xs:sequence>
        <xs:element name="ReservationID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueID" />
        <xs:element minOccurs="0" name="ProfileIDs" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:UniqueIDList" />
        <xs:element name="roomNumber" type="xs:string" />
        <xs:element name="checkInDate" type="xs:dateTime" />
        <xs:element minOccurs="0" name="checkOutDate" type="xs:dateTime" />
        <xs:element minOccurs="0" name="resortId" type="xs:string" />
    </xs:sequence>
    <xs:attribute name="reservationStatus" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:ReservationStatusType"
        use="required" />
    <xs:attribute name="otherReservationStatus" type="xs:string" use="optional" />
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
reservationStatus	attribute	ReservationStatusType	required	The reservation status.
otherReservationStatus	attribute	string	optional	Not used.
ReservationID	element	UniqueID	required	The reservation ID, as defined by the requesting system.
ProfileIDs	element	UniqueIDList	optional	The primary guest profile ID.
roomNumber	element	string	required	The guest’s room number.
checkInDate	element	dateTime	required	The arrival date.
checkOutDate	element	dateTime	optional	The departure date.
resortId	element	string	optional	The resort ID code.

GuestStatusNotificationResponse


c:ResultStatus
GuestStatusNotificationResponse
Result
Text
IDs
Message received on a guest status notification.

```
<xs:element name="GuestStatusNotificationResponse">
    <xs:annotation>
    <xs:documentation>Message received on a guest status notification.</xs:documentation>
    </xs:annotation>
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Result" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	The result from the operation.

Sample Messages

[Request]

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#GuestStatusNotification</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:OPERA</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:39535817-b579-427d-9e19-fb97c2ee51cb</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.springermiller.com/HTNG_2_0/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-959e874e-9adb-438a-aa6d-27d7616b11a1">
                <wsu:Created>2007-02-06T15:31:11Z</wsu:Created>
                <wsu:Expires>2007-02-06T15:36:11Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
3e469327-ccf2-4dbf-a7c2-84fdcbc1d2ea">
                <wsse:Username>OPERA</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
1.0#PasswordText">OPERA</wsse:Password>
                <wsse:Nonce>vbBf4EUhxiEJkxIPkZHedg==</wsse:Nonce>
                <wsu:Created>2007-02-06T15:31:11Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
```

```
        <GuestStatusNotificationRequest xmlns:r="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:n="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:p="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types">
            <r:GuestStatus reservationStatus="RESERVED">
                <r:ReservationID source="OPERA">1003385</r:ReservationID>
                <r:ProfileIDs>
                    <c:UniqueID source="OPERA">5617209</c:UniqueID>
                </r:ProfileIDs>
                <r:checkInDate>2007-02-04T00:00:00</r:checkInDate>
                <r:checkOutDate>2007-02-07T00:00:00</r:checkOutDate>
            </r:GuestStatus>
        </GuestStatusNotificationRequest>
    </soap:Body>
</soap:Envelope>
```

[Response]

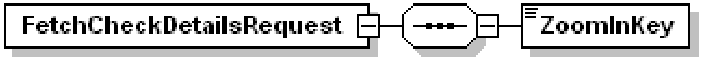
```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B/SingleGuestItinerary#GuestStatusNotificationResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:54a0d7a6-5a44-4075-aa79-8b3de55b4ae4</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:39535817-b579-427d-9e19-fb97c2ee51cb</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-883fbd19-c3cf-48fa-8649-302d550cddaa">
                <wsu:Created>2007-02-06T15:32:43Z</wsu:Created>
                <wsu:Expires>2007-02-06T15:37:43Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <GuestStatusNotificationResponse xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/Reservation/Types"
xmlns:a="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types">
            <Result code="" resultStatusFlag="SUCCESS">
                <c:Text>
                    <c:TextElement language="en"/>
                </c:Text>
                <c:IDs>
                    <c:UniqueID source="OPERA">5617209</c:UniqueID>
                </c:IDs>
            </Result>
        </GuestStatusNotificationResponse>
    </soap:Body>
</soap:Envelope>
```

14.2 Fetch Check Details

The fetch check details message is generated by the Accommodation Reservation System to provide the details of a guest check image. The requesting system submits a FetchCheckDetailsRequest message, and the responding system returns a FetchChecketailsResponse message. If successful, the response message will include the details of the guest check image.

Port	ReservationSyncPortType
Binding	ReservationSyncBinding
Operation	FetchCheckDetails
Soap Action	http://htng.org/PWS/2008B/SingleGuestItinerary#FetchCheckDetails
Input	FetchCheckDetailsRequest
Output	FetchCheckDetailsResponse
Primary Schema	Reservation.xsd
Role(s) Implemented	Accommodation Reservation System

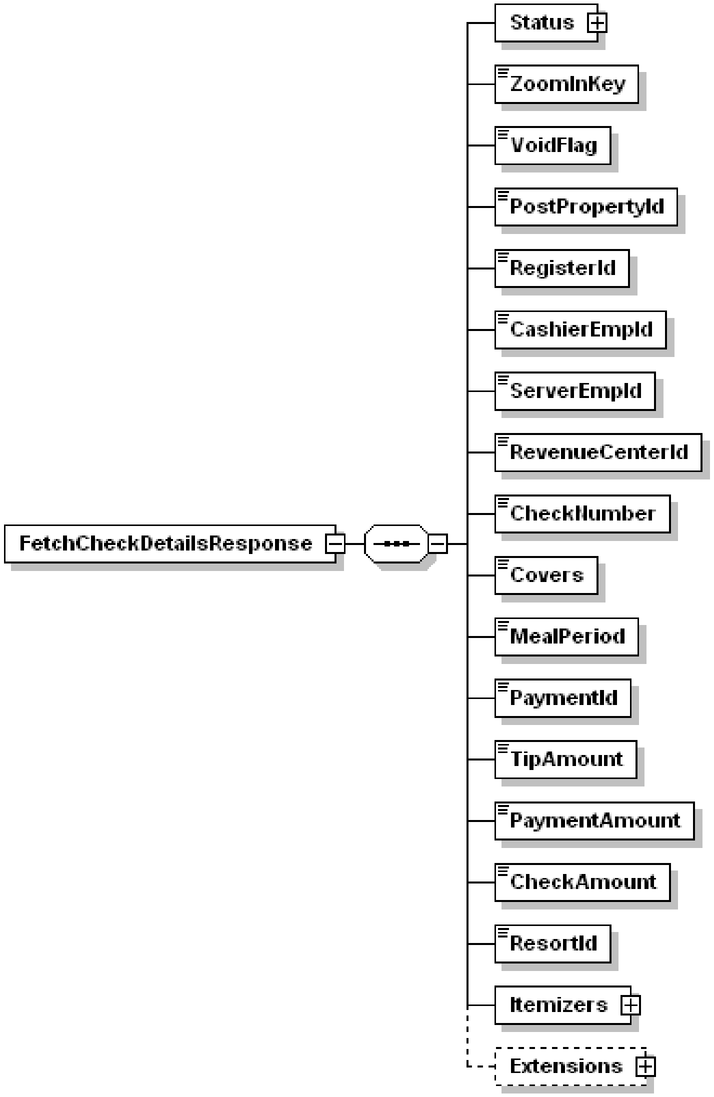
FetchCheckDetailsRequest



```
<xs:element name="FetchCheckDetailsRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="ZoomInKey" type="xs:string" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ZoomInKey	element	string	required	A key which can be used by the receiving system to acquire additional details for the check.

FetchCheckDetailsResponse


FetchCheckDetailsResponse
Status
ZoomInKey
VoidFlag
PostPropertyId
RegisterId
CashierEmpId
ServerEmpId
RevenueCenterId
CheckNumber
Covers
MealPeriod
PaymentId
TipAmount
PaymentAmount
CheckAmount
ResortId
Itemizers
Extensions

```
<xs:element name="FetchCheckDetailsResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="Status" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:ResultStatus" />
```

```
      <xs:element name="ZoomInKey" type="xs:string" />
      <xs:element name="VoidFlag" type="xs:boolean" />
      <xs:element name="PostPropertyId" type="xs:unsignedInt" />
      <xs:element name="RegisterId" type="xs:unsignedInt" />
      <xs:element name="CashierEmpId" type="xs:unsignedLong" />
      <xs:element name="ServerEmpId" type="xs:unsignedLong" />
      <xs:element name="RevenueCenterId" type="xs:unsignedLong" />
      <xs:element name="CheckNumber" type="xs:unsignedInt" />
      <xs:element name="Covers" type="xs:int" />
      <xs:element name="MealPeriod" type="xs:unsignedInt" />
      <xs:element name="PaymentId" type="xs:unsignedLong" />
      <xs:element name="TipAmount" type="xs:int" />
      <xs:element name="PaymentAmount" type="xs:int" />
      <xs:element name="CheckAmount" type="xs:int" />
      <xs:element name="ResortId" type="xs:string" />
      <xs:element name="Itemizers" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types" type="q2:ItemizersType" />
      <xs:element minOccurs="0" name="Extensions" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
        type="q3:ExtensionsType" />
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Status	element	ResultStatus	required	An indication of the success or failure of the called function.
ZoomInKey	element	string	required	A key which can be used by the receiving system to acquire additional details for the check.
VoidFlag	element	boolean	required	Flag to indicate refund (reversal) posting.
PostPropertyId	element	unsignedInt	required	The ID of the posting property.
RegisterId	element	unsignedInt	required	The register ID code.
CashierEmpId	element	unsignedLong	required	The the cashier ID code.
ServerEmpId	element	unsignedLong	required	The server employee ID code.
RevenueCenterId	element	unsignedLong	required	The revenue center ID code in the POS.
CheckNumber	element	unsignedInt	required	The check number.
Covers	element	int	required	The number of people on the check.
MealPeriod	element	unsignedInt	required	The meal period, such as breakfast, lunch, or dinner.
PaymentId	element	unsignedLong	required	The payment ID code.
TipAmount	element	int	required	The tip amount.
PaymentAmount	element	int	required	The payment amount.
CheckAmount	element	int	required	The check amount.
ResortId	element	string	required	The resort ID code.

Itemizers	element	ItemizersType	required	The number of items on the check.
Extensions	element	ExtensionsType	optional	Optional system implemented data.

Sample Messages

Request

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWS/2008B//SingleGuestItinerary#FetchCheckDetailsRequest</wsa:Action>
        <wsa:From>
            <wsa:Address>urn:SPASOFT</wsa:Address>
        </wsa:From>
        <wsa:MessageID>urn:uuid:261335f2-bd1d-49e6-96b4-8fcdf2137f8a</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://htng.org/PWS/2008B/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://www.micros.com/HTNGActivity/</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-d99e21bf-1227-410c-bea3-d8705adcf032">
                <wsu:Created>2006-11-02T20:22:14Z</wsu:Created>
                <wsu:Expires>2006-11-02T20:27:14Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-6f2c0e7f-ac98-4ea3-a726-d67076fc9c72">
                <wsse:Username>HTNG</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#PasswordText">HTNG</wsse:Password>
                <wsse:Nonce>IWGqOAykiUQXnWN5x1wS9Q==</wsse:Nonce>
                <wsu:Created>2006-11-02T20:22:14Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <FetchCheckDetailsRequest xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
        xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
         xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
         xsi:schemaLocation="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types">
            <ZoomInKey>1234</ZoomInKey>
        </FetchCheckDetailsRequest>
    </soap:Body>
</soap:Envelope>
```

Response

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWSWG/2006/08/SingleGuestItinerary#FetchCheckDetailsResponse</wsa:Action>
        <wsa:MessageID>urn:uuid:114edffa-4634-49fe-93af-a0431ab0f46b</wsa:MessageID>
        <wsa:RelatesTo>urn:uuid:261335f2-bd1d-49e6-96b4-8fcdf2137f8a</wsa:RelatesTo>
        <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
        <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-4f4401bc-e095-4db8-8f34-eb53bd8a656f">
                <wsu:Created>2006-11-02T20:20:52Z</wsu:Created>
                <wsu:Expires>2006-11-02T20:25:52Z</wsu:Expires>
            </wsu:Timestamp>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <FetchCheckDetailsResponse xmlns="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types"
xmlns:c="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://htng.org/PWS/2008B/SingleGuestItinerary/PaymentPosting/Types">
            <Status resultStatusFlag="SUCCESS">
                <c:Text>
                    <c:TextElement language="en-us">en</c:TextElement>
                </c:Text>
                <c:IDs>
                    <c:UniqueID source="String">1234</c:UniqueID>
                </c:IDs>
            </Status>
            <ZoomInKey>1234</ZoomInKey>
            <VoidFlag>1</VoidFlag>
            <PostPropertyId>4</PostPropertyId>
            <RegisterId>23</RegisterId>
            <CashierEmpId>4294967295</CashierEmpId>
            <ServerEmpId>4294967295</ServerEmpId>
            <RevenueCenterId>4294967295</RevenueCenterId>
            <CheckNumber>12560</CheckNumber>
            <Covers>2</Covers>
            <MealPeriod>1</MealPeriod>
            <PaymentId>4294967295</PaymentId>
            <TipAmount>1</TipAmount>
            <PaymentAmount>12</PaymentAmount>
            <CheckAmount>12</CheckAmount>
            <ResortId>CASINO</ResortId>
            <Itemizers>
                <Itemizer class="discount" id="1" name="FOOD">2</Itemizer>
            </Itemizers>
            <Extensions>
```

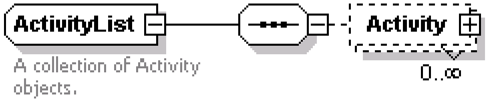
```
                <Extension class="menuitemdetail">
                    <MenuItemList>
                        <MenuItem>
                            <id>10</id>
                            <name>Appetizer</name>
                            <qty>1</qty>
                            <price>10</price>
                            <extPrice>12</extPrice>
                        </MenuItem>
                    </MenuItemList>
                </Extension>
            </Extensions>
        </FetchCheckDetailsResponse>
    </soap:Body>
</soap:Envelope>
```

The Activity Web Service messages share several common data elements. These are consolidated here for reference.

14.3 Activity Schema Elements (Activity.xsd)

Namespace	http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types

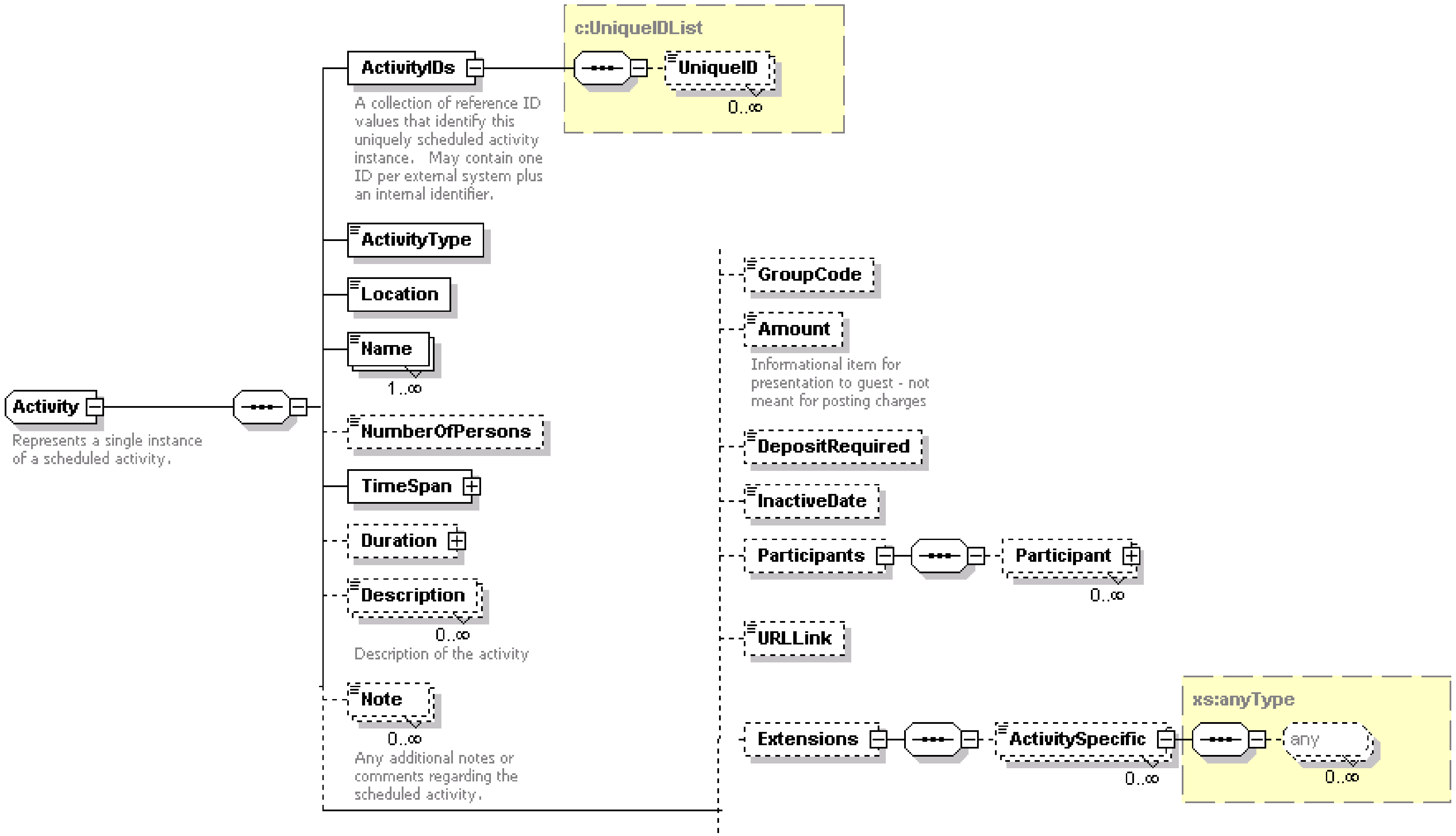
ActivityList



```
<xs:complexType name="ActivityList">
    <xs:annotation>
    <xs:documentation xml:lang="en">A collection of Activity objects.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="Activity">
            <xs:complexType>
                <xs:complexContent mixed="false">
                    <xs:extension xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" base="q1:Activity" />
                </xs:complexContent>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Activity	element		optional/ multiple	A collection (zero or more) of Activity elements.

Activity


c:UniqueIDList
ActivityIDs
UniqueID
0..∞
A collection of reference ID values that identify this uniquely scheduled activity instance. May contain one ID per external system plus an internal identifier.
ActivityType
Location
Name
1..∞
Activity
Represents a single instance of a scheduled activity.
NumberOfPersons
TimeSpan
Duration
Description
0..∞
Description of the activity
Note
0..∞
Any additional notes or comments regarding the scheduled activity.
GroupCode
Amount
Informational item for presentation to guest - not meant for posting charges
DepositRequired
InactiveDate
Participants
Participant
0..∞
URLLink
xs:anyType
Extensions
ActivitySpecific
0..∞
any
0..∞

```
<xs:complexType name="Activity">
    <xs:annotation>
    <xs:documentation xml:lang="en">Represents a single instance of a scheduled activity.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element name="ActivityIDs" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueIDList">
            <xs:annotation>
            <xs:documentation xml:lang="en">A collection of reference ID values that identify this uniquely scheduled activity instance. May contain one ID per
        external system plus an internal identifier.</xs:documentation>
    </xs:annotation>
</xs:element>
<xs:element name="ActivityType" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Activity/Types" type="q2:ActivityType" />
<xs:element name="Location" type="xs:string" />
<xs:element maxOccurs="unbounded" name="Name" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:Text" />
<xs:element minOccurs="0" name="NumberOfPersons" type="xs:int" />
<xs:element name="TimeSpan" xmlns:q4="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q4:TimeSpan" />
<xs:element minOccurs="0" name="Duration" xmlns:q5="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q5:TimeSpan" />
<xs:element minOccurs="0" maxOccurs="unbounded" name="Description" xmlns:q6="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
    type="q6:Text">
    <xs:annotation>
    <xs:documentation>Description of the activity </xs:documentation>
    </xs:annotation>
</xs:element>
<xs:element minOccurs="0" maxOccurs="unbounded" name="Note" xmlns:q7="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
    type="q7:Text">
    <xs:annotation>
    <xs:documentation xml:lang="en">Any additional notes or comments regarding the scheduled activity.</xs:documentation>
    </xs:annotation>
</xs:element>
<xs:element minOccurs="0" name="GroupCode" type="xs:string" />
<xs:element minOccurs="0" name="Amount" xmlns:q8="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q8:Amount">
    <xs:annotation>
    <xs:documentation>Informational item for presentation to guest - not meant for posting charges</xs:documentation>
    </xs:annotation>
</xs:element>
<xs:element minOccurs="0" name="DepositRequired">
    <xs:complexType>
        <xs:simpleContent>
            <xs:extension xmlns:q9="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" base="q9:Amount">
                <xs:attribute name="collectedBy">
                    <xs:simpleType>
                        <xs:restriction base="xs:string">
                            <xs:enumeration value="Vendor" />
                            <xs:enumeration value="Agent" />
                            <xs:enumeration value="Other" />
                        </xs:restriction>
                    </xs:simpleType>
                </xs:attribute>
            </xs:extension>
        </xs:simpleContent>
    </xs:complexType>
</xs:element>
<xs:element minOccurs="0" name="InactiveDate" type="xs:dateTime" />
<xs:element minOccurs="0" name="Participants">
    <xs:complexType>
        <xs:sequence>
            <xs:element minOccurs="0" maxOccurs="unbounded" name="Participant"
```

```
                    xmlns:q10="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q10:PersonName" />
                </xs:sequence>
            </xs:complexType>
        </xs:element>
        <xs:element minOccurs="0" name="URLLink" type="xs:string" />
        <xs:element minOccurs="0" name="Extensions">
            <xs:complexType>
                <xs:sequence>
                    <xs:element minOccurs="0" maxOccurs="unbounded" name="ActivitySpecific" type="xs:anyType" />
                </xs:sequence>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
    <xs:attribute name="status" type="xs:string" use="required" />
</xs:complexType>
```

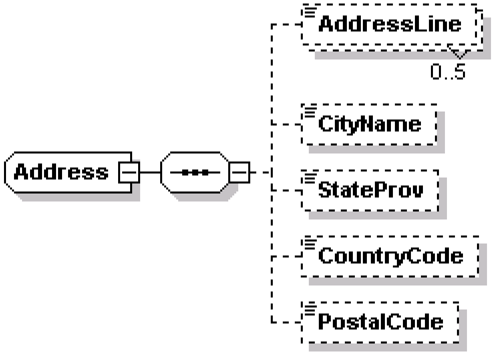
Name	**Type**	**Data Type**	**Use**	**Comments**
status	attribute	string	required	Activity reservation status. Each system may define its own set of values, but typical examples are RESERVED, BOOKED, CANCELLED, and TENTATIVE.
ActivityIDs	element	UniqueIDList	required	One or more IDs that identify the activity record. The source value indicates the creator/owner of the ID.
ActivityType	element	ActivityType	required	The type of activity. Defined values in the schema include: *Golf*, *Class*, *Spa*, *TableReservation*, *Tour*, and *Tennis*. The schema may be extended to include additional values.
Location	element	string	required	The location for the activity. This is implemented as a location code rather than descriptive text.
Name	element	Text	required/ multiple	A short descriptive name for the activity.
NumberOfPersons	element	int	optional	The number of participants scheduled for the activity.
TimeSpan	element	TimeSpan	required	The scheduled start time and length of the activity.
Duration	element	TimeSpan	optional	The length of an activity
Description	element	Text	optional/ multiple	The long description for the activity.
Note	element	Text	optional/ multiple	Additional notes about the activity.
GroupCode	element	string	optional	If applicable, the group code for the activity (for example, in an accommodation reservation system, the allotment or block code).
Amount	element	Amount	optional	The amount charged for the activity.
DepositRequired	element	Amount	optional	The deposit amount collected or required for the activity. This element also includes an identification of the responsible party to collect the

		(extension)		deposit as either: *Vendor*, *Agent*, or *Other*.
InactiveDate	element	dateTime	optional	The timestamp applicable in case the activity is cancelled or deleted. If set, the activity should be considered removed.
Participants	element	PersonName	optional/ multiple	The names of the participants.
URLLink	element	string	optional	The URL link to launch the Activity Reservation System to view or edit full details of this activity.
Extensions	element		optional	Vendor extensions to the activity record.

14.4 Common Schema Elements (Common.xsd)

Namespace	http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types

Address



```
<xs:complexType name="Address">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="5" name="AddressLine" type="xs:string" />
        <xs:element minOccurs="0" name="CityName" type="xs:string" />
        <xs:element minOccurs="0" name="StateProv" type="xs:string" />
        <xs:element minOccurs="0" name="CountryCode" type="xs:string" />
        <xs:element minOccurs="0" name="PostalCode" type="xs:string" />
    </xs:sequence>
    <xs:attribute name="addressType" type="xs:string" />
    <xs:attribute name="otherAddressType" type="xs:string" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
addressType	attribute	string	none	Type of address. Typical values are HOME or BUSINESS, but any internally defined value may be used.

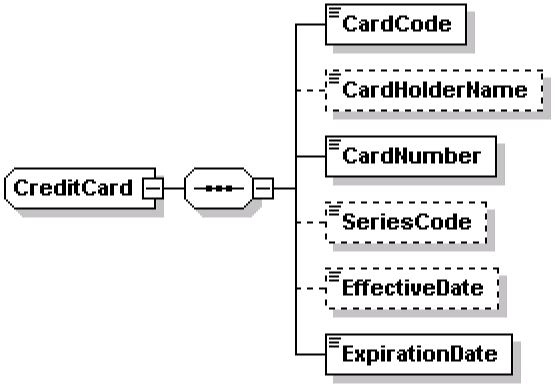
otherAddressType	attribute	string	none	Not currently used.
AddressLine	element	string	optional/ multiple	Up to five address lines may be specified.
CityName	element	string	optional	City.
StateProv	element	string	optional	State.
CountryCode	element	string	optional	Country.
PostalCode	element	string	optional	Postal code.

Amount

```
<xs:complexType name="Amount">
    <xs:simpleContent>
        <xs:extension base="xs:double">
            <xs:attribute name="currencyCode" type="xs:string" />
        </xs:extension>
    </xs:simpleContent>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
Amount	extension	double		The denominational amount.
currencyCode	attribute	string	none	The currency code the amount is expressed in.

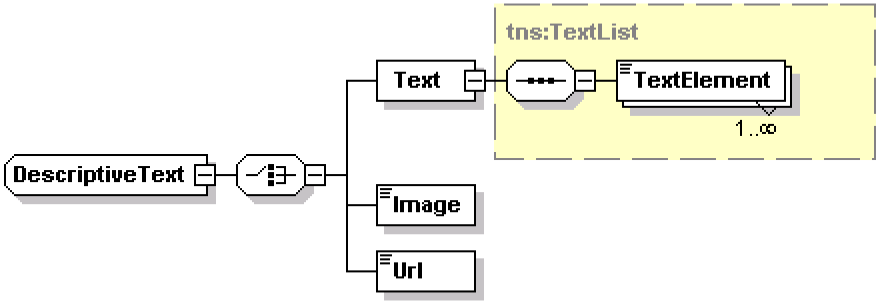
CreditCard


CreditCard
CardCode
CardHolderName
CardNumber
SeriesCode
EffectiveDate
ExpirationDate

```
<xs:complexType name="CreditCard">
    <xs:sequence>
        <xs:element name="CardCode" type="xs:string" />
        <xs:element minOccurs="0" name="CardHolderName" type="xs:string" />
        <xs:element name="CardNumber" type="xs:string" />
        <xs:element minOccurs="0" name="SeriesCode" type="xs:string" />
        <xs:element minOccurs="0" name="EffectiveDate" type="xs:date" />
        <xs:element name="ExpirationDate" type="xs:date" />
    </xs:sequence>
    <xs:attribute name="cardType" type="xs:string" />
    <xs:attribute name="otherCardType" type="xs:string" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
cardType	attribute	string	none	Credit card type.
otherCardType	attribute	string	none	Not used.
CardCode	element	string	required	Credit card code.
CardHolderName	element	string	optional	Card holder name.
CardNumber	element	string	required	Credit card number.
SeriesCode	element	string	optional	Not used.
EffectiveDate	element	date	optional	Effective date.
ExpirationDate	element	date	required	Expiration date.

DescriptiveText

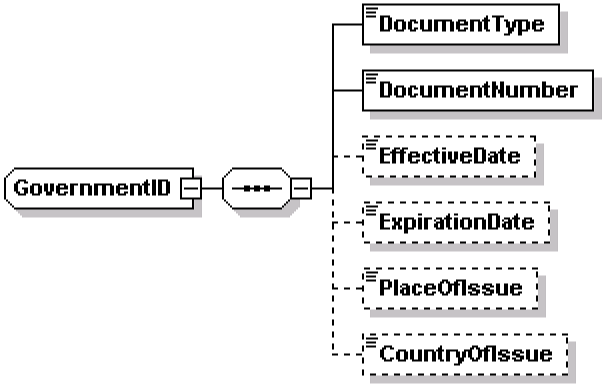


```
<xs:complexType name="DescriptiveText">
    <xs:choice>
        <xs:element name="Text" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:TextList" />
        <xs:element name="Image" type="xs:string" />
        <xs:element name="Url" type="xs:anyURI" />
    </xs:choice>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Text	element	TextList	required	Collection of Text elements (Choice).
Image	element	string	required	Image value (Choice).

Url	element	anyURI	required	URL (Choice).

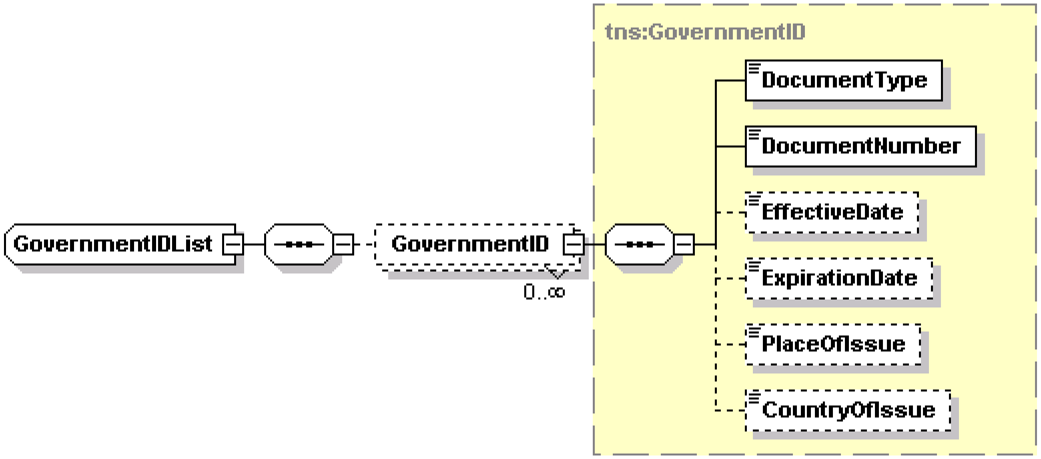
GovernmentID


GovernmentID
DocumentType
DocumentNumber
EffectiveDate
ExpirationDate
PlaceOfIssue
CountryOfIssue

```
<xs:complexType name="GovernmentID">
    <xs:sequence>
        <xs:element name="DocumentType" type="xs:string" />
        <xs:element name="DocumentNumber" type="xs:string" />
        <xs:element minOccurs="0" name="EffectiveDate" type="xs:date" />
        <xs:element minOccurs="0" name="ExpirationDate" type="xs:date" />
        <xs:element minOccurs="0" name="PlaceOfIssue" type="xs:string" />
        <xs:element minOccurs="0" name="CountryOfIssue" type="xs:string" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
DocumentType	element	string	required	The type of document (e.g.,PASSPORT).
DocumentNumber	element	string	required	The document number.
EffectiveDate	element	date	optional	The effective date of the document.
ExpirationDate	element	date	optional	The expiration date of the document.
PlaceOfIssue	element	string	optional	The place of issue.
CountryOfIssue	element	string	optional	The country of issue.

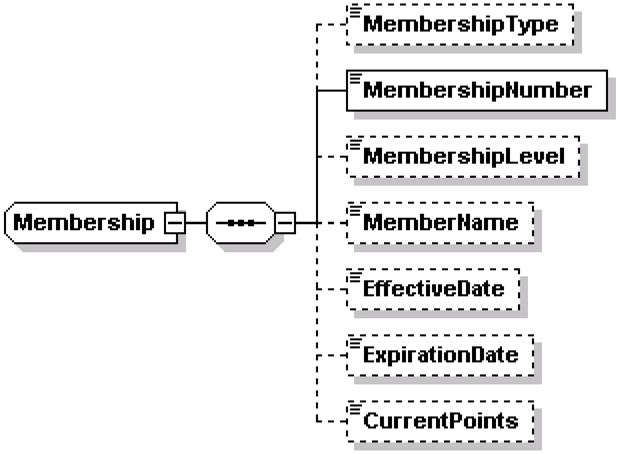
GovernmentIDList


tns:GovernmentID
DocumentType
DocumentNumber
EffectiveDate
ExpirationDate
PlaceOfIssue
CountryOfIssue
GovernmentIDList
GovernmentID
0..∞

```
<xs:complexType name="GovernmentIDList">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="GovernmentID"
            xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:GovernmentID" />
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
GovernmentID	element	GovernmentID	optional/ multiple	A collection of government ID records.

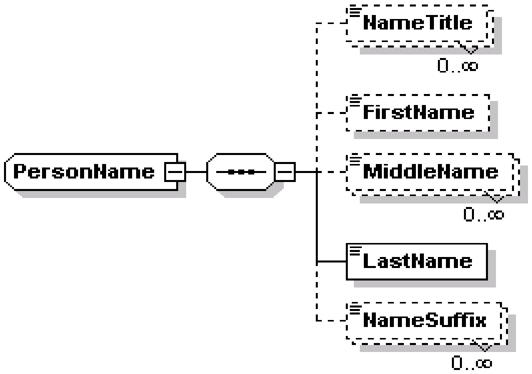
Membership


Membership
MembershipType
MembershipNumber
MembershipLevel
MemberName
EffectiveDate
ExpirationDate
CurrentPoints

```
<xs:complexType name="Membership">
    <xs:sequence>
        <xs:element minOccurs="0" name="MembershipType" type="xs:string" />
        <xs:element name="MembershipNumber" type="xs:string" />
        <xs:element minOccurs="0" name="MembershipLevel" type="xs:string" />
        <xs:element minOccurs="0" name="MemberName" type="xs:string" />
        <xs:element minOccurs="0" name="EffectiveDate" type="xs:date" />
        <xs:element minOccurs="0" name="ExpirationDate" type="xs:date" />
        <xs:element minOccurs="0" name="CurrentPoints" type="xs:long" />
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
MembershipType	element	string	optional	Membership type.
MembershipNumber	element	string	required	Membership number.
MembershipLevel	element	string	optional	Membership level (e.g.,GOLD, PLATINUM).
MemberName	element	string	optional	Member name.
EffectiveDate	element	date	optional	Membership effective date (or start date).
ExpirationDate	element	date	optional	Membership expiration date.
CurrentPoints	element	long	optional	Membership point accumulated.

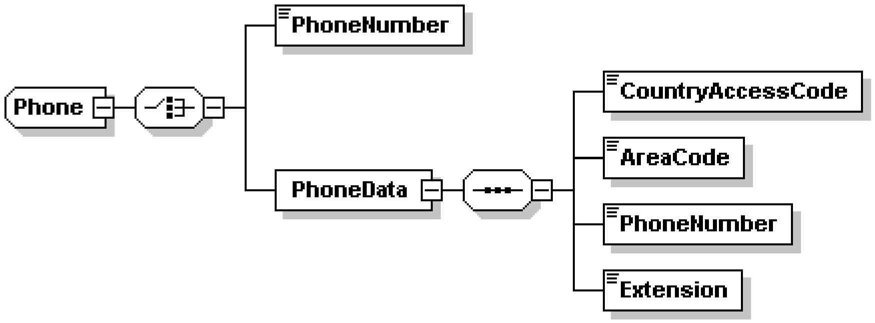
PersonName



```
<xs:complexType name="PersonName">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="NameTitle" type="xs:string" />
        <xs:element minOccurs="0" name="FirstName" type="xs:string" />
        <xs:element minOccurs="0" maxOccurs="unbounded" name="MiddleName" type="xs:string" />
        <xs:element name="LastName" type="xs:string" />
        <xs:element minOccurs="0" maxOccurs="unbounded" name="NameSuffix" type="xs:string" />
    </xs:sequence>
    <xs:attribute name="nameOrdered" type="xs:string" />
    <xs:attribute name="familiarName" type="xs:string" />
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
nameOrdered	attribute	string	none	Not used.
familiarName	attribute	string	none	Familiar name.
NameTitle	element	string	optional/ multiple	Name title (e.g.,Mr., Mrs., Dr.).
FirstName	element	string	optional	First name.
MiddleName	element	string	optional/ multiple	Middle name.
LastName	element	string	required	Last name.
NameSuffix	element	string	optional/ multiple	Name suffix (e.g.,Jr., III, Esq.).

Phone


Phone
PhoneNumber
PhoneData
CountryAccessCode
AreaCode
PhoneNumber
Extension

```
<xs:complexType name="Phone">
    <xs:choice>
        <xs:element name="PhoneNumber" type="xs:string" />
        <xs:element name="PhoneData">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="CountryAccessCode" type="xs:string" />
                    <xs:element name="AreaCode" type="xs:string" />
                    <xs:element name="PhoneNumber" type="xs:string" />
                    <xs:element name="Extension" type="xs:string" />
                </xs:sequence>
            </xs:complexType>
        </xs:element>
    </xs:choice>
    <xs:attribute name="phoneType" type="xs:string" />
    <xs:attribute name="phoneRole" type="xs:string" />
</xs:complexType>
```

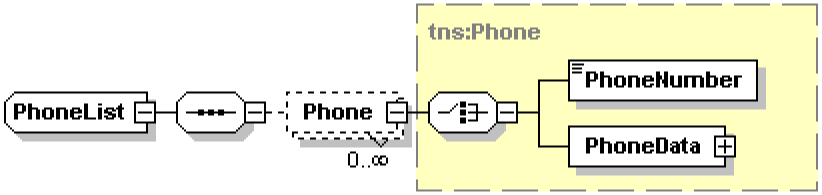
Name	Type	Data Type	Use	Comments
phoneType	attribute	string	none	Type of phone record. Typical values are HOME or BUSINESS.
phoneRole	attribute	string	none	Phone role. Typical values are PHONE, EMAIL, FAX, or WEBPAGE.
PhoneNumber	element	string	required	Phone number, email address, web address or other value appropriate to the phone role attribute.
PhoneData	element	PhoneData	required	The phone number may be specified as either a string above, or as individual components as described in the element below.

PhoneData

```
<xs:element name="PhoneData">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="CountryAccessCode" type="xs:string" />
            <xs:element name="AreaCode" type="xs:string" />
            <xs:element name="PhoneNumber" type="xs:string" />
            <xs:element name="Extension" type="xs:string" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
CountryAccessCode	element	string	required	Country access code.
AreaCode	element	string	required	Area code.
PhoneNumber	element	string	required	Phone number.
Extension	element	string	required	Phone extension.

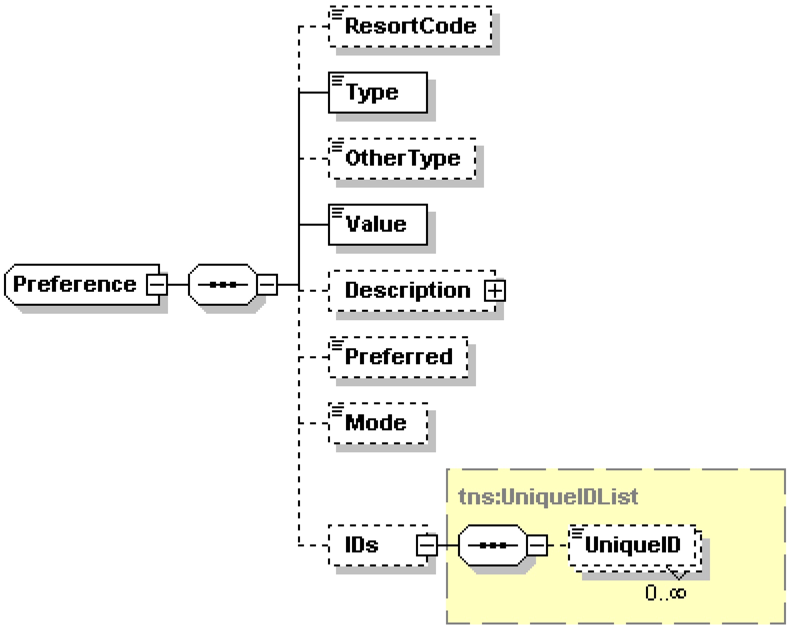
PhoneList



```
<xs:complexType name="PhoneList">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="Phone" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
            type="q1:Phone" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Phone	element	Phone	optional/ multiple	A collection of phone records

Preference

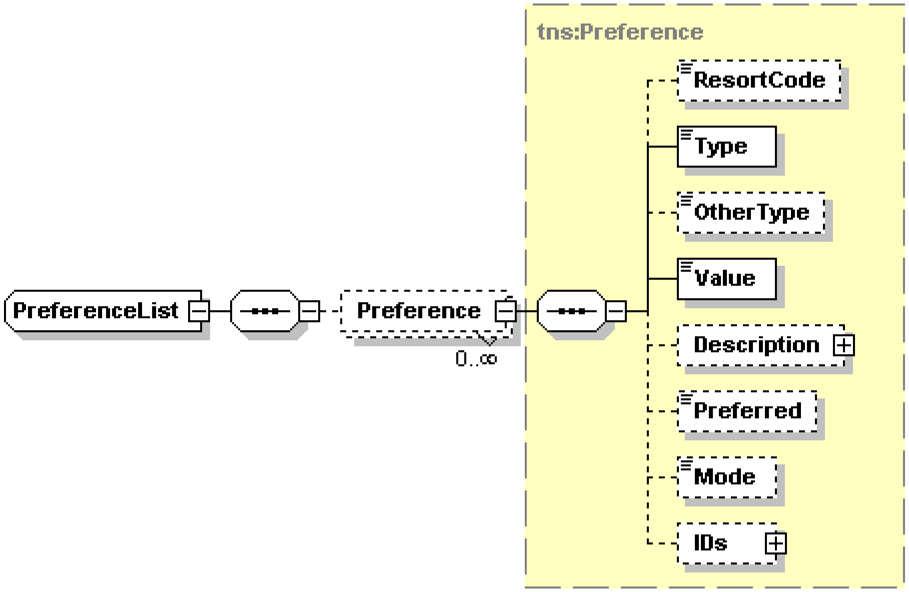

ResortCode
Type
OtherType
Value
Preference
Description
Preferred
Mode
tns:UniqueIDList
IDs
UniqueID
0..∞

```
<xs:complexType name="Preference">
    <xs:sequence>
        <xs:element minOccurs="0" name="ResortCode" type="xs:string" />
        <xs:element name="Type" type="xs:string" />
        <xs:element minOccurs="0" name="OtherType" type="xs:string" />
        <xs:element name="Value" type="xs:string" />
        <xs:element minOccurs="0" name="Description" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:DescriptiveText"
            />
        <xs:element minOccurs="0" name="Preferred" type="xs:string" />
        <xs:element minOccurs="0" name="Mode" type="xs:string" />
        <xs:element minOccurs="0" name="IDs" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:UniqueIDList" />
    </xs:sequence>
    <xs:attributeGroup xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" ref="q3:RecordAdministratorAttributes" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
RecordAdministratorAttributes	attr group			Record creation and last update attributes.
ResortCode	element	string	optional	Property code where preference is defined.
Type	element	string	required	Preference type code.

OtherType	element	string	optional	Not used.
Value	element	string	required	Preference value.
Description	element	DescriptiveText	optional	Description of the preference.
Preferred	element	string	optional	Not used.
Mode	element	string	optional	Not used.
IDs	element	UniqueIDList	optional	Internal record IDs.

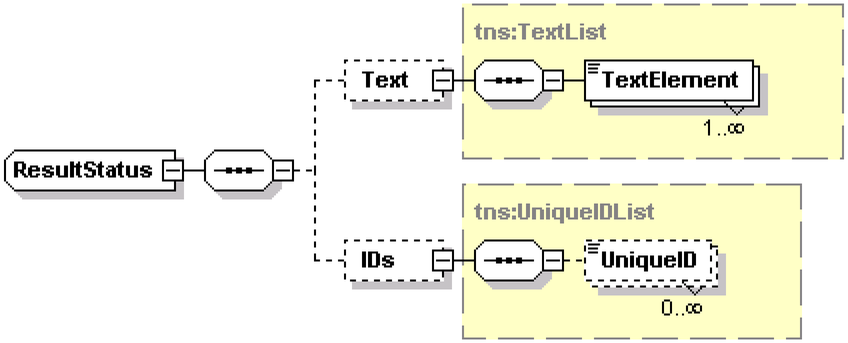
PreferenceList


tns:Preference
PreferenceList
Preference
0..∞
ResortCode
Type
OtherType
Value
Description
Preferred
Mode
IDs

```
<xs:complexType name="PreferenceList">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="Preference" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
            type="q1:Preference" />
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
Preference	element	Preference	optional/ multiple	A collection of Preference elements.

ResultStatus



```
<xs:complexType name="ResultStatus">
    <xs:sequence>
        <xs:element minOccurs="0" name="Text" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:TextList" />
        <xs:element minOccurs="0" name="IDs" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q2:UniqueIDList" />
    </xs:sequence>
    <xs:attribute name="resultStatusFlag" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:ResultStatusFlag" />
    <xs:attribute name="code" type="xs:string" use="optional" />
</xs:complexType>
```

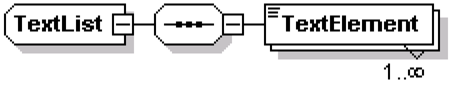
Name	**Type**	**Data Type**	**Use**	**Comments**
resultStatusFlag	attribute	ResultStatusFlag	none	The result (*SUCCESS* or *FAIL*) of the operation
code	attribute	string	optional	Error code for failure condition.
Text	element	TextList	optional	Error text for failure condition.
IDs	element	UniqueIDList	optional	Activity ID from requesting system, and if successful, the paired activity ID from the receiving system.

Text

```
<xs:complexType name="Text">
    <xs:simpleContent>
        <xs:extension base="xs:string">
            <xs:attribute name="language" type="xs:language" use="optional" />
        </xs:extension>
    </xs:simpleContent>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Text	extension	string	optional	Text string.
language	attribute	language	optional	Language code for Text value.

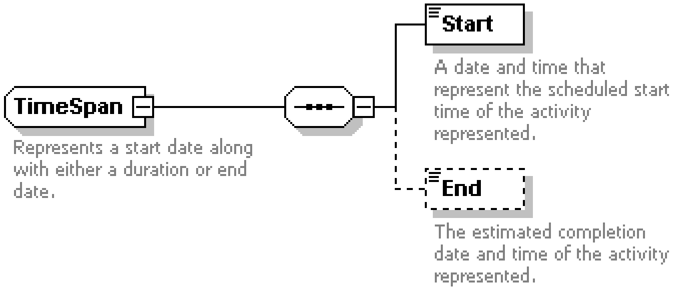
TextList


TextList
TextElement
1..∞

```
<xs:complexType name="TextList">
    <xs:sequence>
        <xs:element maxOccurs="unbounded" name="TextElement" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:Text"
            />
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
TextElement	element	Text	required/ multiple	A collection of text elements.

TimeSpan


Start
A date and time that represent the scheduled start time of the activity represented.
TimeSpan
Represents a start date along with either a duration or end date.
End
The estimated completion date and time of the activity represented.

```
<xs:complexType name="TimeSpan">
    <xs:annotation>
    <xs:documentation xml:lang="en">Represents a start date along with either a duration or end date.</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element name="Start" type="xs:dateTime">
            <xs:annotation>
            <xs:documentation xml:lang="en">A date and time that represent the scheduled start time of the activity represented.</xs:documentation>
            </xs:annotation>
        </xs:element>
        <xs:element minOccurs="0" name="End" type="xs:dateTime">
            <xs:annotation>
            <xs:documentation xml:lang="en">The estimated completion date and time of the activity represented.</xs:documentation>
            </xs:annotation>
        </xs:element>
    </xs:sequence>
</xs:complexType>
```

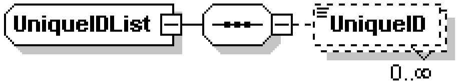
Name	Type	Data Type	Use	Comments
Start	element	dateTime	required	The start date and time.
End	element	dateTime	optional	The optional completion date and time.

UniqueID

```
<xs:complexType name="UniqueID">
    <xs:simpleContent>
        <xs:extension base="xs:string">
            <xs:attribute name="source" type="xs:string" />
        </xs:extension>
    </xs:simpleContent>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
UniqueID	extension	string		The ID value.
source	attribute	string	none	The source for the ID. This value identifies the creator/owner of the ID.

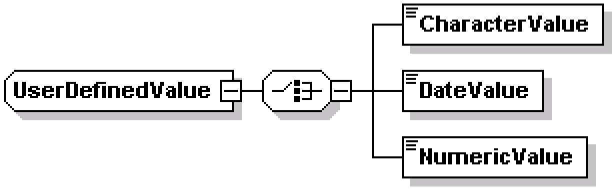
UniqueIDList



```
<xs:complexType name="UniqueIDList">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="UniqueID" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
            type="q1:UniqueID" />
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
UniqueID	element	UniqueID	optional/ multiple	A list of ID values (see below). Records are often identified by a pair of IDs, where the source attribute identifies who each ID belongs to.

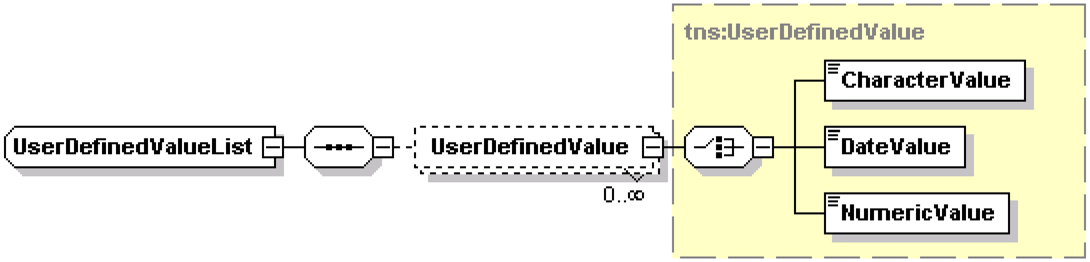
UserDefinedValue



```
<xs:complexType name="UserDefinedValue">
    <xs:choice>
        <xs:element name="CharacterValue" type="xs:string" />
        <xs:element name="DateValue" type="xs:dateTime" />
        <xs:element name="NumericValue" type="xs:float" />
    </xs:choice>
    <xs:attribute name="valueName" type="xs:string" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
valueName	attribute	string	none	User defined value name.
CharacterValue	element	string	required	Character based value (Choice).
DateValue	element	dateTime	required	Date value (Choice).
NumericValue	element	float	required	Numeric value (Choice).

UserDefinedValueList


tns:UserDefinedValue
CharacterValue
UserDefinedValueList
UserDefinedValue
0..∞
DateValue
NumericValue

```
<xs:complexType name="UserDefinedValueList">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="UserDefinedValue"
            xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UserDefinedValue" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
UserDefinedValue	element	UserDefinedValue	optional/ multiple	A collection of user defined value elements.

Simple Types

RecordAdministratorAttributes	Attribute Group	insertUser	Internal user code representing the record creator.
		insertDate	Timestamp record was originally created.

		updateUser	Internal user code representing the user who last updated the record.
		updateDate	Timestamp when the record was last updated.
		inactiveDate	Timestamp when the record was inactivated. When null, the record is considered active. When set, the record can be treated as though deleted.
BlackListFlag	Simple Type	REMOVE SET	Enumeration of blacklist values.
Gender	Simple Type	FEMALE MALE UNKNOWN	Enumeration for gender.
ReservationStatusType	Simple Type	CANCELLED CHECKED_IN CHECKED_OUT RESERVED WAITLISTED OTHER REVERSE_CHECKED_IN REVERSE_CHECKED_OUT NO_SHOW	Enumeration for reservation statuses.
ResultStatusFlag	Simple Type	FAIL SUCCESS	Enumeration for status results.
SubscriptionAction	Simple Type	OTHER SUBSCRIBE UNSUBSCRIBE	Enumeration of subscription actions to perform.

14.5 Name Schema Elements (name.xsd)

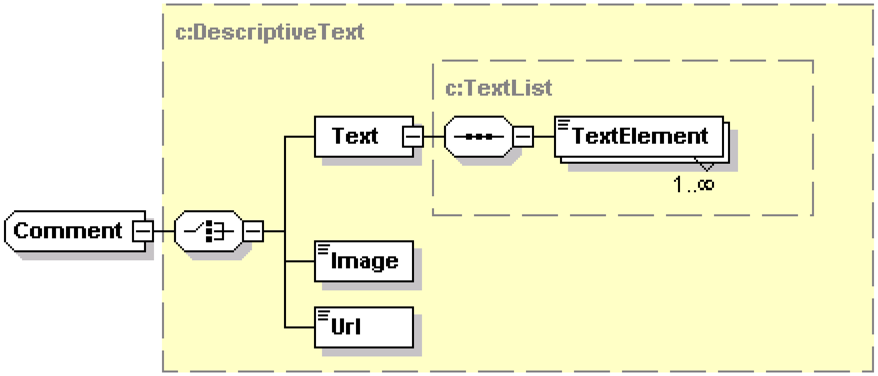
Namespace	http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types

BlackList

```
<xs:complexType name="BlackList">
    <xs:simpleContent>
        <xs:extension base="xs:string">
            <xs:attribute name="flag" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:BlackListFlag" />
        </xs:extension>
    </xs:simpleContent>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
BlackList	extension	string		Blacklist flag.
Flag	attribute	BlackListFlag	none	One of *REMOVE* or *SET* indicating whether the blacklist flag should be set or not.

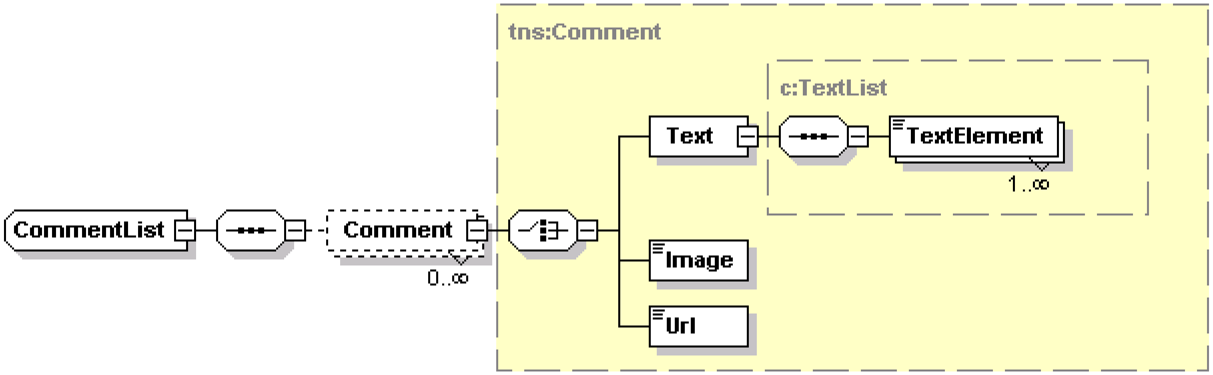
Comment



```
<xs:complexType name="Comment">
    <xs:complexContent mixed="false">
        <xs:extension xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" base="q1:DescriptiveText">
            <xs:attribute name="commentType" type="xs:string" />
            <xs:attributeGroup ref="q1:RecordAdministratorAttributes" />
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Comment	extension	DescriptiveText		Extension of DescriptiveText
commentType	attribute	string	none	Type of comment.
RecordAdministratorAttributes	attr group			Record creation and last update attributes.

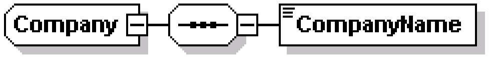
CommentList


tns:Comment
c:TextList
Text
TextElement
1..∞
CommentList
Comment
0..∞
Image
Url

```
<xs:complexType name="CommentList">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="Comment" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
            type="q1:Comment" />
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
Comment	element	Comment	optional/ multiple	A collection of Comment elements.

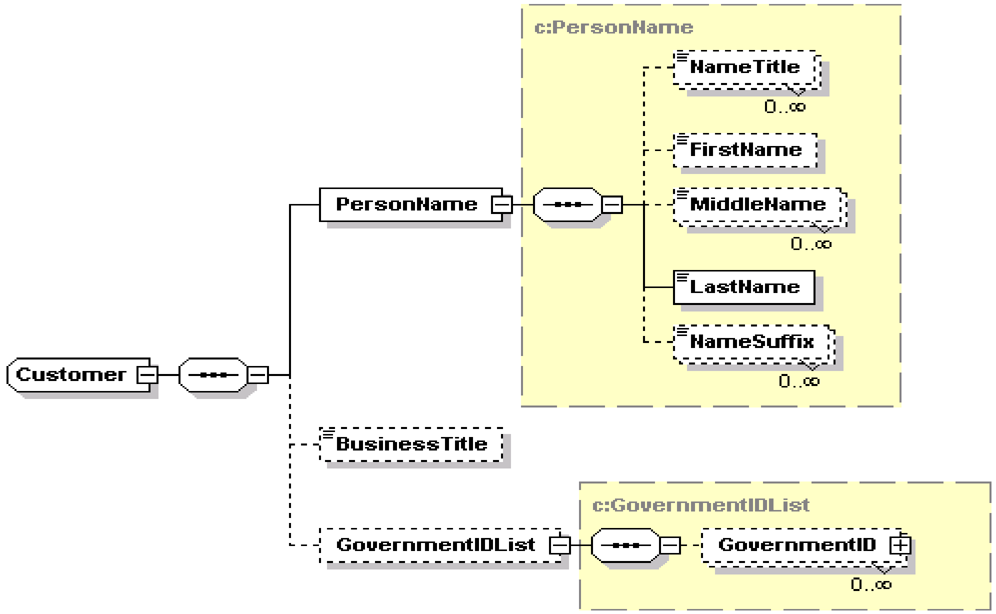
Company


Company
CompanyName

```
<xs:complexType name="Company">
    <xs:sequence>
        <xs:element name="CompanyName" type="xs:string" />
    </xs:sequence>
    <xs:attribute name="commissionCode" type="xs:string" />
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
commissionCode	attribute	string	none	Not used.
CompanyName	element	string	required	Company name.

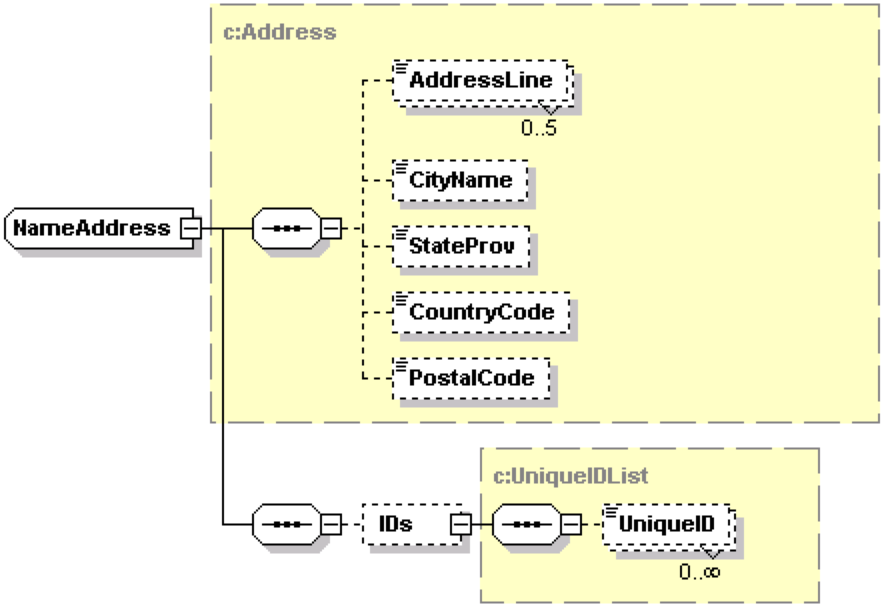
Customer


c:PersonName
NameTitle
0..∞
FirstName
PersonName
MiddleName
0..∞
LastName
Customer
NameSuffix
0..∞
BusinessTitle
c:GovernmentIDList
GovernmentIDList
GovernmentID
0..∞

```
<xs:complexType name="Customer">
    <xs:sequence>
        <xs:element name="PersonName" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:PersonName" />
        <xs:element minOccurs="0" name="BusinessTitle" type="xs:string" />
        <xs:element minOccurs="0" name="GovernmentIDList" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
            type="q2:GovernmentIDList" />
    </xs:sequence>
    <xs:attribute name="gender" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q3:Gender" />
    <xs:attribute name="birthDate" type="xs:date" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
gender	attribute	Gender	none	The guest’s gender.
birthDate	attribute	date	none	The guest’s birth date.
PersonName	element	PersonName	required	The guest name record.
BusinessTitle	element	string	optional	The guest’s title.
GovernmentIDList	element	GovernmentIDList	optional	A collection of government IDs.

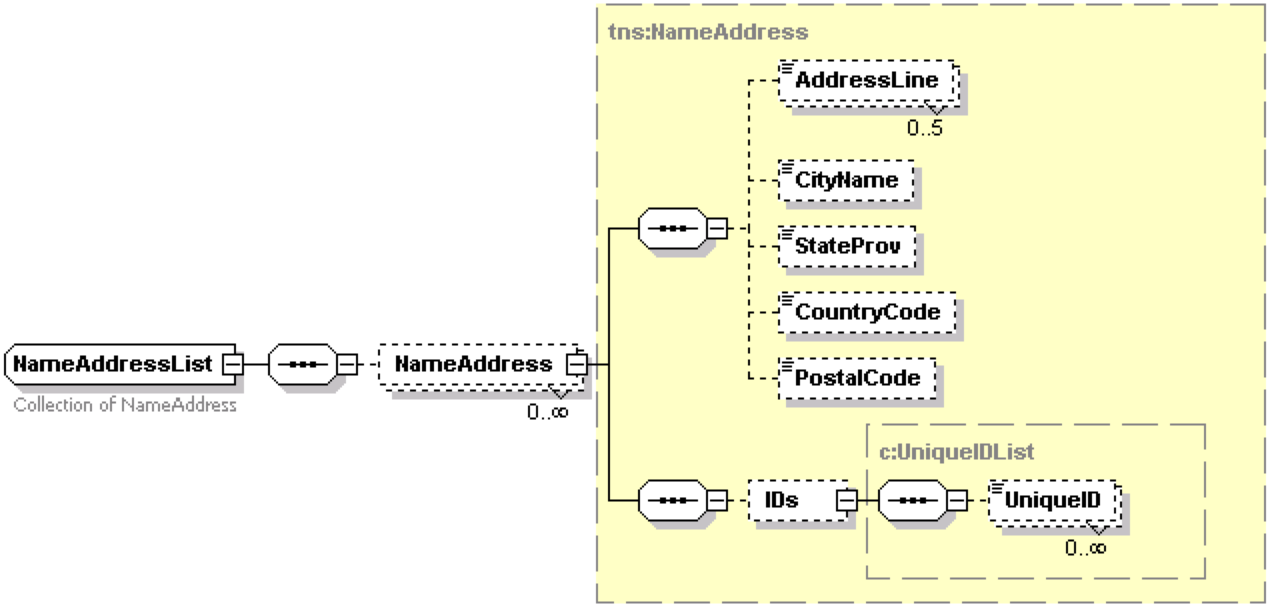
NameAddress


c:Address
AddressLine
0..5
CityName
StateProv
CountryCode
PostalCode
NameAddress
IDs
c:UniqueIDList
UniqueID
0..∞

```
<xs:complexType name="NameAddress">
    <xs:complexContent mixed="false">
        <xs:extension xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" base="q1:Address">
            <xs:sequence>
                <xs:element minOccurs="0" name="IDs" type="q1:UniqueIDList" />
            </xs:sequence>
            <xs:attribute name="primary" type="xs:boolean" />
            <xs:attribute name="displaySequence" type="xs:int" />
            <xs:attributeGroup ref="q1:RecordAdministratorAttributes" />
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
NameAddress	extension	Address		Extension of Address element type.
primary	attribute	boolean	none	Flag to indicate primary address.
displaySequence	attribute	int	none	Display sequence.
RecordAdministratorAttributes	attr group			Record creation and last update attributes.
IDs	element	UniqueIDList	optional	Internal ID values.

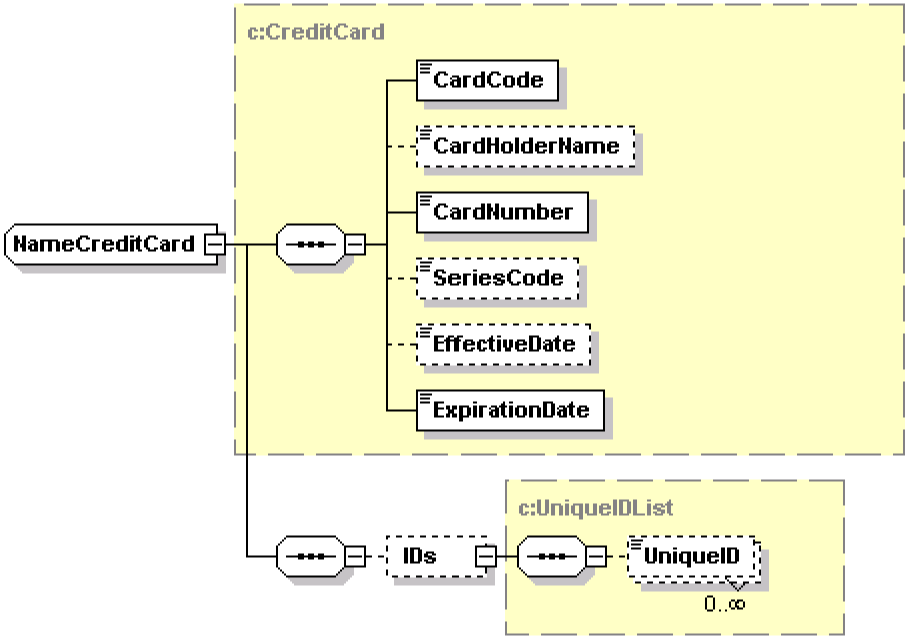
NameAddressList


tns:NameAddress
AddressLine
0..5
CityName
StateProv
CountryCode
PostalCode
NameAddressList
Collection of NameAddress
NameAddress
0..∞
c:UniqueIDList
IDs
UniqueID
0..∞

```
<xs:complexType name="NameAddressList">
    <xs:annotation>
    <xs:documentation>Collection of NameAddress</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="NameAddress" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
            type="q1:NameAddress" />
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
NameAddress	element	NameAddress	optional/ multiple	A collection of NameAddress records.

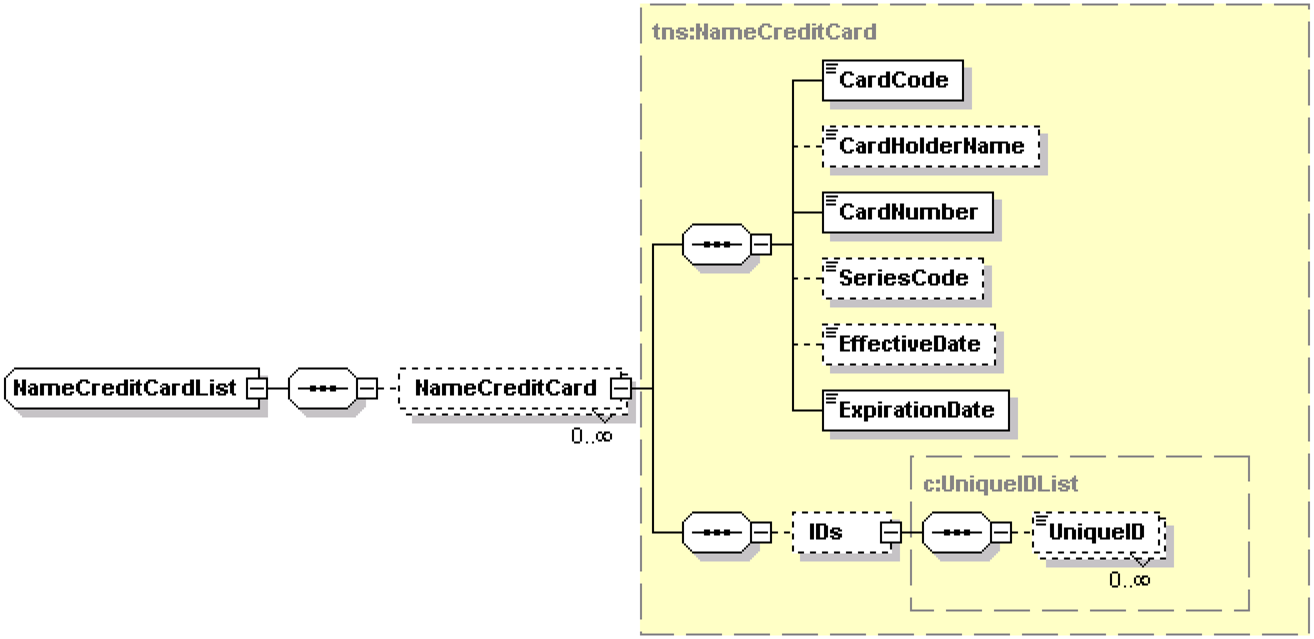
NameCreditCard


c:CreditCard
CardCode
CardHolderName
CardNumber
SeriesCode
EffectiveDate
ExpirationDate
NameCreditCard
IDs
c:UniqueIDList
UniqueID
0..∞

```
<xs:complexType name="NameCreditCard">
    <xs:complexContent mixed="false">
        <xs:extension xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" base="q1:CreditCard">
            <xs:sequence>
                <xs:element minOccurs="0" name="IDs" type="q1:UniqueIDList" />
            </xs:sequence>
            <xs:attribute name="primary" type="xs:boolean" />
            <xs:attribute name="displaySequence" type="xs:int" />
            <xs:attributeGroup ref="q1:RecordAdministratorAttributes" />
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
NameCreditCard	extension	CreditCard		Extension of CreditCard element.
primary	attribute	boolean	none	Flag to indicate primary credit card.
displaySequence	attribute	int	none	Display order.
RecordAdministratorAttributes	attr group			Record creation and last update attributes.
IDs	element	UniqueIDList	optional	Internal IDs.

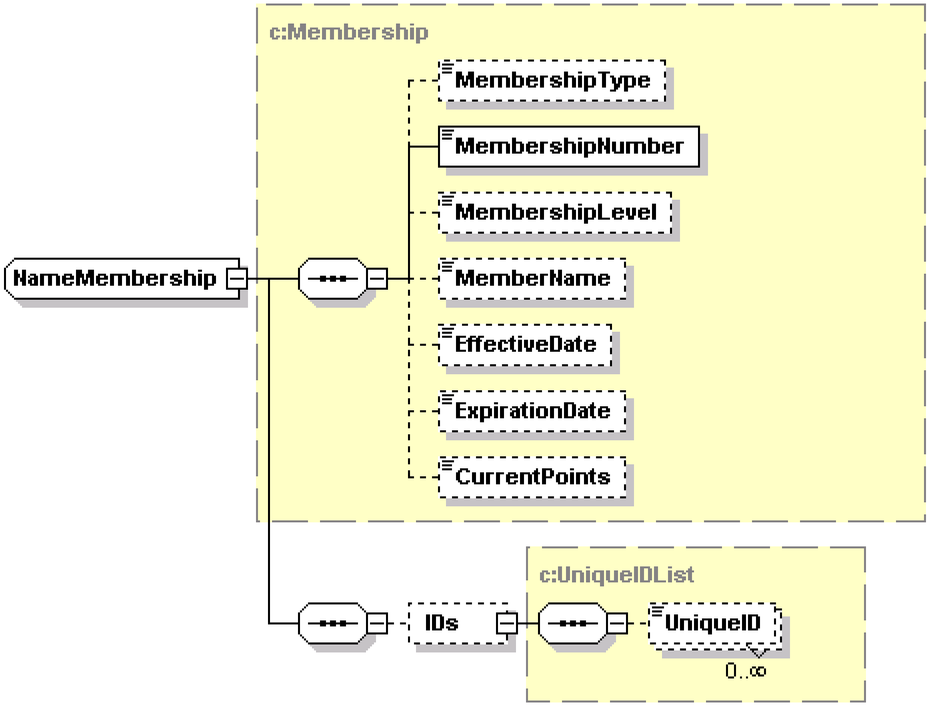
NameCreditCardList


tns:NameCreditCard
CardCode
CardHolderName
CardNumber
SeriesCode
EffectiveDate
ExpirationDate
NameCreditCardList
NameCreditCard
0..∞
c:UniqueIDList
IDs
UniqueID
0..∞

```
<xs:complexType name="NameCreditCardList">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="NameCreditCard" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
            type="q1:NameCreditCard" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
NameCreditCard	element	NameCreditCard	optional/ multiple	A collection of credit card elements.

NameMembership

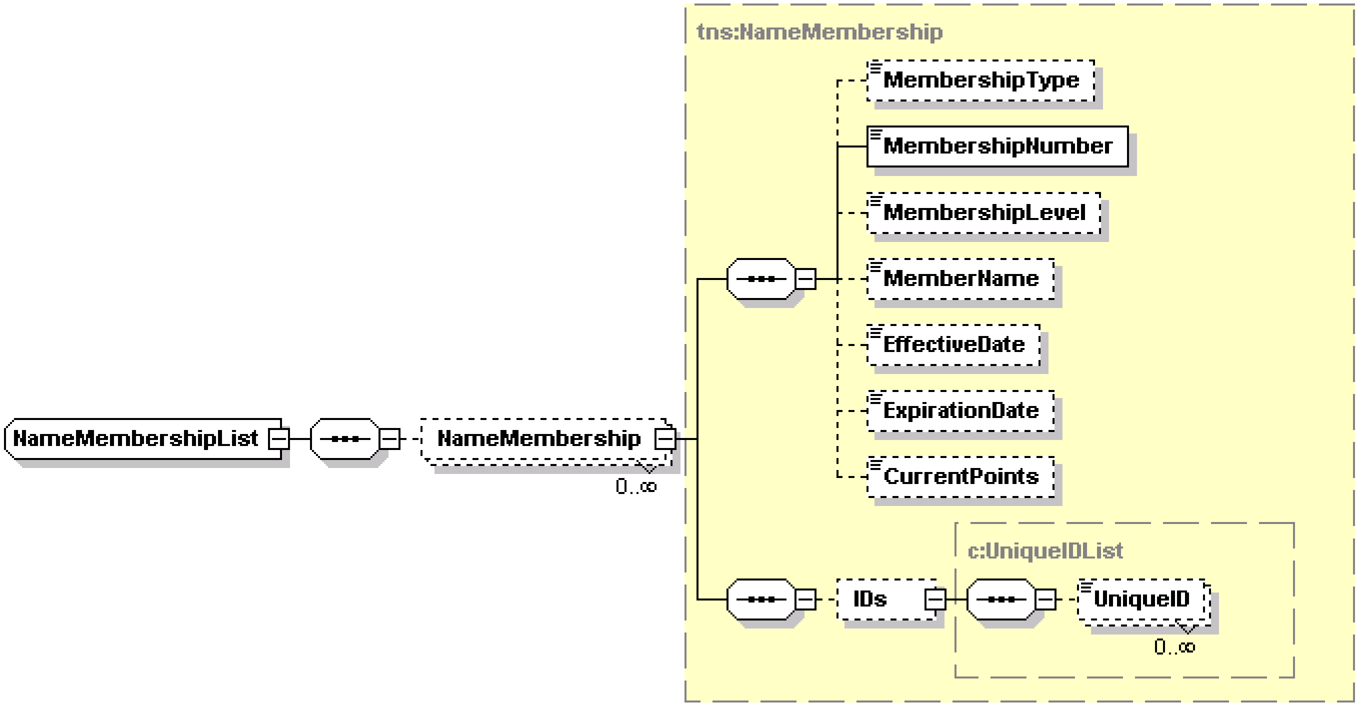

c:Membership
MembershipType
MembershipNumber
MembershipLevel
NameMembership
MemberName
EffectiveDate
ExpirationDate
CurrentPoints
c:UniqueIDList
IDs
UniqueID
0..∞

```
<xs:complexType name="NameMembership">
    <xs:complexContent mixed="false">
        <xs:extension xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" base="q1:Membership">
            <xs:sequence>
                <xs:element minOccurs="0" name="IDs" type="q1:UniqueIDList" />
            </xs:sequence>
            <xs:attribute name="primary" type="xs:boolean" />
            <xs:attribute name="displaySequence" type="xs:int" />
            <xs:attributeGroup ref="q1:RecordAdministratorAttributes" />
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
NameMembership	extension	Membership		Extension of Membership element.
primary	attribute	boolean	none	Flag to indicate primary membership.
displaySequence	attribute	int	none	Display sequence.

RecordAdministratorAttributes	attr group			Record creation and last update attributes.
IDs	element	UniqueIDList	optional	Internal record IDs.

NameMembershipList


tns:NameMembership
MembershipType
MembershipNumber
MembershipLevel
MemberName
EffectiveDate
ExpirationDate
CurrentPoints
NameMembershipList
NameMembership
0..∞
c:UniqueIDList
IDs
UniqueID
0..∞

```
<xs:complexType name="NameMembershipList">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="NameMembership"
            xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q1:NameMembership" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
NameMembership	element	NameMembership	optional/ multiple	A collection of NameMembership elements.

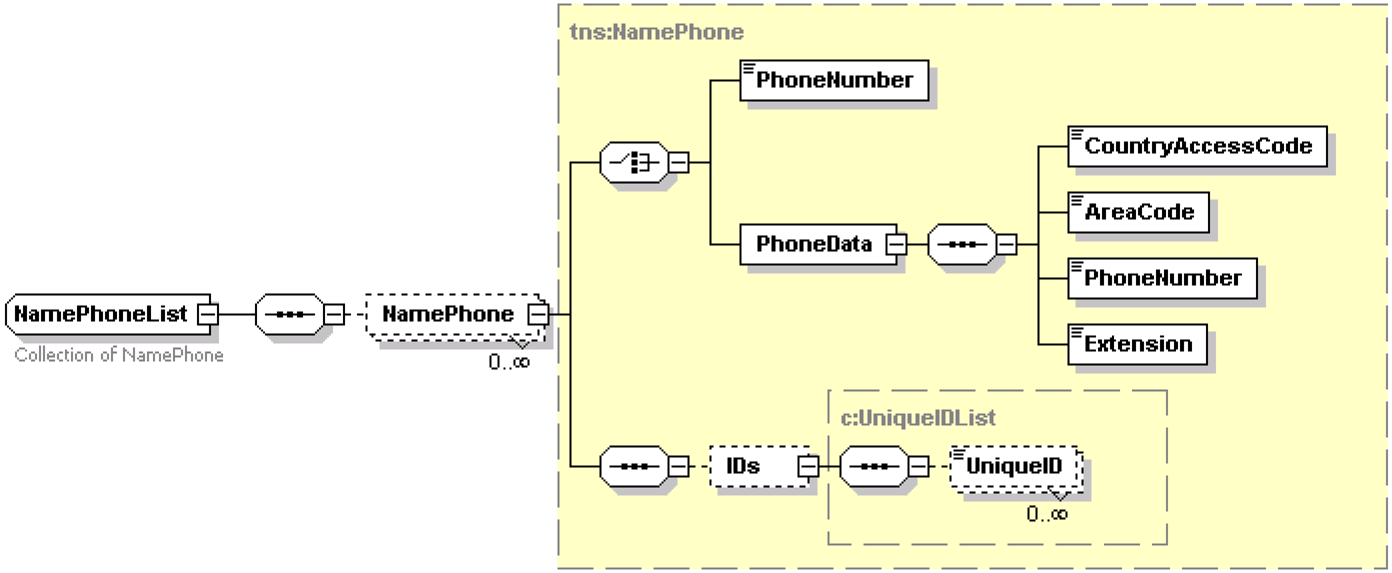
NamePhone

```
<xs:complexType name="NamePhone">
    <xs:complexContent mixed="false">
```

```
        <xs:extension xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" base="q1:Phone">
            <xs:sequence>
                <xs:element minOccurs="0" name="IDs" type="q1:UniqueIDList" />
            </xs:sequence>
            <xs:attribute name="primary" type="xs:boolean" />
            <xs:attribute name="displaySequence" type="xs:int" />
            <xs:attributeGroup ref="q1:RecordAdministratorAttributes" />
        </xs:extension>
    </xs:complexContent>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
NamePhone	extension	Phone		Extension of Phone element type.
Primary	attribute	boolean	none	Flag to indicate primary phone.
displaySequence	attribute	int	none	Display sequence.
RecordAdministratorAttributes	attr group			Record creation and update attributes.
IDs	element	UniqueIDList	optional	Internal record IDs.

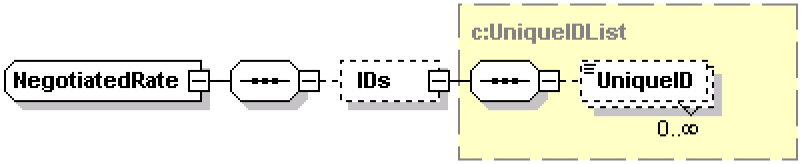
NamePhoneList


tns:NamePhone
PhoneNumber
CountryAccessCode
AreaCode
PhoneData
PhoneNumber
Extension
NamePhoneList
Collection of NamePhone
NamePhone
0..∞
c:UniqueIDList
IDs
UniqueID
0..∞

```
<xs:complexType name="NamePhoneList">
    <xs:annotation>
    <xs:documentation>Collection of NamePhone</xs:documentation>
    </xs:annotation>
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="NamePhone" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
            type="q1:NamePhone" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
NamePhone	element	NamePhone	optional/ multiple	A collection of NamePhone records.

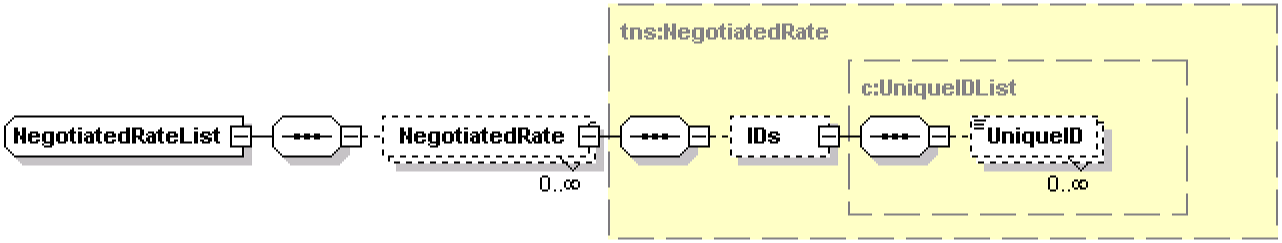
NegotiatedRate



```
<xs:complexType name="NegotiatedRate">
    <xs:sequence>
        <xs:element minOccurs="0" name="IDs" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueIDList" />
    </xs:sequence>
    <xs:attribute name="resortCode" type="xs:string" />
    <xs:attribute name="rateCode" type="xs:string" use="required" />
    <xs:attribute name="commissionCode" type="xs:string" />
    <xs:attribute name="beginDate" type="xs:date" />
    <xs:attribute name="endDate" type="xs:date" />
    <xs:attribute name="displaySequence" type="xs:int" />
    <xs:attributeGroup xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" ref="q2:RecordAdministratorAttributes" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
resortCode	attribute	string	none	Property code where negotiated rate is applicable.
rateCode	attribute	string	required	Rate code.
commissionCode	attribute	string	none	Commission code.
beginDate	attribute	date	none	Begin date for rate.
endDate	attribute	date	none	End date for rate.
displaySequence	attribute	int	none	Display sequence.
RecordAdministratorAttributes	attr group			Record creation and last update attributes.
IDs	element	UniqueIDList	optional	Internal record IDs.

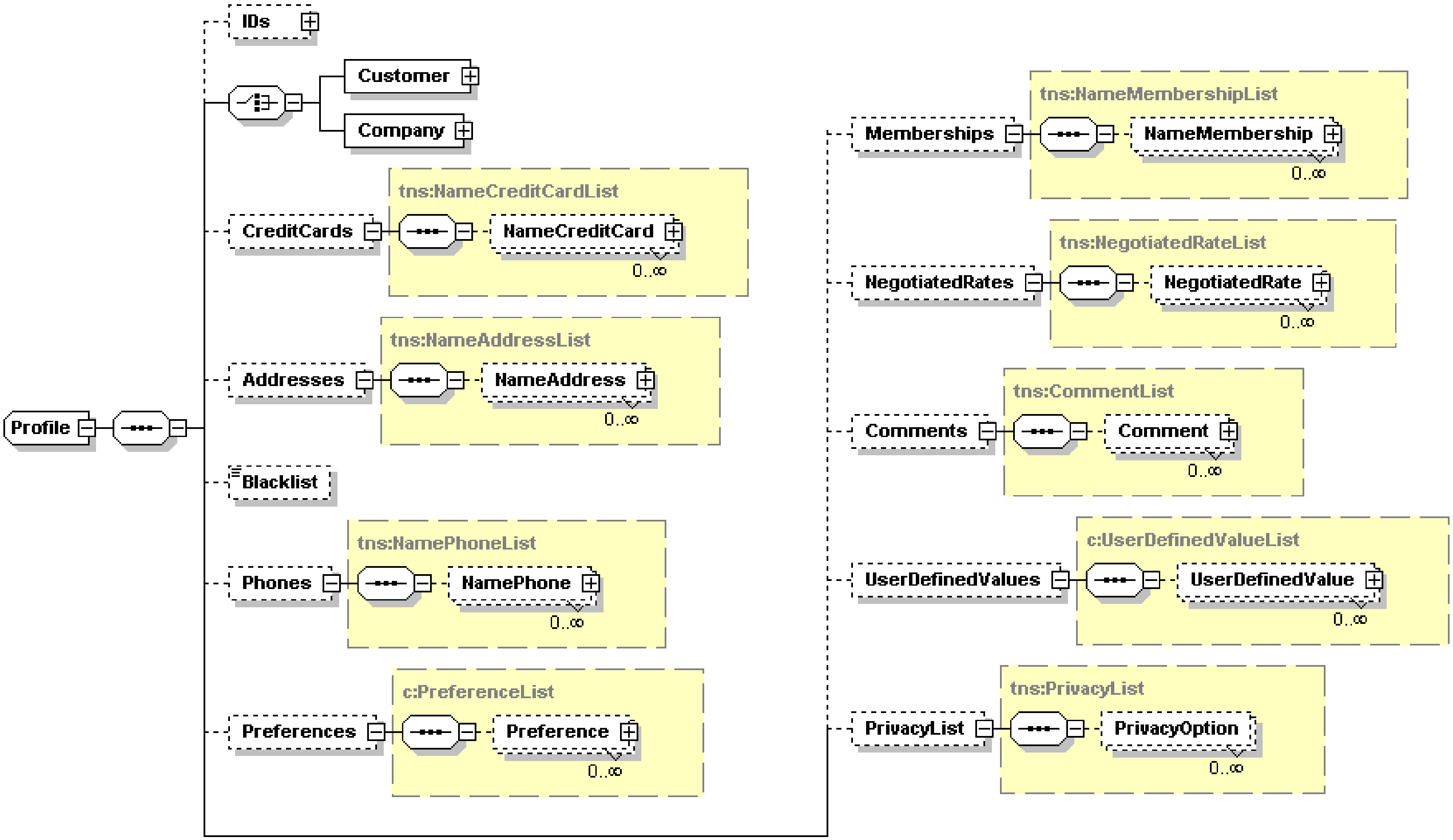
NegotiatedRateList


tns:NegotiatedRate
c:UniqueIDList
NegotiatedRateList
NegotiatedRate
0..∞
IDs
UniqueID
0..∞

```
<xs:complexType name="NegotiatedRateList">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="NegotiatedRate" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
            type="q1:NegotiatedRate" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
NegotiatedRate	element	NegotiatedRate	optional/ multiple	A collection of NegotiatedRate elements.

Profile


IDs
Customer
Company
tns:NameCreditCardList
CreditCards
NameCreditCard
0..∞
tns:NameAddressList
Addresses
NameAddress
0..∞
Profile
Blacklist
tns:NamePhoneList
Phones
NamePhone
0..∞
c:PreferenceList
Preferences
Preference
0..∞
tns:NameMembershipList
Memberships
NameMembership
0..∞
tns:NegotiatedRateList
NegotiatedRates
NegotiatedRate
0..∞
tns:CommentList
Comments
Comment
0..∞
c:UserDefinedValueList
UserDefinedValues
UserDefinedValue
0..∞
tns:PrivacyList
PrivacyList
PrivacyOption
0..∞

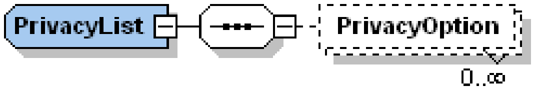
```
<xs:complexType name="Profile">
    <xs:sequence>
        <xs:element minOccurs="0" name="IDs" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q1:UniqueIDList" />
        <xs:choice>
            <xs:element name="Customer" xmlns:q2="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q2:Customer" />
            <xs:element name="Company" xmlns:q3="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q3:Company" />
        </xs:choice>
        <xs:element minOccurs="0" name="CreditCards" xmlns:q4="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q4:NameCreditCardList"
```

```
            />
        <xs:element minOccurs="0" name="Addresses" xmlns:q5="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q5:NameAddressList" />
        <xs:element minOccurs="0" name="Blacklist" xmlns:q6="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q6:BlackList" />
        <xs:element minOccurs="0" name="Phones" xmlns:q7="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q7:NamePhoneList" />
        <xs:element minOccurs="0" name="Preferences" xmlns:q8="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" type="q8:PreferenceList" />
        <xs:element minOccurs="0" name="Memberships" xmlns:q9="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
            type="q9:NameMembershipList" />
        <xs:element minOccurs="0" name="NegotiatedRates" xmlns:q10="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
            type="q10:NegotiatedRateList" />
        <xs:element minOccurs="0" name="Comments" xmlns:q11="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q11:CommentList" />
        <xs:element minOccurs="0" name="UserDefinedValues" xmlns:q12="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types"
            type="q12:UserDefinedValueList" />
        <xs:element minOccurs="0" name="PrivacyList" xmlns:q13="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types" type="q13:PrivacyList" />
    </xs:sequence>
    <xs:attribute name="nameType" type="xs:string" />
    <xs:attribute name="protected" type="xs:boolean" />
    <xs:attribute name="languageCode" type="xs:string" />
    <xs:attribute name="nationality" type="xs:string" />
    <xs:attribute name="vipCode" type="xs:string" />
    <xs:attribute name="taxExempt" type="xs:boolean" />
    <xs:attributeGroup xmlns:q14="http://htng.org/PWS/2008B/SingleGuestItinerary/Common/Types" ref="q14:RecordAdministratorAttributes" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
nameType	attribute	string	none	Name type. Typical values are *GUEST* or *COMPANY*.
protected	attribute	boolean	none	Flag to indicate whether profile can be modified by external system.
languageCode	attribute	string	none	Default language code of guest.
nationality	attribute	string	none	Nationality of guest.
vipCode	attribute	string	none	VIP value.
taxExempt	attribute	boolean	none	Not used.
RecordAdministratorAttributes	attr group			Record of creation and last change.
IDs	element	UniqueIDList	optional	Internal profile ID.
Customer	element	Customer	required	The guest name. Either this element or the Company element must be defined. The minimum requirement is the guest’s last name.
Company	element	Company	required	The company name. Either this element or the Customer element must be defined.
CreditCards	element	NameCreditCardList	optional	A collection of credit card elements.
Addresses	element	NameAddressList	optional	A collection of address records.
Blacklist	element	BlackList	optional	A flag to indicate whether the guest has been blacklisted.

Phones	element	NamePhoneList	optional	A collection of telephone elements.
Preferences	element	PreferenceList	optional	A collection of guest preference elements.
Memberships	element	NameMembershipList	optional	A collection of membership elements.
NegotiatedRates	element	NegotiatedRateList	optional	A collection of negotiated rate elements.
Comments	element	CommentList	optional	Comments.
UserDefinedValues	element	UserDefinedValueList	optional	A collection of customizable system defined values.
PrivacyList	element	PrivacyList	optional	See PrivacyList, below.

PrivacyList



```
<xs:complexType name="PrivacyList">
    <xs:sequence>
        <xs:element minOccurs="0" maxOccurs="unbounded" name="PrivacyOption" xmlns:q1="http://htng.org/PWS/2008B/SingleGuestItinerary/Name/Types"
            type="q1:PrivacyOptionType" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
PrivacyOption	element	PrivacyOptionType	optional/ multiple	A collection of PrivacyOption elements.

PrivacyOptionType

```
<xs:complexType name="PrivacyOptionType">
    <xs:attribute name="OptionType" use="required">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:enumeration value="Promotions" />
                <xs:enumeration value="MarketResearch" />
                <xs:enumeration value="ThirdParties" />
                <xs:enumeration value="LoyaltyProgram" />
                <xs:enumeration value="Privacy" />
                <xs:enumeration value="Email" />
                <xs:enumeration value="Mail" />
                <xs:enumeration value="Phone" />
                <xs:enumeration value="SMS" />
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="OptionValue" use="required">
        <xs:simpleType>
            <xs:restriction base="xs:string">
                <xs:enumeration value="YES" />
                <xs:enumeration value="NO" />
            </xs:restriction>
        </xs:simpleType>
    </xs:attribute>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
OptionType	attribute		required	The available options are Promotions, MarketResearch, ThirdParties, LoyaltyProgram, Privacy, Email, Mail, Phone, and SMS.
OptionValue	attribute		required	Yes or No.

Part 3 ***Digital Signage, Version 1.0***

Chapter 15 Document Information (Part 3)

15.1 Change History

Messaging Requirements

Date	Description	Author
September 2006	First Draft	Neil Schubert, Angela Skoda
October 6, 2006	Updated based on input from Oct. 3 meeting in Boston	Angela Skoda
October 20, 2006	Updated based on the October 13 and October 20 conference calls	Angela Skoda
November 7, 2006	Removed push of data from the Sales and Catering system. Remove references to a reservation identifier	Angela Skoda
November 30, 2006	Added “Response Complete” flag	Angela Skoda

Messaging Specification

Date	Author	Comments
01/19/2007	Alex Shore, Newmarket International, Inc.	Initial draft
02/02/2007	Alex Shore, Newmarket International, Inc.	Schema changes from Digital Signage conference call. For MeetingSpaceResponse – require @meetingKey and Group/@name. For Characteristics request – require property key. For response, added property node similar to how the MeetingSpaceResponse is organized. Updated sample SOAP xml in appendix.
03/23/2007	Alex Shore, Newmarket International, Inc.	Changes from the 03/16/2007 conference call: Fixed namespace typo for MeetingSpaceRequest in the wsdl. Added new fault type for too large of a date range specified.
4/15/2008	Ken Jones	1. Updated MeetingSpaceResponse schema as defined below. 2. Removed sample XML from this document, and added a reference to the actual sample XML included with the API.
5/15/2008	Ken Jones	Removed Draft label from cover page.

Schema Changes

Date	Author	Schema	Comments
01/11/2007	Alex Shore	All except fault schemas	Version 0.3 schemas posted to the HTNG collaboration site

			for review by Digital Signage group.
01/19/2007	Alex Shore	All	Changed verbiage to use MeetingSpace and MeetingSpaceCharacteristics instead of Event and MeetingRoom.
02/02/2007	Alex Shore	MeetingSpaceCharacteristicsRequest.xsd, MeetingSpaceCharacteristicsResponse.xsd, MeetingSpaceResponse.xsd	See above Document changes notes for v1.1.
03/23/2007	Alex Shore	MeetingSpaceServiceFaults.xsd	Added fault for too large of a date range.
05/15/2008	Ken Jones	MeetingSpaceResponse.xsd	1. Change Room Key length restrictions from 3 characters to 1 (Element: MeetingSpace). 2. Link Sub Meetings (Sub Functions) to their parent Meeting (Main Function) 3. Add Backup/Overflow Room Key to the MeetingSpaceResponse file (Element: MeetingSpace) and allow multiple occurrences of BackupMeetingRoom and OverFlowRoom elements. 4. Restructure the schema for the MeetingSpaceResponse to better represent the relationship between Event, Meetings and Sub-Meetings and to avoid duplication of the Event information on each Meeting Space. 5. Change the startDate,startTime attributes to a single attribute named startDateTime defined as xsd:DateTime

15.2 Purpose

This document provides functional, business, and technical descriptions of the web service requests that are available for querying Meeting Space information from a Sales & Catering application. Expertise in XML, SOAP, and HTTP is required.

The Meeting Space API is a synchronous request/response architecture that provides real-time data back to the caller. This API uses an HTNG 2.0 (draft)-compliant web service.

15.3 Terminology

For the purpose of this document the following terms have been defined as follows:

Term	**Definition**
Vendor	For the purposes of this document, a Vendor is any client that uses the Meeting Space Request web service. An example of a Vendor is a digital signage software application.
Meeting Space	A meeting being used by a group at a hotel for a certain period of time.

Event	A booking associated with a company, account, or agency. A booking can have sleeping rooms and meeting space information.
HTNG	The HTNG protocol is fully described at **www.htng.org**. The Meeting Space services are using the HTNG 2.0 framework draft specification.
Property	For the purposes of this document, "property" is the term used for a hotel, facility, resort, etc. The term is used generically.
messageID	GUID that identifies a specific transaction. This value is set by the client in the WS-Addressing SOAP header.
PropertyKey	This value uniquely defines a hotel property for a sales & catering system.

15.4 Referenced Documents

The following table shows the documents on which this API document is dependent:

Name	**Description**	**Location**
HTNG 2.1 Framework	Describes the web service framework standards that workgroups must adhere to.	Part 1 of this document
Digital Signage Messaging Requirements	Document made by the Digital Signage workgroup to define the requirements of the meeting space interface.	Included as Chapter 16 of this document

Chapter 16 Digital Signage Messaging Requirements

16.1 Background

This chapter is a collection of Digital Signage Messaging requirements provided by the HTNG Digital Signage Workgroup. Collectively, we have decided to focus the first release of this specification on the messaging between Sales and Catering systems and Digital Signage Vendors. Other sources of information for digital signage, for example, PMS systems, HR systems, Internet Media, etc. will be addressed in future releases.

16.2 Functional Requirements

Hotel digital signage deployment consists of television and/or video monitor display technology deployed in public space areas in order to communicate messages to hotel guests and employees. Examples of digital signage applications include locations such as, lobby walls, restaurants and bars, meeting room entry or foyer, conventional halls, exhibit halls, kiosks, and back of house employee systems. Guestroom applications are also used to present messages on hotel room televisions and, potentially, other display technologies such as display telephones.

While this document focuses on the requirements for sales and catering system messaging, we acknowledge that a more comprehensive messaging standard will be required in future releases of this specification.

Overall Assumptions

1. The current business requirement will only accommodate request/response messages initiated by the digital signage application. Future releases of this specification will address a “push” of data from the sales and catering source system.
2. The digital signage application can pull information from the source system either through an automated batch pull or a user-initiated trigger within the digital signage application.
3. The scope of this interface has been limited to messages between a Sales and Catering system and a digital signage application. Information about an individual guest and their participation in an event would require separate PMS integration, which is currently considered out of scope, but will be considered in future releases of this specification.
4. A full set of information will be passed and it is up to the digital signage application to recognize changes, if needed.
5. Each hotel will need to have the ability to regulate and control the frequency of any automated pull of data initiated from the digital signage application. Performance concerns around the frequency of data transfer must be considered.

6. Each hotel will need to have the ability to regulate the number of transactions that can be passed through the interface.

Definitions:

- Group – An account, for example, IBM.
- Event – An entire piece of group business, for example, IBM North America Conference
- Meeting – A subset of an event, usually in a single room, for example, a breakout session.

Sales and Catering Systems

Selection Criteria – The digital signage application will need the ability to request sales and catering information associated with any combination of the following:

- by property identifier
- by date/time range (with some limit on the number of days)
- by event identifier
- by exhibit flag (Y/N)
- by “postable” flag (Y/N)
- by room grouping (physical location, such as a wing)

This request message should also contain an identifier that specifics how this request was initiated, either through a batch process or through a user-initiated process. This identifier would be appended to the request.

Proposed Sales and Catering Response Data

- Hotel Name and related identifier
- Group Name and related identifier
- Group logo URL or pathname
- Event Name and related identifier
- Event logo URL or pathname
- Event “Post As” Name
- Host Event Identifier (parent of this event, used to indicate a Host/Affiliate relationship)
- Meeting Room Space Display Name and related identifier
- Meeting Name and related identifier (e.g., breakfast, lunch)

- Meeting “Post As” Name (free form description of meeting)
- Date
- Start Time (local time for the property)
- End Time (local time for the property)
- Postable Flag -Y/N
- Exhibit Flag – Y/N
- Backup Meeting Room Space Name
- Overflow Meeting Room Space Name
- Response Complete – Y/N

Meeting Space Characteristics

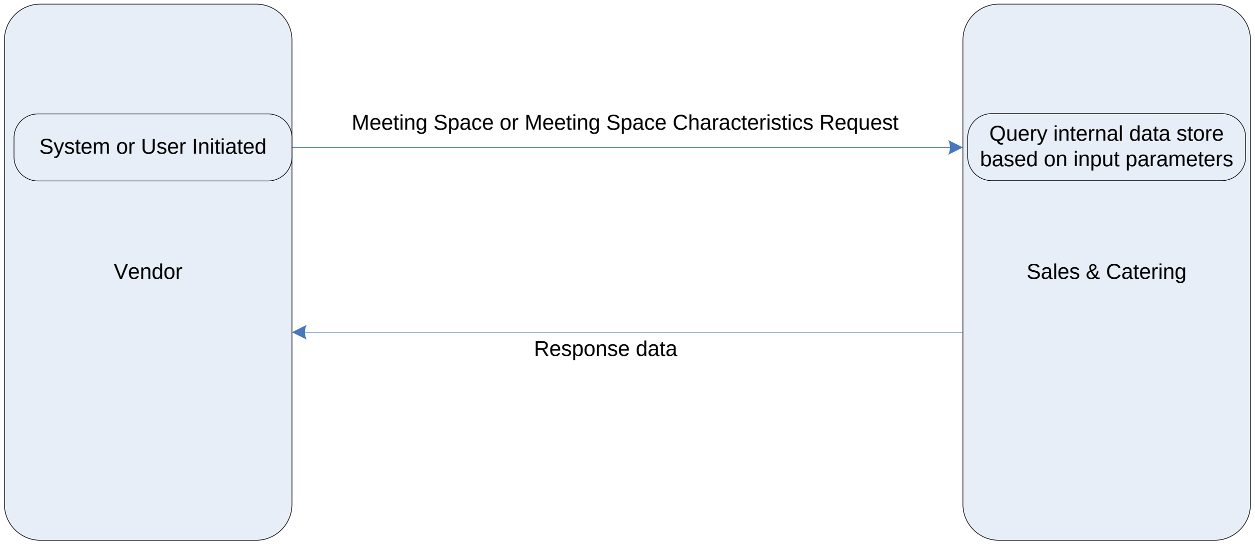
Separate request/response. This data will be refreshed very rarely, when there is a change in meeting room names or configuration.

- Meeting Room Identifier
- Meeting Room Space Display Name
- Floor number
- Floor description
- Room grouping (physical location like a wing, building, etc)
- Directions to the meeting room
- Room Type (Divisible/Indivisible)
- Parent Meeting Room Identifier
- Map reference number

Chapter 17 Functional Overview

17.1 Functional Flow

Below is an example of the flow that would be executed when a Vendor requests Meeting Space or Meeting Space Characteristics data from the Sales & Catering system's web service.


System or User Initiated
Vendor
Meeting Space or Meeting Space Characteristics Request
Response data
Query internal data store based on input parameters
Sales & Catering

17.2 System Roles

The following table defines the system roles for this interface:

Message	**Sales and Catering**	**Digital Signage**	**Property Management System**
Request Meeting Space	Web Service Provider	Web Service Consumer	Web Service Consumer
Request Meeting Space Characteristics	Web Service Provider	Web Service Consumer	Web Service Consumer

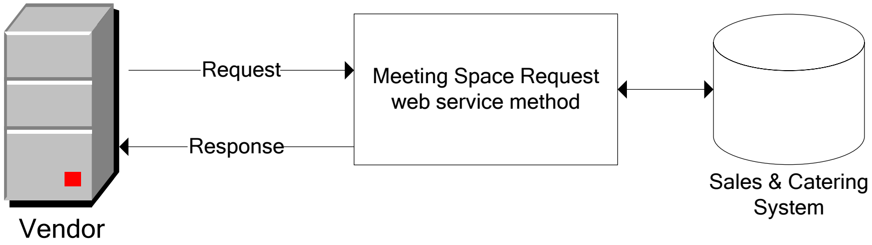
17.3 Meeting Space Request – Vendor to Sales & Catering

Description

This service request returns Meeting Space data for the specified property key. The caller can optionally specify the following filter criteria:

- Event key
- Whether or not the Meeting Space is an exhibit
- Whether or not the Meeting Space is postable
- A room grouping
- A date/time range

Service Request Flow

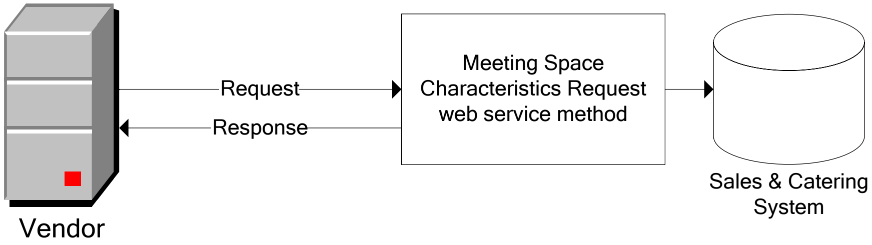

Request
Response
Meeting Space Request web service method
Sales & Catering System
Vendor

17.4 Meeting Space Characteristics Request – Vendor to Sales & Catering

Description

This service request return Meeting Space Characteristics for one or all properties registered with the Sales & Catering system.

Service Request Flow


Request
Response
Meeting Space Characteristics Request web service method
Sales & Catering System
Vendor

Chapter 18 Technical Descriptions

18.1 Meeting Space Request – Vendor to Sales & Catering

Overview

The Vendor will post a SOAP envelope containing the XML document defined by the schema to the Sales & Catering published SOAP service.

Service Specifications

Service Type	SOAP
Service Name	MeetingSpaceService
Service Operation	MeetingSpaceRequest
Service Parameter Name	MeetingSpaceRequest
Response Type	xml data
Response Value	MeetingSpaceRequest_Sample.xml
Header Action:	http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceRequest
URL:	nnn.nnn.nnn.nnn defined *by the IP address used to reach the S & C web service.*
Resource:	/MeetingSpaceService/Request.asmx?WSDL
Input Schema:	MeetingSpaceRequest.xsd
Output (response) Schema:	MeetingSpaceResponse.xsd, or MeetingSpaceServiceFaults.xsd when a SOAP exception is thrown.

Sample Request Message

MeetingSpaceRequest_Sample.xml	This file is included as Chapter 21.1.

Sample Response Message

MeetingSpaceResponse_Sample.xml	This file is included as Chapter 21.2.

Error Faults

If an error occurs, then the response xml data is not returned and a SOAP fault is thrown from the web service. The fault type can be one of the following:

Fault Type	Description
NoMeetingSpaceFoundFault	No Meeting Space entities were found for the specified input filter parameters.

InvalidDateTimeFault	An invalid date or time was specified, or the relationship between the start date and end date is not valid.
InvalidPropertyKeyFault	An invalid property key was specified.
InvalidRoomGroupingFault	An invalid room grouping was specified.
InvalidEventKeyFault	An invalid event key was specified.
DigitalSignageGenericFault	An error occurred and cannot be properly categorized by any of the previous fault types.
DateRangeTooLargeFault	The date range specified was too large to process.

18.2 Meeting Space Characteristics Request – Vendor to Sales & Catering

Requirements

The Vendor will post a SOAP envelope containing the XML document defined by the schema to the Sales & Catering published SOAP service.

Service Specifications

Service Type	SOAP
Service Name	MeetingSpaceService
Service Operation	MeetingSpaceCharacteristicsRequest
Service Parameter Name	MeetingSpaceCharacteristicsResponse
Response Type	xml data
Response Value	MeetingSpaceCharacteristicsResponse_Sample.xml
Header Action:	http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceCharacteristicsRequest
URL:	nnn.nnn.nnn.nnn defined *by the IP address used to reach the S & C web service*
Resource:	/MeetingSpaceService/Request.asmx?WSDL
Input Schema:	MeetingSpaceCharacteristicsRequest.xsd
Output (response) schema:	MeetingSpaceCharacteristicsResponse.xsd, or MeetingSpaceServiceFaults.xsd when a SOAP exception is thrown.

Sample Request Message

MeetingSpaceCharacteristicsRequest_Sample.xml	This file is included as Chapter 21.3.

Sample Reponse Message

MeetingSpaceCharacteristicsResponse_Sample.xml	This file is included as Chapter 21.4.

Error Faults

If an error occurs, then the response xml data is not returned and a SOAP fault is thrown from the web service. The fault type can be one of the following:

Fault Type	**Description**
NoMeetingSpaceFoundFault	No meeting space was found in the Sales & Catering system for the specified property (if a property key was included in the request).
InvalidPropertyKeyFault	An invalid property key was specified.
DigitalSignageGenericFault	An error occurred and cannot be properly categorized by any of the previous fault types.

Chapter 19 Business Rules

19.1 Usage

1. All outbound Sales & Catering XML messages are UTF-8 encoded.
2. All inbound vendor XML messages must be UTF-8 encoded.
3. All XML should be XML encoded by the Vendor before passing that data to the Sales & Catering web service. The following are examples which should be followed for encoding the XML message. By no means does this constitute a complete list of special encoding.
    - The character < should be encoded as &lt;.
    - The character > should be encoded as &gt;.
    - The character & should be encoded as &amp;.
    - All attributes should use the double quote to delimit the attribute value. If the attribute values contains a double quote, then that double quote should be encoded as &quot;.
4. The SOAP message should follow the HTNG 2.0 draft specification. This includes the following details in the inbound request message:
    - Creation of a WS-Addressing message ID that is included in the SOAP request.
    - Provide a Sales & Catering supplied username and password token in the SOAP request using WS-Security.

19.2 Caching

The Sales & Catering system reserves the right to make a configurable response cache to prevent excessive requests from Vendor systems.

Chapter 20 MeetingSpaceService WSDL

The wsdl definition for this service is listed below:

```
<?xml version="1.0" encoding="utf-8"?>
<wsdl:definitions xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/" xmlns:tm=http://microsoft.com/wsdl/mime/textMatching/
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/" xmlns:mime=http://schemas.xmlsoap.org/wsdl/mime/
xmlns:tns="http://htng.org/PWSWG/2007/01/DigitalSignage" xmlns:s1=http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceRequest/Types
xmlns:s="http://www.w3.org/2001/XMLSchema" xmlns:s2=http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceResponse/Types
xmlns:s3=http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceCharacteristicsRequest/Types
xmlns:s4=http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceCharacteristicsResponse/Types
xmlns:s5="http://htng.org/PWSWG/2007/01/DigitalSignage/Faults/Types" xmlns:http=http://schemas.xmlsoap.org/wsdl/http/
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" targetNamespace="http://htng.org/PWSWG/2007/01/DigitalSignage">
        <wsdl:types>
                <s:schema>
                        <s:import namespace="http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceCharacteristicsRequest/Types"
schemaLocation="..\Schemas\MeetingSpaceCharacteristicsRequest.xsd"/>
                        <s:import namespace="http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceCharacteristicsResponse/Types"
schemaLocation="..\Schemas\MeetingSpaceCharacteristicsResponse.xsd"/>
                        <s:import namespace="http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceRequest/Types"
schemaLocation="..\Schemas\MeetingSpaceRequest.xsd"/>
                        <s:import namespace="http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceResponse/Types"
schemaLocation="..\Schemas\MeetingSpaceResponse.xsd"/>
                        <s:import namespace="http://htng.org/PWSWG/2007/01/DigitalSignage/Faults/Types"
schemaLocation="..\Schemas\MeetingSpaceServiceFaults.xsd"/>
                </s:schema>
        </wsdl:types>
        <wsdl:message name="MeetingSpaceSoapIn">
                <wsdl:part name="MeetingSpaceRequest" element="s1:MeetingSpaceRequest"/>
        </wsdl:message>
        <wsdl:message name="MeetingSpaceSoapOut">
                <wsdl:part name="MeetingSpaceResponse" element="s2:MeetingSpaceResponse"/>
        </wsdl:message>
        <wsdl:message name="MeetingSpaceCharacteristicsSoapIn">
                <wsdl:part name="MeetingSpaceCharacteristicsRequest" element="s3:MeetingSpaceCharacteristicsRequest"/>
        </wsdl:message>
        <wsdl:message name="MeetingSpaceCharacteristicsSoapOut">
                <wsdl:part name="MeetingSpaceCharacteristicsResponse" element="s4:MeetingSpaceCharacteristicsResponse"/>
        </wsdl:message>
        <wsdl:message name="DigitalSignageGenericFault">
                <wsdl:part name="parameters" element="s5:DigitalSignageGenericFault"/>
        </wsdl:message>
        <wsdl:message name="NoMeetingSpaceFoundFault">
                <wsdl:part name="parameters" element="s5:NoMeetingSpaceFoundFault"/>
        </wsdl:message>
        <wsdl:message name="InvalidDateTimeFault">
                <wsdl:part name="parameters" element="s5:InvalidDateTimeFault"/>
        </wsdl:message>
        <wsdl:message name="DateRangeTooLargeFault">
        <wsdl:part name="parameters" element="s5:DateRangeTooLargeFault"/>
    </wsdl:message>
    <wsdl:message name="InvalidPropertyKeyFault">
        <wsdl:part name="parameters" element="s5:InvalidPropertyKeyFault"/>
    </wsdl:message>
    <wsdl:message name="InvalidRoomGroupingFault">
        <wsdl:part name="parameters" element="s5:InvalidRoomGroupingFault"/>
    </wsdl:message>
    <wsdl:message name="InvalidEventKeyFault">
        <wsdl:part name="parameters" element="s5:InvalidEventKeyFault"/>
    </wsdl:message>
    <wsdl:message name="NoMeetingRoomsFoundFault">
        <wsdl:part name="parameter" element="s5:NoMeetingRoomsFoundFault"/>
    </wsdl:message>
    <wsdl:portType name="MeetingSpaceServiceSoap">
        <wsdl:operation name="MeetingSpaceRequest">
            <wsdl:input message="tns:MeetingSpaceSoapIn"/>
            <wsdl:output message="tns:MeetingSpaceSoapOut"/>
            <wsdl:fault name="DigitalSignageGenericFault" message="tns:DigitalSignageGenericFault"/>
            <wsdl:fault name="NoMeetingSpaceFoundFault" message="tns:NoMeetingSpaceFoundFault"/>
            <wsdl:fault name="InvalidDateTimeFault" message="tns:InvalidDateTimeFault"/>
            <wsdl:fault name="DateRangeTooLargeFault" message="tns:DateRangeTooLargeFault"/>
            <wsdl:fault name="InvalidPropertyKeyFault" message="tns:InvalidPropertyKeyFault"/>
            <wsdl:fault name="InvalidRoomGroupingFault" message="tns:InvalidRoomGroupingFault"/>
            <wsdl:fault name="InvalidEventKeyFault" message="tns:InvalidEventKeyFault"/>
        </wsdl:operation>
        <wsdl:operation name="MeetingSpaceCharacteristicsRequest">
            <wsdl:input message="tns:MeetingSpaceCharacteristicsSoapIn"/>
            <wsdl:output message="tns:MeetingSpaceCharacteristicsSoapOut"/>
            <wsdl:fault name="DigitalSignageGenericFault" message="tns:DigitalSignageGenericFault"/>
            <wsdl:fault name="InvalidPropertyKeyFault" message="tns:InvalidPropertyKeyFault"/>
            <wsdl:fault name="NoMeetingRoomsFoundFault" message="tns:NoMeetingRoomsFoundFault"/>
        </wsdl:operation>
    </wsdl:portType>
    <wsdl:binding name="MeetingSpaceServiceSoap" type="tns:MeetingSpaceServiceSoap">
        <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
        <wsdl:operation name="MeetingSpaceRequest">
            <soap:operation soapAction="http://htng.org/PWSWG/2007/01/DigitalSignage#MeetingSpaceRequest" style="document"/>
            <wsdl:input>
                <soap:body use="literal"/>
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal"/>
            </wsdl:output>
            <wsdl:fault name="DigitalSignageGenericFault">
                <wsdl:documentation>Contains an error code and message that explains the error details.  It is used when no other defined faults
are relevant.</wsdl:documentation>
            </wsdl:fault>
            <wsdl:fault name="NoMeetingSpaceFoundFault">
                <wsdl:documentation>No meeting space items were found for the specified filter criteria.</wsdl:documentation>
```

```
			</wsdl:fault>
			<wsdl:fault name="InvalidDateTimeFault">
				<wsdl:documentation>Invalid date or time information was specified.</wsdl:documentation>
			</wsdl:fault>
			<wsdl:fault name="DateRangeTooLargeFault">
				<wsdl:documentation>The date range specified was too large to process.</wsdl:documentation>
			</wsdl:fault>
			<wsdl:fault name="InvalidPropertyKeyFault">
				<wsdl:documentation>Invalid property key specified.</wsdl:documentation>
			</wsdl:fault>
			<wsdl:fault name="InvalidRoomGroupingFault">
				<wsdl:documentation>Invalid room grouping name specified, or the Sales and Catering system does not support room 
groupings.</wsdl:documentation>
			</wsdl:fault>
			<wsdl:fault name="InvalidEventKeyFault">
				<wsdl:documentation>Invalid event key specified.</wsdl:documentation>
			</wsdl:fault>
		</wsdl:operation>
		<wsdl:operation name="MeetingSpaceCharacteristicsRequest">
			<soap:operation soapAction="http://htng.org/PWSWG/2007/01/DigitalSignage#MeetingSpaceCharacteristicsRequest" style="document"/>
			<wsdl:input>
				<soap:body use="literal"/>
			</wsdl:input>
			<wsdl:output>
				<soap:body use="literal"/>
			</wsdl:output>
			<wsdl:fault name="DigitalSignageGenericFault">
				<wsdl:documentation>Contains an error code and message that explains the error details.  It is used when no other defined faults 
are relevant.</wsdl:documentation>
			</wsdl:fault>
			<wsdl:fault name="NoMeetingRoomsFoundFault">
				<wsdl:documentation>No meeting rooms were found.</wsdl:documentation>
			</wsdl:fault>
			<wsdl:fault name="InvalidPropertyKeyFault">
				<wsdl:documentation>Invalid property key specified.</wsdl:documentation>
			</wsdl:fault>
		</wsdl:operation>
	</wsdl:binding>
	<wsdl:service name="MeetingSpaceService">
		<wsdl:port name="MeetingSpaceServiceSoap" binding="tns:MeetingSpaceServiceSoap">
			<soap:address location="http://localhost/MeetingSpaceService/Request.asmx"/>
		</wsdl:port>
	</wsdl:service>
</wsdl:definitions>
```

Chapter 21 SOAP Examples

This section provides sample SOAP transactions that are used to communicate with the MeetingSpaceService web service.

21.1 Meeting Space Request

Below is an example of a raw SOAP request for Meeting Space data.

Sample File: **MeetingSpaceRequest_Sample.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi=http://www.w3.org/2001/XMLSchema-instance
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing” xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
        <wsa:Action>http://htng.org/PWSWG/2007/01/DigitalSignage#MeetingSpaceRequest</wsa:Action>
        <wsa:MessageID>urn:uuid:44088898-6926-4537-b1a3-4acc8e9f71d0</wsa:MessageID>
        <wsa:ReplyTo>
            <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
        </wsa:ReplyTo>
        <wsa:To>http://localhost:2025/MeetingSpaceProviderService/Request.asmx</wsa:To>
        <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-e157d58f-6589-4b3e-b2a9-5510dd9f270f">
                <wsu:Created>2008-04-17T15:35:25Z</wsu:Created>
                <wsu:Expires>2008-04-17T15:40:25Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu=http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd
            wsu:Id="SecurityToken-843aeb4f-07de-4c78-a438-e051d3baa764">
                <wsse:Username>TEST</wsse:Username>
                <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
            1.0#PasswordText">TEST_PASS</wsse:Password>
                <wsse:Nonce>9fY7BamB3GO47y+BsO8jig==</wsse:Nonce>
                <wsu:Created>2008-04-17T15:35:25Z</wsu:Created>
            </wsse:UsernameToken>
        </wsse:Security>
    </soap:Header>
    <soap:Body>
        <MeetingSpaceRequest propertyKey="3917" eventKey="" xmlns="http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceRequest/Types">
            <DateRange startDateTime="2008-04-17T08:00:00" endDateTime="2008-04-17T23:00:00" />
        </MeetingSpaceRequest>
    </soap:Body>
</soap:Envelope>
```

21.2 Meeting Space Response

This example shows the Meeting Space response SOAP message. Note that the wsa:RelatesTo guid in the SOAP header will be the same value that was sent up as the wsa:MessageID in the request.

NOTE: The *isResponseComplete* attribute at the top level MeetingSpaceResponse node is used to tell the caller if all of the requested data was returned. There can be cases where all of the data is not returned because the calller did not use a specific enough set of input filter parameters.

Sample File: **MeetingSpaceResponse_Sample.xml**

```
<?xml version="1.0"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi=http://www.w3.org/2001/XMLSchema-instance
  xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
  open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
  1.0.xsd">
  <soap:Header>
      <wsa:Action>http://htng.org/PWSWG/2007/01/DigitalSignage#MeetingSpaceRequestResponse</wsa:Action>
      <wsa:MessageID>urn:uuid:107a8d1a-51af-4f06-a6ef-dc9cc50a88fc</wsa:MessageID>
      <wsa:RelatesTo>urn:uuid:44088898-6926-4537-b1a3-4acc8e9f71d0</wsa:RelatesTo>
      <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
      <wsse:Security>
            <wsu:Timestamp wsu:Id="Timestamp-69a205cf-5348-48be-bf4d-edde0f2dd758">
                  <wsu:Created>2008-04-17T15:35:25Z</wsu:Created>
                  <wsu:Expires>2008-04-17T15:40:25Z</wsu:Expires>
            </wsu:Timestamp>
      </wsse:Security>
  </soap:Header>
  <soap:Body>
      <MeetingSpaceResponse xmlns="http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceResponse/Types">
            <Property propertyKey="3917" propertyName="Newmarket Hotel &amp; Spa">
                  <Event eventKey="44.42" eventName="Quarterly Meeting" eventLogo="" eventPostAs="Quarterly Meeting">
                        <Group name="Newmarket Travel Agency" key="4567.42" />
                        <MeetingSpace startDateTime="2008-04-17T11:21:20" endDateTime="2008-04-17T23:00:00" roomKey="123.42"
                  roomName="BallRoom 2" meetingKey="123.42.222.42" meetingName="Dinner" meetingPostAs="Dinner Reception" isPostable="true"
                  isExhibit="false">
                              <BackupMeetingRoom roomName="Backup Meeting Room Name" roomKey="1111.42" />
                              <OverflowMeetingRoom roomName="West Wing Corridor" roomKey="1112" />
                        </MeetingSpace>
                        <MeetingSpace startDateTime="0001-01-01T00:00:00" endDateTime="2008-04-17T17:00:00" roomKey="124.42"
                  roomName="BallRoom 1" meetingKey="124.42.222.42" meetingName="Quarterly Meeting" meetingPostAs="Quarterly Meeting"
                  isPostable="true" isExhibit="false" />
                  </Event>
                  <Event eventKey="4224.42" eventName="Kickoff Meeting" eventLogo="" eventPostAs="Kickoff Meeting">
                        <Group name="Portsmouth Travel Agency" key="6789.42" />
                        <MeetingSpace startDateTime="2008-05-17T11:21:20" endDateTime="2008-05-17T23:00:00" roomKey="123.42"
                  roomName="BallRoom 2" meetingKey="123.42.222.42" meetingName="Dinner" meetingPostAs="Dinner Reception" isPostable="true"
                  isExhibit="false">
```

```
                                <BackupMeetingRoom roomName="Backup Meeting Room Name" roomKey="1111.42" />
                                <OverflowMeetingRoom roomName="West Wing Corridor" roomKey="1112" />
                          </MeetingSpace>
                          <MeetingSpace startDateTime="0001-01-01T00:00:00" endDateTime="2008-04-17T17:00:00" roomKey="124.42"
                    roomName="BallRoom 1" meetingKey="124.42.222.42" meetingName="Quarterly Meeting" meetingPostAs="Quarterly Meeting"
                    isPostable="true" isExhibit="false" />
                    </Event>
               </Property>
          </MeetingSpaceResponse>
     </soap:Body>
</soap:Envelope>
```

21.3 Meeting Space Characteristics Request

This example shows the Meeting Space Characteristics request SOAP message.

Sample File: **MeetingSpaceCharacteristicsRequest_Sample.xml**

```
 <?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
  open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
  1.0.xsd">
  <soap:Header>
      <wsa:Action>http://htng.org/PWSWG/2007/01/DigitalSignage#MeetingSpaceCharacteristicsRequest</wsa:Action>
      <wsa:MessageID>urn:uuid:2902d88c-58c1-44de-88ba-1c3182fac2ab</wsa:MessageID>
      <wsa:ReplyTo>
        <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
      </wsa:ReplyTo>
      <wsa:To>http://localhost:2025/MeetingSpaceProviderService/Request.asmx</wsa:To>
      <wsse:Security soap:mustUnderstand="1">
            <wsu:Timestamp wsu:Id="Timestamp-31276e8c-193e-49bc-8ddc-fe146e645506">
                  <wsu:Created>2008-04-17T17:25:42Z</wsu:Created>
                  <wsu:Expires>2008-04-17T17:30:42Z</wsu:Expires>
            </wsu:Timestamp>
            <wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-
            0dae464b-4c19-4fb3-90c3-f366762e76c6">
                  <wsse:Username>TEST</wsse:Username>
                  <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-
            1.0#PasswordText">TEST_PASS</wsse:Password>
                  <wsse:Nonce>G01cMzwEIcj/lFoWtn8BJA==</wsse:Nonce>
                  <wsu:Created>2008-04-17T17:25:42Z</wsu:Created>
            </wsse:UsernameToken>
      </wsse:Security>
  </soap:Header>
  <soap:Body>
      <MeetingSpaceCharacteristicsRequest propertyKey="3917"
  xmlns="http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceCharacteristicsRequest/Types" />
  </soap:Body>
```

```
</soap:Envelope>
```

21.4 Meeting Space Characteristics Response

This is an example of a raw SOAP response messsage for Meeting Space Characteristics data.

Sample File: **MeetingSpaceCharacteristicsResponse_Sample.xml**

```
 <?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
   open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
   1.0.xsd">
   <soap:Header>
         <wsa:Action>http://htng.org/PWSWG/2007/01/DigitalSignage#MeetingSpaceCharacteristicsRequestResponse</wsa:Action>
         <wsa:MessageID>urn:uuid:90ee13e9-ba65-423b-9596-9f3e30b145af</wsa:MessageID>
         <wsa:RelatesTo>urn:uuid:2902d88c-58c1-44de-88ba-1c3182fac2ab</wsa:RelatesTo>
         <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
         <wsse:Security>
                  <wsu:Timestamp wsu:Id="Timestamp-d26c2884-0df1-4e80-954b-d081bf205bda">
                           <wsu:Created>2008-04-17T17:25:44Z</wsu:Created>
                           <wsu:Expires>2008-04-17T17:30:44Z</wsu:Expires>
                  </wsu:Timestamp>
         </wsse:Security>
   </soap:Header>
   <soap:Body>
         <MeetingSpaceCharacteristicsResponse isResponseComplete="true"
   xmlns="http://htng.org/PWSWG/2007/01/DigitalSignage/MeetingSpaceCharacteristicsResponse/Types">
                  <Property propertyKey="3917" propertyName="Newmarket Hotel &amp; Conference Center">
                     <MeetingSpaceCharacteristics roomKey="123.42" roomName="BallRoom 2" floorNumber="2" floorDescription="2nd Floor" roomGrouping="North
            Hall" directions="Proceed down the north hall and take a right." isDivisible="true" parentRoomKey="" mapReferenceNum="225" />
                     <MeetingSpaceCharacteristics roomKey="223.42" roomName="BallRoom 1" floorNumber="1" floorDescription="Main Floor"
            roomGrouping="North Hall" directions="Proceed down the north hall and take a right." isDivisible="true" parentRoomKey="" mapReferenceNum="125" />
                     <MeetingSpaceCharacteristics roomKey="100.42" roomName="Winchester Meeting Room" floorNumber="1" floorDescription="Main Floor"
            roomGrouping="West Wing" directions="Proceed down the main hall and take a left to west wing." parentRoomKey="" mapReferenceNum="110" />
                     <MeetingSpaceCharacteristics roomKey="100.42" roomName="Meeting Room A" floorNumber="3" floorDescription="3rd Floor"
            roomGrouping="Meeting Rooms" directions="Off the 3rd Floor elevator to the left." isDivisible="true" parentRoomKey="" mapReferenceNum="310" />
                  </Property>
         </MeetingSpaceCharacteristicsResponse>
   </soap:Body>
</soap:Envelope>
```

21.5 Meeting Space Service SOAP Faults Returned to Client

When an error occurs within the MeetingSpaceService web service, it throws a custom exception back to the caller. The possible types of exceptions returned are defined as *Error Faults* in Sections 18.1 and 18.2. The definitions for these faults are defined in the MeetingSpaceServiceFaults.xsd schema, which is referenced from the MeetingSpaceService.wsdl.

This is an example of a SOAP envelope for Meeting Space response data where an exception has been thrown on the server because the end date ocurred after the start date.

Sample File: **MeetingSpaceResponse_SOAP_Fault_Sample.xml**

```
<?xml version="1.0" encoding="UTF-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
   open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
   1.0.xsd">
   <soap:Header>
            <wsa:Action>http://schemas.xmlsoap.org/ws/2004/08/addressing/fault</wsa:Action>
            <wsa:MessageID>urn:uuid:3979f487-b545-4926-9c16-cbacfbf13795</wsa:MessageID>
            <wsa:RelatesTo>urn:uuid:342f7af8-d38a-47ab-b83e-ea63bd90473c</wsa:RelatesTo>
            <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
            <wsse:Security>
                     <wsu:Timestamp wsu:Id="Timestamp-89d0bd3d-1512-41f1-a352-43e5af5d9117">
                              <wsu:Created>2007-01-19T14:31:20Z</wsu:Created>
                              <wsu:Expires>2007-01-19T14:36:20Z</wsu:Expires>
                     </wsu:Timestamp>
            </wsse:Security>
   </soap:Header>
   <soap:Body>
            <soap:Fault>
                     <faultcode>soap:Client</faultcode>
                     <faultstring>WebServices.Faults.InvalidDateTimeFaultException: An exception occurred.
                     </faultstring>
                     <detail>
                              <InvalidDateTimeFault xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns="http://htng.org/PWSWG/2007/01/DigitalSignage/Faults/Types">
                                       <Details>The end date must be greater than or equal to the start date.</Details>
                              </InvalidDateTimeFault>
                     </detail>
            </soap:Fault>
   </soap:Body>
</soap:Envelope>
```

Part 4 ***Open Data Exchange, Version 1.4.2***

Chapter 22 Document Information (Part 4)

22.1 Change History

Version	Date	Author	Comments
1.0.1	03 December 2007	Paul Armstrong	Initial document available for discussion. Provide element and attribute descriptions include status code definitions. Provide samples. Provide comments.
1.0.2	06 December 2007	Paul Armstrong	Added sections required by standard format. Added element and attribute descriptions.
1.0.3	13 December 2007	Workgroup	Changed message names to include HTNG_ODX prefix. Added text to Section 5. Changed URIs to reflect htng.org/PWS/2008B designators.
1.1.0	13 January 2008	Brian Alessi	Updated FileTransfer.xsd to include file of type base64binary. Created use-cases for PullFile and PushFile messages. Inserted XML descriptions of data with PullFile_SubmitRequest, PullFile_SubmitResponse, PushFile_SubmitRequest, and PushFile_SubmitResponse. Inserted Request and Response SOAP examples from in-house implementation for both PullFile and PushFile.
1.3.0	28 April 2008	Brian Alessi	Changed URIs to reflect htng.org/PWS/2008B. Updated to Final Specification for 2008B. Added WSDL to specification.
1.3.1	02 June 2008	Brian Alessi	Updated specification to represent the asynchronous model of communication with standard naming for method names. Made syntactical update for SOAP and MTOM acronyms and removed named references in WSDLs and XSDs.
1.4.1	25 September 2008	Brian Alessi	No update – Final Release.
1.4.2	10 April 2009	Brian Alessi	Updated terminology for roles in sections 24.2, 24.3 and 24.4 to match CSQ.

22.2 Purpose

The document defines the Hotel Technology Next Generation (HTNG) Open Data Exchange Web Services messages.

22.3 Scope

The document defines the web services requests and responses that must be implemented to support ODX. The document also includes definitions, use-cases, and message flows associated with ODX data transfers.

22.4 Audience

This document is intended for use by developers and systems integrators who wish to use ODX to implement a standard data transfer mechanism. Other IT professionals will find this document useful in gaining a general understanding of HTNG ODX.

22.5 Terminology

For the purpose of this document the following terms have been defined as follows:

Term	**Definition**
HTNG	Hotel Technology Next Generation
MTOM	Message Transmission Optimization Mechanism – Used by ODX to optimize file transfers when using web services. MTOM optimizes the transfer of base 64 encoded data (xs:base64binary) by automatically including it as a binary attachment to the message.
ODX	Open Data Exchange
WSDL	Web Services Description Language
XML	Extensible Markup Language – A general-purpose markup language for creating special-purpose markup languages, capable of describing different kinds of data.
XSD	XML Schema Definition – A language for specifying the grammar of the markup allowed in an XML file. It describes the structure of an XML document
SOAP	Simple Object Access Protocol – A lightweight protocol for exchange of information in a decentralized, distributed environment.

22.6 Referenced Documents

Messages defined in this specification will be implemented using the HTNG Web Service Framework V2.1.

The following table shows the documents upon which this document depends:

Name	**Location**
HTNG Property Web Services Framework 2.1	http://www.htng.org

Chapter 23 Overview

ODX messages support “push” and “pull” data transfers. An application may “push” or send data file(s) unsolicited, to a “destination” application. Alternatively an application may “pull” or request data file(s) from a “source” application.

The message formats may be extended and designed to support many diverse use-cases.

The WSDL for the HTNG Open Data Exchange defines the “ODXService” web service. This web service consists of four functions defined in four port types. The port types are:

- **PullFileProviderPortType** – Port Type contains the request method for the Pull File method. This is to support asynchronous communication.
- **PushFileProviderPortType** – Port Type contains the request method for the Push File method. This is to support asynchronous communication.
- **PullFileConsumerPortType** – Port Type contains the response and fault methods for the Pull File request which supports asynchronous communication.
- **PushFileConsumerPortType** – Port Type contains the response and fault methods for the Push File request which supports asynchronous communication.

23.1 Supporting Schemas

The Open Data Exchange Web Service imports 1 schema which defines data payloads required by the functional messages. These are:

- FileTransfer.xsd – Defines request and response message contents and options.

As part of the standard HTNG specification it is also required to import 1 custom header schema as follows:

- HTNG_AsyncHeaders.xsd – Defines the standard header elements required for complying with HTNG specification.

Chapter 24 Business Process

24.1 Overview

Today, much inter-application communication is achieved by transferring data files of various formats using many transport mechanisms. The transport mechanisms and processes vary by application/vendor pair and in practice they are often primitive and usually very difficult to monitor and manage. For hoteliers, this impacts property system reliability, increases support costs, and makes technology evolution a costly headache.

There is a need to establish a simple, consistent, and manageable inter-application file transfer mechanism. This mechanism needs to be platform-independent and compatible with tomorrow's Enterprise Service Bus architectures.

24.2 Roles

There are two roles: a Data Receiver and a Data Sender.

24.3 Behavior

The Data Receiver is responsible for providing a service for pushing files, or for initiating requests to pull files.

The Data Sender is responsible for providing a service for pulling files, or for initiating requests to push files.

24.4 Use-Cases

PullFile_SubmitRequest/PullFile_SubmitResponse

The PullFile_SubmitRequest will give consumers the ability to obtain one or more files from a source system. These files can be large in nature as the following schemas support binary transfer of the files from the source system. This is so the entire response doesn't need to be stored in memory. A consumer can initiate a PullFile_SubmitRequest to request one or more files from a providing system. Based on the implementation, the location of the files requested should be known by the consumer or should be implied when making a call for a file. The PullFile_SubmitResponse will contain all file information as defined in FileTransfer.xsd.

- ODX Data Receiver makes a PullFile_SubmitRequest to the ODX Data Sender.
- The ODX Data Sender reviews the request and collects all files requested.
- The files are converted to byte arrays so they may be transfer back to the ODX Data Receiver.
- The ODX Data Sender delivers the PullFileResponse object back to the ODX Data Receiver.
- The ODX Data Reciever reviews the response for the data which was requested and any errors.

PushFile_SubmitRequest/PushFile_SubmitResponse

The PushFile_SubmitRequest will allow consumers to package multiple files into one message for transfer to a destination (in this case a providing) system. During the data transfer there may exist error messages in the PushFile_SubmitResponse which can be mimicked back to the consumer.

- The ODX Data Sender packages a set of file on their server.
- The ODX Data Sender converts the file to byte arrays for transfer to the ODX Data Receiver.
- Using MTOM the ODX Data Reciever consumes the PushFile_SubmitRequest method from the ODX Data Sender.
- The ODX Data Sender accepts the incoming PushFile_SubmitRequest and forms a PushFileResponse object.
- The ODX Data Sender delivers the PushFileResponse object back to the ODX Data Receiver.
- The ODX Data Reciever reviews the response for errors.

In all methods of communication the File contents are a byte array transferred using MTOM for large file transfer support. These byte arrays can either be exported to represent the documents as they were in the source system or they can be consumed within the destination service/application. This would have to be an agreement made between vendor systems outside of this specification. There is not contention for how the data is manipulated after it has reached its destination. It is intended that the destination service/application mine the data as needed.

Chapter 25 Schemas

25.1 Open Data Exchange

Soap Header

All messages must include a soap header that conforms to the WSAddressing and WSSecurity specifications. Receiving systems may optionally require that the wsa:To element match a specific destination address, and therefore, this element should be configurable at run time. In addition, all sending systems must identify themselves by specifying a wsa:From element unique for their system. Typically, this is in the form of “URN:<*system*>”. The wsa:ReplyTo address may be the anonymous form described in the August, 2004 specification.

WSSecurity may be optionally implemented. Providers are only required to support basic plain text authentication with a username and password.

The user credentials will be limited to a single login per system, agreed between two vendors. There is no requirement to support multiple user logins from a single vendor through this interface.

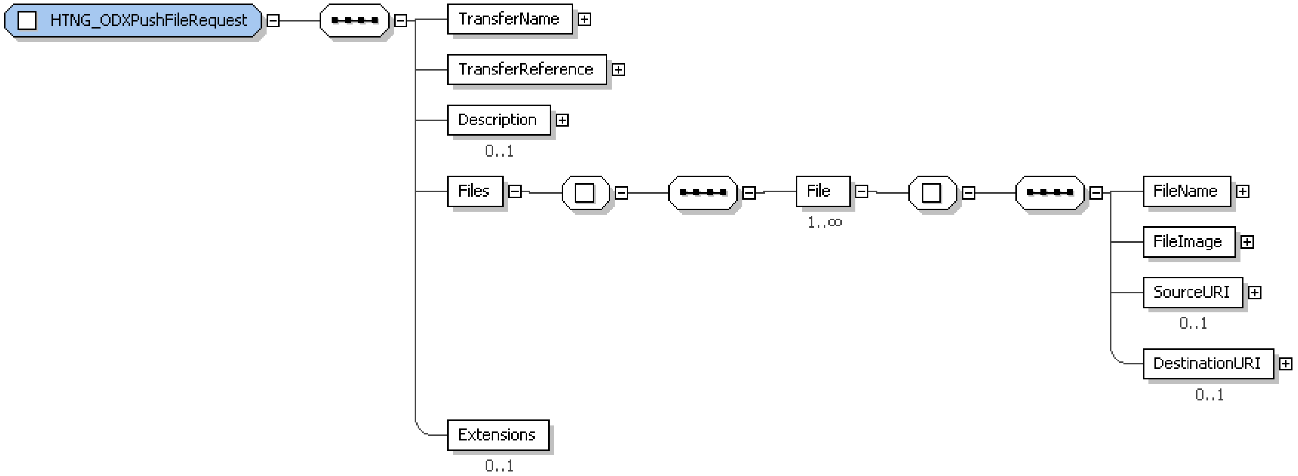
Sample Header Message

```
<soap:Header>
<wsa:Action>http://htng.org/PWS/2008B/OpenDataExchange#PushFile_SubmitRequest</wsa:Action>
<wsa:From>
<wsa:Address>urn:SourceApplication</wsa:Address>
</wsa:From>
<wsa:MessageID>urn:uuid:e63d962e-94b6-434c-89ea-1c5ae2e0f8ba</wsa:MessageID>
<wsa:ReplyTo>
<wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
</wsa:ReplyTo>
<wsa:To>http://www.othersystem.com/HTNGFileTransfer/</wsa:To>
<wsse:Security soap:mustUnderstand="1">
<wsu:Timestamp wsu:Id="Timestamp-015e2941-114a-466e-87b6-8c431b9f5c44">
<wsu:Created>2006-10-26T12:49:17Z</wsu:Created>
<wsu:Expires>2006-10-26T12:54:17Z</wsu:Expires>
</wsu:Timestamp>
<wsse:UsernameToken xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd" wsu:Id="SecurityToken-627f1ab1-338a-
451f-9829-84f248e57ad8">
<wsse:Username>HTNG</wsse:Username>
<wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#PasswordText">HTNG</wsse:Password>
<wsse:Nonce>qls5nr9rM7VaUYAwhrHSoA==</wsse:Nonce>
<wsu:Created>2006-10-26T12:49:17Z</wsu:Created>
</wsse:UsernameToken>
</wsse:Security>
</soap:Header>
```

PushFile_SubmitRequest

A Push File request message is submitted by a source application to a destination application in order to transfer one or more files from the source application to the destination application. MTOM should be enabled.

Port	PushFileProviderPortType
Operation	PushFile_SubmitRequest
Soap Action	http://htng.org/PWS/2008B/ODXService#PushFile_SubmitRequest
Input	PushFileRequest
Primary Schema	FileTransfer.xsd
Role(s) Implemented	File Transfer Requestor


HTNG_ODXPushFileRequest
TransferName
TransferReference
Description
0..1
Files
File
1..∞
FileName
FileImage
SourceURI
0..1
DestinationURI
0..1
Extensions
0..1

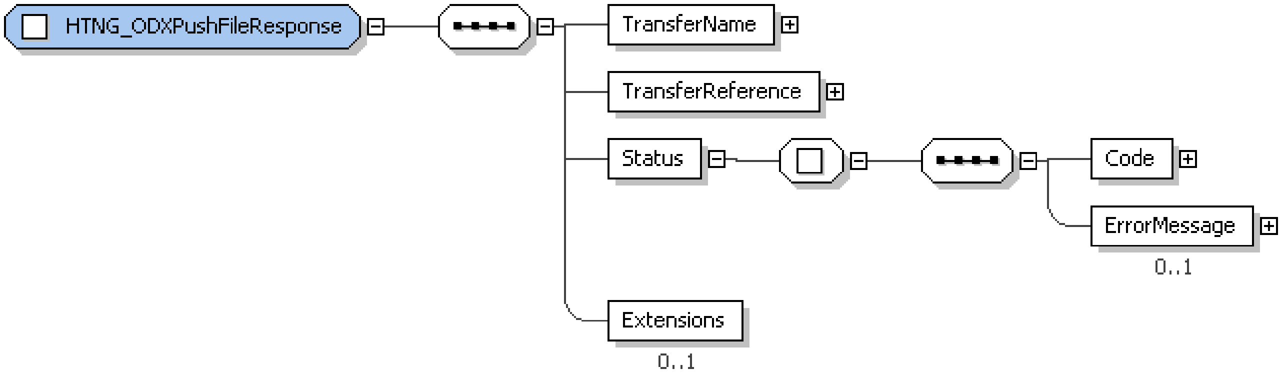
Element | @Attribute	**Number**	**Description/Contents**
PushFileRequest	1	Root element of the message
TransferName	1	Arbitrary name given to this transfer, should be meaningful to the responder.
TransferReference	1	Specific transfer reference, should be unique for each request message.
Description	0..1	Optional description.
Files	1	Element contains the files being transferred.
File	1..N	Contains a file being transferred.
FileName	1	The filename of the file being transferred.
FileImage	1	The file’s contents

Element | @Attribute	**Number**	**Description / Contents**
SourceURI	0..1	Optional element containing the URI from where the file was sourced by the requestor.
DestinationURI	0..1	Optional element containing a URI that defines where the responder should place the file.
Extensions	0..1	Optional element into which Requestor and Responder may place mutually agreed extensions.

PushFileRequest

```
<PushFile xmlns="http://htng.org/PWS/2008B/ODXService#PushFile_SubmitRequest">
   <Request>
    <TransferName>string</TransferName>
    <TransferReference>string</TransferReference>
    <Description>string</Description>
    <Files>
     <File>
      <FileName>string</FileName>
      <FileImage>base64Binary</FileImage>
      <SourceURI>string</SourceURI>
      <DestinationURI>string</DestinationURI>
      <File>base64Binary</File>
     </File>
     <File>
      <FileName>string</FileName>
      <FileImage>base64Binary</FileImage>
      <SourceURI>string</SourceURI>
      <DestinationURI>string</DestinationURI>
      <File>base64Binary</File>
     </File>
    </Files>
    <Extensions />
   </Request>
  </PushFile>
```

Port	PushFileConsumerPortType
Operation	PushFile_SubmitResponse
Soap Action	http://htng.org/PWS/2008B/ODXService#PushFile_SubmitResponse
Output	PushFileResponse
Primary Schema	FileTransfer.xsd
Role(s) Implemented	File Transfer Responder


HTNG_ODXPushFileResponse
TransferName
TransferReference
Status
Code
ErrorMessage
0..1
Extensions
0..1

Element | @Attribute	**Number**	**Description / Contents**
PushFileResponse	1	Root element of the message
TransferName	1	Arbitrary name given to this transfer, should contain the same value as the request message.
TransferReference	1	Specific transfer reference, should contain the same value as the request message.
Status	1	Contains status information.
Code	1	Contains: 0 = Successful < 0: Error
ErrorMessage	0..1	If Code = Error, this element contains a message describing the error reason.
Extensions	0..1	Optional element into which Requestor and Responder may place mutually agreed extensions.

PushFileResponse

```
<PushFileResponse xmlns="http://htng.org/PWS/2008B/ODXService#PushFile_SubmitResponse">
   <PushFileResult>
    <TransferName>string</TransferName>
    <TransferReference>string</TransferReference>
    <Status>
      <Code>string</Code>
      <ErrorMessage>string</ErrorMessage>
    </Status>
    <Extensions />
   </PushFileResult>
  </PushFileResponse>
```

Sample Message

[Request]

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
    <soap:Header>
     <myHeader>
      <CorrelationID xmlns="http://htng.org/PWSWG/2007/02/AsyncHeaders">urn:uuid:882d75b9-f674-41ed-8cc2-f0206fcbef18</CorrelationID>
      <ReplyTo xmlns="http://htng.org/PWSWG/2007/02/AsyncHeaders">
       <Address xmlns="http://schemas.xmlsoap.org/ws/2004/08/addressing">http://localhost/ConsumerService/Service.asmx</Address>
      </ReplyTo>
      <FaultTo xmlns="http://htng.org/PWSWG/2007/02/AsyncHeaders">
       <Address xmlns="http://schemas.xmlsoap.org/ws/2004/08/addressing">http://localhost/ConsumerService/Service.asmx</Address>
      </FaultTo>
     </myHeader>
     <wsa:Action>http://htng.org/PWS/2008B/ODXService#PushFile_SubmitRequest</wsa:Action>
     <wsa:MessageID>urn:uuid:ebd6651d-058f-4ecb-80d1-dda226b9c05d</wsa:MessageID>
     <wsa:ReplyTo>
      <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
     </wsa:ReplyTo>
     <wsa:To>http://localhost:4060/ODXProviderService/ODXServices.asmx</wsa:To>
     <wsse:Security>
      <wsu:Timestamp wsu:Id="Timestamp-3e60948d-95c7-4788-8e53-f13a5a37e16b">
       <wsu:Created>2008-01-14T02:54:16Z</wsu:Created>
       <wsu:Expires>2008-01-14T02:59:16Z</wsu:Expires>
      </wsu:Timestamp>
     </wsse:Security>
    </soap:Header>
    <soap:Body>
     <PushFile xmlns="http://htng.org/PWS/2008B/ODXService#PushFile_SubmitRequest">
      <Request>
       <TransferName>Test Transfer</TransferName>
       <TransferReference>http://htng.org/PWS/2008B/ODXService</TransferReference>
       <Description>Simple push file test</Description>
       <Files>
        <File>
         <FileName>test.txt</FileName>
         <SourceURI>http://htng.org/PWS/2008B/ODXService/Consumer</SourceURI>
         <DestinationURI>http://htng.org/PWS/2008B/ODXService/Producer</DestinationURI>
         <File>AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA==</File>
        </File>
       </Files>
      </Request>
     </PushFile>
    </soap:Body>
   </soap:Envelope>
```

[Response]

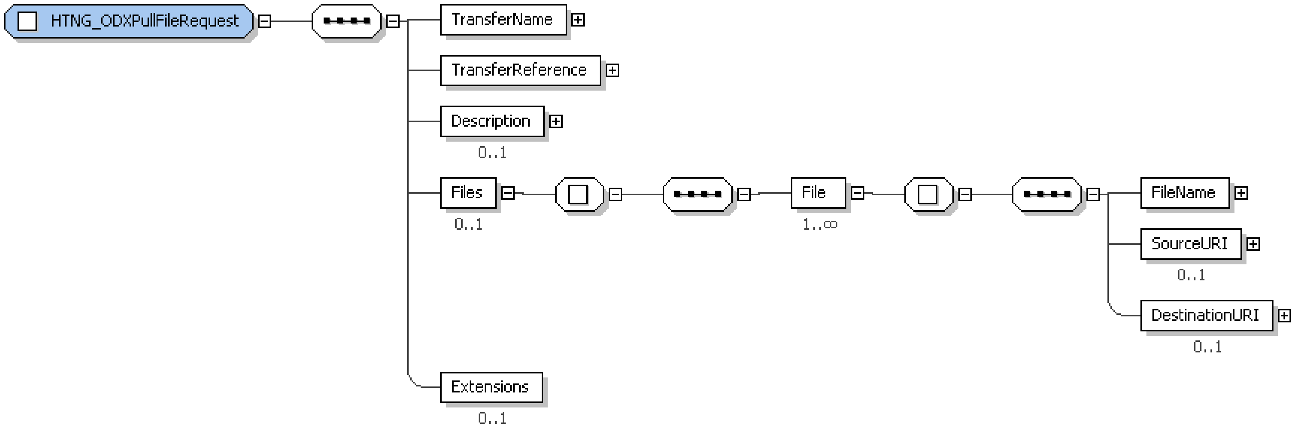
```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
     <myHeader>
      <CorrelationID xmlns="http://htng.org/PWSWG/2007/02/AsyncHeaders">urn:uuid:882d75b9-f674-41ed-8cc2-f0206fcbef18</CorrelationID>
      <ReplyTo xmlns="http://htng.org/PWSWG/2007/02/AsyncHeaders">
       <Address xmlns="http://schemas.xmlsoap.org/ws/2004/08/addressing">http://localhost/ConsumerService/Service.asmx</Address>
      </ReplyTo>
      <FaultTo xmlns="http://htng.org/PWSWG/2007/02/AsyncHeaders">
       <Address xmlns="http://schemas.xmlsoap.org/ws/2004/08/addressing">http://localhost/ConsumerService/Service.asmx</Address>
      </FaultTo>
     </myHeader>
     <wsa:Action>http://htng.org/PWS/2008B/ODXService#PushFile_SubmitResponse</wsa:Action>
     <wsa:MessageID>urn:uuid:b465ff0f-6fa1-4e9d-8a49-4817d77ef019</wsa:MessageID>
     <wsa:RelatesTo>urn:uuid:ebd6651d-058f-4ecb-80d1-dda226b9c05d</wsa:RelatesTo>
     <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
     <wsse:Security>
      <wsu:Timestamp wsu:Id="Timestamp-6fbcea64-2bb5-41da-9f40-0a71e567a974">
       <wsu:Created>2008-01-14T02:54:16Z</wsu:Created>
       <wsu:Expires>2008-01-14T02:59:16Z</wsu:Expires>
      </wsu:Timestamp>
     </wsse:Security>
    </soap:Header>
    <soap:Body>
     <PushFileResponse xmlns="http://htng.org/PWS/2008B/ODXService#PushFile_SubmitResponse">
      <PushFileResult />
       <TransferName>Test Transfer</TransferName>
       <TransferReference>http://htng.org/PWS/2008B/ODXService</TransferReference>
       <Status>
        <Code>Success</Code>
        <ErrorMessage>Your transmission was successful</ErrorMessage>
       </Status>
     </PushFileResponse>
    </soap:Body>
  </soap:Envelope>
```

PullFile_SubmitRequest

A Pull File request message is submitted by a destination application to a source application in order to transfer one or more files from the source application to the destination application. MTOM should be enabled.

Port	PullFileProviderPortType
Operation	PullFile_SubmitRequest
Soap Action	http://htng.org/PWS/2008B/OpenDataExchange#PullFile_SubmitRequest

Input	PullFileRequest
Primary Schema	FileTransfer.xsd
Role(s) Implemented	File Transfer Requestor

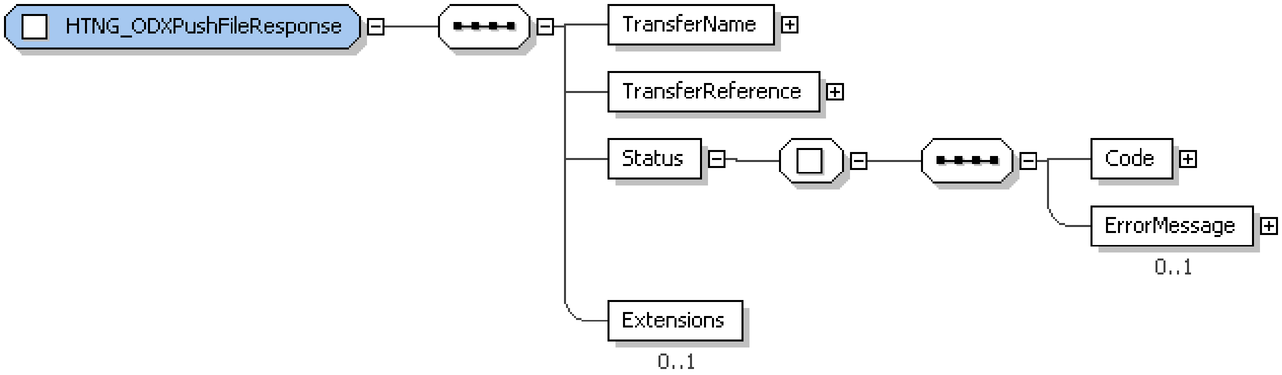

HTNG_ODXPullFileRequest
TransferName
TransferReference
Description
0..1
Files
0..1
File
1..∞
FileName
SourceURI
0..1
DestinationURI
0..1
Extensions
0..1

Element | @Attribute	**Number**	**Description/Contents**
PullFileRequest	1	Root element of the message
TransferName	1	Arbitrary name given to this transfer, should be meaningful to the responder.
TransferReference	1	Specific transfer reference, should be unique for each request message.
Description	0..1	Optional description.
Files	0..1	Optional element contains information about the files to be transfer. Optional as contents of TransferName may, through mutual agreement with the responder, dictate which file(s) are to be transferred.
File	1..N	Contains information about a file to be transferred.
FileName	1	The filename of the file being transferred.
SourceURI	0..1	Optional element containing the URI from where the file is sourced by the requestor.
DestinationURI	0..1	Optional element containing a URI that defines where the requestor should place the file.
Extensions	0..1	Optional element into which Requestor and Responder may place mutually agreed extensions.

PullFileRequest

```
<PullFile xmlns="http://htng.org/PWS/2008B/ODXService#PullFile_SubmitRequest">
    <Request>
      <filesField>
      <PullFileRequestFile>
        <FileName>string</FileName>
        <SourceURI>string</SourceURI>
        <DestinationURI>string</DestinationURI>
      </PullFileRequestFile>
      <PullFileRequestFile>
        <FileName>string</FileName>
        <SourceURI>string</SourceURI>
        <DestinationURI>string</DestinationURI>
      </PullFileRequestFile>
    </filesField>
    <TransferName>string</TransferName>
    <TransferReference>string</TransferReference>
    <Description>string</Description>
    <Files>
      <File>
        <FileName>string</FileName>
        <SourceURI>string</SourceURI>
        <DestinationURI>string</DestinationURI>
      </File>
      <File>
        <FileName>string</FileName>
        <SourceURI>string</SourceURI>
        <DestinationURI>string</DestinationURI>
      </File>
    </Files>
    <Extensions />
  </Request>
</PullFile>
```

Port	PullFileConsumerPortType
Operation	PullFile_SubmitResponse
Soap Action	http://htng.org/PWS/2008B/OpenDataExchange#PushFile_SubmitResponse
Output	PullFileResponse
Primary Schema	FileTransfer.xsd
Role(s) Implemented	File Transfer Responder



Element | @Attribute	**Number**	**Description / Contents**
PullFileResponse	1	Root element of the message
TransferName	1	Arbitrary name given to this transfer, should contain the same value as the request message.
TransferReference	1	Specific transfer reference, should contain the same value as the request message.
Status	1	Contains status information.
Code	1	Contains: 0 = Successful < 0: Error
ErrorMessage	0..1	If Code = Error, this element contains a message describing the error reason.
Files	0..1	Optional Element contains the files being transferred. Will not be present if an error occurred.
File	1..N	Contains a file being transferred.
FileSize	0..1	Contains size of individual files being transferred (in bytes).
FileName	1	The filename of the file being transferred.
FileImage	1	The file contents
SourceURI	0..1	Optional element containing the URI from where the file was sourced by the responder.
DestinationURI	0..1	Optional element containing a URI that defines where the requestor should place the file.
Extensions	0..1	Optional element into which Requestor and Responder may place mutually agreed extensions.

PullFileResponse

```
<PullFileResponse xmlns="http://htng.org/PWS/2008B/ODXService#PullFile_SubmitResponse">
    <PullFileResult>
      <TransferName>string</TransferName>
    <TransferReference>string</TransferReference>
    <Status>
      <Code>string</Code>
      <ErrorMessage>string</ErrorMessage>
    </Status>
    <Files>
      <File>
        <FileName>string</FileName>
        <FileSize>int</FileSize>
        <FileImage>base64Binary</FileImage>
        <SourceURI>string</SourceURI>
        <DestinationURI>string</DestinationURI>
        <File>base64Binary</File>
      </File>
      <File>
        <FileName>string</FileName>
        <FileImage>base64Binary</FileImage>
        <SourceURI>string</SourceURI>
        <DestinationURI>string</DestinationURI>
        <File>base64Binary</File>
      </File>
    </Files>
    <Extensions />
  </PullFileResult>
</PullFileResponse>
```

Sample Message

[Request]

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
    <soap:Header>
      <myHeader>
        <CorrelationID xmlns="http://htng.org/PWSWG/2007/02/AsyncHeaders">urn:uuid:1e1db2be-32eb-43fc-a34f-c21191672c8a</CorrelationID>
        <ReplyTo xmlns="http://htng.org/PWSWG/2007/02/AsyncHeaders">
          <Address xmlns="http://schemas.xmlsoap.org/ws/2004/08/addressing">http://localhost/ConsumerService/Service.asmx</Address>
        </ReplyTo>
        <FaultTo xmlns="http://htng.org/PWSWG/2007/02/AsyncHeaders">
          <Address xmlns="http://schemas.xmlsoap.org/ws/2004/08/addressing">http://localhost/ConsumerService/Service.asmx</Address>
        </FaultTo>
      </myHeader>
      <wsa:Action>http://htng.org/PWS/2008B/ODXService#PullFile_SubmitRequest</wsa:Action>
      <wsa:MessageID>urn:uuid:fa161e28-bc73-4f92-8c47-815fdfc42677</wsa:MessageID>
      <wsa:ReplyTo>
        <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
      </wsa:ReplyTo>
    <wsa:To>http://localhost:4060/ODXProviderService/ODXServices.asmx</wsa:To>
    <wsse:Security>
      <wsu:Timestamp wsu:Id="Timestamp-7cf82de0-0fb6-48a2-bc83-36ed50fbea21">
        <wsu:Created>2008-01-14T02:50:04Z</wsu:Created>
        <wsu:Expires>2008-01-14T02:55:04Z</wsu:Expires>
      </wsu:Timestamp>
    </wsse:Security>
  </soap:Header>
  <soap:Body>
    <PullFile xmlns="http://htng.org/PWS/2008B/ODXService#PullFile_SubmitRequest">
      <Request>
        <TransferName>Test Transfer</TransferName>
        <TransferReference>http://htng.org/PWS/2008B/ODXService</TransferReference>
        <Description>Simple pull file test</Description>
        <Files>
          <File>
            <FileName>test.txt</FileName>
            <SourceURI>http://htng.org/PWS/2008B/ODXService/Consumer</SourceURI>
            <DestinationURI>http://htng.org/PWS/2008B/ODXService/Producer</DestinationURI>
          </File>
        </Files>
      </Request>
    </PullFile>
  </soap:Body>
</soap:Envelope>
```

[Response]

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:wsse="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd" xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">
  <soap:Header>
    <myHeader>
      <CorrelationID xmlns="http://htng.org/PWSWG/2007/02/AsyncHeaders">urn:uuid:1e1db2be-32eb-43fc-a34f-c21191672c8a</CorrelationID>
      <ReplyTo xmlns="http://htng.org/PWSWG/2007/02/AsyncHeaders">
        <Address xmlns="http://schemas.xmlsoap.org/ws/2004/08/addressing">http://localhost/ConsumerService/Service.asmx</Address>
      </ReplyTo>
      <FaultTo xmlns="http://htng.org/PWSWG/2007/02/AsyncHeaders">
        <Address xmlns="http://schemas.xmlsoap.org/ws/2004/08/addressing">http://localhost/ConsumerService/Service.asmx</Address>
      </FaultTo>
    </myHeader>
    <wsa:Action>http://htng.org/PWS/2008B/ODXService#PullFile_SubmitResponse</wsa:Action>
    <wsa:MessageID>urn:uuid:fee0e8a9-bb6d-4bfd-b662-9f426950827f</wsa:MessageID>
    <wsa:RelatesTo>urn:uuid:fa161e28-bc73-4f92-8c47-815fdfc42677</wsa:RelatesTo>
    <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
    <wsse:Security>
      <wsu:Timestamp wsu:Id="Timestamp-bdac64c6-bb97-4287-93cf-6e90547619d5">
        <wsu:Created>2008-01-14T02:50:04Z</wsu:Created>
        <wsu:Expires>2008-01-14T02:55:04Z</wsu:Expires>
      </wsu:Timestamp>
     </wsse:Security>
    </soap:Header>
    <soap:Body>
     <PullFileResponse xmlns="http://htng.org/PWS/2008B/ODXService#PullFile_SubmitResponse">
      <PullFileResult>
       <TransferName>Test Transfer</TransferName>
       <TransferReference>http://htng.org/PWS/2008B/ODXService</TransferReference>
       <Status>
        <Code>Success</Code>
        <ErrorMessage>Your transmission was successful</ErrorMessage>
       </Status>
       <Files>
        <File>
         <FileName>test.txt</FileName>
              <FileSize>100</FileSize>
         <SourceURI>A matching URI</SourceURI>
         <DestinationURI>A matching URI</DestinationURI>

<File>SGkuICBIb3cgYXJlIHlvdSBkb2luZyB0b2RheT8gIEl0IGlzIGEgZ29vZCBkYXkgaXNuJ3QgaXQ/DQoNCkkgdGhpbmsgd2Ugc2hvdWxkIHRlc3QgYWxsIHRoZSBkYXRhLg=
=</File>
        </File>
       </Files>
      </PullFileResult>
     </PullFileResponse>
    </soap:Body>
   </soap:Envelope>
```

File Transfer XSD

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- updated with MS Visual Studio 2005 by Brian Alessi (Delaware North Companies, Inc.) -->
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified" attributeFormDefault="unqualified">
 <xs:element name="FileTransfer"/>
 <xs:complexType name="PushFileRequest">
  <xs:sequence>
   <xs:element name="TransferName" type="xs:string" />
   <xs:element name="TransferReference" type="xs:string" />
   <xs:element name="Description" type="xs:string" minOccurs="0" />
   <xs:element name="Files">
    <xs:complexType>
     <xs:sequence>
      <xs:element name="File" maxOccurs="unbounded">
       <xs:complexType>
        <xs:sequence>
         <xs:element name="FileName" type="xs:string" />
              <xs:element name="FileSize" type="xs:int" />
         <xs:element name="FileImage" type="xs:base64Binary" maxOccurs="1" />
         <xs:element name="SourceURI" type="xs:string" minOccurs="0" />
         <xs:element name="DestinationURI" type="xs:string" minOccurs="0" />
```

```
                  <xs:element name="File" type="xs:base64Binary" />
                </xs:sequence>
              </xs:complexType>
            </xs:element>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="Extensions" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="PushFileResponse">
    <xs:sequence>
      <xs:element name="TransferName" type="xs:string" />
      <xs:element name="TransferReference" type="xs:string" />
      <xs:element name="Status">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="Code" type="xs:string" />
            <xs:element name="ErrorMessage" type="xs:string" minOccurs="0" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="Extensions" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="PullFileRequest">
    <xs:sequence>
      <xs:element name="TransferName" type="xs:string" />
      <xs:element name="TransferReference" type="xs:string" />
      <xs:element name="Description" type="xs:string" minOccurs="0" />
      <xs:element name="Files" minOccurs="0">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="File" maxOccurs="unbounded">
              <xs:complexType>
                <xs:sequence>
                  <xs:element name="FileName" type="xs:string" />
                  <xs:element name="SourceURI" type="xs:string" minOccurs="0" />
                  <xs:element name="DestinationURI" type="xs:string" minOccurs="0" />
                </xs:sequence>
              </xs:complexType>
            </xs:element>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="Extensions" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="PullFileResponse">
    <xs:sequence>
```

```
      <xs:element name="TransferName" type="xs:string" />
      <xs:element name="TransferReference" type="xs:string" />
      <xs:element name="Status">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="Code" type="xs:string" />
            <xs:element name="ErrorMessage" type="xs:string" minOccurs="0" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="Files" minOccurs="0">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="File" maxOccurs="unbounded">
              <xs:complexType>
                <xs:sequence>
                  <xs:element name="FileName" type="xs:string" />
                  <xs:element name="FileImage" type="xs:base64Binary" minOccurs="1">
                  </xs:element>
                  <xs:element name="SourceURI" type="xs:string" minOccurs="0" />
                  <xs:element name="DestinationURI" type="xs:string" minOccurs="0" />
                  <xs:element name="File" type="xs:base64Binary" />
                </xs:sequence>
              </xs:complexType>
            </xs:element>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="Extensions" minOccurs="0" />
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```

ODXServices.wsdl

```
<?xml version="1.0" encoding="UTF-8"?>
<wsdl:definitions xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/" xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:http="http://schemas.xmlsoap.org/wsdl/http/" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:soapenc="http://schemas.xmlsoap.org/soap/encoding/" xmlns:mime="http://schemas.xmlsoap.org/wsdl/mime/"
xmlns:tns="http://htng.org/PWS/2008B/ODXService" xmlns:htng="http://htng.org/PWSWG/2007/02/AsyncHeaders"
xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing" xmlns:ns="http://htng.org/PWSWG/2007/02/Faults"
xmlns:odx="http://htng.org/PWS/2008B/ODXService/FileTransfer" targetNamespace="http://htng.org/PWS/2008B/ODXService">
        <wsdl:import namespace="http://htng.org/PWSWG/2007/02/AsyncHeaders" location="HTNG_AsyncHeaders.xsd"/>
        <wsdl:import namespace="http://htng.org/PWSWG/2007/02/AsyncPingSample" location="Faults.xsd"/>
        <wsdl:import namespace="http://htng.org/PWS/2008B/ODXService/FileTransfer" location="FileTransfer.XSD"/>
        <wsdl:types>
                <xs:schema targetNamespace="http://htng.org/PWS/2008B/ODXService" elementFormDefault="qualified"/>
        </wsdl:types>
        <wsdl:message name="PullFile_SubmitRequestSoapIn">
                <wsdl:part name="input" element="odx:PullFileRequest"/>
```

```
</wsdl:message>
<wsdl:message name="PullFile_SubmitRequestSoapOut"/>
<wsdl:message name="PushFile_SubmitRequestSoapIn">
        <wsdl:part name="parameter" element="odx:PushFileRequest"/>
</wsdl:message>
<wsdl:message name="PushFile_SubmitRequestSoapOut"/>
<wsdl:message name="PullFile_SubmitResultSoapIn">
        <wsdl:part name="parameter" element="odx:PullFileResponse"/>
</wsdl:message>
<wsdl:message name="PullFile_SubmitResultSoapOut"/>
<wsdl:message name="PushFile_SubmitResultSoapIn">
        <wsdl:part name="parameter" element="odx:PushFileResponse"/>
</wsdl:message>
<wsdl:message name="PushFile_SubmitResultSoapOut"/>
<wsdl:message name="PullFile_SubmitFaultSoapIn">
        <wsdl:part name="parameter" element="ns:Fault"/>
</wsdl:message>
<wsdl:message name="PullFile_SubmitFaultSoapOut"/>
<wsdl:message name="PushFile_SubmitFaultSoapIn">
        <wsdl:part name="parameter" element="ns:Fault"/>
</wsdl:message>
<wsdl:message name="PushFile_SubmitFaultSoapOut"/>
<wsdl:message name="HTNGHeaders">
        <wsdl:part name="CorrelationID" element="htng:CorrelationID"/>
        <wsdl:part name="RelatesToCorrelationID" element="htng:RelatesToCorrelationID"/>
        <wsdl:part name="ReplyTo" element="htng:ReplyTo"/>
        <wsdl:part name="FaultTo" element="htng:FaultTo"/>
</wsdl:message>
<wsdl:portType name="PullFileProviderPortType">
        <wsdl:operation name="PullFile_SubmitRequest">
                <wsdl:input message="tns:PullFile_SubmitRequestSoapIn"/>
                <wsdl:output message="tns:PullFile_SubmitRequestSoapOut"/>
        </wsdl:operation>
</wsdl:portType>
<wsdl:portType name="PushFileProviderPortType">
        <wsdl:operation name="PushFile_SubmitRequest">
                <wsdl:input message="tns:PushFile_SubmitRequestSoapIn"/>
                <wsdl:output message="tns:PushFile_SubmitRequestSoapOut"/>
        </wsdl:operation>
</wsdl:portType>
<wsdl:portType name="PullFileConsumerPortType">
        <wsdl:operation name="PullFile_SubmitResult">
                <wsdl:input message="tns:PullFile_SubmitResultSoapIn"/>
                <wsdl:output message="tns:PullFile_SubmitResultSoapOut"/>
        </wsdl:operation>
        <wsdl:operation name="PullFile_SubmitFault">
                <wsdl:input message="tns:PullFile_SubmitFaultSoapIn"/>
                <wsdl:output message="tns:PullFile_SubmitFaultSoapOut"/>
        </wsdl:operation>
</wsdl:portType>
```

```
<wsdl:portType name="PushFileConsumerPortType">
	<wsdl:operation name="PushFile_SubmitResult">
		<wsdl:input message="tns:PushFile_SubmitResultSoapIn"/>
		<wsdl:output message="tns:PushFile_SubmitResultSoapOut"/>
	</wsdl:operation>
	<wsdl:operation name="PushFile_SubmitFault">
		<wsdl:input message="tns:PushFile_SubmitFaultSoapIn"/>
		<wsdl:output message="tns:PushFile_SubmitFaultSoapOut"/>
	</wsdl:operation>
</wsdl:portType>
<wsdl:binding name="PullFileProviderBinding" type="tns:PullFileProviderPortType">
	<soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
	<wsdl:operation name="PullFile_SubmitRequest">
		<soap:operation soapAction="http://htng.org/PWS/2008B/ODXService#PullFile_SubmitRequest" style="document"/>
		<wsdl:input>
			<soap:body use="literal"/>
			<soap:header message="tns:HTNGHeaders" part="CorrelationID" use="literal"/>
			<soap:header message="tns:HTNGHeaders" part="FaultTo" use="literal"/>
			<soap:header message="tns:HTNGHeaders" part="ReplyTo" use="literal"/>
		</wsdl:input>
		<wsdl:output>
			<soap:body use="literal"/>
		</wsdl:output>
	</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="PushFileProviderBinding" type="tns:PushFileProviderPortType">
	<soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
	<wsdl:operation name="PushFile_SubmitRequest">
		<soap:operation soapAction="http://htng.org/PWS/2008B/ODXService#PushFile_SubmitRequest"/>
		<wsdl:input>
			<soap:body use="literal"/>
			<soap:header message="tns:HTNGHeaders" part="CorrelationID" use="literal"/>
			<soap:header message="tns:HTNGHeaders" part="FaultTo" use="literal"/>
			<soap:header message="tns:HTNGHeaders" part="ReplyTo" use="literal"/>
		</wsdl:input>
		<wsdl:output>
			<soap:body use="literal"/>
		</wsdl:output>
	</wsdl:operation>
</wsdl:binding>
<wsdl:binding name="PullFileConsumerBinding" type="tns:PullFileConsumerPortType">
	<soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
	<wsdl:operation name="PullFile_SubmitResult">
		<soap:operation soapAction="http://htng.org/PWS/2008B/ODXService#PullFile_SubmitResult"/>
		<wsdl:input>
			<soap:body use="literal"/>
			<soap:header message="tns:HTNGHeaders" part="RelatesToCorrelationID" use="literal"/>
		</wsdl:input>
		<wsdl:output>
			<soap:body use="literal"/>
```

```
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="PullFile_SubmitFault">
            <soap:operation soapAction="http://htng.org/PWS/2008B/ODXService#PullFile_SubmitFault"/>
            <wsdl:input>
                <soap:body use="literal"/>
                <soap:header message="tns:HTNGHeaders" part="RelatesToCorrelationID" use="literal"/>
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal"/>
            </wsdl:output>
        </wsdl:operation>
    </wsdl:binding>
    <wsdl:binding name="PushFileConsumerBinding" type="tns:PushFileConsumerPortType">
        <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
        <wsdl:operation name="PushFile_SubmitResult">
            <soap:operation soapAction="http://htng.org/PWS/2008B/ODXService#PushFile_SubmitResult"/>
            <wsdl:input>
                <soap:body use="literal"/>
                <soap:header message="tns:HTNGHeaders" part="RelatesToCorrelationID" use="literal"/>
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal"/>
            </wsdl:output>
        </wsdl:operation>
        <wsdl:operation name="PushFile_SubmitFault">
            <soap:operation soapAction="http://htng.org/PWS/2008B/ODXService#PushFile_SubmitFault"/>
            <wsdl:input>
                <soap:body use="literal"/>
                <soap:header message="tns:HTNGHeaders" part="RelatesToCorrelationID" use="literal"/>
            </wsdl:input>
            <wsdl:output>
                <soap:body use="literal"/>
            </wsdl:output>
        </wsdl:operation>
    </wsdl:binding>
    <wsdl:service name="ODXProviderService">
        <wsdl:port name="PullFileProviderPort" binding="tns:PullFileProviderBinding">
            <soap:address location="http://localhost/ODXProvider"/>
        </wsdl:port>
        <wsdl:port name="PushFileProviderPort" binding="tns:PushFileProviderBinding">
            <soap:address location="http://localhost/ODXProvider"/>
        </wsdl:port>
    </wsdl:service>
    <wsdl:service name="ODXConsumerService">
        <wsdl:port name="PullFileConsumerPort" binding="tns:PullFileConsumerBinding">
            <soap:address location="http://localhost/ODXConsumer"/>
        </wsdl:port>
        <wsdl:port name="PushFileConsumerPort" binding="tns:PushFileConsumerBinding">
            <soap:address location="http://localhost/ODXConsumer"/>
```

```
                </wsdl:port>
        </wsdl:service>
</wsdl:definitions>
```

Chapter 26 Implementation Requirements

26.1 Mandatory Requirements

A system must implement one or both of the File Transfer Requestor and File Transfer Responder roles. For the File Transfer Requestor role, the PushFile_SubmitRequest and PullFile_SubmitRequest messages must be implemented. For the File Transfer Responder role, the PushFile_SubmitResponse and PullFile_SubmitResponse messages must be implemented.

SOAP MTOM must be enabled in the programming environment (e.g., .NET or J2EE) for both the Requestor and the Responder.

26.2 Implementation Options

The contents of the transferred file may also need to be encrypted to meet regulatory requirements for data security (such as Payment Card Industry Data Security Standards).

26.3 External Requirements

Mandatory Requirements

The HTNG Web Services Framework v2.1 must be implemented for transport of the messages. WS-Security must be supported, although it may be disabled in specific implementations where security is not an issue (such as transfer of files within a secure corporate network).

Implementation Options

SSL transport should be considered when transferring sensitive data.

Part 5 Back Office Integration, Version 2.0

Chapter 27 Document Information (Part 5)

27.1 Change History

Final Version

Version	Date	Author	Comments
2.0	April 10, 2009	Gary Fletcher, PAS (Professional Accounting Solutions, Inc.)	Final Version

Version 2.0 of the Back Office Integration Specification is a total rewrite over previous versions.

Previous versions of the Back Office Specification, the change histories of which are detailed below, were enclosed in the Property Web Services Specification Release 2008B for informational purposes only and were not certifiable.

Integration Specification

Version	Date	Author	Comments
1.0	July 19, 2007	Dieter Krause SAP AG	Initial submission
1.1	August 3, 2007	Dieter Krause SAP AG	GetMapping and CheckMapping included
1.2	August 10,2007	Dieter Krause SAP AG	PostGL: single side transactions allowed. Attribute “TransactionMode” added. CheckMapping: merged with GetMapping. GetMapping results extended with dimensions and debit/credit information for accounts. Whole document: name of element “Standarddimensions” changed to “Dimension” , since the set of dimensions is not restricted by the specification
1.3	August 17, 2007	Dieter Krause SAP AG	GetMapping and PostAR modified
1.4	August 30, 2007	Dieter Krause SAP AG	MessageNumber added to header, PostGL,PostAR and PostStatistics modified (e.g.,ServiceDate added)
1.4	December 19, 2007	Dieter Krause SAP AG	Final editing

Use-Cases

Version	Date	Author	Comments
0.9	June 1, 2007	Dieter Krause SAP AG	Initial proposal, incomplete, for format discussion only
1.0	July 26, 2007	Dieter Krause SAP AG	More use-cases added
1.1	August 2,2007	Dieter Krause SAP AG	Reflects comments by MICROS Systems, Inc.
1.2	August 10,2007	Dieter Krause SAP AG	Corresponds to Specification Document Version 1.2

1.3	August 17, 2007	Dieter Krause SAP AG	Use-cases 9 -11 added (PostAR applied to groups) Changes in specification document reflected
1.4	August 23, 2007	Dieter Krause SAP AG	Use-cases adapted to include MessageNumber
1.4	December 19, 2007	Dieter Krause SAP AG	Final editing

Message Specification

Date	**Author**	**Comments**
January 26, 2006	Tom Gresham, MICROS Systems, Inc.	Initial submission
August 16, 2007	Tom Gresham, MICROS Systems, Inc.	Revision per workgroup discussions
August 20, 2007	Tom Gresham, MICROS Systems, Inc.	Accounts receivable and mapping sections
August 29, 2007	Tom Gresham, MICROS Systems, Inc.	Correct statistical posting message and additions to accounts receivable message
September 11, 2007	Tom Gresham, MICROS Systems, Inc.	Add missing Message Number to transaction header and update namespace to September 2007
September 20, 2007	Tom Gresham, MICROS Systems, Inc.	Change mapping detail to include multiple dimensions on source element

27.2 Contributors

Version 2.0

Company/Organization	**Contributor**
Aptech Computer Systems	Cam Troutman
Birch Street Systems	Sue Pfister
DataVision Technologies	Sherry Marek
Delaware North Companies	Yvette Vincent
IBM Corporation	Chris Laffoon
Four Seasons Hotels & Resorts	Natasha Nelson
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Versions 1.0-1.4

Company / Organization	**Contributor**
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Folio Exchange	Glen Miller
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PAS (Professional Accounting Solutions, Inc.)	Bill Euler, Gary Fletcher
PAR Springer-Miller Systems	Brigitte Guy, Penka Sevova
SAP	Axel Janz, Dieter Krause
TAC GmbH	Thomas Rössler, Bernhard Rappold

27.3 Purpose

This document describes a Back Office Interface for the hotel industry. It also provides functional business and technical descriptions of the web services required. Expertise in XML, SOAP, and HTTP required.

The document also includes extensive use-cases.

27.4 Referenced Documents

The following table shows the documents upon which this document depends:

Name	**Location**
HTNG Web Service Framework 2.1.1	Describes the web services framework standards to which implementers may adhere.

Chapter 28 Business Process

This document defines a generic message format for exchange of accounting data between a revenue capturing system and the back office system in a hotel environment, and this section shows by examples how these services can be used in practice to model different business events (called "use cases") in a hotel or related institutions like a Spa, and how the resulting postings in the accounting system could look like.

It has be understood that these postings are only examples and could be done differently in different countries due to legislation or common practice.

28.1 Use Cases

Daily Activity

Use-Case ID	GJE01
Name	Daily Activity
Brief Description	This use case describes the scenario where at the end of a business day, a property would like to gather the activities from all auxiliary systems in order to produce a Daily Report. As such, the back office system must receive daily balances from multiple systems such as PMS, POS, Labor … Please note that these are not necessarily sent in a balanced or transaction format.
Provider of Service	Accounting System
Actor	Revenue generating or auxiliary system

Sample resulting accounts:

Sample from PMS

Description	Transaction Date	Charge Code	Debit	Credit
Transient Room Revenue	01/09/2009	TRR	100.00	
Group Room Revenue	01/09/2009	GRR	50.00	
Changes in Guest Ledger	01/09/2009	---		150.00

Entry in Back Office

Description	Transaction Date	Account	Dept	Debit	Credit
Transient Room Revenue	01/09/2009	3100	100		100.00
Group Room Revenue	01/09/2009	3200	100		50.00
Guest Ledger	01/09/2009	1350		150.00	

```
<PostGeneralLedgerData>
  <SourceID>GJE01</SourceID>
  <MessageDate>2009-01-16T15:39:00</MessageDate>
  <MessageID>DAILY BALANCE</MessageID>
  <TranslationMatrix i:nil="true" />
  <Attributes>
    <GLAttribute>
      <Name>PropertyCode</Name>
      <Value>01</Value>
    </GLAttribute>
    <GLAttribute>
      <Name>SystemType</Name>
      <Value>PMS</Value>
    </GLAttribute>
  </Attributes>
  <Transactions>
    <GLTransaction>
      <JournalLines>
        <GLJournalLine>
          <Attributes>
            <GLAttribute>
              <Name>DEPT</Name>
              <Value>100</Value>
            </GLAttribute>
            <GLAttribute i:nil="true" />
          </Attributes>
          <Account>3100</Account>
          <Amount>
            <Value>100</Value>
            <Sign>Credit</Sign>
            <CurrencyCode>USD</CurrencyCode>
          </Amount>
          <TransactionDate>2009-01-09T23:00:00</TransactionDate>
          <Description>Daily TB January 9, 2009</Description>
          <Reference>TB010909</Reference>
          <Period>
            <Year>2009</Year>
            <Periodic>1</Periodic>
          </Period>
          <JournalSource>PMS</JournalSource>
          <JournalType>GJ</JournalType>
        </GLJournalLine>
        <GLJournalLine>
          <Attributes>
            <GLAttribute>
              <Name>DEPT</Name>
              <Value>100</Value>
            </GLAttribute>
```

```xml
          </Attributes>
          <Account>3200</Account>
          <Amount>
            <Value>50</Value>
            <Sign>Credit</Sign>
            <CurrencyCode>USD</CurrencyCode>
          </Amount>
          <TransactionDate>2009-01-09T23:00:00</TransactionDate>
          <Description>Daily TB January 9, 2009</Description>
          <Reference>TB010909</Reference>
          <Period>
            <Year>2009</Year>
            <Periodic>1</Periodic>
          </Period>
          <JournalSource>PMS</JournalSource>
          <JournalType>GJ</JournalType>
        </GLJournalLine>
        <GLJournalLine>
          <Attributes />
          <Account>1350</Account>
          <Amount>
            <Value>150</Value>
            <Sign>Debit</Sign>
            <CurrencyCode>USD</CurrencyCode>
          </Amount>
          <TransactionDate>2009-01-09T23:00:00</TransactionDate>
          <Description>Daily TB January 9, 2009</Description>
          <Reference>TB010909</Reference>
          <Period>
            <Year>2009</Year>
            <Periodic>1</Periodic>
          </Period>
          <JournalSource>PMS</JournalSource>
          <JournalType>GJ</JournalType>
        </GLJournalLine>
      </JournalLines>
      <Attributes />
    </GLTransaction>
  </Transactions>
</PostGeneralLedgerData>
```

Send Budget from GL System to Budgeting System

Use-Case ID	GJE02
Name	Send Budget from GL System to Budgeting System
Brief Description	This use case describes a situation where there are two back office accounting/financial systems that must share data. Periodically, the General Ledger System must both send data to and receive data from a Budgeting System. Typically this data spans accounting periods and, detailing the TYPE of transaction is of paramount importance, as Budget Data does not get posted into the General Ledger, but typically into a Budget Ledger.
Provider of Service	Accounting System
Actor	Budgeting System

Sample resulting accounts:

Note: The Translation Matrix would be used to indicate the change to the Budget Ledger, and indicate how to handle a one-sided entry for Budgeting purposes.

Description	**Period**	**Account**	**Dept**	**Debit**	**Credit**
Transient Room Revenue	January 2009	3100	100		25000.00
Transient Room Revenue	February 2009	3100	100		30000.00

```
<PostGeneralLedgerData>
  <SourceID>GJE02</SourceID>
  <MessageDate>2009-01-16T15:39:00</MessageDate>
  <MessageID>BUDGET UPLOAD</MessageID>
  <TranslationMatrix i:nil="true" />
  <Attributes>
    <GLAttribute>
      <Name>PropertyCode</Name>
      <Value>01</Value>
    </GLAttribute>
    <GLAttribute>
      <Name>SystemType</Name>
      <Value>PMS</Value>
    </GLAttribute>
  </Attributes>
  <Transactions>
  <GLTransaction>
   <JournalLines>
    <GLJournalLine>
     <Attributes>
      <GLAttribute>
       <Name>DEPT</Name>
       <Value>100</Value>
      </GLAttribute>
      <GLAttribute i:nil="true" />
     </Attributes>
     <Account>3100</Account>
     <Amount>
      <Value>25000</Value>
      <Sign>Credit</Sign>
      <CurrencyCode>USD</CurrencyCode>
     </Amount>
     <TransactionDate>2009-01-09T23:00:00</TransactionDate>
     <Description>BUDGET UPLOAD</Description>
     <Reference>09 BUDGET</Reference>
     <Period>
      <Year>2009</Year>
      <Periodic>1</Periodic>
     </Period>
     <JournalSource>BUDGET</JournalSource>
     <JournalType>GJ</JournalType>
    </GLJournalLine>
    <GLJournalLine>
     <Attributes>
      <GLAttribute>
       <Name>DEPT</Name>
       <Value>100</Value>
      </GLAttribute>
     </Attributes>
     <Account>3100</Account>
     <Amount>
      <Value>30000</Value>
      <Sign>Credit</Sign>
      <CurrencyCode>USD</CurrencyCode>
     </Amount>
     <TransactionDate>2009-01-09T23:00:00</TransactionDate>
     <Description>BUDGET UPLOAD</Description>
     <Reference>09 BUDGET</Reference>
     <Period>
      <Year>2009</Year>
      <Periodic>2</Periodic>
     </Period>
     <JournalSource>BUDGET</JournalSource>
     <JournalType>GJ</JournalType>
    </GLJournalLine>
   </JournalLines>
```

```
    <Attributes />
  </GLTransaction>
 </Transactions>
</PostGeneralLedgerData>
```

Post Revenues

Use-Case ID	PMS01
Name	Post revenues
Brief Description	This use-case describes the case when the RCS (Revenue Capturing System) is sending revenue data to the Accounting system, split by reservation. The RCS is a PMS system. It is sending a revenue of EUR 100 net for room charges. The revenues are qualified by several dimensions.
Provider of Service	Accounting System
Actor	Revenue generating system

Resulting accounts:

Room Charge Account 3000

Debit	**Credit**
	100.00

You can use Translation Matrix to indicate how to handle a one-sided entry from PMS.

```
<?xml version="1.0" encoding="utf-8"?>
<PostGeneralLedgerData>
 <SourceID>PMS0001</SourceID>
 <MessageDate>2009-01-16T15:39:00</MessageDate>
 <MessageID>ABC12345</MessageID>
 <TranslationMatrix i:nil="true" />
 <Attributes>
  <GLAttribute>
    <Name>PropertyCode</Name>
    <Value>01</Value>
  </GLAttribute>
  <GLAttribute>
    <Name>SystemType</Name>
    <Value>PMS</Value>
  </GLAttribute>
  </Attributes>
  <Transactions>
    <GLTransaction>
      <JournalLines>
        <GLJournalLine>
          <Attributes>
            <GLAttribute>
              <Name>RoomType</Name>
              <Value>Standard</Value>
            </GLAttribute>
            <GLAttribute>
              <Name>Market</Name>
              <Value>Group</Value>
            </GLAttribute>
          </Attributes>
          <Account>3000</Account>
          <Amount>
            <Value>100</Value>
            <Sign>Credit</Sign>
            <CurrencyCode>EUR</CurrencyCode>
          </Amount>
          <TransactionDate>2009-01-16T15:44:00</TransactionDate>
          <Description>Room charge 4-Dec-06</Description>
          <Reference>Reservation 4711</Reference>
          <Period>
            <Year>2009</Year>
            <Periodic>12</Periodic>
          </Period>
          <JournalSource i:nil="true" />
          <JournalType i:nil="true" />
        </GLJournalLine>
      </JournalLines>
      <Attributes />
    </GLTransaction>
  </Transactions>
</PostGeneralLedgerData>
```

Use-Case ID	PMS01a
Name	Post revenues
Brief Description	This use-case describes the case when the RCS (Revenue Capturing System) is sending revenue data to the Accounting system. In this case, the RCS is a Spa system. It is sending a revenue for BodyTreatment of EUR 100 net. The revenues are qualified by several dimensions.
Provider of Service	Accounting System

Actor	Revenue generating system

Resulting accounts:

Guest Ledger – Cash Account 1000 **Income Journal**

Debit	Credit
100.00	

RevenueBodyTreatment – Account 3700

Debit	Credit
	100.00

```xml
<PostGeneralLedgerData>
  <SourceID>PMS01a</SourceID>
  <MessageDate>2009-01-16T15:39:00</MessageDate>
  <MessageID>ABC12345</MessageID>
  <TranslationMatrix i:nil="true" />
  <Attributes>
    <GLAttribute>
      <Name>PropertyCode</Name>
      <Value>01</Value>
    </GLAttribute>
    <GLAttribute>
      <Name>SystemType</Name>
      <Value>SPA</Value>
    </GLAttribute>
  </Attributes>
  <Transactions>
    <GLTransaction>
      <JournalLines>
        <GLJournalLine>
          <Attributes>
            <GLAttribute>
              <Name>Facility</Name>
              <Value>Pool</Value>
            </GLAttribute>
            <GLAttribute>
              <Name>Provider</Name>
              <Value>Internal</Value>
            </GLAttribute>
          </Attributes>
          <Account>3700</Account>
          <Amount>
            <Value>100</Value>
      <Sign>Credit</Sign>
      <CurrencyCode>EUR</CurrencyCode>
     </Amount>
     <TransactionDate>2009-01-16T15:44:00</TransactionDate>
     <Description>Room charge 4-Dec-06</Description>
     <Reference>SPA 0001</Reference>
     <Period>
      <Year>2009</Year>
      <Periodic>12</Periodic>
     </Period>
     <JournalSource i:nil="true" />
     <JournalType i:nil="true" />
    </GLJournalLine>
   </JournalLines>
   <Attributes />
  </GLTransaction>
 </Transactions>
</PostGeneralLedgerData>
</request>
</PostGeneralLedger>
```

Use-Case ID	PMS01b
Name	Post revenues
Brief Description	This use-case describes the case when the RCS (Revenue Capturing System) is sending revenue data to the Accounting system, split by reservation, including tax posting. The RCS is a PMS system. It is sending a revenue of USD 100 net for room charges + USD for 10 Tax payable. The revenues are qualified by several dimensions.
Provider of Service	Accounting System
Actor	Revenue generating system

Resulting accounts:

Guest Ledger – Cash Account 1000

Debit	**Credit**
110.00	

Room Charge – Account 3000

Debit	**Credit**
	100.00

TaxPayable – Account 2210

Debit	Credit
	10

```
<PostGeneralLedgerData>
  <SourceID>PMS01b</SourceID>
  <MessageDate>2009-01-16T15:39:00</MessageDate>
  <MessageID>ABC12345</MessageID>
  <TranslationMatrix i:nil="true" />
  <Attributes>
    <GLAttribute>
      <Name>PropertyCode</Name>
      <Value>01</Value>
    </GLAttribute>
    <GLAttribute>
      <Name>SystemType</Name>
      <Value>PMS</Value>
    </GLAttribute>
  </Attributes>
  <Transactions>
    <GLTransaction>
      <JournalLines>
        <GLJournalLine>
          <Attributes>
            <GLAttribute>
              <Name>PMS</Name>
              <Value>FRONT OFFICE</Value>
            </GLAttribute>
            <GLAttribute>
              <Name>Provider</Name>
              <Value>Internal</Value>
            </GLAttribute>
          </Attributes>
          <Account>3000</Account>
          <Amount>
            <Value>100</Value>
            <Sign>Credit</Sign>
            <CurrencyCode>USD</CurrencyCode>
          </Amount>
          <TransactionDate>2009-01-16T15:44:00</TransactionDate>
          <Description>Room charge 4-Dec-06</Description>
          <Reference>SAMPLE 1</Reference>
          <Period>
            <Year>2009</Year>
            <Periodic>12</Periodic>
          </Period>
          <JournalSource>PMS</JournalSource>
          <JournalType>GJ</JournalType>
        </GLJournalLine>
        <GLJournalLine>
          <Attributes />
          <Account>1000</Account>
          <Amount>
            <Value>110</Value>
            <Sign>Debit</Sign>
            <CurrencyCode>USD</CurrencyCode>
          </Amount>
          <TransactionDate>2009-01-16T16:09:00</TransactionDate>
          <Description>Room charge 4-Dec-06</Description>
          <Reference>SAMPLE 1</Reference>
          <Period>
            <Year>2009</Year>
            <Periodic>12</Periodic>
          </Period>
          <JournalSource>PMS</JournalSource>
          <JournalType>GJ</JournalType>
        </GLJournalLine>
        <GLJournalLine>
          <Attributes />
          <Account>2210</Account>
          <Amount>
            <Value>10</Value>
            <Sign>Credit</Sign>
            <CurrencyCode>USD</CurrencyCode>
          </Amount>
          <TransactionDate>2009-01-16T16:22:00</TransactionDate>
          <Description>Room charge 4-Dec-06</Description>
          <Reference>SAMPLE 1</Reference>
          <Period>
            <Year>2009</Year>
            <Periodic>12</Periodic>
          </Period>
          <JournalSource>PMS</JournalSource>
          <JournalType>GJ</JournalType>
        </GLJournalLine>
      </JournalLines>
      <Attributes />
    </GLTransaction>
  </Transactions>
</PostGeneralLedgerData>
```

Chapter 29 Message Specifications

29.1 Back Office Service

The WSDL for the HTNG Back Office Integration System web services currently defines operations related to the posting of General Ledger transaction data. Previous specifications defined additional web methods for a single web service with a common type system but this document is taking the approach that each type of web method should be implemented in a separate web service without a common type system. This will allow vendors and customers to implement only those services that they need and allow for greater specificity in the design of the services described by the specification. Currently, only the General Ledger posting process is addressed.

Supporting Schemas

The Back Office Web Service leverages a single schema (GeneralLedger.xsd) which defines the data payloads required by the functional messages.

Soap Header

All messages must include a soap header that conforms to the WS-Addressing and WS-Security specifications.

WS-Addressing support: Receiving systems may optionally require that the To element match a specific destination address, and therefore, this element should be configurable at run time. In addition, all sending systems must identify themselves by specifying a From element unique for their system. Typically, this is in the form of “URN:<*system*>”. The ReplyTo address may be the anonymous form described in the August, 2004 specification. The .NET message encoding equivalents are Soap11WSAddressingAugust2004 and Soap12WSAddressingAugust2004.

WS-Security may be optionally implemented. Providers are only required to support basic plain text authentication with a username and password. The user credentials will be limited to a single login per system, agreed between two vendors. There is no requirement to support multiple user logins from a single vendor through this interface.

Sample Header Message

```
<s:Envelope
        xmlns:s="http://www.w3.org/2003/05/soap-envelope"
        xmlns:a="http://schemas.xmlsoap.org/ws/2004/08/addressing"
        xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
 <s:Header>
  <a:Action s:mustUnderstand="1">http://htng.org/PWS/2009A/BackOffice/GeneralLedger/PostGeneralLedger </a:Action>
  <a:MessageID>urn:uuid:a5eb3994-dc8d-4b7a-a5f0-4ac722f75e89</a:MessageID>
  <a:ReplyTo>
   <a:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</a:Address>
  </a:ReplyTo>
  <a:To > http://localhost:8888/HTNG/2009A/GeneralLedger/PostGeneralLedger </a:To>
```

```
    <o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
      <u:Timestamp u:Id="_0">
        <u:Created>2009-01-10T22:58:42.407Z</u:Created>
        <u:Expires>2009-01-10T23:03:42.407Z</u:Expires>
      </u:Timestamp>
      <o:UsernameToken u:Id="uuid-2782c239-c193-4ceb-9c7f-88fecf1ee269-1">
        <o:Username>USERNAME</o:Username>
        <o:Password>PASSWORD</o:Password>
      </o:UsernameToken>
    </o:Security>
  </s:Header>
  <s:Body>
    <PayloadMethodName>
    </PayloadMethodName>
  </s:Body>
</s:Envelope>
```

Asynchronous and Asynchronous Processing

The specification is originally designed to implement synchronous communication. In the future, the system may be extended to implement asynchronous processing, per standards established in the latest HTNG Framework specification.

Mapping System

Inherent in any back office integration mechanism is the requirement to perform mapping and or/aggregation of data including (but not limited to) the mapping and translation of account codes, department codes, transaction analysis codes from the sending system to the back office accounting system. This mapping can occur at either the source or destination endpoint or by an extension component. This specification will not address the implementation of mapping logic but will provide a mechanism to communicate mapping information through for the development of 3rd party add-ins for this purpose.

Roles

There are various roles that interact with this interface. These are:

- Accounting System (ACC) – collects summary or detailed information from various source systems.
- Mapping Layer (MAP) – translates account identifiers in the source system to equivalent items in the accounting system.
- Revenue Capturing System (RCS) – generic system generating source transactions. Examples include:
    - Property Management System (PMS) – generates source transactions from a hotel property which are passed to the accounting system either in detail form or as summary information.
    - Point of Sale System (POS) – generates source transactions from a point of sale collection system which are passed to the accounting system.
    - Activity (ACT) – generates source transactions from entities such as a spa or golf booking system.
- Budgeting, Planning, and Forecasting (BPF) - perform advanced analysis and may need to export budget/forecasting data.

29.2 Port Type

The Acc port is provided by the accounting system in order to provide a means to post various transactions generated in a source system. The functions provided are:

- **GeneralLedger** – Post generic transaction to the accounting system.

Web Methods Addressed

Currently only one Service Contract is defined by this specification. Move will follow to replace those in specification 1.4.

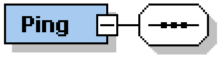
- GeneralLedger - service contract that defines methods relating to general ledger transaction posting
  - Ping - verify service connectivity
  - PostGeneralLedger - Post generic transaction to the accounting system.

Post General Ledger - Ping

The Ping function verifies connectivity between the caller and servicing endpoints.

Service Contract	GeneralLedger
Operation	Ping
Soap Action	http://HTNG.org/PWS/2009A/BackOffice/GeneralLedger/Ping

Ping



```
<xs:element name="Ping">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

Used to verify connectivity to the web service. Ensures that connectivity and security are correctly in place.

Name	**Type**	**Data Type**	**Use**	**Comments**

PingResponse

PingResponse

```
<xs:element name="PingResponse">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

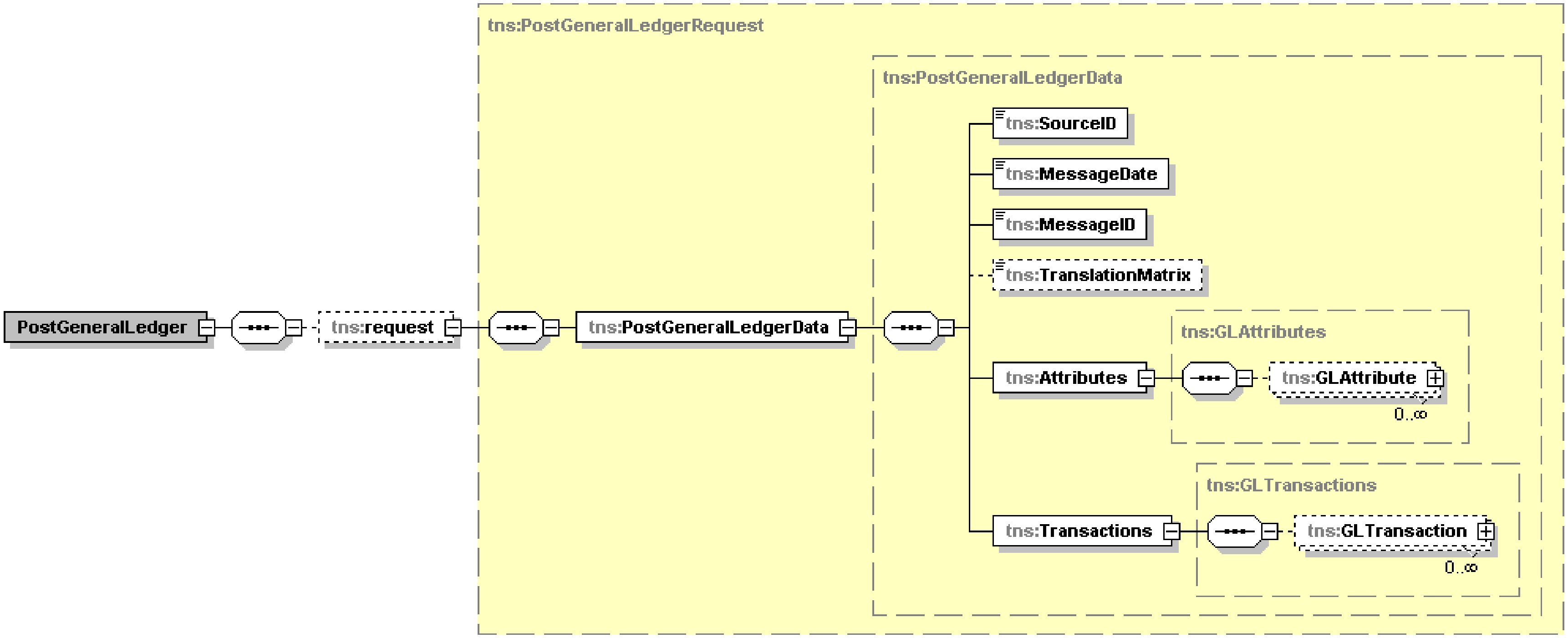
Void return type used to confirm that connectivity and security are functioning.

Name	Type	Data Type	Use	Comments

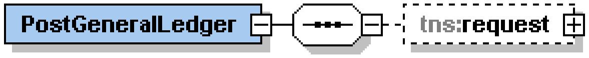
PostGeneralLedger – PostGeneralLedger

The PostGeneralLedger function sends transactional information from the source revenue capturing system to the accounting system. This may be done on an individual transaction basis, or as summary postings. For instance, a hotel might post all of its revenue and payments as a daily summary created during the night audit process. Exceptions are transmitted by fault codes.

Service Contract	GeneralLedger
Operation	PostGeneralLedger
Soap Action	http://HTNG.org/PWS/2009A/BackOffice/GeneralLedger/PostGeneralLedger


PostGeneralLedger
tns:request
tns:PostGeneralLedgerRequest
tns:PostGeneralLedgerData
tns:PostGeneralLedgerData
tns:SourceID
tns:MessageDate
tns:MessageID
tns:TranslationMatrix
tns:Attributes
tns:GLAttributes
tns:GLAttribute
0..∞
tns:Transactions
tns:GLTransactions
tns:GLTransaction
0..∞

PostGeneralLedger

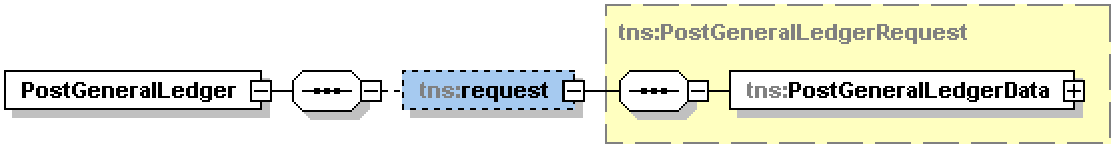

PostGeneralLedger
tns:request

```
<xs:element name="PostGeneralLedger">
  <xs:complexType>
    <xs:sequence>
      <xs:element minOccurs="0" name="request" nillable="true" type="tns:PostGeneralLedgerRequest"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

This is the exposed web method on the web service.

Name	**Type**	**Data Type**	**Use**	**Comments**
request	element	PostGeneralLedgerRequest	required	General ledger method invocation

PostGeneralLedgerRequest

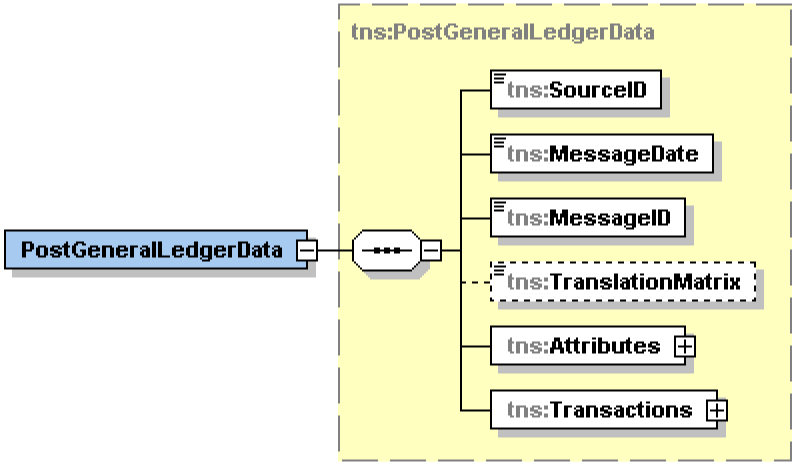

PostGeneralLedger
tns:request
tns:PostGeneralLedgerRequest
tns:PostGeneralLedgerData

```
<xs:complexType name="PostGeneralLedgerRequest">
  <xs:sequence>
    <xs:element name="PostGeneralLedgerData" nillable="true" type="tns:PostGeneralLedgerData"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="PostGeneralLedgerRequest" nillable="true" type="tns:PostGeneralLedgerRequest"/>
```

The request encapsulates all data and processing instructions but does not contain authentication or authorization data

Name	Type	Data Type	Use	Comments
PostGeneralLedgerData	element	PostGeneralLedgerData	required	General ledger request envelope

PostGeneralLedgerData


tns:PostGeneralLedgerData
PostGeneralLedgerData
tns:SourceID
tns:MessageDate
tns:MessageID
tns:TranslationMatrix
tns:Attributes
tns:Transactions

```
<xs:complexType name="PostGeneralLedgerData">
  <xs:sequence>
    <xs:element name="SourceID" nillable="true" type="xs:string"/>
    <xs:element name="MessageDate" type="xs:dateTime"/>
    <xs:element name="MessageID" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="TranslationMatrix" nillable="true" type="xs:string"/>
    <xs:element name="Attributes" nillable="true" type="tns:GLAttributes"/>
    <xs:element name="Transactions" nillable="true" type="tns:GLTransactions"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="PostGeneralLedgerData" nillable="true" type="tns:PostGeneralLedgerData"/>
```

The top-level payload element. Identifies attributes of the source system and mapping instructions and encapsulates data.

Name	Type	Data Type	Use	Comments
Attributes	element	GLAttributes	required	Can be zero length. Conveys processing instructions.
Transactions	element	GLTransactions	required	Contains the financial data to be loaded into the accounting system
TranslationMatrix	element	string	optional	Used by mapping tools to name a profile used in ETL operations
SourceID	element	string	required	Name of the originating system
MessageDate	element	dateTime	required	Date the message was generated by the originating system
MessageID	element	string	required	Unique value generated by originating system to track operations

PostGeneralLedgerResponse

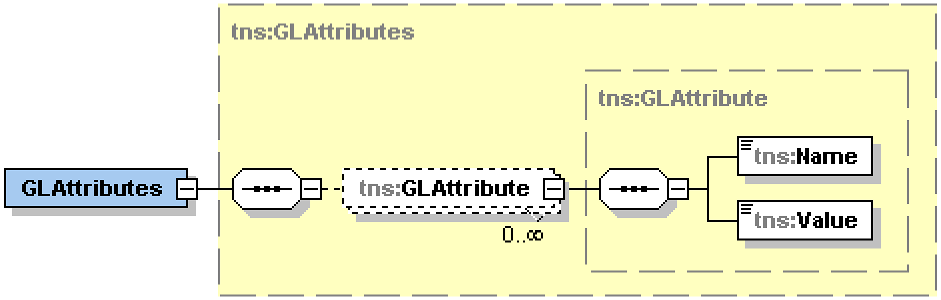
PostGeneralLedgerResponse

```
<xs:element name="PostGeneralLedgerResponse">
  <xs:complexType>
    <xs:sequence/>
  </xs:complexType>
</xs:element>
```

Void response indicative of successfull reception/processing of the message payload. Exceptions are transmitted through faults.

Name	Type	Data Type	Use	Comments

GLAttributes

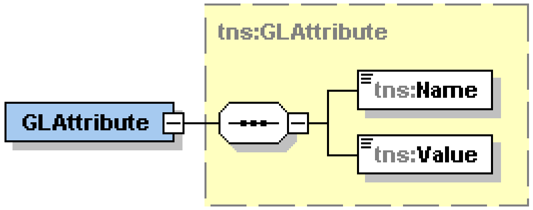


```
<xs:complexType name="GLAttributes">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="GLAttribute" nillable="true" type="tns:GLAttribute"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="GLAttributes" nillable="true" type="tns:GLAttributes"/>
```

Identifies a collection of name/value pairs stored in string format. This collection is designed to allow for extensibility by vendor-implemented features at every level of the hierarcy.

Name	**Type**	**Data Type**	**Use**	**Comments**
`GLAttribute`	element	`GLAttribute`	optional	Represents name/value pairs for attributes stored as strings

GLAttribute

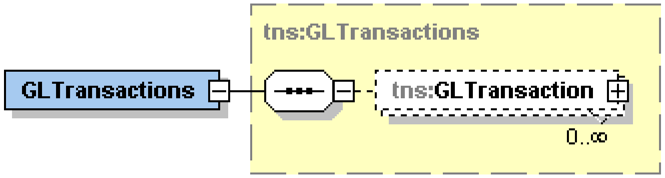


```
<xs:complexType name="GLAttribute">
  <xs:sequence>
    <xs:element name="Name" nillable="true" type="xs:string"/>
    <xs:element name="Value" nillable="true" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="GLAttribute" nillable="true" type="tns:GLAttribute"/>
```

Represents a single name/value string (or serialized type) not specifically addressed by the specification to provide extensibility.

Name	**Type**	**Data Type**	**Use**	**Comments**
`Name`	element	`string`	required	Name of the value
`Value`	element	`string`	required	String value or other type serialized as a string

GLTransactions

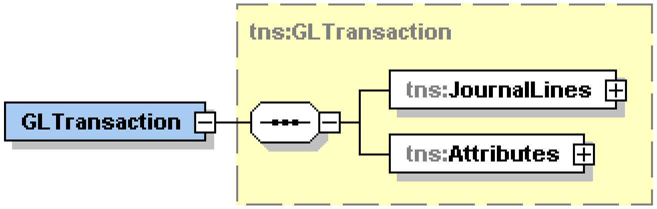

tns:GLTransactions
GLTransactions
tns:GLTransaction
0..∞

```
<xs:complexType name="GLTransactions">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="GLTransaction" nillable="true" type="tns:GLTransaction"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="GLTransactions" nillable="true" type="tns:GLTransactions"/>
```

Collection of transactional data. This collection can contain detailed, raw, or summarized data. This collection is a required element of `PostGeneralLedgerData` but does not need to contain child elements - that would allow for the system to process empty sets key to workflow and event processing.

Name	**Type**	**Data Type**	**Use**	**Comments**
`GLTransaction`	element	`GLTransaction`	Optional	The financial accounting data to be imported.

GLTransaction


tns:GLTransaction
GLTransaction
tns:JournalLines
tns:Attributes

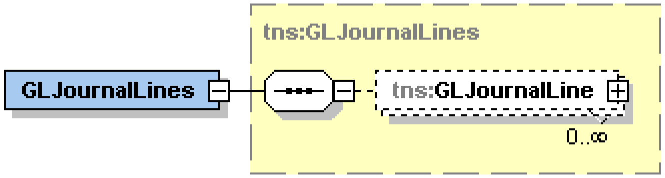
```
<xs:complexType name="GLTransaction">
  <xs:sequence>
    <xs:element name="JournalLines" nillable="true" type="tns:GLJournalLines"/>
    <xs:element name="Attributes" nillable="true" type="tns:GLAttributes"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="GLTransaction" nillable="true" type="tns:GLTransaction"/>
```

An atomic unit that represents journal line items that comprise a single transaction, summarized entries, statistical entries, or partial transactions.

Name	**Type**	**Data Type**	**Use**	**Comments**
`JournalLines`	element	`GLJournalLines`	required	Most granular entry representing a single journalized line in a

				transaction.
Attributes	element	GLAttributes	required	Conveys common transaction-level data not specifically addressed.

GLJournalLines

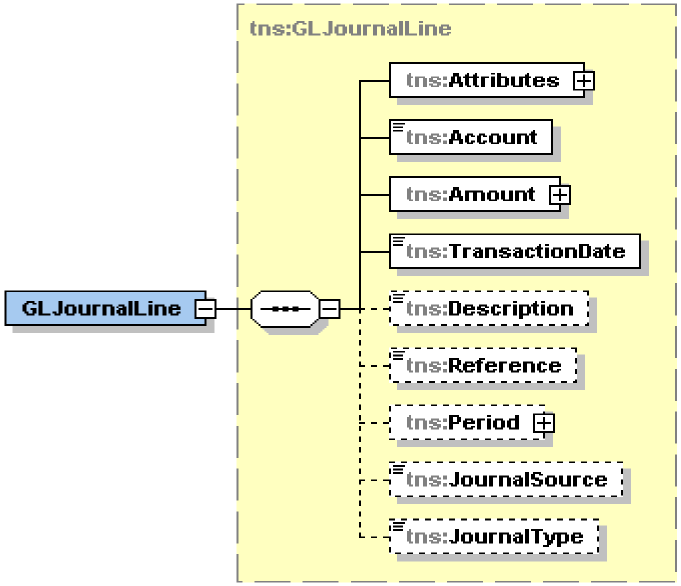


```
<xs:complexType name="GLJournalLines">
  <xs:sequence>
    <xs:element minOccurs="0" maxOccurs="unbounded" name="GLJournalLine" nillable="true" type="tns:GLJournalLine"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="GLJournalLines" nillable="true" type="tns:GLJournalLines"/>
```

Represents a collection of detailed, granular journal lines to be journalized by the accounting system

Name	**Type**	**Data Type**	**Use**	**Comments**
GLJournalLine	element	GLJournalLine	optional	Financial accounting system journal line

GLJournalLine


tns:GLJournalLine
GLJournalLine
tns:Attributes
tns:Account
tns:Amount
tns:TransactionDate
tns:Description
tns:Reference
tns:Period
tns:JournalSource
tns:JournalType

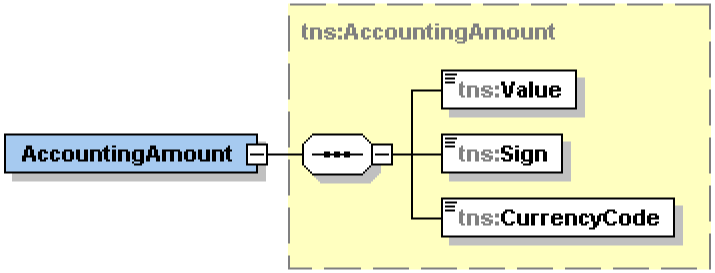
```
<xs:complexType name="GLJournalLine">
  <xs:sequence>
    <xs:element name="Attributes" nillable="true" type="tns:GLAttributes"/>
    <xs:element name="Account" nillable="true" type="xs:string"/>
    <xs:element name="Amount" nillable="true" type="tns:AccountingAmount"/>
    <xs:element name="TransactionDate" type="xs:dateTime"/>
    <xs:element minOccurs="0" name="Description" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="Reference" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="Period" nillable="true" type="tns:AccountingPeriod"/>
    <xs:element minOccurs="0" name="JournalSource" nillable="true" type="xs:string"/>
    <xs:element minOccurs="0" name="JournalType" nillable="true" type="xs:string"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="GLJournalLine" nillable="true" type="tns:GLJournalLine"/>
```

Represents an individual line item in a transaction including the account code, amount, and transaction date at a minimum.

Name	Type	Data Type	Use	Comments
Attributes	element	GLAttributes	required	Conveys common line-item data not specifically addressed by the spec.
Account	element	string	required	The account code (or value used to map to an account code if extended)
Amount	element	AccountingAmount	required	The amount to journalize.

TransactionDate	element	dateTime	required	The transaction date.
Description	element	string	optional	The transaction description.
Reference	element	string	optional	The transaction reference
Period	element	AccountingPeriod	optional	Fiscal accounting period. May be derived from transaction date if omitted.
JournalSource	element	string	optional	Journal source. Often a user ID or system code identifying data origin.
JournalType	element	string	optional	Journal type. Often a code or name of a journal set.

AccountingAmount



```
<xs:complexType name="AccountingAmount">
  <xs:sequence>
    <xs:element name="Value" type="xs:decimal"/>
    <xs:element name="Sign" type="tns:AccountingSign"/>
    <xs:element name="CurrencyCode" type="xs:string" nillable="true"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="AccountingAmount" type="tns:AccountingAmount" nillable="true"/>
```

Used to represent a financial accounting amount in a format without ambiguety and allowing for multi-currency operations.

Name	**Type**	**Data Type**	**Use**	**Comments**
Value	element	decimal	required	A positive value (no negatives allowed) that indicate the amount to journal.
Sign	element	AccountingSign	required	Indicates whether the Value portion is a Credit or a Debit value.
CurrencyCode	element	string	optional	Three character code as defined by ISO 4217 for use with multi-currency.

AccountingSign

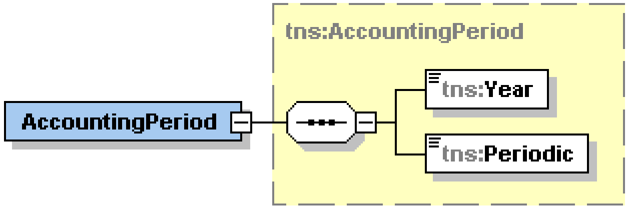
AccountingSign

```
<xs:simpleType name="AccountingSign">
  <xs:restriction base="xs:string">
    <xs:enumeration value="Credit"/>
    <xs:enumeration value="Debit"/>
  </xs:restriction>
</xs:simpleType>
<xs:element name="AccountingSign" type="tns:AccountingSign" nillable="true"/>
```

DESCRIPTION

Name	**Type**	**Data Type**	**Use**	**Comments**
Credit	enumeration	enumeration	required	Indicates an amount journaled in the right-hand column of an account
Debit	enumeration	enumeration	required	Indicates an amount journaled in the left-hand column of an account

AccountingPeriod



```
<xs:complexType name="AccountingPeriod">
  <xs:sequence>
    <xs:element name="Year" type="xs:int"/>
    <xs:element name="Periodic" type="xs:int"/>
  </xs:sequence>
</xs:complexType>
<xs:element name="AccountingPeriod" type="tns:AccountingPeriod" nillable="true"/>
```

Used to describe a fiscal accounting period (which may differ from calendar) using specific measures.

Name	**Type**	**Data Type**	**Use**	**Comments**
Year	element	int	required	Year portion of the fiscal reporting period.
Periodic	element	int	required	Periodic portion of the fiscal reporting period.

Part 6 **Guest Self Service, Version 1.0.3**

Chapter 30 Document Information (Part 6)

30.1 Change History

Revision	Description	Date	Author
0.1	Initial submission	May 25, 2007	TAC GmbH
0.2	Added template types: Activity, Dining, Retail, GiftCertificate Unified and extended messages: TemplateCategory, TemplateInfo, Availability, Sale, FetchBooking	June 11, 2007	TAC GmbH
0.3	New message: PaymentCondition for prepayments and cancellations	June 18, 2007	TAC GmbH
0.4	Profile management by SGI spec Remove header of each example Minor changes (Attribute names, ..)	September 24, 2007	TAC GmbH
0.5	Add table to each message for details like Data Type, Use, Comments Add global schema elements. TemplateCategory: Rank -> Order TemplateInfo: One generic template with type attribute, Prices -> optional, Duration -> optional, MediaPath -> MediaURI, MediaFormat: MIME type PaymentCondition: New element Value with attribute type, instead of FixPrice and Percentage element unit Attribute for: CancellationWindow, Duration, StartInterval,MinimumInAdvance,MaximumInAdvance	October 24, 2007	TAC GmbH
0.6	New self service frontend roles	November 2, 2007	TAC GmbH
0.7	Use datatype duration instead of TimeUnitType TemplateInfo: Rename Links to RelatedItems and new relatedItemType added; Multiple taxes added PaymentCondition: DueDate added; two new payment condition types: FULLPAYMENT, BALANCEPAYMENT; Taxes added; Currency for payment condition value added Availability: Use of generic preferences with several types; availabilityType added; Complete profile instead of profileIDs.	November 12, 2007	TAC GmbH
0.8	Create request: Add PaymentGuarantee -> Credit card or reservation	November 19, 2007	TAC GmbH
0.9	Sale and Create: Use PaymentIdentification element for Create(PaymentGuarantee) and for Sale (PaymentInformation) Sale: Description text for ShippingCostItem element Sale response: ReceiptImage added BookingIdentification element: Remark added.	December 6, 2007	TAC GmbH

Revision	Description	Date	Author
0.91	TemplateInfo: New template type SHIPPINGCOSTS. Sale: TemplateID to ShippingCostItem added. Availability/Create: Element ModifyBookingIDs added to modify existing bookings. Changes to FetchBookingRequest/Response (Additional filter, Preferences, PreferredResources, etc.)	December 11, 2007	TAC GmbH
0.92	TemplateInfo: Element Note added for Instructions Availability element: Price -> optional for dining FetchBookingResponse: Optional element Remark added GiftCertificateIdentification: VerificationCode added New message: FetchGiftCertificate	December 19, 2007	TAC GmbH
0.93	New URI: http://htng.org/PWS/2008A/GuestSelfService	January 21, 2008	TAC GmbH
1.0	Added new optional attributes “preferenceType” and “preferred” to Resource	August 19,2008	TAC GmbH
1.0.1	New URI: http://htng.org/PWS/2008B/GuestSelfService	August 26,2008	TAC GmbH
1.0.2	Added BookingLifetime and ResultsLimit elements to Availability. Added new optional sub-element Person to Resource nodes. Added new required element TemplateIDs to FetchBookingResponse Remarks added to Availability, Create and FetchBookingResponse.	January 16, 2009	David Andrews, Ryatta Group Consulting
1.0.3	Removed the Person element, rolled gender attribute into the Resource element and modified the Resource definition as appropriate. Removed examples showing multiple TemplateIDs in AvailabilityRequests.	April 10, 2009	David Andrews, Ryatta Group Consulting

Chapter 31 Introduction

Global schema elements used in more than one message are included in the Global Schema Elements section of this document and marked with green color.

All data types, which are defined in the Single Guest Itinerary specification and used in this document, are marked with blue color and listed here:

- Profile
- PersonName
- Text
- Amount
- UniqueIDList
- ResultStatus
- OGTimeSpan
- PersonName
- NameMembership

Abbreviations in this document:

- CMS – Content managing system
- HSIA – High speed internet access
- KIOSK – Kiosk
- SSF – Self Service Frontend
- SSS – Services Scheduling System
- VOD – Video on demand
- WS – Web site

Chapter 32 HTTP/SOAP

Communication between SSF and SSS takes place through HTTP requests and their responses.

The XML data structure corresponds to the structure used with permanent connection but with the data being enclosed in a SOAP envelope.

All messages must include a soap header that conforms to the WSAddressing and WSSecurity specifications. Receiving systems may optionally require that the wsa:To element match a specific destination address, and therefore, this element should be configurable at run time. In addition, all sending systems must identify themselves by specifying a wsa:From element unique for their system. Typically, this is in the form of “URN:<system>”. The wsa:ReplyTo address may be the anonymous form described in the August, 2004 specification.

WSSecurity may be optionally implemented. Providers are only required to support basic plain text authentication with a username and password. The user credentials will be limited to a single login per system, agreed between two vendors. There is no requirement to support multiple user logins from a single vendor through this interface.

Sample Header Message

```
<soap:Header>
    <wsa:Action>http://htng.org/PWS/2008B/GuestSelfService#TemplateCategory</wsa:Action>
    <wsa:MessageID>urn:uuid:11f46e88-8d20-6e65-3812-da0a786a90ef</wsa:MessageID>
    <wsa:ReplyTo>
        <wsa:Address>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:Address>
    </wsa:ReplyTo>
    <wsa:To>urn:TAC</wsa:To>
    <wsa:From>
        <wsa:Address>urn:ES</wsa:Address>
    </wsa:From>
    <wsse:Security soap:mustUnderstand="1">
    <wsu:Timestamp wsu:Id="Timestamp-97134fd8-7d8f-bc2c-14d0-9e8197fdc7e9">
    <wsu:Created>2007-05-14T07:51:15Z</wsu:Created>
    <wsu:Expires>2007-05-14T08:51:15Z</wsu:Expires>
    </wsu:Timestamp>
    <wsse:UsernameToken wsu:Id="SecurityToken-02115bec-7c32-1f79-c71c-0045929720ff">
    <wsse:Username>HTNG</wsse:Username>
    <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#PasswordText">HTNG</wsse:Password>
    <wsse:Nonce>YymhHIFQrrxNkmid6cMrJQ==</wsse:Nonce>
    <wsse:Created>2007-05-14T07:51:15Z</wsse:Created>
    </wsse:UsernameToken>
    </wsse:Security>
  </soap:Header>
```

All further examples are shown space saving, without SOAP envelope and without namespace declarations.

Chapter 33 Profile Management

(SSS ⇔ SSF)

The guest self service interface uses the already defined profile management of the Single Guest Itinerary specification.

To avoid duplicate guest profiles, the UpdateProfile request can be used without ProfileIDs. When the ProfileIDs element is missing, the receiving system has to check by lastname, firstname, etc., if the guest already exists or not.

For further details, refer to Chapter 2.

Chapter 34 Definition TemplateCategory

(SSF ⇨ SSS)

This request is used to retrieve template categories. The template categories can be used to group the templates in the SSF.

Soap Action	http://htng.org/PWS/2008B/GuestSelfService#TemplateCategory

Request

TemplateCategoryRequest

Name	**Type**	**Data Type**	**Use**	**Comments**
TemplateCategoryIDs	element	UniqueIDList	optional	ID of the template category. If this tag is missing, then all template categories will be returned.

Response

TemplateCategoryResponse

Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	Result.
TemplateCategories	element	TemplateCategoryList	optional	Collection of template categories.

TemplateCategoryList

Name	**Type**	**Data Type**	**Use**	**Comments**
TemplateCategory	element	TemplateCategory	optional/multiple	Template category.

TemplateCategory

Name	**Type**	**Data Type**	**Use**	**Comments**
TemplateCategoryIDs	element	UniqueIDList	required	IDs of the template category
Name	element	Text	required/ multiple	Name of the template category.
Order	element	unsignedInt	optional	A low order is before a high order.

Example

Request to get all template categories:

[Request]

```
<TemplateCategoryRequest>
</TemplateCategoryRequest>
```

[Response]

```
<TemplateCategoryResponse>
<Result resultStatusFlag="SUCCESS" />
<TemplateCategories>
        <TemplateCategory>
                <TemplateCategoryIDs>
                        <UniqueID source="TAC">1</UniqueID>
                </TemplateCategoryIDs>
                <Name language="en">Massage</Name>
                <Name language="de">Massagen</Name>
                <Order>2</Order>
        </TemplateCategory>
        <TemplateCategory>
                <TemplateCategoryIDs>
                        <UniqueID source="TAC">2</UniqueID>
                </TemplateCategoryIDs>
                <Name language="en">Baths</Name>
                <Name language="de">Bäder</Name>
                <Order>3</Order>
        </TemplateCategory>
        <TemplateCategory>
                <TemplateCategoryIDs>
                        <UniqueID source="TAC">3</UniqueID>
                </TemplateCategoryIDs>
                <Name language="en">Sport</Name>
                <Name language="de">Sport</Name>
                <Order>1</Order>
        </TemplateCategory>
        <TemplateCategory>
                <TemplateCategoryIDs>
                        <UniqueID source="TAC">4</UniqueID>
                </TemplateCategoryIDs>
                <Name language="en">Golf</Name>
                <Name language="de">Golf</Name>
                <Order>4</Order>
        </TemplateCategory>
        <TemplateCategory>
                <TemplateCategoryIDs>
                        <UniqueID source="TAC">5</UniqueID>
        </TemplateCategoryIDs>
        <Name language="en">Retail</Name>
        <Name language="de">Produkte</Name>
        <Order>5</Order>
    </TemplateCategory>
    <TemplateCategory>
        <TemplateCategoryIDs>
            <UniqueID source="TAC">7</UniqueID>
        </TemplateCategoryIDs>
        <Name language="en">Gift certificates</Name>
        <Name language="de">Gutscheine</Name>
        <Order>6</Order>
    </TemplateCategory>
</TemplateCategories>
</TemplateCategoryResponse>
```

Chapter 35 Definition TemplateInfo

(SSF ⇨ SSS)

This request is used to retrieve one or more templates. If no filter is set, all templates will be requested. A template must have one of the following types:

- ACTIVITY
- DINING
- RETAIL
- GIFTCERTIFICATE
- SHIPPINGCOSTS

Soap Action	http://htng.org/PWS/2008B/GuestSelfService#TemplateInfo

Request

TemplateInfoRequest				
Name	**Type**	**Data Type**	**Use**	**Comments**
TemplateIDs	element	UniqueIDList	optional	IDs of the template.
Type	element	string	optional	Type of the template. (possible values: ACTIVITY, DINING, RETAIL, GIFTCERTIFICATE, SHIPPINGCOSTS)
ResortId	element	string	optional	Property code.

Response

The response delivers all templates, which applies to the given filter criteria.

TemplateInfoResponse				
Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	Result.
Templates	element	TemplateList	optional	Collection of the found templates.

TemplateList				
Name	**Type**	**Data Type**	**Use**	**Comments**

Template	element	Template	optional/multiple	Template.

Template				
Name	**Type**	**Data Type**	**Use**	**Comments**
type	attribute	string	required	Type of the template. (possible values: ACTIVITY, DINING, RETAIL, GIFTCERTIFICATE, SHIPPINGCOSTS)
TemplateIDs	element	UniqueIDList	required	IDs of the template.
Name	element	Text	required/ multiple	Name of the template.
TemplateCategories	element	TemplateCategoryList	required	List of template categories. At least one template category must be assigned.
ValidFrom	element	date	optional	Start of the validity period of the template
ValidUntil	element	date	optional	End of the validity period of the template
Description	element	Text	optional/ multiple	Detailed description of the template
Note	element	Text	optional/ multiple	Additional notes about the template. Can be used for e.g., instructions, etc.
Prices	element	PriceList	optional	Contains information about the possible prices.
RelatedItems	element	RelatedItemList	optional	The related items can be used to promote templates or template categories, which are in relation with this template.
Media	element	Media	optional	Media of the template. For example: image, pdf, etc.
Extended Elements for Activities				
Location	**Element**	**String**	**Optional**	**Location of the Template**
AlternativeLocations	element	AlternativeLocationList	optional	List of alternative locations, where this template is also available.
MinimumInAdvanceBookings	element	duration	optional	It is only possible to book this template before this offset, which is calculated from now to the starting point of the booking.
MaximumInAdvanceBookings	element	duration	optional	It is only possible to book this template after this offset, which is calculated from now to the starting point of the booking.

PaymentConditions	element	LinkedPaymentConditionList	optional	Payment conditions of the template. A template can have multiple payment conditions.
AvailableResources	element	ResourceList	optional	All available resources for the template are listed. These resources can be used in requests to define preferred resources.
StartTime	element	string	optional	The booking must be between the Start- and EndTime.
EndTime	element	string	optional	The booking must be between the Start- and EndTime.
StartInterval	element	duration	optional	For example: The Starttime = 08:00, EndTime = 10:00 and the StartInterval = 30 minutes: Possible starts for bookings in this case are: 08:00, 08:30, 09:00, 09:30, 10:00
ActivityType	element	string	optional	ActivityType of the template. (e.g.,Massage, Golf, ..)
Duration	element	duration	optional	Duration of the template.
Extended Elements for Dining				
Location	**Element**	**String**	**Optional**	**Location of the Template**
AlternativeLocations	element	AlternativeLocationList	optional	List of alternative locations, where this template is also available.
MinimumInAdvanceBookings	element	duration	optional	It is only possible to book this template before this offset, which is calculated from now to the starting point of the booking.
MaximumInAdvanceBookings	element	duration	optional	It is only possible to book this template after this offset, which is calculated from now to the starting point of the booking.
PaymentConditions	element	LinkedPaymentConditionList	optional	Payment conditions of the template. A template can have multiple payment conditions.
AvailableResources	element	ResourceList	optional	All available resources for the template are listed. These resources can be used in requests to define preferred resources.
StartTime	element	string	optional	The booking must be between the Start- and EndTime.
EndTime	element	string	optional	The booking must be between the Start- and EndTime.

StartInterval	element	duration	optional	For example: The Starttime = 08:00, EndTime = 10:00 and the StartInterval = 30 minutes: Possible starts for bookings in this case are: 08:00, 08:30, 09:00, 09:30, 10:00
Extended Elements for GiftCertificate				
Location	**Element**	**String**	**Optional**	**Location of the Template**
MinimumInAdvanceBookings	element	duration	optional	It is only possible to book this template before this offset, which is calculated from now to the starting point of the booking.
MaximumInAdvanceBookings	element	duration	optional	It is only possible to book this template after this offset, which is calculated from now to the starting point of the booking.
DateSelection	element	unsignedInt	optional	0 … default; 1 … when the gift certificate is selected a date must be selected (check contingents)
GiftCertificateType	element	string	optional	Type of gift certificate: HOTEL,SERVICE,VALUE,...
GiftCertificatePrintName	element	Text	optional/ multiple	Additional name, which can be printed on the gift certificate.
GiftCertificatePrintText1	element	Text	optional/ multiple	Additional text, which can be printed on the gift certificate.
GiftCertificatePrintText2	element	Text	optional/ multiple	Additional text, which can be printed on the gift certificate.
GiftCertificatePrintText3	element	Text	optional/ multiple	Additional text, which can be printed on the gift certificate.
Extended Elements for Retail				
Location	**Element**	**String**	**Optional**	**Location of the Template**
Weight	element	double	optional	Weight of the retail product, for calculating the shipping costs
Stock	element	Int	optional	Quantity of retail product, which are in stock.

AlternativeLocationList				
Name	**Type**	**Data Type**	**Use**	**Comments**
AlternativeLocation	element	string	optional/ multiple	Name of the location.

LinkedPaymentConditionList				
Name	**Type**	**Data Type**	**Use**	**Comments**
PaymentConditionIDs	element	UniqueIDList	optional/ multiple	IDs of the payment condition.

PriceList				
Name	**Type**	**Data Type**	**Use**	**Comments**
Price	element	Price	optional/ multiple	One possible price of the template.

Price				
Name	**Type**	**Data Type**	**Use**	**Comments**
Name	element	Text	optional/ multiple	Name of the price.
Price	element	Amount	optional	Gross price of the template.
Taxes	element	TaxList	optional	Taxes of this price.
Description	element	Text	optional/ multiple	Detailed description for this price.

RelatedItemList				
Name	**Type**	**Data Type**	**Use**	**Comments**
RelatedTemplateCategories	element	RelatedTemplateCategoryList	optional	Related template categories.
RelatedTemplates	element	RelatedTemplateList	optional	Related templates.

RelatedTemplateCategoryList				
Name	**Type**	**Data Type**	**Use**	**Comments**
RelatedTemplateCategory	element	RelatedTemplateCategory	optional/ multiple	Template category with related item type.

RelatedTemplateCategory				
Name	**Type**	**Data Type**	**Use**	**Comments**
relatedItemType	attribute	string	optional	There are at least 3 possible types: UPSELL, CROSSSELL and ALTERNATE.
TemplateCategoryIDs	element	UniqueIDList	required	IDs of the template category.

RelatedTemplateList				
Name	**Type**	**Data Type**	**Use**	**Comments**
RelatedTemplate	element	RelatedTemplate	optional/ multiple	Template with related item type.

RelatedTemplate				
Name	**Type**	**Data Type**	**Use**	**Comments**
relatedItemType	attribute	string	optional	There are at least 3 possible types: UPSELL, CROSSSELL and ALTERNATE.
TemplateIDs	element	UniqueIDList	required	IDs of the template.

TemplateCategoryList				
Name	**Type**	**Data Type**	**Use**	**Comments**
TemplateCategoryIDs	element	UniqueIDList	optional/ multiple	List of template category IDs.

Example

Request to get all templates of the property HOTELB

[Request]

```
<TemplateInfoRequest>
	<ResortId>HOTELB</ResortId>
</TemplateInfoRequest>
```

[Response]

```
<TemplateInfoResponse>
<Result resultStatusFlag="SUCCESS" />
<Templates>
	<Template type="ACTIVITY">
```

```
<TemplateIDs>
        <UniqueID source="TAC">123</UniqueID>
</TemplateIDs>
<Name language="en">Full body massage</Name>
<Name language="de">Ganzkörpermassage</Name>
<TemplateCategories>
 <TemplateCategoryIDs>
            <UniqueID source="TAC">1</UniqueID>
 </TemplateCategoryIDs>
</TemplateCategories>
<Location>Spa</Location>
<AlternativeLocations>
        <AlternativeLocation>Beachfront Spa</AlternativeLocation>
</AlternativeLocations>
<ValidFrom>2001-01-01</ValidFrom>
<ValidUntil>2009-12-31</ValidUntil>
<MinimumInAdvanceBookings>P0Y0M2D</MinimumInAdvanceBookings>
<MaximumInAdvanceBookings>P0Y0M180D</MaximumInAdvanceBookings>
<Description language="en">Massage for the full body.</Description>
<Description language="de">Massage für den ganzen Körper.</Description>
<PaymentConditions>
        <PaymentConditionIDs>
               <UniqueID source="TAC">1</UniqueID>
        </PaymentConditionIDs>
        <PaymentConditionIDs>
               <UniqueID source="TAC">3</UniqueID>
        </PaymentConditionIDs>
</PaymentConditions>
<Prices>
 <Price>
                <Name language="en">Full body massage</Name>
                <Name language="de">Ganzkörpermassage</Name>
                <Price currencyCode="USD">130.5</Price>
                <Taxes>
                 <Tax>
                         <TaxName>10%</TaxName>
                         <TaxRate>10</TaxRate>
                         <TaxAmount>11.86</TaxAmount>
                 </Tax>
                </Taxes>
                <Description language="en">Massage for the full body.</Description>
                <Description language="de">Massage für den ganzen Körper.</Description>
        </Price>
        <Price>
                <Name language="en">Full body massage - Holiday</Name>
                <Name language="de">Ganzkörpermassage - Feiertag</Name>
                <Price currencyCode="USD">150</Price>
                <Taxes>
                 <Tax>
                         <TaxName>10%</TaxName>
            <TaxRate>10</TaxRate>
            <TaxAmount>13.64</TaxAmount>
        </Tax>
        </Taxes>
        <Description language="en">Massage for the full body.</Description>
        <Description language="de">Massage für den ganzen Körper.</Description>
    </Price>
</Prices>
<AvailableResources>
 <Resource category="Providers" gender=”Male”>John Miller</Resource>
 <Resource category="Providers" gender=”Female”>Lucy Banner</Resource>
 <Resource category="Providers" gender=”Male”>Jack Edwards</Resource>
 <Resource category="Facilities">Massage Room</Resource>
 <Resource category="Facilities">Room 10</Resource>
 <Resource category="Facilities" gender=”Female “>Room 12</Resource>
</AvailableResources>
<RelatedItems>
    <RelatedTemplateCategories>
     <RelatedTemplateCategory relatedItemType="UPSELL">
        <TemplateCategoryIDs>
              <UniqueID source="TAC">1</UniqueID>
        </TemplateCategoryIDs>
     </RelatedTemplateCategory>
     <RelatedTemplateCategory relatedItemType="UPSELL">
        <TemplateCategoryIDs>
              <UniqueID source="TAC">2</UniqueID>
        </TemplateCategoryIDs>
     </RelatedTemplateCategory>
     <RelatedTemplateCategory relatedItemType="UPSELL">
        <TemplateCategoryIDs>
              <UniqueID source="TAC">3</UniqueID>
        </TemplateCategoryIDs>
     </RelatedTemplateCategory>
     <RelatedTemplateCategory relatedItemType="UPSELL">
        <TemplateCategoryIDs>
              <UniqueID source="TAC">4</UniqueID>
        </TemplateCategoryIDs>
     </RelatedTemplateCategory>
 </RelatedTemplateCategories>
    <RelatedTemplates>
     <RelatedTemplate relatedItemType="ALTERNATE">
        <TemplateIDs>
              <UniqueID source="TAC">124</UniqueID>
        </TemplateIDs>
     </RelatedTemplate>
     <RelatedTemplate relatedItemType="ALTERNATE">
        <TemplateIDs>
              <UniqueID source="TAC">125</UniqueID>
        </TemplateIDs>
     </RelatedTemplate>
```

```
            </RelatedTemplates>
        </RelatedItems>
        <ActivityType>Spa Massage</ActivityType>
        <Duration>P0Y0M0DT0H60M</Duration>
        <StartTime>08:00</StartTime>
        <EndTime>10:00</EndTime>
        <StartInterval>P0Y0M0DT0H30M</StartInterval>
        <Media>
            <MediaIDs>
                <UniqueID source="TAC">950</UniqueID>
            </MediaIDs>
        <MediaFormat>image/jpeg</MediaFormat>
            <MediaURI>\\192.168.22.70\data\itempictures\0\0\0\950.jpg</MediaURI>
            <MediaData>/9j/4AAQSkZJRgABAgAAZABkAAD/7AARRHVja3kAAQAEAAAAPAAA/+4ADkFkb2JlAGTAAAAAAf/b
            AIQABgQEBAUEBgUFBgkGBQYJCwgGBggLDAoKCwoKDBAMDAwMDAwQDA4PEA8ODBMTFBQTExwbGxsc
            Hx8fHx8fHx8fHwEHBwcNDA0YEBAYGhURFRofHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8fHx8f
            Hx8fHx8fHx8fHx8fHx8f/8AAEQgAMgAyAwERAAIRAQMRAf/EAHwAAQABBQEBAAAAAAAAAAAA
            AAAIAQQFBgcDCQEBAQEBAQEAAAAAAAAAAAAAAAECAwQFEAACAgECBQMDAwUAAAAAAABAgMEABEF
            IRITBgcxYSJBcZFRwRSBMpIVCBEBAQACAQQDAQAAAAAAAAAAAAERAgMxQXESIZEiBP/aAAwDAQAC
            EQMRAD8AlTgMCjuqKXchUUEsxOgAHqScDG1e5+2rdkVau7U7FknQQRWIncn2VWJwuKyeEMBgMBga
            L5zleLxJ3RIjOrLTb5RnRgOZdeI9vXDWnVCLb90uvum3xLKVc264SSMaSgmZR8WHHXLh3fRfI8xg
            MBgeF67VoUrF62/Tq1Y3mnkIJ5Y41LMdBqeAGBwTyL5yO9bTd2bYavTp3Y2rz2bK6u8UgKuFj9F1
            U/XLhMuQ7VS2ypuFWz01pvVnisxz14I5XEsLh0/vK6DVfp+MF3qR3ZHnLZt4v1tn3Rkh3Gy6w1po
            wwSSRuCqyMOZGJ+4+2MJK6lkaMBga35Jm6XYHcLa8f8f8AX2B+YyP3wIghbU1t0Rm6cZC8qBddT7sD
            mpHz+f8Ao212+FlU3rb5mjDTyo05YQIyxhpOTgxQKGPqNOIBxhdtuads+GV8f3o7HkHYzE0jLBul
            LmMqdM6tMpHAgH0/UZLHXhu8v77ptZHqMCz3S09aDnX85KsaD5C3iaXsbfo2IIkqMn+TKP3ySlxh
            Faxtz296hk61eGKOaNyZnZGPTmLSLy8jB9UHDiPfOseS8musuetyuKHbsMCU0S1CGpx2oJHV44lk
            jtEj1+cqlPoeXK47c8ufMv0zXYm00qPduytVlWcC7SVp0cuGMcyaDXRR8fYZNnXi2u99qmgp1GYe
            tXAo6K45WGoP0OBrXdPZVXedpuUY36H8uMxsQNQNeIOnsRkwOJ7h/wA7d09Yywy1LDD0fmkhY/0A
            YZc1MLdfA3fA0H8esoHDUTken2TLln0jYez/AAhvtDfKFzcJIErVZ452hiaR2YxNzKOZgoHyHHJl
            Zq7wo0UDDSuAwGAwGAwP/2QA=</MediaData>
        </Media>
        <ResortId>HOTELB</ResortId>
    </Template>
</Templates>
</TemplateInfoResponse>
```

Chapter 36 Definition PaymentCondition

(SSF ⇨ SSS)

This request is used to retrieve one or more payment conditions. The following filter can be set to request payment conditions:

Soap Action	http://htng.org/PWS/2008B/GuestSelfService#PaymentCondition

Request

PaymentConditionRequest				
Name	**Type**	**Data Type**	**Use**	**Comments**
PaymentConditionIDs	element	UniqueIDList	optional	IDs of the payment condition.
ResortId	element	string	optional	Property code.

Response

The PaymentConditionResponse delivers a collection of payment conditions.

PaymentConditionResponse				
Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	Lookup result. If successful, the responding system is only required to set the resultStatusFlag as SUCCESS, and return the data in the PaymentConditionList.
PaymentConditions	element	PaymentConditionList	optional	Collection of payment conditions.

PaymentConditionList				
Name	**Type**	**Data Type**	**Use**	**Comments**
PaymentCondition	element	PaymentCondition	optional/ multiple	Payment condition.

PaymentCondition				
Name	**Type**	**Data Type**	**Use**	**Comments**
type	attribute	string	required	The attribute type is required and the following values are available: PREPAYMENT, FULLPAYMENT, BALANCEPAYMENT, CANCELLATION
PaymentConditionIDs	element	UniqueIDList	required	IDs of the payment condition.
Value	element	PaymentConditionValue	required	Value of the payment condition.
CancellationWindow	element	duration	optional	Time offset, which are only used in case of cancellations. If no offset is given, the cancellation condition applies every time.
DueDate	element	duration	optional	Due date of the payment.
Taxes	element	TaxList	optional	Taxes of the payment condition.
Description	element	Text	optional/ multiple	Detailed description of the payment condition.
ResortId	element	string	required	Property code.

PaymentConditionValue				
Name	**Type**	**Data Type**	**Use**	**Comments**
type	attribute	string	required	Either PERCENTAGE or FIXPRICE.
Value	element	Amount	required	Value of the payment condition.

Example

Request to get all payment conditions of property HOTELB

[Request]

```
<PaymentConditionRequest>
        <ResortId>HOTELB</ResortId>
</PaymentConditionRequest>
```

[Response]

```
<PaymentConditionResponse>
<Result resultStatusFlag="SUCCESS" />
<PaymentConditions>
        <PaymentCondition type="PREPAYMENT">
                <PaymentConditionIDs>
                        <UniqueID source="TAC">1</UniqueID>
                </PaymentConditionIDs>c
                <Value type="PERCENTAGE">
        <Value>10</Value>
        </Value>
        <Description language="en">10% prepayment</Description>
        <Description language="de">10% Anzahlung</Description>
        <ResortId>HOTELB</ResortId>
    </PaymentCondition>
    <PaymentCondition type="PREPAYMENT">
        <PaymentConditionIDs>
            <UniqueID source="TAC">2</UniqueID>
        </PaymentConditionIDs>
        <Value type="FIXPRICE">
        <Value currencyCode="USD">15</Value>
        </Value>
        <Description language="en">15$ prepayment</Description>
        <Description language="de">15$ Anzahlung</Description>
        <ResortId>HOTELB</ResortId>
    </PaymentCondition>
    <PaymentCondition type="CANCELLATION">
        <PaymentConditionIDs>
            <UniqueID source="TAC">3</UniqueID>
        </PaymentConditionIDs>
        <Value type="PERCENTAGE">
        <Value>50</Value>
        </Value>
        <CancellationWindow>P0Y0M0DT48H</CancellationWindow>
        <Description language="en">50% cancellation costs within two days</Description>
        <Description language="de">50% Stornogebühr innerhalb von zwei Tagen</Description>
        <ResortId>HOTELB</ResortId>
    </PaymentCondition>
    <PaymentCondition type="CANCELLATION">
        <PaymentConditionIDs>
            <UniqueID source="TAC">4</UniqueID>
        </PaymentConditionIDs>
        <Value type="PERCENTAGE">
        <Value>100</Value>
        </Value>
        <CancellationWindow>P0Y0M0DT24H</CancellationWindow>
        <Description language="en">100% cancellation costs within one day</Description>
        <Description language="de">100% Stornogebühr innerhalb von einem Tag</Description>
        <ResortId>HOTELB</ResortId>
    </PaymentCondition>
</PaymentCondtions>
</PaymentConditionResponse>
```

Chapter 37 Definition Availability

(SSF ⇨ SSS)

The selected availabilities will be finalized (created) by a Create request. An availability request is only necessary for activity and dining templates (not for retail and gift certificates).

Possible scenario (dependent on the implementation of the SSS):

Each returned availability can be reserved by a temporary booking in the SSS to reserve the inventory, therapists, etc. The remaining temporary bookings will be deleted automatically once either one (or more) of the returned availabilities is finalized with a Create request or the temporary booking lifetime expires.

Soap Action	http://htng.org/PWS/2008B/GuestSelfService#Availability

Request

AvailabilityRequest				
Name	**Type**	**Data Type**	**Use**	**Comments**
availabilityType	attribute	string	optional	BESTPRICE or BESTTIME.
TemplateIDs	element	UniqueIDList	required	IDs of the template.
ModifyBookingIDs	element	UniqueIDList	optional	Used to modify an existing booking in the SSS. The SSS has to know the old booking ID to exclude them at the availability check.
Profile	element	Profile	required	Complete profile, because guest type, membership type, etc. could be affect the availability and the price.
NumberOfPersons	element	unsignedInt	optional	Number of persons. Default value = 1. This field is needed for the template type dining. (For example: Dinner for 10 persons)
TimeSpans	element	TimeSpanList	required	This element contains the possible time spans.
PreferredResources	element	ResourceList	optional	This resources will be preferred if there are possible results with them. The PreferredResources can contain many Resource entries.
Preferences	element	PreferenceElementList	optional	Preference list.
ResortId	element	string	required	Property code.
BookingLifetime	element	UnsignedInt	optional	Number of minutes to maintain a temporary booking for each returned result. The value 0 can

				be used to get a snapshot of inventory without creating temporary bookings. Default value = 10
ResultsLimit	element	UnsignedInt	optional	Maximum count of availabilities to be returned. The value 0 means "all availabilities". Default value = 2

Response

AvailabilityResponse				
Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	Availabilityresult. If successful, the responding system is only required to set the resultStatusFlag as SUCCESS, and return the data in the AvailabilityList.
Availabilities	element	AvailabilityList	optional	All found availabilities. The maximum quantity of returned availabilities should be configurable in the SSS.

AvailabilityList				
Name	**Type**	**Data Type**	**Use**	**Comments**
Availability	element	Availability	optional/ multiple	Availability.

Availability				
Name	**Type**	**Data Type**	**Use**	**Comments**
availabilityType	attribute	string	optional	BESTPRICE or BESTTIME.
TemplateIDs	element	UniqueIDList	required	IDs of the template.
BookingIDs	element	UniqueIDList	required	IDs of the temporary booking. Must be used to create this booking if would be selected.
TimeSpan	element	OGTimeSpan	required	Time span of the booking.
Price	element	Amount	optional	Price of the booking.
Resources	element	ResourceList	optional	Resources of the booking.
ResortId	element	string	required	Property code.

Example

[Request]

```
<AvailabilityRequest availabilityType=“BESTPRICE“>
    <TemplateIDs>
       <UniqueID source="TAC">123</UniqueID>
    </TemplateIDs>
    <Profile>
    <IDs>
        <UniqueID source="ES">96</UniqueID>
        <UniqueID source="TAC">10968</UniqueID>
    </IDs>
    <Customer>
        ........
    </Customer>
    </Profile>
    <TimeSpans>
        <TimeSpan>
            <Start>2007-05-15T08:30:00Z</Start>
            <End>2007-05-15T09:30:00Z</End>
        </TimeSpan>
        <TimeSpan>
            <Start>2007-05-15T10:00:00Z</Start>
            <End>2007-05-15T12:00:00Z</End>
        </TimeSpan>
    </TimeSpans>
    <PreferredResources>
        <Resource category="Providers">John Miller</Resource>
    </PreferredResources>
    <Preferences>
    < Preference preferenceType="GENDER" preferred="MALE" mode="PREFERRED">Providers</Preference>
    </Preferences>
    <ResortId>HOTELB</ResortId>
</AvailabilityRequest>
```

[Response]

```
<AvailabilityResponse>
<Result resultStatusFlag="SUCCESS" />
 <Availabilities>
    <Availability availabilityType="BESTPRICE">
        <TemplateIDs>
          <UniqueID source="TAC">123</UniqueID>
        </TemplateIDs>
        <BookingIDs>
            <UniqueID source="TAC">67888</UniqueID>
        </BookingIDs>
        <TimeSpan>
            <Start>2007-05-15T08:30:00Z</Start>
            <End>2007-05-15T09:30:00Z</End>
        </TimeSpan>
        <Price currencyCode="USD">130.5</Price>
        <Resources>
```

```
                         <Resource category="Providers" gender=”Male”>John Miller</Resource>
                 <Resource category="Facilities">Room 10</Resource>
                 </Resources>
                 <ResortId>HOTELB</ResortId>
         </Availability>
   </Availabilities>
</AvailabilityResponse>
```

Chapter 38 Definition Create

(SSF ⇨ SSS)

The Create request can contain many Booking elements and one PaymentGuarantee element.

This message is the confirmation for any Bookings which were returned by the Availability request. With this request, any temporary Bookings created by the availability request will be either finalized (for the included Bookings) or released (for all excluded Bookings from the same Availability call).

Soap Action	http://htng.org/PWS/2008B/GuestSelfService#Create

Request

CreateRequest				
Name	**Type**	**Data Type**	**Use**	**Comments**
Bookings	element	BookingIdentificationList	required	Collection of bookings.
ModifyBookingIDs	element	UniqueIDList	optional	Used to modify an existing booking in the SSS. The SSS has to know the old booking ID to delete them.
PaymentGuarantee	element	PaymentIdentification	optional	It should be configurable, if a payment guarantee is necessary to create a booking.

Response

The CreateResponse contains all requested bookings with their creation result.

CreateResponse				
Name	**Type**	**Data Type**	**Use**	**Comments**
Bookings	element	BookingResultList	required	Collection of booking results.

Example

[Request]

```
<CreateRequest>
	<Bookings>
		<Booking>
			<BookingIDs>
				<UniqueID source="TAC">67888</UniqueID>
				<UniqueID source="ES">150</UniqueID>
			</BookingIDs>
			<ReferenceNumber>235667</ReferenceNumber>
		</Booking>
```

```
        </Bookings>
        <PaymentGuarantee>
        <CreditCard>
                <CardNumber>4444333322221111</CardNumber>
                <ExpireDate>1008</ExpireDate>
        </CreditCard>
        </PaymentGuarantee>
</CreateRequest>
```

[Response]

```
<CreateResponse>
 <Bookings>
        <Booking>
                <Result resultStatusFlag="SUCCESS" />
                <BookingIDs>
                        <UniqueID source="TAC">67888</UniqueID>
                        <UniqueID source="ES">150</UniqueID>
                </BookingIDs>
        </Booking>
  </Bookings>
</CreateResponse>
```

Chapter 39 Definition Delete

(SSF ⇨ SSS)

This request deletes bookings which were created by the Create request.

Soap Action	http://htng.org/PWS/2008B/GuestSelfService#Delete

Request

DeleteRequest				
Name	**Type**	**Data Type**	**Use**	**Comments**
Bookings	element	BookingIdentificationList	required	Collection of bookings, which should be deleted.

Response

DeleteResponse				
Name	**Type**	**Data Type**	**Use**	**Comments**
Bookings	element	BookingResultList	required	Collection of bookings, with their result.

Example

[Request]

```
<DeleteRequest>
        <Bookings>
                <Booking>
                        <BookingIDs>
                                <UniqueID source="TAC">67888</UniqueID>
                                <UniqueID source="ES">150</UniqueID>
                        </BookingIDs>
                </Booking>
        </Bookings>
</DeleteRequest>
```

[Response]

```
<DeleteResponse>
        <Bookings>
                <Booking>
                        <BookingIDs>
                                <UniqueID source="TAC">67888</UniqueID>
                                <UniqueID source="ES">150</UniqueID>
                        </BookingIDs>
                        <Result resultStatusFlag="SUCCESS" />
                </Booking>
        </Bookings>
</DeleteResponse>
```

Chapter 40 Definition Sale

(SSF ⇨ SSS)

The Sale request contains all necessary information for completion a sales process in the SSS.

Soap Action	http://htng.org/PWS/2008B/GuestSelfService#Sale

Request

A Sale request consists of the following parts:

- Profile
- Payments (arbitrary number of payments)
- Items (arbitrary number of Booking, Retail, GiftCertificate, and ShippingCosts elements)

The element Profile corresponds to the structure of a New/UpdateProfile from the guest synchronization.

SaleRequest				
Name	**Type**	**Data Type**	**Use**	**Comments**
ProfileIdentification	element	ProfileIdentification	required	Used to identify the profile.
Payments	element	PaymentList	required	Collection of payments.
Items	element	ItemList	required	Collection of items.
ResortId	element	string	required	Property code.

ProfileIdentification				
Name	**Type**	**Data Type**	**Use**	**Comments**
Profile	element	Profile	optional/choice	Profile as defined in SGI specification. (Choice)
ProfileIDs	element	UniqueIDList	optional/choice	ProfileIDs. (Choice)

PaymentList				
Name	**Type**	**Data Type**	**Use**	**Comments**
Payment	element	Payment	required/ multiple	The element Payment must be set for every used payment method in the selling process.

Payment				
Name	**Type**	**Data Type**	**Use**	**Comments**
method	attribute	string	required	Sets the payment method in the SSS.
Value	element	Amount	required	With this payment method paid value.
PaymentInformation	element	PaymentIdentification	optional	When the guest pays with a gift certificate, credit card or room the additional payment information must be set here.

ItemList				
Name	**Type**	**Data Type**	**Use**	**Comments**
Booking	element	BookingItem	optional/ multiple	This booking has to be created by a prior Create message.
CreateBooking	element	CreateBookingItem	optional/ multiple	This element has the same function like the single message CreateRequest. This element should be used to create and sell bookings in one step without a prior Create message.
GiftCertificate	element	GiftCertificateItem	optional/ multiple	The created gift certificate numbers will be returned by the SaleResponse.
Item	element	Item	optional/ multiple	Common sales item.
ShippingCosts	element	ShippingCostItem	optional/ multiple	The ShippingCosts must be calculated by the weight of the ordered retail products.

BookingItem				
Name	**Type**	**Data Type**	**Use**	**Comments**
BookingIDs	element	UniqueIDList	required	IDs of the booking.
Type	element	string	optional	Full or partial sell of an existing booking or cancellation of an booking and book the cancellation costs (Type = CANCEL)) Possible values: PREPAYMENT, FULLPAYMENT, BALANCEPAYMENT, CANCELLATION Default: FULLPAYMENT
Price	element	Amount	required	Price of the booking.

CreateBookingItem				
Name	**Type**	**Data Type**	**Use**	**Comments**
BookingIdentification	element	BookingIdentification	required	IDs of the booking.
ModifyBookingIDs	element	UniqueIDList	optional	Used to modify an existing booking in the SSS. The SSS has to know the old booking ID to delete them.

GiftCertificateItem				
Name	**Type**	**Data Type**	**Use**	**Comments**
TemplateIDs	element	UniqueIDList	required	IDs of the template.
Price	element	Amount	required	Amount of the gift certificate.
BuyerName	element	string	optional	Name of the buyer (donor).
DedicationText	element	string	optional	The content of this field should be changeable for the buyer of the gift certificate, because this text could be printed on the gift certificate as dedication for the recipient.
LanguageCode	element	string	required	Needed to choose the right text blocks for the gift certificate. Possible values: en,de,fr, etc.

Item				
Name	**Type**	**Data Type**	**Use**	**Comments**
TemplateIDs	element	UniqueIDList	required	IDs of the template.
Price	element	Amount	required	Price of the sales item. (e.g., retail product)

ShippingCostItem				
Name	**Type**	**Data Type**	**Use**	**Comments**
Price	element	Amount	required	Price of the shipping costs.
Description	element	Text	optional	This text could be used to present the type of shipping(e.g., overnight express) on the bill.
TemplateID	element	UniqueID	optional	TemplateID of shipping cost template.

Response

SaleResponse				
Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	Result.
InvoiceNumber	element	string	required	Number of the created invoice.
InvoiceDate	element	date	required	Date and time of the created invoice.
ReceiptImage	element	Media	optional	Receipt media.
GiftCertificates	element	GiftCertificateList	optional	This element is optional, because it is possible that the sale request contains no gift certificate item.

GiftCertificateList				
Name	**Type**	**Data Type**	**Use**	**Comments**
GiftCertificate	element	GiftCertificateData	optional/ multiple	Collection of the created gift certificates.

GiftCertificateData				
Name	**Type**	**Data Type**	**Use**	**Comments**
GiftCertificateNumber	element	string	required	Number of the created gift certificate.
GiftCertificateData	element	Media	optional	Depending on the workflow, this element is needed. (e.g., to create the gift certificate layout print in the SSS and send the base64 coded image or pdf to the SSF).

Example

[Request]

```
<SaleRequest>
        <Profile nameType="GUEST" languageCode="en" nationality="AT"
        <IDs>
                <UniqueID source="ES">96</UniqueID>
                <UniqueID source="TAC">10968</UniqueID>
        </IDs>
        <Customer gender="MALE">
        <PersonName familiarName="Rappold">
                <NameTitle />
                <FirstName>Bernhard</FirstName>
                <LastName>Rappold</LastName>
        </PersonName>
        </Customer>
        <Addresses>
                <NameAddress addressType="HOME" primary="true">
                        <AddressLine>Schildbach 111</AddressLine>
                        <CityName />
                        <StateProv />
                        <CountryCode>AT</CountryCode>
                        <PostalCode />
                </NameAddress>
                </Addresses>
                <Phones>
                        <NamePhone phoneType="EMAIL" phoneRole="EMAIL" primary="true">
                        <PhoneNumber>b.rappold@reservationassistant.com</PhoneNumber>
                        </NamePhone>
                </Phones>
        </Profile>
        <Payments>
        <Payment method="visa">
                        <Value currencyCode="USD">130.5</Value>
                        <PaymentInformation>
                        <CreditCard>
                                <CardNumber>4444333322221111</CardNumber>
                                <ExpireDate>1008</ExpireDate>
                                <CVV2>999</CVV2>
                                <CardHolderName>RAPPOLD BERNHARD</CardHolderName>
                                <CardHolderZipCode></CardHolderZipCode>
                                <CardHolderAddress></CardHolderAddress>
                                <CardHolderCity></CardHolderCity>
                                <RemoteIP>81.223.207.12</RemoteIP>
                        </CreditCard>
                        </PaymentInformation>
                </Payment>
        </Payments>
        <Items>
                <Booking>
                        <BookingIDs>
                                <UniqueID source="TAC">67888</UniqueID>
                                <UniqueID source="ES">150</UniqueID>
                        </BookingIDs>
                        <Price currencyCode="USD">130.50</Price>
                </Booking>
        </Items>
        <ResortId>HOTELB</ResortId>
</SaleRequest>
```

[Response]

```
<SaleResponse>
        <Result resultStatusFlag="SUCCESS" />
        <InvoiceNumber>10123</InvoiceNumber>
        <InvoiceDate>2007-05-14</InvoiceDate>
</SaleResponse>
```

Chapter 41 Definition FetchBooking

(SSF ⇨ SSS)

With this request the SSF can retrieve detailed information for bookings (e.g., the trainer, room, .. of an activity, etc.).

Soap Action	http://htng.org/PWS/2008B/GuestSelfService#FetchBooking

Request

One of the filter must be set.

FetchBookingRequest				
Name	**Type**	**Data Type**	**Use**	**Comments**
BookingIDs	element	UniqueIDList	optional	To request one specific booking.
ReferenceNumber	element	string	optional	To request all bookings for a global reference number.
Type	element	string	optional	To request bookings with a specific template type.
TimeSpan	element	OGTimeSpan	optional	To reuqest all bookings between this time span.
ProfileIDs	element	UniqueIDList	optional	To request all bookings for a profile.
PersonName	element	PersonName	optional	To request bookings by guest name.
Membership	element	NameMembership	optional	To request all bookings for a membership. (e.g.,MembershipNumber)
EmailAddress	element	string	optional	To request bookings by email address.
Reservation	element	ReservationIdentification	optional	To request all bookings by one hotel reservation.

Response

The response can contain a lot of Activity and Dining elements.

FetchBookingResponse				
Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	Result.
Bookings	element	BookingList	optional	Collection of the found bookings.

BookingList				
Name	**Type**	**Data Type**	**Use**	**Comments**
Booking	element	Booking	optional/ multiple	Collection of the found bookings.

Booking				
Name	**Type**	**Data Type**	**Use**	**Comments**
type	attribute	string	required	Type of booked template.
BookingIDs	element	UniqueIDList	required	BookingIDs of the booking. (SGI ActivityID)
ProfileIDs	element	UniqueIDList	required	ProfileIDs of the booking guest.
TemplateIDs	element	UniqueIDList	required	TemplateIDs of the activities
ActivityType	element	string	optional	Type of the booking. (SGI)
Location	element	string	optional	Location of the booking. (SGI)
Name	element	Text	required/ multiple	Name of booking. (SGI)
NumberOfPersons	element	unsignedInt	optional	Number of persons. (Only used for dining) (SGI)
TimeSpan	element	OGTimeSpan	required	Time span of the booking. (SGI)
Duration	element	OGTimeSpan	optional	The length of the booking. (SGI)
Description	element	Text	optional/ multiple	Detailed booking description. (SGI)
Note	element	Text	optional/ multiple	Additional notes about the booking. (SGI) Can be used for, e.g., instructions, etc.
Remark	element	string	optional	Remark of the booking. Can be stored to the booking by the Create request.
Price	element	Amount	required	Booking price. (SGI Amount)
Participants	element	ParticipantList	optional	List of booked participants. (SGI Participants)
Resources	element	ResourceList	optional	List of booked resources.
RequestedPreferences	element	PreferenceElementList	optional	Requested preferences of the availability request.
RequestedPreferredResources	element	ResourceList	optional	Requested preferred resources of the availability request.

ParticipantList

Name	Type	Data Type	Use	Comments
Participant	element	PersonName	optional/ multiple	Name of the participants.

Example

[Request]

```
<FetchBookingRequest>
        <BookingIDs>
                <UniqueID source="TAC">67888</UniqueID>
        </BookingIDs>
        <ProfileIDs>
                <UniqueID source="ES">96</UniqueID>
                <UniqueID source="TAC">10968</UniqueID>
        </ProfileIDs>
        <Type>ACTIVITY</Type>
        <ReferenceNumber>235667</ReferenceNumber>
</FetchBookingRequest>
```

[Response]

```
<FetchBookingResponse>
<Result resultStatusFlag="SUCCESS">
        <Text>
                <TextElement language="en" />
        </Text>
        <IDs>
                <UniqueID source="TAC">67888</UniqueID>
        </IDs>
</Result>
<Bookings>
        <Booking type="ACTIVITY">
        <BookingIDs>
                <UniqueID source="TAC">67888</UniqueID>
        </BookingIDs>
        <ProfileIDs>
                <UniqueID source="ES">96</UniqueID>
                <UniqueID source="TAC">10968</UniqueID>
        </ProfileIDs>
        <TemplateIDs>
                    <UniqueID source="TAC">123</UniqueID>
                </TemplateIDs>
                <ActivityType>Spa Massage</ActivityType>
        <Location>Spa</Location>
        <Name language="en">Full body massage</Name>
        <Name language="de">Ganzkörpermassage</Name>
        <TimeSpan>
        <Start>2007-05-15T08:30:00Z</Start>
        <End>2007-05-15T09:30:00Z</End>
    </TimeSpan>
    <Description language="en">Massage for the full body.</Description>
    <Description language="de">Massage für den ganzen Körper.</Description>
    <Price currencyCode="USD">130.50</Price>
    <Participants>
        <Participant>
            <NameTitle />
            <FirstName>Bernhard</FirstName>
            <LastName>Rappold</LastName>
        </Participant>
    </Participants>
    <Resources>
        <Resource category="Providers" gender=”Male”>John Miller</Resource>
        <Resource category="Facilities">Room 10</Resource>
    </Resources>
    </Booking>
</Bookings>
</FetchBookingResponse>
```

Chapter 42 Definition FetchGiftCertificate

(SSF ⇨ SSS)

With this request the SSF can retrieve detailed information for a gift certificate (e.g., value, expiration date, etc.).

For example, in case of gift certificate payment the SSF can request the value of the gift certificate by this request.

Soap Action	http://htng.org/PWS/2008B/GuestSelfService#FetchGiftCertificate

Request

FetchGiftCertificateRequest

Name	**Type**	**Data Type**	**Use**	**Comments**
GiftCertificate	element	GiftCertificateIdentification	required	To request one specific gift certificate.

Response

FetchGiftCertificateResponse

Name	**Type**	**Data Type**	**Use**	**Comments**
Result	element	ResultStatus	required	Result.
GiftCertificate	element	GiftCertificate	optional	Found gift certificate.

GiftCertificate

Name	**Type**	**Data Type**	**Use**	**Comments**
GiftCertificateIdentification	element	GiftCertificateIdentification	required	Identification of the gift certificate.
GiftCertificateType	element	string	required	Type of gift certificate: HOTEL,SERVICE,VALUE, etc.
GiftCertificateStatus	element	string	optional	Status of gift certificate: PRINTED, PAID, REDEEMED, CANCELLED, etc.
TemplateIDs	element	UniqueIDList	optional	Ids of the corresponding template.
LanguageCode	element	string	optional	Language of the gift certificate.
TemplateName	element	string	optional	Name of the corresponding template in gift certificate language.
TemplateDescription	element	string	optional	Description of the corresponding template in gift certificate language.

GiftCertificatePrintName	element	string	optional	Additional name, which can be printed on the gift certificate.
GiftCertificatePrintText1	element	string	optional	Additional text, which can be printed on the gift certificate.
GiftCertificatePrintText2	element	string	optional	Additional text, which can be printed on the gift certificate.
GiftCertificatePrintText3	element	string	optional	Additional text, which can be printed on the gift certificate.
IssueDate	element	date	optional	Date of issue.
ValidFrom	element	date	optional	Valid from.
ValidUntil	element	date	optional	Valid until.
RedeemDate	element	date	optional	Redeem date.
PaidDate	element	date	optional	Paid date.
BuyerProfileIDs	element	UniqueIDList	optional	Buyer ProfileIDs.
BuyerName	element	string	optional	Buyer name (donor). This is no PersonName, because this text can be changed on creation by the customer.
DedicationText	element	string	optional	Dedication text.
Tax	element	Tax	optional	Tax of the gift certificate.
Value	element	Amount	optional	Gift certificate value.
ServiceTemplateIDs	element	UniqueIDList	optional	TemplateIDs of the corresponding service.
InvoiceNumber	element	string	optional	Number of the sale invoice.

Example

[Request]

```
<FetchGiftCertificateRequest>
        <GiftCertificate>
                <GiftCertificateNumber>VV2300021/07</GiftCertificateNumber>
        <ExpirationDate>2037-01-14</ExpirationDate>
        <VerificationCode>ABC2356671</VerificationCode>
        </GiftCertificate>
</FetchGiftCertificateRequest>
```

[Response]

```
<FetchGiftCertificateResponse>
        <Result resultStatusFlag="SUCCESS"/ >
        <GiftCertificate>
                <GiftCertificateIdentification>
```

```xml
            <GiftCertificateNumber>VV2300021/07</GiftCertificateNumber>
        <ExpirationDate>2037-01-14</ExpirationDate>
        <VerificationCode>ABC2356671</VerificationCode>
        </GiftCertificateIdentification>
        <GiftCertificateType>VALUE</GiftCertificateType>
        <GiftCertificateStatus>PAID</GiftCertificateStatus>
        <TemplateIDs>
            <UniqueID source="TAC">675</UniqueID>
        </TemplateIDs>
        <LanguageCode>en</LanguageCode>
        <TemplateName>Value gift certificate 100 USD</TemplateName>
        <TemplateDescription>Value gift certificate 100 USD</TemplateDescription>
        <GiftCertificatePrintName>100 USD value gift certificate</GiftCertificatePrintName>
        <GiftCertificatePrintText1>Prizes cannot be redeemed for money</GiftCertificatePrintText1>
        <IssueDate>2007-01-14</IssueDate>
        <ValidFrom>2007-01-14</ValidFrom>
        <ValidUntil>2037-01-14</ValidUntil>
        <PaidDate>2007-01-14</PaidDate>
        <BuyerProfileIDs>
        <UniqueID source="ES">96</UniqueID>
        <UniqueID source="TAC">10968</UniqueID>
    </BuyerProfileIDs>
    <BuyerName>Rappold Bernhard</BuyerName>
    <DedicationText>Happy Birthday</DedicationText>
    <Value currencyCode="USD">100.00</Value>
    <InvoiceNumber>635424</InvoiceNumber>
    </GiftCertificate>
</FetchGiftCertificateResponse>
```

Chapter 43 Global schema elements

Each schema element, which is used in more than one message, is defined in this section. The usages of this schema elements are marked with green color. The blue elements are defined in the Single Guest Itinerary specification.

TimeSpanList				
Name	**Type**	**Data Type**	**Use**	**Comments**
TimeSpan	element	OGTimeSpan	required/ multiple	One time span is required.

Media				
Name	**Type**	**Data Type**	**Use**	**Comments**
MediaID	element	UniqueIDList	optional	IDs of the media.
MediaFormat	element	string	optional	MIME type of the media. For example: image/jpeg, application/pdf, etc.
MediaURI	element	anyURI	optional	URI of the media file (e.g., \\192.168.22.70\data\itempictures\0\0\0\950.jpg) (Choice)
MediaData	element	base64Binary	optional	Base64 coded media data. (Choice)

ResourceList				
Name	**Type**	**Data Type**	**Use**	**Comments**
Resource	element	Resource	optional/ multiple	Resources associated with the request.

Resource				
Name	**Type**	**Data Type**	**Use**	**Comments**
Resource	extension	string	required	Name of the resource.
category	attribute	string	required	Name of the resource category.
Gender	Attribute	String	optional	Gender/affinity of the resource.

BookingIdentificationList

Name	Type	Data Type	Use	Comments
Booking	element	BookingIdentification	required/ multiple	At least one booking is needed.

BookingIdentification

Name	Type	Data Type	Use	Comments
BookingIDs	element	UniqueIDList	required	The internal BookingID, which was returned by a previous AvailabilityResponse must be filled. The external BookingID can be assigned.
ReferenceNumber	element	string	optional	The reference number is a global number to identify a group of activities, hotel reservations, etc.
Remark	element	string	optional	This remark can be used to store a note to a booking.

BookingResultList

Name	Type	Data Type	Use	Comments
Booking	element	BookingResult	required/ multiple	At least one booking result is required.

BookingResult

Name	Type	Data Type	Use	Comments
Result	element	ResultStatus	required	Result of the booking creation.
BookingIDs	element	UniqueIDList	required	IDs of the created bookings.

TaxList

Name	Type	Data Type	Use	Comments
Tax	element	Tax	optional/ multiple	List of taxes.

Tax				
Name	**Type**	**Data Type**	**Use**	**Comments**
TaxName	element	Text	optional	Name of tax.
TaxRate	element	double	required	Tax rate. (e.g., 7)
TaxAmount	element	Amount	optional	Tax amount.

PaymentIdentification				
Name	**Type**	**Data Type**	**Use**	**Comments**
CreditCard	element	CreditCardIdentification	optional/choice	The CardNumber and ExpireDate are required in the element CreditCardIdentification.
Reservation	element	ReservationIdentification	optional/choice	Used to identify a hotel reservation.
GiftCertificate	element	GiftCertificateIdentification	optional/choice	Gift certificate payment information.

GiftCertificateIdentification				
Name	**Type**	**Data Type**	**Use**	**Comments**
GiftCertificateNumber	element	string	required	Unique gift certificate number.
ExpirationDate	element	date	optional	Expiration date of gift certificate.
VerificationCode	element	string	optional	Code which is printed on the gift certificate like the CVV2 code of a credit card.

ReservationIdentification				
Name	**Type**	**Data Type**	**Use**	**Comments**
ReservationID	element	UniqueID	optional	Reservation ID.
RoomNumber	element	string	optional	Room number.
ConfirmationNo	element	string	optional	Confirmation number.

CreditCardIdentification				
Name	**Type**	**Data Type**	**Use**	**Comments**
CardNumber	element	string	required	Complete credit card number without spaces.

ExpirationDate	element	string	required	Expiration date of the credit card without separator (e.g., October 2008 is formatted as 1008).
CVV2	element	string	optional	Code for verifying the card.
CardHolderName	element	string	optional	Name of the card holder.
CardHolderAddressLine	element	string	optional	Address line of the card holder.
CardHolderCityName	element	string	optional	City name of the card holder.
CardHolderStateProv	element	string	optional	State of the card holder.
CardHolderCountryCode	element	string	optional	Country of the card holder.
CardHolderPostalCode	element	string	optional	Postal code of the card holder.
RemoteIP	element	string	optional	IP of the remote system. Can be used for logging purpose.

PreferenceElementList				
Name	**Type**	**Data Type**	**Use**	**Comments**
Preference	element	PreferenceElement	optional/ multiple	The Preferences can contain many Category entries which must be unique.

PreferenceElement				
Name	**Type**	**Data Type**	**Use**	**Comments**
Category	extension	string	required	Name of the resource category.
preferenceType	attribute	string	required	Type of preference; e.g.. GENDER, SMOKING, MEALTYPE, TABLETYPE
preferred	attribute	string	required	Requesting value: GENDER: MALE or FEMALE, SMOKING: SMOKER or NONSMOKER, etc.
mode	attribute	string	required	Mode of the request: PREFERRED or STRICT

Chapter 44 Use Cases

The following use cases detail the booking flows for an on-line Spa booking engine for Hotels/Resorts.

The following actors take part in the Use Cases:

SSF – Self-Service Front End
SSS – Service Scheduling System

Note: It is the responsibility of the SSS to manage the local storage and remote coordination of profiles with PMS systems using the SGI interface.

BOOKINGS WITH ROOM RESERVATION:

44.1 Create Booking by Treatment – Hotel Guest

46.1.1 Use Case Descriptions

- Mr. John Smith makes a reservation to a stay at HTNG Hotel A, arriving on October 7th, 2009 and departing on October 10, 2009
- Mr. Smith notices that there is a link on the confirmation page that says "Book a Spa treatment", and decides to make a Spa booking by clicking the link.

  SSF to SSS: TemplateCategoryRequest

  SSS to SSF: TemplateCategoryResponse

  SSF to SSS: TemplateInfoRequest (with Type ACTIVITY)

  SSS to SSF: TemplateInfoResponse (TI)

- Based on his schedule, he selects October 9, 2009, and is flexible with his time.
- Next, he is browsing a list of treatments **(treatment categories from TC, list of treatments and durations from TI),** to find what he likes. He determines that he would like to book an 80-minute Swedish Massage at the price of 165.00 (prices in TI).
- He also selects a preference for “Female therapist” and clicks “Check availability”

SSF to SSS: NewProfileRequest

SSS to SSF: NewProfileResponse (NP)
Note: If the customer is logged into the SSF profile system, the unique identifier should be passed.

SSF to SSS: AvailabilityRequest

SSS to SSF: AvailabilityResponse (A)
Note: The SSS can use the information passed in the Profile element of the availability request to coordinate with the PMS system using messages from the SGI specification.

- Two options are displayed: **(time spans in A)**

  5:00 – 6:20 pm
  6:00 – 7:20 pm

- Mr. Smith selects 6:00 – 7:20 pm

Note: if the availability response above was done without holding inventory, then another availability request should be done here with a non-zero value for the BookingLifetime element.

SSF to SSS: AvailabilityRequest

SSS to SSF: AvailabilityResponse (A)

Note: If the SSF caches the previous call to TemplateInfo, then resending the TemplateInfoRequest is not required.

SSF to SSS: TemplateInfoRequest (with TemplateID parameter)

SSS to SSF: TemplateInfoResponse (TI)

SSF to SSS: PaymentConditionRequest

SSS to SSF: PaymentConditionResponse (PC)

- A message comes back advising him that for this treatment, a special cancellation policy is in place, and he would have to cancel at least 48 hours prior to arrival to avoid penalty. In case of late cancellation, a cancellation fee of 50% of treatment plus applicable charges will be applied. In addition, a 10% prepayment is required.

- Mr. Smith is asked how they would like to guarantee his Spa booking. Options are: all major credit cards or charge to their room bill. Mr. Smith inputs his Visa card details and clicks “Next”

Note: The SSF may copy the credit card to the SSS (and other systems through messages in the SGI specification) with an UpdateProfileRequest at this point.

SSF to SSS: UpdateProfileRequest

SSS to SSF: UpdateProfileResponse (UP)

o Now, his profile information is displayed:

ProfileID #58869

Mr. John Smith
123 Happy Lane
Chicago, IL, 60611, USA
Home Phone: +1 (312) 111-2222
Mobile Phone: +1 (312) 222-3333
E-mail: john.smith@htng.com"

He verifies that this information is correct, and clicks "Book it"

SSF to SSS: CreateRequest
SSS to SSF: CreateResponse (C)

o The appointment is now made in the Spa System, and Mr. Smith receives back his Spa booking ID
SSF to SSS: FetchBookingRequest

SSS to SSF: FetchBookingResponse (FB)

o A Single Guest Itinerary is now displayed:
Hotel Room Reservation:
Arriving Wednesday, October 7, 2009
Departing Saturday, October 10, 2009
Room Type – Deluxe King
Hotel Confirmation number 787878
Cancellation policy – no later then 6pm day of arrival"
Spa Reservation:
Location - "The Spa"
Treatment Date – Friday, October 9, 2009
Treatment Time – 6:00pm – 7:20pm
Arrival Time 5:45pm
Treatment type – "Swedish Massage"
Price – 165.00 USD
Therapist – Female
Spa Confirmation number – 454545 (booking ID from C)

46.1.2 XML Messages

The messages exclude the SOAP header and namespace declarations.

46.1.2.1 TemplateCategoryRequest (TC)

Note: This message gets the list of Categories and CategoryIDs. The resulting category names must be filtered according to the language of the web page (EN=English, initially). These categories should be sorted according to the accompanying Order tags before display. This call is used to retrieve and display the list of treatment categories.

SSF to SSS - Sending:

```
<TemplateCategoryRequest></TemplateCategoryRequest>
```

SSS to SSF - Results in:

```
<TemplateCategoryResponse>
<Result resultStatusFlag="SUCCESS"/>
    <TemplateCategories>
        <TemplateCategory>
            <TemplateCategoryIDs>
        <UniqueID source="SSS">732</UniqueID>
            </TemplateCategoryIDs>
                <Name language="en">Massage</Name>
                <Name language="de">Massage</Name>
                <Order>0</Order>
        </TemplateCategory>
        <TemplateCategory>
            <TemplateCategoryIDs>
                <UniqueID source="SSS">731</UniqueID>
            </TemplateCategoryIDs>
                <Name language="en">Facial</Name>
                <Order>1</Order>
        </TemplateCategory>
        <TemplateCategory>
            <TemplateCategoryIDs>
                <UniqueID source="SSS">730</UniqueID>
            </TemplateCategoryIDs>
                <Name language="en">Nail Services</Name>
                <Order>2</Order>
        </TemplateCategory>
        <TemplateCategory>
            <TemplateCategoryIDs>
                <UniqueID source="SSS">729</UniqueID>
            </TemplateCategoryIDs>
                <Name language="en">Body Treatments</Name>
                <Order>3</Order>
        </TemplateCategory>
        <TemplateCategory>
            <TemplateCategoryIDs>
                <UniqueID source="SSS">728</UniqueID>
            </TemplateCategoryIDs>
                <Name language="en"> Wax</Name>
                <Order>4</Order>
        </TemplateCategory>
        <TemplateCategory>
            <TemplateCategoryIDs>
                <UniqueID source="SSS">733</UniqueID>
            </TemplateCategoryIDs>
                <Name language="en">Spa Retail</Name>
                <Name language="de">Spa Verkaufsprodukte</Name>
                <Order>0</Order>
        </TemplateCategory>
        <TemplateCategory>
            <TemplateCategoryIDs>
                <UniqueID source="SSS">738</UniqueID>
            </TemplateCategoryIDs>
                <Name language="en">Giftcertificates</Name>
                <Name language="de">Gutscheine</Name>
                <Order>1</Order>
        </TemplateCategory>
        <TemplateCategory>
            <TemplateCategoryIDs>
                <UniqueID source="SSS">741</UniqueID>
            </TemplateCategoryIDs>
                <Name language="en">Service giftcertificates</Name>
                <Name language="de">Leistungsgutscheine</Name>
                <Order>2</Order>
        </TemplateCategory>
    </TemplateCategories>
</TemplateCategoryResponse>
```

46.1.2.2 TemplateInfoRequest (TI) – with Type parameter

…to gather list of massage treatments and prices

This message gets the details of the treatments associated with each category. The Name, TemplateCategory and Price tags are all important areas of the response. PaymentConditions, Location, Start Time, End Time and Start Interval are also of interest. In each TemplateCategory, the treatment with the least price would populate the "from" value. The collection of treatment names in each category form the detailed list of treatments.

The TemplateInfoRequest currently does not allow us to search by specific categories within the Activity Template (to search for all massages offered at the Spa, for example). The ability to search for data by Template Type is possible, as follows: ACTIVITY; DINING; RETAIL; GIFTCERTIFICATE; and SHIPPING COSTS. Any tool accessing this interface would need to parse the response to filter out the list of massages returned, so they can be displayed.

SSF to SSS - Sending:

```
<TemplateInfoRequest>
<Type>ACTIVITY</Type>
</TemplateInfoRequest>
```

SSS to SSF - Results in:

```
<TemplateInfoResponse>
        <Result resultStatusFlag="SUCCESS"/>
<Templates>
<Template type="ACTIVITY">
        <TemplateIDs>
                <UniqueID source="SSS">640</UniqueID>
        </TemplateIDs>
                <Name language="en">Swedish Massage 50 Minutes</Name>
                <Name language="de">Schwedische Massage 50 Minuten</Name>
<TemplateCategories>
<TemplateCategory>
        <TemplateCategoryIDs>
                <UniqueID source="SSS">732</UniqueID>
        </TemplateCategoryIDs>
</TemplateCategory>
</TemplateCategories>
<ValidFrom>2006-12-29T00:00:00.000Z</ValidFrom>
<ValidUntil>9999-01-01T00:00:00.000Z</ValidUntil>
<Description language="en">
Full body massage with flowing (effleurage) strokes
Benefits:
-Relieves Stress & tension
-Increases Circulation
</Description>
<Prices>
<Price>
<Name language="en">Swedish Massage 50 mins </Name>
<Price currencyCode="USD">120.0</Price>
<Taxes>
<Tax>
<TaxRate>8.0</TaxRate>
</Tax>
</Taxes>
</Price>
</Prices>
<Media>
<MediaData>
```

```
...
</MediaData>
</Media>
<AvailableResources>
<Resource category="Providers" gender="Female">
<Resource>FT Joy Morrison</Resource>
</Resource>
<Resource category="Providers" gender="Female">
<Resource>OC Alicia</Resource>
</Resource>
<Resource category="Providers" gender="Female">
<Resource>OC Christine</Resource>
</Resource>
<Resource category="Providers" gender="Male">
<Resource>OC DiGaetano</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Azalia</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Dogwood</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Forsythia</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Gardenia</Resource>
</Resource>
</AvailableResources>
<ActivityType>Massage</ActivityType>
<Duration>PT1H0M0.000S</Duration>
<DateSelection>0</DateSelection>
</Template>
<Template type="ACTIVITY">
<TemplateIDs>
<UniqueID source="SSS">641</UniqueID>
</TemplateIDs>
            <Name language="en">Swedish Massage 80 Minutes</Name>
            <Name language="de">Schwedische Massage 80 Minuten </Name>
<TemplateCategories>
<TemplateCategory>
<TemplateCategoryIDs>
            <UniqueID source="SSS">732</UniqueID>
</TemplateCategoryIDs>
</TemplateCategory>
</TemplateCategories>
<ValidFrom>2006-12-29T00:00:00.000Z</ValidFrom>
<ValidUntil>9999-01-01T00:00:00.000Z</ValidUntil>
<Description language="en">
Full body massage with flowing (effleurage) strokes
```

```
Benefits:
- Relieves Stress & tension
- Increases Circulation
</Description>
<Prices>
<Price>
<Name language="en">Swedish Massage  80 mins </Name>
<Price currencyCode="USD">165.0</Price>
<Taxes>
<Tax>
<TaxRate>0.0</TaxRate>
</Tax>
</Taxes>
</Price>
</Prices>
<AvailableResources>
<Resource category="Providers" gender="Female">
<Resource>FT Joy Morrison</Resource>
</Resource>
<Resource category="Providers" gender="Female">
<Resource>OC Alicia</Resource>
</Resource>
<Resource category="Providers" gender="Female">
<Resource>OC Christine</Resource>
</Resource>
<Resource category="Providers" gender="Male">
<Resource>OC DiGaetano</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Azalia</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Dogwood</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Forsythia</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Gardenia</Resource>
</Resource>
</AvailableResources>
</AvailableResources>
<ActivityType>Massage</ActivityType>
<Duration>PT1H30M0.000S</Duration>
<DateSelection>0</DateSelection>
</Template>
</TemplateInfoResponse>
```

46.1.2.3 NewProfileRequest (NP)

…to register profile data with Spa system with Profile, IDs

Note: This message creates a customer profile. The client system must pass an identifier. If the identifier is known, the matching profile is updated, if not a new profile is created with that ID and a new system ID. It should be possible to create a profile without passing at least one identifier. Failing that, a proposed solution is to create a counter which assigns sequential IDs to profiles.

SSF to SSS - Sending:

```
<NewProfileRequest>
    <Profile nameType="GUEST" nationality="US">
        <IDs>
            <UniqueID source="ES">1233</UniqueID>
        </IDs>
        <Customer gender="MALE">
            <PersonName>
                <FirstName>John</FirstName>
                <LastName>Smith</LastName>
            </PersonName>
        </Customer>
        <Addresses>
            <NameAddress addressType="HOME" displaySequence="1" primary="true">
                <AddressLine>123 Happy Lane</AddressLine>
                <CityName>Chicago</CityName>
                <StateProv>IL</StateProv>
                <CountryCode>USA</CountryCode>
                <PostalCode>60611</PostalCode>
            </NameAddress>
        </Addresses>

        <Phones>
            <NamePhone addressType="HOME" displaySequence="1" primary="true">
                <PhoneData>
                    <PhoneNumber>+1(312)111-2222</PhoneNumber>
                </PhoneData>
            </NamePhone>
        </Phones>
        <Phones>
        <NamePhone addressType="MOBILEPHONE" displaySequence="2" primary="true">
                <PhoneData>
                    <PhoneNumber>+1(312)222-3333</PhoneNumber>
                </PhoneData>
            </NamePhone>
        </Phones>
        <Phones>
            <NamePhone addressType="EMAIL" displaySequence="3" primary="true">
                <PhoneData>
                    <PhoneNumber>john.smith@htng.com</PhoneNumber>
                </PhoneData>
            </NamePhone>
        </Phones>
    </Profile>
</NewProfileRequest>
```

SSS to SSF - Results in:

```
<NewProfileResponse>
    <Result resultStatusFlag="SUCCESS">
        <IDs>
            <UniqueID source="SSS">58869</UniqueID>
            <UniqueID source="ES">1233</UniqueID>
        </IDs>
    </Result>
</NewProfileResponse>
```

46.1.2.4 AvailabilityRequest (A) – with TemplateInfoID, ProfileID, TimeSpan, ResortID

…to get available times

This message is used to check for availability. The parameter values that we will send are a little broader than what the customer requests. This will allow us to present alternatives to the customer. Note: For each option returned, resource availability is decremented.

SSF to SSS - Sending:

```
<AvailabilityRequest>
    <TemplateIDs>
        <UniqueID source="SSS">641</UniqueID>
    </TemplateIDs>
    <Profile nameType="GUEST" languageCode="en" nationality="US">
        <name:IDs>
            <UniqueID source="SSS">58869</UniqueID>
        </name:IDs>
    </Profile>
    <TimeSpans>
        <TimeSpan>
            <comm:Start>2009-10-09T00:00:00.000Z</comm:Start>
            <comm:End>2009-10-10T00:00:00.000Z</comm:End>
        </TimeSpan>
    </TimeSpans>
    <Preferences>
        <comm:Preference preferenceType="GENDER" preferred="FEMALE" mode="PREFERRED">Providers</comm:Preference>
    </Preferences>
    <ResortId>HTNGA</ResortId>
    <BookingLifetime>0</BookingLifetime>
    <ResultsLimit>0</ResultsLimit>
</AvailabilityRequest>
```

SSS to SSF - Results in:

```
<AvailabilityResponse>
    <Result resultStatusFlag="SUCCESS"/>
    <Availabilities>
        <Availability>
            <TemplateIDs>
                <UniqueID source="SSS">641</UniqueID>
            </TemplateIDs>
            <TimeSpan>
                <Start>2008-10-09T17:00:00.000Z</Start>
                <End>2008-10-09T18:20:00.000Z</End>
            </TimeSpan>
            <Price currencyCode="USD">165.0</Price>
            <Resources>
                <Resource category="Providers" gender="Female">
                <Resource>OC Alicia</Resource>
                </Resource>
                    <Resource category="Facilities">
                        <Resource>Dogwood</Resource>
                        </Resource>
            </Resources>
        </Availability>
        <Availability>
            <TemplateIDs>
                <UniqueID source="SSS">641</UniqueID>
            </TemplateIDs>
            <TimeSpan>
                <Start>2008-10-09T18:00:00.000Z</Start>
                <End>2008-10-09T19:20:00.000Z</End>
            </TimeSpan>
            <Price currencyCode="USD">165.0</Price>
            <Resources>
                <Resource category="Providers" gender="Female">
                    <Resource>OC Keisha </Resource>
                </Resource>
                <Resource category=" Facilities">
                    <Resource> Gardenia </Resource>
                </Resource>
            </Resources>
        </Availability>
    </Availabilities>
</AvailabilityResponse>
```

46.1.2.5 AvailabilityRequest (A)

…to hold resources

Note: A single availability request can be done, which holds resources until a booking is confirmed.

SSF to SSS - Sending:

```
<AvailabilityRequest>
    <TemplateIDs>
        <UniqueID source="SSS">641</UniqueID>
    </TemplateIDs>
    <Profile nameType="GUEST" languageCode="en" nationality="US">
        <name:IDs>
            <UniqueID source="SSS">58869</UniqueID>
        </name:IDs>
    </Profile>
    <TimeSpans>
        <TimeSpan>
            <comm:Start>2009-10-09T18:00:00.000Z</comm:Start>
            <comm:End>2009-10-09T19:20:00.000Z</comm:End>
        </TimeSpan>
    </TimeSpans>
    <Preferences>
        <Preference preferenceType="GENDER" preferred="FEMALE" mode="PREFERRED">Providers</Preference>
    </Preferences>
    <ResortId>HTNGA</ResortId>
</AvailabilityRequest>
```

SSS to SSF - Results in:

```
<AvailabilityResponse>
    <Result resultStatusFlag="SUCCESS"/>
    <Availabilities>
        <Availability>
            <TemplateIDs>
                <UniqueID source="SSS">641</UniqueID>
            </TemplateIDs>
            <BookingIDs>
                <UniqueID source="SSS">454544</UniqueID>
            </BookingIDs>
            <TimeSpan>
                <Start>2008-10-09T18:00:00.000Z</Start>
                <End>2008-10-09T19:20:00.000Z</End>
            </TimeSpan>
            <Price currencyCode="USD">165.0</Price>
            <Resources>
                <Resource category="Providers" gender="Female">
                    <Resource>OC Keisha </Resource>
                </Resource>
                <Resource category=" Facilities">
                    <Resource> Gardenia </Resource>
                </Resource>
            </Resources>
        </Availability>
    </Availabilities>
</AvailabilityResponse>
```

46.1.2.6 PaymentConditionRequest (PC)

...to retrieve cancellation policies and accepted payment types.

SSF to SSS - Sending:

```
<PaymentConditionRequest>
<ResortId>HTNGA</ResortId>
</PaymentConditionRequest>
```

SSS to SSF - Results in:

```
<PaymentConditionResponse>
<Result resultStatusFlag="SUCCESS" />
<PaymentConditions>
<PaymentCondition type="PREPAYMENT">
                    <PaymentConditionIDs>
<UniqueID source="SSS">1</UniqueID>
                    </PaymentConditionIDs>
                    <Value type="PERCENTAGE">
                    <Value>10</Value>
                    </Value>
                    <Description language="en">10% prepayment</Description>
                    <Description language="de">10% Anzahlung</Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
```

```
<PaymentCondition type="PREPAYMENT">
                                <PaymentConditionIDs>
<UniqueID source="SSS">2</UniqueID>
                                </PaymentConditionIDs>
<Value type="FIXEDPRICE">
                            <Value currencyCode="USD">15</Value>
</Value>
<Description language="en">USD 15</Description>
<Description language="de"> USD 15 </Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="CANCELLATION">
                                <PaymentConditionIDs>
<UniqueID source="SSS">3</UniqueID>
                                </PaymentConditionIDs>
<Value type="PERCENTAGE">
                            <Value>50</Value>
</Value>
<CancellationWindow>P0Y0M0DT48H</CancellationWindow>
<Description language="en">50% cancellation charge within 48 hours</Description>
<Description language="de">50% Stornogebühr innerhalb von zwei Tagen</Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="CANCELLATION">
                                <PaymentConditionIDs>
<UniqueID source="SSS">4</UniqueID>
                                </PaymentConditionIDs>
                                <Value type="PERCENTAGE">
                                <Value>100</Value>
                                </Value>
<CancellationWindow>P0Y0M0DT24H</CancellationWindow>
                                <Description language="en">100% cancellation charge – same day or no show</Description>
                                <Description language="de">100% Stornogebühr innerhalb von einem Tag</Description>
                            <ResortId>HTNGA</ResortId>
</PaymentCondition>
 </PaymentCondtions>
 </PaymentConditionResponse>
```

46.1.2.7 UpdateProfileRequest (UP) – with Customer, Addresses, Phones, ProfileID

This message updates a customer profile. For some implementations this request requires a ProfileID. Use FetchProfile to find a ProfileID by name. You may decide to use NewProfile in all cases, instead of this message.

SSF to SSS - Sending:

```
<UpdateProfileRequest>
        <Profile nameType="GUEST" nationality="US">
                <IDs>
                        <UniqueID source="ES">1233</UniqueID>
                </IDs>
                <Customer gender="MALE">
                        <PersonName>
                                <FirstName>John</FirstName>
                                <LastName>Smith</LastName>
                        </PersonName>
                </Customer>
                <Addresses>
                <NameAddress addressType="HOME" displaySequence="1" primary="true">
                                <AddressLine>123 Happy Lane</AddressLine>
                                <CityName>Chicago</CityName>
                                <StateProv>IL</StateProv>
                                <CountryCode>USA</CountryCode>
                                <PostalCode>60611</PostalCode>
                        </NameAddress>
                </Addresses>
                <Phones>
                <NamePhone addressType="HOME" displaySequence="1" primary="true">
                                <PhoneData>
                                        <PhoneNumber>+1(312)111-2222</PhoneNumber>
                                </PhoneData>
                        </NamePhone>
                </Phones>
                <Phones>
                <NamePhone addressType="MOBILEPHONE" displaySequence="2" primary="true">
                                <PhoneData>
                                        <PhoneNumber>+1(312)222-3333</PhoneNumber>
                                </PhoneData>
                        </NamePhone>
                </Phones>
                <Phones>
                        <NamePhone addressType="EMAIL" displaySequence="3" primary="true">
                                <PhoneData>
                                        <PhoneNumber>john.smith@htng.com</PhoneNumber>
                </PhoneData>
            </NamePhone>
        </Phones>
    </Profile>
</UpdateProfileRequest>
```

SSS to SSF - Results in:

```
<UpdateProfileResponse>
    <Result resultStatusFlag="SUCCESS">
        <IDs>
        <UniqueID source="SSS">58869</UniqueID>
        </IDs>
    </Result>
</UpdateProfileResponse>
```

46.1.2.8 CreateRequest (C) - with Bookings, PaymentGuarantee

This message creates a reservation given availability BookingID(s). For some implementations, this request needs to be used immediately before UpdateProfile, since UpdateProfile requires a ProfileID.

SSF to SSS - Sending:

```
<CreateRequest>
    <Bookings>
        <comm:Booking>
            <comm:BookingIDs>
                <UniqueID source="SSS">454544</UniqueID>
            </comm:BookingIDs>
            <comm:ReferenceNumber>787878</comm:ReferenceNumber>
        </comm:Booking>
    </Bookings>
    <PaymentGuarantee>
        <CardNumber>4444333322221111</CardNumber>
        <ExpireDate>1008</ExpireDate>
        <CVV2>999</CVV2>
        <CardHolderName>John Smith</CardHolderName>
        <CardHolderAddressLine>123 Happy Lane </CardHolderAddressLine>
        <CardHolderCityName>Chicago</CardHolderCityName>
        <CardHolderStateProv>IL</CardHolderStateProv>
        <CardHolderCountryCode>US</CardHolderCountryCode>
        <CardHolderPostalCode>60611</CardHolderPostalCode>
    </PaymentGuarantee>
</CreateRequest>
```

SSS to SSF - Results in:

```
<CreateResponse>
        <Bookings>
                <Booking>
                        <Result resultStatusFlag="SUCCESS"/>
                        <BookingIDs>
                                <UniqueID source="SSS">454544</UniqueID>
                        </BookingIDs>
                </Booking>
        </Bookings>
</CreateResponse>
```

46.1.2.9 FetchBooking (FB) – with BookingID

This message retrieves a reservation given some identifier(s). The documentation is wrong. This is called FetchBooking (singular) and resides in the Query namespace. Note that the BookingID and other tags are also redefined in the Query namespace.

SSF to SSS - Sending:

```
<FetchBookingRequest>
        <BookingIDs>
                <UniqueID source="SSS">454544<:UniqueID>
        </BookingIDs>
</FetchBookingRequest>
```

SSS to SSF - Results in:

```
<FetchBookingResponse>
        <Result resultStatusFlag="SUCCESS"/>
        <Bookings>
                <Booking type="ACTIVITY">
                        <BookingIDs>
                                <UniqueID source="SSS">58869</UniqueID>
                        </BookingIDs>
                        <ProfileIDs>
                                <UniqueID source="SSS">6840</UniqueID>
                                < UniqueID source="ES">1233</UniqueID>
                        </ProfileIDs>
                        <ActivityType>Massage</ActivityType>
                        <Location>Spa</Location>
                        <Name language="en">Swedish Massage 80 Minutes</Name>
                        <Name language="de">Schwedische Massage 80 Minuten</Name>
                        <NumberOfPersons>1</NumberOfPersons>
                        <TimeSpan>
                <Start>2009-10-09T18:00:00.000Z</Start>
                <End>2009-10-09T19:20:00.000Z</End>
            </TimeSpan>
            <Description language="en">
                Full body massage with flowing (effleurage) strokes
                Benefits:
                -Relieves Stress & tension
                -Increases Circulation
            </Description>
            <Price currencyCode="USD">165.0</Price>
            <Participants>
                <Participant>
                    <FirstName>John</FirstName>
                    <LastName>Smith</LastName>
                </Participant>
            </Participants>
            <Resources>
                    <Resource category="Providers" gender="Female">
                        <Resource>OC Keisha </Resource>
                    </Resource>
                <Resource category=" Facilities">
                        <Resource> Gardenia </Resource>
                    </Resource>
    </Resources>
        </Booking>
    </Bookings>
</FetchBookingResponse>
```

44.2 Create Booking by Time Span – Hotel Guest

46.2.1 Use Case Description

- Mr. John Smith makes a reservation to a stay at HTNG Hotel A, arriving on October 7th, 2009 and departing on October 10, 2009.
- Mr. Smith notices that there is a link on the confirmation page that says "Book a Spa treatment", and decides to make a Spa booking by clicking the link.

SSF to SSS: TemplateCategoryRequest

SSS to SSF: TemplateCategoryResponse (TC)

SSF to SSS: TemplateInfoRequest

SSS to SSF: TemplateInfoResponse (TI)

- Based on his schedule, he selects October 9, 2009, then selects afternoon time range, which is sometime between 5pm and 8pm (startTime, endTime, startInterval in TI)
- He also selects a preference for "female therapist"and clicks CONTINUE. (the option of selecting a treatment (activity) category –eg- Massage may be given at this point)

SSF to SSS: NewProfileRequest

SSS to SSF: NewProfileResponse (NP)

Note: Multiple requests, one for each treatment UniqueID to retrieve all available treatments between 5:00pm and 8:00 pm on October 9, 2009 are required.

SSF to SSS: AvailabilityRequest

SSS to SSF: AvailabilityResponse (A)

SSF to SSS: AvailabilityRequest

SSS to SSF: AvailabilityResponse (A)

SSF to SSS: AvailabilityRequest

SSS to SSF: AvailabilityResponse (A)

...

Note: The SSS can use the information passed in the Profile element of the availability request to coordinate with the PMS system using messages from the SGI specification.

- Next, he is browsing a list of treatments **(availabilities from A)** available between 5:00pm and 8:00pm. He determines that he would like to book the 80-minute Swedish Massage offered from 6:00pm to 7:20pm, at the price of 165.00 **(prices from TI)**.

Note: If the SSF caches the previous call to TemplateInfo, then resending the TemplateInfoRequest is not required.

SSF to SSS: TemplateInfoRequest (with TemplateID parameter)

SSS to SSF: TemplateInfoResponse (TI)

SSF to SSS: PaymentConditionRequest

SSS to SSF: PaymentConditionResponse (PC)

- A message comes back advising him that for this treatment, a special cancellation policy is in place, and he would have to cancel at least 48 hours prior to arrival to avoid penalty. In case of late cancellation, a cancellation fee of 50% of treatment plus applicable charges will be applied. In addition, a 10% prepayment is required.
- Mr. Smith is asked how they would like to guarantee his Spa booking. Options are: all major credit cards or charge to their room bill. Mr. Smith inputs his Visa card details and clicks "Next"

Note: The SSF may copy the credit card to the SSS (and other systems through messages in the SGI specification) with an UpdateProfileRequest at this point.

SSF to SSS: UpdateProfileRequest
SSS to SSF: UpdateProfileResponse (UP)

- Now, his profile information is displayed:

  Profile ID 58869
  Mr. John Smith
  123 Happy Lane
  Chicago, IL, 60611, USA
  Home Phone: +1 (312) 111-2222
  Mobile Phone: +1 (312) 222-3333
  E-mail: john.smith@htng.com

- He verifies that this information is correct, and clicks "book it"

SSF to SSS: CreateRequest
SSS to SSF: CreateResponse (C)

- The appointment is now made in the Spa System, and Guest receives back their Spa booking ID

SSF to SSS: FetchBookingRequest

SSS to SSF: FetchBookingResponse (FB)

- A Single Guest Itinerary is now displayed:

Hotel Room Reservation:
Arriving Wednesday, October 7, 2009
Departing Saturday, October 10, 2009
Room Type – Deluxe King
Hotel Confirmation number 787878
Cancellation policy – no later then 6pm day of arrival
Spa Reservation:
Location - “The Spa”
Treatment Date – Friday, October 9, 2009
Treatment Time – 6:00pm – 7:20pm
Arrival Time 5:45pm
Treatment type – “Swedish Massage”
Price – 165.00 USD
Therapist – Female
Spa Confirmation number – 454545 (booking ID from C)

46.2.2 XML Messages

The messages exclude the SOAP header and namespace declarations.

46.2.2.1 TemplateCategoryRequest (TC)

Note: This message gets the list of Categories and CategoryIDs. The resulting category names must be filtered according to the language of the web page (EN=English, initially). These categories should be sorted according to the accompanying Order tags before display. This call is used to retrieve and display the list of treatment categories.

SSF to SSS - Sending:

```
<TemplateCategoryRequest></TemplateCategoryRequest>
```

SSS to SSF - Results in:

```
<TemplateCategoryResponse>
<Result resultStatusFlag="SUCCESS"/>
	<TemplateCategories>
		<TemplateCategory>
			<TemplateCategoryIDs>
		<UniqueID source="SSS">732</UniqueID>
			</TemplateCategoryIDs>
				<Name language="en">Massage</Name>
				<Name language="de">Massage</Name>
				<Order>0</Order>
		</TemplateCategory>
		<TemplateCategory>
```

```
                <TemplateCategoryIDs>
                        <UniqueID source="SSS">731</UniqueID>
                </TemplateCategoryIDs>
                        <Name language="en">Facial</Name>
                        <Order>1</Order>
        </TemplateCategory>
        <TemplateCategory>
                <TemplateCategoryIDs>
                        <UniqueID source="SSS">730</UniqueID>
                </TemplateCategoryIDs>
                        <Name language="en">Nail Services</Name>
                        <Order>2</Order>
        </TemplateCategory>
        <TemplateCategory>
                <TemplateCategoryIDs>
                        <UniqueID source="SSS">729</UniqueID>
                </TemplateCategoryIDs>
                        <Name language="en">Body Treatments</Name>
                        <Order>3</Order>
        </TemplateCategory>
        <TemplateCategory>
                <TemplateCategoryIDs>
                        <UniqueID source="SSS">728</UniqueID>
                </TemplateCategoryIDs>
                        <Name language="en"> Wax</Name>
                        <Order>4</Order>
        </TemplateCategory>
        <TemplateCategory>
                <TemplateCategoryIDs>
                        <UniqueID source="SSS">733</UniqueID>
                </TemplateCategoryIDs>
                        <Name language="en">Spa Retail</Name>
                        <Name language="de">Spa Verkaufsprodukte</Name>
                        <Order>0</Order>
        </TemplateCategory>
        <TemplateCategory>
                <TemplateCategoryIDs>
                        <UniqueID source="SSS">738</UniqueID>
                </TemplateCategoryIDs>
                        <Name language="en">Giftcertificates</Name>
                        <Name language="de">Gutscheine</Name>
                        <Order>1</Order>
        </TemplateCategory>
        <TemplateCategory>
                <TemplateCategoryIDs>
                        <UniqueID source="SSS">741</UniqueID>
                </TemplateCategoryIDs>
                        <Name language="en">Service giftcertificates</Name>
                        <Name language="de">Leistungsgutscheine</Name>
                        <Order>2</Order>
```

```
                    </TemplateCategory>
          </TemplateCategories>
</TemplateCategoryResponse>
```

46.2.2.2 TemplateInfoRequest (TI) – with Type parameter

…to gather list of massage treatments and prices.

This message gets the details of the treatments associated with each category. The Name, TemplateCategory and Price tags are all important areas of the response. PaymentConditions, Location, Start Time, End Time and Start Interval are also of interest. In each TemplateCategory, the treatment with the least price would populate the "from" value. The collection of treatment names in each category form the detailed list of treatments.

The TemplateInfoRequest currently does not allow us to search by specific categories within the Activity Template (to search for all massages offered at the Spa, for example). The ability to search for data by Template Type is possible, as follows: ACTIVITY; DINING; RETAIL; GIFTCERTIFICATE; and SHIPPING COSTS. Any tool accessing this interface would need to parse the response to filter out the list of massages returned, so they can be displayed.

SSF to SSS - Sending:

```
<conf:TemplateInfoRequest>
<conf:Type>ACTIVITY</conf:Type>
</conf:TemplateInfoRequest>
```

SSS to SSF - Results in:

```
<TemplateInfoResponse>
      <Result resultStatusFlag="SUCCESS"/>
<Templates>
<Template type="ACTIVITY">
      <TemplateIDs>
          <UniqueID source="SSS">640</UniqueID>
      </TemplateIDs>
          <Name language="en">Swedish Massage 50 Minutes</Name>
          <Name language="de">Schwedische Massage 50 Minuten</Name>
<TemplateCategories>
<TemplateCategory>
      <TemplateCategoryIDs>
          <UniqueID source="SSS">732</UniqueID>
      </TemplateCategoryIDs>
</TemplateCategory>
</TemplateCategories>
<ValidFrom>2006-12-29T00:00:00.000Z</ValidFrom>
<ValidUntil>9999-01-01T00:00:00.000Z</ValidUntil>
<Description language="en">
Full body massage with flowing (effleurage) strokes
```

```
Benefits:
-Relieves Stress & tension
-Increases Circulation
</Description>
<Prices>
<Price>
<Name language="en">Swedish Massage 50 mins </Name>
<Price currencyCode="USD">120.0</Price>
<Taxes>
<Tax>
<TaxRate>8.0</TaxRate>
</Tax>
</Taxes>
</Price>
</Prices>
<Media>
<MediaData>
...
</MediaData>
</Media>
<AvailableResources>
<Resource category="Providers" gender="Female">
<Resource>FT Joy Morrison</Resource>
</Resource>
<Resource category="Providers" gender="Female">
<Resource>OC Alicia</Resource>
</Resource>
<Resource category="Providers" gender="Female">
<Resource>OC Christine</Resource>
</Resource>
<Resource category="Providers" gender="Male">
<Resource>OC DiGaetano</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Azalia</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Dogwood</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Forsythia</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Gardenia</Resource>
</Resource>
</AvailableResources>
<ActivityType>Massage</ActivityType>
<Duration>PT1H0M0.000S</Duration>
<DateSelection>0</DateSelection>
</Template>
```

```
<Template type="ACTIVITY">
<TemplateIDs>
<UniqueID source="SSS">641</UniqueID>
</TemplateIDs>
	<Name language="en">Swedish Massage 80 Minutes</Name>
	<Name language="de">Schwedische Massage 80 Minuten </Name>
<TemplateCategories>
<TemplateCategory>
<TemplateCategoryIDs>
	<UniqueID source="SSS">732</UniqueID>
</TemplateCategoryIDs>
</TemplateCategory>
</TemplateCategories>
<ValidFrom>2006-12-29T00:00:00.000Z</ValidFrom>
<ValidUntil>9999-01-01T00:00:00.000Z</ValidUntil>
<Description language="en">
Full body massage with flowing (effleurage) strokes
Benefits:
- Relieves Stress & tension
- Increases Circulation
</Description>
<Prices>
<Price>
<Name language="en">Swedish Massage  80 mins </Name>
<Price currencyCode="USD">165.0</Price>
<Taxes>
<Tax>
<TaxRate>0.0</TaxRate>
</Tax>
</Taxes>
</Price>
</Prices>
<AvailableResources>
<Resource category="Providers" gender="Female">
<Resource>FT Joy Morrison</Resource>
</Resource>
<Resource category="Providers" gender="Female">
<Resource>OC Alicia</Resource>
</Resource>
<Resource category="Providers" gender="Female">
<Resource>OC Christine</Resource>
</Resource>
<Resource category="Providers" gender="Male">
<Resource>OC DiGaetano</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Azalia</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Dogwood</Resource>
```

```
</Resource>
<Resource category="Facilities">
<Resource>Forsythia</Resource>
</Resource>
<Resource category="Facilities">
<Resource>Gardenia</Resource>
</Resource>
</AvailableResources>
</AvailableResources>
<ActivityType>Massage</ActivityType>
<Duration>PT1H30M0.000S</Duration>
<DateSelection>0</DateSelection>
</Template>
</TemplateInfoResponse>
```

46.2.2.3 NewProfileRequest (NP)

…to register profile data with Spa system with Profile, IDs.

Note: This message creates a customer profile. The client system must pass an identifier. If the identifier is known, the matching profile is updated, if not a new profile is created with that ID and a new system ID. It should be possible to create a profile without passing at least one identifier. Failing that, a proposed solution is to create a counter which assigns sequential IDs to profiles.

SSF to SSS - Sending:

```
<NewProfileRequest>
        <Profile nameType="GUEST" nationality="US">
                <IDs>
                        <UniqueID source="ES">1233</UniqueID>
                </IDs>
                <Customer gender="MALE">
                        <PersonName>
                                <FirstName>John</FirstName>
                                <LastName>Smith</LastName>
                        </PersonName>
                </Customer>
                <Addresses>
                        <NameAddress addressType="HOME" displaySequence="1" primary="true">
                                <AddressLine>123 Happy Lane</AddressLine>
                                <CityName>Chicago</CityName>
                                <StateProv>IL</StateProv>
                                <CountryCode>USA</CountryCode>
                                <PostalCode>60611</PostalCode>
                        </NameAddress>
                </Addresses>
                <Phones>
                        <NamePhone addressType="HOME" displaySequence="1" primary="true">
                <PhoneData>
                    <PhoneNumber>+1(312)111-2222</PhoneNumber>
                </PhoneData>
            </NamePhone>
        </Phones>
        <Phones>
        <NamePhone addressType="MOBILEPHONE" displaySequence="2" primary="true">
                <PhoneData>
                    <PhoneNumber>+1(312)222-3333</PhoneNumber>
                </PhoneData>
            </NamePhone>
        </Phones>
        <Phones>
            <NamePhone addressType="EMAIL" displaySequence="3" primary="true">
                <PhoneData>
                    <PhoneNumber>john.smith@htng.com</PhoneNumber>
                </PhoneData>
            </NamePhone>
        </Phones>
    </Profile>
</NewProfileRequest>
```

SSS to SSF - Results in:

```
<NewProfileResponse>
    <Result resultStatusFlag="SUCCESS">
        <IDs>
            <UniqueID source="SSS">58869</UniqueID>
            <UniqueID source="ES">1233</UniqueID>
        </IDs>
    </Result>
</NewProfileResponse>
```

46.2.2.4 AvailabilityRequest (A) – with TemplateInfoID, ProfileID, TimeSpan, ResortID

…to get available times.

This message is used to check for availability. The parameter values that we will send are a little broader than what the customer requests. This will allow us to present alternatives to the customer. Note: For each option returned, resource availability is decremented.

Note: Multiple requests, one for each treatment UniqueID to retrieve all available treatments between 5:00pm and 8:00 pm on October 9, 2009 are required, resulting in multiple responses showing all available treatments between 5:00pm and 8:00 pm.

SSF to SSS - Sending:

```
<AvailabilityRequest>
    <TemplateIDs>
```

```
        <UniqueID source="SSS">641</UniqueID>
    </TemplateIDs>
    <Profile nameType="GUEST" languageCode="en" nationality="US">
        <name:IDs>
            <UniqueID source="SSS">58869</UniqueID>
        </name:IDs>
    </Profile>
    <TimeSpans>
        <TimeSpan>
            <comm:Start>2009-10-09T17:00:00.000Z</comm:Start>
            <comm:End>2009-10-09T20:00:00.000Z</comm:End>
        </TimeSpan>
    </TimeSpans>
    <Preferences>
        <comm:Preference preferenceType="GENDER" preferred="FEMALE" mode="PREFERRED">Provider</comm:Preference>
    </Preferences>
    <ResortId>HTNGA</ResortId>
</AvailabilityRequest>
```

SSS to SSF - Results in:

```
<AvailabilityResponse>
    <Result resultStatusFlag="SUCCESS"/>
    <Availabilities>
        <Availability>
            <TemplateIDs>
                <UniqueID source="SSS">641</UniqueID>
            </TemplateIDs>
            <BookingIDs>
                <UniqueID source="SSS">454544</UniqueID>
            </BookingIDs>
            <TimeSpan>
                <Start>2008-10-09T17:00:00.000Z</Start>
                <End>2008-10-09T18:20:00.000Z</End>
            </TimeSpan>
            <Price currencyCode="USD">165.0</Price>
            <Resources>
                <Resource category="Providers" gender="Female">
                <Resource>OC Alicia</Resource>
                </Resource>
                    <Resource category="Facilities">
                        <Resource>Dogwood</Resource>
                        </Resource>
            </Resources>
        </Availability>
        <Availability>
            <TemplateIDs>
                <UniqueID source="SSS">641</UniqueID>
            </TemplateIDs>
            <BookingIDs>
```

```
                <UniqueID source="SSS">454544</UniqueID>
            </BookingIDs>
            <TimeSpan>
                <Start>2008-10-09T18:00:00.000Z</Start>
                <End>2008-10-09T19:20:00.000Z</End>
            </TimeSpan>
            <Price currencyCode="USD">165.0</Price>
            <Resources>
                <Resource category="Providers" gender="Female">
                    <Resource>OC Keisha </Resource>
                </Resource>
                <Resource category=" Facilities">
                    <Resource> Gardenia </Resource>
                </Resource>
            </Resources>
        </Availability>
    </Availabilities>
</AvailabilityResponse>
```

46.2.2.5 CreateRequest (C) – with Bookings, PaymentGuarantee

This message creates a reservation given availability BookingID(s). For some implementations, this request needs to be used immediately before UpdateProfile, since UpdateProfile requires a ProfileID.

SSF to SSS - Sending:

```
<CreateRequest>
    <Bookings>
        <comm:Booking>
            <comm:BookingIDs>
                <UniqueID source="SSS">454544</UniqueID>
            </comm:BookingIDs>
            <comm:ReferenceNumber>787878</comm:ReferenceNumber>
        </comm:Booking>
    </Bookings>
    <PaymentGuarantee>
        <CardNumber>4444333322221111</CardNumber>
        <ExpireDate>1008</ExpireDate>
        <CVV2>999</CVV2>
        <CardHolderName>John Smith</CardHolderName>
        <CardHolderAddressLine>123 Happy Lane </CardHolderAddressLine>
        <CardHolderCityName>Chicago</CardHolderCityName>
        <CardHolderStateProv>IL</CardHolderStateProv>
        <CardHolderCountryCode>US</CardHolderCountryCode>
        <CardHolderPostalCode>60611</CardHolderPostalCode>
```

```
	</PaymentGuarantee>
</CreateRequest>
```

SSS to SSF - Results in:

```
<CreateResponse>
	<Bookings>
		<Booking>
			<Result resultStatusFlag="SUCCESS"/>
			<BookingIDs>
				<UniqueID source="SSS">454544</UniqueID>
			</BookingIDs>
		</Booking>
	</Bookings>
</CreateResponse>
```

46.2.2.6 PaymentConditionRequest (PC)

…to retrieve cancellation policies and accepted payment types for Swedish massage (template ID 641).

TemplateInfoResponse tells us that payment conditions 1 & 3 apply. We receive details of these payment conditions in the PaymentConditionResponse. Condition 1 requires a 10% pre-payment and Condition 3 requires cancellation 48 hours prior to the appointment to avoid a 50% cancellation fee.

SSF to SSS - Sending:

```
<PaymentConditionRequest>
<ResortId>HTNGA</ResortId>
</PaymentConditionRequest>
```

SSS to SSF - Results in:

```
<PaymentConditionResponse>
<Result resultStatusFlag="SUCCESS" />
<PaymentConditions>
<PaymentCondition type="PREPAYMENT">
		<PaymentConditionIDs>
<UniqueID source="SSS">1</UniqueID>
		</PaymentConditionIDs>
		<Value type="PERCENTAGE">
		<Value>10</Value>
		</Value>
		<Description language="en">10% prepayment</Description>
		<Description language="de">10% Anzahlung</Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="PREPAYMENT">
		<PaymentConditionIDs>
```

```
<UniqueID source="SSS">2</UniqueID>
                </PaymentConditionIDs>
<Value type="FIXEDPRICE">
        <Value currencyCode="USD">15</Value>
</Value>
<Description language="en">USD 15</Description>
<Description language="de"> USD 15 </Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="CANCELLATION">
                <PaymentConditionIDs>
<UniqueID source="SSS">3</UniqueID>
                </PaymentConditionIDs>
<Value type="PERCENTAGE">
        <Value>50</Value>
</Value>
<CancellationWindow>P0Y0M0DT48H</CancellationWindow>
<Description language="en">50% cancellation charge within 48 hours</Description>
<Description language="de">50% Stornogebühr innerhalb von zwei Tagen</Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="CANCELLATION">
                <PaymentConditionIDs>
<UniqueID source="SSS">4</UniqueID>
                </PaymentConditionIDs>
                <Value type="PERCENTAGE">
                <Value>100</Value>
                </Value>
<CancellationWindow>P0Y0M0DT24H</CancellationWindow>
                <Description language="en">100% cancellation charge – same day or no show</Description>
                <Description language="de">100% Stornogebühr innerhalb von einem Tag</Description>
        <ResortId>HTNGA</ResortId>
</PaymentCondition>
  </PaymentCondtions>
  </PaymentConditionResponse>
```

46.2.2.7 FetchBooking (FB) – with BookingID

This message retrieves a reservation given some identifier(s). The documentation is wrong. This is called FetchBooking (singular) and resides in the Query namespace. Note that the BookingID and other tags are also redefined in the Query namespace.

SSF to SSS - Sending:

```
<query:FetchBookingRequest>
        <query:BookingIDs>
                <UniqueID source="SSS">454544</UniqueID>
        </query:BookingIDs>
</query:FetchBookingRequest>
```

SSS to SSF - Results in:

```
<FetchBookingResponse>
    <Result resultStatusFlag="SUCCESS"/>
    <Bookings>
        <Booking type="ACTIVITY">
            <BookingIDs>
                <UniqueID source="SSS">58869</UniqueID>
            </BookingIDs>
            <ProfileIDs>
                <UniqueID source="SSS">6840</UniqueID>
                < UniqueID source="ES">1233</UniqueID>
            </ProfileIDs>
            <ActivityType>Massage</ActivityType>
            <Location>Spa</Location>
            <Name language="en">Swedish Massage 80 Minutes</Name>
            <Name language="de">Schwedische Massage 80 Minuten</Name>
            <NumberOfPersons>1</NumberOfPersons>
            <TimeSpan>
                <Start>2009-10-09T18:00:00.000Z</Start>
                <End>2009-10-09T19:20:00.000Z</End>
            </TimeSpan>
            <Description language="en">
                Full body massage with flowing (effleurage) strokes
                Benefits:
                -Relieves Stress & tension
                -Increases Circulation
            </Description>
            <Price currencyCode="USD">165.0</Price>
            <Participants>
                <Participant>
                    <FirstName>John</FirstName>
                    <LastName>Smith</LastName>
                </Participant>
            </Participants>
            <Resources>
                    <Resource category="Providers" gender="Female">
                        <Resource>OC Keisha </Resource>
                    </Resource>
                <Resource category=" Facilities">
                        <Resource> Gardenia</Resource>
                    </Resource>
    </Resources>
        </Booking>
    </Bookings>
</FetchBookingResponse>
```

44.3 Modify Booking – Hotel Guest

46.3.1 Use Case Description

- Mr. Smith realizes that he needs to arrive a day later. He modifies he his hotel reservation and changes arrival day from October 7th, 2009 to be October 8th, 2009

Note: The template ID of the treatment should be returned in the FB response.

SSF to SSS: FetchBookingRequest (to get booking detail)

SSS to SSF: FetchBookingResponse (FB)

- He is advised by the website that there is a Spa reservation on the 9th (booking from FB) to which a special cancellation policy is applied **(condition from TI, details from PC)**, and is asked whether he wants to modify or cancel the Spa booking.

SSF to SSS: TemplateInfoRequest (to get conditions)

SSS to SSF: TemplateInfoResponse (TI)

SSF to SSS: PaymentConditionsRequest (to get condition details)

SSS to SSF: PaymentConditionsResponse (PC)

- Mr. Smith selects his Spa booking on the screen, and selects “reschedule”. (This button can only be made available for those appointments that are “allowed” based on the cancellation policy.)

- Once he selects re-schedule, all of the preference and selection settings remain in place from the original booking **(RequestedPreferences in FB)**, and he needs to verify that this is still his selection. He confirms that he still wants the same treatment.

- Now, he is asked to select a new date. Mr. Smith selects October 10th, 2009 **(date range from TI)** and he is asked to select timeframe **(options derived from startTime, endTime, startInterval in TI)**. His afternoon is more booked now, and he can only come around 6:00 pm. So, Mr. Smith selects 6:00 pm

- Note: Multiple requests, one for each treatment UniqueID to retrieve all available treatments between around 6:00 pm on October 10, 2009 are required.
- **SSF to SSS: AvailabilityRequest**
- **SSS to SSF: AvailabilityResponse (A)**
- **SSF to SSS: AvailabilityRequest**
- **SSS to SSF: AvailabilityResponse (A)**
- **SSF to SSS: AvailabilityRequest**
- **SSS to SSF: AvailabilityResponse (A)**
- **…**

- "While checking availability, Spa system cannot find exact match for 6:00 pm Appointment for Swedish Massage as requested. However, the following alternatives are displayed **(time spans/treatments in A)**

  Alternate Time for Swedish Massage with a Female Therapist:
  5:45pm – 6:45pm, 100 USD
  6:30pm – 7:30PM, 100 USD
  Alternate Treatments:
  6pm – 7pm Hot Stone Massage with a Female Therapist, 100 USD
  6pm – 7pm Shiatsu Massage with a Male Therapist, 85 USD
  6:15pm – 7:15pm Thai Massage with a Female Therapist, 85 USD

- Mr. Smith decides to select 6pm Hot Stone Massage with a Female Therapist instead.

SSF to SSS: TemplateInfoRequest to get conditions

SSS to SSF: TemplateInfoResponse (TI)

SSF to SSS: PaymentConditionsRequest to get condition details

SSS to SSF: PaymentConditionsResponse (PC)

- The system advises Mr. Smith of a 24-hour cancellation policy that applies to this treatment

SSF to SSS: CreateRequest
SSS to SSF: CreateResponse (C)

- The system confirms the last four digits of the credit card that will be used to guarantee the appointment.

- If preferences are made available to guests, guest should be asked at the point to revise preference requirements.

- Once confirmed, the system returns Spa Confirmation number of 454545 (same as last time), and also the complete new itinerary

  Hotel Room Reservation:

Arriving Thursday, October 8th, 2009
Departing Sunday, October 11th, 2009
Room Type – Deluxe King
Hotel Confirmation number 787878
Cancellation policy – no later then 6pm day of arrival"
Spa Reservation:
Location - “The Spa”
Treatment Date – Saturday, October 10th, 2009
Treatment Time – 6pm – 7pm- Arrival Time 5:45pm
Treatment type – “Hot Stone Massage”
Price – 100.00 USD
Therapist – Female
Spa Confirmation number – 454545 (booking ID from C)

46.3.2 XML Messages

The messages exclude the SOAP header and namespace declarations.

46.3.2.1 FetchBooking

Fetch all bookings for the global reference number 454545 (e.g. order number).

SSF to SSS - Sending:

```
<FetchBookingRequest>
<ReferenceNumber>454545</ReferenceNumber>
</FetchBookingRequest>
```

SSS to SSF: Hot stone massage returned.

```
<FetchBookingResponse>
        <Result resultStatusFlag="SUCCESS" />
        <Bookings>
                <Booking type="ACTIVITY">
                        <BookingIDs>
                <UniqueID source="SSS">23457</UniqueID>
                        </BookingIDs>
                        <ProfileIDs>
                <UniqueID source="SSF">96</UniqueID>
                <UniqueID source="SSS">10968</UniqueID>
                        </ProfileIDs>
                        <ActivityType>Massage</ActivityType>
```

```
			<Location>The Spa</Location>
			<Name language="en">Swedish Massage – 80 minutes</Name>
			<TimeSpan>
			<Start>2009-10-09T18:00:00Z</Start>
			<End>2009-10-09T19:20:00Z</End>
			</TimeSpan>
			<Description language="en">Swedish Massage – 80 minutes</Description>
				<Price currencyCode="USD">165.00</Price>
			<Participants>
			<Participant>
		<FirstName>John</FirstName>
		<LastName>Smith</LastName>
			</Participant>
			</Participants>
			<Resources>
		<Resource category="Providers" gender="Female">
						<Resource>OC Keisha </Resource>
					</Resource>
				<Resource category=" Facilities">
						<Resource> Gardenia </Resource>
					</Resource>
			</Resources>
			<RequestedPreferences>
				<Preference preferenceType="GENDER" preferred="FEMALE"
	mode="PREFERRED">Providers</Preference>
			</RequestedPreferences>
		</Booking>
		</Bookings>
	</FetchBookingResponse>
```

46.3.2.2 TemplateInfoRequest

…to retrieve cancellation policies and accepted payment types.

SSF to SSS - Sending:

```
<TemplateInfoRequest>
	<TemplateIDs>
<UniqueID source="SSS">641</UniqueID>
	</TemplateIDs>
	<ResortId>HTNGA</ResortId>
</TemplateInfoRequest>
```

SSS to SSF - Results in:

```
<TemplateInfoResponse>
<Result resultStatusFlag="SUCCESS" />
<Templates>
```

```
<Template type="ACTIVITY">
<TemplateIDs>
<UniqueID source="SSS">641</UniqueID>
</TemplateIDs>
        <Name language="en">Swedish Massage 80 minutes</Name>
        <Name language="de"> Schwedische Massage 80 Minuten </Name>
<TemplateCategories>
        <TemplateCategoryIDs>
<UniqueID source="SSS">1</UniqueID>
        </TemplateCategoryIDs>
</TemplateCategories>
        <Location>Spa</Location>
        <AlternativeLocations>
        <AlternativeLocation>Beachfront Spa</AlternativeLocation>
        </AlternativeLocations>
<ValidFrom>2001-01-01</ValidFrom>
<ValidUntil>2009-12-31</ValidUntil>
<MinimumInAdvanceBookings>P0Y0M2D</MinimumInAdvanceBookings>
<MaximumInAdvanceBookings>P0Y0M180D</MaximumInAdvanceBookings>
                <Description language="en"> Full body massage with flowing (effleurage) strokes
.</Description>
<PaymentConditions>
<PaymentConditionIDs>
<UniqueID source="SSS">1</UniqueID>
</PaymentConditionIDs>
<PaymentConditionIDs>
<UniqueID source="SSS">3</UniqueID>
</PaymentConditionIDs>
</PaymentConditions>
<Prices>
        <Price>
        <Name language="en">Swedish Massage  80 mins </Name>
        <Name language="de"> Schwedische Massage 80 Minuten </Name>
        <Price currencyCode="USD">165.0</Price>
<Taxes>
        <Tax>
<TaxName>10%</TaxName>
<TaxRate>10</TaxRate>
<TaxAmount>11.86</TaxAmount>
</Tax>
</Taxes>-
<Description language="en"> Full body massage with flowing (effleurage) strokes
.</Description>
</Prices>
<AvailableResources>
<Resource category="Providers" gender="Female">
        <Resource>FT Joy Morrison</Resource>
</Resource>
<Resource category="Providers" gender="Female">
        <Resource>OC Alicia</Resource>
```

```
</Resource>
<Resource category="Providers" gender="Female">
        <Resource>OC Christine</Resource>
</Resource>
<Resource category="Providers" gender="Male">
        <Resource>OC DiGaetano</Resource>
</Resource>
<Resource category="Facilities">
        <Resource>Azalia</Resource>
</Resource>
<Resource category="Facilities">
        <Resource>Dogwood</Resource>
</Resource>
<Resource category="Facilities">
        <Resource>Forsythia</Resource>
</Resource>
<Resource category="Facilities">
        <Resource>Gardenia</Resource>
</Resource>
</AvailableResources>
<RelatedItems>
<RelatedTemplateCategories>
        <RelatedTemplateCategory relatedItemType="UPSELL">
        <TemplateCategoryIDs>
<UniqueID source="SSS">1</UniqueID>
        </TemplateCategoryIDs>
        </RelatedTemplateCategory>
        <RelatedTemplateCategory relatedItemType="UPSELL">
        <TemplateCategoryIDs>
<UniqueID source="SSS">2</UniqueID>
        </TemplateCategoryIDs>
        </RelatedTemplateCategory>
        <RelatedTemplateCategory relatedItemType="UPSELL">
        <TemplateCategoryIDs>
<UniqueID source="SSS">3</UniqueID>
        </TemplateCategoryIDs>
        </RelatedTemplateCategory>
        <RelatedTemplateCategory relatedItemType="UPSELL">
        <TemplateCategoryIDs>
<UniqueID source="SSS">4</UniqueID>
        </TemplateCategoryIDs>
        </RelatedTemplateCategory>
        </RelatedTemplateCategories>
<RelatedTemplates>
        <RelatedTemplate relatedItemType="ALTERNATE">
        <TemplateIDs>
<UniqueID source="SSS">124</UniqueID>
        </TemplateIDs>
        </RelatedTemplate>
        <RelatedTemplate relatedItemType="ALTERNATE">
```

```
      <TemplateIDs>
<UniqueID source="SSS">125</UniqueID>
      </TemplateIDs>
      </RelatedTemplate>
</RelatedTemplates>
</RelatedItems>
<ActivityType>Spa Massage</ActivityType>
<Duration>P0Y0M0DT0H60M</Duration>
<StartTime>18:00</StartTime>
<EndTime>19:20</EndTime>
<StartInterval>P0Y0M0DT0H30M</StartInterval>
<Media>
<MediaIDs>
<UniqueID source="SSS">641</UniqueID>
                   </MediaIDs>
      <MediaFormat>image/jpeg</MediaFormat>
<MediaURI>\\192.168.22.70\data\itempictures\0\0\0\950.jpg</MediaURI>
<MediaData>...</MediaData>
</Media>
<ResortId>HTNGA</ResortId>
</Template>
 </Templates>
 </TemplateInfoResponse>
```

46.3.2.3 PaymentConditionRequest

SSF to SSS - Sending:

```
<PaymentConditionRequest>
<ResortId>HTNGA</ResortId>
</PaymentConditionRequest>
```

SSS to SSF - Results in:

```
<PaymentConditionResponse>
<Result resultStatusFlag="SUCCESS" />
<PaymentConditions>
<PaymentCondition type="PREPAYMENT">
            <PaymentConditionIDs>
<UniqueID source="SSS">1</UniqueID>
            </PaymentConditionIDs>
            <Value type="PERCENTAGE">
            <Value>10</Value>
            </Value>
            <Description language="en">10% prepayment</Description>
            <Description language="de">10% Anzahlung</Description>
```

```
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="PREPAYMENT">
                <PaymentConditionIDs>
<UniqueID source="SSS">2</UniqueID>
                </PaymentConditionIDs>
<Value type="FIXEDPRICE">
        <Value currencyCode="USD">15</Value>
</Value>
<Description language="en">USD 15</Description>
<Description language="de"> USD 15 </Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="CANCELLATION">
                <PaymentConditionIDs>
<UniqueID source="SSS">3</UniqueID>
                </PaymentConditionIDs>
<Value type="PERCENTAGE">
        <Value>50</Value>
</Value>
<CancellationWindow>P0Y0M0DT48H</CancellationWindow>
<Description language="en">50% cancellation charge within 48 hours</Description>
<Description language="de">50% Stornogebühr innerhalb von zwei Tagen</Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="CANCELLATION">
                <PaymentConditionIDs>
<UniqueID source="SSS">4</UniqueID>
                </PaymentConditionIDs>
                <Value type="PERCENTAGE">
                <Value>100</Value>
                </Value>
<CancellationWindow>P0Y0M0DT24H</CancellationWindow>
                <Description language="en">100% cancellation charge – same day or no show</Description>
                <Description language="de">100% Stornogebühr innerhalb von einem Tag</Description>
        <ResortId>HTNGA</ResortId>
</PaymentCondition>
</PaymentCondtions>
</PaymentConditionResponse>
```

46.3.2.4 AvailabilityRequest (withBookingID)

… to modify Requested start time 6pm.

SSF to SSS - Sending:

```
<AvailabilityRequest>
<TemplateIDs>
<UniqueID source="SSS">641</UniqueID>
```

```
</TemplateIDs>
<ModifyBookingIDs>
<UniqueID source="SSS">23457</UniqueID>
</ModifyBookingIDs>
</TemplateIDs>
<Profile>
        <IDs>
    <UniqueID source="SSF">96</UniqueID>
    <UniqueID source="SSS">10968</UniqueID>
        </IDs>
        <Customer gender="MALE">
            <PersonName familiarName="Smith">
        <FirstName>John</FirstName>
        <LastName>Smith</LastName>
            </PersonName>
        </Customer>
        <Addresses>
            <NameAddress addressType="HOME" primary="true">
        <AddressLine>123 Happy Lane</AddressLine>
        <CityName>Chicago</CityName>
        <StateProv>IL</StateProv>
        <PostalCode>60611</PostalCode>
        <CountryCode>US</CountryCode>
            </NameAddress>
        </Addresses>
        <Phones>
            <NamePhone phoneType="HOME" phoneRole="PHONE" primary="true">
        <PhoneData>
            <PhoneNumber>+1(312)111-2222</PhoneNumber>
        </PhoneData>
            </NamePhone>
            <NamePhone phoneType="MOBILEPHONE" phoneRole="MOBILE"                      primary="true">
        <PhoneData>
            <PhoneNumber>+1(312)111-3333</PhoneNumber>
        </PhoneData>
            </NamePhone>
            <NamePhone phoneType="EMAIL" phoneRole="EMAIL"                      primary="true">
        <PhoneNumber>john.smith@htng.com</PhoneNumber>
            </NamePhone>
        </Phones>
</Profile>
<TimeSpans>
<TimeSpan>
<Start>2009-10-10T18:00:00Z</Start>
</TimeSpan>
</TimeSpans>
<Preferences>
        <Preference preferenceType="GENDER" preferred="FEMALE"
    mode="PREFERRED">Provider</Preference>
</Preferences>
```

```
<ResortId>HTNGA</ResortId>
</AvailabilityRequest>
```

SSS to SSF - Results in:

No available time slot with a female therapist found, but with a male therapist. This is a valid availability, because the mode of the requested Preference is Preferred and not Strict.

```
<AvailabilityResponse>
        <Result resultStatusFlag="SUCCESS" />
        <Availabilities>
                <Availability>
                <TemplateIDs>
<UniqueID source="SSS">641</UniqueID>
                        </TemplateIDs>
                        <BookingIDs>
        <UniqueID source="SSS">23459</UniqueID>
                </BookingIDs>
        <TimeSpan>
                <Start>2008-01-16T18:00:00Z</Start>
                <End>2008-01-16T19:20:00Z</End>
                </TimeSpan>
        <Price currencyCode="USD">165.00</Price>
                <Resources>
                <Resource category="Providers" gender="Male">
                <Resource>OC DiGaetano</Resource>
                </Resource>
                <Resource category="Facilities">
                <Resource>Azalia</Resource>
                </Resource>
                <ResortId>HTNGA</ResortId>
                </Availability>
        </Availabilities>
</AvailabilityResponse>
```

SSF to SSS - Sending:

Mr. Smith is not happy with the male therapist and he decides to request a Hot Stone (ID: 231) which is linked and suggested by the website as an alternate template to the Swedish Massage.

```
<AvailabilityRequest>
<TemplateIDs>
<UniqueID source="SSS">231</UniqueID>
</TemplateIDs>
<ModifyBookingIDs>
<UniqueID source="SSS">23457</UniqueID>
</ModifyBookingIDs>
</TemplateIDs>
```

```
<Profile>
        <IDs>
    <UniqueID source="SSF">96</UniqueID>
    <UniqueID source="SSS">10968</UniqueID>
        </IDs>
        <Customer gender="MALE">
            <PersonName familiarName="Smith">
        <FirstName>John</FirstName>
        <LastName>Smith</LastName>
            </PersonName>
        </Customer>
        <Addresses>
            <NameAddress addressType="HOME" primary="true">
        <AddressLine>123 Happy Lane</AddressLine>
        <CityName>Chicago</CityName>
        <StateProv>IL</StateProv>
        <PostalCode>60611</PostalCode>
        <CountryCode>US</CountryCode>
            </NameAddress>
        </Addresses>
        <Phones>
            <NamePhone phoneType="HOME" phoneRole="PHONE" primary="true">
        <PhoneData>
            <PhoneNumber>+1(312)111-2222</PhoneNumber>
        </PhoneData>
            </NamePhone>
            <NamePhone phoneType="MOBILEPHONE" phoneRole="MOBILE" primary="true">
        <PhoneData>
            <PhoneNumber>+1(312)111-3333</PhoneNumber>
        </PhoneData>
            </NamePhone>
            <NamePhone phoneType="EMAIL" phoneRole="EMAIL" primary="true">
        <PhoneNumber>john.smith@htng.com</PhoneNumber>
            </NamePhone>
        </Phones>
</Profile>
<TimeSpans>
<TimeSpan>
<Start>2009-10-10T18:00:00Z</Start>
</TimeSpan>
</TimeSpans>
<Preferences>
        <Preference preferenceType="GENDER" preferred="FEMALE"
    mode="PREFERRED">Providers</Preference>
</Preferences>
<ResortId>HTNGA</ResortId>
</AvailabilityRequest>
```

SSS to SSF - Results in:

One available timeslot for the Hot Stone massage found.

```
<AvailabilityResponse>
          <Result resultStatusFlag="SUCCESS" />
          <Availabilities>
                    <Availability>
                    <TemplateIDs>
<UniqueID source="SSS">231</UniqueID>
                              </TemplateIDs>
                              <BookingIDs>
          <UniqueID source="SSS">23460</UniqueID>
                    </BookingIDs>
          <TimeSpan>
                    <Start>2009-10-10T18:00:00Z</Start>
                    <End>2009-10-10T19:00:00Z</End>
                    </TimeSpan>
          <Price currencyCode="USD">100.00</Price>
                    <Resources>
                    <Resource category="Providers" gender="Female">
                    <Resource>OC Nanci</Resource>
                    </Resource>
                    <Resource category="Facilities">
                    <Resource>Honeysuckle</Resource>
                    </Resource>
                    </Resources>
                    <ResortId>HTNGA</ResortId>
                    </Availability>
          </Availabilities>
</AvailabilityResponse>
```

SSF to SSS - Sending:

Confirmation of the booking with the global reference number 454545 and his hotel reservation as guarantee. The booking of the ModifyBookingID will be deleted automatically.

```
<CreateRequest>
<Bookings>
<Booking>
<BookingIDs>
<UniqueID source="SSS">23460</UniqueID>
</BookingIDs>
<ReferenceNumber>454545</ReferenceNumber>
</Booking>
</Bookings>
<ModifyBookingIDs>
<UniqueID source="SSS">23457</UniqueID>
</ModifyBookingIDs>
<PaymentGuarantee>
```

```
                <Reservation>
        <ReservationID source="PMS">363278</ReservationID>
        <ConfirmationNo>787878</ConfirmationNo>
                </Reservation>
</PaymentGuarantee>
</CreateRequest>
```

SSS to SSF - Results in:

Successful response.

```
<CreateResponse>
        <Bookings>
                <Booking>
                <Result resultStatusFlag="SUCCESS" />
        <BookingIDs>
        <UniqueID source="SSS">23460</UniqueID>
                </BookingIDs>
                </Booking>
        </Bookings>
</CreateResponse>
```

46.3.2.5 TemplateInfoRequest

…to retrieve cancellation policies and accepted payment types for new treatment

SSF to SSS - Sending:

```
<TemplateInfoRequest>
        <TemplateIDs>
<UniqueID source="SSS">231</UniqueID>
        </TemplateIDs>
        <ResortId>HTNGA</ResortId>
</TemplateInfoRequest>
```

SSS to SSF - Results in:

```
<TemplateInfoResponse>
<Result resultStatusFlag="SUCCESS" />
<Templates>
<Template type="ACTIVITY">
<TemplateIDs>
<UniqueID source="SSS">231</UniqueID>
</TemplateIDs>
        <Name language="en">Hot Stone Massage</Name>
        <Name language="de">heiße Steinmassage</Name>
<TemplateCategories>
        <TemplateCategoryIDs>
<UniqueID source="SSS">1</UniqueID>
```

```
          </TemplateCategoryIDs>
</TemplateCategories>
          <Location>Spa</Location>
          <AlternativeLocations>
          <AlternativeLocation>Orchid Spa</AlternativeLocation>
          </AlternativeLocations>
<ValidFrom>2001-01-01</ValidFrom>
<ValidUntil>2009-12-31</ValidUntil>
<MinimumInAdvanceBookings>P0Y0M2D</MinimumInAdvanceBookings>
<MaximumInAdvanceBookings>P0Y0M180D</MaximumInAdvanceBookings>
                    <Description language="en"> specialty massage using smooth, heated stones
.</Description>
<PaymentConditions>
<PaymentConditionIDs>
<UniqueID source="SSS">1</UniqueID>
</PaymentConditionIDs>
<PaymentConditionIDs>
<UniqueID source="SSS">3</UniqueID>
</PaymentConditionIDs>
</PaymentConditions>
<Prices>
          <Price>
              <Name language="en">Hot Stone Massage</Name>
          <Name language="de">heiße Steinmassage</Name>
          <Price currencyCode="USD">100.0</Price>
<Taxes>
          <Tax>
<TaxName>10%</TaxName>
<TaxRate>10</TaxRate>
<TaxAmount>11.86</TaxAmount>
</Tax>
</Taxes>-
<Description language="en"> specialty massage using smooth, heated stones
.</Description>
</Prices>
<AvailableResources>
<Resource category="Providers" gender="Female">
          <Resource>FT Joy Morrison</Resource>
</Resource>
<Resource category="Providers" gender="Female">
          <Resource>OC Alicia</Resource>
</Resource>
<Resource category="Providers" gender="Female">
          <Resource>OC Christine</Resource>
</Resource>
<Resource category="Providers" gender="Male">
          <Resource>OC DiGaetano</Resource>
</Resource>
          <Resource category="Providers" gender="Female">
                              <Resource>OC Nanci</Resource>
```

```
        </Resource>
        <Resource category="Facilities">
            <Resource>Honeysuckle</Resource>
        </Resource>
        –
<Resource category="Facilities">
    <Resource>Azalia</Resource>
</Resource>
<Resource category="Facilities">
    <Resource>Dogwood</Resource>
</Resource>
<Resource category="Facilities">
    <Resource>Forsythia</Resource>
</Resource>
<Resource category="Facilities">
    <Resource>Gardenia</Resource>
</Resource>
</AvailableResources>
<RelatedItems>
<RelatedTemplateCategories>
    <RelatedTemplateCategory relatedItemType="UPSELL">
    <TemplateCategoryIDs>
<UniqueID source="SSS">1</UniqueID>
    </TemplateCategoryIDs>
    </RelatedTemplateCategory>
    <RelatedTemplateCategory relatedItemType="UPSELL">
    <TemplateCategoryIDs>
<UniqueID source="SSS">2</UniqueID>
    </TemplateCategoryIDs>
    </RelatedTemplateCategory>
    <RelatedTemplateCategory relatedItemType="UPSELL">
    <TemplateCategoryIDs>
<UniqueID source="SSS">3</UniqueID>
    </TemplateCategoryIDs>
    </RelatedTemplateCategory>
    <RelatedTemplateCategory relatedItemType="UPSELL">
    <TemplateCategoryIDs>
<UniqueID source="SSS">4</UniqueID>
    </TemplateCategoryIDs>
    </RelatedTemplateCategory>
    </RelatedTemplateCategories>
<RelatedTemplates>
    <RelatedTemplate relatedItemType="ALTERNATE">
    <TemplateIDs>
<UniqueID source="SSS">124</UniqueID>
    </TemplateIDs>
    </RelatedTemplate>
    <RelatedTemplate relatedItemType="ALTERNATE">
    <TemplateIDs>
<UniqueID source="SSS">125</UniqueID>
```

```
			</TemplateIDs>
			</RelatedTemplate>
</RelatedTemplates>
</RelatedItems>
<ActivityType>Spa Massage</ActivityType>
<Duration>P0Y0M0DT0H60M</Duration>
<StartTime>18:00</StartTime>
<EndTime>19:20</EndTime>
<StartInterval>P0Y0M0DT0H30M</StartInterval>
<Media>
<MediaIDs>
<UniqueID source="SSS">231</UniqueID>
						</MediaIDs>
			<MediaFormat>image/jpeg</MediaFormat>
<MediaURI>\\192.168.22.70\data\itempictures\0\0\0\950.jpg</MediaURI>
<MediaData>...</MediaData>
</Media>
<ResortId>HTNGA</ResortId>
</Template>
</Templates>
</TemplateInfoResponse>
```

46.3.2.6 PaymentConditionRequest

SSF to SSS - Sending:

```
<PaymentConditionRequest>
<ResortId>HTNGA</ResortId>
</PaymentConditionRequest>
```

SSS to SSF - Results in:

```
<PaymentConditionResponse>
<Result resultStatusFlag="SUCCESS" />
<PaymentConditions>
<PaymentCondition type="PREPAYMENT">
					<PaymentConditionIDs>
<UniqueID source="SSS">1</UniqueID>
					</PaymentConditionIDs>
					<Value type="PERCENTAGE">
					<Value>10</Value>
					</Value>
					<Description language="en">10% prepayment</Description>
					<Description language="de">10% Anzahlung</Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="PREPAYMENT">
					<PaymentConditionIDs>
<UniqueID source="SSS">2</UniqueID>
					</PaymentConditionIDs>
```

```
<Value type="FIXEDPRICE">
        <Value currencyCode="USD">15</Value>
</Value>
<Description language="en">USD 15</Description>
<Description language="de"> USD 15 </Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="CANCELLATION">
                <PaymentConditionIDs>
<UniqueID source="SSS">3</UniqueID>
                </PaymentConditionIDs>
<Value type="PERCENTAGE">
        <Value>50</Value>
</Value>
<CancellationWindow>P0Y0M0DT48H</CancellationWindow>
<Description language="en">50% cancellation charge within 48 hours</Description>
<Description language="de">50% Stornogebühr innerhalb von zwei Tagen</Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="CANCELLATION">
                <PaymentConditionIDs>
<UniqueID source="SSS">4</UniqueID>
                </PaymentConditionIDs>
                <Value type="PERCENTAGE">
                <Value>100</Value>
                </Value>
<CancellationWindow>P0Y0M0DT24H</CancellationWindow>
                <Description language="en">100% cancellation charge – same day or no show</Description>
                <Description language="de">100% Stornogebühr innerhalb von einem Tag</Description>
        <ResortId>HTNGA</ResortId>
</PaymentCondition>
</PaymentCondtions>
</PaymentConditionResponse>
```

44.4 Cancel Spa Booking – Hotel Guest

46.4.1 Use Case Description

- Mr. Smith had a change of plans and has to cancel his trip to Atlanta
- He visits the web site on January 10th, and pulls up his itinerary

SSF to SSS: FetchBookingRequest to get booking detail (note: need to add Template ID of the treatment to the response)

SSS to SSF: FetchBookingResponse (FB)

- He now needs to cancel it
- He selects both “Hotel Reservation” and “Spa Reservation” and clicks “Cancel”

SSF to SSS: TemplateInfoRequest to get conditions
SSS to SSF: TemplateInfoResponse (TI)
SSF to SSS: PaymentConditionsRequest to get condition details
SSS to SSF: PaymentConditionsResponse (PC) to get condition details

- The system verifies the timeframe, and both Hotel and Spa Reservations are available to cancel without penalties

  Note: If Mr. Smith is cancelling within the penalty period, make “cancel” option clickable on the Spa UI, but on click display message saying something like “you are within the cancellation period for this appointment, our Spa staff will contact you within XX hours to assist you with cancellation. Send immediate notification to Spa staff in Spa system so they can follow up with guest. (Operational suggestion from Spa Director: “We would store the notification for back-up should a guest not fully comprehend the internet booking system and cancel by mistake, show up for the cancelled appointment and want an explanation”)

SSF to SSS: DeleteRequest to remove the booking from the SSS
SSS to SSF: DeleteRequest/Response (PC)

Note: The DeleteResponse message does not provide a unique identifier for the cancellation

- The cancellation is successful and Mr. Smith is advised that he will not be charged any fees and is provided with an SSF-assigned cancellation number.

Note: If room reservation is cancelled, SGI messaging would be used to cancel the spa booking (for example, a flag would be set in the Spa system to indicate that the room reservation had been cancelled)

46.4.2 XML Messages for Cancel

The messages exclude the SOAP header and namespace declarations.

46.4.2.1 TemplateInfoRequest & PaymentConditionRequest

…to retrieve cancellation policies and accepted payment types for booking

SSF to SSS - Sending:

```
<TemplateInfoRequest>
          <TemplateIDs>
<UniqueID source="SSS">231</UniqueID>
          </TemplateIDs>
          <ResortId>HTNGA</ResortId>
</TemplateInfoRequest>
```

SSS to SSF - Results in:

```
<TemplateInfoResponse>
<Result resultStatusFlag="SUCCESS" />
<Templates>
<Template type="ACTIVITY">
<TemplateIDs>
<UniqueID source="SSS">231</UniqueID>
</TemplateIDs>
          <Name language="en">Hot Stone Massage</Name>
          <Name language="de">heiße Steinmassage</Name>
<TemplateCategories>
          <TemplateCategoryIDs>
<UniqueID source="SSS">1</UniqueID>
          </TemplateCategoryIDs>
</TemplateCategories>
          <Location>Spa</Location>
          <AlternativeLocations>
          <AlternativeLocation>Orchid Spa</AlternativeLocation>
          </AlternativeLocations>
<ValidFrom>2001-01-01</ValidFrom>
<ValidUntil>2009-12-31</ValidUntil>
<MinimumInAdvanceBookings>P0Y0M2D</MinimumInAdvanceBookings>
<MaximumInAdvanceBookings>P0Y0M180D</MaximumInAdvanceBookings>
                    <Description language="en"> specialty massage using smooth, heated stones
.</Description>
<PaymentConditions>
<PaymentConditionIDs>
<UniqueID source="SSS">1</UniqueID>
</PaymentConditionIDs>
<PaymentConditionIDs>
<UniqueID source="SSS">3</UniqueID>
</PaymentConditionIDs>
</PaymentConditions>
<Prices>
          <Price>
              <Name language="en">Hot Stone Massage</Name>
          <Name language="de">heiße Steinmassage</Name>
          <Price currencyCode="USD">100.0</Price>
<Taxes>
```

```
    <Tax>
<TaxName>10%</TaxName>
<TaxRate>10</TaxRate>
<TaxAmount>11.86</TaxAmount>
</Tax>
</Taxes>-
<Description language="en"> specialty massage using smooth, heated stones
.</Description>
</Prices>
<AvailableResources>
<Resource category="Providers" gender="Female">
    <Resource>FT Joy Morrison</Resource>
</Resource>
<Resource category="Providers" gender="Female">
    <Resource>OC Alicia</Resource>
</Resource>
<Resource category="Providers" gender="Female">
    <Resource>OC Christine</Resource>
</Resource>
<Resource category="Providers" gender="Male">
    <Resource>OC DiGaetano</Resource>
</Resource>
    <Resource category="Providers" gender="Female">
            <Resource>OC Nanci</Resource>
        </Resource>
        <Resource category="Facilities">
            <Resource>Honeysuckle</Resource>
        </Resource>
<Resource category="Facilities">
    <Resource>Azalia</Resource>
</Resource>
<Resource category="Facilities">
    <Resource>Dogwood</Resource>
</Resource>
<Resource category="Facilities">
    <Resource>Forsythia</Resource>
</Resource>
<Resource category="Facilities">
    <Resource>Gardenia</Resource>
</Resource>
</AvailableResources>
<RelatedItems>
<RelatedTemplateCategories>
    <RelatedTemplateCategory relatedItemType="UPSELL">
    <TemplateCategoryIDs>
<UniqueID source="SSS">1</UniqueID>
    </TemplateCategoryIDs>
    </RelatedTemplateCategory>
    <RelatedTemplateCategory relatedItemType="UPSELL">
    <TemplateCategoryIDs>
```

```
<UniqueID source="SSS">2</UniqueID>
            </TemplateCategoryIDs>
            </RelatedTemplateCategory>
            <RelatedTemplateCategory relatedItemType="UPSELL">
            <TemplateCategoryIDs>
<UniqueID source="SSS">3</UniqueID>
            </TemplateCategoryIDs>
            </RelatedTemplateCategory>
            <RelatedTemplateCategory relatedItemType="UPSELL">
            <TemplateCategoryIDs>
<UniqueID source="SSS">4</UniqueID>
            </TemplateCategoryIDs>
            </RelatedTemplateCategory>
            </RelatedTemplateCategories>
<RelatedTemplates>
            <RelatedTemplate relatedItemType="ALTERNATE">
            <TemplateIDs>
<UniqueID source="SSS">124</UniqueID>
            </TemplateIDs>
            </RelatedTemplate>
            <RelatedTemplate relatedItemType="ALTERNATE">
            <TemplateIDs>
<UniqueID source="SSS">125</UniqueID>
            </TemplateIDs>
            </RelatedTemplate>
</RelatedTemplates>
</RelatedItems>
<ActivityType>Spa Massage</ActivityType>
<Duration>P0Y0M0DT0H60M</Duration>
<StartTime>18:00</StartTime>
<EndTime>19:20</EndTime>
<StartInterval>P0Y0M0DT0H30M</StartInterval>
<Media>
<MediaIDs>
<UniqueID source="SSS">231</UniqueID>
</MediaIDs>
            <MediaFormat>image/jpeg</MediaFormat>
<MediaURI>\\192.168.22.70\data\itempictures\0\0\0\950.jpg</MediaURI>
<MediaData>...</MediaData>
</Media>
<ResortId>HTNGA</ResortId>
</Template>
</Templates>
</TemplateInfoResponse>
```

SSF to SSS - Sending:

```
<PaymentConditionRequest>
<ResortId>HTNGA</ResortId>
</PaymentConditionRequest>
```

SSS to SSF - Results in:

```
<PaymentConditionResponse>
<Result resultStatusFlag="SUCCESS" />
<PaymentConditions>
<PaymentCondition type="PREPAYMENT">
                <PaymentConditionIDs>
<UniqueID source="SSS">1</UniqueID>
                </PaymentConditionIDs>
                <Value type="PERCENTAGE">
                <Value>10</Value>
                </Value>
                <Description language="en">10% prepayment</Description>
                <Description language="de">10% Anzahlung</Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="PREPAYMENT">
                <PaymentConditionIDs>
<UniqueID source="SSS">2</UniqueID>
                </PaymentConditionIDs>
<Value type="FIXEDPRICE">
        <Value currencyCode="USD">15</Value>
</Value>
<Description language="en">USD 15</Description>
<Description language="de"> USD 15 </Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="CANCELLATION">
                <PaymentConditionIDs>
<UniqueID source="SSS">3</UniqueID>
                </PaymentConditionIDs>
<Value type="PERCENTAGE">
        <Value>50</Value>
</Value>
<CancellationWindow>P0Y0M0DT48H</CancellationWindow>
<Description language="en">50% cancellation charge within 48 hours</Description>
<Description language="de">50% Stornogebühr innerhalb von zwei Tagen</Description>
<ResortId>HTNGA</ResortId>
</PaymentCondition>
<PaymentCondition type="CANCELLATION">
                <PaymentConditionIDs>
<UniqueID source="SSS">4</UniqueID>
                </PaymentConditionIDs>
                <Value type="PERCENTAGE">
                <Value>100</Value>
                </Value>
<CancellationWindow>P0Y0M0DT24H</CancellationWindow>
                <Description language="en">100% cancellation charge – same day or no show</Description>
                <Description language="de">100% Stornogebühr innerhalb von einem Tag</Description>
```

```
    <ResortId>HTNGA</ResortId>
</PaymentCondition>
</PaymentCondtions>
</PaymentConditionResponse>
```

46.4.2.2 FetchBookingRequest

...to retrieve all bookings for the global reference number 454545 (e.g. order number)

SSF to SSS - Sending:

```
<FetchBookingRequest>
<ReferenceNumber>454545</ReferenceNumber>
</FetchBookingRequest>
```

SSS to SSF - Results in:

```
<FetchBookingResponse>
    <Result resultStatusFlag="SUCCESS" />
    <Bookings>
        <Booking type="ACTIVITY">
            <BookingIDs>
        <UniqueID source="SSS">23460</UniqueID>
            </BookingIDs>
            <ProfileIDs>
        <UniqueID source="SSF">96</UniqueID>
        <UniqueID source="SSS">10968</UniqueID>
            </ProfileIDs>
            <ActivityType>Massage</ActivityType>
            <Location>The Spa</Location>
            <Name language="en">Hot Stone Massage</Name>
            <Name language="de"> heiße Steinmassage </Name>
            <TimeSpan>
            <Start>2008-01-16T18:00:00Z</Start>
            <End>2008-01-16T19:00:00Z</End>
            </TimeSpan>
        <Price currencyCode="USD">100.00</Price>
            <Participants>
            <Participant>
        <FirstName>John</FirstName>
        <LastName>Smith</LastName>
            </Participant>
            </Participants>
            <Resources>
    <Resource category="Providers" gender="Female">
            <Resource>OC Nanci</Resource>
        </Resource>
        <Resource category="Facilities">
            <Resource>Honeysuckle</Resource>
        </Resource>
            </Resources>
            <RequestedPreferences>
                <Preference preferenceType="GENDER" preferred="FEMALE“
                    mode="PREFERRED">Providers</Preference>
            </RequestedPreferences>
        </Booking>
        </Bookings>
    </FetchBookingResponse>
```

46.4.2.3 DeleteRequest to cancel the Booking from the Spa System

SSF to SSS - Sending:

```
<DeleteRequest>
<BookingIDs>
<UniqueID source="SSS">23460</UniqueID>
    </BookingIDs>
</DeleteRequest>
```

SSS to SSF - Results in:

```
<DeleteResponse>
    <Bookings>
        <Booking>
            <Result resultStatusFlag="SUCCESS" />
            <BookingIDs>
        <UniqueID source="SSS">23460</UniqueID>
            </BookingIDs>
        </Booking>
    </Bookings>
</DeleteResponse>
```

DAY SPA BOOKINGS:

Day spa bookings are variations of the above use cases. Please note the following:

- If the SSF requires every spa booking to have a PMS profile, then the flows are the same as those for bookings with a room reservation.
- If the SSF allows day spa users to book with PMS profiles, then the SSS would be responsible for profile management. The profile requests in the use cases would be altered.
- It would be appropriate for the SSF to default the treatment date to today (or today plus some minimum advanced booking window) for day spa bookings.

Part 7 ***Food and Beverage Ordering, Version 1.0***

Chapter 45 Document Information (Part 7)

45.1 Change History

Version	**Date**	**Author**	**Comments**
0.1	6-24-2008	Markus Leibundgut, MenuLogic	Created First Draft
0.2	9-11-2008	Maxime Clerk-Lamalice, Extenway Solutions Inc.	Added Business Process section
0.3	9-11-2008	Chris Laffoon, IBM Corporation	Added Message Specification section
0.4	9-12-2008	Chris Laffoon	Minor edits during team teleconference
0.5	9-15-2008	Maxime Clerk-Lamalice	Changed TS for device in the use-case section and removed use-cases reference number
0.6	9-18-2008	Chris Laffoon	Added comments to Message Specification section
0.7	9-19-2008	Chris Laffoon	Minor edits during team teleconference
1.0	9-22-2008	Chris Laffoon	Final Documentation cleanup

45.2 Purpose

This document defines the Hotel Technology Next Generation (“HTNG”) Food and Beverage (F&B) Ordering Web Services interface and messaging.

45.3 Scope

This document defines the web service requests and responses that allow a device to communicate with a Point of Sale (POS) system in order to create an F&B order in a POS system, to update an existing order, to split an existing order, to receive status information, and to update menu information from the POS system.

This document does not currently cover web services related to managing payment (Cash/Credit Card/Folio – Property Management System). This enhancement is to be added in future releases.

A device can be an interactive menu board, an in-room TV, self service terminals, mobile devices used by guests, websites, IP phones in guest rooms, or similar units.

45.4 Audience

This document is intended for use by developers and systems integrators who wish to interface a Food & Beverage ordering device to a POS system for processing.

Other IT professionals will find this document useful in gaining a general understanding of how a Food & Beverage ordering device.

45.5 Terminology

For the purpose of this document the following terms have been defined as follows:

Term	Definition
POS	Point of Sale or Point of Service

Chapter 46 Overview

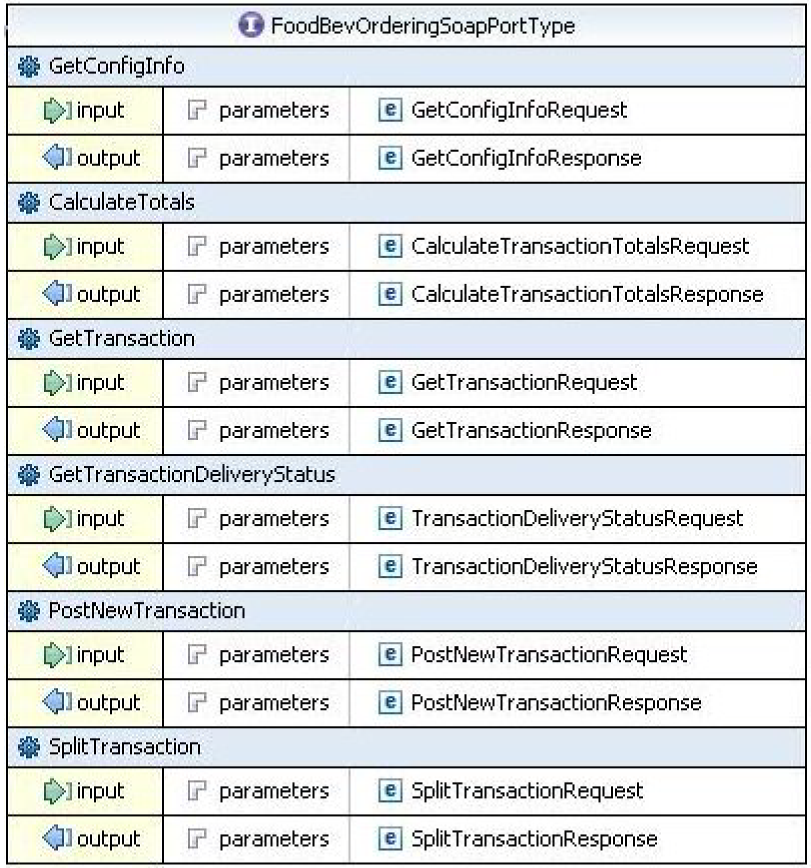
Typical service requestors may be kiosk, room service, and banqueting applications; typical service providers are F&B and retail POS applications.

This document provides an overview of various requests and responses and detailed XML schemas for each.

The following request/response message pairs have been implemented (more detail of each message is found in Chapter 48):

- Get Configuration Information – This message pair allows a requesting application to retrieve menu item, product, promotion, service charge, payments and general parameter information. Typically it might be used to retrieve available menu items, name, images and prices for a specific outlet.
- Calculate Transaction Totals – It is important that transaction totals (tax, discounts, amounts due) be calculated exactly and consistently, therefore having the service provider perform this (rather than each application) is important. This message pair provides this ability.
- Post New Transaction – This enables a requesting application to post a new transaction to the service provider. Typically it might be used by a STB application to place a guest's room service order. It also includes a requested delivery date and time.
- Get Transaction – This allows the requesting application to retrieve a transaction, either to just display it or to append additional lines to it.
- Get Transaction Delivery Status – This allows the requesting application to get the delivery status (in process, on the way) and the expected delivery date and time for the specified transaction.
- Split Transaction – This enables the requesting application/device request a transaction to be split into multiple transactions.

A diagram of these transactions is shown below:



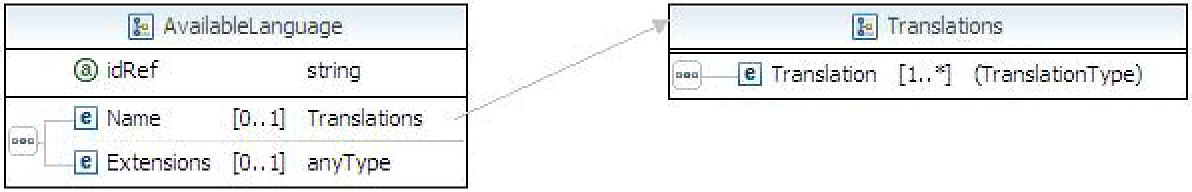
FoodBevOrderingSoapPortType		
GetConfigInfo		
input	parameters	GetConfigInfoRequest
output	parameters	GetConfigInfoResponse
CalculateTotals		
input	parameters	CalculateTransactionTotalsRequest
output	parameters	CalculateTransactionTotalsResponse
GetTransaction		
input	parameters	GetTransactionRequest
output	parameters	GetTransactionResponse
GetTransactionDeliveryStatus		
input	parameters	TransactionDeliveryStatusRequest
output	parameters	TransactionDeliveryStatusResponse
PostNewTransaction		
input	parameters	PostNewTransactionRequest
output	parameters	PostNewTransactionResponse
SplitTransaction		
input	parameters	SplitTransactionRequest
output	parameters	SplitTransactionResponse

Chapter 47 Message Specification

47.1 Common Message Types

This section contains details about the common types found in the FoodBevOrdering.xsd used in one or more of the messages that follow. These types are sorted alphabetically for easier access.

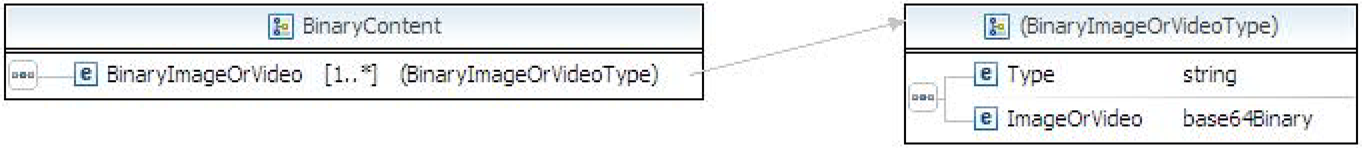
AvailableLanguage


AvailableLanguage
idRef
string
Name
[0..1]
Translations
Extensions
[0..1]
anyType
Translations
Translation
[1..*]
(TranslationType)

```
<xs:complexType name="AvailableLanguage">
    <xs:sequence>
        <xs:element name="Name" type="fbt:Translations" minOccurs="0" />
        <xs:element name="Extensions" minOccurs="0" />
    </xs:sequence>
    <xs:attribute name="idRef" type="xs:string" use="required" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Name	element	Translations	optional	Translations for this language
Extensions	element		optional	Blank extension point
idRef	attribute	string	required	Reference identifier for this available language

BinaryContent


BinaryContent
BinaryImageOrVideo
[1..*]
(BinaryImageOrVideoType)
(BinaryImageOrVideoType)
Type
string
ImageOrVideo
base64Binary

```
<xs:complexType name="BinaryContent">
    <xs:sequence>
        <xs:element name="BinaryImageOrVideo" maxOccurs="unbounded">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="Type" type="xs:string" />
                    <xs:element name="ImageOrVideo" type="xs:base64Binary" />
                </xs:sequence>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
BinaryImageOrVideo	element	(BinaryImageOrVideo)*	required/ multiple	Single binary image or video
Type	element	string	required	Description for this type of binary content
ImageOrVideo	element	base64Binary	required	Image or video encoded in W3C base 64 binary

*anonymous type

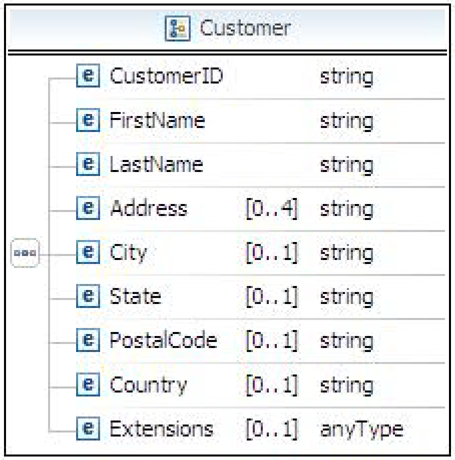
ConfigInfoRequestType

```
<xs:simpleType name="ConfigInfoRequestType">
    <xs:restriction base="xs:string">
        <xs:enumeration value="MODIFIERDEFINITIONS" />
        <xs:enumeration value="MENUITEMDEFINITIONS" />
        <xs:enumeration value="OUTOFMENUITEMDEFINITIONS" />
        <xs:enumeration value="SERVICECHARGEDEFINITIONS" />
        <xs:enumeration value="DISCOUNTPROMOTIONDEFINITIONS" />
        <xs:enumeration value="TENDERDEFINITIONS" />
        <xs:enumeration value="ORDERTYPEDEFINITIONS" />
        <xs:enumeration value="AVAILABLELANGUAGES " />
        <xs:enumeration value="GENERALPARAMETERDEFINITIONS" />
    </xs:restriction>
</xs:simpleType>
```

Enumeration Type	Enumeration Value	Comments
string	MODIFIERDEFINITIONS	Enumeration value for getting modifier definitions
string	MENUITEMDEFINITIONS	Enumeration value for getting menu item definitions
string	OUTOFMENUITEMDEFINITIONS	Enumeration value for out of menu item definitions
string	SERVICECHARGEDEFINITIONS	Enumeration value for service charge definitions
string	DISCOUNTPROMOTIONDEFINITIONS	Enumeration value for discount promotions definitions
string	TENDERDEFINITIONS	Enumeration value for tender definitions

string	ORDERTYPEDEFINITIONS	Enumeration value for order type definitions
string	AVAILABLELANGUAGES	Enumeration value for available languages
string	GENERALPARAMETERDEFINITIONS	Enumeration value for general parameters definitions

Customer

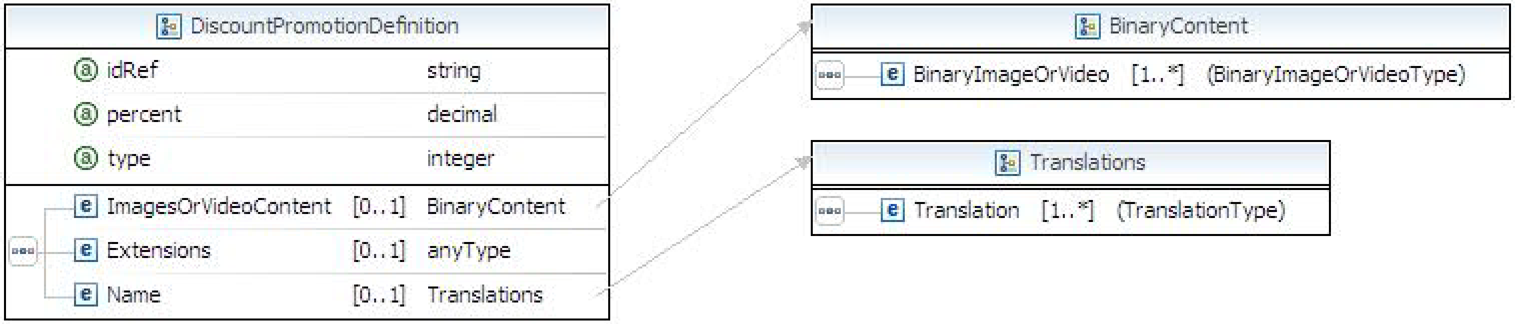

Customer
CustomerID string
FirstName string
LastName string
Address [0..4] string
City [0..1] string
State [0..1] string
PostalCode [0..1] string
Country [0..1] string
Extensions [0..1] anyType

```
<xs:complexType name="Customer">
    <xs:sequence>
        <xs:element name="CustomerID" type="xs:string" />
        <xs:element name="FirstName" type="xs:string" />
        <xs:element name="LastName" type="xs:string" />
        <xs:element name="Address" type="xs:string" minOccurs="0" maxOccurs="4" />
        <xs:element name="City" type="xs:string" minOccurs="0" />
        <xs:element name="State" type="xs:string" minOccurs="0" />
        <xs:element name="PostalCode" type="xs:string" minOccurs="0" />
        <xs:element name="Country" type="xs:string" minOccurs="0" />
        <xs:element name="Extensions" minOccurs="0" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
CustomerID	element	string	required	Unique ID for this customer
FirstName	element	string	required	First name of customer
LastName	element	string	required	Last name of customer

Address	element	string	optional/ max 4	One address line (maximum of 4)
City	element	string	optional	City where customer is located
State	element	string	optional	State where customer is located
PostalCode	element	string	optional	Postal code for customer
Country	element	string	optional	Country where customer is located
Extensions	element		optional	Blank extension element for adding more customer details

DiscountPromotionDefinition

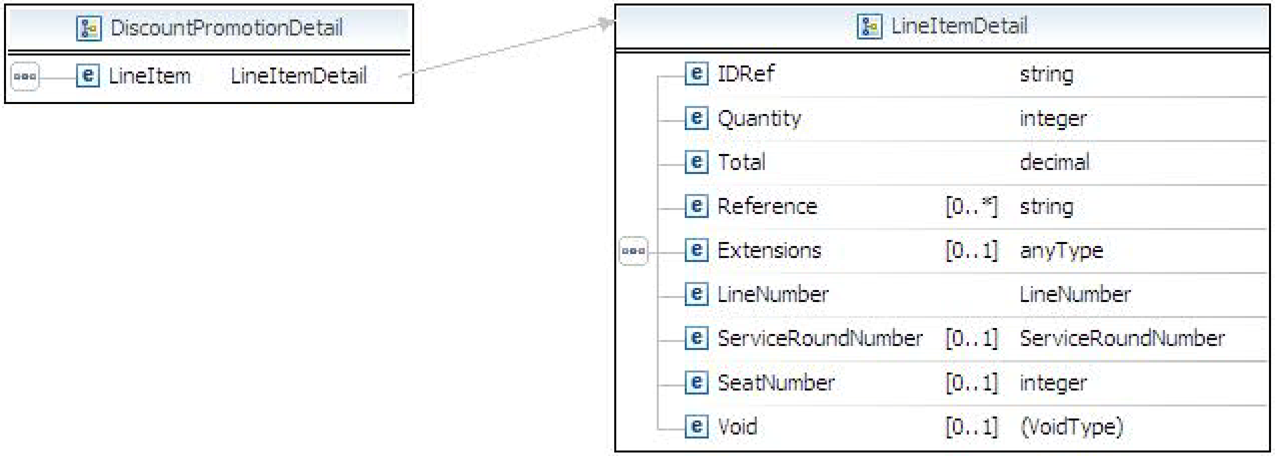

DiscountPromotionDefinition
idRef string
percent decimal
type integer
ImagesOrVideoContent [0..1] BinaryContent
Extensions [0..1] anyType
Name [0..1] Translations
BinaryContent
BinaryImageOrVideo [1..*] (BinaryImageOrVideoType)
Translations
Translation [1..*] (TranslationType)

```
<xs:complexType name="DiscountPromotionDefinition">
        <xs:sequence>
                <xs:element name="ImagesOrVideoContent" type="fbt:BinaryContent" minOccurs="0"/>
                <xs:element name="Extensions" minOccurs="0"/>
                <xs:element name="Name" type="fbt:Translations" minOccurs="0"/>
        </xs:sequence>
        <xs:attribute name="idRef" type="xs:string" use="required"/>
        <xs:attribute name="percent" type="xs:decimal" use="optional"/>
        <xs:attribute name="type" type="xs:integer" use="required"/>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ImageOrVideoContent	element	BinaryContent	optional	Images or videos for this discount promotion
Extensions	element		optional	Blank extension for more discount promotion details
Name	element	Translations	optional	Name of the discount promotion
idRef	attribute	string	required	Reference identifier for this discount promotion
percent	attribute	decimal	optional	Percent discount for this particular promotion

type	attribute	integer	required	Vendor-specific discount promotion type code

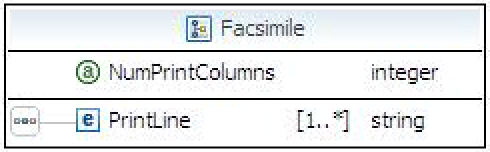
DiscountPromotionDetail


DiscountPromotionDetail
LineItem LineItemDetail
LineItemDetail
IDRef string
Quantity integer
Total decimal
Reference [0..*] string
Extensions [0..1] anyType
LineNumber LineNumber
ServiceRoundNumber [0..1] ServiceRoundNumber
SeatNumber [0..1] integer
Void [0..1] (VoidType)

```
<xs:complexType name="DiscountPromotionDetail">
    <xs:sequence>
        <xs:element name="LineItem" type="fbt:LineItemDetail" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
LineItem	element	LineItemDetail	required	A line item that captures the discount promotion details

Facsimile

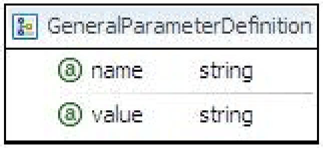

Facsimile
NumPrintColumns integer
PrintLine [1..*] string

```
<xs:complexType name="Facsimile">
    <xs:sequence>
```

```
        <xs:element name="PrintLine" type="xs:string" minOccurs="1" maxOccurs="unbounded" />
    </xs:sequence>
    <xs:attribute name="NumPrintColumns" type="xs:integer" use="required" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
PrintLine	element	string	required/ multiple	One line of text to be printed that is specified number of columns (characters) long
NumPrintColumns	element	integer	required	Number of print columns (characters) for each line of text

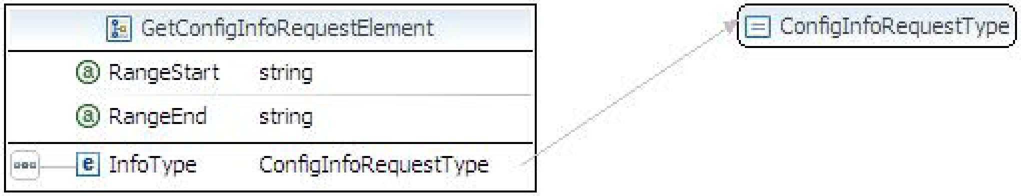
General Parameter Definition


GeneralParameterDefinition
name
string
value
string

```
<xs:complexType name="GeneralParameterDefinition">
    <xs:attribute name="name" type="xs:string" use="required" />
    <xs:attribute name="value" type="xs:string" use="required" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
name	attribute	string	required	Name of general parameter
value	attribute	string	required	Value of general parameter

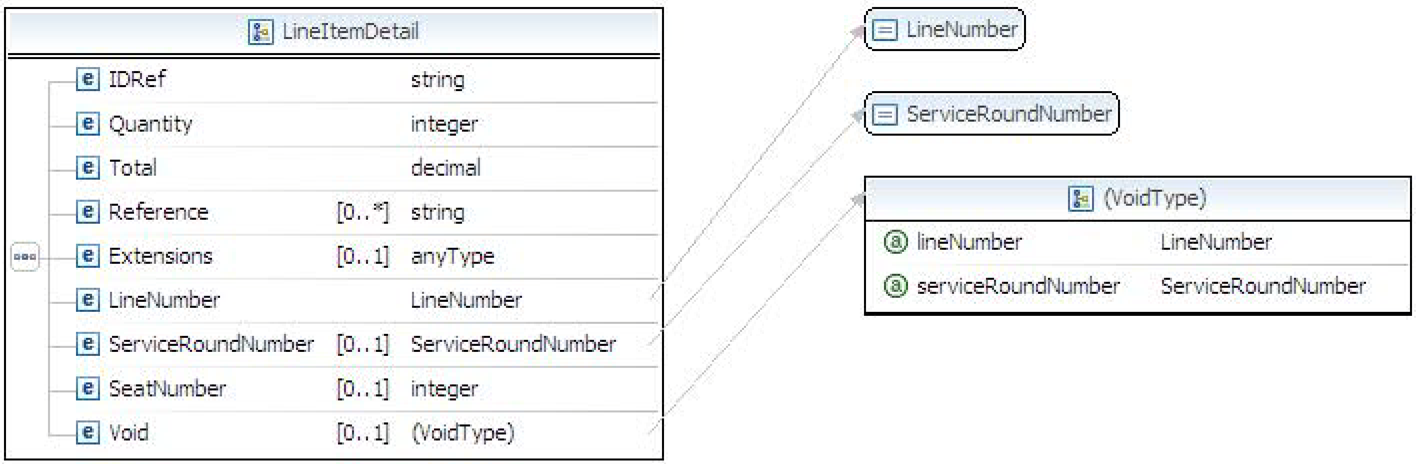
GetConfigInfoRequestElement


GetConfigInfoRequestElement
RangeStart
string
RangeEnd
string
InfoType
ConfigInfoRequestType
ConfigInfoRequestType

```
<xs:complexType name="GetConfigInfoRequestElement">
    <xs:sequence>
        <xs:element name="InfoType" type="fbt:ConfigInfoRequestType" />
    </xs:sequence>
    <xs:attribute name="RangeStart" type="xs:string" use="optional" />
    <xs:attribute name="RangeEnd" type="xs:string" use="optional" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
InfoType	element	ConfigInfoRequestType	required	Type of configuration information to request
RangeStart	attribute	string	optional	
RangeEnd	attribute	string	optional	

LineItemDetail


LineItemDetail
IDRef string
Quantity integer
Total decimal
Reference [0..*] string
Extensions [0..1] anyType
LineNumber LineNumber
ServiceRoundNumber [0..1] ServiceRoundNumber
SeatNumber [0..1] integer
Void [0..1] (VoidType)
LineNumber
ServiceRoundNumber
(VoidType)
lineNumber LineNumber
serviceRoundNumber ServiceRoundNumber

```
<xs:complexType name="LineItemDetail">
    <xs:sequence>
        <xs:element name="IDRef" type="xs:string" />
        <xs:element name="Quantity" type="xs:integer" />
        <xs:element name="Total" type="xs:decimal" />
        <xs:element name="Reference" type="xs:string" minOccurs="0" maxOccurs="unbounded" />
        <xs:element name="Extensions" minOccurs="0" />
        <xs:element name="LineNumber" type="fbt:LineNumber" />
        <xs:element name="ServiceRoundNumber" type="fbt:ServiceRoundNumber" minOccurs="0" />
        <xs:element name="SeatNumber" type="xs:integer" minOccurs="0" />
        <xs:element name="Void" minOccurs="0">
            <xs:complexType>
                <xs:attribute name="lineNumber" type="fbt:LineNumber" use="required" />
                <xs:attribute name="serviceRoundNumber" type="fbt:ServiceRoundNumber" use="required" />
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>
```

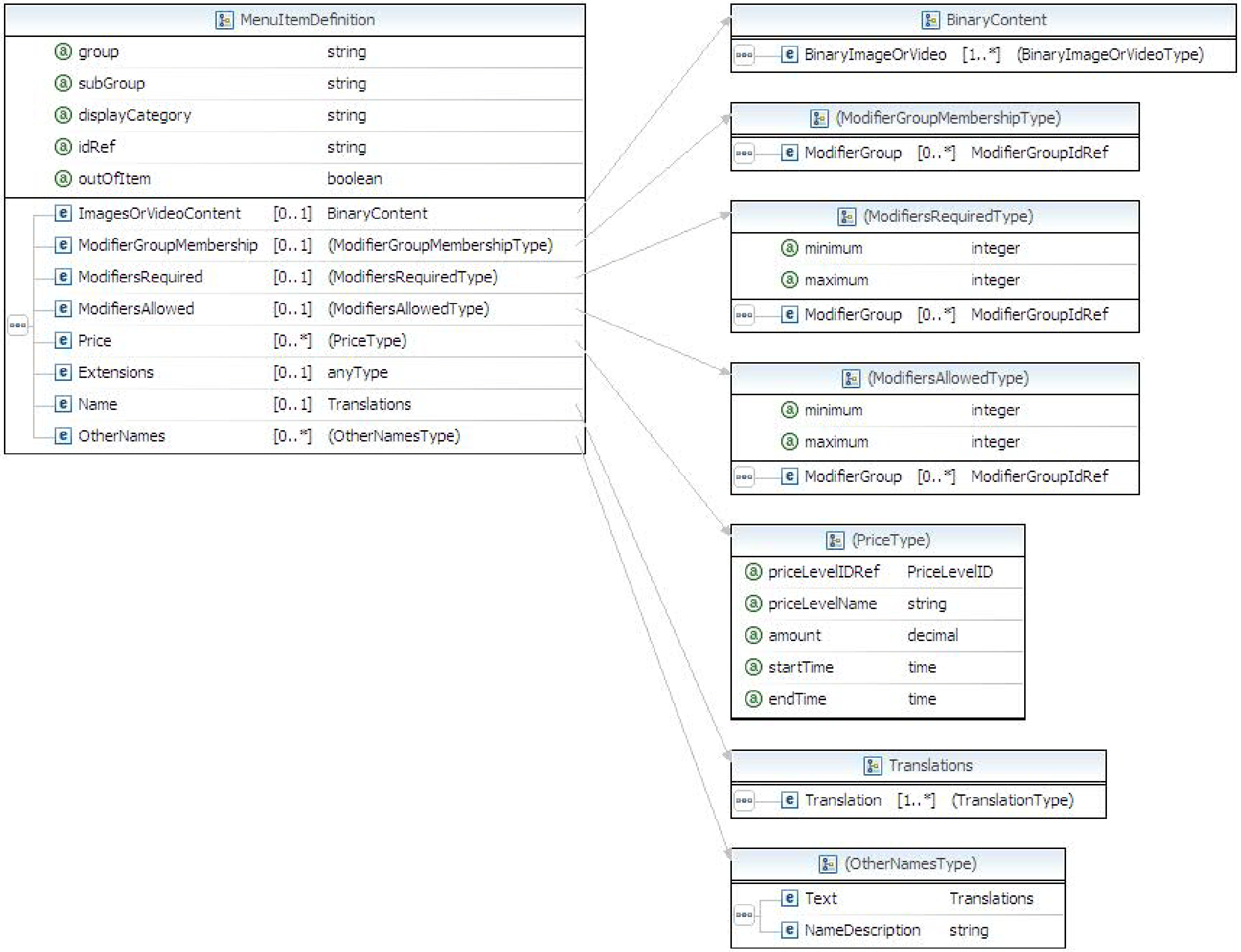
Name	**Type**	**Data Type**	**Use**	**Comments**
IDRef	element	string	required	Reference identifier of item that this line refers to
Quantity	element	integer	required	Quantity of this item
Total	element	decimal	required	Total price for this line item
Reference	element	string	optional/ multiple	Additional reference text for this line number
Extensions	element		optional	Blank extension for more line item details
LineNumber	element	LineNumber	required	Line Number (as described below >0)
ServiceRoundNumber	element	ServiceRoundNumber	optional	
SeatNumber	element	integer	optional	Seat number of customer who this line item is for
Void	element	(Void)*	optional	
lineNumber	attribute	LineNumber	required	
serviceRoundNumber	attribute	ServiceRoundNumber	required	

*anonymous type

LineNumber

```
<xs:simpleType name="LineNumber">
    <xs:restriction base="xs:integer">
        <xs:minInclusive value="1" />
    </xs:restriction>
</xs:simpleType>
```

MenuItemDefinition


MenuItemDefinition
group string
subGroup string
displayCategory string
idRef string
outOfItem boolean
ImagesOrVideoContent [0..1] BinaryContent
ModifierGroupMembership [0..1] (ModifierGroupMembershipType)
ModifiersRequired [0..1] (ModifiersRequiredType)
ModifiersAllowed [0..1] (ModifiersAllowedType)
Price [0..*] (PriceType)
Extensions [0..1] anyType
Name [0..1] Translations
OtherNames [0..*] (OtherNamesType)
BinaryContent
BinaryImageOrVideo [1..*] (BinaryImageOrVideoType)
(ModifierGroupMembershipType)
ModifierGroup [0..*] ModifierGroupIdRef
(ModifiersRequiredType)
minimum integer
maximum integer
ModifierGroup [0..*] ModifierGroupIdRef
(ModifiersAllowedType)
minimum integer
maximum integer
ModifierGroup [0..*] ModifierGroupIdRef
(PriceType)
priceLevelIDRef PriceLevelID
priceLevelName string
amount decimal
startTime time
endTime time
Translations
Translation [1..*] (TranslationType)
(OtherNamesType)
Text Translations
NameDescription string

```
<xs:complexType name="MenuItemDefinition">
   <xs:sequence>
      <xs:element name="ImagesOrVideoContent" type="fbt:BinaryContent" minOccurs="0" />
      <xs:element name="ModifierGroupMembership" minOccurs="0">
         <xs:complexType>
            <xs:sequence>
               <xs:element name="ModifierGroup" type="fbt:ModifierGroupIdRef" minOccurs="0" maxOccurs="unbounded" />
```

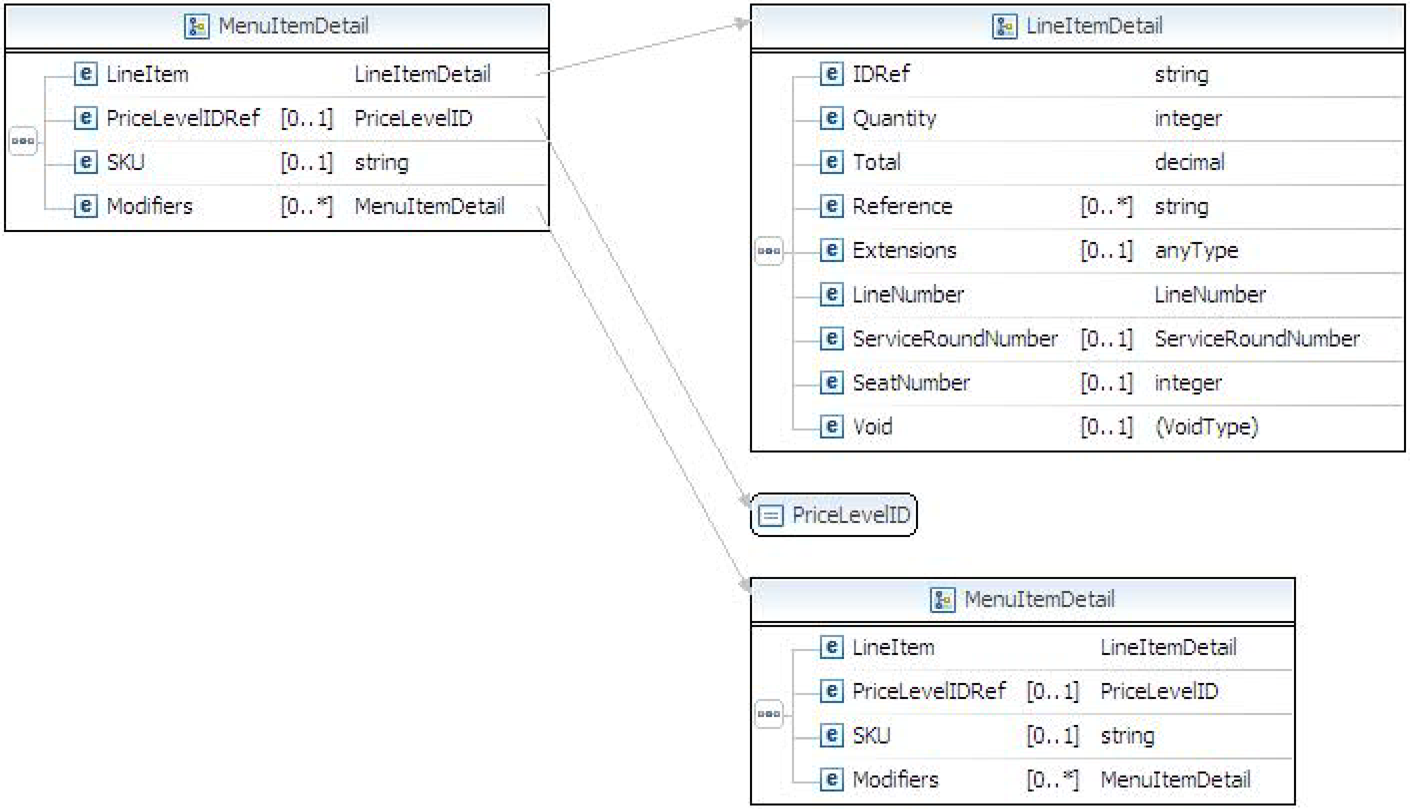
```
                </xs:sequence>
            </xs:complexType>
        </xs:element>
        <xs:element name="ModifiersRequired" minOccurs="0">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="ModifierGroup" type="fbt:ModifierGroupIdRef" minOccurs="0" maxOccurs="unbounded" />
                </xs:sequence>
                <xs:attribute name="minimum" type="xs:integer" use="optional" />
                <xs:attribute name="maximum" type="xs:integer" use="optional" />
            </xs:complexType>
        </xs:element>
        <xs:element name="ModifiersAllowed" minOccurs="0">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="ModifierGroup" type="fbt:ModifierGroupIdRef" minOccurs="0" maxOccurs="unbounded" />
                </xs:sequence>
                <xs:attribute name="minimum" type="xs:integer" use="optional" />
                <xs:attribute name="maximum" type="xs:integer" use="optional" />
            </xs:complexType>
        </xs:element>
        <xs:element name="Price" minOccurs="0" maxOccurs="unbounded">
            <xs:complexType>
                <xs:attribute name="priceLevelIDRef" type="fbt:PriceLevelID" use="required" />
                <xs:attribute name="priceLevelName" type="xs:string" use="optional" />
                <xs:attribute name="amount" type="xs:decimal" />
                <xs:attribute name="startTime" type="xs:time" use="optional" />
                <xs:attribute name="endTime" type="xs:time" use="optional" />
            </xs:complexType>
        </xs:element>
        <xs:element name="Extensions" minOccurs="0" />
        <xs:element name="Name" type="fbt:Translations" minOccurs="0" />
        <xs:element name="OtherNames" minOccurs="0" maxOccurs="unbounded">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="Text" type="fbt:Translations" />
                    <xs:element name="NameDescription" type="xs:string" />
                </xs:sequence>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
    <xs:attribute name="group" type="xs:string" />
    <xs:attribute name="subGroup" type="xs:string" />
    <xs:attribute name="displayCategory" type="xs:string" />
    <xs:attribute name="idRef" type="xs:string" use="required" />
    <xs:attribute name="outOfItem" type="xs:boolean" />
</xs:complexType>
```

Name	Type	Data Type	Use	Comments

ImagesOrVideoContent	element	BinaryContent	optional	Image or video content for this menu item
ModifierGroupMembership	element	(ModifierGroupMembership)*	optional	Modifier Group that this menu item belongs to
ModifierGroup	element	ModifierGroupIdRef	optional/ multiple	Reference identifier for modifier group (string)
ModifiersRequired	element	(ModifiersRequired)*	optional	Contains required modifiers for this menu item, if any
ModifierGroup	element	ModifierGroupIdRef	optional/ multiple	Reference identifier for modifier group that is required
minimum	attribute	integer	optional	Minimum number of modifiers that have to be chosen
maximum	attribute	integer	optional	Maximum number of modifiers that can be chosen
ModifiersAllowed	element	(ModifiersAllowed)*	optional	Contains modifiers allowed, but not required for this menu item, if any
ModifierGroup	element	ModifierGroupIdRef	optional/ multiple	Reference identifier for modifier group that is allowed
minimum	attribute	integer	optional	Minimum number of modifiers that have to be chosen
maximum	attribute	integer	optional	Maximum number of modifiers that can be chosen
Price	element	(Price)*	optional/ multiple	Price(s) of this menu item…as defined in the following attributes
priceLevelIDRef	attribute	PriceLevelID	required	Reference identifier for this price level
priceLevelName	attribute	string	optional	Name for the given price level identified
amount	attribute	decimal	optional	Price amount
startTime	attribute	time	optional	Time when this price starts going into effect
endTime	attribute	time	optional	Time when this price ends from being in effect
Extensions	element		optional	Blank extension for more menu item definition details
Name	element	Translations	optional	Name of this menu item, as defined in relevant translations
OtherNames	element	(OtherNames)*	optional/ multiple	Other names for this menu item
Text	element	Translations	required	Text of another name…as defined in relevant translations
NameDescriptions	element	string	required	Description of this other name
group	attribute	string	optional	Optional group to assign this menu item to
subGroup	attribute	string	optional	Optional subgroup to assign this menu item to
displayCategory	attribute	string	optional	Category to display this menu item under
idRef	attribute	string	required	Reference identifier for this menu item
outOfItem	attribute	boolean	optional	Whether the POS is out of this item

*anonymous type

MenuItemDetail

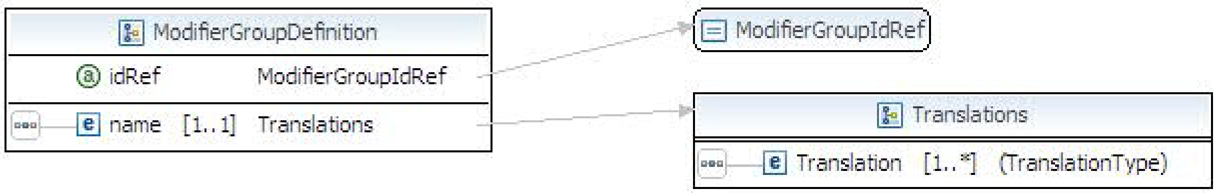

MenuItemDetail
LineItem LineItemDetail
PriceLevelIDRef [0..1] PriceLevelID
SKU [0..1] string
Modifiers [0..*] MenuItemDetail
LineItemDetail
IDRef string
Quantity integer
Total decimal
Reference [0..*] string
Extensions [0..1] anyType
LineNumber LineNumber
ServiceRoundNumber [0..1] ServiceRoundNumber
SeatNumber [0..1] integer
Void [0..1] (VoidType)
PriceLevelID
MenuItemDetail
LineItem LineItemDetail
PriceLevelIDRef [0..1] PriceLevelID
SKU [0..1] string
Modifiers [0..*] MenuItemDetail

```
<xs:complexType name="MenuItemDetail">
    <xs:sequence>
        <xs:element name="LineItem" type="fbt:LineItemDetail" />
        <xs:element name="PriceLevelIDRef" type="fbt:PriceLevelID" minOccurs="0" />
        <xs:element name="SKU" type="xs:string" minOccurs="0" />
        <xs:element name="Modifiers" type="fbt:MenuItemDetail" minOccurs="0" maxOccurs="unbounded" />
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments

LineItem	element	LineItemDetail	required	Line item that describes the menu item that is being ordered
PriceLevelIDRef	element	PriceLevelID	optional	Reference identifier for the price level used for this menu item
SKU	element	string	optional	
Modifiers	element	MenuItemDetail	optional/ multiple	Modifiers selected for this menu item

ModifierGroupDefinition


ModifierGroupDefinition
idRef
ModifierGroupIdRef
name [1..1] Translations
ModifierGroupIdRef
Translations
Translation [1..*] (TranslationType)

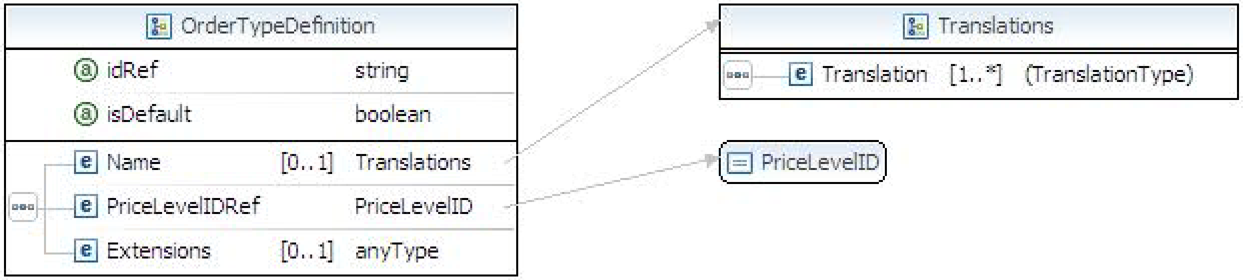
```
<xs:complexType name="ModifierGroupDefinition">
    <xs:sequence>
        <xs:element name="name" type="fbt:Translations" minOccurs="1" />
    </xs:sequence>
    <xs:attribute name="idRef" type="fbt:ModifierGroupIdRef" use="required" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
name	element	Translations	required	Name of this modifier group…as described in relevant translations
idRef	attribute	ModifierGroupIdRef	required	Reference identifier for this modifier group

ModifierGroupIdRef

```
<xs:simpleType name="ModifierGroupIdRef">
        <xs:restriction base="xs:string"/>
</xs:simpleType>
```

OrderTypeDefinition


OrderTypeDefinition
idRef string
isDefault boolean
Name [0..1] Translations
PriceLevelIDRef PriceLevelID
Extensions [0..1] anyType
Translations
Translation [1..*] (TranslationType)
PriceLevelID

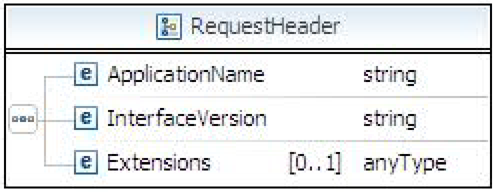
```
<xs:complexType name="OrderTypeDefinition">
    <xs:sequence>
        <xs:element name="Name" type="fbt:Translations" minOccurs="0" />
        <xs:element name="PriceLevelIDRef" type="fbt:PriceLevelID" />
        <xs:element name="Extensions" minOccurs="0" />
    </xs:sequence>
    <xs:attribute name="idRef" type="xs:string" use="required" />
    <xs:attribute name="isDefault" type="xs:boolean" use="optional" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Name	element	Translations	optional	Name of this order type
PriceLevelIDRef	element	PriceLevelID	required	Reference identifier for the price level used in this order type
Extensions	element		optional	Blank extension for more order type definition details
idRef	attribute	string	required	Reference identifier for this order type
isDefault	attribute	boolean	optional	Flag indicating whether this order type is default

PriveLevelID

```
<xs:simpleType name="PriceLevelID">
          <xs:restriction base="xs:string"/>
</xs:simpleType>
```

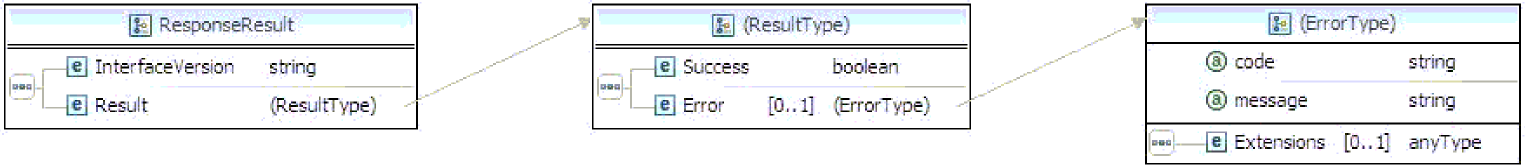
RequestHeader


RequestHeader
ApplicationName string
InterfaceVersion string
Extensions [0..1] anyType

```
<xs:complexType name="RequestHeader">
    <xs:sequence>
        <xs:element name="ApplicationName" type="xs:string" />
        <xs:element name="InterfaceVersion" type="xs:string" />
        <xs:element name="Extensions" minOccurs="0" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ApplicationName	element	string	required	Name of application sending request
InterfaceVersion	element	string	required	Version of the interface that this request is conforming to
Extensions	element		optional	Blank element for additional request header information

ResponseResult

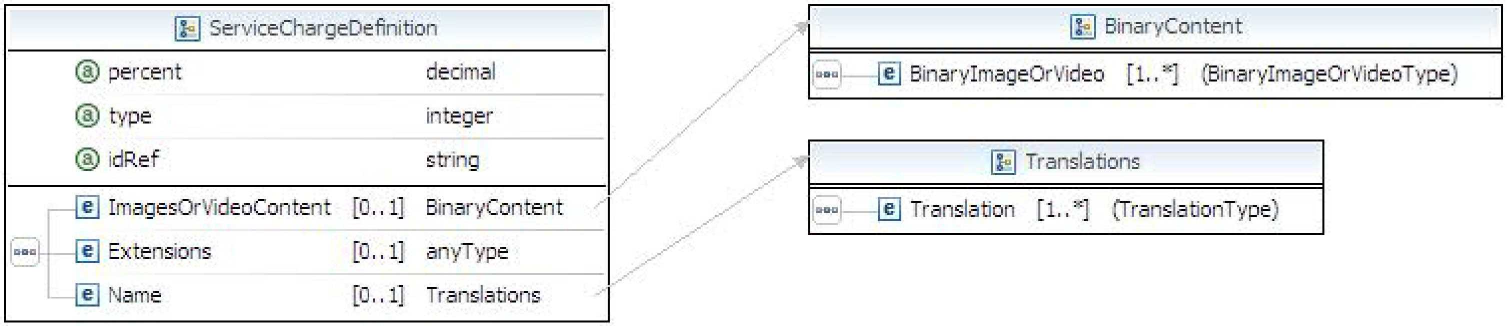

ResponseResult
InterfaceVersion string
Result (ResultType)
(ResultType)
Success boolean
Error [0..1] (ErrorType)
(ErrorType)
code string
message string
Extensions [0..1] anyType

```
<xs:complexType name="ResponseResult">
    <xs:sequence>
        <xs:element name="InterfaceVersion" type="xs:string" />
        <xs:element name="Result">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="Success" type="xs:boolean" />
                    <xs:element name="Error" minOccurs="0">
                        <xs:complexType>
                            <xs:sequence>
                                <xs:element name="Extensions" minOccurs="0" />
                            </xs:sequence>
                            <xs:attribute name="code" type="xs:string" use="required" />
                            <xs:attribute name="message" type="xs:string" use="required" />
                        </xs:complexType>
                    </xs:element>
                </xs:sequence>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
InterfaceVersion	element	string	required	Version of the interface that this response is conforming to
Result	element	(ResultType)*	required	Result of the request processing
Success	element	Boolean	required	Flag indicating whether the request processing was successful
Error	element	(ErrorType)*	optional	Description of errors that occurred during request processing
Extensions	element		optional	Blank element for additional error details
code	attribute	string	required	Code that represents the type of error
message	attribute	string	required	Message to accompany code for this error

*anonymous type

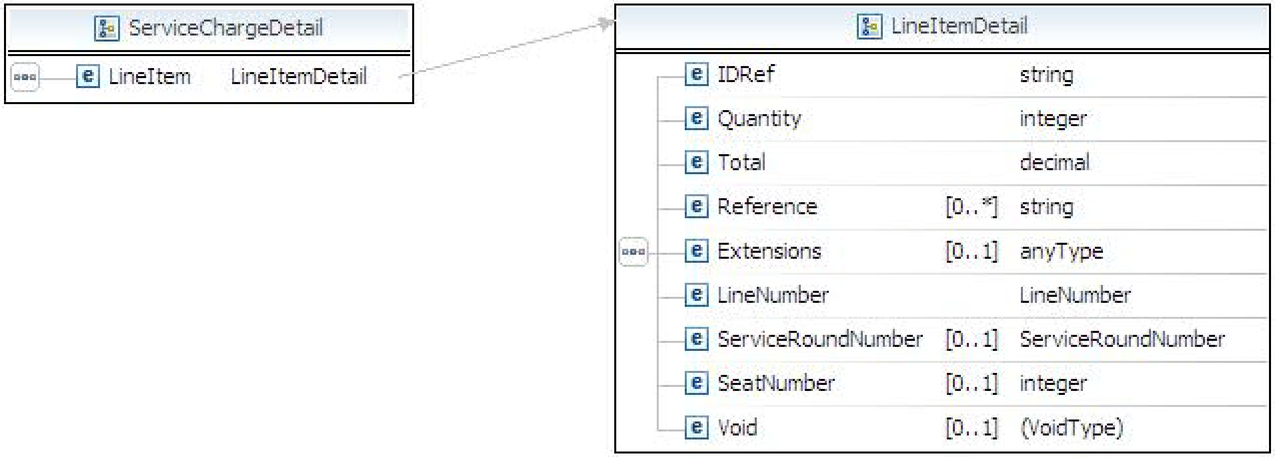
ServiceChargeDefinition


ServiceChargeDefinition
percent decimal
type integer
idRef string
ImagesOrVideoContent [0..1] BinaryContent
Extensions [0..1] anyType
Name [0..1] Translations
BinaryContent
BinaryImageOrVideo [1..*] (BinaryImageOrVideoType)
Translations
Translation [1..*] (TranslationType)

```
<xs:complexType name="ServiceChargeDefinition">
    <xs:sequence>
        <xs:element name="ImagesOrVideoContent" type="fbt:BinaryContent" minOccurs="0" />
        <xs:element name="Extensions" minOccurs="0" />
        <xs:element name="Name" type="fbt:Translations" minOccurs="0" />
    </xs:sequence>
    <xs:attribute name="percent" type="xs:decimal" use="optional" />
    <xs:attribute name="type" type="xs:integer" use="required" />
    <xs:attribute name="idRef" type="xs:string" use="required" />
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
ImagesOrVideoContent	element	BinaryContent	optional	Images or video content for this service charge type
Extensions	element		optional	Blank element for additional service charge type details
Name	element	Translations	optional	Name of this service charge type, in relevant translations
percent	attribute	decimal	optional	
type	attribute	integer	required	
idRef	attribute	string	required	Reference identifier for this type of service charge

ServiceChargeDetail


ServiceChargeDetail
LineItem LineItemDetail
LineItemDetail
IDRef string
Quantity integer
Total decimal
Reference [0..*] string
Extensions [0..1] anyType
LineNumber LineNumber
ServiceRoundNumber [0..1] ServiceRoundNumber
SeatNumber [0..1] integer
Void [0..1] (VoidType)

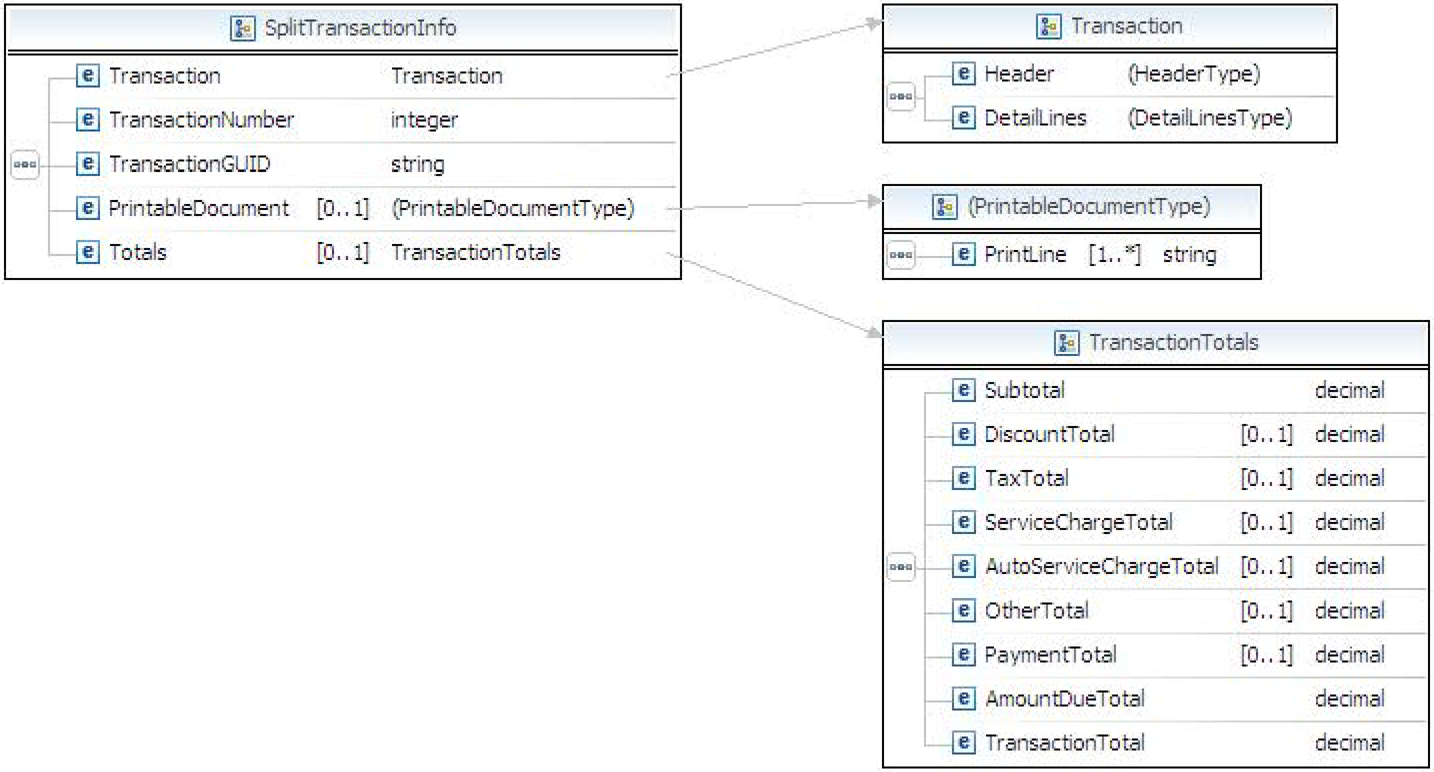
```
<xs:complexType name="ServiceChargeDetail">
    <xs:sequence>
        <xs:element name="LineItem" type="fbt:LineItemDetail" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
LineItem	element	LineItemDetail	required	Line item that describes this service charge

ServiceRoundNumber

```
<xs:simpleType name="ServiceRoundNumber">
    <xs:restriction base="xs:integer">
        <xs:minInclusive value="1" />
    </xs:restriction>
</xs:simpleType>
```

SplitTransactionInfo


SplitTransactionInfo
Transaction Transaction
TransactionNumber integer
TransactionGUID string
PrintableDocument [0..1] (PrintableDocumentType)
Totals [0..1] TransactionTotals
Transaction
Header (HeaderType)
DetailLines (DetailLinesType)
(PrintableDocumentType)
PrintLine [1..*] string
TransactionTotals
Subtotal decimal
DiscountTotal [0..1] decimal
TaxTotal [0..1] decimal
ServiceChargeTotal [0..1] decimal
AutoServiceChargeTotal [0..1] decimal
OtherTotal [0..1] decimal
PaymentTotal [0..1] decimal
AmountDueTotal decimal
TransactionTotal decimal

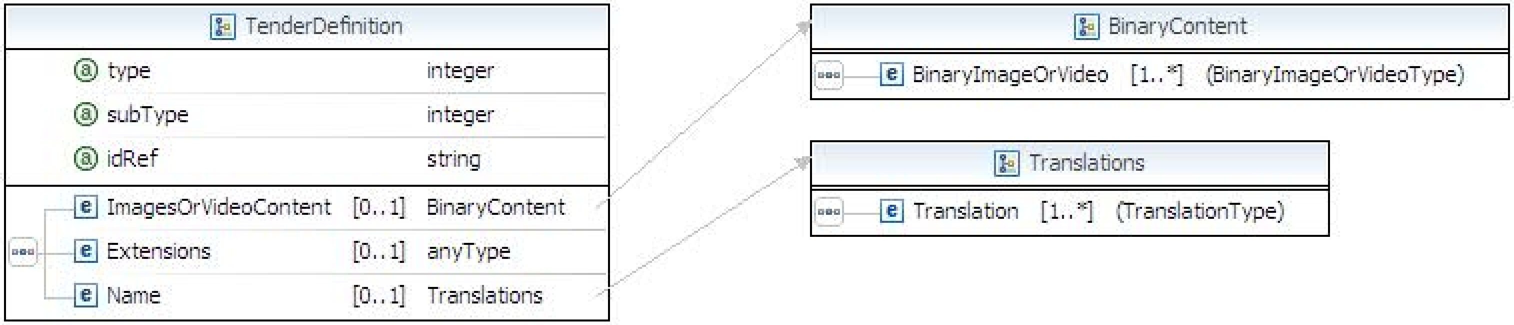
```
<xs:complexType name="SplitTransactionInfo">
    <xs:sequence>
        <xs:element name="Transaction" type="fbt:Transaction" />
        <xs:element name="TransactionNumber" type="xs:integer" />
        <xs:element name="TransactionGUID" type="xs:string" />
        <xs:element name="PrintableDocument" minOccurs="0">
```

```
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="PrintLine" type="xs:string" maxOccurs="unbounded" />
                </xs:sequence>
            </xs:complexType>
        </xs:element>
        <xs:element name="Totals" type="fbt:TransactionTotals" minOccurs="0" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Transaction	element	Transaction	required	Transaction that is described in described below
TransactionNumber	element	integer	required	Transaction number for this transaction
TransactionGUID	element	string	required	Globally unique id for this transaction
PrintableDocument	element	(PrintableDocument)*	optional	Printable documentation regarding this transaction if needed
PrintLine	element	string	required/ multiple	Lines of text to print for documentation
Totals	element	TransactionTotals	optional	Totals for this transaction

*anonymous type

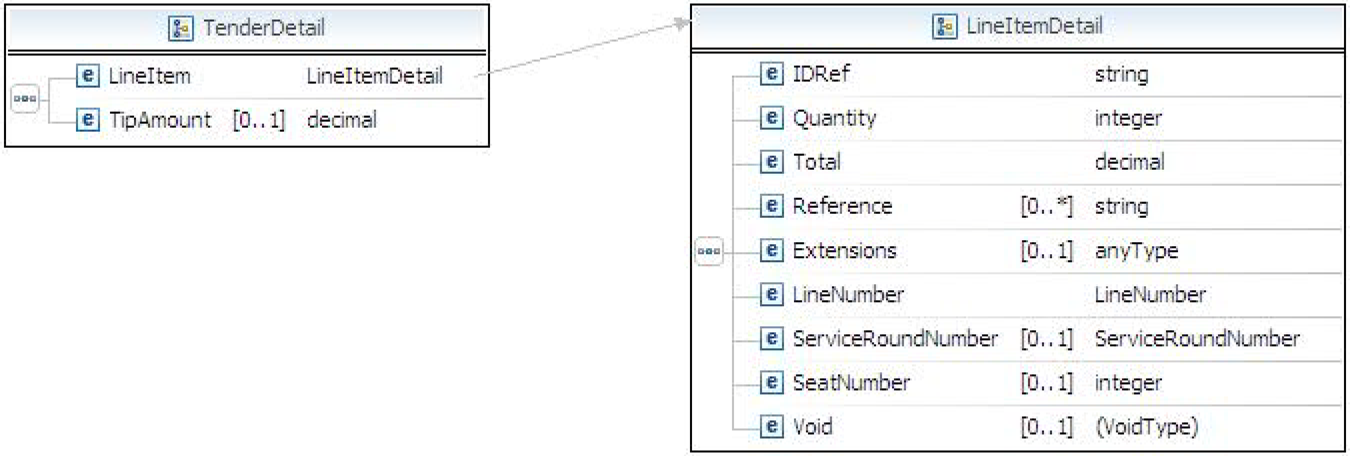
TenderDefinition


TenderDefinition
type integer
subType integer
idRef string
ImagesOrVideoContent [0..1] BinaryContent
Extensions [0..1] anyType
Name [0..1] Translations
BinaryContent
BinaryImageOrVideo [1..*] (BinaryImageOrVideoType)
Translations
Translation [1..*] (TranslationType)

```
<xs:complexType name="TenderDefinition">
    <xs:sequence>
        <xs:element name="ImagesOrVideoContent" type="fbt:BinaryContent" minOccurs="0" />
        <xs:element name="Extensions" minOccurs="0" />
        <xs:element name="Name" type="fbt:Translations" minOccurs="0" />
    </xs:sequence>
    <xs:attribute name="type" type="xs:integer" use="required" />
    <xs:attribute name="subType" type="xs:integer" use="required" />
    <xs:attribute name="idRef" type="xs:string" use="required" />
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
ImagesOrVideoContent	element	BinaryContent	optional	Images or video for this tender type
Extensions	element		optional	Blank element for additional tender type details
Name	element	Translations	optional	Name of this tender type
type	attribute	integer	required	
subtype	attribute	integer	required	
idRef	attribute	string	required	Reference identifier for this tender type

TenderDetail

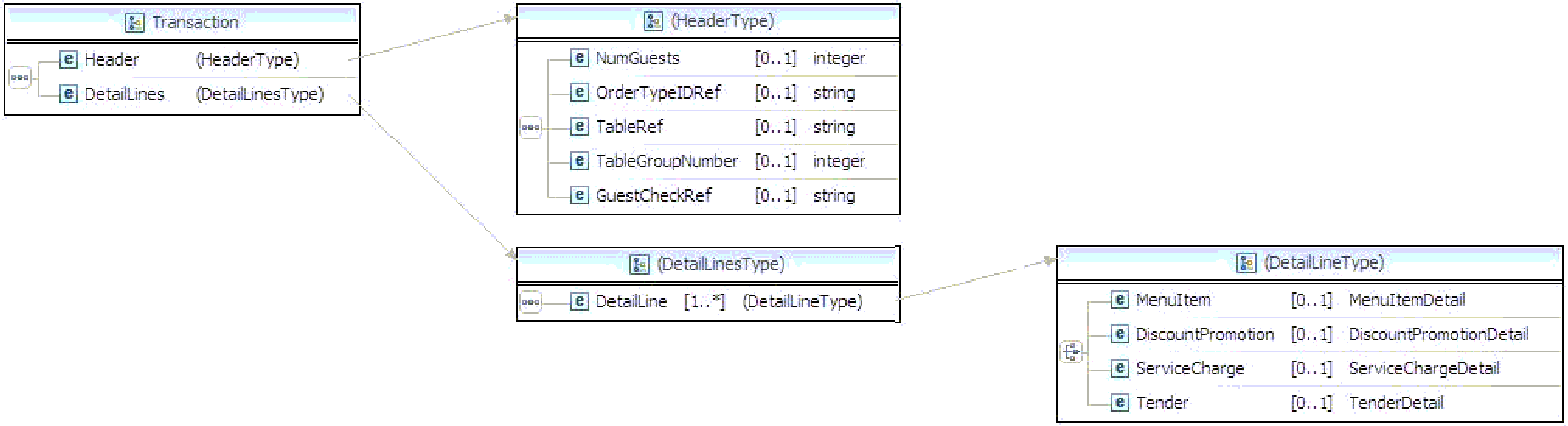

TenderDetail
LineItem LineItemDetail
TipAmount [0..1] decimal
LineItemDetail
IDRef string
Quantity integer
Total decimal
Reference [0..*] string
Extensions [0..1] anyType
LineNumber LineNumber
ServiceRoundNumber [0..1] ServiceRoundNumber
SeatNumber [0..1] integer
Void [0..1] (VoidType)

```
<xs:complexType name="TenderDetail">
    <xs:sequence>
        <xs:element name="LineItem" type="fbt:LineItemDetail" />
        <xs:element name="TipAmount" type="xs:decimal" minOccurs="0" />
    </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
LineItem	element	LineItemDetail	required	Line item that describes this tender

TipAmount	element	decimal	optional	Tip amount associated with this tender

Transaction

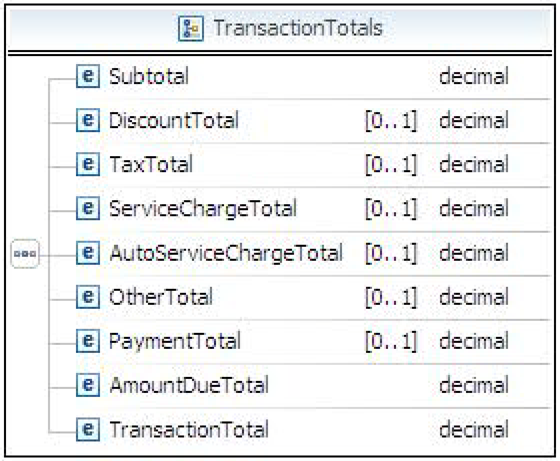

Transaction
Header
(HeaderType)
DetailLines
(DetailLinesType)
(HeaderType)
NumGuests [0..1] integer
OrderTypeIDRef [0..1] string
TableRef [0..1] string
TableGroupNumber [0..1] integer
GuestCheckRef [0..1] string
(DetailLinesType)
DetailLine [1..*] (DetailLineType)
(DetailLineType)
MenuItem [0..1] MenuItemDetail
DiscountPromotion [0..1] DiscountPromotionDetail
ServiceCharge [0..1] ServiceChargeDetail
Tender [0..1] TenderDetail

```
<xs:complexType name="Transaction">
    <xs:sequence>
        <xs:element name="Header">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="NumGuests" type="xs:integer" minOccurs="0" />
                    <xs:element name="OrderTypeIDRef" type="xs:string" minOccurs="0" />
                    <xs:element name="TableRef" type="xs:string" minOccurs="0" />
                    <xs:element name="TableGroupNumber" type="xs:integer" minOccurs="0" />
                    <xs:element name="GuestCheckRef" type="xs:string" minOccurs="0" />
                </xs:sequence>
            </xs:complexType>
        </xs:element>
        <xs:element name="DetailLines">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="DetailLine" maxOccurs="unbounded">
                        <xs:complexType>
                            <xs:choice>
                                <xs:element name="MenuItem" type="fbt:MenuItemDetail" minOccurs="0" />
                                <xs:element name="DiscountPromotion" type="fbt:DiscountPromotionDetail" minOccurs="0" />
                                <xs:element name="ServiceCharge" type="fbt:ServiceChargeDetail" minOccurs="0" />
                                <xs:element name="Tender" type="fbt:TenderDetail" minOccurs="0" />
                            </xs:choice>
            </xs:complexType>
          </xs:element>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Header	element	(Header)*	required	Meta data about this transaction
NumGuests	element	integer	optional	Number of guests that this transaction covers
OrderTypeIDRef	element	string	optional	Reference identifier for what type of order this transaction is
TableRef	element	string	optional	Reference to the table this transaction is for
TableGroupNumber	element	integer	optional	Group number for the table this transaction is for
GuestCheckRef	element	string	optional	??
DetailLines	element	(DetailLines)*	required	Detail lines of this transaction…as described below
DetailLine	element	(DetailLine)*	required/ multiple	One detail for this transaction…as described below
MenuItem	element	MenuItemDetail	optional	Menu item in a detail line for this transaction
DiscountPromotion	element	DiscountPromotionDetail	optional	Discount promotion in a detail line for this transaction
ServiceCharge	element	ServiceChargeDetail	optional	Service charge in a detail line for this transaction
Tender	element	TenderDetail	optional	Tender in a detail line for this transaction

*anonymous type

TransactionTotals

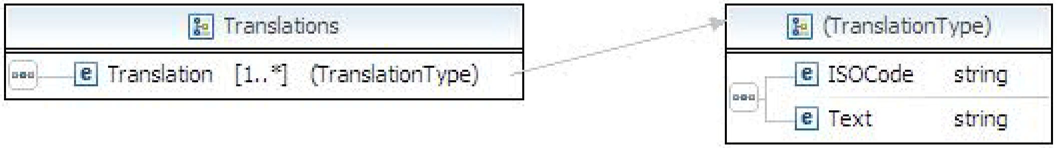

TransactionTotals
Subtotal decimal
DiscountTotal [0..1] decimal
TaxTotal [0..1] decimal
ServiceChargeTotal [0..1] decimal
AutoServiceChargeTotal [0..1] decimal
OtherTotal [0..1] decimal
PaymentTotal [0..1] decimal
AmountDueTotal decimal
TransactionTotal decimal

```
<xs:complexType name="TransactionTotals">
    <xs:sequence>
        <xs:element name="Subtotal" type="xs:decimal" />
        <xs:element name="DiscountTotal" type="xs:decimal" minOccurs="0" />
        <xs:element name="TaxTotal" type="xs:decimal" minOccurs="0" />
        <xs:element name="ServiceChargeTotal" type="xs:decimal" minOccurs="0" />
        <xs:element name="AutoServiceChargeTotal" type="xs:decimal" minOccurs="0" />
        <xs:element name="OtherTotal" type="xs:decimal" minOccurs="0" />
        <xs:element name="PaymentTotal" type="xs:decimal" minOccurs="0" />
        <xs:element name="AmountDueTotal" type="xs:decimal" />
        <xs:element name="TransactionTotal" type="xs:decimal" />
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Subtotal	element	decimal	required	Subtotal of all items on transaction
DiscountTotal	element	decimal	optional	Total discounts from discount promotions in transaction
TaxTotal	element	decimal	optional	Total tax for this transaction
ServiceChargeTotal	element	decimal	optional	Total service charges for this transaction
AutoServiceChargeTotal	element	decimal	optional	Total service charges automatically added for this transaction
OtherTotal	element	decimal	optional	Total of any other charges
PaymentTotal	element	decimal	optional	Total amount paid on this transaction

AmountDueTotal	element	decimal	required	Total amount due on this transaction
TransactionTotal	element	decimal	required	Total transaction amount

Translations



```
<xs:complexType name="Translations">
    <xs:sequence>
        <xs:element name="Translation" maxOccurs="unbounded">
            <xs:complexType>
                <xs:sequence>
                    <xs:element name="ISOCode" type="xs:string" />
                    <xs:element name="Text" type="xs:string" />
                </xs:sequence>
            </xs:complexType>
        </xs:element>
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Translation	element	(TranslationsType)*	required/ multiple	One translation, as defined below
ISOCode	element	string	required	ISO Code for translation
Text	element	string	required	Text in this translation

*anonymous type

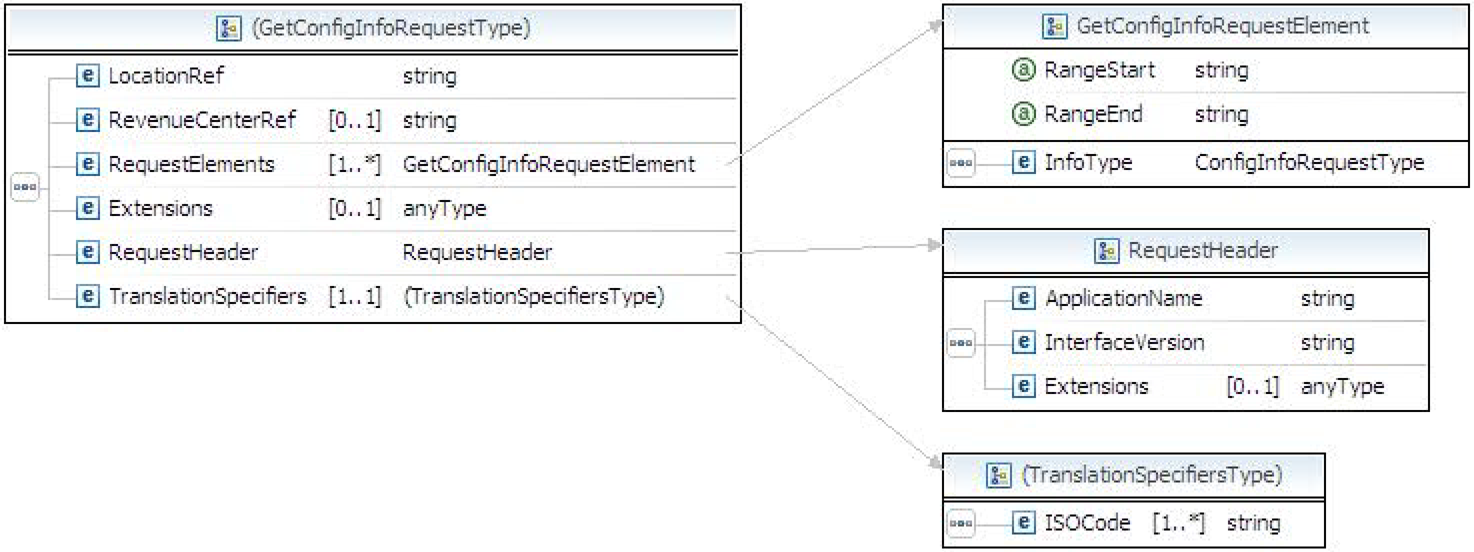
47.2 Get Configuration Information

This message pair allows a requesting application to retrieve menu item, product, promotion, service charge, payments, and general parameter information. Typically it might be used to retrieve available menu items, name, images, and prices for a specific outlet.

Port	FoodBevOrderingSoapPort
Binding	FoodBevOrderingSoap, FoodBevOrderingSoap12
Operation	GetConfigurationInformation

Soap Action	http://htng.org/PWS/2008B/FoodBevOrdering#GetConfigurationInformation
Input	GetConfigurationInformationRequest
Output	GetConfigurationInformationResponse
Primary Schema	FoodBevOrdering.xsd

GetConfigInfoRequest

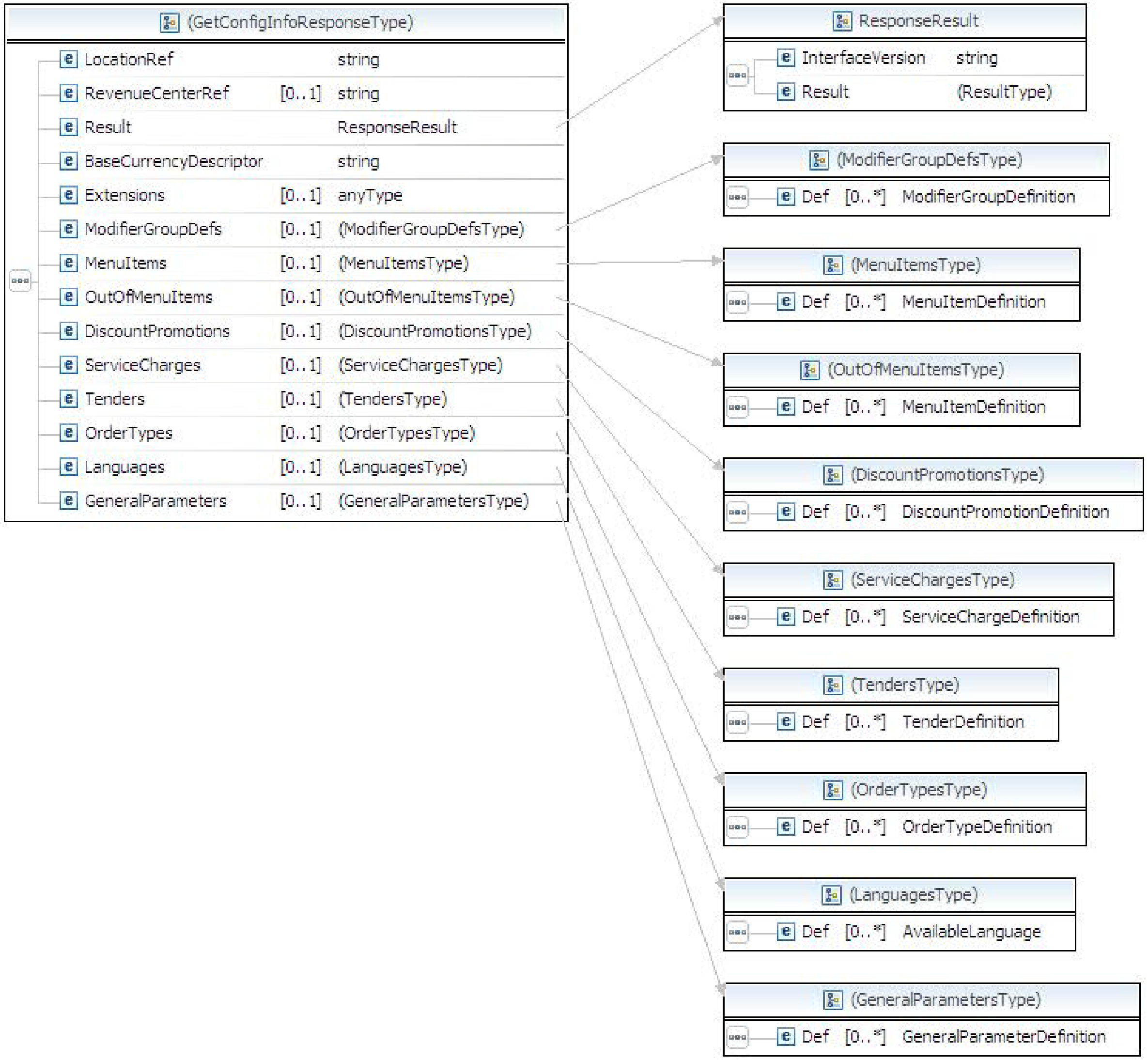

(GetConfigInfoRequestType)
LocationRef string
RevenueCenterRef [0..1] string
RequestElements [1..*] GetConfigInfoRequestElement
Extensions [0..1] anyType
RequestHeader RequestHeader
TranslationSpecifiers [1..1] (TranslationSpecifiersType)
GetConfigInfoRequestElement
RangeStart string
RangeEnd string
InfoType ConfigInfoRequestType
RequestHeader
ApplicationName string
InterfaceVersion string
Extensions [0..1] anyType
(TranslationSpecifiersType)
ISOCode [1..*] string

```
<xs:element name="GetConfigInfoRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="LocationRef" type="xs:string" />
            <xs:element name="RevenueCenterRef" type="xs:string" minOccurs="0" />
            <xs:element name="RequestElements" type="fbt:GetConfigInfoRequestElement" maxOccurs="unbounded" />
            <xs:element name="Extensions" minOccurs="0" />
            <xs:element name="RequestHeader" type="fbt:RequestHeader" />
            <xs:element name="TranslationSpecifiers" minOccurs="1">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="ISOCode" type="xs:string" minOccurs="1" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
LocationRef	element	string	required	Reference to the location where this request was initiated
RevenueCenterRef	element	string	optional	Reference to the revenue center related to this request
RequestElements	element	GetConfigInfoRequestElement	required/ multiple	Element describing one type of configuration information being requested
Extensions	element		optional	Blank element for additional configuration information details
RequestHeader	element	RequestHeader	required	Generic header for requests to the POS system
TranslationSpecifiers	element	(TranslationSpecifiersType)*	required	Specifies the translations to get configuration information for
ISOCode	element	string	required/ multiple	ISOCode of one translation requested

*anonymous type

GetConfigInfoResponse


(GetConfigInfoResponseType)
LocationRef string
RevenueCenterRef [0..1] string
Result ResponseResult
BaseCurrencyDescriptor string
Extensions [0..1] anyType
ModifierGroupDefs [0..1] (ModifierGroupDefsType)
MenuItems [0..1] (MenuItemsType)
OutOfMenuItems [0..1] (OutOfMenuItemsType)
DiscountPromotions [0..1] (DiscountPromotionsType)
ServiceCharges [0..1] (ServiceChargesType)
Tenders [0..1] (TendersType)
OrderTypes [0..1] (OrderTypesType)
Languages [0..1] (LanguagesType)
GeneralParameters [0..1] (GeneralParametersType)
ResponseResult
InterfaceVersion string
Result (ResultType)
(ModifierGroupDefsType)
Def [0..*] ModifierGroupDefinition
(MenuItemsType)
Def [0..*] MenuItemDefinition
(OutOfMenuItemsType)
Def [0..*] MenuItemDefinition
(DiscountPromotionsType)
Def [0..*] DiscountPromotionDefinition
(ServiceChargesType)
Def [0..*] ServiceChargeDefinition
(TendersType)
Def [0..*] TenderDefinition
(OrderTypesType)
Def [0..*] OrderTypeDefinition
(LanguagesType)
Def [0..*] AvailableLanguage
(GeneralParametersType)
Def [0..*] GeneralParameterDefinition

```
<xs:element name="GetConfigInfoResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="LocationRef" type="xs:string" />
            <xs:element name="RevenueCenterRef" type="xs:string" minOccurs="0" />
            <xs:element name="Result" type="fbt:ResponseResult" />
            <xs:element name="BaseCurrencyDescriptor" type="xs:string" />
            <xs:element name="Extensions" minOccurs="0" />
            <xs:element name="ModifierGroupDefs" minOccurs="0">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="Def" type="fbt:ModifierGroupDefinition" minOccurs="0" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="MenuItems" minOccurs="0">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="Def" type="fbt:MenuItemDefinition" minOccurs="0" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="OutOfMenuItems" minOccurs="0">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="Def" type="fbt:MenuItemDefinition" minOccurs="0" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="DiscountPromotions" minOccurs="0">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="Def" type="fbt:DiscountPromotionDefinition" minOccurs="0" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="ServiceCharges" minOccurs="0">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="Def" type="fbt:ServiceChargeDefinition" minOccurs="0" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="Tenders" minOccurs="0">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="Def" type="fbt:TenderDefinition" minOccurs="0" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="OrderTypes" minOccurs="0">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="Def" type="fbt:OrderTypeDefinition" minOccurs="0" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="Languages" minOccurs="0">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="Def" type="fbt:AvailableLanguage" minOccurs="0" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="GeneralParameters" minOccurs="0">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="Def" type="fbt:GeneralParameterDefinition" minOccurs="0" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
LocationRef	element	string	required	Reference to the location where the request was initiated
RevenueCenterRef	element	string	optional	Reference to the revenue center related to this request
Result	element	ResponseResult	required	Generic response information from the request processing
BaseCurrencyDescriptor	element	string	required	Describes the base currency used throughout the configuration information (i.e., USD)
Extensions	element		optional	Blank element for additional configuration information details
ModifierGroupDefs	element	(ModifierGroupDefsType)*	optional	Definitions of modifier groups
Def	element	ModifierGroupDefinition	optional/ multiple	One modifier group definition
MenuItems	element	(MenuItemsType)*	optional	Definitions of menu item types
Def	element	MenuItemDefinition	optional/ multiple	One menu item definition
OutOfMenuItems	element	(OutOfMenuItemsType)*	optional	Definitions of menu item types that the POS is out of
Def	element	MenuItemDefinition	optional/ multiple	One menu item definition that the POS is out of

DiscountPromotions	element	(DiscountPromotionsType)*	optional	Discount promotion type definitions
Def	element	DiscountPromotionDefinition	optional/ multiple	One discount promotion definition
ServiceCharges	element	(ServiceChargesType)*	optional	Service charges type definitions
Def	element	ServiceChargeDefinition	optional/ multiple	One service charge definition
Tenders	element	(TendersType)*	optional	Tender types definition
Def	element	TenderDefinition	optional/ multiple	One tender definition
OrderTypes	element	(OrderTypes)*	optional	Order types definition
Def	element	OrderTypeDefinition	optional/ multiple	One order type definition
Languages	element	(Languages)*	optional	Available Languages in this configuration
Def	element	AvailableLanguage	optional/ multiple	One available language in this configuration
GeneralParameters	element	(GeneralParameters)*	optional	General Parameters for this configuration
Def	element	GeneralParameterDefinition	optional/ multiple	One general parameter definition

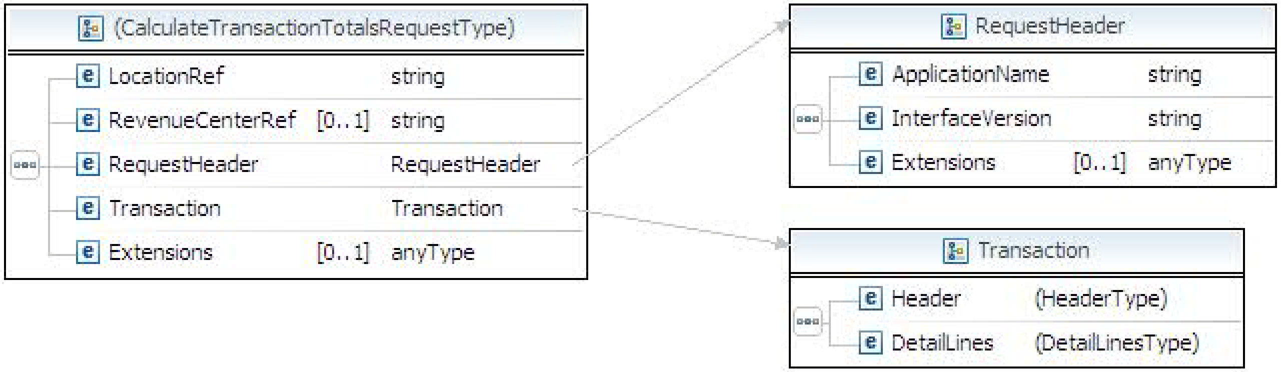
*anonymous type

47.3 Calculate Totals

It is important that transaction totals (tax, discounts, amounts due) be calculated exactly and consistently, therefore having the service provider perform this (rather than each application) is important. This message pair provides this ability.

Port	FoodBevOrderingSoapPort
Binding	FoodBevOrderingSoap, FoodBevOrderingSoap12
Operation	CalculateTotals
Soap Action	http://htng.org/PWS/2008B/FoodBevOrdering#CalculateTotals
Input	CalculateTransactionTotalsRequest
Output	CalculateTransactionTotalsResponse
Primary Schema	FoodBevOrdering.xsd

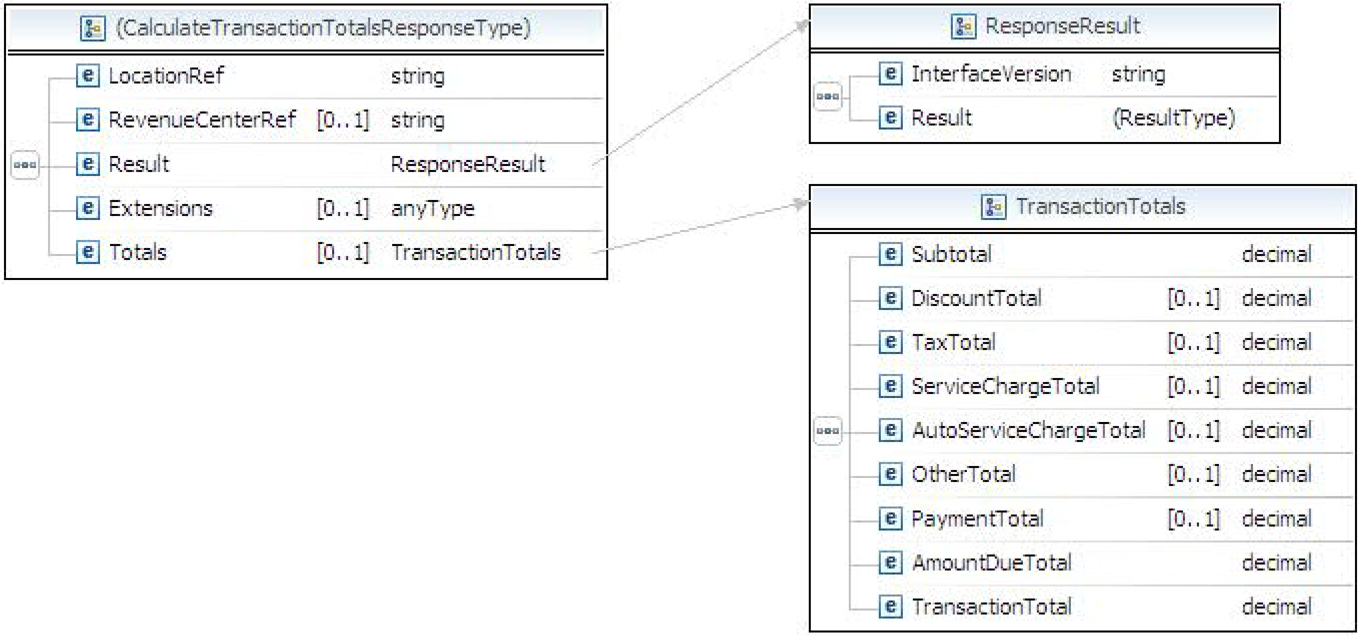
CalculateTransactionTotalsRequest


(CalculateTransactionTotalsRequestType)
LocationRef string
RevenueCenterRef [0..1] string
RequestHeader RequestHeader
Transaction Transaction
Extensions [0..1] anyType
RequestHeader
ApplicationName string
InterfaceVersion string
Extensions [0..1] anyType
Transaction
Header (HeaderType)
DetailLines (DetailLinesType)

```
<xs:element name="CalculateTransactionTotalsRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="LocationRef" type="xs:string" />
            <xs:element name="RevenueCenterRef" type="xs:string" minOccurs="0" />
            <xs:element name="RequestHeader" type="fbt:RequestHeader" />
            <xs:element name="Transaction" type="fbt:Transaction" />
            <xs:element name="Extensions" minOccurs="0" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
LocationRef	element	string	required	Reference to the location where the request was initiated
RevenueCenterRef	element	string	optional	Reference to the revenue center related to this request
RequestHeader	element	RequestHeader	required	Generic response information from the request processing
Transaction	element	Transaction	required	Transaction for which to calculate totals
Extensions	element		optional	Blank element for additional transaction calculation details

CalculateTransactionTotalsResponse


(CalculateTransactionTotalsResponseType)
LocationRef string
RevenueCenterRef [0..1] string
Result ResponseResult
Extensions [0..1] anyType
Totals [0..1] TransactionTotals
ResponseResult
InterfaceVersion string
Result (ResultType)
TransactionTotals
Subtotal decimal
DiscountTotal [0..1] decimal
TaxTotal [0..1] decimal
ServiceChargeTotal [0..1] decimal
AutoServiceChargeTotal [0..1] decimal
OtherTotal [0..1] decimal
PaymentTotal [0..1] decimal
AmountDueTotal decimal
TransactionTotal decimal

```
<xs:element name="CalculateTransactionTotalsResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="LocationRef" type="xs:string" />
            <xs:element name="RevenueCenterRef" type="xs:string" minOccurs="0" />
            <xs:element name="Result" type="fbt:ResponseResult" />
            <xs:element name="Extensions" minOccurs="0" />
            <xs:element name="Totals" type="fbt:TransactionTotals" minOccurs="0" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
LocationRef	element	string	required	Reference to the location where the request was initiated
RevenueCenterRef	element	string	optional	Reference to the revenue center related to this request
Result	element	ResponseResult	required	Generic response information from the request processing
Extensions	element		optional	Blank element for additional transaction calculation details

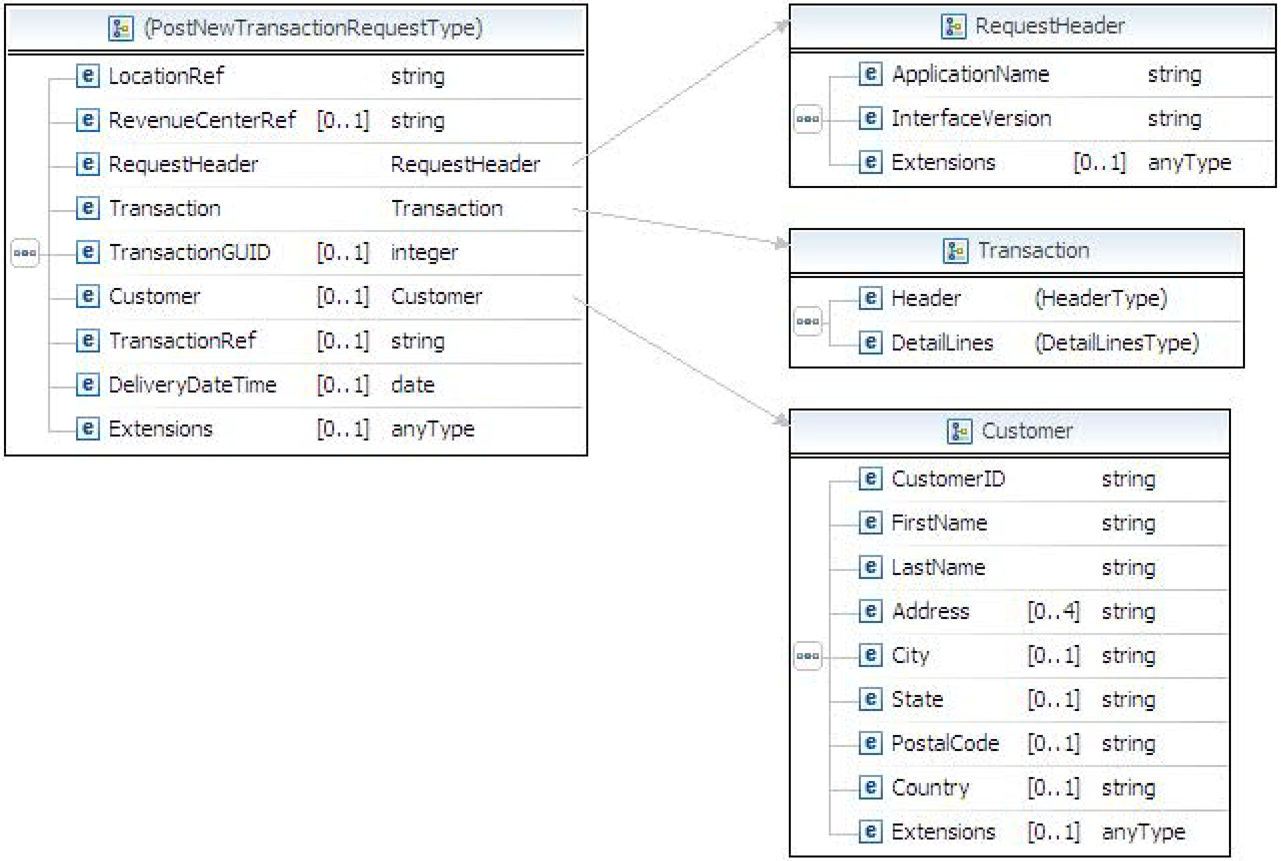
Totals	element	TransactionTotals	optional	Totals of the transaction for which calculations were requested

47.4 Post New Transaction

This enables a requesting application to post a new transaction to the service provider. Typically it might be used by a STB application to place a guest's room service order. It also includes a requested delivery date and time.

Port	FoodBevOrderingSoapPort
Binding	FoodBevOrderingSoap, FoodBevOrderingSoap12
Operation	PostNewTransaction
Soap Action	http://htng.org/PWS/2008B/FoodBevOrdering#PostNewTransaction
Input	PostNewTransactionRequest
Output	PostNewTransactionResponse
Primary Schema	FoodBevOrdering.xsd

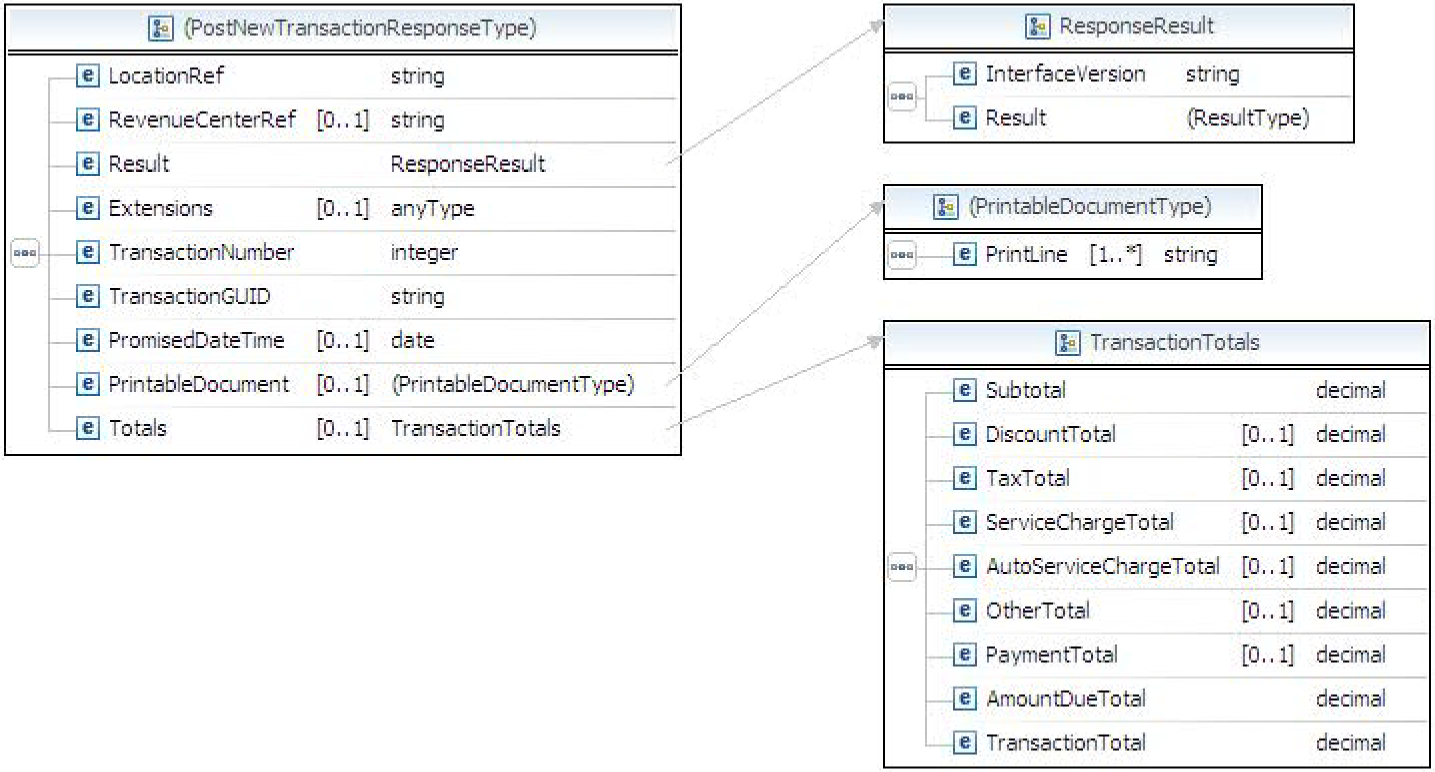
PostNewTransactionRequest


(PostNewTransactionRequestType)
LocationRef string
RevenueCenterRef [0..1] string
RequestHeader RequestHeader
Transaction Transaction
TransactionGUID [0..1] integer
Customer [0..1] Customer
TransactionRef [0..1] string
DeliveryDateTime [0..1] date
Extensions [0..1] anyType
RequestHeader
ApplicationName string
InterfaceVersion string
Extensions [0..1] anyType
Transaction
Header (HeaderType)
DetailLines (DetailLinesType)
Customer
CustomerID string
FirstName string
LastName string
Address [0..4] string
City [0..1] string
State [0..1] string
PostalCode [0..1] string
Country [0..1] string
Extensions [0..1] anyType

```
<xs:element name="PostNewTransactionRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="LocationRef" type="xs:string" />
            <xs:element name="RevenueCenterRef" type="xs:string" minOccurs="0" />
            <xs:element name="RequestHeader" type="fbt:RequestHeader" />
            <xs:element name="Transaction" type="fbt:Transaction" />
            <xs:element name="TransactionGUID" type="xs:integer" minOccurs="0" />
            <xs:element name="Customer" type="fbt:Customer" minOccurs="0" />
            <xs:element name="TransactionRef" type="xs:string" minOccurs="0" />
            <xs:element name="DeliveryDateTime" type="xs:date" minOccurs="0" />
            <xs:element name="Extensions" minOccurs="0" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
LocationRef	element	string	required	Reference to the location where the request was initiated
RevenueCenterRef	element	string	optional	Reference to the revenue center related to this request
RequestHeader	element	RequestHeader	required	Generic response information from the request processing
Transaction	element	Transaction	required	Transaction being requested to post
TransactionGUID	element	integer	optional	Globally unique identifier for this new transaction
Customer	element	Customer	optional	Customer for which this transaction refers
TransactionRef	element	string	optional	
DeliveryDateTime	element	date	optional	Requested delivery date and time
Extensions	element		optional	Blank element for additional transaction posting details

PostNewTransactionResponse


(PostNewTransactionResponseType)
LocationRef string
RevenueCenterRef [0..1] string
Result ResponseResult
Extensions [0..1] anyType
TransactionNumber integer
TransactionGUID string
PromisedDateTime [0..1] date
PrintableDocument [0..1] (PrintableDocumentType)
Totals [0..1] TransactionTotals
ResponseResult
InterfaceVersion string
Result (ResultType)
(PrintableDocumentType)
PrintLine [1..*] string
TransactionTotals
Subtotal decimal
DiscountTotal [0..1] decimal
TaxTotal [0..1] decimal
ServiceChargeTotal [0..1] decimal
AutoServiceChargeTotal [0..1] decimal
OtherTotal [0..1] decimal
PaymentTotal [0..1] decimal
AmountDueTotal decimal
TransactionTotal decimal

```
<xs:element name="PostNewTransactionResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="LocationRef" type="xs:string" />
            <xs:element name="RevenueCenterRef" type="xs:string" minOccurs="0" />
            <xs:element name="Result" type="fbt:ResponseResult" />
            <xs:element name="Extensions" minOccurs="0" />
            <xs:element name="TransactionNumber" type="xs:integer" />
            <xs:element name="TransactionGUID" type="xs:string" />
            <xs:element name="PromisedDateTime" type="xs:date" minOccurs="0" />
            <xs:element name="PrintableDocument" minOccurs="0">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="PrintLine" type="xs:string" maxOccurs="unbounded" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="Totals" type="fbt:TransactionTotals" minOccurs="0" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
LocationRef	element	string	required	Reference to the location where the request was initiated
RevenueCenterRef	element	string	optional	Reference to the revenue center related to this request
Result	element	ResponseResult	required	Generic response information from the request processing
Extensions	element		optional	Blank element for additional post transaction details
TransactionNumber	element	integer	required	Number assigned to this transaction
TransactionGUID	element	string	required	Globally unique identifier for this transaction
PromisedDateTime	element	date	optional	Promised date and time for completion
PrintableDocument	element	(PrintableDocument)*	optional	Printable documentation, if needed
PrintLine	element	string	required/ multiple	One line of printable text for documentation
Totals	element	TransactionTotals	optional	Totals for this transaction

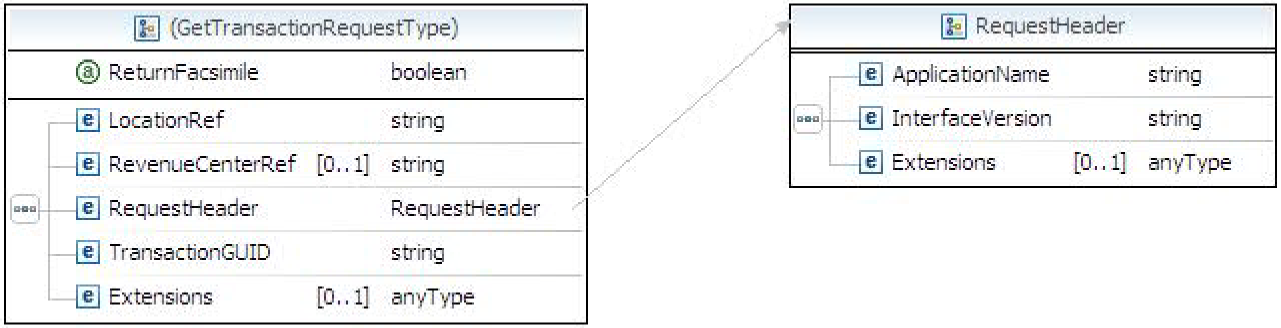
*anonymous type

47.5 Get Transaction

This allows the requesting application to retrieve a transaction, either to just display it or to append additional lines to it.

Port	FoodBevOrderingSoapPort
Binding	FoodBevOrderingSoap, FoodBevOrderingSoap12
Operation	GetTransaction
Soap Action	http://htng.org/PWS/2008B/FoodBevOrdering#GetTransaction
Input	GetTransactionRequest
Output	GetTransactionResponse
Primary Schema	FoodBevOrdering.xsd

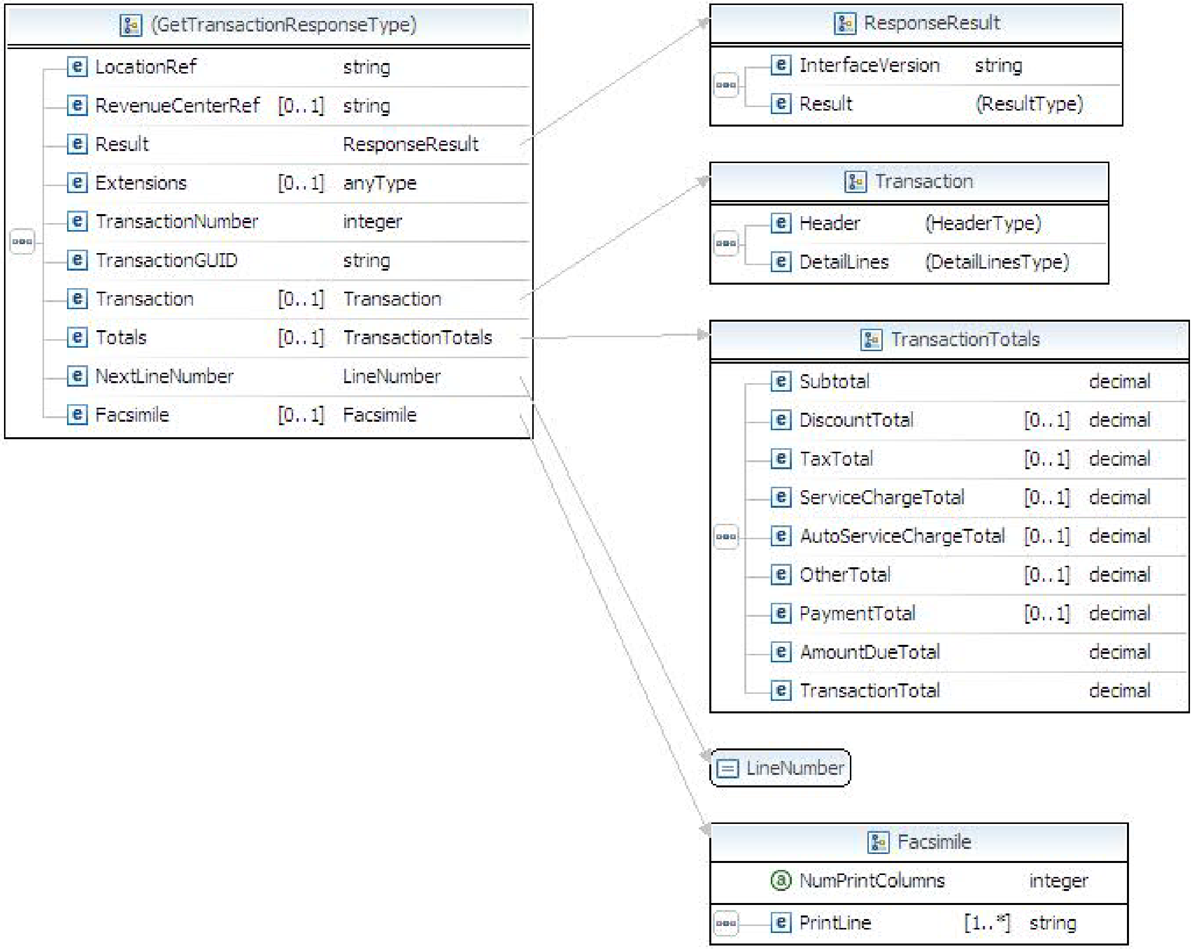
GetTransactionRequest


(GetTransactionRequestType)
ReturnFacsimile boolean
LocationRef string
RevenueCenterRef [0..1] string
RequestHeader RequestHeader
TransactionGUID string
Extensions [0..1] anyType
RequestHeader
ApplicationName string
InterfaceVersion string
Extensions [0..1] anyType

```
<xs:element name="GetTransactionRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="LocationRef" type="xs:string" />
            <xs:element name="RevenueCenterRef" type="xs:string" minOccurs="0" />
            <xs:element name="RequestHeader" type="fbt:RequestHeader" />
            <xs:element name="TransactionGUID" type="xs:string" />
            <xs:element name="Extensions" minOccurs="0" />
        </xs:sequence>
        <xs:attribute name="ReturnFacsimile" type="xs:boolean" use="required" />
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
LocationRef	element	string	required	Reference to the location where the request was initiated
RevenueCenterRef	element	string	optional	Reference to the revenue center related to this request
RequestHeader	element	RequestHeader	required	Generic response information from the request processing
TransactionGUID	element	string	required	Globally unique identifier for the transaction being requested
Extensions	element		optional	Blank element for additional transaction request details

GetTransactionResponse


(GetTransactionResponseType)
LocationRef string
RevenueCenterRef [0..1] string
Result ResponseResult
Extensions [0..1] anyType
TransactionNumber integer
TransactionGUID string
Transaction [0..1] Transaction
Totals [0..1] TransactionTotals
NextLineNumber LineNumber
Facsimile [0..1] Facsimile
ResponseResult
InterfaceVersion string
Result (ResultType)
Transaction
Header (HeaderType)
DetailLines (DetailLinesType)
TransactionTotals
Subtotal decimal
DiscountTotal [0..1] decimal
TaxTotal [0..1] decimal
ServiceChargeTotal [0..1] decimal
AutoServiceChargeTotal [0..1] decimal
OtherTotal [0..1] decimal
PaymentTotal [0..1] decimal
AmountDueTotal decimal
TransactionTotal decimal
LineNumber
Facsimile
NumPrintColumns integer
PrintLine [1..*] string

```
<xs:element name="GetTransactionResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="LocationRef" type="xs:string" />
            <xs:element name="RevenueCenterRef" type="xs:string" minOccurs="0" />
            <xs:element name="Result" type="fbt:ResponseResult" />
            <xs:element name="Extensions" minOccurs="0" />
            <xs:element name="TransactionNumber" type="xs:integer" />
            <xs:element name="TransactionGUID" type="xs:string" />
            <xs:element name="Transaction" type="fbt:Transaction" minOccurs="0" />
            <xs:element name="Totals" type="fbt:TransactionTotals" minOccurs="0" />
            <xs:element name="NextLineNumber" type="fbt:LineNumber" />
            <xs:element name="Facsimile" type="fbt:Facsimile" minOccurs="0" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

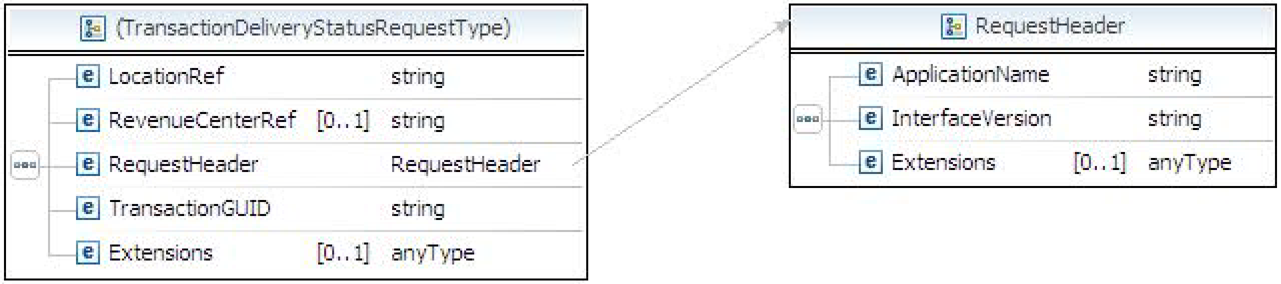
Name	**Type**	**Data Type**	**Use**	**Comments**
LocationRef	element	string	required	Reference to the location where the request was initiated
RevenueCenterRef	element	string	optional	Reference to the revenue center related to this request
Result	element	ResponseResult	required	Generic response information from the request processing
TransactionNumber	element	integer	required	Number assigned to this transaction
TransactionGUID	element	string	required	Globally unique identifier of this transaction
Transaction	element	Transaction	optional	Transaction matching GUID requested
Totals	element	TransactionTotals	optional	Transaction totals for this transaction
NextLineNumber	element	LineNumber	required	
Facsimile	element	Facsimile	optional	Printing information about this transaction

47.6 Get Transaction Delivery Status

This allows the requesting application to get the delivery status (in process, on the way) and the expected delivery date and time for the specified transaction.

Port	FoodBevOrderingSoapPort
Binding	FoodBevOrderingSoap, FoodBevOrderingSoap12
Operation	GetTransactionDeliveryStatus
Soap Action	http://htng.org/PWS/2008B/FoodBevOrdering#GetTransactionDeliveryStatus
Input	TransactionDeliveryStatusRequest
Output	TransactionDeliveryStatusResponse
Primary Schema	FoodBevOrdering.xsd

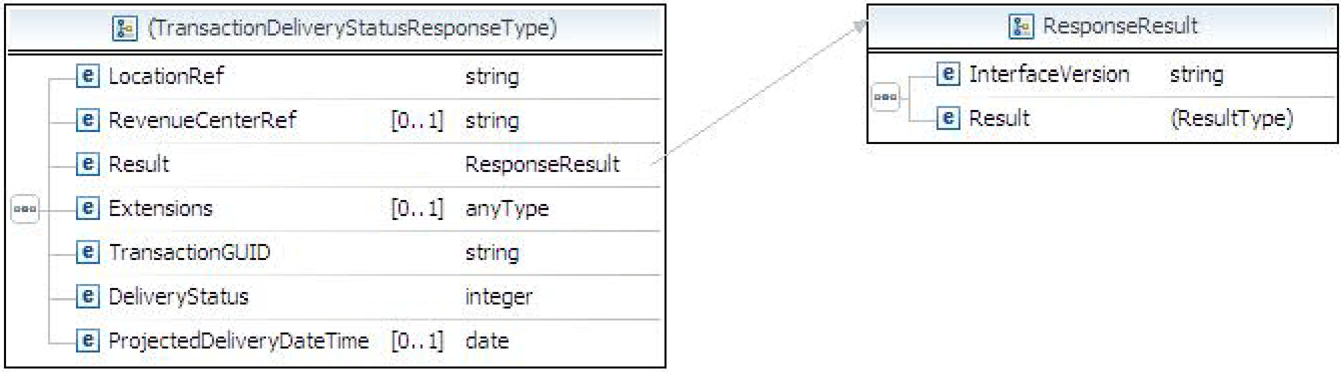
TransactionDeliveryStatusRequest


(TransactionDeliveryStatusRequestType)
LocationRef string
RevenueCenterRef [0..1] string
RequestHeader RequestHeader
TransactionGUID string
Extensions [0..1] anyType
RequestHeader
ApplicationName string
InterfaceVersion string
Extensions [0..1] anyType

```
<xs:element name="TransactionDeliveryStatusRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="LocationRef" type="xs:string" />
            <xs:element name="RevenueCenterRef" type="xs:string" minOccurs="0" />
            <xs:element name="RequestHeader" type="fbt:RequestHeader" />
            <xs:element name="TransactionGUID" type="xs:string" />
            <xs:element name="Extensions" minOccurs="0" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
LocationRef	element	string	required	Reference to the location where the request was initiated
RevenueCenterRef	element	string	optional	Reference to the revenue center related to this request
RequestHeader	element	RequestHeader	required	Generic response information from the request processing
TransactionGUID	element	string	required	Globally unique identifier of transaction for which delivery status is being requested
Extensions	element		optional	Blank element for additional transaction delivery status details

TransactionDeliveryStatusResponse


(TransactionDeliveryStatusResponseType)
LocationRef string
RevenueCenterRef [0..1] string
Result ResponseResult
Extensions [0..1] anyType
TransactionGUID string
DeliveryStatus integer
ProjectedDeliveryDateTime [0..1] date
ResponseResult
InterfaceVersion string
Result (ResultType)

```
<xs:element name="TransactionDeliveryStatusResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="LocationRef" type="xs:string" />
            <xs:element name="RevenueCenterRef" type="xs:string" minOccurs="0" />
            <xs:element name="Result" type="fbt:ResponseResult" />
            <xs:element name="Extensions" minOccurs="0" />
            <xs:element name="TransactionGUID" type="xs:string" />
            <xs:element name="DeliveryStatus" type="xs:integer" />
            <xs:element name="ProjectedDeliveryDateTime" type="xs:date" minOccurs="0" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

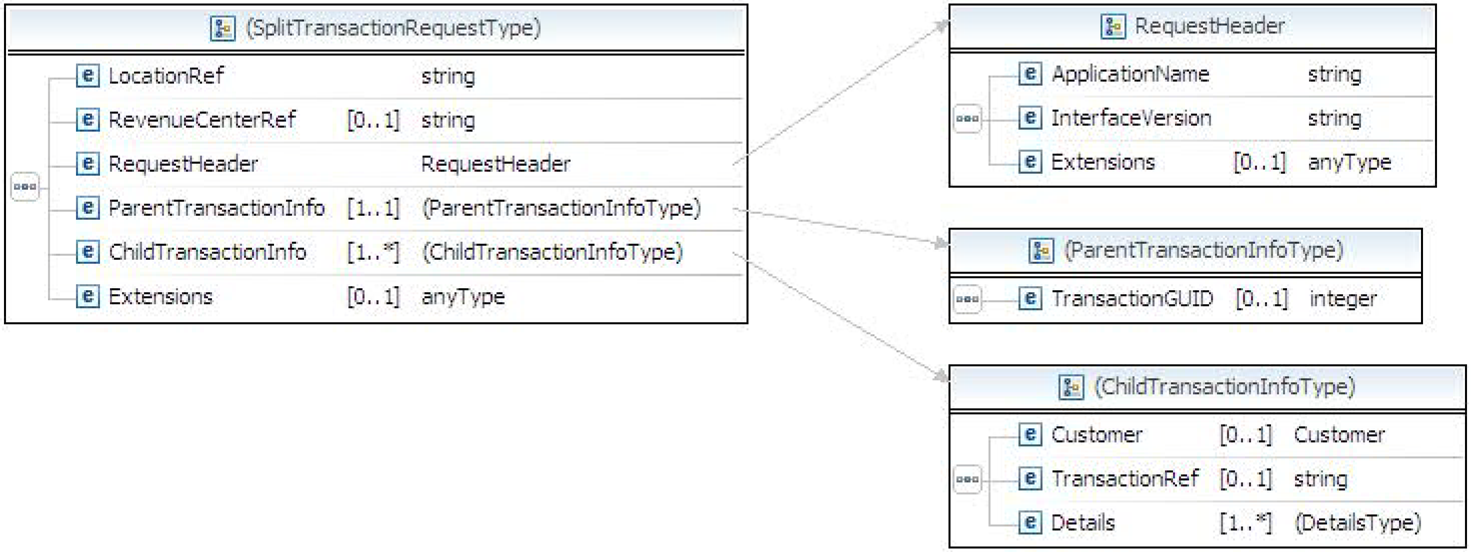
Name	**Type**	**Data Type**	**Use**	**Comments**
LocationRef	element	string	required	Reference to the location where the request was initiated
RevenueCenterRef	element	string	optional	Reference to the revenue center related to this request
Result	element	ResponseResult	required	Generic response information from the request processing
Extensions	element		optional	Blank element for additional transaction delivery status details
TransactionGUID	element	string	required	Globally unique identifier for which delivery status was requested
DeliveryStatus	element	integer	required	Status of the delivery related to the transaction identified
ProjectedDeliveryDateTime	element	date	optional	Projected delivery date and time

47.7 Split Transaction

This enables the requesting application/device request a transaction to be split into multiple transactions.

Port	FoodBevOrderingSoapPort
Binding	FoodBevOrderingSoap, FoodBevOrderingSoap12
Operation	SplitTransaction
Soap Action	http://htng.org/PWS/2008B/FoodBevOrdering#SplitTransaction
Input	SplitTransactionRequest
Output	SplitTransactionResponse
Primary Schema	FoodBevOrdering.xsd

SplitTransactionRequest


(SplitTransactionRequestType)
LocationRef string
RevenueCenterRef [0..1] string
RequestHeader RequestHeader
ParentTransactionInfo [1..1] (ParentTransactionInfoType)
ChildTransactionInfo [1..*] (ChildTransactionInfoType)
Extensions [0..1] anyType
RequestHeader
ApplicationName string
InterfaceVersion string
Extensions [0..1] anyType
(ParentTransactionInfoType)
TransactionGUID [0..1] integer
(ChildTransactionInfoType)
Customer [0..1] Customer
TransactionRef [0..1] string
Details [1..*] (DetailsType)

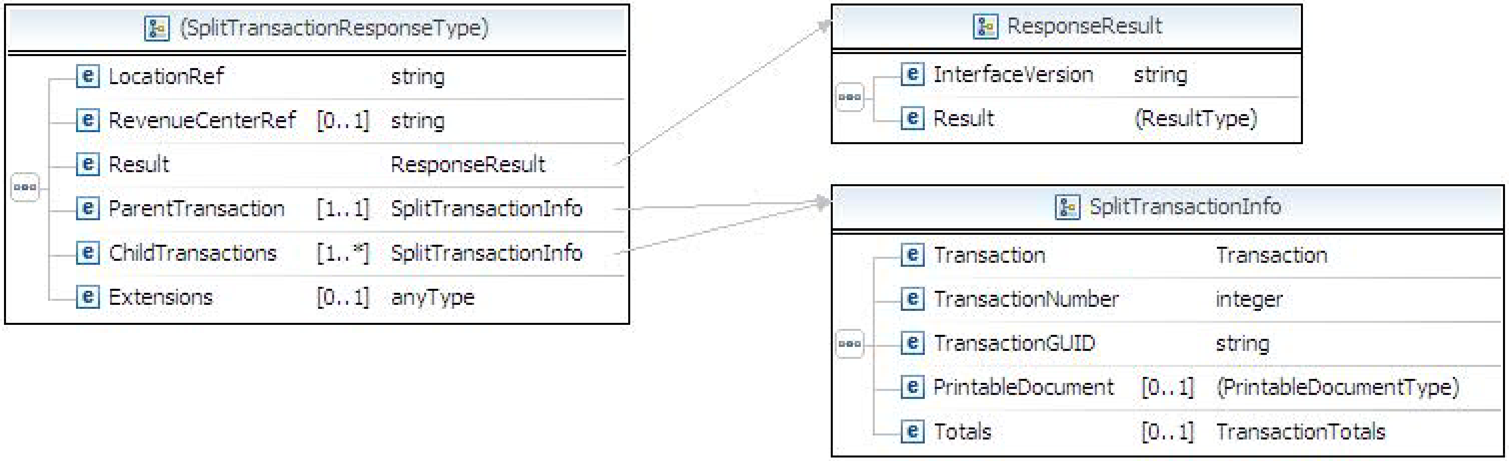
```
<xs:element name="SplitTransactionRequest">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="LocationRef" type="xs:string" />
            <xs:element name="RevenueCenterRef" type="xs:string" minOccurs="0" />
            <xs:element name="RequestHeader" type="fbt:RequestHeader" />
            <xs:element name="ParentTransactionInfo" minOccurs="1">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="TransactionGUID" type="xs:integer" minOccurs="0" />
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="ChildTransactionInfo" minOccurs="1" maxOccurs="unbounded">
                <xs:complexType>
                    <xs:sequence>
                        <xs:element name="Customer" type="fbt:Customer" minOccurs="0" />
                        <xs:element name="TransactionRef" type="xs:string" minOccurs="0" />
                        <xs:element name="Details" minOccurs="1" maxOccurs="unbounded">
                            <xs:complexType>
                                <xs:sequence>
                                    <xs:element name="ParentLineNumber" type="fbt:LineNumber" minOccurs="1" />
                                    <xs:element name="ChildLineNumber" type="fbt:LineNumber" minOccurs="1" />
                                    <xs:element name="SeatNumber" type="xs:integer" minOccurs="0" />
                                </xs:sequence>
                            </xs:complexType>
                        </xs:element>
                    </xs:sequence>
                </xs:complexType>
            </xs:element>
            <xs:element name="Extensions" minOccurs="0" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
LocationRef	element	string	required	Reference to the location where the request was initiated
RevenueCenterRef	element	string	optional	Reference to the revenue center related to this request
RequestHeader	element	RequestHeader	required	Generic response information from the request processing
ParentTransactionInfo	element	(ParentTransactionInfo)*	required	Parent/original transaction information
TransactionGUID	element	integer	optional	Globally unique identifier for the parent/original transaction
ChildTransactionInfo	element	(ChildTransactionInfo)*	required/ multiple	Child/new transaction information
Customer	element	Customer	optional	Customer assigned to this child/new transaction
TransactionRef	element	string	optional	
Details	element	(Details)*	required/ multiple	Details for this child/new transaction
ParentLineNumber	element	LineNumber	required	Line number on the parent/original transaction to be included in this child transaction

ChildLineNumber	element	LineNumber	required	New line number on the child
SeatNumber	element	integer	optional	Seat number related to the line moving this child transaction
Extensions	element		optional	Blank element for additional split transaction details

*anonymous type

SplitTransactionResponse


(SplitTransactionResponseType)
LocationRef string
RevenueCenterRef [0..1] string
Result ResponseResult
ParentTransaction [1..1] SplitTransactionInfo
ChildTransactions [1..*] SplitTransactionInfo
Extensions [0..1] anyType
ResponseResult
InterfaceVersion string
Result (ResultType)
SplitTransactionInfo
Transaction Transaction
TransactionNumber integer
TransactionGUID string
PrintableDocument [0..1] (PrintableDocumentType)
Totals [0..1] TransactionTotals

```
<xs:element name="SplitTransactionResponse">
    <xs:complexType>
        <xs:sequence>
            <xs:element name="LocationRef" type="xs:string" />
            <xs:element name="RevenueCenterRef" type="xs:string" minOccurs="0" />
            <xs:element name="Result" type="fbt:ResponseResult" />
            <xs:element name="ParentTransaction" type="fbt:SplitTransactionInfo" minOccurs="1" maxOccurs="1" />
            <xs:element name="ChildTransactions" type="fbt:SplitTransactionInfo" minOccurs="1" maxOccurs="unbounded" />
            <xs:element name="Extensions" minOccurs="0" />
        </xs:sequence>
    </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
LocationRef	element	string	required	Reference to the location where the request was initiated
RevenueCenterRef	element	string	optional	Reference to the revenue center related to this request

Result	element	ResponseResult	required	Generic response information from the request processing
ParentTransaction	element	SplitTransactionInfo	required	Parent/original transaction information
ChildTransactions	element	SplitTransactionInfo	required/ multiple	Child/new transactions after splitting
Extensions	element		optional	Blank element for additional transaction splitting details

Chapter 48 Business Process

48.1 Overview

This specification currently supports the following business processes:

- A device is creating a new transaction for a Food & Beverage order in a POS system.
- A device adds items to an open transaction in a POS system.
- A device splits a transaction into multiple transactions on the POS system.
- A device requests the status of a transaction in a POS system, including all item details, pricing, and tax information.
- A device receives configuration information from a POS system.
- A device requests the full menu data set for download or comparison with the devices menu data.

48.2 Roles

Conceptually there are two roles: a device (Kiosk, Touch Screen, In-Room TV, IP Phone, etc.) which serves as the user interface – typically in a self service mode – and a POS system, which manages the order operationally.

48.3 Behavior

The device generally initiates a request to the POS system. The POS system responds with the requested information or a success/failure status on the requested operation. The POS system does not actively communicate with the device – it only responds to requests.

48.4 Use-Cases

Throughout all of the following use-cases, the following actors are used: Device (Touch Screen/Kiosk) and POS System.

Open Check – Order Food and Beverage Items from Device (Pay with Cash)

Actors

Device – Touch Screen/Kiosk
POS – POS System

- A guest is sitting in the self-order service area at HTNG New York Hotel, working on his laptop and realizes he is hungry.
- He browses the restaurant menu on the tableside touch screen.
- He selects a Bacon Cheeseburger priced at $12.95.

- A list of modifiers for the Bacon Cheeseburger is displayed.
- He is offered options to modify his item and selects American cheese, no onions, medium-well.
- He would like mayonnaise on the side as well, but the option is not displayed.
- He selects an option to “add instructions” and types in “side of mayo” and taps on the “submit” button.
- The screen is updated with the item and modifiers and options to update the quantity of burgers, add a beverage, add more food items, or to place the order.
- The guest decides to add a beverage also selects a Diet Coke for $2.95 from the beverage menu.
- His current order is displayed on the screen. Guest is able to modify quantities of items from this screen.
  - The current step of the process is highlighted on a graphic at the top of the screen. Steps are “1 – Choose Items”, “2- Review Order”, “3 – Specify Payment Method”, “4 – Place Order”.
  - HTNG New York Hotel
  - Skyline Restaurant
  - Table #801
  - Bacon Cheeseburger – American cheese, no onions, medium-well.
    - Additional instructions: side of mayo.
    - $12.95
    - Quantity: 1
  - Diet Coke
    - $2.95
    - Quantity: 1
  - Subtotal
- Guest verifies that the order is correct and selects “continue to place order”.
- The guest is asked how he would like to pay their bill with a note on the screen that more items can be added after placing the initial order and that final payment is not made until “request final bill” is selected.
- Guest is informed that promo codes or gift certificates are applied during final payment. Payment options are: Cash, all major credit cards or bill to hotel room.
- Guest selects “Pay with Cash and Place Order”.
- The touch screen system transmits the order to the POS system.
- The POS system creates a new ticket for the respective table and then processes the ticket as defined by the configured business process. In this case, an order ticket is printed in the kitchen and the items are being prepared.
- The POS system returns a confirmation to the touch screen that the order has been accepted by the POS system. It also returns a ticket number.
- The touch screen displays a friendly message to the guest:
  - Thank You! Your order has been confirmed and is being prepared.
  - Order #4628 placed at 1:35pm
  - Check # 789 is displayed.
  - Instructions on how to order more items and to make final payment are displayed.
- After 8 seconds, the screen redirects to the home page.

- Associate will drop the check on the table once the food is delivered to the table. If the guest adds items to the order, the associate will drop an updated check each time new food items are delivered to the table.

XML Messages Specification:

Post New Transaction Request:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<ns1:PostNewTransactionRequest
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
   xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
   <ns1:LocationRef>MRT42</ns1:LocationRef>
   <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
   <ns1:RequestHeader>
      <ns1:ApplicationName>iMenu</ns1:ApplicationName>
      <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
   </ns1:RequestHeader>
   <ns1:Transaction>
      <ns1:Header>
         <ns1:NumGuests>1</ns1:NumGuests>
         <ns1:OrderTypeIDRef>10</ns1:OrderTypeIDRef>
      </ns1:Header>
      <ns1:DetailLines>
         <ns1:DetailLine>
            <ns1:MenuItem>
               <ns1:LineItem>
                  <ns1:IDRef>19381</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>12.95</ns1:Total>
                  <ns1:LineNumber>1</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                  <ns1:SeatNumber>1</ns1:SeatNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
               <ns1:Modifiers>
                  <ns1:LineItem>
                     <ns1:IDRef>23</ns1:IDRef>
                     <ns1:Quantity>1</ns1:Quantity>
                     <ns1:Total>0</ns1:Total>
                     <ns1:LineNumber>2</ns1:LineNumber>
                     <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                  </ns1:LineItem>
                  <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
               </ns1:Modifiers>
               <ns1:Modifiers>
                  <ns1:LineItem>
                     <ns1:IDRef>93</ns1:IDRef>
```

```
                <ns1:Quantity>1</ns1:Quantity>
                <ns1:Total>0</ns1:Total>
                <ns1:LineNumber>3</ns1:LineNumber>
                <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
              </ns1:LineItem>
              <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:Modifiers>
            <ns1:Modifiers>
              <ns1:LineItem>
                <ns1:IDRef>43</ns1:IDRef>
                <ns1:Quantity>1</ns1:Quantity>
                <ns1:Total>0</ns1:Total>
                <ns1:LineNumber>4</ns1:LineNumber>
                <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
              </ns1:LineItem>
              <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:Modifiers>
            <ns1:Modifiers>
              <ns1:LineItem>
                <ns1:IDRef>99999</ns1:IDRef>
                <ns1:Quantity>1</ns1:Quantity>
                <ns1:Total>0</ns1:Total>
                <ns1:Reference>CUSTOM: side of mayo</ns1:Reference>
                <ns1:LineNumber>5</ns1:LineNumber>
                <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
              </ns1:LineItem>
              <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:Modifiers>
          </ns1:MenuItem>
        </ns1:DetailLine>
        <ns1:DetailLine>
          <ns1:MenuItem>
            <ns1:LineItem>
              <ns1:IDRef>23421</ns1:IDRef>
              <ns1:Quantity>1</ns1:Quantity>
              <ns1:Total>2.95</ns1:Total>
              <ns1:LineNumber>6</ns1:LineNumber>
              <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
              <ns1:SeatNumber>1</ns1:SeatNumber>
            </ns1:LineItem>
            <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
          </ns1:MenuItem>
        </ns1:DetailLine>
      </ns1:DetailLines>
    </ns1:Transaction>
    <ns1:TransactionGUID>789</ns1:TransactionGUID>
    <ns1:Customer>
      <ns1:CustomerID>1355</ns1:CustomerID>
      <ns1:FirstName>John</ns1:FirstName>
      <ns1:LastName>Smith</ns1:LastName>
```

```
        <ns1:Address>10 5th Ave</ns1:Address>
        <ns1:Address>Apt 1B</ns1:Address>
        <ns1:City>New York City</ns1:City>
        <ns1:State>NY</ns1:State>
        <ns1:PostalCode>10083</ns1:PostalCode>
        <ns1:Country>USA</ns1:Country>
    </ns1:Customer>
</ns1:PostNewTransactionRequest>
```

Post New Transaction Response:

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:PostNewTransactionResponse
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
    xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
    <ns1:LocationRef>MRT42</ns1:LocationRef>
    <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
    <ns1:Result>
        <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
        <ns1:Result>
            <ns1:Success>true</ns1:Success>
        </ns1:Result>
    </ns1:Result>
    <ns1:TransactionNumber>4628</ns1:TransactionNumber>
    <ns1:TransactionGUID>789</ns1:TransactionGUID>
    <ns1:Totals>
        <ns1:Subtotal>15.90</ns1:Subtotal>
        <ns1:DiscountTotal>0</ns1:DiscountTotal>
        <ns1:TaxTotal>1.31</ns1:TaxTotal>
        <ns1:ServiceChargeTotal>0</ns1:ServiceChargeTotal>
        <ns1:AutoServiceChargeTotal>0</ns1:AutoServiceChargeTotal>
        <ns1:OtherTotal>0</ns1:OtherTotal>
        <ns1:PaymentTotal>0</ns1:PaymentTotal>
        <ns1:AmountDueTotal>17.21</ns1:AmountDueTotal>
        <ns1:TransactionTotal>17.21</ns1:TransactionTotal>
    </ns1:Totals>
</ns1:PostNewTransactionResponse>
```

Calculate Transaction Totals Request:

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:CalculateTransactionTotalsRequest
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
    xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
    <ns1:LocationRef>MRT42</ns1:LocationRef>
    <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
```

```xml
<ns1:RequestHeader>
   <ns1:ApplicationName>iMenu</ns1:ApplicationName>
   <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
</ns1:RequestHeader>
<ns1:Transaction>
   <ns1:Header>
      <ns1:NumGuests>1</ns1:NumGuests>
      <ns1:OrderTypeIDRef>10</ns1:OrderTypeIDRef>
   </ns1:Header>
   <ns1:DetailLines>
      <ns1:DetailLine>
         <ns1:MenuItem>
            <ns1:LineItem>
               <ns1:IDRef>19381</ns1:IDRef>
               <ns1:Quantity>1</ns1:Quantity>
               <ns1:Total>12.95</ns1:Total>
               <ns1:LineNumber>1</ns1:LineNumber>
               <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
               <ns1:SeatNumber>1</ns1:SeatNumber>
            </ns1:LineItem>
            <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            <ns1:Modifiers>
               <ns1:LineItem>
                  <ns1:IDRef>23</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>0</ns1:Total>
                  <ns1:LineNumber>2</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:Modifiers>
            <ns1:Modifiers>
               <ns1:LineItem>
                  <ns1:IDRef>93</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>0</ns1:Total>
                  <ns1:LineNumber>3</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:Modifiers>
            <ns1:Modifiers>
               <ns1:LineItem>
                  <ns1:IDRef>43</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>0</ns1:Total>
                  <ns1:LineNumber>4</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
```

```
                </ns1:Modifiers>
                <ns1:Modifiers>
                    <ns1:LineItem>
                        <ns1:IDRef>99999</ns1:IDRef>
                        <ns1:Quantity>1</ns1:Quantity>
                        <ns1:Total>0</ns1:Total>
                        <ns1:Reference>CUSTOM: side of mayo</ns1:Reference>
                        <ns1:LineNumber>5</ns1:LineNumber>
                        <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                    </ns1:LineItem>
                    <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
                </ns1:Modifiers>
            </ns1:MenuItem>
        </ns1:DetailLine>
        <ns1:DetailLine>
            <ns1:MenuItem>
                <ns1:LineItem>
                    <ns1:IDRef>23421</ns1:IDRef>
                    <ns1:Quantity>1</ns1:Quantity>
                    <ns1:Total>2.95</ns1:Total>
                    <ns1:LineNumber>6</ns1:LineNumber>
                    <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                    <ns1:SeatNumber>1</ns1:SeatNumber>
                </ns1:LineItem>
                <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:MenuItem>
        </ns1:DetailLine>
    </ns1:DetailLines>
  </ns1:Transaction>
</ns1:CalculateTransactionTotalsRequest>
```

Calculate Transaction Totals Response:

```
<ns1:CalculateTransactionTotalsResponse
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
  xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
  <ns1:LocationRef>MRT42</ns1:LocationRef>
  <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
  <ns1:Result>
      <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
      <ns1:Result>
          <ns1:Success>true</ns1:Success>
      </ns1:Result>
  </ns1:Result>
  <ns1:Totals>
      <ns1:Subtotal>15.90</ns1:Subtotal>
      <ns1:DiscountTotal>0</ns1:DiscountTotal>
      <ns1:TaxTotal>1.31</ns1:TaxTotal>
```

```
        <ns1:ServiceChargeTotal>0</ns1:ServiceChargeTotal>
        <ns1:AutoServiceChargeTotal>0</ns1:AutoServiceChargeTotal>
        <ns1:OtherTotal>0</ns1:OtherTotal>
        <ns1:PaymentTotal>0</ns1:PaymentTotal>
        <ns1:AmountDueTotal>17.21</ns1:AmountDueTotal>
        <ns1:TransactionTotal>17.21</ns1:TransactionTotal>
    </ns1:Totals>
</ns1:CalculateTransactionTotalsResponse>
```

Update Menu data from POS to Device

Actors

Device – Touch Screen/Kiosk
POS – POS System

- The Device system requests menu data from the POS system to update its database. The menu items for this update request are the same as used in use-case 1.

XML Messages Specification:

Get Config Info Request:

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:GetConfigInfoRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
    xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
    <ns1:LocationRef>MRT42</ns1:LocationRef>
    <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
    <ns1:RequestElements>
        <ns1:InfoType>MENUITEMDEFINITIONS</ns1:InfoType>
    </ns1:RequestElements>
    <ns1:RequestHeader>
        <ns1:ApplicationName>iMenu</ns1:ApplicationName>
        <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
    </ns1:RequestHeader>
    <ns1:TranslationSpecifiers>
        <ns1:ISOCode>en-us</ns1:ISOCode>
    </ns1:TranslationSpecifiers>
</ns1:GetConfigInfoRequest>
```

Get Config Info Response:

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:GetConfigInfoResponse xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
    xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
```

```
<ns1:LocationRef>MRT42</ns1:LocationRef>
<ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
<ns1:Result>
  <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
  <ns1:Result>
    <ns1:Success>true</ns1:Success>
  </ns1:Result>
</ns1:Result>
<ns1:BaseCurrencyDescriptor>USD</ns1:BaseCurrencyDescriptor>
<ns1:MenuItems>
  <ns1:Def displayCategory="ENTREE" group="9" idRef="19381"
    outOfItem="false" subGroup="2">
    <ns1:ModifierGroupMembership />
    <ns1:ModifiersRequired>
      <ns1:ModifierGroup>285</ns1:ModifierGroup>
    </ns1:ModifiersRequired>
    <ns1:ModifiersAllowed>
      <ns1:ModifierGroup>285</ns1:ModifierGroup>
      <ns1:ModifierGroup>232</ns1:ModifierGroup>
    </ns1:ModifiersAllowed>
    <ns1:Price amount="12.95" priceLevelIDRef="1" />
    <ns1:Name>
      <ns1:Translation>
        <ns1:ISOCode>en-us</ns1:ISOCode>
        <ns1:Text>Cheeseburger</ns1:Text>
      </ns1:Translation>
    </ns1:Name>
  </ns1:Def>
  <ns1:Def displayCategory="BEVERAGE" idRef="23421" outOfItem="false">
    <ns1:ModifierGroupMembership />
    <ns1:ModifiersRequired />
    <ns1:ModifiersAllowed />
    <ns1:Price amount="2.95" priceLevelIDRef="1" />
    <ns1:Name>
      <ns1:Translation>
        <ns1:ISOCode>en-us</ns1:ISOCode>
        <ns1:Text>Diet Coke</ns1:Text>
      </ns1:Translation>
    </ns1:Name>
  </ns1:Def>
  <ns1:Def displayCategory="CONDIMENT" group="CHEESE" idRef="23"
    outOfItem="false" subGroup="AMERICAN">
    <ns1:ModifierGroupMembership>
      <ns1:ModifierGroup>232</ns1:ModifierGroup>
    </ns1:ModifierGroupMembership>
    <ns1:ModifiersRequired />
    <ns1:ModifiersAllowed />
    <ns1:Price amount="0.00" priceLevelIDRef="1" />
    <ns1:Name>
      <ns1:Translation>
```

```
          <ns1:ISOCode>en-us</ns1:ISOCode>
          <ns1:Text>American Cheese</ns1:Text>
        </ns1:Translation>
      </ns1:Name>
    </ns1:Def>
    <ns1:Def displayCategory="CONDIMENT" group="SANDWICH_MODIFIER"
      idRef="93" outOfItem="false" subGroup="HOLD">
      <ns1:ModifierGroupMembership>
        <ns1:ModifierGroup>232</ns1:ModifierGroup>
      </ns1:ModifierGroupMembership>
      <ns1:ModifiersRequired />
      <ns1:ModifiersAllowed />
      <ns1:Price amount="0.00" priceLevelIDRef="1" />
      <ns1:Name>
        <ns1:Translation>
          <ns1:ISOCode>en-us</ns1:ISOCode>
          <ns1:Text>No onions</ns1:Text>
        </ns1:Translation>
      </ns1:Name>
    </ns1:Def>
    <ns1:Def displayCategory="MEAT_TEMP" group="MEAT_MODIFIER" idRef="43"
      outOfItem="false" subGroup="TEMP">
      <ns1:ModifierGroupMembership>
        <ns1:ModifierGroup>285</ns1:ModifierGroup>
      </ns1:ModifierGroupMembership>
      <ns1:ModifiersRequired />
      <ns1:ModifiersAllowed />
      <ns1:Price amount="0.00" priceLevelIDRef="1" />
      <ns1:Name>
        <ns1:Translation>
          <ns1:ISOCode>en-us</ns1:ISOCode>
          <ns1:Text>Medium Well</ns1:Text>
        </ns1:Translation>
      </ns1:Name>
    </ns1:Def>
  </ns1:MenuItems>
</ns1:GetConfigInfoResponse>
```

Review Open Check

Actors

Device – Touch Screen/Kiosk
POS – POS System

- The guest at table #801 has already placed his order and would like to review what he has already ordered.
- The home page displays “Your bill has not yet been paid” and the home page navigation displays options to:
  - Order Beverages

  - Order Food Items
  - Another Round
  - Call Server
  - View/Pay Bill
- Guest taps on “View/Pay Bill” and the screen displays:
  - HTNG New York Hotel
  - Skyline Restaurant
  - Check # 789
  - Order #4628 placed at 1:35pm
  - Bacon Cheeseburger $12.95
  - Diet Coke $2.95
  - Tax (8.25%) $1.31
  - Current Total: $17.21
  - Your bill has not yet been paid.
  - Buttons appear for:
    - Order Another Round
    - Order More Drinks
    - Order More Food Items
    - Pay This Bill
    - Home
- Guest selects “Home” and screen returns to homepage.

XML Messages Specification:

Get Transaction Request:

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:GetTransactionRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
   xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd"
   ReturnFacsimile="false">
   <ns1:LocationRef>MRT42</ns1:LocationRef>
   <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
   <ns1:RequestHeader>
      <ns1:ApplicationName>iMenu</ns1:ApplicationName>
      <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
   </ns1:RequestHeader>
   <ns1:TransactionGUID>789</ns1:TransactionGUID>
</ns1:GetTransactionRequest>
```

Get Transaction Response:

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:GetTransactionResponse
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
   xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
   <ns1:LocationRef>MRT42</ns1:LocationRef>
   <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
   <ns1:Result>
      <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
      <ns1:Result>
         <ns1:Success>true</ns1:Success>
      </ns1:Result>
   </ns1:Result>
   <ns1:TransactionNumber>4628</ns1:TransactionNumber>
   <ns1:TransactionGUID>789</ns1:TransactionGUID>
   <ns1:Transaction>
      <ns1:Header>
         <ns1:NumGuests>1</ns1:NumGuests>
         <ns1:OrderTypeIDRef>10</ns1:OrderTypeIDRef>
      </ns1:Header>
      <ns1:DetailLines>
         <ns1:DetailLine>
            <ns1:MenuItem>
               <ns1:LineItem>
                  <ns1:IDRef>19381</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>12.95</ns1:Total>
                  <ns1:LineNumber>1</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                  <ns1:SeatNumber>1</ns1:SeatNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
               <ns1:Modifiers>
                  <ns1:LineItem>
                     <ns1:IDRef>23</ns1:IDRef>
                     <ns1:Quantity>1</ns1:Quantity>
                     <ns1:Total>0</ns1:Total>
                     <ns1:LineNumber>2</ns1:LineNumber>
                     <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                  </ns1:LineItem>
                  <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
               </ns1:Modifiers>
               <ns1:Modifiers>
                  <ns1:LineItem>
                     <ns1:IDRef>93</ns1:IDRef>
                     <ns1:Quantity>1</ns1:Quantity>
                     <ns1:Total>0</ns1:Total>
                  <ns1:LineNumber>3</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:Modifiers>
            <ns1:Modifiers>
               <ns1:LineItem>
                  <ns1:IDRef>43</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>0</ns1:Total>
                  <ns1:LineNumber>4</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:Modifiers>
            <ns1:Modifiers>
               <ns1:LineItem>
                  <ns1:IDRef>99999</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>0</ns1:Total>
                  <ns1:Reference>CUSTOM: side of mayo</ns1:Reference>
                  <ns1:LineNumber>5</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:Modifiers>
         </ns1:MenuItem>
      </ns1:DetailLine>
      <ns1:DetailLine>
         <ns1:MenuItem>
            <ns1:LineItem>
               <ns1:IDRef>23421</ns1:IDRef>
               <ns1:Quantity>1</ns1:Quantity>
               <ns1:Total>2.95</ns1:Total>
               <ns1:LineNumber>6</ns1:LineNumber>
               <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
               <ns1:SeatNumber>1</ns1:SeatNumber>
            </ns1:LineItem>
            <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
         </ns1:MenuItem>
      </ns1:DetailLine>
   </ns1:DetailLines>
</ns1:Transaction>
<ns1:Totals>
   <ns1:Subtotal>15.90</ns1:Subtotal>
   <ns1:DiscountTotal>0</ns1:DiscountTotal>
   <ns1:TaxTotal>1.31</ns1:TaxTotal>
   <ns1:ServiceChargeTotal>0</ns1:ServiceChargeTotal>
   <ns1:AutoServiceChargeTotal>0</ns1:AutoServiceChargeTotal>
   <ns1:OtherTotal>0</ns1:OtherTotal>
```

```
        <ns1:PaymentTotal>0</ns1:PaymentTotal>
        <ns1:AmountDueTotal>17.21</ns1:AmountDueTotal>
        <ns1:TransactionTotal>17.21</ns1:TransactionTotal>
    </ns1:Totals>
    <ns1:NextLineNumber>1</ns1:NextLineNumber>
</ns1:GetTransactionResponse>
```

Adding Items to an Existing Open Check

Actors

Device – Touch Screen/Kiosk
POS – POS System

- The guest at touch screen table #801 is joined by a colleague who would also like to order items from the touch screen menu.
- The home page displays "Your bill has not yet been paid" and the home page navigation displays options to:
    - Order Beverages
    - Order Food Items
    - Another Round
    - Call Server
    - View/Pay Bill
- The colleague browses through the menu and select a Chicken Caesar Salad and a Crab and Corn Chowder and a coffee.
- The original guest adds another Diet Coke.
- Each time an item is order, the current order is displayed on the screen for review with the option to "Place Order".
- Colleague taps on "Place Order".
- The POS system updates the existing check for the table and then processes the ticket as defined by the configured business process. In this case, an order ticket is printed in the kitchen and the items are being prepared.
- The POS system returns a confirmation to the touch screen that the order has been accepted by the POS system. It also returns the order number.
- The touch screen displays a friendly message to the guests:
    - Thank You! Your order has been confirmed and is being prepared.
    - Order #4689 placed at 1:55pm
    - Check # 789 is displayed.
    - Instructions on how to order more items and to make final payment are displayed.

<u>XML Messages Specification:</u>

<u>Calculate Transaction Totals Request:</u>

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:CalculateTransactionTotalsRequest
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
```

```xml
xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
<ns1:LocationRef>MRT42</ns1:LocationRef>
<ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
<ns1:RequestHeader>
  <ns1:ApplicationName>iMenu</ns1:ApplicationName>
  <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
</ns1:RequestHeader>
<ns1:Transaction>
  <ns1:Header>
    <ns1:NumGuests>2</ns1:NumGuests>
    <ns1:OrderTypeIDRef>10</ns1:OrderTypeIDRef>
  </ns1:Header>
  <ns1:DetailLines>
    <ns1:DetailLine>
      <ns1:MenuItem>
        <ns1:LineItem>
          <ns1:IDRef>19381</ns1:IDRef>
          <ns1:Quantity>1</ns1:Quantity>
          <ns1:Total>12.95</ns1:Total>
          <ns1:LineNumber>1</ns1:LineNumber>
          <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
          <ns1:SeatNumber>1</ns1:SeatNumber>
        </ns1:LineItem>
        <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
        <ns1:Modifiers>
          <ns1:LineItem>
            <ns1:IDRef>23</ns1:IDRef>
            <ns1:Quantity>1</ns1:Quantity>
            <ns1:Total>0</ns1:Total>
            <ns1:LineNumber>2</ns1:LineNumber>
            <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
          </ns1:LineItem>
          <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
        </ns1:Modifiers>
        <ns1:Modifiers>
          <ns1:LineItem>
            <ns1:IDRef>93</ns1:IDRef>
            <ns1:Quantity>1</ns1:Quantity>
            <ns1:Total>0</ns1:Total>
            <ns1:LineNumber>3</ns1:LineNumber>
            <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
          </ns1:LineItem>
          <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
        </ns1:Modifiers>
        <ns1:Modifiers>
          <ns1:LineItem>
            <ns1:IDRef>43</ns1:IDRef>
            <ns1:Quantity>1</ns1:Quantity>
            <ns1:Total>0</ns1:Total>
            <ns1:LineNumber>4</ns1:LineNumber>
            <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
         </ns1:LineItem>
         <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
      </ns1:Modifiers>
      <ns1:Modifiers>
         <ns1:LineItem>
            <ns1:IDRef>99999</ns1:IDRef>
            <ns1:Quantity>1</ns1:Quantity>
            <ns1:Total>0</ns1:Total>
            <ns1:Reference>CUSTOM: side of mayo</ns1:Reference>
            <ns1:LineNumber>5</ns1:LineNumber>
            <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
         </ns1:LineItem>
         <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
      </ns1:Modifiers>
   </ns1:MenuItem>
</ns1:DetailLine>
<ns1:DetailLine>
   <ns1:MenuItem>
      <ns1:LineItem>
         <ns1:IDRef>23421</ns1:IDRef>
         <ns1:Quantity>1</ns1:Quantity>
         <ns1:Total>2.95</ns1:Total>
         <ns1:LineNumber>6</ns1:LineNumber>
         <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
         <ns1:SeatNumber>1</ns1:SeatNumber>
      </ns1:LineItem>
      <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
   </ns1:MenuItem>
</ns1:DetailLine>
<ns1:DetailLine>
   <ns1:MenuItem>
      <ns1:LineItem>
         <ns1:IDRef>48124</ns1:IDRef>
         <ns1:Quantity>1</ns1:Quantity>
         <ns1:Total>3.45</ns1:Total>
         <ns1:LineNumber>7</ns1:LineNumber>
         <ns1:ServiceRoundNumber>2</ns1:ServiceRoundNumber>
         <ns1:SeatNumber>2</ns1:SeatNumber>
      </ns1:LineItem>
      <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
   </ns1:MenuItem>
</ns1:DetailLine>
<ns1:DetailLine>
   <ns1:MenuItem>
      <ns1:LineItem>
         <ns1:IDRef>23414</ns1:IDRef>
         <ns1:Quantity>1</ns1:Quantity>
         <ns1:Total>2.99</ns1:Total>
```

```
                  <ns1:LineNumber>8</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>2</ns1:ServiceRoundNumber>
                  <ns1:SeatNumber>2</ns1:SeatNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:MenuItem>
         </ns1:DetailLine>
         <ns1:DetailLine>
            <ns1:MenuItem>
               <ns1:LineItem>
                  <ns1:IDRef>33412</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>1.25</ns1:Total>
                  <ns1:LineNumber>9</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>2</ns1:ServiceRoundNumber>
                  <ns1:SeatNumber>2</ns1:SeatNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:MenuItem>
         </ns1:DetailLine>
         <ns1:DetailLine>
            <ns1:MenuItem>
               <ns1:LineItem>
                  <ns1:IDRef>23421</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>2.95</ns1:Total>
                  <ns1:LineNumber>10</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>2</ns1:ServiceRoundNumber>
                  <ns1:SeatNumber>1</ns1:SeatNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:MenuItem>
         </ns1:DetailLine>
      </ns1:DetailLines>
   </ns1:Transaction>
</ns1:CalculateTransactionTotalsRequest>
```

Calculate Totals Response:

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:CalculateTransactionTotalsResponse
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
   xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
   <ns1:LocationRef>MRT42</ns1:LocationRef>
   <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
   <ns1:Result>
      <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
      <ns1:Result>
```

```
         <ns1:Success>true</ns1:Success>
      </ns1:Result>
   </ns1:Result>
   <ns1:Totals>
      <ns1:Subtotal>26.54</ns1:Subtotal>
      <ns1:DiscountTotal>0</ns1:DiscountTotal>
      <ns1:TaxTotal>2.19</ns1:TaxTotal>
      <ns1:ServiceChargeTotal>0</ns1:ServiceChargeTotal>
      <ns1:AutoServiceChargeTotal>0</ns1:AutoServiceChargeTotal>
      <ns1:OtherTotal>0</ns1:OtherTotal>
      <ns1:PaymentTotal>0</ns1:PaymentTotal>
      <ns1:AmountDueTotal>28.73</ns1:AmountDueTotal>
      <ns1:TransactionTotal>28.73</ns1:TransactionTotal>
   </ns1:Totals>
</ns1:CalculateTransactionTotalsResponse>
```

Post New Transaction Request:

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:PostNewTransactionRequest
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
   xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
   <ns1:LocationRef>MRT42</ns1:LocationRef>
   <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
   <ns1:RequestHeader>
      <ns1:ApplicationName>iMenu</ns1:ApplicationName>
      <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
   </ns1:RequestHeader>
   <ns1:Transaction>
      <ns1:Header>
         <ns1:NumGuests>2</ns1:NumGuests>
         <ns1:OrderTypeIDRef>10</ns1:OrderTypeIDRef>
      </ns1:Header>
      <ns1:DetailLines>
         <ns1:DetailLine>
            <ns1:MenuItem>
               <ns1:LineItem>
                  <ns1:IDRef>48124</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>3.45</ns1:Total>
                  <ns1:LineNumber>7</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>2</ns1:ServiceRoundNumber>
                  <ns1:SeatNumber>2</ns1:SeatNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:MenuItem>
         </ns1:DetailLine>
         <ns1:DetailLine>
```

```
          <ns1:MenuItem>
            <ns1:LineItem>
              <ns1:IDRef>23414</ns1:IDRef>
              <ns1:Quantity>1</ns1:Quantity>
              <ns1:Total>2.99</ns1:Total>
              <ns1:LineNumber>8</ns1:LineNumber>
              <ns1:ServiceRoundNumber>2</ns1:ServiceRoundNumber>
              <ns1:SeatNumber>2</ns1:SeatNumber>
            </ns1:LineItem>
            <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
          </ns1:MenuItem>
        </ns1:DetailLine>
        <ns1:DetailLine>
          <ns1:MenuItem>
            <ns1:LineItem>
              <ns1:IDRef>33412</ns1:IDRef>
              <ns1:Quantity>1</ns1:Quantity>
              <ns1:Total>1.25</ns1:Total>
              <ns1:LineNumber>9</ns1:LineNumber>
              <ns1:ServiceRoundNumber>2</ns1:ServiceRoundNumber>
              <ns1:SeatNumber>2</ns1:SeatNumber>
            </ns1:LineItem>
            <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
          </ns1:MenuItem>
        </ns1:DetailLine>
        <ns1:DetailLine>
          <ns1:MenuItem>
            <ns1:LineItem>
              <ns1:IDRef>23421</ns1:IDRef>
              <ns1:Quantity>1</ns1:Quantity>
              <ns1:Total>2.95</ns1:Total>
              <ns1:LineNumber>10</ns1:LineNumber>
              <ns1:ServiceRoundNumber>2</ns1:ServiceRoundNumber>
              <ns1:SeatNumber>1</ns1:SeatNumber>
            </ns1:LineItem>
            <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
          </ns1:MenuItem>
        </ns1:DetailLine>
      </ns1:DetailLines>
    </ns1:Transaction>
    <ns1:TransactionGUID>10290392789</ns1:TransactionGUID>
    <ns1:Customer>
      <ns1:CustomerID>1355</ns1:CustomerID>
      <ns1:FirstName>John</ns1:FirstName>
      <ns1:LastName>Smith</ns1:LastName>
      <ns1:Address>10 5th Ave</ns1:Address>
      <ns1:Address>Apt 1B</ns1:Address>
      <ns1:City>New York City</ns1:City>
      <ns1:State>NY</ns1:State>
      <ns1:PostalCode>10083</ns1:PostalCode>
    <ns1:Country>USA</ns1:Country>
  </ns1:Customer>
</ns1:PostNewTransactionRequest>
```

Post Transaction Response:

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:PostNewTransactionResponse
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
  xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
  <ns1:LocationRef>MRT42</ns1:LocationRef>
  <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
  <ns1:Result>
    <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
    <ns1:Result>
      <ns1:Success>true</ns1:Success>
    </ns1:Result>
  </ns1:Result>
  <ns1:TransactionNumber>4628</ns1:TransactionNumber>
  <ns1:TransactionGUID>10290392789</ns1:TransactionGUID>
  <ns1:Totals>
    <ns1:Subtotal>26.54</ns1:Subtotal>
    <ns1:DiscountTotal>0</ns1:DiscountTotal>
    <ns1:TaxTotal>2.19</ns1:TaxTotal>
    <ns1:ServiceChargeTotal>0</ns1:ServiceChargeTotal>
    <ns1:AutoServiceChargeTotal>0</ns1:AutoServiceChargeTotal>
    <ns1:OtherTotal>0</ns1:OtherTotal>
    <ns1:PaymentTotal>0</ns1:PaymentTotal>
    <ns1:AmountDueTotal>28.73</ns1:AmountDueTotal>
    <ns1:TransactionTotal>28.73</ns1:TransactionTotal>
  </ns1:Totals>
</ns1:PostNewTransactionResponse>
```

Customer Requests to Print Bill

Actors

Device – Touch Screen/Kiosk
POS – POS System

- In Use-case 8 (above) there is a button “Print Bill” which is available at any time the total bill shows. This button can show before the bill is paid or after the bill is paid. The “Print Bill” button is only available in case the Device is equipped with a local printer.
- The customer presses the “Print Bill” button.
- The current bill is printed. If the bill is not yet paid, it will show as OPEN. If the bill is paid, the payment method with which it has been paid is displayed.
- If the bill has been split, a separate ticket for every payment method or credit card will be printed.

XML Messages Specification:

Get Transaction Request:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<ns1:GetTransactionRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
   xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd"
   ReturnFacsimile="true">
   <ns1:LocationRef>MRT42</ns1:LocationRef>
   <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
   <ns1:RequestHeader>
      <ns1:ApplicationName>iMenu</ns1:ApplicationName>
      <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
   </ns1:RequestHeader>
   <ns1:TransactionGUID>789</ns1:TransactionGUID>
</ns1:GetTransactionRequest>
```

Get Transaction Response:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<ns1:GetTransactionResponse
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
   xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
   <ns1:LocationRef>MRT42</ns1:LocationRef>
   <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
   <ns1:Result>
      <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
      <ns1:Result>
         <ns1:Success>true</ns1:Success>
      </ns1:Result>
   </ns1:Result>
   <ns1:TransactionNumber>4628</ns1:TransactionNumber>
   <ns1:TransactionGUID>789</ns1:TransactionGUID>
   <ns1:Transaction>
      <ns1:Header>
         <ns1:NumGuests>1</ns1:NumGuests>
         <ns1:OrderTypeIDRef>10</ns1:OrderTypeIDRef>
      </ns1:Header>
      <ns1:DetailLines>
         <ns1:DetailLine>
            <ns1:MenuItem>
               <ns1:LineItem>
                  <ns1:IDRef>19381</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>12.95</ns1:Total>
```

```
          <ns1:LineNumber>1</ns1:LineNumber>
          <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
          <ns1:SeatNumber>1</ns1:SeatNumber>
        </ns1:LineItem>
        <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
        <ns1:Modifiers>
          <ns1:LineItem>
            <ns1:IDRef>23</ns1:IDRef>
            <ns1:Quantity>1</ns1:Quantity>
            <ns1:Total>0</ns1:Total>
            <ns1:LineNumber>2</ns1:LineNumber>
            <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
          </ns1:LineItem>
          <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
        </ns1:Modifiers>
        <ns1:Modifiers>
          <ns1:LineItem>
            <ns1:IDRef>93</ns1:IDRef>
            <ns1:Quantity>1</ns1:Quantity>
            <ns1:Total>0</ns1:Total>
            <ns1:LineNumber>3</ns1:LineNumber>
            <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
          </ns1:LineItem>
          <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
        </ns1:Modifiers>
        <ns1:Modifiers>
          <ns1:LineItem>
            <ns1:IDRef>43</ns1:IDRef>
            <ns1:Quantity>1</ns1:Quantity>
            <ns1:Total>0</ns1:Total>
            <ns1:LineNumber>4</ns1:LineNumber>
            <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
          </ns1:LineItem>
          <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
        </ns1:Modifiers>
        <ns1:Modifiers>
          <ns1:LineItem>
            <ns1:IDRef>99999</ns1:IDRef>
            <ns1:Quantity>1</ns1:Quantity>
            <ns1:Total>0</ns1:Total>
            <ns1:Reference>CUSTOM: side of mayo</ns1:Reference>
            <ns1:LineNumber>5</ns1:LineNumber>
            <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
          </ns1:LineItem>
          <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
        </ns1:Modifiers>
      </ns1:MenuItem>
    </ns1:DetailLine>
    <ns1:DetailLine>
      <ns1:MenuItem>
```

```
               <ns1:LineItem>
                  <ns1:IDRef>23421</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>2.95</ns1:Total>
                  <ns1:LineNumber>6</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                  <ns1:SeatNumber>1</ns1:SeatNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:MenuItem>
         </ns1:DetailLine>
      </ns1:DetailLines>
   </ns1:Transaction>
   <ns1:Totals>
      <ns1:Subtotal>15.90</ns1:Subtotal>
      <ns1:DiscountTotal>0</ns1:DiscountTotal>
      <ns1:TaxTotal>1.31</ns1:TaxTotal>
      <ns1:ServiceChargeTotal>0</ns1:ServiceChargeTotal>
      <ns1:AutoServiceChargeTotal>0</ns1:AutoServiceChargeTotal>
      <ns1:OtherTotal>0</ns1:OtherTotal>
      <ns1:PaymentTotal>0</ns1:PaymentTotal>
      <ns1:AmountDueTotal>17.21</ns1:AmountDueTotal>
      <ns1:TransactionTotal>17.21</ns1:TransactionTotal>
   </ns1:Totals>
   <ns1:NextLineNumber>7</ns1:NextLineNumber>
   <ns1:Facsimile NumPrintColumns="30">
      <ns1:PrintLine>MRT42 - SKYREST1</ns1:PrintLine>
      <ns1:PrintLine>CHECK #789</ns1:PrintLine>
      <ns1:PrintLine>==============================</ns1:PrintLine>
      <ns1:PrintLine>Bacon Cheeseburger $12.95</ns1:PrintLine>
      <ns1:PrintLine>American Cheese</ns1:PrintLine>
      <ns1:PrintLine>No Onions</ns1:PrintLine>
      <ns1:PrintLine>Medium-Well</ns1:PrintLine>
      <ns1:PrintLine>Custom: side of mayo</ns1:PrintLine>
      <ns1:PrintLine>Diet Coke $2.95</ns1:PrintLine>
      <ns1:PrintLine>==============================</ns1:PrintLine>
      <ns1:PrintLine>SubTotal: $15.90</ns1:PrintLine>
      <ns1:PrintLine>Tax (8.25%): $1.31</ns1:PrintLine>
      <ns1:PrintLine>Total: $17.21</ns1:PrintLine>
   </ns1:Facsimile>
</ns1:GetTransactionResponse>
```

Customer Requests to Email Bill

Actors

Device – Touch Screen/Kiosk
POS – POS System

- In Use-case 8 (above) there is a button “Email Bill” which is available at any time the total bill shows. This button can show before the bill is paid or after the bill is paid.
- The customer presses the “Email Bill” button. A new input field prompting the customer to enter their email address as well as a touch screen keyboard is displayed. The customer enters their email address and presses submit.
- The Device emails the bill to the recipient. If the bill is not yet paid, it will show as OPEN. If the bill is paid, the payment method with which it has been paid is shown in the email.
- If the bill has been split, the above process of emailing the partial bill will appear for every recipient of their respective partial bill.

XML Messages Specification:

Get Transaction Request:

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:GetTransactionRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
  xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd"
  ReturnFacsimile="true">
  <ns1:LocationRef>MRT42</ns1:LocationRef>
  <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
  <ns1:RequestHeader>
    <ns1:ApplicationName>iMenu</ns1:ApplicationName>
    <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
  </ns1:RequestHeader>
  <ns1:TransactionGUID>789</ns1:TransactionGUID>
</ns1:GetTransactionRequest>
```

Get Transaction Response:

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:GetTransactionResponse
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
  xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
  <ns1:LocationRef>MRT42</ns1:LocationRef>
  <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
  <ns1:Result>
    <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
    <ns1:Result>
      <ns1:Success>true</ns1:Success>
    </ns1:Result>
  </ns1:Result>
  <ns1:TransactionNumber>4628</ns1:TransactionNumber>
  <ns1:TransactionGUID>789</ns1:TransactionGUID>
  <ns1:Transaction>
    <ns1:Header>
      <ns1:NumGuests>1</ns1:NumGuests>
      <ns1:OrderTypeIDRef>10</ns1:OrderTypeIDRef>
    </ns1:Header>
    <ns1:DetailLines>
      <ns1:DetailLine>
        <ns1:MenuItem>
          <ns1:LineItem>
            <ns1:IDRef>19381</ns1:IDRef>
            <ns1:Quantity>1</ns1:Quantity>
            <ns1:Total>12.95</ns1:Total>
            <ns1:LineNumber>1</ns1:LineNumber>
            <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
            <ns1:SeatNumber>1</ns1:SeatNumber>
          </ns1:LineItem>
          <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
          <ns1:Modifiers>
            <ns1:LineItem>
              <ns1:IDRef>23</ns1:IDRef>
              <ns1:Quantity>1</ns1:Quantity>
              <ns1:Total>0</ns1:Total>
              <ns1:LineNumber>2</ns1:LineNumber>
              <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
            </ns1:LineItem>
            <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
          </ns1:Modifiers>
          <ns1:Modifiers>
            <ns1:LineItem>
              <ns1:IDRef>93</ns1:IDRef>
              <ns1:Quantity>1</ns1:Quantity>
              <ns1:Total>0</ns1:Total>
              <ns1:LineNumber>3</ns1:LineNumber>
              <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
            </ns1:LineItem>
            <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
          </ns1:Modifiers>
          <ns1:Modifiers>
            <ns1:LineItem>
              <ns1:IDRef>43</ns1:IDRef>
              <ns1:Quantity>1</ns1:Quantity>
              <ns1:Total>0</ns1:Total>
              <ns1:LineNumber>4</ns1:LineNumber>
              <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
            </ns1:LineItem>
            <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
          </ns1:Modifiers>
          <ns1:Modifiers>
            <ns1:LineItem>
              <ns1:IDRef>99999</ns1:IDRef>
              <ns1:Quantity>1</ns1:Quantity>
              <ns1:Total>0</ns1:Total>
              <ns1:Reference>CUSTOM: side of mayo</ns1:Reference>
```

```
                     <ns1:LineNumber>5</ns1:LineNumber>
                     <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                  </ns1:LineItem>
                  <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
               </ns1:Modifiers>
            </ns1:MenuItem>
         </ns1:DetailLine>
         <ns1:DetailLine>
            <ns1:MenuItem>
               <ns1:LineItem>
                  <ns1:IDRef>23421</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>2.95</ns1:Total>
                  <ns1:LineNumber>6</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                  <ns1:SeatNumber>1</ns1:SeatNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:MenuItem>
         </ns1:DetailLine>
      </ns1:DetailLines>
   </ns1:Transaction>
   <ns1:Totals>
      <ns1:Subtotal>15.90</ns1:Subtotal>
      <ns1:DiscountTotal>0</ns1:DiscountTotal>
      <ns1:TaxTotal>1.31</ns1:TaxTotal>
      <ns1:ServiceChargeTotal>0</ns1:ServiceChargeTotal>
      <ns1:AutoServiceChargeTotal>0</ns1:AutoServiceChargeTotal>
      <ns1:OtherTotal>0</ns1:OtherTotal>
      <ns1:PaymentTotal>0</ns1:PaymentTotal>
      <ns1:AmountDueTotal>17.21</ns1:AmountDueTotal>
      <ns1:TransactionTotal>17.21</ns1:TransactionTotal>
   </ns1:Totals>
   <ns1:NextLineNumber>7</ns1:NextLineNumber>
   <ns1:Facsimile NumPrintColumns="30">
      <ns1:PrintLine>MRT42 - SKYREST1</ns1:PrintLine>
      <ns1:PrintLine>CHECK #789</ns1:PrintLine>
      <ns1:PrintLine>==============================</ns1:PrintLine>
      <ns1:PrintLine>Bacon Cheeseburger $12.95</ns1:PrintLine>
      <ns1:PrintLine>American Cheese</ns1:PrintLine>
      <ns1:PrintLine>No Onions</ns1:PrintLine>
      <ns1:PrintLine>Medium-Well</ns1:PrintLine>
      <ns1:PrintLine>Custom: side of mayo</ns1:PrintLine>
      <ns1:PrintLine>Diet Coke $2.95</ns1:PrintLine>
      <ns1:PrintLine>==============================</ns1:PrintLine>
      <ns1:PrintLine>SubTotal: $15.90</ns1:PrintLine>
      <ns1:PrintLine>Tax (8.25%): $1.31</ns1:PrintLine>
      <ns1:PrintLine>Total: $17.21</ns1:PrintLine>
   </ns1:Facsimile>
</ns1:GetTransactionResponse>
```

Split Payment of Check

Actors

Device – Touch Screen/Kiosk
POS – POS System

- The table of four at Device #15 hands four credit cards to the associate and requests to split the check four ways.
- The total check for table # 15 looks as follows:

```
Seat 1:
    1 x Bacon CheeseBurger
       American Cheese
       No onions
       Medium Well
       Custom:  side of mayo
    1 x Diet Coke $2.95
Seat 2:
    1 x Pizza Roll $5.65
    1 x Coke $2.95
Seat 3:
    1 x Chicken Fingers $7.99
    1 x Sprite $2.95
Seat 4:
    1 x Apple Pie $3.49
    1 x Coffee $0.99
```

- Associate splits credit cards for payment in the POS system.
- The POS syncs with the Device and table #15 now reflects the split credit card payment amounts.
- Table manually signs receipts.
- Associate collects signed receipts and closes out check on the POS.
- Device #15 is synced with POS.

<u>XML Messages Specification:</u>

<u>GetTransactionRequest</u>

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:GetTransactionRequest xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
  xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd"
  ReturnFacsimile="false">
  <ns1:LocationRef>MRT42</ns1:LocationRef>
  <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
  <ns1:RequestHeader>
    <ns1:ApplicationName>iMenu</ns1:ApplicationName>
    <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
  </ns1:RequestHeader>
  <ns1:TransactionGUID>884</ns1:TransactionGUID>
```

```
</ns1:GetTransactionRequest>
```

GetTransactionResponse

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:GetTransactionResponse
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
   xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
   <ns1:LocationRef>MRT42</ns1:LocationRef>
   <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
   <ns1:Result>
      <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
      <ns1:Result>
         <ns1:Success>true</ns1:Success>
      </ns1:Result>
   </ns1:Result>
   <ns1:TransactionNumber>4659</ns1:TransactionNumber>
   <ns1:TransactionGUID>884</ns1:TransactionGUID>
   <ns1:Transaction>
      <ns1:Header>
         <ns1:NumGuests>4</ns1:NumGuests>
         <ns1:OrderTypeIDRef>10</ns1:OrderTypeIDRef>
      </ns1:Header>
      <ns1:DetailLines>
         <ns1:DetailLine>
            <ns1:MenuItem>
               <ns1:LineItem>
                  <ns1:IDRef>19381</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>12.95</ns1:Total>
                  <ns1:LineNumber>1</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                  <ns1:SeatNumber>1</ns1:SeatNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
               <ns1:Modifiers>
                  <ns1:LineItem>
                     <ns1:IDRef>23</ns1:IDRef>
                     <ns1:Quantity>1</ns1:Quantity>
                     <ns1:Total>0</ns1:Total>
                     <ns1:LineNumber>2</ns1:LineNumber>
                     <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                  </ns1:LineItem>
                  <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
               </ns1:Modifiers>
               <ns1:Modifiers>
                  <ns1:LineItem>
                     <ns1:IDRef>93</ns1:IDRef>
            <ns1:Quantity>1</ns1:Quantity>
            <ns1:Total>0</ns1:Total>
            <ns1:LineNumber>3</ns1:LineNumber>
            <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
         </ns1:LineItem>
         <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
      </ns1:Modifiers>
      <ns1:Modifiers>
         <ns1:LineItem>
            <ns1:IDRef>43</ns1:IDRef>
            <ns1:Quantity>1</ns1:Quantity>
            <ns1:Total>0</ns1:Total>
            <ns1:LineNumber>4</ns1:LineNumber>
            <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
         </ns1:LineItem>
         <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
      </ns1:Modifiers>
      <ns1:Modifiers>
         <ns1:LineItem>
            <ns1:IDRef>99999</ns1:IDRef>
            <ns1:Quantity>1</ns1:Quantity>
            <ns1:Total>0</ns1:Total>
            <ns1:Reference>CUSTOM: side of mayo</ns1:Reference>
            <ns1:LineNumber>5</ns1:LineNumber>
            <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
         </ns1:LineItem>
         <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
      </ns1:Modifiers>
   </ns1:MenuItem>
</ns1:DetailLine>
<ns1:DetailLine>
   <ns1:MenuItem>
      <ns1:LineItem>
         <ns1:IDRef>23421</ns1:IDRef>
         <ns1:Quantity>1</ns1:Quantity>
         <ns1:Total>2.95</ns1:Total>
         <ns1:LineNumber>6</ns1:LineNumber>
         <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
         <ns1:SeatNumber>1</ns1:SeatNumber>
      </ns1:LineItem>
      <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
   </ns1:MenuItem>
</ns1:DetailLine>
<ns1:DetailLine>
   <ns1:MenuItem>
      <ns1:LineItem>
         <ns1:IDRef>32922</ns1:IDRef>
         <ns1:Quantity>1</ns1:Quantity>
         <ns1:Total>5.65</ns1:Total>
         <ns1:LineNumber>7</ns1:LineNumber>
      <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
      <ns1:SeatNumber>2</ns1:SeatNumber>
    </ns1:LineItem>
    <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
  </ns1:MenuItem>
</ns1:DetailLine>
<ns1:DetailLine>
  <ns1:MenuItem>
    <ns1:LineItem>
      <ns1:IDRef>23420</ns1:IDRef>
      <ns1:Quantity>1</ns1:Quantity>
      <ns1:Total>2.95</ns1:Total>
      <ns1:LineNumber>8</ns1:LineNumber>
      <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
      <ns1:SeatNumber>2</ns1:SeatNumber>
    </ns1:LineItem>
    <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
  </ns1:MenuItem>
</ns1:DetailLine>
<ns1:DetailLine>
  <ns1:MenuItem>
    <ns1:LineItem>
      <ns1:IDRef>29322</ns1:IDRef>
      <ns1:Quantity>1</ns1:Quantity>
      <ns1:Total>7.99</ns1:Total>
      <ns1:LineNumber>9</ns1:LineNumber>
      <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
      <ns1:SeatNumber>3</ns1:SeatNumber>
    </ns1:LineItem>
    <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
  </ns1:MenuItem>
</ns1:DetailLine>
<ns1:DetailLine>
  <ns1:MenuItem>
    <ns1:LineItem>
      <ns1:IDRef>23427</ns1:IDRef>
      <ns1:Quantity>1</ns1:Quantity>
      <ns1:Total>2.95</ns1:Total>
      <ns1:LineNumber>10</ns1:LineNumber>
      <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
      <ns1:SeatNumber>3</ns1:SeatNumber>
    </ns1:LineItem>
    <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
  </ns1:MenuItem>
</ns1:DetailLine>
<ns1:DetailLine>
  <ns1:MenuItem>
    <ns1:LineItem>
      <ns1:IDRef>39312</ns1:IDRef>
      <ns1:Quantity>1</ns1:Quantity>
```

```
                  <ns1:Total>3.49</ns1:Total>
                  <ns1:LineNumber>11</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                  <ns1:SeatNumber>4</ns1:SeatNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:MenuItem>
         </ns1:DetailLine>
         <ns1:DetailLine>
            <ns1:MenuItem>
               <ns1:LineItem>
                  <ns1:IDRef>23493</ns1:IDRef>
                  <ns1:Quantity>1</ns1:Quantity>
                  <ns1:Total>0.99</ns1:Total>
                  <ns1:LineNumber>12</ns1:LineNumber>
                  <ns1:ServiceRoundNumber>1</ns1:ServiceRoundNumber>
                  <ns1:SeatNumber>4</ns1:SeatNumber>
               </ns1:LineItem>
               <ns1:PriceLevelIDRef>1</ns1:PriceLevelIDRef>
            </ns1:MenuItem>
         </ns1:DetailLine>
      </ns1:DetailLines>
   </ns1:Transaction>
   <ns1:Totals>
      <ns1:Subtotal>39.92</ns1:Subtotal>
      <ns1:DiscountTotal>0</ns1:DiscountTotal>
      <ns1:TaxTotal>3.29</ns1:TaxTotal>
      <ns1:ServiceChargeTotal>0</ns1:ServiceChargeTotal>
      <ns1:AutoServiceChargeTotal>0</ns1:AutoServiceChargeTotal>
      <ns1:OtherTotal>0</ns1:OtherTotal>
      <ns1:PaymentTotal>0</ns1:PaymentTotal>
      <ns1:AmountDueTotal>43.21</ns1:AmountDueTotal>
      <ns1:TransactionTotal>43.21</ns1:TransactionTotal>
   </ns1:Totals>
   <ns1:NextLineNumber>13</ns1:NextLineNumber>
</ns1:GetTransactionResponse>
```

<u>SplitTransactionRequest:</u>

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:SplitTransactionRequest
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
   xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
   <ns1:LocationRef>MRT42</ns1:LocationRef>
   <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
   <ns1:RequestHeader>
      <ns1:ApplicationName>iMenu</ns1:ApplicationName>
      <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
```

```xml
  </ns1:RequestHeader>
  <ns1:ParentTransactionInfo>
    <ns1:TransactionGUID>884</ns1:TransactionGUID>
  </ns1:ParentTransactionInfo>
  <ns1:ChildTransactionInfo>
    <ns1:TransactionRef>885</ns1:TransactionRef>
    <ns1:Details>
      <ns1:ParentLineNumber>1</ns1:ParentLineNumber>
      <ns1:ChildLineNumber>1</ns1:ChildLineNumber>
      <ns1:SeatNumber>1</ns1:SeatNumber>
    </ns1:Details>
    <ns1:Details>
      <ns1:ParentLineNumber>2</ns1:ParentLineNumber>
      <ns1:ChildLineNumber>2</ns1:ChildLineNumber>
      <ns1:SeatNumber>1</ns1:SeatNumber>
    </ns1:Details>
    <ns1:Details>
      <ns1:ParentLineNumber>3</ns1:ParentLineNumber>
      <ns1:ChildLineNumber>3</ns1:ChildLineNumber>
      <ns1:SeatNumber>1</ns1:SeatNumber>
    </ns1:Details>
    <ns1:Details>
      <ns1:ParentLineNumber>4</ns1:ParentLineNumber>
      <ns1:ChildLineNumber>4</ns1:ChildLineNumber>
      <ns1:SeatNumber>1</ns1:SeatNumber>
    </ns1:Details>
    <ns1:Details>
      <ns1:ParentLineNumber>5</ns1:ParentLineNumber>
      <ns1:ChildLineNumber>5</ns1:ChildLineNumber>
      <ns1:SeatNumber>1</ns1:SeatNumber>
    </ns1:Details>
    <ns1:Details>
      <ns1:ParentLineNumber>6</ns1:ParentLineNumber>
      <ns1:ChildLineNumber>6</ns1:ChildLineNumber>
      <ns1:SeatNumber>1</ns1:SeatNumber>
    </ns1:Details>
  </ns1:ChildTransactionInfo>
  <ns1:ChildTransactionInfo>
    <ns1:TransactionRef>886</ns1:TransactionRef>
    <ns1:Details>
      <ns1:ParentLineNumber>7</ns1:ParentLineNumber>
      <ns1:ChildLineNumber>1</ns1:ChildLineNumber>
      <ns1:SeatNumber>2</ns1:SeatNumber>
    </ns1:Details>
    <ns1:Details>
      <ns1:ParentLineNumber>8</ns1:ParentLineNumber>
      <ns1:ChildLineNumber>2</ns1:ChildLineNumber>
      <ns1:SeatNumber>2</ns1:SeatNumber>
    </ns1:Details>
  </ns1:ChildTransactionInfo>
```

```
   <ns1:ChildTransactionInfo>
      <ns1:TransactionRef>887</ns1:TransactionRef>
      <ns1:Details>
         <ns1:ParentLineNumber>9</ns1:ParentLineNumber>
         <ns1:ChildLineNumber>1</ns1:ChildLineNumber>
         <ns1:SeatNumber>3</ns1:SeatNumber>
      </ns1:Details>
      <ns1:Details>
         <ns1:ParentLineNumber>10</ns1:ParentLineNumber>
         <ns1:ChildLineNumber>2</ns1:ChildLineNumber>
         <ns1:SeatNumber>3</ns1:SeatNumber>
      </ns1:Details>
   </ns1:ChildTransactionInfo>
   <ns1:ChildTransactionInfo>
      <ns1:TransactionRef>888</ns1:TransactionRef>
      <ns1:Details>
         <ns1:ParentLineNumber>11</ns1:ParentLineNumber>
         <ns1:ChildLineNumber>1</ns1:ChildLineNumber>
         <ns1:SeatNumber>4</ns1:SeatNumber>
      </ns1:Details>
      <ns1:Details>
         <ns1:ParentLineNumber>12</ns1:ParentLineNumber>
         <ns1:ChildLineNumber>2</ns1:ChildLineNumber>
         <ns1:SeatNumber>4</ns1:SeatNumber>
      </ns1:Details>
   </ns1:ChildTransactionInfo>
</ns1:SplitTransactionRequest>
```

SplitTransactionResponse

```
<?xml version="1.0" encoding="UTF-8"?>
<ns1:SplitTransactionResponse
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xmlns:xsd="http://www.w3.org/2001/XMLSchema"
   xmlns:ns1="http://htng.org/PWS/2008B/FoodBevOrdering/Types"
   xsi:schemaLocation="http://htng.org/PWS/2008B/FoodBevOrdering/Types ../FoodBevOrdering.xsd">
   <ns1:LocationRef>MRT42</ns1:LocationRef>
   <ns1:RevenueCenterRef>SKYREST1</ns1:RevenueCenterRef>
   <ns1:Result>
      <ns1:InterfaceVersion>1.0.0</ns1:InterfaceVersion>
      <ns1:Result>
         <ns1:Success>true</ns1:Success>
      </ns1:Result>
   </ns1:Result>
   <ns1:ParentTransaction>
      <ns1:Transaction>
         <ns1:Header>
            <ns1:NumGuests>1</ns1:NumGuests>
            <ns1:OrderTypeIDRef>10</ns1:OrderTypeIDRef>
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Part 8 ***Guest and Room Status Messaging, Version 1.0***

Chapter 49 Document Information

49.1 Change History

Version	Date	Author	Comments
0.1	July 7, 2009	Christopher Laffoon (IBM)	Original Structure and Outline
0.2	July 8, 2009	GRSM Team	Adding comments and outline from team
0.3	July 9, 2009	Christopher Laffoon	Initial Content in Ch.3 and Ch.4
0.4	July 10, 2009	Christopher Laffoon	Changes and outlines from team; More diagrams; Added some clarifying explanations in use cases.
0.5	July 12, 2009	Gregory DeWitt	Initial Content in Ch. 2
0.6	July 13, 2009	Christopher Laffoon	Minor edits to Ch. 2 and 3 content
0.7	July 13, 2009	GRSM Team	Adding comments and edits from team
0.8	July 13, 2009	Christopher Laffoon	Added Instance Documents and more editing
1.0	Sept 24, 2009		General Release

49.2 Purpose

Hotel Hospitality Systems are increasingly being asked to provide greater property wide service and management utility, personalized guest experience delivery, and patron reward services management. To remain competitive, hotel operators are being asked to provide increased in-room control and advanced services as standard features. With this comes the need for greater in-room intelligence and open communications between room based systems and property operations systems. Hospitality Guest and Property Management System vendors, in turn, are attempting to address these challenges by providing new features, functions and benefits in hopes of gaining greater market share. This document describes how a vendor may utilize advanced service delivery message to communicate with in-room systems, devices and services by using the HTNGs XML based Guest and Room Status Messaging (GRSM) schemas. This results in providing guest and room status notification messaging derived from industry standard schemas to insure increased cross industry system interoperability, flexible feature extensions and faster service roll out.

49.3 Scope

This GRSM document targets the release of a specification providing the necessary components, including design recommendations, WSDLs, XSDs, and Use Cases allowing a hospitality operator or hospitality system provider to design and deploy subscription based services in line with best practices methods and procedures that meet or exceed industry current web services standards specifications. Basic functionality of the GRSM service supports publishing of Guest Room Event Notification. This GRSM document specifically addresses Guest Check-In, Guest Check-Out, Guest Room Move, and Guest Information Change use cases. Future releases will expand on the support of these use cases while adding additional use cases such as In-Room Control Notification, In-room Entertainment Notification and In-room Communications Notification.

49.4 Audience

This document is intended to aid design, integration and deployment of hospitality services requiring interrogation and notification of guest and guest room information services. The document specifically targets hospitality service developers, integrators and operators.

49.5 Overview

Content contained in this document has been designed to assist the design, implementation and integration of property wide event notification messaging based services requiring dynamic access to guest and room status information. Document content provided by chapter to assist audience evaluation is as follows:

Chapter 50 - Business Process

This chapter explains the business process that our messaging is seeking to. This includes use cases regarding Guests Checking In and Out of Hotel Rooms/Suites and also includes use cases related to Guests Moving Rooms or changing important Guest/Profile Information. In addition to defining these use cases, this chapter describes the different Business System Roles and the Messages that are defined in this specification to enable these Use Cases.

Chapter 51 - Schemas

This chapter outlines the design decisions, the messages, and common types that comprise the technical artifacts for this certification release of GRSM v1.0 that can be found in a separate ZIP file included with specification.

Chapter 52 - Implementation Requirements

This chapter is intended to indicate the mandatory and optional requirements for implementing this specification.

49.6 Terms

For the purpose of this document the following terms have been defined as follows:

Term	Definition
Suite	A collection of rooms that can be sold as a single unit of inventory.
Room Sharing	More than one Guest is occupying a given Room, each responsible for their own charges.
Primary Share	The Guest and/or Reservation that is considered default.
Related Traveler	An individual who is accompanying a Guest as part of a single reservation.
Preferences	Desired behavior and environment details associated with a Guest.

49.7 Referenced Documents

The following table shows the documents upon which this document depends:

Name	**Location**
HTNG Framework 2.1.1	http://www.htng.org/specs
OpenTravel 2008B Release	http://www.opentravel.org

Chapter 50 Business Process

50.1 Overview

This chapter explains the business process for which this specification is defining standardizing messaging. This includes use cases regarding Guests Checking In and Out of Hotel Rooms/Suites. This also includes use cases related to Guests Moving Rooms or changing important Guest/Profile Information. In addition to defining these use cases, this chapter will describe the different Business System Roles and the Messages that will be defined in this specification to enable the Use Cases.

50.2 Roles

There are two different roles that are defined for this specification: Room Stay Information Provider and Room Stay Information Consumer. The Room Stay Information Provider issues key data related to Guests and Room Stay information about those Guests. Examples of Room Stay Information Providers are Property Management Systems, Guest Information Systems, and Customer Relationship Management systems. The Room Stay Information Consumer needs access to key data related to Guests and Room Stay information. Examples of Room Stay Information Consumer include In-Room Entertainment Systems, Door-Locking Systems, In-room control systems (zone controller), Point of Sale Systems, and Energy Management Systems.

50.3 Behavior

This specification defines the messages for a Room Stay Information Provider to notify one or more Room Stay Information Consumers regarding changes in Guest, Room, Reservation, or Stay information.

50.4 Use Cases

Check-In

Assumptions

1. The Guest has a reservation and the guest profile (either default or custom) and reservation type are in the Guest/Property Management System (GMS/PMS). If the Guest is a walk-in these details are setup via the Front Desk staff. Details collected include:-
    a. Guest details such as name, address, credit card information
    b. The Guest may setup or have information stored relating to particular features they wish the property/room to honor.
        i. Their language of choice (English, French etc.). In this case we recommend the use of ISO 639-2 (i.e. 3 character language codes)
        ii. The temperature of the room
        iii. Their normal wakeup time
        iv. Favorite TV or Radio channels (i.e. the top 15 channels that would be easily accessible by the Guest)

        v. Security preferences they wish for the entertainment system
        vi. A pre-recorded voice mail greeting they like to use
        vii. Instructions on where to forward calls/notifications for missed calls when they are not available
        viii. Instructions relating to their privacy
    c. Information relating to the room and types of services this Guest requires
    d. Information relating to whether this Guest is sharing with other Guests, with this a notation that determines whether this Guest is the "Primary" guest in the room
    e. Information regarding this guests participation with a Group
2. The property has a room for the guest either through pre-allocation or allocation on the fly. The room status is known and is most likely vacant/clean, however if the Guest is sharing this is less important.
3. The interested systems have registered themselves for Checkin event notification from the GMS/PMS and will be notified immediately when the check-in event takes place.

Check-In Event

A Guest arrives at a kiosk, front desk, or online site to check-in for the guest room.
Following typical check-in procedures, the kiosk, front desk application, or online portal updates the (GMS/PMS) with the Guest's check-in status and also updates the particular room (rooms in the case of a suite lock off).

If the room is currently occupied on guest check-in since this guest is part of a share, a notification is sent to interested subscribers to update interested parties of this guest's arrival and preferences for the room. If this new guest is intended to be the primary share, then a smooth transition process might occur to set the preferences for this guest instead of the one(s) already in the room.

If the room is currently unoccupied on guest check-in then messages are sent to notify the subscribed systems that the guest is checking in. During the process the following takes place:-

1. The PMS/GMS then sends messages to the Door system to enable the guest to enter their particular room/rooms
2. Messages are sent to notify the guest room devices, which need to set guest preferences that the guest has checked in. This includes, but is not limited to the Entertainment system, Telephone system, Energy management system, and Blind control system (shades). The notification message contains necessary guest preference information from the GMS/PMS or a CRM system for that Guest to set the preferences accordingly. This information is used to provision the services the guest has requested. This includes the telephone switch (PBX), In-Room Entertainment systems, and others which become activated with appropriate limits and permissions.
3. Messages are sent to any appropriate staff management systems/tools to provision additional services for the room if not already in place(i.e. a cot or additional pillows)
4. If needed a health check of all devices can be performed following the check-in notification to verify that all of the devices are up and operational.

Current Status

Following the messaging/update process, each of the provisioned systems have context on the Guest/Reservation and room and can be queried for their status and completeness at providing their services. Each system needs to be able to differentiate whether subsequent Check-in and/or Guest information update events should reset their status or just update the elements that have been changed (i.e. room temperature).

Check-Out

Assumptions

The Guest has a reservation and the guest profile, the reservation type(s) are in the Guest/Property Management System (GMS/PMS) and the guest has been checked-in at the property.

Check-Out Event

A guest arrives at a kiosk, front desk, uses an online site or device in the room or makes phone call to check-out of the guest room. Following typical checkout procedures, the kiosk, front desk application, online portal, or telephone system informs the GMS/PMS that the Guest is checking out.

If the room will remain occupied on guest check-out since this guest is part of a share, a notification is sent to interested subscribers to update interested parties of the new primary guest's details and notification is made to indicate that this guest and reservation have been checked-out.

If the room will be unoccupied on guest check-out then messages are sent to notify the subscribed systems that the guest is checking out. During the process the following takes place:-

- If a device is unready for checkout, a corresponding message is issued by that device directly to the in-room controller, kiosk, or related by clerk from PMS. (E.g.: Guest forgets wallet in safe while trying to checkout. The safe receives the status message, provides information to the checkout device(s), and the guest is notified.) **[The messages to support this functionality will be added in a future release]**
- The guest is asked for any forwarding details i.e. Email or mobile device information and is asked if they wish to have their guest folio and or messages forwarded to these devices. In addition the guest is asked if they wish to save their phone greeting if they have updated it during their stay.
- A message is sent to subscribed systems/devices to notify them that the guest is checked out and to set the new status of the room. Room status may be vacant dirty, vacant clean, vacant out of service or other statuses as defined by the GMS/PMS.
- Immediate results or things that happen after a default grace period has successfully expired, during which no activity has been detected in the room,:
    - Devices are deactivated (e.g.:: TV system turns off)
    - Devices are "depersonalized" (e.g.: personalized TV screen, blinds, lighting, energy management system turning up the heat setting and/or requesting the default profile in order to set the temperature)
    - Un-provision permissions / limits are reset

- After guest has checked out and room has been un-provisioned, subscribing systems would be notified of this final state (for example, housekeeping system notified of readiness for cleaning) **[The messages to support this functionality will be added in a future release]**

Current Status

Following the messaging process, each of the provisioned systems have context on the current status of the room and can be queried for their status and completeness at providing their services.

During housekeeping or maintenance activities the room may need to be provisioned into a quasi state that provides adequate services for the function being performed (i.e. lights on, blinds open and phone and entertainment system operational but not available for charging during housekeeping activity).

Room Move

Assumptions

The Guest has a reservation and a guest profile and the guest has been checked-in at the property. The guest may have been in the property for some time and may also be staying in a room in a guest share arrangement.

Room Move Event

The Guest requests a room move (from room #1) and following the normal availability check a new room (room #2) is identified for this guest or group of guests (in the case of a share). The various scenarios are described below:-

If room #1 will remain occupied after the guest moves rooms since this guest was part of a share, the following will need to occur.

1. A guest notification is sent to interested subscribers to update them with old information for room #1. This will establish the new primary guest's details. If the guest staying in the room was originally the primary no changes to the room should take place. If one of the guests staying in the room becomes a new primary guest, all of the devices in the room need to migrate to the new guests settings in a graceful manner. A mechanism to establish a new key/access privileges will be offered to the room #1 guests.

2. The same guest notification is used to update interested parties with new information for room #2. A selected guest will be nominated as the primary and their guest preference settings will provided. A new key/access privileges will be issued to the guest(s) in room #2.

3. Systems involved in providing guest amenities will need to determine if any amenity needs to be moved from room #1 to room #2.

If the room#1 will be unoccupied on room move then messages are sent to notify the subscribed systems that the guest(s) are undergoing a room move. During the process the following takes place:-

1. If a device is unready for checkout, a corresponding message is issued by that device directly to the in-room controller, kiosk, or related by clerk from PMS. (E.g.: Guest forgets wallet in safe while trying to checkout. The safe receives the status message, provides information to the checkout device(s), and the guest is notified.) **[The messages to support this functionality will be added in a future release]**
2. A message is sent to subscribed systems/devices to notify them that the guest is moving rooms and to set the status of the old room (room #1) to "room check needed". If the room move is due to a fault condition, the old room is set "out of service" due to the fault.
3. Actions that happen after a default grace period has successfully expired, during which no activity has been detected in the room, include:
    a. Devices are deactivated (e.g.:: TV system turns off)
    b. Devices are "depersonalized" (e.g.: personalized TV screen, blinds, lighting, energy management system turning up the heat setting and/or requesting the default profile in order to set the temperature)
    c. Un-provision permissions / limits are reset
4. After guest has moved and room has been un-provisioned, subscribing systems would be notified of this final state (for example, housekeeping system notified of readiness for a check) **[The messages to support this functionality will be added in a future release]**
5. A room move message is sent to all systems subscribed to the message. The message includes details of the old (room #1) and the new room (room #2) by doing this.
    a. Amenity systems can organize the transfer of key items
    b. A graceful transfer of purchased services can take place (i.e. Internet, Movies, Room Service)
    c. Equipment is provisioned in the new room (room#2) in preparation for the guest(s) arrival

Current Status

Following the messaging process, each of the provisioned systems have context on the current status of the rooms and can be queried for their status and completeness at providing their services.

During housekeeping or maintenance activities the room may need to be provisioned into a quasi state that provides adequate services for the function being performed (i.e. lights on, blinds open and phone and entertainment system operational but not available for charging during housekeeping activity).

Guest Information Change

Assumptions

1. The guest has checked into a property and all of the necessary information has been exchanged between the servers of the differing vendor types.
2. All servers from the known vendors have registered for notification when guest information is changed.

Guest Information Change Event

When the guest enters their room they notice that their name is misspelled on the devices that provide a personalized welcome message. These devices may include but are not limited to the telephone and the television. The guest calls the front desk to notify them of the error and the front desk personnel correct the mistake in the GMS/PMS.

A notification process ensues that may include the following:

- The GMS/PMS sends a message to all of the servers that have registered for the guest information change event. This event will contain the relevant guest information for each guest registered in that room. The event will also identify the primary guest. At this time, we believe guest information includes the guest's name and their preferred language. Additional information may be added as the specification progresses.

Alternate Scenarios

A guest name change may also be required if multiple guests were checked into the same room/unit and the primary guest checks out. In this situation a guest information change event would be used to notify all of the servers.

Current Status

Following the change in the GMS/PMS downstream systems receiving the Guest Information Change Event should perform a comparison on their current record keeping for the Guest. If the Guest information has been updated, these changes should be immediately applied. If there is a conflict on an update (i.e. the downstream system believes it will affect the integrity of its record keeping and exception should be noted and highlighted to the downstream systems administrative support.

50.5 Message Flows

This section will describe each Use Case and the messages that have been defined in order to enable the use cases.

Guest Checks In

The HTNG_CheckInNotification message is a one-way message sent from a Room Stay Information Provider to a Room Stay Information Consumer containing information about one or more Guests that have checked into a single Room/Suite, whether or not other Guests are already in that Room/Suite.

Guest Checks Out

The HTNG_CheckOutNotification message is a one-way message sent from a Room Stay Information Provider to a Room Stay Information Consumer containing information about one or more Guests that have checked out of a single Room/Suite, whether or not other Guests remain in that Room/Suite.

Guest Moves Rooms

The HTNG_RoomMoveNotification message is a one-way message sent from a Room Stay Information Provider to a Room Stay Information Consumer containing information about one or more Guests that have moved from one Room/Suite to another Room/Suite within the property, whether or not other Guests remain in the previous room or other Guests are already in the new room.

Guest Information Change

The HTNG_StayUpdateNotification message is a one-way message sent from a Room Stay Information Provider to a Room Stay Information Consumer containing information about a Guest whose profile or other information has changed.

Chapter 51 Schemas

This chapter outlines the design decisions, the messages, and common types that comprise the technical artifacts for this certification release of GRSM v1.0 that can be found in a separate ZIP file included with specification.

51.1 Design Decisions

This section is intended to capture some details and explanations of how the technical artifacts (schemas and WSDLs) were constructed and why they were created differently than previous HTNG work product.

Common Schema Files

The best practice of constructing a common data object schema file as a place to capture simple and complex schema types that can be reused with several different messages has been implemented for a few of the HTNG web service certification releases. However, these data objects were not defined according to any other standard, and because they are in a namespace that is specific for the messages and version they support, this common schema file is not as useful for future specification building as it could be.

This first release of the Guest and Room Status Messaging specification attempts to take this concept a few more steps forward. This is done by creating a common complex schema types file (HTNG_ComplexTypes_2009B.xsd) and a common simple schema types file (HTNG_SimpleTypes_2009B.xsd). The majority of the complex and simple types that are defined in these files are based on the 2008B release of the OpenTravel specification. This was done in order to enable reuse of well-defined data objects from an organization where a lot of overlap exists. However, it was decided that in order to not create an unnecessary dependency on OpenTravel, in the case where their future specs change how certain types are defined, the decision was made to copy the definitions and put them into an HTNG namespace.

This specification also takes this concept of a common data object schema files to another level by putting the common files (both HTNG_ComplexTypes_2009B.xsd and HTNG_SimpleTypes_2009B.xsd) in a namespace that is not dependent on either the GRSM messages being created or the version of the specification. This namespace (http://htng.org/Common) is intended to not be changed in future versions of this specification or other specifications that might reuse some of these common schema files. Creating a common namespace allows pieces of code that are based on the data objects in the common files to not change with future releases, thus ideally allowing more flexibility and reusability; however, the fact that there is one namespace means that a given data object entity within these files should not be changed in future releases, else there would be conflicting definitions of the same type. Instead, it is intended that new data objects would be created that are new or that extend existing types. Although there will be one common namespace for future releases of this common schema files, in order to not confuse implementers of the specs, the name of the common files will be labeled with the release they were intended for.

Message Schema Files

Following the OpenTravel message architecture for constructing schemas, each GRSM v1.0 message has been defined in a separate schema file. Unlike previous releases of web service message definitions, however, these message definitions are named (HTNG_xxxx.xsd) and are in a namespace (http://htng.org/2009B) that is independent of this GRSM specification. Whilst this is a deviation from the Framework 2.1.1 specification, it is an evolutionary step to enable better reuse of these messages. The fact that previously released messages were defined in a namespace specific to that specification did not allow a future specification to easily consume these messages, thus creating a situation where the same or very similar message was defined twice. Therefore, in order to minimize the existence of this problem, these GRSM messages are defined without regards to the specification for which they were created.

WSDL Construction

The WSDL for this first release of GRSM specification follows very similar guidelines as the message schema files, as in it has been defined in a namespace that is independent of the specification for which it is was intended (http://htng.org/2009B). In addition to following the guidelines of the HTNG Framework 2.1.1 regarding separating the schemas from the WSDLs, this specification has taken the extra step to separate the WSDL into three different files. This was done in order to simplify the implementation of production web services based on these WSDLs. In reality, this GRSM specification only goes as far to standardize the portType definitions of the WSDL, since this is defining the interfaces for creating a web service that uses the messages that are created. For those who choose to implement according to the HTNG Framework 2.1, which is not all of the vendor community, the WSDL bindings can be standardized around the SOAP/HTTP transport for the portTypes defined in this specification. The actual WSDL service definitions are implementation specific details, as they might contain other bindings and other portTypes that are not part of this specification. It was this thinking that led to the splitting of the WSDL into three separate files: HTNG_Ports.wsdl, HTNG_Bindings.wsdl, and HTNG_ServiceExamples.wsdl. For those who only want to only implement the portType with proprietary bindings and services, the HTNG_Ports.wsdl file will not have to be modified, and for those who want to define their services using HTNG Framework 2.1, then the HTNG_Bindings.wsdl can be used without modifying the service specific details. The HTNG_ServiceExamples.wsdl file is only included in order to validate the correct construction of the WSDL and to give implementers a guide of how to implement these services.

The splitting of this WSDL into three files, where HTNG_ServiceExamples.wsdl includes HTNG_Bindings.wsdl, which includes HTNG_Ports.wsdl, works smoothly as best as known with the code generation tools that are typically used in the industry. Examples of this code generation have and will continue to be posted on the HTNG Collaboration Site.

Extension Points

For this release, extension points in the schema files were created according to the HTNG Framework 2.1, which says to include an xs:any element within any complexType definition which is intended to be extended in the future. This allows any implementation specific content to be added to the message without having to change the standardized schemas. Thus, if an implementer wants to extend this GRSM v1.0 specification, it is expected they would create their own schema file that defines their specific content and then reference both the HTNG standardized schemas and their own proprietary schema files in the xml instance documents.

OpenTravel Code Tables

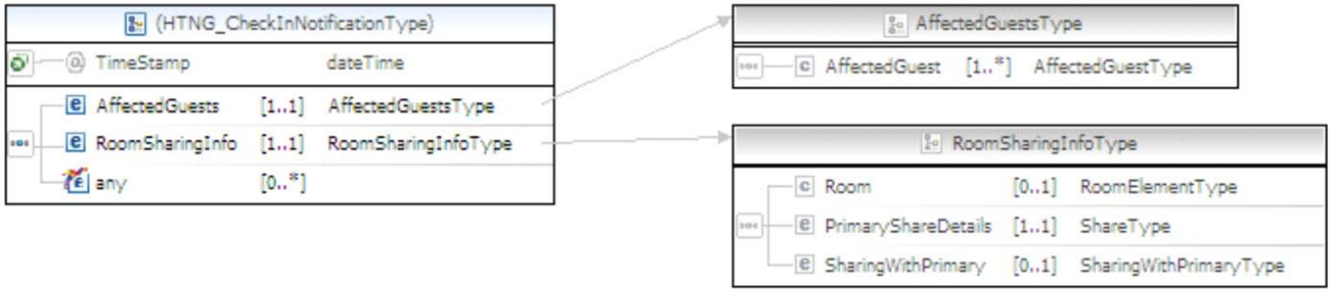
Because this specification has built many data objects in a style that is based on OpenTravel 2008B release, it has also defined several code table types that will have a need to reference back to the OpenTravel code tables, which are kept in a spreadsheet and schema form within the OpenTravel organization. Due to OpenTravel’s desire to make the code tables backwards compatible, there should not be any conflicts with using the latest version of the OpenTravel code table in conjunction with this specification. However, in any cases where conflict occurs, this specification was created with the 2008B OpenTravel release in mind, thus this version should be fallen back upon in such cases.

51.2 Guest & Room Status Messaging Messages

The following sections describe in more detail the four different messages defined as part of the GRSM v1.0 specification.

HTNG_CheckInNotification

The HTNG_CheckInNotification message is defined within the HTNG_CheckInNotification.xsd schema definition file, which imports the HTNG_ComplexTypes_2009B.xsd schema definition file. The following diagram and table detail each of the high level elements in the HTNG_CheckInNotification. More details for each complex type referenced can be found later under “Complex Types.”


(HTNG_CheckInNotificationType)
TimeStamp
dateTime
AffectedGuests
[1..1]
AffectedGuestsType
RoomSharingInfo
[1..1]
RoomSharingInfoType
any
[0..*]
AffectedGuestsType
AffectedGuest
[1..*]
AffectedGuestType
RoomSharingInfoType
Room
[0..1]
RoomElementType
PrimaryShareDetails
[1..1]
ShareType
SharingWithPrimary
[0..1]
SharingWithPrimaryType

HTNG_CheckInNotification

```
<xs:element name="HTNG_CheckInNotification">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="AffectedGuests" type="common:AffectedGuestsType" minOccurs="1"/>
      <xs:element name="RoomSharingInfo" type="common:RoomSharingInfoType" minOccurs="1"/>
      <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other"/>
    </xs:sequence>
    <xs:attributeGroup ref="common:HTNG_PayloadStdAttributes"/>
  </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
AffectedGuests	element	AffectedGuestsType	required	These are the guests that are checking into the hotel room.
RoomSharingInfo	element	RoomSharingInfoType	required	This is a snapshot of the room sharing information (whether other guests are checked in or not).
HTNG_PayloadStdAttributes	attributeGroup			

Simple Check-In Message Example

John Smith has checked into the hotel for his reservation (Jan. 10, 2010 to Jan. 12, 2010 in a KingSize Room) at 10 AM. He has received a special internet rate for his King size room, potentially because he is a Gold member in the WorldTravelers loyalty program. When he checks into the hotel, he is assigned room 1201, where he looks forward to seeing his preferences for TV channels (Discovery, Learning Channel, History Channel) set on the entertainment system.

The following XML example is a HTNG_CheckInNotification message that would be sent for the simple check-in scenario above:

```
<?xml version="1.0" encoding="UTF-8"?>
<tns:HTNG_CheckInNotification TimeStamp="2009-07-10T16:20:47Z"
   xsi:schemaLocation="http://htng.org/2009B HTNG_CheckInNotification.xsd"
   xmlns:tns="http://htng.org/2009B" xmlns:htng="http://htng.org/Common"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <tns:AffectedGuests>
      <htng:AffectedGuest ReservationID="RES123" GuestID="GST123" />
   </tns:AffectedGuests>
   <tns:RoomSharingInfo>
      <htng:Room RoomID="1201">
         <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
            <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
               Ocean View King Room
            </htng:RoomDescription>
         </htng:RoomType>
      </htng:Room>
      <htng:PrimaryShareDetails DepartureTime="10:00:00" ArrivalTime="16:00:00">
         <htng:Reservation MarketCode="T" CreateDateTime="2008-12-17T09:30:47Z" ResStatus="Reserved"
            CreatorID="CRS123" SourceOfBusiness="Internet" LastModifierID="AGT123"
            LastModifyDateTime="2008-12-17T09:30:47Z">
            <htng:HotelReservationIDs>
               <htng:HotelReservationID ResID_Date="2008-12-17T09:30:47Z"
                  ResID_SourceContext="CRS123" ResID_Type="14" ResID_Value="RES123"
                  ResID_Source="CRS123" />
            </htng:HotelReservationIDs>
            <htng:RoomTypes>
               <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
                  <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
                     Ocean View King Room
                  </htng:RoomDescription>
               </htng:RoomType>
            </htng:RoomTypes>
            <htng:RatePlans>
               <htng:RatePlan RatePlanCode="RAT123" RatePlanName="Special Internet Rate" />
            </htng:RatePlans>
            <htng:GuestCounts>
               <htng:GuestCount AgeQualifyingCode="10" Count="2" />
            </htng:GuestCounts>
            <htng:TimeSpan End="2010-01-10" Start="2010-01-12" />
            <htng:AvailableCredit>0</htng:AvailableCredit>
         </htng:Reservation>
         <htng:Guest GroupEventCode="GRP123">
            <htng:Profiles>
   <htng:ProfileInfo>
      <htng:UniqueID Type="1" ID_Context="CRS123" ID="GST123" />
      <htng:Profile ProfileType="1">
         <htng:Customer Language="en-us" VIP_Indicator="false" LockoutType=""
            CurrencyCode="USD" BirthDate="1967-08-13" Gender="Male" DecimalPlaces="2">
            <htng:PersonName>
               <htng:NamePrefix>Mr.</htng:NamePrefix>
               <htng:GivenName>John</htng:GivenName>
               <htng:Surname>Smith</htng:Surname>
            </htng:PersonName>
            <htng:Telephone PhoneUseType="3" Extension="101" PhoneLocationType="6"
               PhoneTechType="1" PhoneNumber="3035560" FormattedInd="false"
               DefaultInd="true" CountryAccessCode="" AreaCityCode="847" />
            <htng:Email EmailType="1" DefaultInd="true">john.smith@htng.org</htng:Email>
            <htng:Address Type="2" FormattedInd="false" DefaultInd="true">
               <htng:StreetNmbr>650</htng:StreetNmbr>
               <htng:AddressLine>E. Algonquin Road</htng:AddressLine>
               <htng:AddressLine>Suite 106</htng:AddressLine>
               <htng:CityName>Schaumburg</htng:CityName>
               <htng:PostalCode>60173</htng:PostalCode>
               <htng:County>Cook</htng:County>
               <htng:StateProv StateCode="IL">Illinois</htng:StateProv>
               <htng:CountryName Code="US">United States</htng:CountryName>
            </htng:Address>
            <htng:CustLoyalty ExpireDateExclusiveIndicator="true"
               AllianceLoyaltyLevelName="Gold" SignupDate="2007-08-13"
               ExpireDate="2012-08-13" SingleVendorInd="SingleVndr"
               PrimaryLoyaltyIndicator="true" EffectiveDate="2007-08-13"
               CustomerType="Bisiness" LoyalLevelCode="100" LoyalLevel=""
               TravelSector="3" MembershipID="123456789" VendorCode=""
               CustomerValue="Standard" ProgramID="WORLDTRAVELERS" Remark="" />
            <htng:AdditionalLanguage Code="fr" />
         </htng:Customer>
         <htng:UserID Type="1" ID_Context="PMS123" ID="4864" PinNumber="1234" />
         <htng:Preferences>
            <htng:Preference PreferenceType="Television">
               <htng:PreferenceItem UnitOfMeasure="Channel"
                  Description="Discovery Channel" Value="DSC" SortOrder="1" />
               <htng:PreferenceItem UnitOfMeasure="Channel"
                  Description="The Learning Channel" Value="TLC" SortOrder="2" />
               <htng:PreferenceItem UnitOfMeasure="Channel"
                  Description="History Channel" Value="HIST" SortOrder="3" />
            </htng:Preference>
         </htng:Preferences>
      </htng:Profile>
   </htng:ProfileInfo>
</htng:Profiles>
<htng:ArrivalTransport>
   <htng:TransportInfo Type="14" LocationCode="MCO" ID="132" Time="2010-01-10T14:00:00" />
</htng:ArrivalTransport>
<htng:DepartureTransport>
   <htng:TransportInfo Type="14" LocationCode="MCO" ID="456" Time="2010-01-12T09:30:00" />
</htng:DepartureTransport>
```

```
        </htng:Guest>
      </htng:PrimaryShareDetails>
   </tns:RoomSharingInfo>
</tns:HTNG_CheckInNotification>
```

Check-In with Suite Message Example

John Smith has checked into the hotel for his reservation (Jan. 10, 2010 to Jan. 12, 2010 in an Ocean View Suite) at 10 AM. He has received a special internet rate for his suite, potentially because he is a Gold member in the WorldTravelers loyalty program. When he checks into the hotel, he is assigned Suite 100 (which consists of Rooms 1201 and 1202), where he looks forward to seeing his preferences for TV channels (Discovery, Learning Channel, History Channel) set on the entertainment system.

The following XML example is a HTNG_CheckInNotification message that would be sent for the check-in with suite scenario above:

```
<?xml version="1.0" encoding="UTF-8"?>
<tns:HTNG_CheckInNotification TimeStamp="2009-07-10T16:20:47Z"
   xsi:schemaLocation="http://htng.org/2009B HTNG_CheckInNotification.xsd"
   xmlns:tns="http://htng.org/2009B" xmlns:htng="http://htng.org/Common"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <tns:AffectedGuests>
      <htng:AffectedGuest ReservationID="RES123" GuestID="GST123" />
   </tns:AffectedGuests>
   <tns:RoomSharingInfo>
      <htng:Room RoomID="STE100">
         <htng:RoomType RoomTypeCode="STEOCN" InvBlockCode="GRP123" IsRoom="true">
            <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
               Ocean View Suite
            </htng:RoomDescription>
         </htng:RoomType>
         <htng:ComponentRooms>
            <htng:ComponentRoom RoomID="1201">
               <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
                  <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
                     Ocean View King Room
                  </htng:RoomDescription>
               </htng:RoomType>
            </htng:ComponentRoom>
            <htng:ComponentRoom RoomID="1202">
               <htng:RoomType RoomTypeCode="PARLOR" InvBlockCode="GRP123" IsRoom="true">
                  <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
                     Ocean View Parlor Room
                  </htng:RoomDescription>
               </htng:RoomType>
            </htng:ComponentRoom>
         </htng:ComponentRooms>
      </htng:Room>
      <htng:PrimaryShareDetails DepartureTime="10:00:00" ArrivalTime="16:00:00">
         <htng:Reservation MarketCode="T" CreateDateTime="2008-12-17T09:30:47Z" ResStatus="Reserved"
            CreatorID="CRS123" SourceOfBusiness="Internet" LastModifierID="AGT123"
            LastModifyDateTime="2008-12-17T09:30:47Z">
         <htng:HotelReservationIDs>
            <htng:HotelReservationID ResID_Date="2008-12-17T09:30:47Z"
               ResID_SourceContext="CRS123" ResID_Type="14" ResID_Value="RES123"
               ResID_Source="CRS123" />
         </htng:HotelReservationIDs>
         <htng:RoomTypes>
            <htng:RoomType RoomTypeCode="STEOCN" InvBlockCode="GRP123" IsRoom="true">
               <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
                  Ocean View Suite
               </htng:RoomDescription>
            </htng:RoomType>
         </htng:RoomTypes>
         <htng:RatePlans>
            <htng:RatePlan RatePlanCode="RAT123" RatePlanName="Special Internet Rate" />
         </htng:RatePlans>
         <htng:GuestCounts>
            <htng:GuestCount AgeQualifyingCode="10" Count="2" />
         </htng:GuestCounts>
         <htng:TimeSpan End="2010-01-10" Start="2010-01-12" />
         <htng:AvailableCredit>0</htng:AvailableCredit>
      </htng:Reservation>
      <htng:Guest GroupEventCode="GRP123">
         <htng:Profiles>
            <htng:ProfileInfo>
               <htng:UniqueID Type="1" ID_Context="CRS123" ID="GST123" />
               <htng:Profile ProfileType="1">
                  <htng:Customer Language="en-us" VIP_Indicator="false" LockoutType=""
                     CurrencyCode="USD" BirthDate="1967-08-13" Gender="Male" DecimalPlaces="2">
                     <htng:PersonName>
                        <htng:NamePrefix>Mr.</htng:NamePrefix>
                        <htng:GivenName>John</htng:GivenName>
                        <htng:Surname>Smith</htng:Surname>
                     </htng:PersonName>
                     <htng:Telephone PhoneUseType="3" Extension="101" PhoneLocationType="6"
                        PhoneTechType="1" PhoneNumber="3035560" FormattedInd="false"
                        DefaultInd="true" CountryAccessCode="" AreaCityCode="847" />
                     <htng:Email EmailType="1" DefaultInd="true">john.smith@htng.org</htng:Email>
                     <htng:Address Type="2" FormattedInd="false" DefaultInd="true">
                        <htng:StreetNmbr>650</htng:StreetNmbr>
                        <htng:AddressLine>E. Algonquin Road</htng:AddressLine>
                        <htng:CityName>Schaumburg</htng:CityName>
                        <htng:PostalCode>60173</htng:PostalCode>
                        <htng:County>Cook</htng:County>
                        <htng:StateProv StateCode="IL">Illinois</htng:StateProv>
                        <htng:CountryName Code="US">United States</htng:CountryName>
                     </htng:Address>
                     <htng:PhysChallName PhysChallInd="false"></htng:PhysChallName>
                     <htng:CustLoyalty ExpireDateExclusiveIndicator="true"
                        AllianceLoyaltyLevelName="Gold" SignupDate="2007-08-13"
                        ExpireDate="2012-08-13" SingleVendorInd="SingleVndr"
                        PrimaryLoyaltyIndicator="true" EffectiveDate="2007-08-13"
                        CustomerType="Bisiness" LoyalLevelCode="100" LoyalLevel=""
                        TravelSector="3" MembershipID="123456789" VendorCode=""
```

```
                           CustomerValue="Standard" ProgramID="WORLDTRAVELERS" Remark="" />
                        <htng:AdditionalLanguage Code="fr" />
                     </htng:Customer>
                     <htng:UserID Type="1" ID_Context="PMS123" ID="4864" PinNumber="1234" />
                     <htng:Preferences>
                        <htng:Preference PreferenceType="Television">
                           <htng:PreferenceItem UnitOfMeasure="Channel"
                              Description="Discovery Channel" Value="DSC" SortOrder="1" />
                           <htng:PreferenceItem UnitOfMeasure="Channel"
                              Description="The Learning Channel" Value="TLC" SortOrder="2" />
                           <htng:PreferenceItem UnitOfMeasure="Channel"
                              Description="History Channel" Value="HIST" SortOrder="3" />
                        </htng:Preference>
                     </htng:Preferences>
                  </htng:Profile>
               </htng:ProfileInfo>
            </htng:Profiles>
            <htng:ArrivalTransport>
               <htng:TransportInfo Type="14" LocationCode="MCO" ID="132" Time="2010-01-10T14:00:00" />
            </htng:ArrivalTransport>
            <htng:DepartureTransport>
               <htng:TransportInfo Type="14" LocationCode="MCO" ID="456" Time="2010-01-12T09:30:00" />
            </htng:DepartureTransport>
         </htng:Guest>
      </htng:PrimaryShareDetails>
   </tns:RoomSharingInfo>
</tns:HTNG_CheckInNotification>
```

Room Sharing Check-In Message Example

John Smith has checked into the hotel for his reservation (Jan. 10, 2010 to Jan. 12, 2010 in an Ocean View King Room) at 10 AM. John has received a special internet rate for his room, potentially because he is a Gold member in the WorldTravelers loyalty program. John's brother Joe Smith will be staying with him, but he has not checked into the hotel yet. When John checks into the hotel, he is assigned Room 1201, where he looks forward to seeing his preferences for TV channels (Discovery, Learning Channel, History Channel) set on the entertainment system. Although Joe has different preferences for his TV channels for the room, John is the primary guest in the room and his preferences will most likely be used.

The following XML example is a HTNG_CheckInNotification message that would be sent for the Room Sharing Check-In scenario above:

```
<?xml version="1.0" encoding="UTF-8"?>
<tns:HTNG_CheckInNotification TimeStamp="2009-07-10T16:20:47Z"
   xsi:schemaLocation="http://htng.org/2009B HTNG_CheckInNotification.xsd"
   xmlns:tns="http://htng.org/2009B" xmlns:htng="http://htng.org/Common"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <tns:AffectedGuests>
      <htng:AffectedGuest ReservationID="RES123" GuestID="GST123" />
   </tns:AffectedGuests>
   <tns:RoomSharingInfo>
      <htng:Room RoomID="1201">
         <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
      <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
         Ocean View King Room
      </htng:RoomDescription>
   </htng:RoomType>
</htng:Room>
<htng:PrimaryShareDetails DepartureTime="10:00:00" ArrivalTime="16:00:00">
   <htng:Reservation MarketCode="T" CreateDateTime="2008-12-17T09:30:47Z" ResStatus="Reserved"
      CreatorID="CRS123" SourceOfBusiness="Internet" LastModifierID="AGT123"
      LastModifyDateTime="2008-12-17T09:30:47Z">
      <htng:HotelReservationIDs>
         <htng:HotelReservationID ResID_Date="2008-12-17T09:30:47Z"
            ResID_SourceContext="CRS123" ResID_Type="14" ResID_Value="RES123"
            ResID_Source="CRS123" />
      </htng:HotelReservationIDs>
      <htng:RoomTypes>
         <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
            <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
               Ocean View King Room
            </htng:RoomDescription>
         </htng:RoomType>
      </htng:RoomTypes>
      <htng:RatePlans>
         <htng:RatePlan RatePlanCode="RAT123" RatePlanName="Special Internet Rate" />
      </htng:RatePlans>
      <htng:GuestCounts>
         <htng:GuestCount AgeQualifyingCode="10" Count="2" />
      </htng:GuestCounts>
      <htng:TimeSpan End="2010-01-10" Start="2010-01-12" />
      <htng:AvailableCredit>0</htng:AvailableCredit>
   </htng:Reservation>
   <htng:Guest GroupEventCode="GRP123">
      <htng:Profiles>
         <htng:ProfileInfo>
            <htng:UniqueID Type="1" ID_Context="CRS123" ID="GST123" />
            <htng:Profile ProfileType="1">
               <htng:Customer Language="en-us" VIP_Indicator="false" LockoutType=""
                  CurrencyCode="USD" BirthDate="1967-08-13" Gender="Male" DecimalPlaces="2">
                  <htng:PersonName>
                     <htng:NamePrefix>Mr.</htng:NamePrefix>
                     <htng:GivenName>John</htng:GivenName>
                     <htng:SurnamePrefix></htng:SurnamePrefix>
                     <htng:Surname>Smith</htng:Surname>
                  </htng:PersonName>
                  <htng:Telephone PhoneUseType="3" Extension="101" PhoneLocationType="6"
                     PhoneTechType="1" PhoneNumber="3035560" FormattedInd="false"
                     DefaultInd="true" CountryAccessCode="" AreaCityCode="847" />
                  <htng:Email EmailType="1" DefaultInd="true">john.smith@htng.org</htng:Email>
                  <htng:Address Type="2" FormattedInd="false" DefaultInd="true">
                     <htng:StreetNmbr>650</htng:StreetNmbr>
                     <htng:AddressLine>E. Algonquin Road</htng:AddressLine>
                     <htng:CityName>Schaumburg</htng:CityName>
                     <htng:PostalCode>60173</htng:PostalCode>
                     <htng:County>Cook</htng:County>
```

```
                           <htng:StateProv StateCode="IL">Illinois</htng:StateProv>
                           <htng:CountryName Code="US">United States</htng:CountryName>
                        </htng:Address>
                        <htng:PhysChallName PhysChallInd="false"></htng:PhysChallName>
                        <htng:CustLoyalty ExpireDateExclusiveIndicator="true"
                           AllianceLoyaltyLevelName="Gold" SignupDate="2007-08-13"
                           ExpireDate="2012-08-13" SingleVendorInd="SingleVndr"
                           PrimaryLoyaltyIndicator="true" EffectiveDate="2007-08-13"
                           CustomerType="Bisiness" LoyalLevelCode="100" LoyalLevel=""
                           TravelSector="3" MembershipID="123456789" VendorCode=""
                           CustomerValue="Standard" ProgramID="WORLDTRAVELERS" Remark="" />
                        <htng:AdditionalLanguage Code="fr" />
                     </htng:Customer>
                     <htng:UserID Type="1" ID_Context="PMS123" ID="4864" PinNumber="1234" />
                     <htng:Preferences>
                        <htng:Preference PreferenceType="Television">
                           <htng:PreferenceItem UnitOfMeasure="Channel"
                              Description="Discovery Channel" Value="DSC" SortOrder="1" />
                           <htng:PreferenceItem UnitOfMeasure="Channel"
                              Description="The Learning Channel" Value="TLC" SortOrder="2" />
                           <htng:PreferenceItem UnitOfMeasure="Channel"
                              Description="History Channel" Value="HIST" SortOrder="3" />
                        </htng:Preference>
                     </htng:Preferences>
                  </htng:Profile>
               </htng:ProfileInfo>
            </htng:Profiles>
            <htng:ArrivalTransport>
               <htng:TransportInfo Type="14" LocationCode="MCO" ID="132" Time="2010-01-10T14:00:00" />
            </htng:ArrivalTransport>
            <htng:DepartureTransport>
               <htng:TransportInfo Type="14" LocationCode="MCO" ID="456" Time="2010-01-12T09:30:00" />
            </htng:DepartureTransport>
         </htng:Guest>
      </htng:PrimaryShareDetails>
      <htng:SharingWithPrimary>
         <htng:Share DepartureTime="10:00:00" ArrivalTime="16:00:00">
            <htng:Reservation MarketCode="T" CreateDateTime="2001-12-17T09:30:47Z"
               ResStatus="Reserved" CreatorID="CRS123" SourceOfBusiness="Internet"
               LastModifierID="AGT123" LastModifyDateTime="2008-12-17T09:30:47Z">
               <htng:HotelReservationIDs>
                  <htng:HotelReservationID ResID_Date="2008-12-17T09:30:47Z"
                     ResID_SourceContext="CRS123" ResID_Type="14" ResID_Value="RES456"
                     ResID_Source="CRS123" />
               </htng:HotelReservationIDs>
               <htng:RoomTypes>
                  <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
                     <htng:RoomDescription Language="en-us" Formatted="true"
                        TextFormat="PlainText">
                        Ocean View King Room
                     </htng:RoomDescription>
                  </htng:RoomType>
               </htng:RoomTypes>
```

```
   <htng:RatePlans>
      <htng:RatePlan RatePlanCode="RAT123" RatePlanName="Special Internet Rate" />
   </htng:RatePlans>
   <htng:GuestCounts>
      <htng:GuestCount AgeQualifyingCode="10" Count="1" />
   </htng:GuestCounts>
   <htng:TimeSpan End="2010-01-10" Start="2010-01-12" />
   <htng:AvailableCredit>0</htng:AvailableCredit>
</htng:Reservation>
<htng:Guest GroupEventCode="GRP123">
   <htng:Profiles>
      <htng:ProfileInfo>
         <htng:UniqueID Type="1" ID_Context="CRS123" ID="GST789" />
         <htng:Profile ProfileType="1">
            <htng:Customer Language="en-us" VIP_Indicator="false" LockoutType=""
               CurrencyCode="USD" BirthDate="1967-08-13" Gender="Male"
               DecimalPlaces="2">
               <htng:PersonName>
                  <htng:NamePrefix>Mr.</htng:NamePrefix>
                  <htng:GivenName>Joe</htng:GivenName>
                  <htng:MiddleName></htng:MiddleName>
                  <htng:SurnamePrefix></htng:SurnamePrefix>
                  <htng:Surname>Smith</htng:Surname>
                  <htng:NameSuffix></htng:NameSuffix>
                  <htng:NameTitle></htng:NameTitle>
               </htng:PersonName>
               <htng:Telephone PhoneUseType="3" Extension="102" PhoneLocationType="6"
                  PhoneTechType="1" PhoneNumber="3035560" FormattedInd="false"
                  DefaultInd="true" CountryAccessCode="" AreaCityCode="847" />
               <htng:Email EmailType="1" DefaultInd="true">
                  joe.smith@htng.org
               </htng:Email>
               <htng:Address Type="2" FormattedInd="false" DefaultInd="true">
                  <htng:StreetNmbr>650</htng:StreetNmbr>
                  <htng:BldgRoom BldgNameIndicator="false"></htng:BldgRoom>
                  <htng:AddressLine>E. Algonquin Road</htng:AddressLine>
                  <htng:CityName>Schaumburg</htng:CityName>
                  <htng:PostalCode>60173</htng:PostalCode>
                  <htng:County>Cook</htng:County>
                  <htng:StateProv StateCode="IL">Illinois</htng:StateProv>
                  <htng:CountryName Code="US">United States</htng:CountryName>
                  <htng:CompanyName CodeContext="" CompanyShortName="HTNG" Department=""
                     Division="" TravelSector="" Code="HTNG">
                     Hotel Technology Next Generation
                  </htng:CompanyName>
               </htng:Address>
               <htng:PhysChallName PhysChallInd="false"></htng:PhysChallName>
               <htng:CustLoyalty ExpireDateExclusiveIndicator="true"
                  AllianceLoyaltyLevelName="Gold" SignupDate="2009-01-13"
                  ExpireDate="2014-01-13" SingleVendorInd="SingleVndr"
                  PrimaryLoyaltyIndicator="true" EffectiveDate="2009-01-13"
                  CustomerType="Business" LoyalLevelCode="100" LoyalLevel=""
                  TravelSector="3" MembershipID="987654321" VendorCode=""
```

```
                              CustomerValue="Standard" ProgramID="WORLDTRAVELERS" Remark="" />
                           <htng:AdditionalLanguage Code="en-us" />
                        </htng:Customer>
                        <htng:UserID Type="1" ID_Context="PMS123" ID="7427" PinNumber="456" />
                        <htng:Preferences>
                           <htng:Preference PreferenceType="Television">
                              <htng:PreferenceItem UnitOfMeasure="Channel"
                                 Description="Cable News Network" Value="CNN" SortOrder="1" />
                              <htng:PreferenceItem UnitOfMeasure="Channel"
                                 Description="Bloomberg Business Television" Value="BLOOM"
                                 SortOrder="2" />
                           </htng:Preference>
                        </htng:Preferences>
                     </htng:Profile>
                  </htng:ProfileInfo>
               </htng:Profiles>
               <htng:ArrivalTransport>
                  <htng:TransportInfo Type="14" LocationCode="MCO" ID="132"
                     Time="2010-01-10T14:00:00" />
               </htng:ArrivalTransport>
               <htng:DepartureTransport>
                  <htng:TransportInfo Type="14" LocationCode="MCO" ID="456"
                     Time="2010-01-12T09:30:00" />
               </htng:DepartureTransport>
            </htng:Guest>
         </htng:Share>
      </htng:SharingWithPrimary>
   </tns:RoomSharingInfo>
</tns:HTNG_CheckInNotification>
```

Related Traveler Check-In Message Example

John Smith has checked into the hotel for his reservation (Jan. 10, 2010 to Jan. 12, 2010 in an Ocean View King Room) at 10 AM with his wife Sally. John has received a special internet rate for his room, potentially because he is a Gold member in the WorldTravelers loyalty program. When John checks into the hotel, he is assigned Room 1201, where he looks forward to seeing his preferences for TV channels (Discovery, Learning Channel, History Channel) set on the entertainment system.

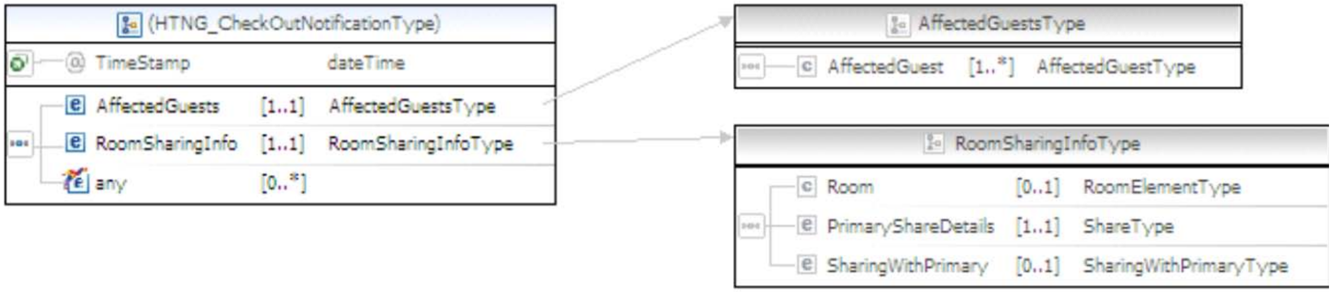
The following XML example is a HTNG_CheckInNotification message that would be sent for the Room Sharing Check-In scenario above:

```
<?xml version="1.0" encoding="UTF-8"?>
<tns:HTNG_CheckInNotification TimeStamp="2009-07-10T16:20:47Z"
   xsi:schemaLocation="http://htng.org/2009B HTNG_CheckInNotification.xsd"
   xmlns:tns="http://htng.org/2009B" xmlns:htng="http://htng.org/Common"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <tns:AffectedGuests>
      <htng:AffectedGuest ReservationID="RES123" GuestID="GST123" />
   </tns:AffectedGuests>
   <tns:RoomSharingInfo>
      <htng:Room RoomID="1201">
```

```
         <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
            <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
               Ocean View King Room
            </htng:RoomDescription>
         </htng:RoomType>
      </htng:Room>
      <htng:PrimaryShareDetails DepartureTime="10:00:00" ArrivalTime="16:00:00">
         <htng:Reservation MarketCode="T" CreateDateTime="2008-12-17T09:30:47Z" ResStatus="Reserved"
            CreatorID="CRS123" SourceOfBusiness="Internet" LastModifierID="AGT123"
            LastModifyDateTime="2008-12-17T09:30:47Z">
            <htng:HotelReservationIDs>
               <htng:HotelReservationID ResID_Date="2008-12-17T09:30:47Z"
                  ResID_SourceContext="CRS123" ResID_Type="14" ResID_Value="RES123"
                  ResID_Source="CRS123" />
            </htng:HotelReservationIDs>
            <htng:RoomTypes>
               <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
                  <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
                     Ocean View King Room
                  </htng:RoomDescription>
               </htng:RoomType>
            </htng:RoomTypes>
            <htng:RatePlans>
               <htng:RatePlan RatePlanCode="RAT123" RatePlanName="Special Internet Rate" />
            </htng:RatePlans>
            <htng:GuestCounts>
               <htng:GuestCount AgeQualifyingCode="10" Count="2" />
            </htng:GuestCounts>
            <htng:TimeSpan End="2010-01-10" Start="2010-01-12" />
            <htng:AvailableCredit>0</htng:AvailableCredit>
         </htng:Reservation>
         <htng:Guest GroupEventCode="GRP123">
            <htng:Profiles>
               <htng:ProfileInfo>
                  <htng:UniqueID Type="1" ID_Context="CRS123" ID="GST123" />
                  <htng:Profile ProfileType="1">
                     <htng:Customer Language="en-us" VIP_Indicator="false" LockoutType=""
                        CurrencyCode="USD" BirthDate="1967-08-13" Gender="Male" DecimalPlaces="2">
                        <htng:PersonName>
                           <htng:NamePrefix>Mr.</htng:NamePrefix>
                           <htng:GivenName>John</htng:GivenName>
                           <htng:Surname>Smith</htng:Surname>
                        </htng:PersonName>
                        <htng:Telephone PhoneUseType="3" Extension="101" PhoneLocationType="6"
                           PhoneTechType="1" PhoneNumber="3035560" FormattedInd="false"
                           DefaultInd="true" CountryAccessCode="" AreaCityCode="847" />
                        <htng:Email EmailType="1" DefaultInd="true">john.smith@htng.org</htng:Email>
                        <htng:Address Type="2" FormattedInd="false" DefaultInd="true">
                           <htng:StreetNmbr>650</htng:StreetNmbr>
                           <htng:AddressLine>E. Algonquin Road</htng:AddressLine>
                           <htng:CityName>Schaumburg</htng:CityName>
                           <htng:PostalCode>60173</htng:PostalCode>
                           <htng:County>Cook</htng:County>
                           <htng:StateProv StateCode="IL">Illinois</htng:StateProv>
                           <htng:CountryName Code="US">United States</htng:CountryName>
                        </htng:Address>
                        <htng:PhysChallName PhysChallInd="false"></htng:PhysChallName>
                        <htng:RelatedTraveler Relation="Spouse" BirthDate="1967-08-13">
                           <htng:UniqueID Type="1" ID_Context="CRS123" ID="GST456" />
                           <htng:PersonName>
                              <htng:NamePrefix>Mrs.</htng:NamePrefix>
                              <htng:GivenName>Sally</htng:GivenName>
                              <htng:Surname>Smith</htng:Surname>
                           </htng:PersonName>
                        </htng:RelatedTraveler>
                        <htng:CustLoyalty ExpireDateExclusiveIndicator="true"
                           AllianceLoyaltyLevelName="Gold" SignupDate="2007-08-13"
                           ExpireDate="2012-08-13" SingleVendorInd="SingleVndr"
                           PrimaryLoyaltyIndicator="true" EffectiveDate="2007-08-13"
                           CustomerType="Bisiness" LoyalLevelCode="100" LoyalLevel=""
                           TravelSector="3" MembershipID="123456789" VendorCode=""
                           CustomerValue="Standard" ProgramID="WORLDTRAVELERS" Remark="" />
                        <htng:AdditionalLanguage Code="fr" />
                     </htng:Customer>
                     <htng:UserID Type="1" ID_Context="PMS123" ID="4864" PinNumber="1234" />
                     <htng:Preferences>
                        <htng:Preference PreferenceType="Television">
                           <htng:PreferenceItem UnitOfMeasure="Channel"
                              Description="Discovery Channel" Value="DSC" SortOrder="1" />
                           <htng:PreferenceItem UnitOfMeasure="Channel"
                              Description="The Learning Channel" Value="TLC" SortOrder="2" />
                           <htng:PreferenceItem UnitOfMeasure="Channel"
                              Description="History Channel" Value="HIST" SortOrder="3" />
                        </htng:Preference>
                     </htng:Preferences>
                  </htng:Profile>
               </htng:ProfileInfo>
            </htng:Profiles>
            <htng:ArrivalTransport>
               <htng:TransportInfo Type="14" LocationCode="MCO" ID="132" Time="2010-01-10T14:00:00" />
            </htng:ArrivalTransport>
            <htng:DepartureTransport>
               <htng:TransportInfo Type="14" LocationCode="MCO" ID="456" Time="2010-01-12T09:30:00" />
            </htng:DepartureTransport>
         </htng:Guest>
      </htng:PrimaryShareDetails>
   </tns:RoomSharingInfo>
</tns:HTNG_CheckInNotification>
```

HTNG_CheckOutNotification

The HTNG_CheckOutNotification message is defined within the HTNG_CheckOutNotification.xsd schema definition file, which imports the HTNG_ComplexTypes_2009B.xsd schema definition file. The following diagram and table detail each of the high level elements in the HTNG_CheckOutNotification. More details for each complex type referenced can be found later under “Complex Types.”


(HTNG_CheckOutNotificationType)
TimeStamp dateTime
AffectedGuests [1..1] AffectedGuestsType
RoomSharingInfo [1..1] RoomSharingInfoType
any [0..*]
AffectedGuestsType
AffectedGuest [1..*] AffectedGuestType
RoomSharingInfoType
Room [0..1] RoomElementType
PrimaryShareDetails [1..1] ShareType
SharingWithPrimary [0..1] SharingWithPrimaryType

HTNG_CheckOutNotification

```
<xs:element name="HTNG_CheckOutNotification">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="AffectedGuests" type="common:AffectedGuestsType" minOccurs="1"/>
      <xs:element name="RoomSharingInfo" type="common:RoomSharingInfoType" minOccurs="1"/>
      <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other"/>
    </xs:sequence>
    <xs:attributeGroup ref="common:HTNG_PayloadStdAttributes"/>
  </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
AffectedGuests	element	AffectedGuestsType	required	These are the guests that are checking out of the hotel room.
RoomSharingInfo	element	RoomSharingInfoType	required	This is a snapshot of the room sharing information (whether other guests are checked in or out).
HTNG_PayloadStdAttributes	attributeGroup			

Simple Check-Out Message Example

John Smith has checked out of the hotel and has reconciled his folio at 4 PM on Jan. 12, 2010. He had received a special internet rate for his King size room, potentially because he is a Gold member in the WorldTravelers loyalty program. He checks out of hotel room 1201, where he has been staying since Jan. 10, 2010.

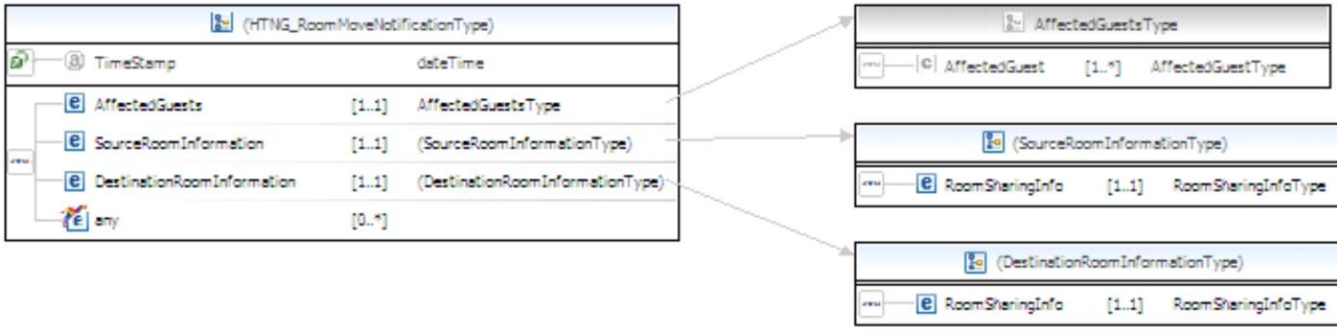
The following XML example is a HTNG_CheckOutNotification message that would be sent for the simple check-out scenario above:

```
<?xml version="1.0" encoding="UTF-8"?>
<tns:HTNG_CheckOutNotification TimeStamp="2001-12-17T09:30:47Z"
   xsi:schemaLocation="http://htng.org/2009B HTNG_CheckOutNotification.xsd"
   xmlns:tns="http://htng.org/2009B" xmlns:htng="http://htng.org/Common"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <tns:AffectedGuests>
   <htng:AffectedGuest ReservationID="RES123" GuestID="GST123" />
</tns:AffectedGuests>
<tns:RoomSharingInfo>
   <htng:Room RoomID="1201">
      <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
         <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
            Ocean View King Room
         </htng:RoomDescription>
      </htng:RoomType>
   </htng:Room>
   <htng:PrimaryShareDetails DepartureTime="10:00:00" ArrivalTime="16:00:00">
      <htng:Reservation MarketCode="T" CreateDateTime="2008-12-17T09:30:47Z" ResStatus="Reserved"
         CreatorID="CRS123" SourceOfBusiness="Internet" LastModifierID="AGT123"
         LastModifyDateTime="2008-12-17T09:30:47Z">
         <htng:HotelReservationIDs>
            <htng:HotelReservationID ResID_Date="2008-12-17T09:30:47Z"
               ResID_SourceContext="CRS123" ResID_Type="14" ResID_Value="RES123"
               ResID_Source="CRS123" />
         </htng:HotelReservationIDs>
         <htng:RoomTypes>
            <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
               <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
                  Ocean View King Room
               </htng:RoomDescription>
            </htng:RoomType>
         </htng:RoomTypes>
         <htng:RatePlans>
            <htng:RatePlan RatePlanCode="RAT123" RatePlanName="Special Internet Rate" />
         </htng:RatePlans>
         <htng:GuestCounts>
            <htng:GuestCount AgeQualifyingCode="10" Count="2" />
         </htng:GuestCounts>
         <htng:TimeSpan End="2010-01-10" Start="2010-01-12" />
         <htng:AvailableCredit>0</htng:AvailableCredit>
      </htng:Reservation>
      <htng:Guest GroupEventCode="GRP123">
         <htng:Profiles>
            <htng:ProfileInfo>
               <htng:UniqueID Type="1" ID_Context="CRS123" ID="GST123" />
               <htng:Profile ProfileType="1">
                  <htng:Customer Language="en-us" VIP_Indicator="false" LockoutType=""
                     CurrencyCode="USD" BirthDate="1967-08-13" Gender="Male" DecimalPlaces="2">
                     <htng:PersonName>
                        <htng:NamePrefix>Mr.</htng:NamePrefix>
                        <htng:GivenName>John</htng:GivenName>
                        <htng:Surname>Smith</htng:Surname>
                     </htng:PersonName>
                     <htng:Telephone PhoneUseType="3" Extension="101" PhoneLocationType="6"
                        PhoneTechType="1" PhoneNumber="3035560" FormattedInd="false"
                        DefaultInd="true" CountryAccessCode="" AreaCityCode="847" />
                     <htng:Email EmailType="1" DefaultInd="true">john.smith@htng.org</htng:Email>
                     <htng:Address Type="2" FormattedInd="false" DefaultInd="true">
                        <htng:StreetNmbr>650</htng:StreetNmbr>
```

```
                           <htng:AddressLine>E. Algonquin Road</htng:AddressLine>
                           <htng:AddressLine>Suite 106</htng:AddressLine>
                           <htng:CityName>Schaumburg</htng:CityName>
                           <htng:PostalCode>60173</htng:PostalCode>
                           <htng:County>Cook</htng:County>
                           <htng:StateProv StateCode="IL">Illinois</htng:StateProv>
                           <htng:CountryName Code="US">United States</htng:CountryName>
                        </htng:Address>
                        <htng:CustLoyalty ExpireDateExclusiveIndicator="true"
                           AllianceLoyaltyLevelName="Gold" SignupDate="2007-08-13"
                           ExpireDate="2012-08-13" SingleVendorInd="SingleVndr"
                           PrimaryLoyaltyIndicator="true" EffectiveDate="2007-08-13"
                           CustomerType="Bisiness" LoyalLevelCode="100" LoyalLevel=""
                           TravelSector="3" MembershipID="123456789" VendorCode=""
                           CustomerValue="Standard" ProgramID="WORLDTRAVELERS" Remark="" />
                        <htng:AdditionalLanguage Code="fr" />
                     </htng:Customer>
                     <htng:UserID Type="1" ID_Context="PMS123" ID="4864" PinNumber="1234" />
                     <htng:Preferences>
                        <htng:Preference PreferenceType="Television">
                           <htng:PreferenceItem UnitOfMeasure="Channel"
                              Description="Discovery Channel" Value="DSC" SortOrder="1" />
                           <htng:PreferenceItem UnitOfMeasure="Channel"
                              Description="The Learning Channel" Value="TLC" SortOrder="2" />
                           <htng:PreferenceItem UnitOfMeasure="Channel"
                              Description="History Channel" Value="HIST" SortOrder="3" />
                        </htng:Preference>
                     </htng:Preferences>
                  </htng:Profile>
               </htng:ProfileInfo>
            </htng:Profiles>
            <htng:ArrivalTransport>
               <htng:TransportInfo Type="14" LocationCode="MCO" ID="132" Time="2010-01-10T14:00:00" />
            </htng:ArrivalTransport>
            <htng:DepartureTransport>
               <htng:TransportInfo Type="14" LocationCode="MCO" ID="456" Time="2010-01-12T09:30:00" />
            </htng:DepartureTransport>
         </htng:Guest>
      </htng:PrimaryShareDetails>
   </tns:RoomSharingInfo>
</tns:HTNG_CheckOutNotification>
```

HTNG_RoomMoveNotification

The HTNG_RoomMoveNotification message is defined within the HTNG_RoomMoveNotification.xsd schema definition file, which imports the HTNG_ComplexTypes_2009B.xsd schema definition file. The following diagram and table detail each of the high level elements in the HTNG_RoomMoveNotification. More details for each complex type referenced can be found in later under “Complex Types.”


(HTNG_RoomMoveNotificationType)
TimeStamp
dateTime
AffectedGuests
[1..1]
AffectedGuestsType
SourceRoomInformation
[1..1]
(SourceRoomInformationType)
DestinationRoomInformation
[1..1]
(DestinationRoomInformationType)
any
[0..*]
AffectedGuestsType
AffectedGuest
[1..*]
AffectedGuestType
(SourceRoomInformationType)
RoomSharingInfo
[1..1]
RoomSharingInfoType
(DestinationRoomInformationType)
RoomSharingInfo
[1..1]
RoomSharingInfoType

HTNG_RoomMoveNotification

```
<xs:element name="HTNG_RoomMoveNotification">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="AffectedGuests" type="common:AffectedGuestsType" minOccurs="1"/>
      <xs:element name="SourceRoomInformation" minOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="RoomSharingInfo" type="common:RoomSharingInfoType" minOccurs="1"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="DestinationRoomInformation" minOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="RoomSharingInfo" type="common:RoomSharingInfoType" minOccurs="1"/>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other"/>
    </xs:sequence>
    <xs:attributeGroup ref="common:HTNG_PayloadStdAttributes"/>
  </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
AffectedGuests	element	AffectedGuestsType	required	These are the guests that are checking into the hotel room.
SourceRoomInformation	element	(SourceRoomInformationType)*	required	This describes the information about the room from which these Guest are moving
RoomSharingInfo	element	RoomSharingInfoType	required	This is a snapshot of the room situation

				after the Guests have left.
DestinationRoomInformation	element	(DestinationRoomInformationType)*	required	This describes the information about the room that the Guests are moving to
RoomSharingInfo	element	RoomSharingInfoType	required	This is a snapshot of the room situation after the Guests have arrived.
HTNG_PayloadStdAttributes	attributeGroup			

* This type is defined anonymously within the parent type

Simple Room Move Message Example

John Smith, who had been staying in Room 1201 as part of his reservation (Jan. 10, 2010 to Jan. 12, 2010 in a KingSize Room), has moved to Room 1233, where he now has a Beach View. He has not changed anything on his reservation and still expects that his TV channel preferences (Discovery, History Channel, & Learning Channel) to be set in his new room when he arrives.

The following XML example is a HTNG_RoomMoveNotification message that would be sent for the simple room move scenario above:

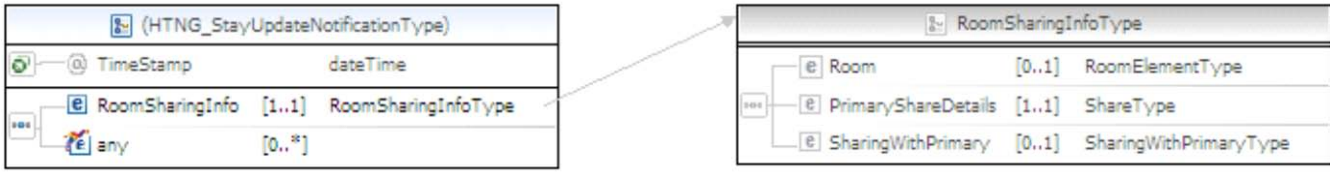
```xml
<?xml version="1.0" encoding="UTF-8"?>
<tns:HTNG_RoomMoveNotification TimeStamp="2001-12-17T09:30:47Z"
   xsi:schemaLocation="http://htng.org/2009B HTNG_RoomMoveNotification.xsd"
   xmlns:tns="http://htng.org/2009B" xmlns:htng="http://htng.org/Common"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <tns:AffectedGuests>
      <htng:AffectedGuest ReservationID="RES123" GuestID="GST123" />
   </tns:AffectedGuests>
   <tns:SourceRoomInformation>
      <tns:RoomSharingInfo>
         <htng:Room RoomID="1201">
            <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
               <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
                  Ocean View King Room
               </htng:RoomDescription>
            </htng:RoomType>
         </htng:Room>
         <htng:PrimaryShareDetails DepartureTime="10:00:00" ArrivalTime="16:00:00">
            <htng:Reservation MarketCode="T" CreateDateTime="2008-12-17T09:30:47Z"
               ResStatus="Reserved" CreatorID="CRS123" SourceOfBusiness="Internet"
               LastModifierID="AGT123" LastModifyDateTime="2008-12-17T09:30:47Z">
               <htng:HotelReservationIDs>
                  <htng:HotelReservationID ResID_Date="2008-12-17T09:30:47Z"
                     ResID_SourceContext="CRS123" ResID_Type="14" ResID_Value="RES123"
                     ResID_Source="CRS123" />
               </htng:HotelReservationIDs>
               <htng:RoomTypes>
                  <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
         <htng:RoomDescription Language="en-us" Formatted="true"
            TextFormat="PlainText">
            Ocean View King Room
         </htng:RoomDescription>
      </htng:RoomType>
   </htng:RoomTypes>
   <htng:RatePlans>
      <htng:RatePlan RatePlanCode="RAT123" RatePlanName="Special Internet Rate" />
   </htng:RatePlans>
   <htng:GuestCounts>
      <htng:GuestCount AgeQualifyingCode="10" Count="2" />
   </htng:GuestCounts>
   <htng:TimeSpan End="2010-01-10" Start="2010-01-12" />
   <htng:AvailableCredit>0</htng:AvailableCredit>
</htng:Reservation>
<htng:Guest GroupEventCode="GRP123">
   <htng:Profiles>
      <htng:ProfileInfo>
         <htng:UniqueID Type="1" ID_Context="CRS123" ID="GST123" />
         <htng:Profile ProfileType="1">
            <htng:Customer Language="en-us" VIP_Indicator="false" LockoutType=""
               CurrencyCode="USD" BirthDate="1967-08-13" Gender="Male"
               DecimalPlaces="2">
               <htng:PersonName>
                  <htng:NamePrefix>Mr.</htng:NamePrefix>
                  <htng:GivenName>John</htng:GivenName>
                  <htng:Surname>Smith</htng:Surname>
               </htng:PersonName>
               <htng:Telephone PhoneUseType="3" Extension="101" PhoneLocationType="6"
                  PhoneTechType="1" PhoneNumber="3035560" FormattedInd="false"
                  DefaultInd="true" CountryAccessCode="" AreaCityCode="847" />
               <htng:Email EmailType="1" DefaultInd="true">
                  john.smith@htng.org
               </htng:Email>
               <htng:Address Type="2" FormattedInd="false" DefaultInd="true">
                  <htng:StreetNmbr>650</htng:StreetNmbr>
                  <htng:AddressLine>E. Algonquin Road</htng:AddressLine>
                  <htng:AddressLine>Suite 106</htng:AddressLine>
                  <htng:CityName>Schaumburg</htng:CityName>
                  <htng:PostalCode>60173</htng:PostalCode>
                  <htng:County>Cook</htng:County>
                  <htng:StateProv StateCode="IL">Illinois</htng:StateProv>
                  <htng:CountryName Code="US">United States</htng:CountryName>
               </htng:Address>
               <htng:CustLoyalty ExpireDateExclusiveIndicator="true"
                  AllianceLoyaltyLevelName="Gold" SignupDate="2007-08-13"
                  ExpireDate="2012-08-13" SingleVendorInd="SingleVndr"
                  PrimaryLoyaltyIndicator="true" EffectiveDate="2007-08-13"
                  CustomerType="Bisiness" LoyalLevelCode="100" LoyalLevel=""
                  TravelSector="3" MembershipID="123456789" VendorCode=""
                  CustomerValue="Standard" ProgramID="WORLDTRAVELERS" Remark="" />
               <htng:AdditionalLanguage Code="fr" />
            </htng:Customer>
```

```
                        <htng:UserID Type="1" ID_Context="PMS123" ID="4864" PinNumber="1234" />
                        <htng:Preferences>
                           <htng:Preference PreferenceType="Television">
                              <htng:PreferenceItem UnitOfMeasure="Channel"
                                 Description="Discovery Channel" Value="DSC" SortOrder="1" />
                              <htng:PreferenceItem UnitOfMeasure="Channel"
                                 Description="The Learning Channel" Value="TLC" SortOrder="2" />
                              <htng:PreferenceItem UnitOfMeasure="Channel"
                                 Description="History Channel" Value="HIST" SortOrder="3" />
                           </htng:Preference>
                        </htng:Preferences>
                     </htng:Profile>
                  </htng:ProfileInfo>
               </htng:Profiles>
               <htng:ArrivalTransport>
                  <htng:TransportInfo Type="14" LocationCode="MCO" ID="132"
                     Time="2010-01-10T14:00:00" />
               </htng:ArrivalTransport>
               <htng:DepartureTransport>
                  <htng:TransportInfo Type="14" LocationCode="MCO" ID="456"
                     Time="2010-01-12T09:30:00" />
               </htng:DepartureTransport>
            </htng:Guest>
         </htng:PrimaryShareDetails>
      </tns:RoomSharingInfo>
   </tns:SourceRoomInformation>
   <tns:DestinationRoomInformation>
      <tns:RoomSharingInfo>
         <htng:Room RoomID="1233">
            <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
               <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
                  Beach View King Room
               </htng:RoomDescription>
            </htng:RoomType>
         </htng:Room>
         <htng:PrimaryShareDetails DepartureTime="10:00:00" ArrivalTime="16:00:00">
            <htng:Reservation MarketCode="T" CreateDateTime="2008-12-17T09:30:47Z"
               ResStatus="Reserved" CreatorID="CRS123" SourceOfBusiness="Internet"
               LastModifierID="AGT123" LastModifyDateTime="2008-12-17T09:30:47Z">
               <htng:HotelReservationIDs>
                  <htng:HotelReservationID ResID_Date="2008-12-17T09:30:47Z"
                     ResID_SourceContext="CRS123" ResID_Type="14" ResID_Value="RES123"
                     ResID_Source="CRS123" />
               </htng:HotelReservationIDs>
               <htng:RoomTypes>
                  <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
                     <htng:RoomDescription Language="en-us" Formatted="true"
                        TextFormat="PlainText">
                        Ocean View King Room
                     </htng:RoomDescription>
                  </htng:RoomType>
               </htng:RoomTypes>
               <htng:RatePlans>
```

```
                  <htng:RatePlan RatePlanCode="RAT123" RatePlanName="Special Internet Rate" />
               </htng:RatePlans>
               <htng:GuestCounts>
                  <htng:GuestCount AgeQualifyingCode="10" Count="2" />
               </htng:GuestCounts>
               <htng:TimeSpan End="2010-01-10" Start="2010-01-12" />
               <htng:AvailableCredit>0</htng:AvailableCredit>
            </htng:Reservation>
            <htng:Guest GroupEventCode="GRP123">
               <htng:Profiles>
                  <htng:ProfileInfo>
                     <htng:UniqueID Type="1" ID_Context="CRS123" ID="GST123" />
                     <htng:Profile ProfileType="1">
                        <htng:Customer Language="en-us" VIP_Indicator="false" LockoutType=""
                           CurrencyCode="USD" BirthDate="1967-08-13" Gender="Male"
                           DecimalPlaces="2">
                           <htng:PersonName>
                              <htng:NamePrefix>Mr.</htng:NamePrefix>
                              <htng:GivenName>John</htng:GivenName>
                              <htng:Surname>Smith</htng:Surname>
                           </htng:PersonName>
                           <htng:Telephone PhoneUseType="3" Extension="101" PhoneLocationType="6"
                              PhoneTechType="1" PhoneNumber="3035560" FormattedInd="false"
                              DefaultInd="true" CountryAccessCode="" AreaCityCode="847" />
                           <htng:Email EmailType="1" DefaultInd="true">
                              john.smith@htng.org
                           </htng:Email>
                           <htng:Address Type="2" FormattedInd="false" DefaultInd="true">
                              <htng:StreetNmbr>650</htng:StreetNmbr>
                              <htng:AddressLine>E. Algonquin Road</htng:AddressLine>
                              <htng:AddressLine>Suite 106</htng:AddressLine>
                              <htng:CityName>Schaumburg</htng:CityName>
                              <htng:PostalCode>60173</htng:PostalCode>
                              <htng:County>Cook</htng:County>
                              <htng:StateProv StateCode="IL">Illinois</htng:StateProv>
                              <htng:CountryName Code="US">United States</htng:CountryName>
                           </htng:Address>
                           <htng:CustLoyalty ExpireDateExclusiveIndicator="true"
                              AllianceLoyaltyLevelName="Gold" SignupDate="2007-08-13"
                              ExpireDate="2012-08-13" SingleVendorInd="SingleVndr"
                              PrimaryLoyaltyIndicator="true" EffectiveDate="2007-08-13"
                              CustomerType="Bisiness" LoyalLevelCode="100" LoyalLevel=""
                              TravelSector="3" MembershipID="123456789" VendorCode=""
                              CustomerValue="Standard" ProgramID="WORLDTRAVELERS" Remark="" />
                           <htng:AdditionalLanguage Code="fr" />
                        </htng:Customer>
                        <htng:UserID Type="1" ID_Context="PMS123" ID="4864" PinNumber="1234" />
                        <htng:Preferences>
                           <htng:Preference PreferenceType="Television">
                              <htng:PreferenceItem UnitOfMeasure="Channel"
                                 Description="Discovery Channel" Value="DSC" SortOrder="1" />
                              <htng:PreferenceItem UnitOfMeasure="Channel"
                                 Description="The Learning Channel" Value="TLC" SortOrder="2" />
                              <htng:PreferenceItem UnitOfMeasure="Channel"
                                 Description="History Channel" Value="HIST" SortOrder="3" />
                           </htng:Preference>
                        </htng:Preferences>
                     </htng:Profile>
                  </htng:ProfileInfo>
               </htng:Profiles>
               <htng:ArrivalTransport>
                  <htng:TransportInfo Type="14" LocationCode="MCO" ID="132"
                     Time="2010-01-10T14:00:00" />
               </htng:ArrivalTransport>
               <htng:DepartureTransport>
                  <htng:TransportInfo Type="14" LocationCode="MCO" ID="456"
                     Time="2010-01-12T09:30:00" />
               </htng:DepartureTransport>
            </htng:Guest>
         </htng:PrimaryShareDetails>
      </tns:RoomSharingInfo>
   </tns:DestinationRoomInformation>
</tns:HTNG_RoomMoveNotification>
```

HTNG_StayUpdateNotification

The HTNG_StayUpdateNotification message is defined within the HTNG_StayUpdateNotification.xsd schema definition file, which imports the HTNG_ComplexTypes_2009B.xsd schema definition file. The following diagram and table detail each of the high level elements in the HTNG_StayUpdateNotification. More details for each complex type referenced can be found later under “Complex Types.”


(HTNG_StayUpdateNotificationType)
TimeStamp
dateTime
RoomSharingInfo
[1..1]
RoomSharingInfoType
any
[0..*]
RoomSharingInfoType
Room
[0..1]
RoomElementType
PrimaryShareDetails
[1..1]
ShareType
SharingWithPrimary
[0..1]
SharingWithPrimaryType

HTNG_StayUpdateNotification

```
<xs:element name="HTNG_StayUpdateNotification">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="RoomSharingInfo" type="common:RoomSharingInfoType" minOccurs="1"/>
      <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other"/>
    </xs:sequence>
    <xs:attributeGroup ref="common:HTNG_PayloadStdAttributes"/>
  </xs:complexType>
</xs:element>
```

Name	**Type**	**Data Type**	**Use**	**Comments**

RoomSharingInfo	element	RoomSharingInfoType	required	This is a snapshot of the room sharing information (whether other guests are checked in or not).
HTNG_PayloadStdAttributes	attributeGroup			

Simple Stay Update Message Example

The following type of message would be sent out to inform other systems that some important information about John Smith, his reservation, or room has changed.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<tns:HTNG_StayUpdateNotification TimeStamp="2001-12-17T09:30:47Z"
   xsi:schemaLocation="http://htng.org/2009B HTNG_StayUpdateNotification.xsd"
   xmlns:tns="http://htng.org/2009B" xmlns:htng="http://htng.org/Common"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <tns:RoomSharingInfo>
      <htng:Room RoomID="1201">
         <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
            <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
               Ocean View King Room
            </htng:RoomDescription>
         </htng:RoomType>
      </htng:Room>
      <htng:PrimaryShareDetails DepartureTime="10:00:00" ArrivalTime="16:00:00">
         <htng:Reservation MarketCode="T" CreateDateTime="2008-12-17T09:30:47Z" ResStatus="Reserved"
            CreatorID="CRS123" SourceOfBusiness="Internet" LastModifierID="AGT123"
            LastModifyDateTime="2008-12-17T09:30:47Z">
            <htng:HotelReservationIDs>
               <htng:HotelReservationID ResID_Date="2008-12-17T09:30:47Z"
                  ResID_SourceContext="CRS123" ResID_Type="14" ResID_Value="RES123"
                  ResID_Source="CRS123" />
            </htng:HotelReservationIDs>
            <htng:RoomTypes>
               <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
                  <htng:RoomDescription Language="en-us" Formatted="true" TextFormat="PlainText">
                     Ocean View King Room
                  </htng:RoomDescription>
               </htng:RoomType>
            </htng:RoomTypes>
            <htng:RatePlans>
               <htng:RatePlan RatePlanCode="RAT123" RatePlanName="Special Internet Rate" />
            </htng:RatePlans>
            <htng:GuestCounts>
               <htng:GuestCount AgeQualifyingCode="10" Count="2" />
            </htng:GuestCounts>
            <htng:TimeSpan End="2010-01-10" Start="2010-01-12" />
            <htng:AvailableCredit>0</htng:AvailableCredit>
         </htng:Reservation>
         <htng:Guest GroupEventCode="GRP123">
```

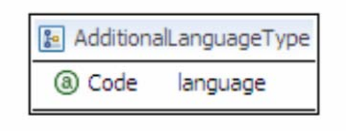
```
<htng:Profiles>
   <htng:ProfileInfo>
      <htng:UniqueID Type="1" ID_Context="CRS123" ID="GST123" />
      <htng:Profile ProfileType="1">
         <htng:Customer Language="en-us" VIP_Indicator="false" LockoutType=""
            CurrencyCode="USD" BirthDate="1967-08-13" Gender="Male" DecimalPlaces="2">
            <htng:PersonName>
               <htng:NamePrefix>Mr.</htng:NamePrefix>
               <htng:GivenName>John</htng:GivenName>
               <htng:Surname>Smith</htng:Surname>
            </htng:PersonName>
            <htng:Telephone PhoneUseType="3" Extension="101" PhoneLocationType="6"
               PhoneTechType="1" PhoneNumber="3035560" FormattedInd="false"
               DefaultInd="true" CountryAccessCode="" AreaCityCode="847" />
            <htng:Email EmailType="1" DefaultInd="true">john.smith@htng.org</htng:Email>
            <htng:Address Type="2" FormattedInd="false" DefaultInd="true">
               <htng:StreetNmbr>650</htng:StreetNmbr>
               <htng:AddressLine>E. Algonquin Road</htng:AddressLine>
               <htng:AddressLine>Suite 106</htng:AddressLine>
               <htng:CityName>Schaumburg</htng:CityName>
               <htng:PostalCode>60173</htng:PostalCode>
               <htng:County>Cook</htng:County>
               <htng:StateProv StateCode="IL">Illinois</htng:StateProv>
               <htng:CountryName Code="US">United States</htng:CountryName>
            </htng:Address>
            <htng:CustLoyalty ExpireDateExclusiveIndicator="true"
               AllianceLoyaltyLevelName="Gold" SignupDate="2007-08-13"
               ExpireDate="2012-08-13" SingleVendorInd="SingleVndr"
               PrimaryLoyaltyIndicator="true" EffectiveDate="2007-08-13"
               CustomerType="Bisiness" LoyalLevelCode="100" LoyalLevel=""
               TravelSector="3" MembershipID="123456789" VendorCode=""
               CustomerValue="Standard" ProgramID="WORLDTRAVELERS" Remark="" />
            <htng:AdditionalLanguage Code="fr" />
         </htng:Customer>
         <htng:UserID Type="1" ID_Context="PMS123" ID="4864" PinNumber="1234" />
         <htng:Preferences>
            <htng:Preference PreferenceType="Television">
               <htng:PreferenceItem UnitOfMeasure="Channel"
                  Description="Discovery Channel" Value="DSC" SortOrder="1" />
               <htng:PreferenceItem UnitOfMeasure="Channel"
                  Description="The Learning Channel" Value="TLC" SortOrder="2" />
               <htng:PreferenceItem UnitOfMeasure="Channel"
                  Description="History Channel" Value="HIST" SortOrder="3" />
            </htng:Preference>
         </htng:Preferences>
      </htng:Profile>
   </htng:ProfileInfo>
</htng:Profiles>
<htng:ArrivalTransport>
   <htng:TransportInfo Type="14" LocationCode="MCO" ID="132" Time="2010-01-10T14:00:00" />
</htng:ArrivalTransport>
<htng:DepartureTransport>
   <htng:TransportInfo Type="14" LocationCode="MCO" ID="456" Time="2010-01-12T09:30:00" />
```

```
            </htng:DepartureTransport>
         </htng:Guest>
      </htng:PrimaryShareDetails>
   </tns:RoomSharingInfo>
</tns:HTNG_StayUpdateNotification>
```

51.3 Complex Types

This section outlines the details of the common complex types found in the HTNG_ComplexTypes_2009B.xsd schema definition file. The Data Types in these tables are either from schema or from HTNG_SimpleTypes_2009B.xsd schema definition file. Most should be self-explanatory.

Additional Language Type

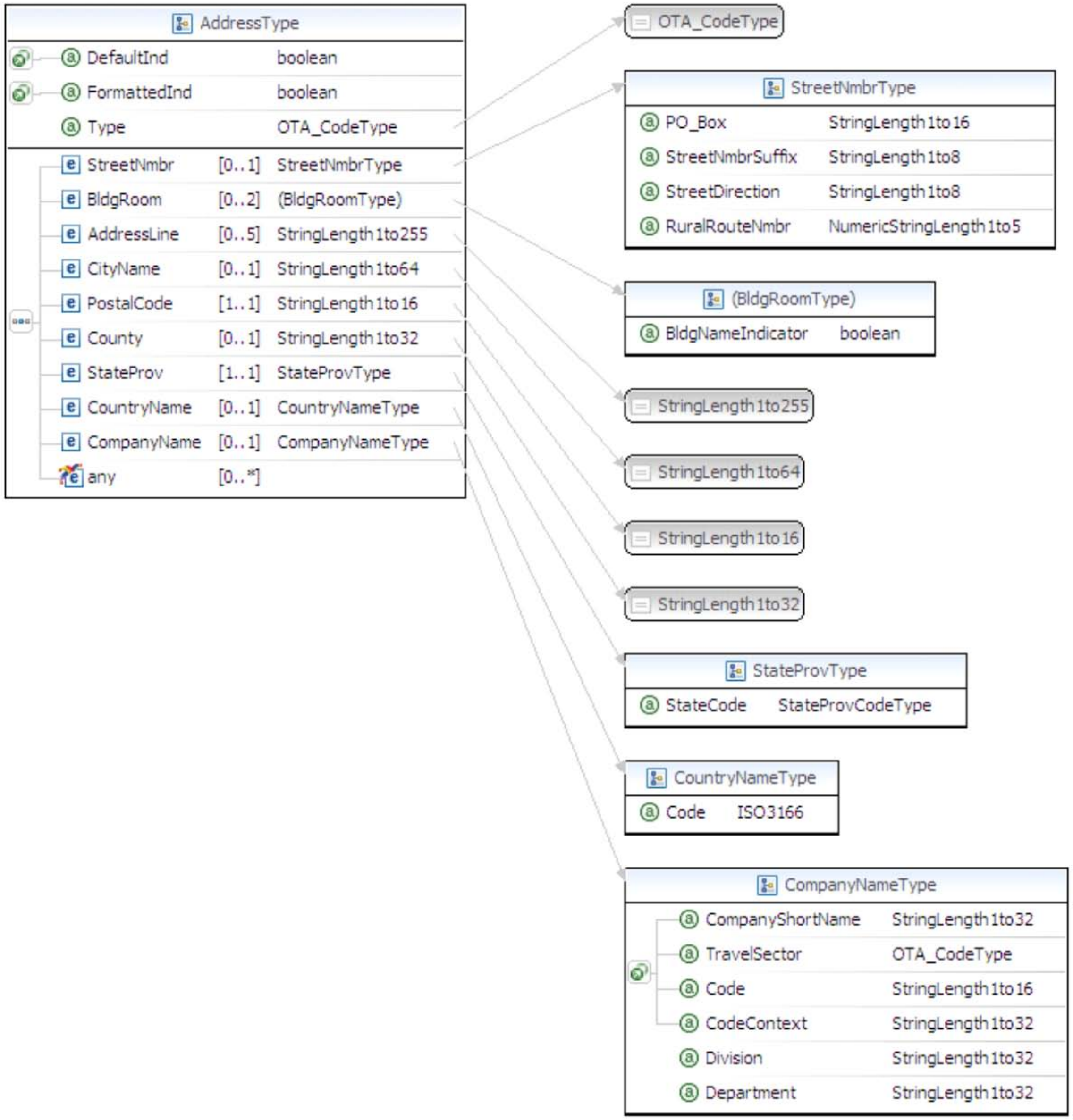


AdditionalLanguageType

```
<xs:complexType name="AdditionalLanguageType">
  <xs:attribute name="Code" type="xs:language" use="required"/>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
Code	attribute	language	required	Code for the language spoken by the customer.

Address Type


AddressType
DefaultInd boolean
FormattedInd boolean
Type OTA_CodeType
StreetNmbr [0..1] StreetNmbrType
BldgRoom [0..2] (BldgRoomType)
AddressLine [0..5] StringLength1to255
CityName [0..1] StringLength1to64
PostalCode [1..1] StringLength1to16
County [0..1] StringLength1to32
StateProv [1..1] StateProvType
CountryName [0..1] CountryNameType
CompanyName [0..1] CompanyNameType
any [0..*]
OTA_CodeType
StreetNmbrType
PO_Box StringLength1to16
StreetNmbrSuffix StringLength1to8
StreetDirection StringLength1to8
RuralRouteNmbr NumericStringLength1to5
(BldgRoomType)
BldgNameIndicator boolean
StringLength1to255
StringLength1to64
StringLength1to16
StringLength1to32
StateProvType
StateCode StateProvCodeType
CountryNameType
Code ISO3166
CompanyNameType
CompanyShortName StringLength1to32
TravelSector OTA_CodeType
Code StringLength1to16
CodeContext StringLength1to32
Division StringLength1to32
Department StringLength1to32

]

AddressType

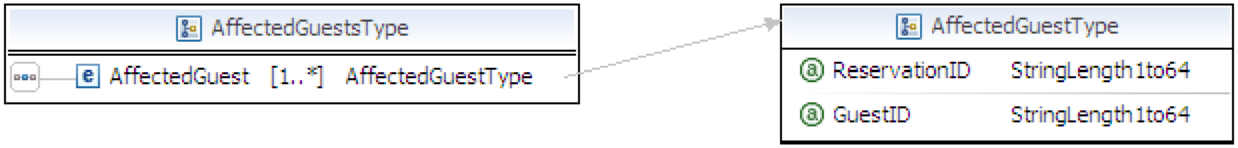
```
<xs:complexType name="AddressType">
  <xs:sequence>
    <xs:element minOccurs="0" name="StreetNmbr" type="tns:StreetNmbrType"/>
    <xs:element maxOccurs="2" minOccurs="0" name="BldgRoom">
      <xs:complexType>
        <xs:simpleContent>
          <xs:extension base="tns:StringLength0to64">
            <xs:attribute name="BldgNameIndicator" type="xs:boolean" use="optional"/>
          </xs:extension>
        </xs:simpleContent>
      </xs:complexType>
    </xs:element>
    <xs:element maxOccurs="5" minOccurs="0" name="AddressLine" type="tns:StringLength1to255" />
    <xs:element minOccurs="0" name="CityName" type="tns:StringLength1to64" />
    <xs:element maxOccurs="1" minOccurs="1" name="PostalCode" type="tns:StringLength1to16" />
    <xs:element minOccurs="0" name="County" type="tns:StringLength1to32" />
    <xs:element maxOccurs="1" minOccurs="1" name="StateProv" type="tns:StateProvType" />
    <xs:element minOccurs="0" name="CountryName" type="tns:CountryNameType" />
    <xs:element minOccurs="0" name="CompanyName" type="tns:CompanyNameType" />
    <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other" />
  </xs:sequence>
  <xs:attributeGroup ref="tns:DefaultIndGroup"/>
  <xs:attributeGroup ref="tns:FormattedInd"/>
  <xs:attribute name="Type" type="tns:OTA_CodeType" use="optional"/>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
StreetNmbr	element	StreetNumbType	optional	May contain the street number and optionally the street name.
BldgRoom	element	(BldgRoomType)*	optional / max 2	Building name, room, apartment, or suite number.
BldgNameIndicator	attribute	boolean	optional	When true, the information is a building name.
AddressLine	element	StringLength1to255	optional / max 5	When the address is unformatted (FormattedInd="false") these lines will contain free form address details. When the address is formatted and street number and street name must be sent independently, the street number will be sent using StreetNmbr, and the street name will be sent in the first AddressLine occurrence.
CityName	element	StringLength1to64	optional	City (e.g., Dublin), town, or postal station (i.e., a postal service territory, often used in a military address).
PostalCode	element	StringLength1to16	required	Post Office Code number.
County	element	StringLength1to32	optional	County or Region Name (e.g., Fairfax).

StateProv	element	StateProvType	required	State or Province name (e.g., Texas).
CountryName	element	CountryNameType	optional	Country name (e.g., Ireland).
CompanyName	element	CompanyNameType	optional	Identifies a company.
DefaultIndGroup	attributeGroup			Identifies whether or not this is the default address.
FormattedInd	attributeGroup			Specifies if the associated data is formatted or not. When true, then it is formatted; when false, then not formatted.
Type	attribute	OTA_CodeType	optional	Defines the type of address (e.g. home, business, other). Refer to OTA Code List Communication Location Type (CLT).

* This type is defined anonymously within the parent type

Affected Guests Type

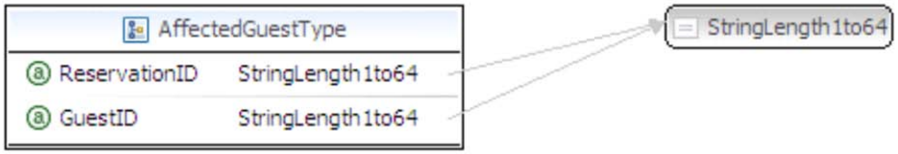

AffectedGuestsType
AffectedGuest [1..*] AffectedGuestType
AffectedGuestType
ReservationID StringLength1to64
GuestID StringLength1to64

AffectedGuestsType

```
<xs:complexType name="AffectedGuestsType">
  <xs:sequence>
    <xs:element maxOccurs="unbounded" minOccurs="1" name="AffectedGuest" type="tns:AffectedGuestType" />
  </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
AffectedGuest	element	AffectedGuestType	required / multiple	This is the affected guest in an affected guest collection.

Affected Guest Type


AffectedGuestType
ReservationID StringLength1to64
GuestID StringLength1to64
StringLength1to64

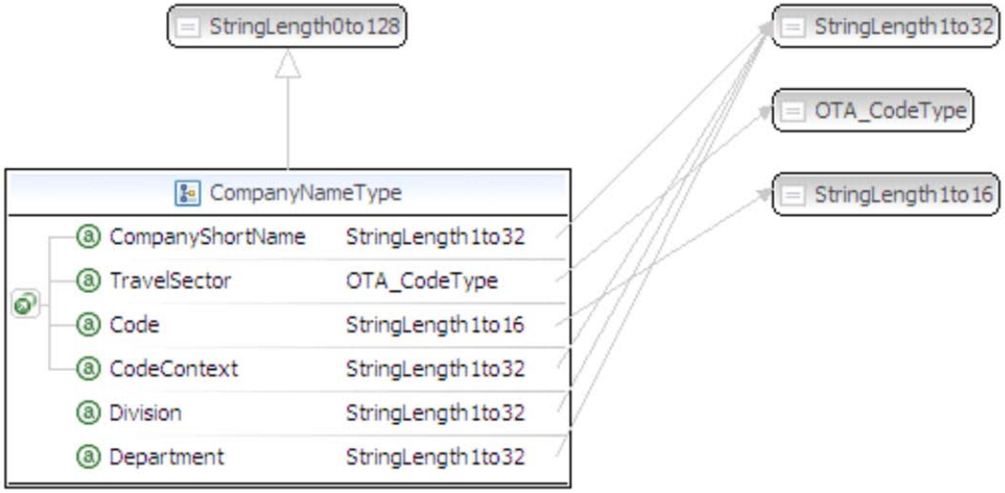
AffectedGuestType

```
<xs:complexType name="AffectedGuestType">
  <xs:attribute name="ReservationID" type="tns:StringLength1to64" use="required"/>
  <xs:attribute name="GuestID" type="tns:StringLength1to64" use="required"/>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**

ReservationID	attribute	StringLength1to64	required	This is the reservation ID of the affected guest.
GuestID	attribute	StringLength1to64	required	This is the guest ID of the affected guest.

Company Name Type

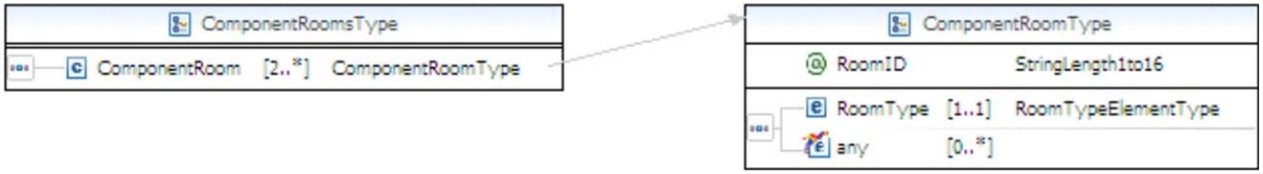

StringLength0to128
CompanyNameType
CompanyShortName StringLength1to32
TravelSector OTA_CodeType
Code StringLength1to16
CodeContext StringLength1to32
Division StringLength1to32
Department StringLength1to32
StringLength1to32
OTA_CodeType
StringLength1to16

CompanyNameType

```
<xs:complexType name="CompanyNameType">
  <xs:simpleContent>
    <xs:extension base="tns:StringLength0to128">
      <xs:attributeGroup ref="tns:CompanyID_AttributesGroup"/>
      <xs:attribute name="Division" type="tns:StringLength1to32" use="optional"/>
      <xs:attribute name="Department" type="tns:StringLength1to32" use="optional"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
CompanyID_AttributesGroup	attributeGroup			Provides detailed information on a company.
Division	attribute	StringLength1to32	optional	The division name or ID with which the contact is associated.
Department	attribute	StringLength1to32	optional	The department name or ID with which the contact is associated.

Component Rooms Type

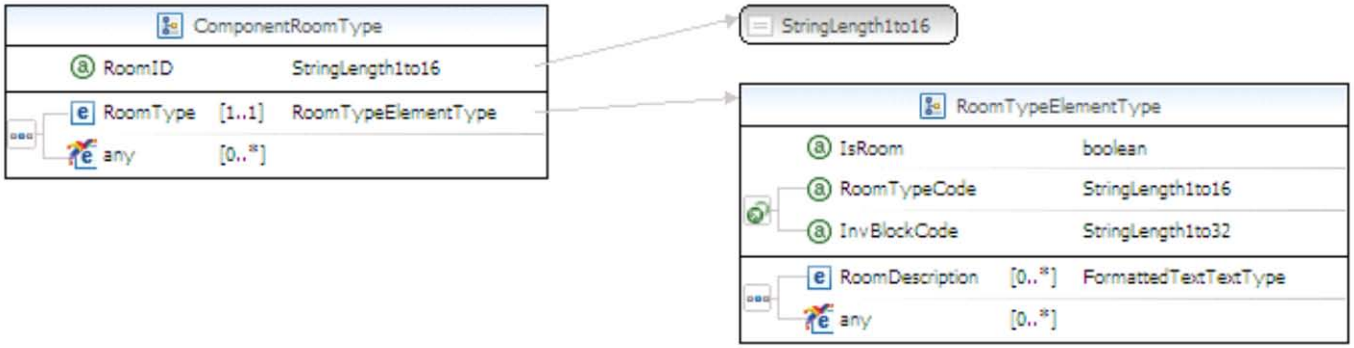

ComponentRoomsType
ComponentRoom [2..*] ComponentRoomType
ComponentRoomType
RoomID StringLength1to16
RoomType [1..1] RoomTypeElementType
any [0..*]

ComponentRoomsType

```
<xs:complexType name="ComponentRoomsType">
  <xs:sequence>
    <xs:element maxOccurs="unbounded" minOccurs="2" name="ComponentRoom" type="tns:ComponentRoomType" />
  </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
ComponentRoom	element	ComponentRoomType	Min 2 / multiple	This is a component room that is a part of a suite.

Component Room Type


ComponentRoomType
RoomID StringLength1to16
RoomType [1..1] RoomTypeElementType
any [0..*]
StringLength1to16
RoomTypeElementType
IsRoom boolean
RoomTypeCode StringLength1to16
InvBlockCode StringLength1to32
RoomDescription [0..*] FormattedTextTextType
any [0..*]

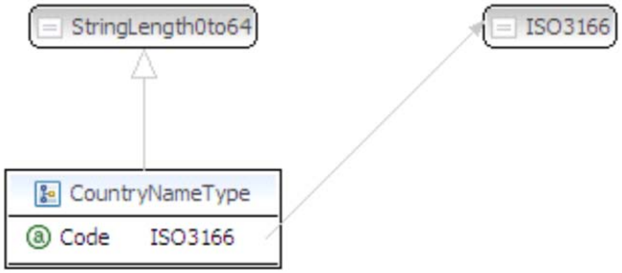
ComponentRoomType

```
<xs:complexType name="ComponentRoomType">
  <xs:sequence>
    <xs:element maxOccurs="1" minOccurs="1" name="RoomType" type="tns:RoomTypeElementType" />
    <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other" />
  </xs:sequence>
  <xs:attribute name="RoomID" type="tns:StringLength1to16" use="required"/>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
RoomType	element	RoomTypeElementType	required	This is the type of this particular room.

RoomID	attribute	StringLength1to16	required	A string value representing the unique identification of a room.

Country Name Type

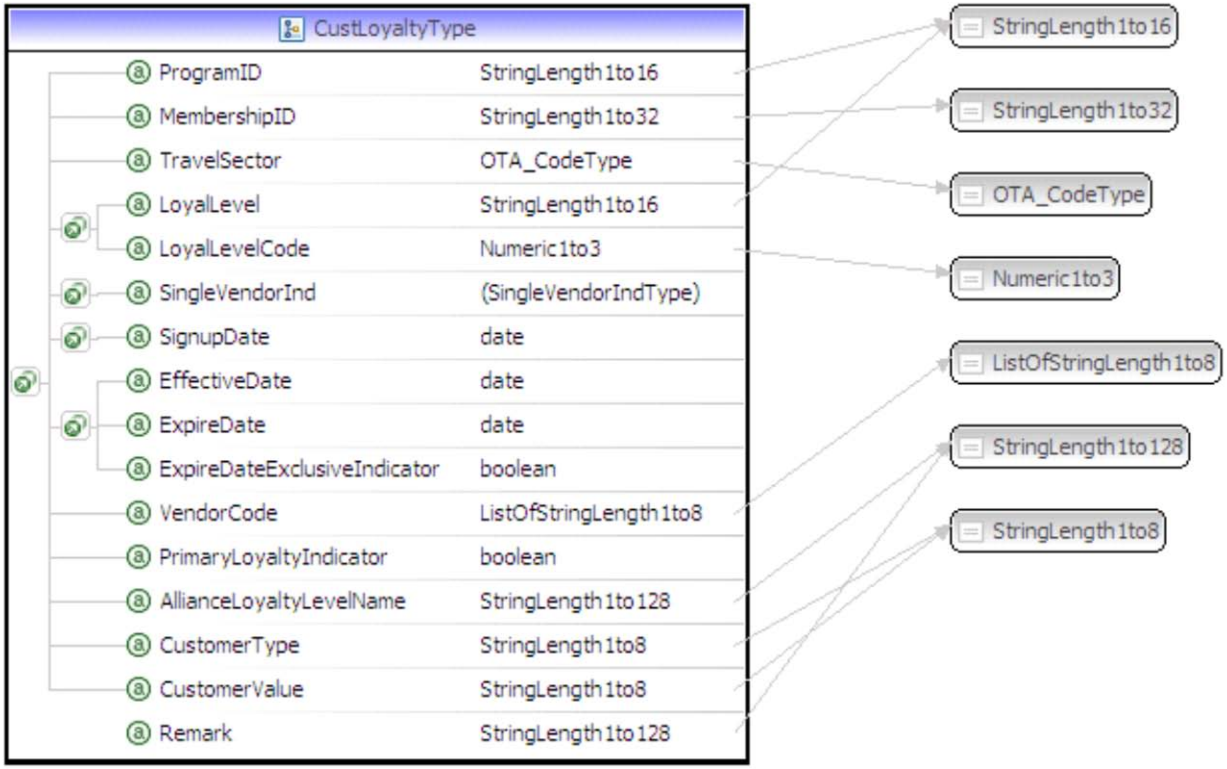

StringLength0to64
ISO3166
CountryNameType
Code
ISO3166

CountryNameType

```
<xs:complexType name="CountryNameType">
  <xs:simpleContent>
    <xs:extension base="tns:StringLength0to64">
      <xs:attribute name="Code" type="tns:ISO3166" use="optional"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Code	attribute	ISO3166	optional	ISO 3166 code for a country.

Customer Loyalty Type



CustLoyaltyType

ProgramID	StringLength1to16
MembershipID	StringLength1to32
TravelSector	OTA_CodeType
LoyalLevel	StringLength1to16
LoyalLevelCode	Numeric1to3
SingleVendorInd	(SingleVendorIndType)
SignupDate	date
EffectiveDate	date
ExpireDate	date
ExpireDateExclusiveIndicator	boolean
VendorCode	ListOfStringLength1to8
PrimaryLoyaltyIndicator	boolean
AllianceLoyaltyLevelName	StringLength1to128
CustomerType	StringLength1to8
CustomerValue	StringLength1to8
Remark	StringLength1to128

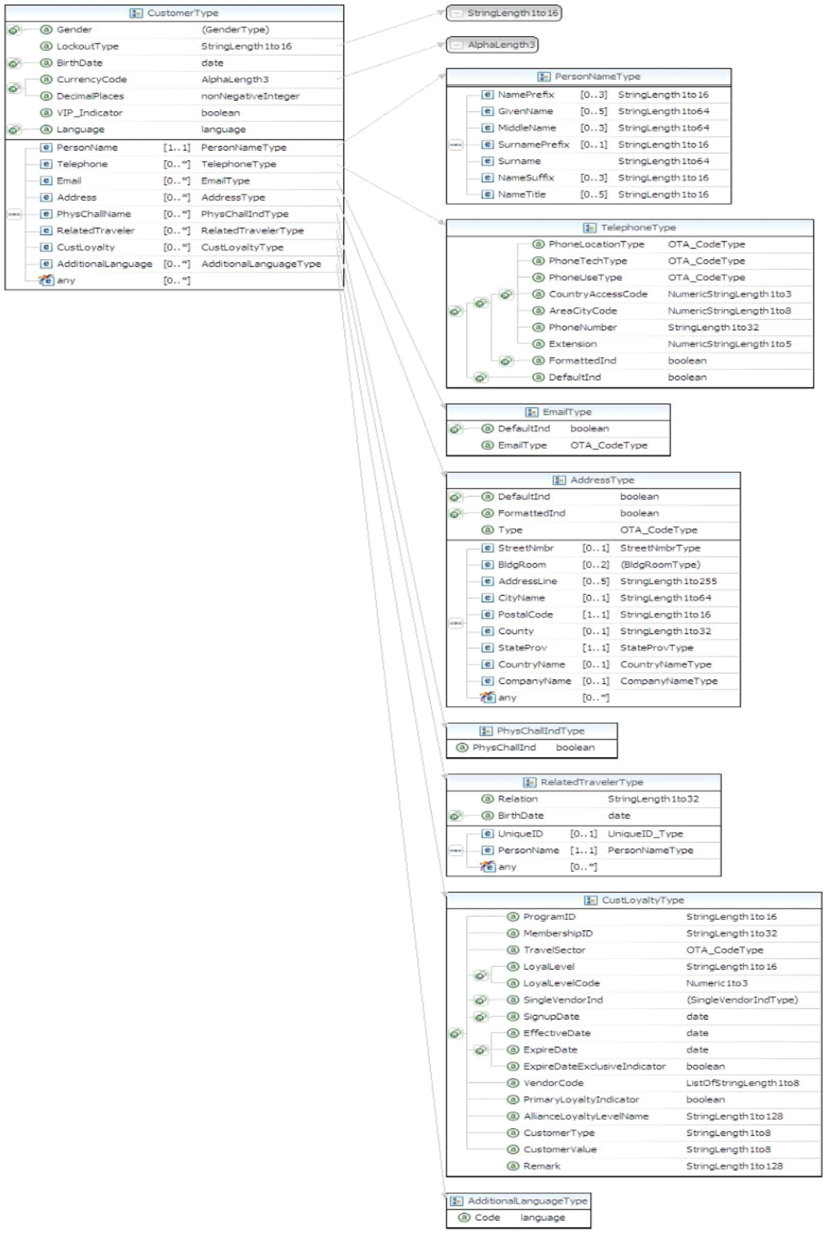
StringLength1to16
StringLength1to32
OTA_CodeType
Numeric1to3
ListOfStringLength1to8
StringLength1to128
StringLength1to8

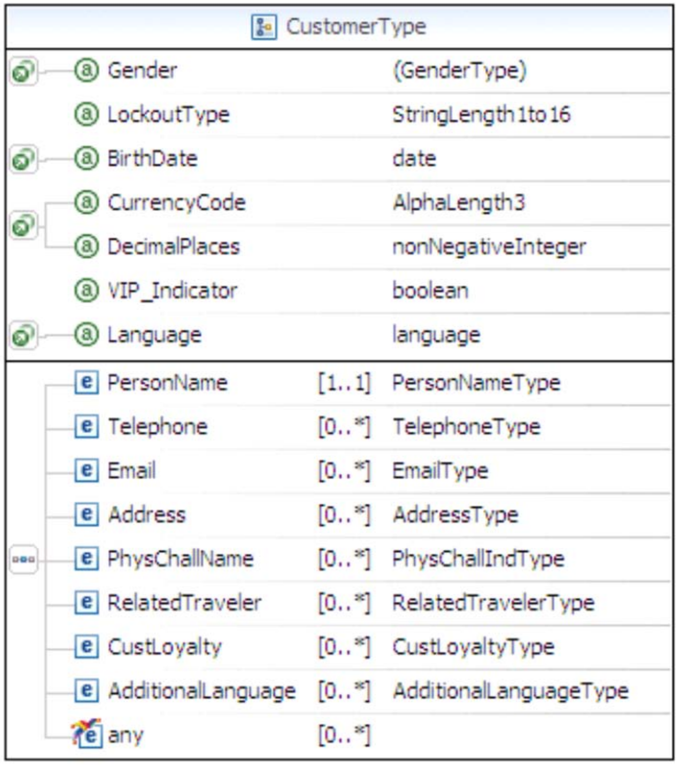
CustLoyaltyType				

`<xs:complexType name="CustLoyaltyType">`
`  <xs:attributeGroup ref="tns:CustomerLoyaltyGroup"/>`
`  <xs:attribute name="Remark" type="tns:StringLength1to128" use="optional"/>`
`</xs:complexType>`				

Name	**Type**	**Data Type**	**Use**	**Comments**
CustomerLoyaltyGroup	attributeGroup			Program rewarding frequent use by accumulating credits for services provided by vendors.
Remark	attribute	StringLength1to128	optional	A remark associated with the customer's loyalty program.

Customer Type


CustomerType
Gender (GenderType)
LockoutType StringLength1to16
BirthDate date
CurrencyCode AlphaLength3
DecimalPlaces nonNegativeInteger
VIP_Indicator boolean
Language language
PersonName [1..1] PersonNameType
Telephone [0..*] TelephoneType
Email [0..*] EmailType
Address [0..*] AddressType
PhysChallName [0..*] PhysChallIndType
RelatedTraveler [0..*] RelatedTravelerType
CustLoyalty [0..*] CustLoyaltyType
AdditionalLanguage [0..*] AdditionalLanguageType
any [0..*]
StringLength1to16
AlphaLength3
PersonNameType
NamePrefix [0..3] StringLength1to16
GivenName [0..5] StringLength1to64
MiddleName [0..3] StringLength1to64
SurnamePrefix [0..1] StringLength1to16
Surname StringLength1to64
NameSuffix [0..3] StringLength1to16
NameTitle [0..5] StringLength1to16
TelephoneType
PhoneLocationType OTA_CodeType
PhoneTechType OTA_CodeType
PhoneUseType OTA_CodeType
CountryAccessCode NumericStringLength1to3
AreaCityCode NumericStringLength1to8
PhoneNumber StringLength1to32
Extension NumericStringLength1to5
FormattedInd boolean
DefaultInd boolean
EmailType
DefaultInd boolean
EmailType OTA_CodeType
AddressType
DefaultInd boolean
FormattedInd boolean
Type OTA_CodeType
StreetNmbr [0..1] StreetNmbrType
BldgRoom [0..2] (BldgRoomType)
AddressLine [0..5] StringLength1to255
CityName [0..1] StringLength1to64
PostalCode [1..1] StringLength1to16
County [0..1] StringLength1to32
StateProv [1..1] StateProvType
CountryName [0..1] CountryNameType
CompanyName [0..1] CompanyNameType
any [0..*]
PhysChallIndType
PhysChallInd boolean
RelatedTravelerType
Relation StringLength1to32
BirthDate date
UniqueID [0..1] UniqueID_Type
PersonName [1..1] PersonNameType
any [0..*]
CustLoyaltyType
ProgramID StringLength1to16
MembershipID StringLength1to32
TravelSector OTA_CodeType
LoyalLevel StringLength1to16
LoyalLevelCode Numeric1to3
SingleVendorInd (SingleVendorIndType)
SignupDate date
EffectiveDate date
ExpireDate date
ExpireDateExclusiveIndicator boolean
VendorCode ListOfStringLength1to8
PrimaryLoyaltyIndicator boolean
AllianceLoyaltyLevelName StringLength1to128
CustomerType StringLength1to8
CustomerValue StringLength1to8
Remark StringLength1to128
AdditionalLanguageType
Code language



CustomerType

Gender		(GenderType)
LockoutType		StringLength1to16
BirthDate		date
CurrencyCode		AlphaLength3
DecimalPlaces		nonNegativeInteger
VIP_Indicator		boolean
Language		language
PersonName	[1..1]	PersonNameType
Telephone	[0..*]	TelephoneType
Email	[0..*]	EmailType
Address	[0..*]	AddressType
PhysChallName	[0..*]	PhysChallIndType
RelatedTraveler	[0..*]	RelatedTravelerType
CustLoyalty	[0..*]	CustLoyaltyType
AdditionalLanguage	[0..*]	AdditionalLanguageType
any	[0..*]	

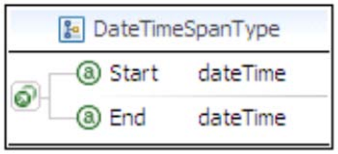
CustomerType

```
<xs:complexType name="CustomerType">
  <xs:sequence>
    <xs:element maxOccurs="1" minOccurs="1" name="PersonName" type="tns:PersonNameType" />
    <xs:element maxOccurs="unbounded" minOccurs="0" name="Telephone" type="tns:TelephoneType" />
    <xs:element maxOccurs="unbounded" minOccurs="0" name="Email" type="tns:EmailType" />
    <xs:element maxOccurs="unbounded" minOccurs="0" name="Address" type="tns:AddressType" />
    <xs:element maxOccurs="unbounded" minOccurs="0" name="PhysChallName" type="tns:PhysChallIndType" />
    <xs:element maxOccurs="unbounded" minOccurs="0" name="RelatedTraveler" type="tns:RelatedTravelerType" />
    <xs:element maxOccurs="unbounded" minOccurs="0" name="CustLoyalty" type="tns:CustLoyaltyType" />
    <xs:element maxOccurs="unbounded" minOccurs="0" name="AdditionalLanguage"
type="tns:AdditionalLanguageType" />
    <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other" />
  </xs:sequence>
  <xs:attributeGroup ref="tns:GenderGroup"/>
  <xs:attribute name="LockoutType" type="tns:StringLength1to16"/>
  <xs:attributeGroup ref="tns:BirthDateGroup"/>
  <xs:attributeGroup ref="tns:CurrencyCodeGroup"/>
```

```
    <xs:attribute name="VIP_Indicator" type="xs:boolean" use="optional"/>
    <xs:attributeGroup ref="tns:LanguageGroup"/>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
PersonName	element	PersonNameType	required	Detailed name information for the customer.
Telephone	element	TelephoneType	optional / multiple	Information on a telephone number for the customer.
Email	element	EmailType	optional / multiple	Information on an email address for the customer.
Address	element	AddressType	optional / multiple	Detailed information on an address for the customer.
PhysChallName	element	PhysChallIndType	optional / multiple	Describes the customer's physical challenge.
RelatedTraveler	element	RelatedTravelerType	optional / multiple	Identifies a traveler associated with the customer.
CustLoyalty	element	CustLoyaltyType	optional / multiple	Loyalty program information for the customer.
AdditionalLanguage	element	AdditionalLanguageType	optional / multiple	Additional languages spoken by the traveler.
GenderGroup	attributeGroup			Identifies the gender of the customer.
LockoutType	attribute	StringLength1to16	optional	Indicates reason for locking out record, such as Emergency, Incident, etc.
BirthDateGroup	attributeGroup			Identifies the birth date of the customer.
CurrencyCodeGroup	attributeGroup			Type of funds preferred for reviewing monetary values, in ISO 4217 codes.
VIP_Indicator	attribute	boolean	optional	If true, indicates a very important person.
LanguageGroup	attributeGroup			The primary language of the customer.

Date Time Span Type

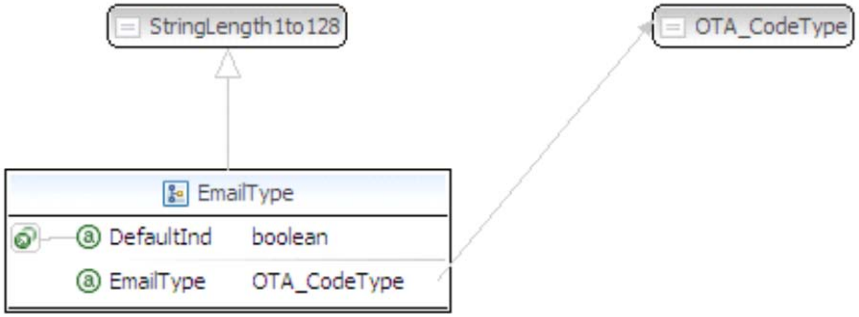

DateTimeSpanType
Start
dateTime
End
dateTime

DateTimeSpanType

```
<xs:complexType name="DateTimeSpanType">
  <xs:attributeGroup ref="tns:DateTimeSpanGroup">
    <xs:annotation>
      <xs:documentation xml:lang="en">Defines the date and/or time span.</xs:documentation>
    </xs:annotation>
  </xs:attributeGroup>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
DateTimeSpanGroup	attributeGroup			Defines the date and/or time span.

Email Type


StringLength1to128
OTA_CodeType
EmailType
DefaultInd
boolean
EmailType
OTA_CodeType

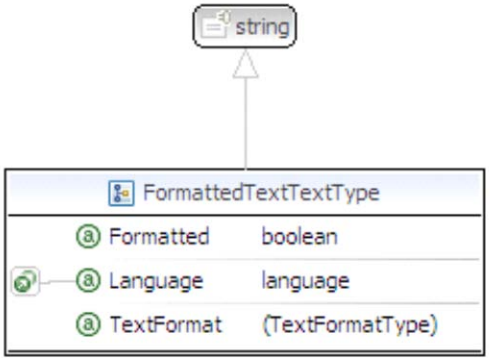
EmailType

```
<xs:complexType name="EmailType">
  <xs:simpleContent>
    <xs:extension base="tns:StringLength1to128">
      <xs:attributeGroup ref="tns:DefaultIndGroup"/>
      <xs:attribute name="EmailType" type="tns:OTA_CodeType" use="optional"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
DefaultIndGroup	attributeGroup			Identifies whether or not this is the default email address.

EmailType	attribute	OTA_CodeType	optional	Defines the purpose of the e-mail address (e.g. personal, business, listserve). Refer to OTA Code List Email Address Type (EAT).

Formatted Text Text Type


string
FormattedTextTextType
Formatted
boolean
Language
language
TextFormat
(TextFormatType)

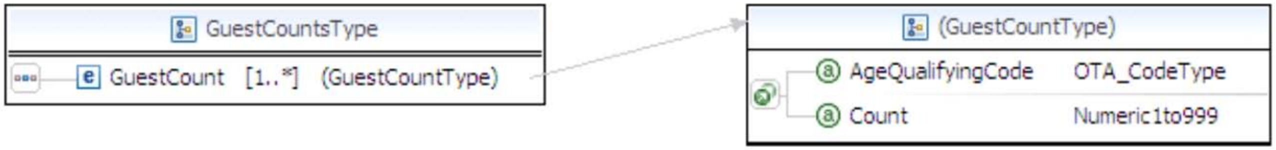
FormattedTextTextType

```
<xs:complexType name="FormattedTextTextType">
  <xs:simpleContent>
    <xs:extension base="xs:string">
      <xs:attribute name="Formatted" type="xs:boolean" use="optional"/>
      <xs:attributeGroup ref="tns:LanguageGroup"/>
      <xs:attribute name="TextFormat" use="optional">
        <xs:simpleType>
          <xs:restriction base="xs:NMTOKEN">
            <xs:enumeration value="PlainText"></xs:enumeration>
            <xs:enumeration value="HTML"></xs:enumeration>
          </xs:restriction>
        </xs:simpleType>
      </xs:attribute>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Formatted	attribute	boolean	optional	Textual information, which may be formatted as a line of information, or unformatted, as a paragraph of text.
LanguageGroup	attributeGroup			The language in which the text is provided.
TextFormat	attribute	(TextFormatEnum)	optional	Indicates the format of text used in the description e.g. unformatted or html.
(TextFormatEnum)				

Enumeration Type	Enumeration Value	Comments
string	PlainText	Textual data that is in ASCII format.
string	HTML	HTML formatted text.

Guest Counts Type


GuestCountsType
GuestCount [1..*] (GuestCountType)
(GuestCountType)
AgeQualifyingCode OTA_CodeType
Count Numeric1to999

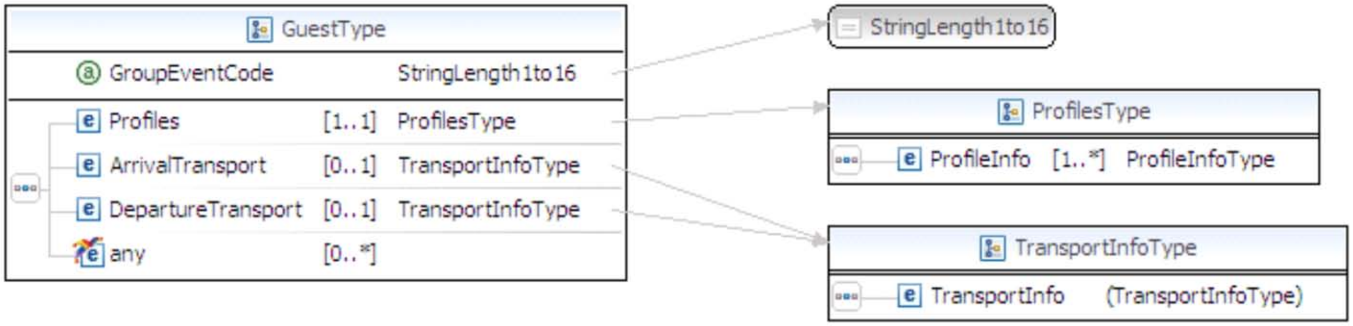
GuestCountsType

```
<xs:complexType name="GuestCountsType">
  <xs:sequence>
    <xs:element maxOccurs="unbounded" name="GuestCount">
      <xs:complexType>
        <xs:attributeGroup ref="tns:GuestCountGroup" />
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
GuestCount	element	(GuestCountType)*	required / multiple	A recurring element that identifies the number of guests and ages of the guests in the request that determines the rates based on business rules for occupancy at each property.
GuestCountGroup	attributeGroup			

* This type is defined anonymously within the parent type

Guest Type

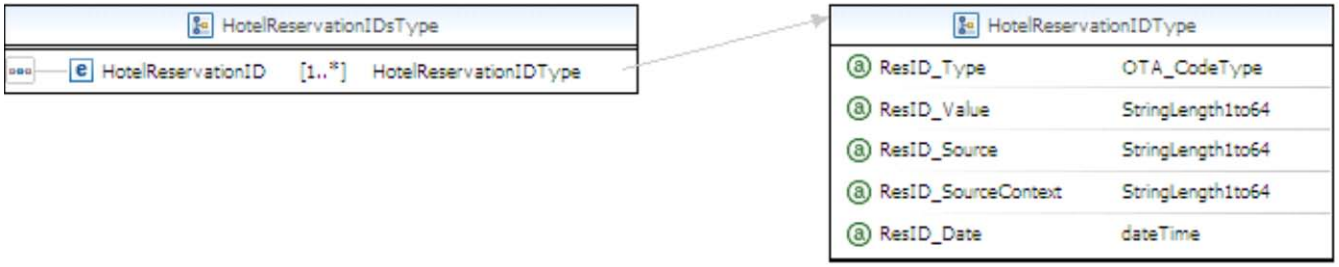

GuestType
GroupEventCode StringLength1to16
Profiles [1..1] ProfilesType
ArrivalTransport [0..1] TransportInfoType
DepartureTransport [0..1] TransportInfoType
any [0..*]
StringLength1to16
ProfilesType
ProfileInfo [1..*] ProfileInfoType
TransportInfoType
TransportInfo (TransportInfoType)

GuestType

```
<xs:complexType name="GuestType">
  <xs:sequence>
    <xs:element minOccurs="1" name="Profiles" type="tns:ProfilesType" />
    <xs:element minOccurs="0" name="ArrivalTransport" type="tns:TransportInfoType" />
    <xs:element minOccurs="0" name="DepartureTransport" type="tns:TransportInfoType" />
    <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other" />
  </xs:sequence>
  <xs:attribute name="GroupEventCode" type="tns:StringLength1to16" use="optional"/>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
Profiles	element	ProfilesType	required	This is a collection element for the different Profiles of this particular Guest.
ArrivalTransport	element	TransportInfoType	optional	This is information about the transportation this Guest will be using when arriving at the property.
DepartureTransport	element	TransportInfoType	optional	This is information about the transportation this Guest will be using when leaving from the property.
GroupEventCode	attribute	StringLength1to16	optional	The identification of a group meeting or convention. Used to track a guest who is part of an inventory block (e.g.: group), and can be used for a pick-up when the guest calls in to reserve a room as part of the block. This code is associated with a group or event as agreed between two parties.

Hotel Reservation IDs Type


HotelReservationIDsType
HotelReservationID
[1..*]
HotelReservationIDType
HotelReservationIDType
ResID_Type
OTA_CodeType
ResID_Value
StringLength1to64
ResID_Source
StringLength1to64
ResID_SourceContext
StringLength1to64
ResID_Date
dateTime

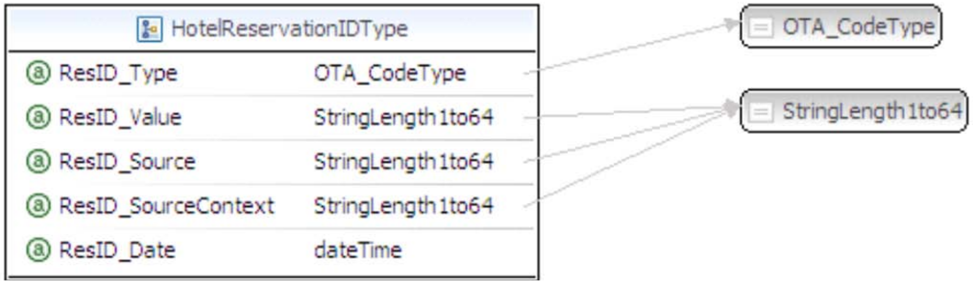
HotelReservationIDsType

```
<xs:complexType name="HotelReservationIDsType">
  <xs:sequence>
    <xs:element maxOccurs="unbounded" name="HotelReservationID" type="tns:HotelReservationIDType"/>
  </xs:sequence>
```

```
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
HotelReservationID	element	HotelReservationIDType	required / multiple	The HotelReservationID object contains various unique (ReservationID) and non unique (ConfirmationID, CancellationID) identifiers that the trading partners associate with a given reservation.

Hotel Reservation ID Type

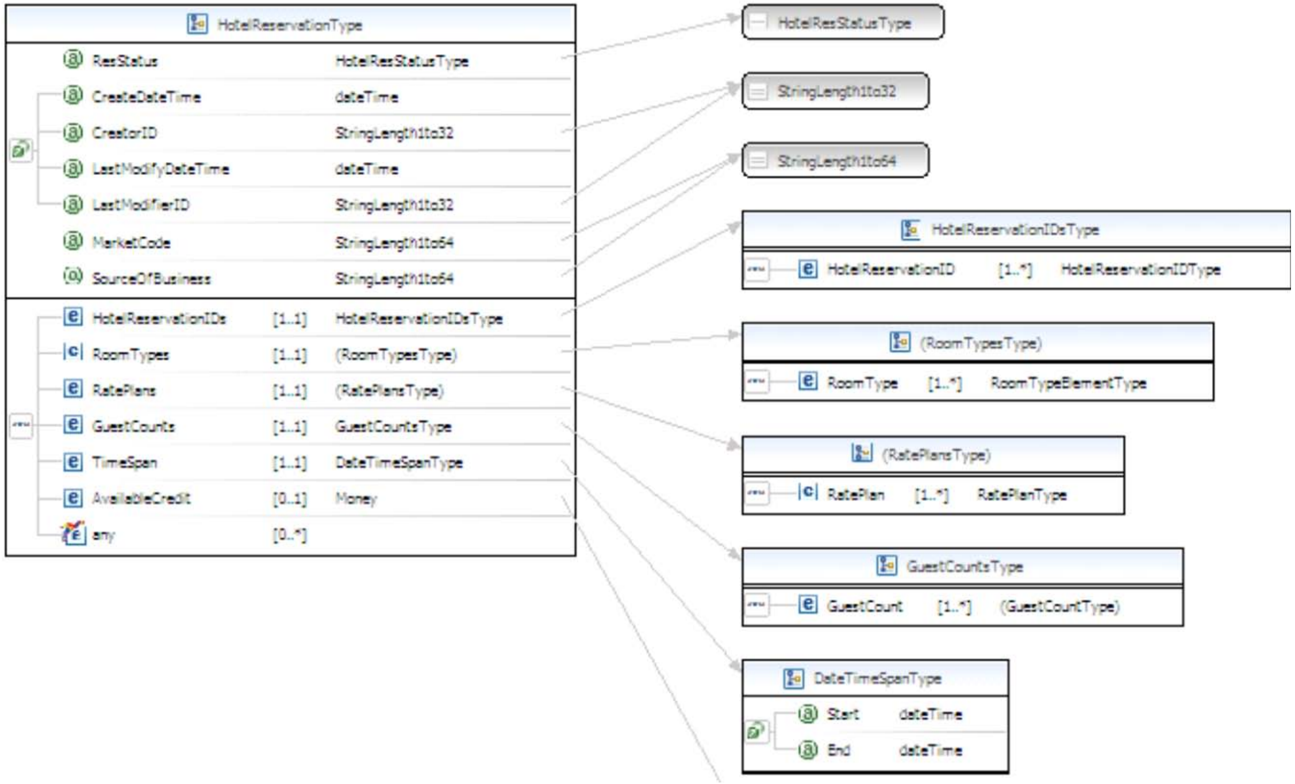

HotelReservationIDType
ResID_Type
OTA_CodeType
ResID_Value
StringLength1to64
ResID_Source
StringLength1to64
ResID_SourceContext
StringLength1to64
ResID_Date
dateTime
OTA_CodeType
StringLength1to64

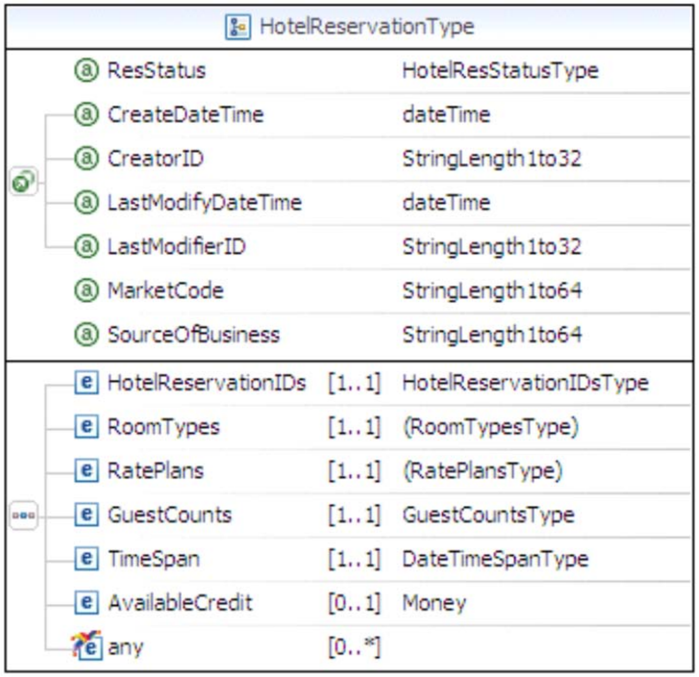
HotelReservationIDType

```
<xs:complexType name="HotelReservationIDType">
  <xs:attribute name="ResID_Type" type="tns:OTA_CodeType" use="required"/>
  <xs:attribute name="ResID_Value" type="tns:StringLength1to64" use="required"/>
  <xs:attribute name="ResID_Source" type="tns:StringLength1to64" use="optional"/>
  <xs:attribute name="ResID_SourceContext" type="tns:StringLength1to64" use="optional"/>
  <xs:attribute name="ResID_Date" type="xs:dateTime" use="optional"/>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
ResID_Type	attribute	OTA_CodeType	required	Defines the type of Reservation ID (e.g. reservation number, cancellation number). Refer to OTA Code List Unique ID Type (UIT).
ResID_Value	attribute	StringLength1to64	required	This is the actual value associated with ResID_Type as generated by the system that is the source of the ResID_Type
ResID_Source	attribute	StringLength1to64	optional	A unique identifier to indicate the source system which generated the ResID_Value
ResID_SourceContext	attribute	StringLength1to64	optional	Additional information on Source
ResID_Date	attribute	dateTime	optional	Date of the creation of this reservation.

Hotel Reservation Type


HotelReservationType
ResStatus HotelResStatusType
CreateDateTime dateTime
CreatorID StringLength1to32
LastModifyDateTime dateTime
LastModifierID StringLength1to32
MarketCode StringLength1to64
SourceOfBusiness StringLength1to64
HotelReservationIDs [1..1] HotelReservationIDsType
RoomTypes [1..1] (RoomTypesType)
RatePlans [1..1] (RatePlansType)
GuestCounts [1..1] GuestCountsType
TimeSpan [1..1] DateTimeSpanType
AvailableCredit [0..1] Money
any [0..*]
HotelResStatusType
StringLength1to32
StringLength1to64
HotelReservationIDsType
HotelReservationID [1..*] HotelReservationIDType
(RoomTypesType)
RoomType [1..*] RoomTypeElementType
(RatePlansType)
RatePlan [1..*] RatePlanType
GuestCountsType
GuestCount [1..*] (GuestCountType)
DateTimeSpanType
Start dateTime
End dateTime



HotelReservationType

ResStatus		HotelResStatusType
CreateDateTime		dateTime
CreatorID		StringLength1to32
LastModifyDateTime		dateTime
LastModifierID		StringLength1to32
MarketCode		StringLength1to64
SourceOfBusiness		StringLength1to64
HotelReservationIDs	[1..1]	HotelReservationIDsType
RoomTypes	[1..1]	(RoomTypesType)
RatePlans	[1..1]	(RatePlansType)
GuestCounts	[1..1]	GuestCountsType
TimeSpan	[1..1]	DateTimeSpanType
AvailableCredit	[0..1]	Money
any	[0..*]	

HotelReservationType

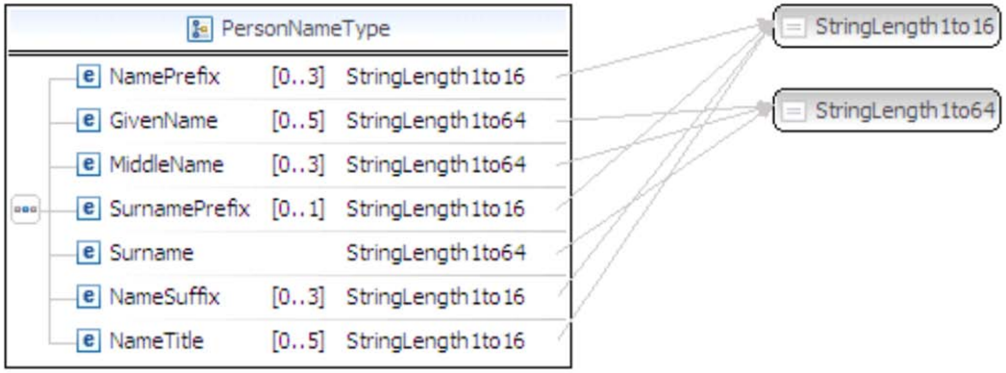
```
<xs:complexType name="HotelReservationType">
  <xs:sequence>
    <xs:element maxOccurs="1" minOccurs="1" name="HotelReservationIDs" type="tns:HotelReservationIDsType" />
    <xs:element minOccurs="1" name="RoomTypes">
      <xs:complexType>
        <xs:sequence>
          <xs:element maxOccurs="unbounded" name="RoomType" type="tns:RoomTypeElementType" />
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element minOccurs="1" name="RatePlans">
      <xs:complexType>
        <xs:sequence>
          <xs:element maxOccurs="unbounded" name="RatePlan" type="tns:RatePlanType" />
        </xs:sequence>
      </xs:complexType>
    </xs:element>
    <xs:element minOccurs="1" name="GuestCounts" type="tns:GuestCountsType"/>
    <xs:element minOccurs="1" name="TimeSpan" type="tns:DateTimeSpanType"/>
    <xs:element minOccurs="0" name="AvailableCredit" type="tns:Money"/>
```

```
      <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other" />
   </xs:sequence>
   <xs:attribute name="ResStatus" type="tns:HotelResStatusType" use="required"/>
   <xs:attributeGroup ref="tns:DateTimeStampGroup" />
   <xs:attribute name="MarketCode" type="tns:StringLength1to64" use="optional"/>
   <xs:attribute name="SourceOfBusiness" type="tns:StringLength1to64" use="optional"/>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
HotelReservationIDs	element	HotelReservationIDsType	required	This is a collection of hotel reservation ids.
RoomTypes	element	(RoomTypesType)*	required	A collection of Room Types associated with a particular Room Stay.
RoomType	element	RoomTypeElementType	required / multiple	The Room Type information for this particular Hotel Reservation.
RatePlans	element	(RatePlansType)*	required	A collection of Rate Plans associated with a particular Room Stay.
RatePlan	element	RatePlanType	required / multiple	The Room Plan information for this particular Hotel Reservation.
GuestCounts	element	GuestCountsType	required	A collection of Guest Counts associated with Room Stay. A child Guest Count element is required for each distinct age group.
TimeSpan	element	DateTimeSpanType	required	The Time Span which covers the Room Stay.
AvailableCredit	element	Money	optional	This is the available credit for a guest during a particular stay.
ResStatus	attribute	HotelResStatusType	required	Indicates the status of the reservation.
DateTimeStampGroup	attributeGroup			
MarketCode	attribute	StringLength1to64	optional	The code that relates to the market being sold to (e.g., the corporate market, packages).
SourceOfBusiness	attribute	StringLength1to64	optional	To specify where the business came from e.g. radio, newspaper ad, etc.

* This type is defined anonymously within the parent type

Person Name Type

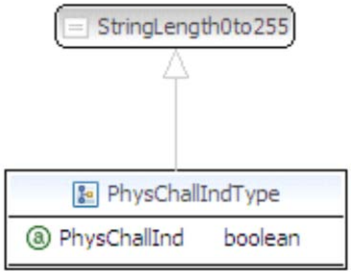

PersonNameType
NamePrefix [0..3] StringLength1to16
GivenName [0..5] StringLength1to64
MiddleName [0..3] StringLength1to64
SurnamePrefix [0..1] StringLength1to16
Surname StringLength1to64
NameSuffix [0..3] StringLength1to16
NameTitle [0..5] StringLength1to16
StringLength1to16
StringLength1to64

PersonNameType

```
<xs:complexType name="PersonNameType">
  <xs:sequence>
    <xs:element maxOccurs="3" minOccurs="0" name="NamePrefix" type="tns:StringLength1to16"/>
    <xs:element maxOccurs="5" minOccurs="0" name="GivenName" type="tns:StringLength1to64"/>
    <xs:element maxOccurs="3" minOccurs="0" name="MiddleName" type="tns:StringLength1to64"/>
    <xs:element minOccurs="0" name="SurnamePrefix" type="tns:StringLength1to16"/>
    <xs:element name="Surname" type="tns:StringLength1to64"/>
    <xs:element maxOccurs="3" minOccurs="0" name="NameSuffix" type="tns:StringLength1to16"/>
    <xs:element maxOccurs="5" minOccurs="0" name="NameTitle" type="tns:StringLength1to16"/>
  </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
NamePrefix	element	StringLength1to16	optional / max 3	Salutation of honorific. (e.g., Mr. Mrs., Ms., Miss, Dr.)
GivenName	element	StringLength1to64	optional / max 5	Given name, first name or names
MiddleName	element	StringLength1to64	optional / max 3	The middle name of the person name
SurnamePrefix	element	StringLength1to16	optional	e.g "van der", "von", "de"
Surname	element	StringLength1to64	required	Family name, last name.
NameSuffix	element	StringLength1to16	optional / max 3	Hold various name suffixes and letters (e.g. Jr., Sr., III, Ret., Esq.).
NameTitle	element	StringLength1to16	optional / max 5	Degree or honors (e.g., Ph.D., M.D.)

Phys Chall Ind Type

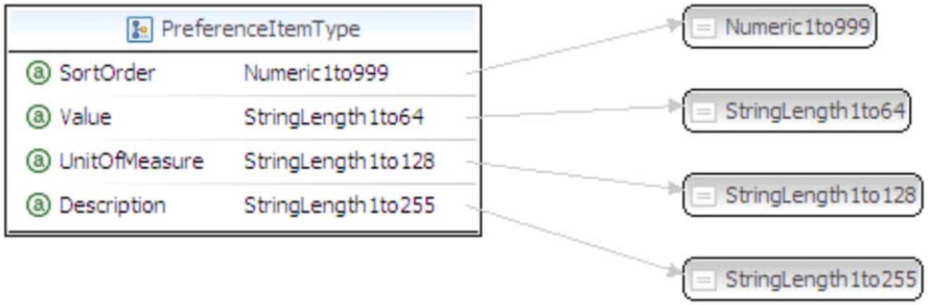

StringLength0to255
PhysChallIndType
PhysChallInd
boolean

PhysChallIndType

```
<xs:complexType name="PhysChallIndType">
  <xs:simpleContent>
    <xs:extension base="tns:StringLength0to255">
      <xs:attribute name="PhysChallInd" type="xs:boolean" use="optional"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
PhysChallInd	attribute	boolean	optional	When true, indicates the customer is physically challenged.

Preference Item Type


PreferenceItemType
SortOrder
Numeric1to999
Value
StringLength1to64
UnitOfMeasure
StringLength1to128
Description
StringLength1to255
Numeric1to999
StringLength1to64
StringLength1to128
StringLength1to255

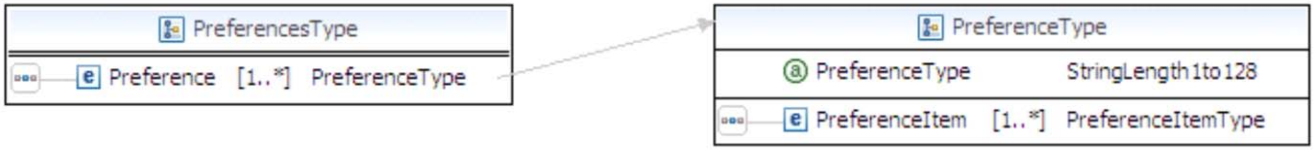
PreferenceItemType

```
<xs:complexType name="PreferenceItemType">
  <xs:attribute name="SortOrder" type="tns:Numeric1to999" use="optional"/>
  <xs:attribute name="Value" type="tns:StringLength1to64" use="required"/>
  <xs:attribute name="UnitOfMeasure" type="tns:StringLength1to128" use="optional"/>
  <xs:attribute name="Description" type="tns:StringLength1to255" use="optional"/>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments

SortOrder	attribute	Numeric1to999	optional	This number indicates the order the preference items should be read. (TV Channel line up, etc.)
Value	attribute	StringLength1to64	required	This is the actual value of the preference item. (TV Channel: DISC, Temperature: 76)
UnitOfMeasure	attribute	StringLength1to128	optional	This is unit of measure (if needed) of the value of the preference. (Temperature: Celsius)
Description	attribute	StringLength1to255	optional	This is a description of the preference item value. (DISC - Discovery Channel)

Preferences Type

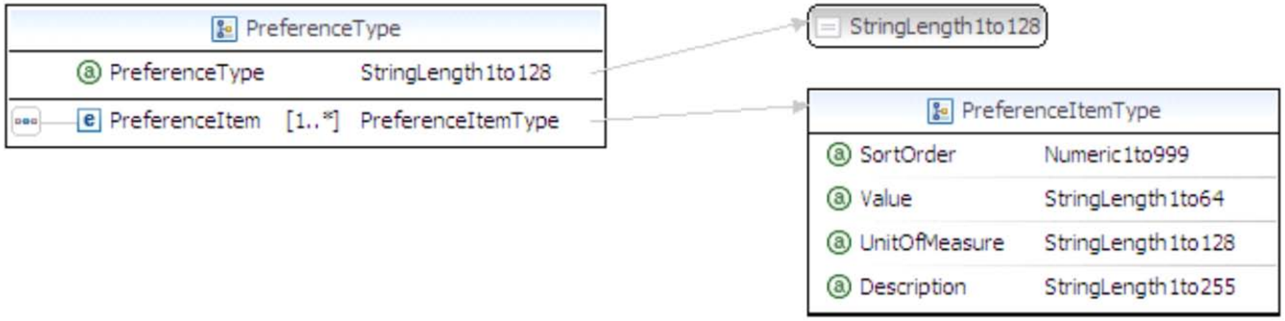

PreferencesType
Preference [1..*] PreferenceType
PreferenceType
PreferenceType StringLength1to128
PreferenceItem [1..*] PreferenceItemType

PreferencesType

```
<xs:complexType name="PreferencesType">
  <xs:sequence>
    <xs:element maxOccurs="unbounded" minOccurs="1" name="Preference" type="tns:PreferenceType"/>
  </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Preference	element	PreferenceType	required / multiple	A preference for a particular Guest profile.

Preference Type


PreferenceType
PreferenceType StringLength1to128
PreferenceItem [1..*] PreferenceItemType
StringLength1to128
PreferenceItemType
SortOrder Numeric1to999
Value StringLength1to64
UnitOfMeasure StringLength1to128
Description StringLength1to255

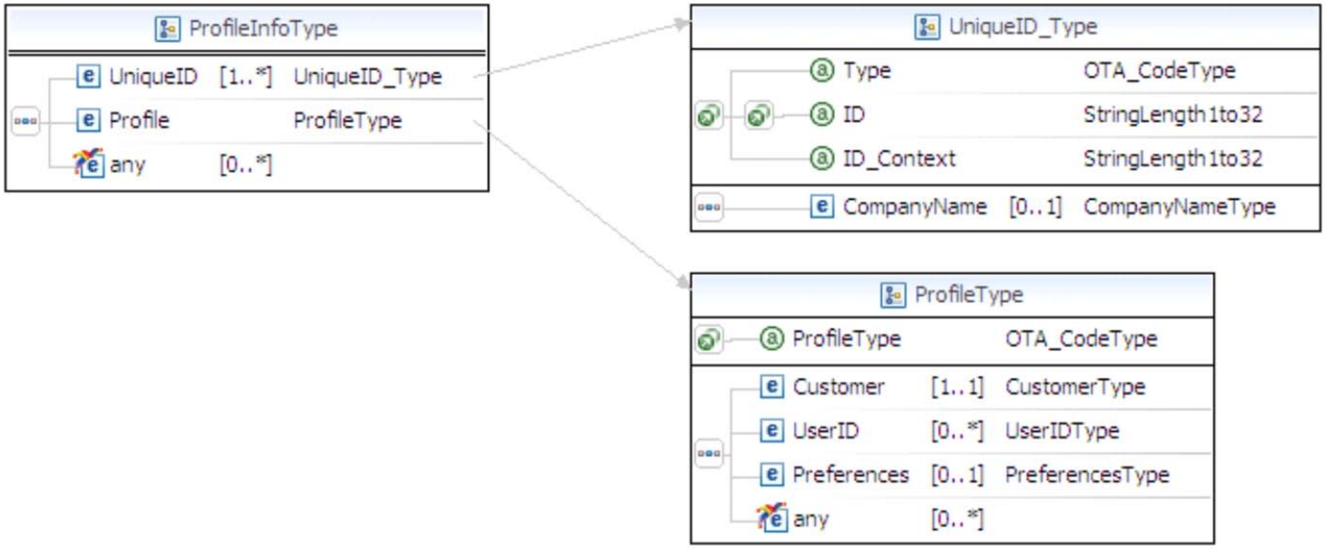
PreferenceType

```
<xs:complexType name="PreferenceType">
  <xs:sequence>
```

```
    <xs:element maxOccurs="unbounded" minOccurs="1" name="PreferenceItem" type="tns:PreferenceItemType"/>
  </xs:sequence>
  <xs:attribute name="PreferenceType" type="tns:StringLength1to128" use="required"/>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
PreferenceItem	element	PreferenceItemType	required / multiple	A preference for a particular Guest profile.
PreferenceType	attribute	StringLength1to128	required	This type indicates what type of preference this is for. (Channel, Temperature, Allergies).

Profile Info Type


ProfileInfoType
UniqueID [1..*] UniqueID_Type
Profile ProfileType
any [0..*]
UniqueID_Type
Type OTA_CodeType
ID StringLength1to32
ID_Context StringLength1to32
CompanyName [0..1] CompanyNameType
ProfileType
ProfileType OTA_CodeType
Customer [1..1] CustomerType
UserID [0..*] UserIDType
Preferences [0..1] PreferencesType
any [0..*]

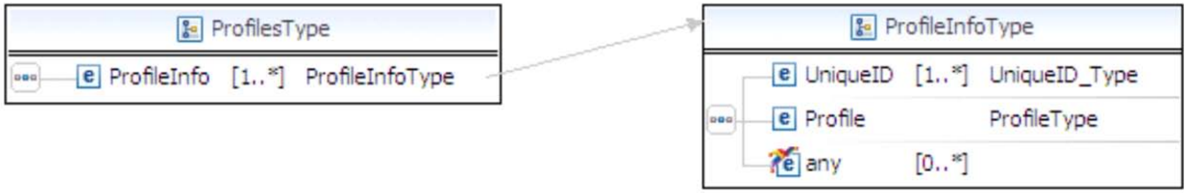
ProfileInfoType

```
<xs:complexType name="ProfileInfoType">
  <xs:sequence>
    <xs:element maxOccurs="unbounded" minOccurs="1" name="UniqueID" type="tns:UniqueID_Type"/>
    <xs:element name="Profile" type="tns:ProfileType"/>
    <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other" />
  </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
UniqueID	element	UniqueID_Type	required / multiple	A unique ID for a profile. This element repeats to accommodate multiple unique IDs for a single profile across multiple systems.

Profile	element	ProfileType	required	Provides detailed information regarding either a company or a customer profile.

Profiles Type

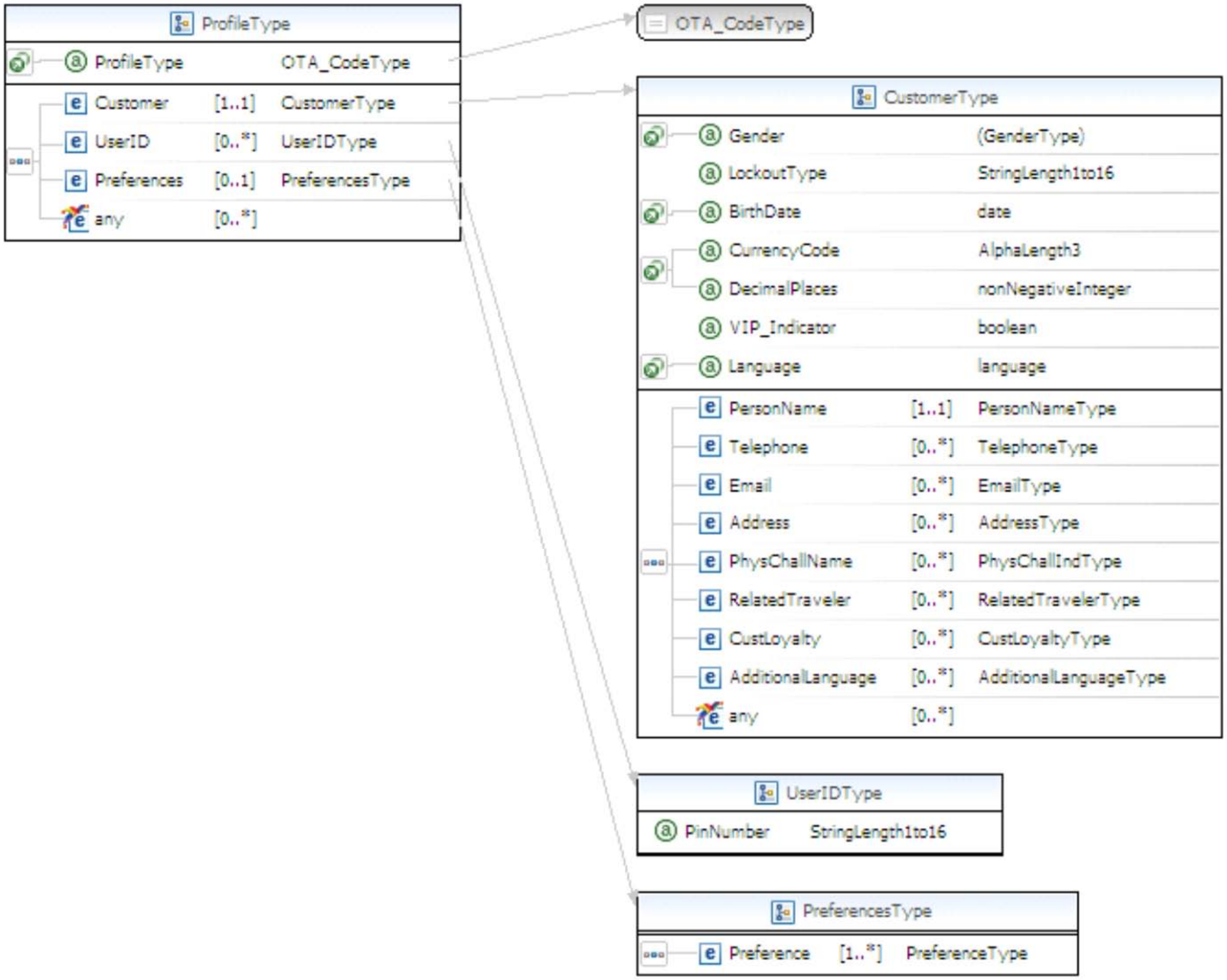

ProfilesType
ProfileInfo [1..*] ProfileInfoType
ProfileInfoType
UniqueID [1..*] UniqueID_Type
Profile ProfileType
any [0..*]

ProfilesType

```
<xs:complexType name="ProfilesType">
  <xs:sequence>
    <xs:element maxOccurs="unbounded" name="ProfileInfo" type="tns:ProfileInfoType"/>
  </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
ProfileInfo	element	ProfileInfoType	required / multiple	A collection of Profiles or Unique IDs of Profiles.

Profile Type


ProfileType
ProfileType OTA_CodeType
Customer [1..1] CustomerType
UserID [0..*] UserIDType
Preferences [0..1] PreferencesType
any [0..*]
OTA_CodeType
CustomerType
Gender (GenderType)
LockoutType StringLength1to16
BirthDate date
CurrencyCode AlphaLength3
DecimalPlaces nonNegativeInteger
VIP_Indicator boolean
Language language
PersonName [1..1] PersonNameType
Telephone [0..*] TelephoneType
Email [0..*] EmailType
Address [0..*] AddressType
PhysChallName [0..*] PhysChallIndType
RelatedTraveler [0..*] RelatedTravelerType
CustLoyalty [0..*] CustLoyaltyType
AdditionalLanguage [0..*] AdditionalLanguageType
any [0..*]
UserIDType
PinNumber StringLength1to16
PreferencesType
Preference [1..*] PreferenceType

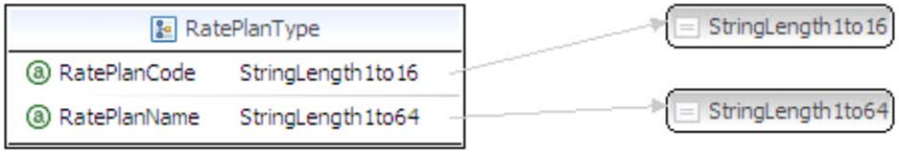
ProfileType

```
<xs:complexType name="ProfileType">
  <xs:sequence>
    <xs:element minOccurs="1" name="Customer" type="tns:CustomerType"/>
    <xs:element maxOccurs="unbounded" minOccurs="0" name="UserID" type="tns:UserIDType"/>
```

```
      <xs:element maxOccurs="1" minOccurs="0" name="Preferences" type="tns:PreferencesType"/>
      <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other" />
    </xs:sequence>
    <xs:attributeGroup ref="tns:ProfileTypeGroup"/>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Customer	element	CustomerType	required	Detailed customer information for this profile.
UserID	element	UserIDType	optional / multiple	The user ids and pin numbers of the profile.
Preferences	element	PreferencesType	optional	A collection of preferences for this Guest's profile.
ProfileTypeGroup	attributeGroup			Used to specify a profile type.

Rate Plan Type

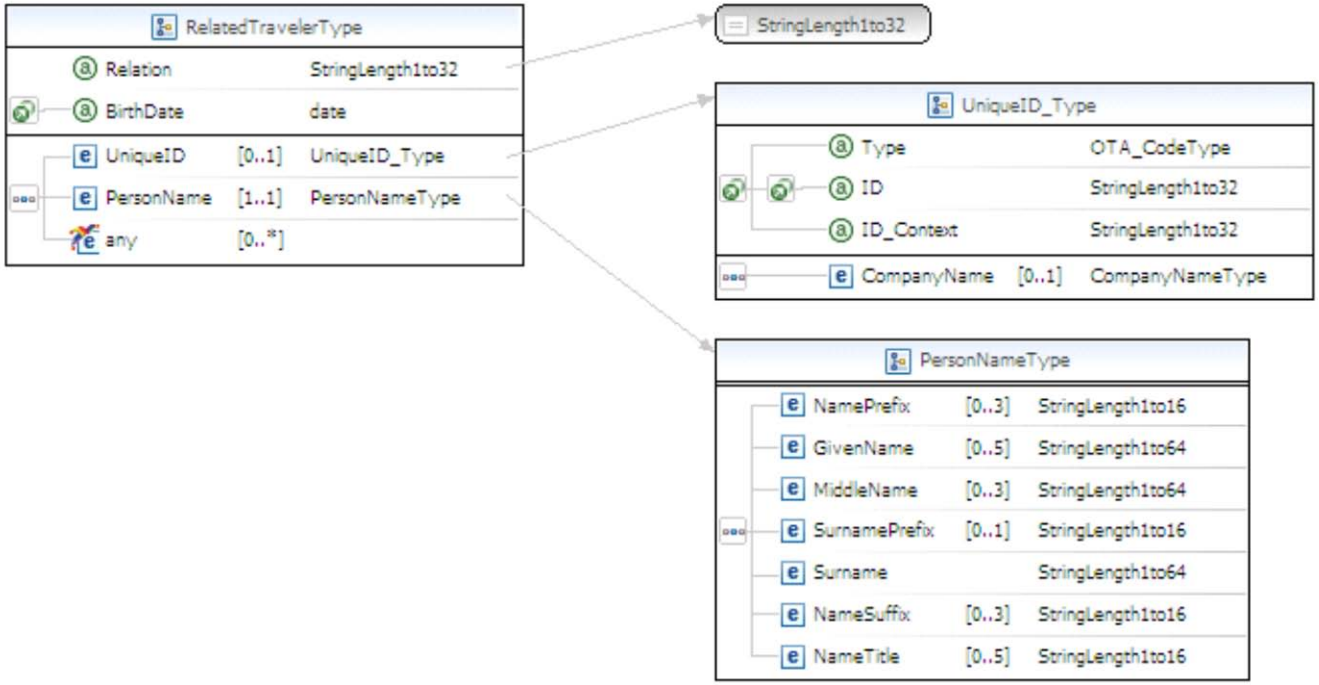

RatePlanType
RatePlanCode
StringLength1to16
RatePlanName
StringLength1to64
StringLength1to16
StringLength1to64

RatePlanType

```
<xs:complexType name="RatePlanType">
    <xs:attribute name="RatePlanCode" type="tns:StringLength1to16" use="required"/>
    <xs:attribute name="RatePlanName" type="tns:StringLength1to64" use="required"/>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
RatePlanCode	attribute	StringLength1to16	required	The RatePlanCode assigned by the receiving system for the inventory item in response to a new rate plan notification.
RatePlanName	attribute	StringLength1to64	required	Provides the name of the rate plan or group. Typically used with RatePlanType to further describe the rate plan.

Related Traveler Type


RelatedTravelerType
Relation
StringLength1to32
BirthDate
date
UniqueID
[0..1]
UniqueID_Type
PersonName
[1..1]
PersonNameType
any
[0..*]
StringLength1to32
UniqueID_Type
Type
OTA_CodeType
ID
StringLength1to32
ID_Context
StringLength1to32
CompanyName
[0..1]
CompanyNameType
PersonNameType
NamePrefix
[0..3]
StringLength1to16
GivenName
[0..5]
StringLength1to64
MiddleName
[0..3]
StringLength1to64
SurnamePrefix
[0..1]
StringLength1to16
Surname
StringLength1to64
NameSuffix
[0..3]
StringLength1to16
NameTitle
[0..5]
StringLength1to16

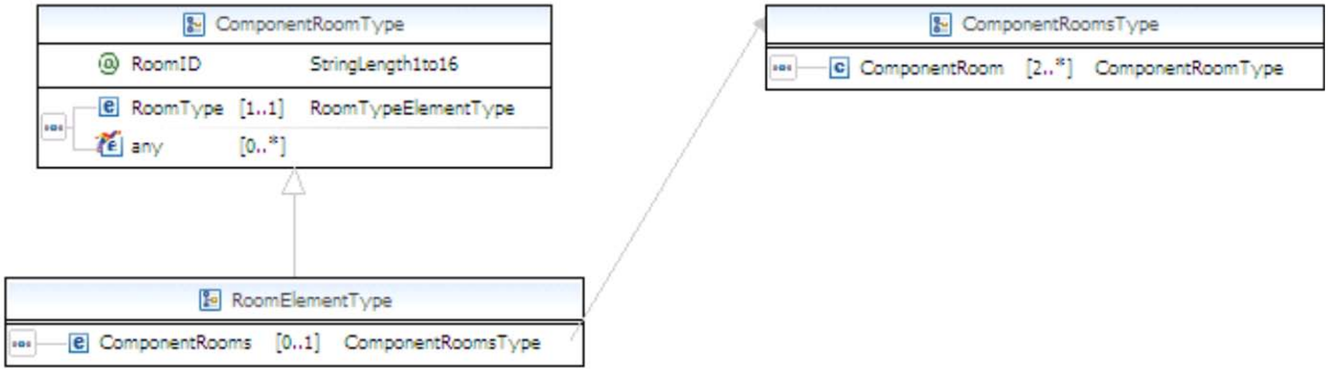
RelatedTravelerType

```
<xs:complexType name="RelatedTravelerType">
  <xs:sequence>
    <xs:element minOccurs="0" name="UniqueID" type="tns:UniqueID_Type"/>
    <xs:element maxOccurs="1" minOccurs="1" name="PersonName" type="tns:PersonNameType"/>
    <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other" />
  </xs:sequence>
  <xs:attribute name="Relation" type="tns:StringLength1to32" use="optional"/>
  <xs:attributeGroup ref="tns:BirthDateGroup"/>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
UniqueID	element	UniqueID_Type	optional	Identifies the profile of the related traveler.
PersonName	element	PersonNameType	required	Person associated with the traveler.
Relation	attribute	StringLength1to32	optional	Indicates the type of relationship with the person in the profile, such as Spouse, Child, Family, Business Associate, Interest Group, Medical,

				Security, Other, etc.
BirthDateGroup	attributeGroup			Birth date of the related traveler.

Room Element Type


ComponentRoomType
RoomID
StringLength1to16
RoomType
[1..1]
RoomTypeElementType
any
[0..*]
ComponentRoomsType
ComponentRoom
[2..*]
ComponentRoomType
RoomElementType
ComponentRooms
[0..1]
ComponentRoomsType

RoomElementType

```
<xs:complexType name="RoomElementType">
  <xs:complexContent>
    <xs:extension base="tns:ComponentRoomType">
      <xs:sequence>
        <xs:element minOccurs="0" name="ComponentRooms" type="tns:ComponentRoomsType"/>
      </xs:sequence>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
ComponentRooms	element	ComponentRoomsType	optional	This is a collection of component rooms (sub-units for a suite)

Room Sharing Info Type

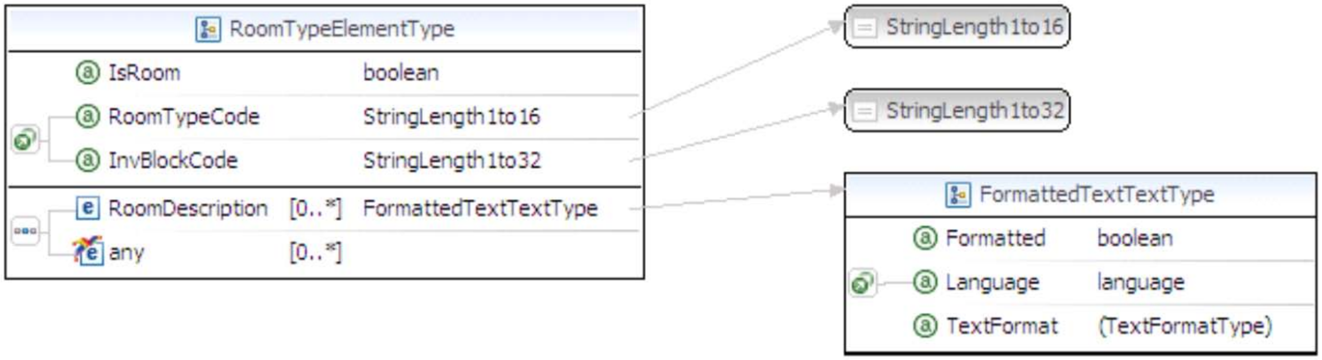
RoomSharingInfoType

```
<xs:complexType name="RoomSharingInfoType">
  <xs:sequence>
    <xs:element maxOccurs="1" minOccurs="0" name="Room" type="tns:RoomElementType"/>
    <xs:element maxOccurs="1" minOccurs="1" name="PrimaryShareDetails" type="tns:ShareType"/>
    <xs:element maxOccurs="1" minOccurs="0" name="SharingWithPrimary" type="tns:SharingWithPrimaryType"/>
  </xs:sequence>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
Room	element	RoomElementType	optional	This is the room information for the

				room sharing situation.
PrimaryShareDetails	element	ShareType	required	This is the details about the primary share (reservation and guest) for a room.
SharingWithPrimary	element	SharingWithPrimaryType	optional	This is a collection of sharing information for other non-primary shares (guests and reservations).

Room Type Element Type

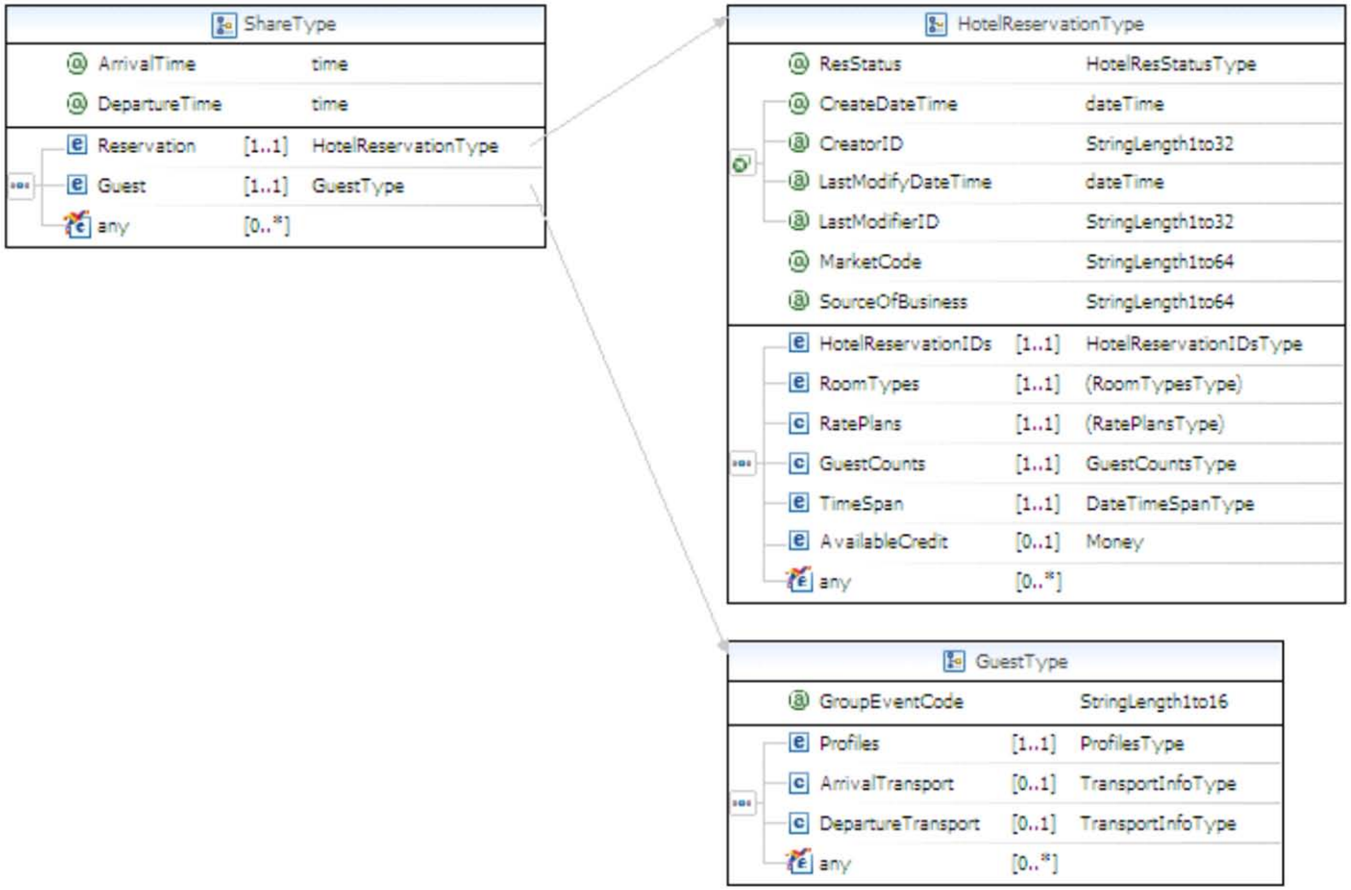

RoomTypeElementType
IsRoom
boolean
RoomTypeCode
StringLength1to16
InvBlockCode
StringLength1to32
RoomDescription
[0..*]
FormattedTextTextType
any
[0..*]
StringLength1to16
StringLength1to32
FormattedTextTextType
Formatted
boolean
Language
language
TextFormat
(TextFormatType)

RoomTypeElementType

```
<xs:complexType name="RoomTypeElementType">
  <xs:sequence>
    <xs:element maxOccurs="unbounded" minOccurs="0" name="RoomDescription"
type="tns:FormattedTextTextType"/>
    <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other" />
  </xs:sequence>
  <xs:attribute name="IsRoom" type="xs:boolean" use="optional"/>
  <xs:attributeGroup ref="tns:RoomGroup"/>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
RoomDescription	element	FormattedTextTextType	optional / multiple	Textual information regarding the room.
IsRoom	attribute	boolean	optional	Indicates the room is a sleeping room when true.
RoomGroup	attributeGroup			Provides details of the room type.

Share Type


ShareType
ArrivalTime time
DepartureTime time
Reservation [1..1] HotelReservationType
Guest [1..1] GuestType
any [0..*]
HotelReservationType
ResStatus HotelResStatusType
CreateDateTime dateTime
CreatorID StringLength1to32
LastModifyDateTime dateTime
LastModifierID StringLength1to32
MarketCode StringLength1to64
SourceOfBusiness StringLength1to64
HotelReservationIDs [1..1] HotelReservationIDsType
RoomTypes [1..1] (RoomTypesType)
RatePlans [1..1] (RatePlansType)
GuestCounts [1..1] GuestCountsType
TimeSpan [1..1] DateTimeSpanType
AvailableCredit [0..1] Money
any [0..*]
GuestType
GroupEventCode StringLength1to16
Profiles [1..1] ProfilesType
ArrivalTransport [0..1] TransportInfoType
DepartureTransport [0..1] TransportInfoType
any [0..*]

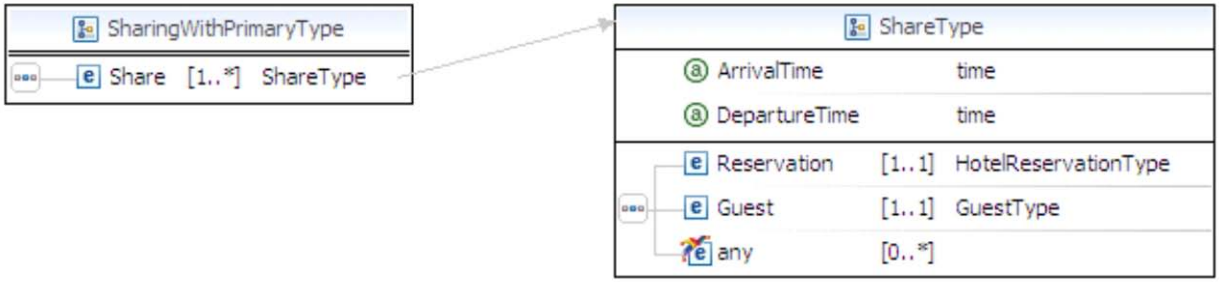
ShareType

```
<xs:complexType name="ShareType">
  <xs:sequence>
    <xs:element maxOccurs="1" minOccurs="1" name="Reservation" type="tns:HotelReservationType"/>
    <xs:element maxOccurs="1" minOccurs="1" name="Guest" type="tns:GuestType"/>
    <xs:any minOccurs="0" maxOccurs="unbounded" namespace="##other" />
  </xs:sequence>
  <xs:attribute name="ArrivalTime" type="xs:time" use="optional"/>
  <xs:attribute name="DepartureTime" type="xs:time" use="optional"/>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Reservation	element	HotelReservationType	required	This is the reservation that is part of a share.

Guest	element	GuestType	required	This is the Guest that is part of a share.
ArrivalTime	attribute	time	optional	This represents the date and time of the guest's arrival at the hotel. For example, this could be used to indicate a late arrival.
DepartureTime	attribute	time	optional	This represents the date and time of the guest's departure from the hotel.

Sharing With Primary Type

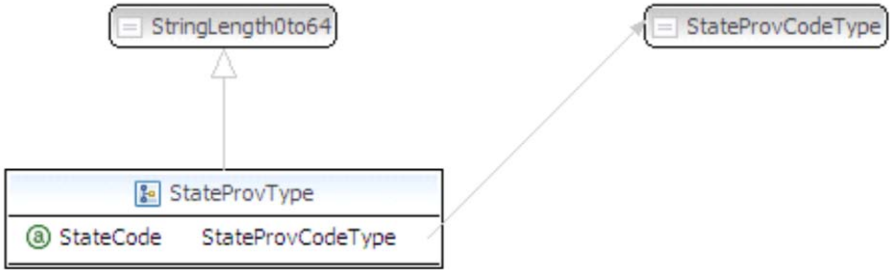

SharingWithPrimaryType
Share [1..*] ShareType
ShareType
ArrivalTime time
DepartureTime time
Reservation [1..1] HotelReservationType
Guest [1..1] GuestType
any [0..*]

SharingWithPrimaryType

```
<xs:complexType name="SharingWithPrimaryType">
  <xs:sequence>
    <xs:element maxOccurs="unbounded" minOccurs="1" name="Share" type="tns:ShareType"/>
  </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Share	element	ShareType	required / multiple	This are the details for a share (reservation and guest) that is not the primary share.

State Prov Type


StringLength0to64
StateProvCodeType
StateProvType
StateCode StateProvCodeType

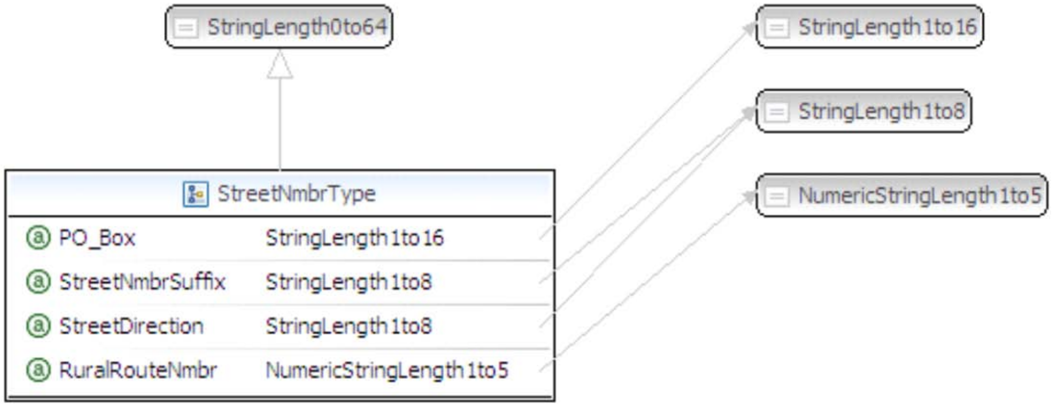
StateProvType

```
<xs:complexType name="StateProvType">
```

```
  <xs:simpleContent>
    <xs:extension base="tns:StringLength0to64">
      <xs:attribute name="StateCode" type="tns:StateProvCodeType"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
StateCode	attribute	StateProvCodeType	optional	The standard code or abbreviation for the state, province, or region.

Street Number Type

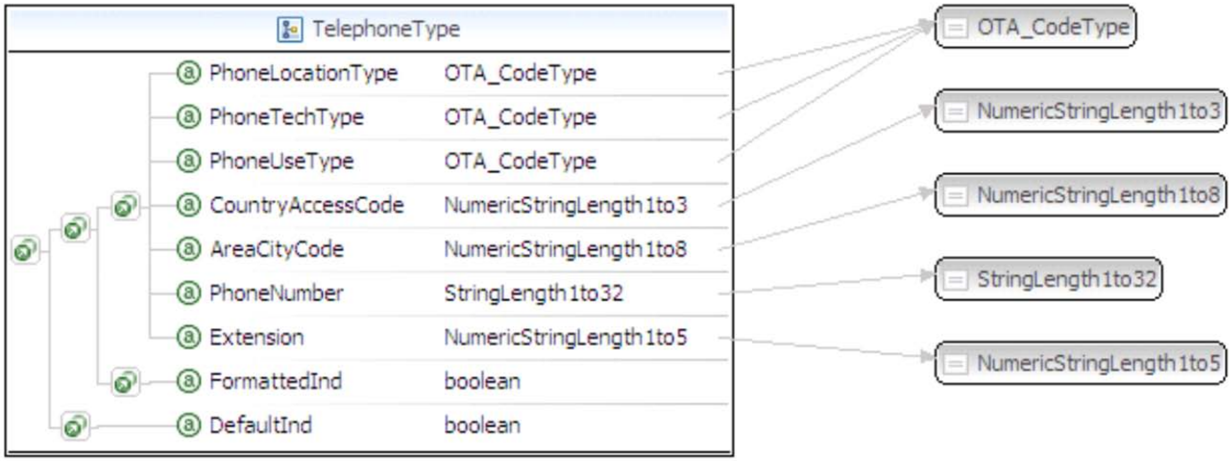

StringLength0to64
StreetNmbrType
PO_Box StringLength1to16
StreetNmbrSuffix StringLength1to8
StreetDirection StringLength1to8
RuralRouteNmbr NumericStringLength1to5
StringLength1to16
StringLength1to8
NumericStringLength1to5

StreetNmbrType

```
<xs:complexType name="StreetNmbrType">
  <xs:simpleContent>
    <xs:extension base="tns:StringLength0to64">
      <xs:attribute name="PO_Box" type="tns:StringLength1to16" use="optional"/>
      <xs:attribute name="StreetNmbrSuffix" type="tns:StringLength1to8" use="optional"/>
      <xs:attribute name="StreetDirection" type="tns:StringLength1to8" use="optional"/>
      <xs:attribute name="RuralRouteNmbr" type="tns:NumericStringLength1to5" use="optional"/>
    </xs:extension>
  </xs:simpleContent>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
PO_Box	attribute	StringLength1to16	optional	Defines a Post Office Box number.
StreetNmbrSuffix	attribute	StringLength1to8	optional	Usually a letter right after the street number (A in 66-A, B in 123-B etc).
StreetDirection	attribute	StringLength1to8	optional	Street direction of an address (e.g., N, E, S, NW, SW).
RuralRouteNmbr	attribute	NumericStringLength1to5	optional	Numerical equivalent of a rural township as defined within a given area (e.g., 12, 99).

Telephone Type

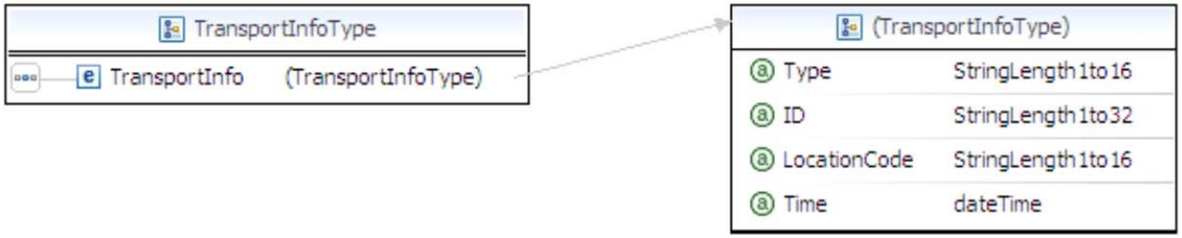

TelephoneType
PhoneLocationType OTA_CodeType
PhoneTechType OTA_CodeType
PhoneUseType OTA_CodeType
CountryAccessCode NumericStringLength1to3
AreaCityCode NumericStringLength1to8
PhoneNumber StringLength1to32
Extension NumericStringLength1to5
FormattedInd boolean
DefaultInd boolean
OTA_CodeType
NumericStringLength1to3
NumericStringLength1to8
StringLength1to32
NumericStringLength1to5

TelephoneType

```
<xs:complexType name="TelephoneType">
  <xs:attributeGroup ref="tns:TelephoneInfoGroup"/>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
TelephoneInfoGroup	attributeGroup			Information about a telephone number, including the actual number and its usage.

Transport Info Type


TransportInfoType
TransportInfo (TransportInfoType)
(TransportInfoType)
Type StringLength1to16
ID StringLength1to32
LocationCode StringLength1to16
Time dateTime

TransportInfoType

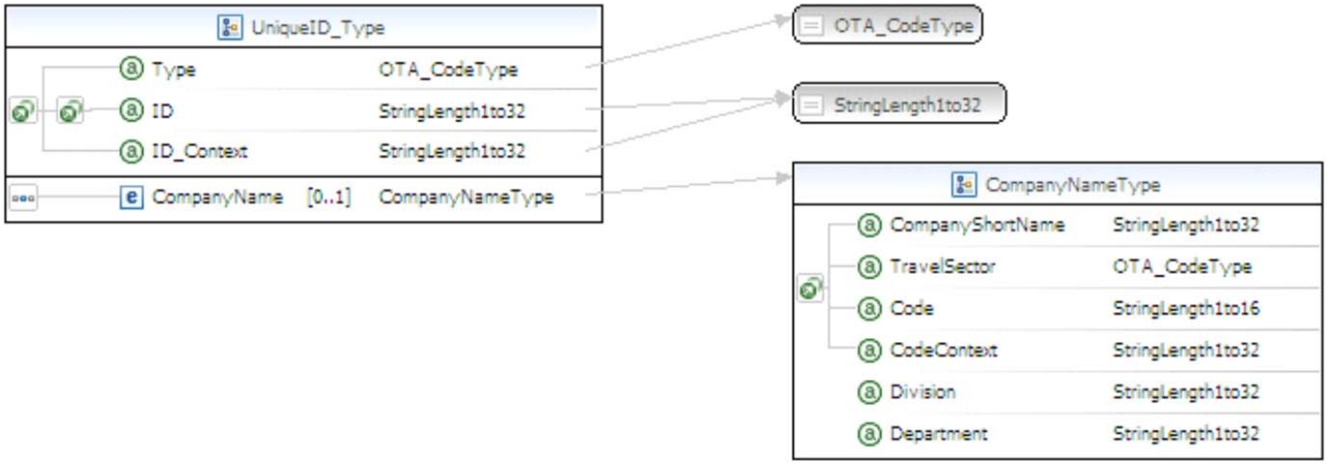
```
<xs:complexType name="TransportInfoType">
  <xs:sequence>
    <xs:element name="TransportInfo">
      <xs:complexType>
```

```
          <xs:attribute name="Type" type="tns:StringLength1to16" use="optional"/>
          <xs:attribute name="ID" type="tns:StringLength1to32" use="optional"/>
          <xs:attribute name="LocationCode" type="tns:StringLength1to16" use="optional"/>
          <xs:attribute name="Time" type="xs:dateTime" use="optional"/>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
</xs:complexType>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
TransportInfo	element	(TransportInfoType)*	required	
Type	attribute	StringLength1to16	optional	This describes the type of transport that is being used
ID	attribute	StringLength1to32	optional	Identifier of this transportation method (e.g., flight number).
LocationCode	attribute	StringLength1to16	optional	Identifier of the arrival or delivery point (e.g., airport code)
Time	attribute	dateTime	optional	Time of transportation. Local time of the location indicated by the LocationCode.

* This type is defined anonymously within the parent type

Unique ID Type

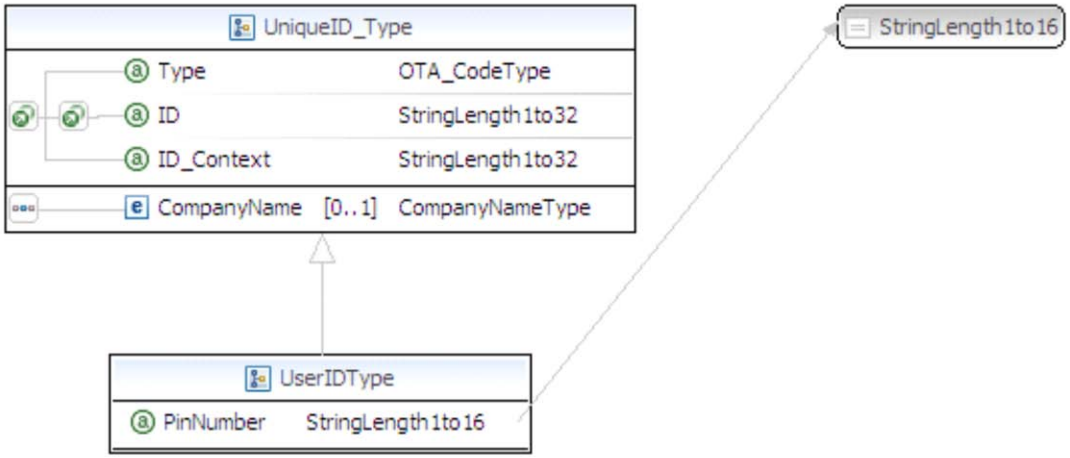

UniqueID_Type
Type
OTA_CodeType
ID
StringLength1to32
ID_Context
StringLength1to32
CompanyName
[0..1]
CompanyNameType
OTA_CodeType
StringLength1to32
CompanyNameType
CompanyShortName
StringLength1to32
TravelSector
OTA_CodeType
Code
StringLength1to16
CodeContext
StringLength1to32
Division
StringLength1to32
Department
StringLength1to32

UniqueID_Type

```
<xs:complexType name="UniqueID_Type">
  <xs:sequence>
    <xs:element minOccurs="0" name="CompanyName" type="tns:CompanyNameType"/>
  </xs:sequence>
  <xs:attributeGroup ref="tns:UniqueID_Group" />
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
CompanyName	element	CompanyNameType	optional	Identifies the company that is associated with the UniqueID.
UniqueID_Group	attributeGroup			

User ID Type


UniqueID_Type
Type
OTA_CodeType
ID
StringLength1to32
ID_Context
StringLength1to32
CompanyName
[0..1]
CompanyNameType
StringLength1to16
UserIDType
PinNumber
StringLength1to16

UserIDType

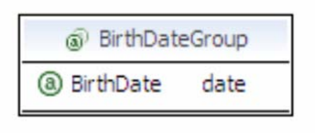
```
<xs:complexType name="UserIDType">
  <xs:complexContent>
    <xs:extension base="tns:UniqueID_Type">
      <xs:attribute name="PinNumber" type="tns:StringLength1to16" use="optional"/>
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
PinNumber	attribute	StringLength1to16	optional	The personal identification number (password) for this user ID.

51.4 Attribute Groups

This section outlines the details of the common attribute groups found in the HTNG_ComplexTypes_2009B.xsd schema definition file. The Data Types in these tables are either from schema or from HTNG_SimpleTypes_2009B.xsd schema definition file. Most should be self-explanatory.

Birth Date Group

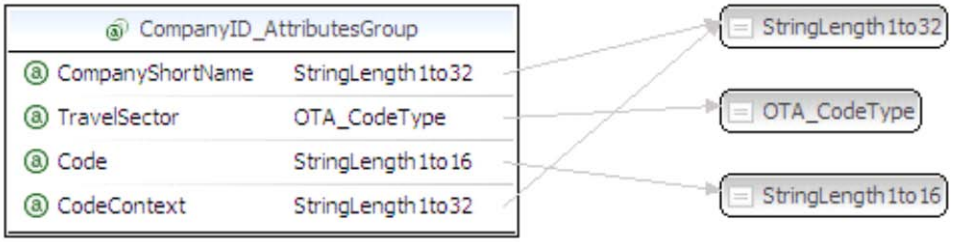

BirthDateGroup
BirthDate
date

BirthDateGroup

```
<xs:attributeGroup name="BirthDateGroup">
  <xs:attribute name="BirthDate" type="xs:date" use="optional"/>
</xs:attributeGroup>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
BirthDate	attribute	date	optional	Indicates the date of birth as indicated in the document, in ISO 8601 prescribed format.

Company ID Attributes Group

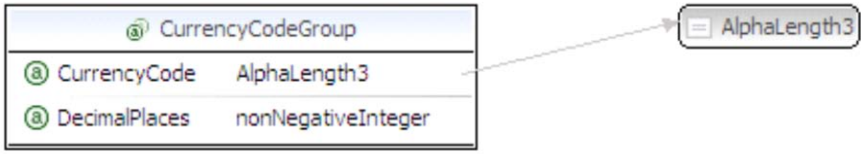

CompanyID_AttributesGroup
CompanyShortName
StringLength1to32
TravelSector
OTA_CodeType
Code
StringLength1to16
CodeContext
StringLength1to32
StringLength1to32
OTA_CodeType
StringLength1to16

CompanyID_AttributesGroup

```
<xs:attributeGroup name="CompanyID_AttributesGroup">
  <xs:attribute name="CompanyShortName" type="tns:StringLength1to32" use="optional"/>
  <xs:attribute name="TravelSector" type="tns:OTA_CodeType" use="optional"/>
  <xs:attribute name="Code" type="tns:StringLength1to16" use="optional"/>
  <xs:attribute name="CodeContext" type="tns:StringLength1to32" use="optional"/>
</xs:attributeGroup>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
CompanyShortName	attribute	StringLength1to32	optional	Used to provide the company common name.
TravelSector	attribute	OTA_CodeType	optional	Refer to OTA Code List Travel Sector (TVS).
Code	attribute	StringLength1to16	optional	Identifies a company by the company code.
CodeContext	attribute	StringLength1to32	optional	Identifies the context of the identifying code, such as DUNS, IATA or internal code, etc.

Currency Code Group



CurrencyCodeGroup

```
<xs:attributeGroup name="CurrencyCodeGroup">
  <xs:attribute name="CurrencyCode" type="tns:AlphaLength3" use="optional"/>
  <xs:attribute name="DecimalPlaces" type="xs:nonNegativeInteger" use="optional"/>
</xs:attributeGroup>
```

Name	Type	Data Type	Use	Comments
CurrencyCode	attribute	AlphaLength3	optional	The code specifying a monetary unit. Use ISO 4217, three alpha code.
DecimalPlaces	attribute	nonNegativeInteger	optional	Indicates the number of decimal places for a particular currency. This is equivalent to the ISO 4217 standard "minor unit". Typically used when the amount provided includes the minor unit of currency without a decimal point (e.g., USD 8500 needs DecimalPlaces="2" to represent $85).

Customer Loyalty Group

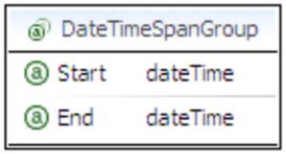
CustomerLoyaltyGroup

```
<xs:attributeGroup name="CustomerLoyaltyGroup">
  <xs:attribute name="ProgramID" type="tns:StringLength1to16"/>
  <xs:attribute name="MembershipID" type="tns:StringLength1to32"/>
  <xs:attribute name="TravelSector" type="tns:OTA_CodeType" use="optional"/>
  <xs:attributeGroup ref="tns:LoyalLevelGroup"/>
  <xs:attributeGroup ref="tns:SingleVendorIndGroup"/>
  <xs:attributeGroup ref="tns:SignupDateGroup"/>
  <xs:attributeGroup ref="tns:EffectiveExpireOptionalDateGroup"/>
  <xs:attribute name="VendorCode" type="tns:ListOfStringLength1to8" use="optional"/>
  <xs:attribute name="PrimaryLoyaltyIndicator" type="xs:boolean" use="optional"/>
  <xs:attribute name="AllianceLoyaltyLevelName" type="tns:StringLength1to128" use="optional"/>
  <xs:attribute name="CustomerType" type="tns:StringLength1to8" use="optional"/>
  <xs:attribute name="CustomerValue" type="tns:StringLength1to8" use="optional"/>
</xs:attributeGroup>
```

Name	Type	Data Type	Use	Comments
ProgramID	attribute	StringLength1to16	optional	Identifier to indicate the company owner of the loyalty program.
MembershipID	attribute	StringLength1to32	optional	Unique identifier of the member in the program (membership number, account

				number, etc.).
TravelSector	attribute	OTA_CodeType	optional	Identifies the travel sector. Refer to OTA Code List Travel Sector (TVS).
LoyalLevelGroup	attributeGroup			Provides the level of this customer within a loyalty program.
SingleVendorIndGroup	attributeGroup			Indicates the alliance status of a program.
SignupDateGroup	attributeGroup			Provides the date of registration for this customer for the loyalty program.
EffectiveExpireOptionalDateGroup	attributeGroup			The effective date and/or expiration date of this customer's membership in this loytalty program.
VendorCode	attribute	ListOfStringLength1to8	optional	Indicate the partner(s)/vendor(s) for which the customer loyalty number is valid.
PrimaryLoyaltyIndicator	attribute	boolean	optional	When true, indicates this is the primary customer loyalty program and when false, indicates this is not the primary customer loyalty program.
AllianceLoyaltyLevelName	attribute	StringLength1to128	optional	Name of the alliance loyalty level (e.g.,OneWorld uses Emerald, Ruby, etc and SkyTeam uses Elite, etc.).
CustomerType	attribute	StringLength1to8	optional	Original assessment of the customer by the travel agent.
CustomerValue	attribute	StringLength1to8	optional	The supplier's ranking of the customer (e.g., VIP, numerical ranking).

Date Time Span Group

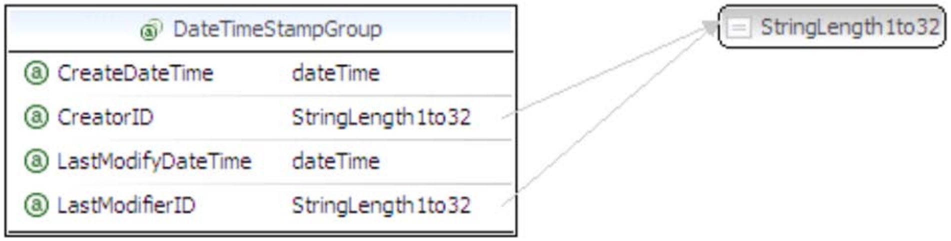


DateTimeSpanGroup

```
<xs:attributeGroup name="DateTimeSpanGroup">
  <xs:attribute name="Start" type="xs:dateTime" use="required"/>
  <xs:attribute name="End" type="xs:dateTime" use="required"/>
</xs:attributeGroup>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Start	attribute	dateTime	required	The starting value of the time span.
End	attribute	dateTime	required	The ending value of the time span.

Date Time Stamp Group

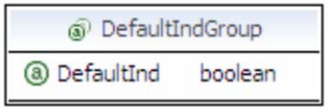

DateTimeStampGroup
CreateDateTime dateTime
CreatorID StringLength1to32
LastModifyDateTime dateTime
LastModifierID StringLength1to32
StringLength1to32

DateTimeStampGroup

```
<xs:attributeGroup name="DateTimeStampGroup">
  <xs:attribute name="CreateDateTime" type="xs:dateTime" use="optional"/>
  <xs:attribute name="CreatorID" type="tns:StringLength1to32" use="optional"/>
  <xs:attribute name="LastModifyDateTime" type="xs:dateTime" use="optional"/>
  <xs:attribute name="LastModifierID" type="tns:StringLength1to32" use="optional"/>
</xs:attributeGroup>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
CreateDateTime	attribute	dateTime	optional	Time stamp of the creation.
CreatorID	attribute	StringLength1to32	optional	ID of creator. The creator could be a software system identifier or an identifier of an employee responsible for the creation.
LastModifyDateTime	attribute	dateTime	optional	This is the time stamp of the last modification.

Default Ind Group

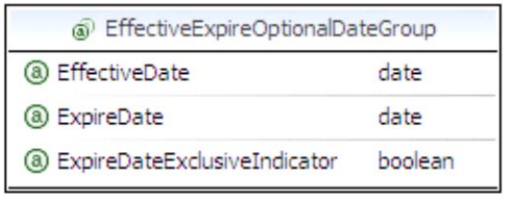

DefaultIndGroup
DefaultInd boolean

DefaultIndGroup

```
<xs:attributeGroup name="DefaultIndGroup">
  <xs:attribute default="false" name="DefaultInd" type="xs:boolean" use="optional"/>
</xs:attributeGroup>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
DefaultInd	attribute	boolean	optional	When true, indicates a default value should be used.

Effective Expire Optional Date Group



EffectiveExpireOptionalDateGroup

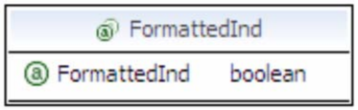
EffectiveDate	date
ExpireDate	date
ExpireDateExclusiveIndicator	boolean

EffectiveExpireOptionalDateGroup

```
<xs:attributeGroup name="EffectiveExpireOptionalDateGroup">
  <xs:attribute name="EffectiveDate" type="xs:date" use="optional"/>
  <xs:attribute name="ExpireDate" type="xs:date" use="optional"/>
  <xs:attribute name="ExpireDateExclusiveIndicator" type="xs:boolean" use="optional"/>
</xs:attributeGroup>
```

Name	Type	Data Type	Use	Comments
EffectiveDate	attribute	date	optional	Indicates the starting date.
ExpireDate	attribute	date	optional	Indicates the expiration date.

Formatted Ind



FormattedInd

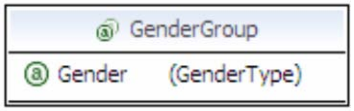
FormattedInd	boolean

FormattedInd

```
<xs:attributeGroup name="FormattedInd">
  <xs:attribute default="false" name="FormattedInd" type="xs:boolean" use="optional"/>
</xs:attributeGroup>
```

Name	Type	Data Type	Use	Comments
FormattedInd	attribute	boolean	optional	Specifies if the associated data is formatted or not. When true, then it is formatted; when false, then not formatted.

Gender Group



GenderGroup

Gender	(GenderType)

GenderGroup

```
<xs:attributeGroup name="GenderGroup">
```

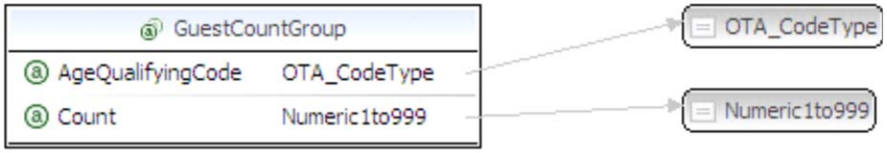
```
    <xs:attribute name="Gender" use="optional">
      <xs:simpleType>
        <xs:restriction base="xs:NMTOKEN">
          <xs:enumeration value="Male" />
          <xs:enumeration value="Female" />
          <xs:enumeration value="Unknown" />
        </xs:restriction>
      </xs:simpleType>
    </xs:attribute>
  </xs:attributeGroup>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
Gender	attribute	(GenderEnum)	optional	Identifies the gender.

(GenderEnum)

Enumeration Type	**Enumeration Value**	**Comments**
string	Male	
string	Female	
string	Unknown	

Guest Count Group

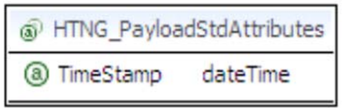

GuestCountGroup
AgeQualifyingCode
OTA_CodeType
Count
Numeric1to999
OTA_CodeType
Numeric1to999

GuestCountGroup

```
<xs:attributeGroup name="GuestCountGroup">
  <xs:attribute name="AgeQualifyingCode" type="tns:OTA_CodeType" use="required"/>
  <xs:attribute name="Count" type="tns:Numeric1to999" use="required"/>
</xs:attributeGroup>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
AgeQualifyingCode	attribute	OTA_CodeType	required	A code representing a business rule that determines the charges for a guest based upon age range (e.g. Adult, Child, Senior, Child With Adult, Child Without Adult). This attribute allows for an increase in rate by occupant class. Refer to OTA Code List Age Qualifying Code (AQC).
Count	attribute	Numeric1to999	required	The number of guests in one AgeQualifyingCode or Count.

HTNG Payload Std Attributes

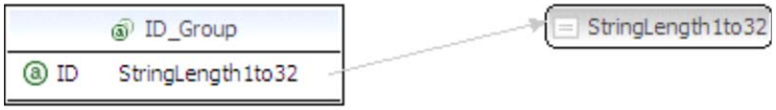

HTNG_PayloadStdAttributes
TimeStamp
dateTime

HTNG_PayloadStdAttributes

```
<xs:attributeGroup name="HTNG_PayloadStdAttributes">
  <xs:attribute name="TimeStamp" type="xs:dateTime" use="required"/>
</xs:attributeGroup>
```

Name	Type	Data Type	Use	Comments
TimeStamp	attribute	dateTime	required	Indicates the creation date and time of the message in UTC using the following format specified by ISO 8601; YYYY-MM-DDThh:mm:ssZ with time values using the 24 hour clock (e.g. 20 November 2003, 1:59:38 pm UTC becomes 2003-11-20T13:59:38Z).

ID Group

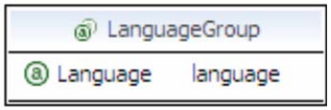

ID_Group
ID
StringLength1to32
StringLength1to32

ID_Group

```
<xs:attributeGroup name="ID_Group">
  <xs:attribute name="ID" type="tns:StringLength1to32" use="required"/>
</xs:attributeGroup>
```

Name	Type	Data Type	Use	Comments
ID	attribute	StringLength1to32	required	A unique identifying value assigned by the creating system. The ID attribute may be used to reference a primary-key value within a database or in a particular implementation.

Language Group


LanguageGroup
Language
language

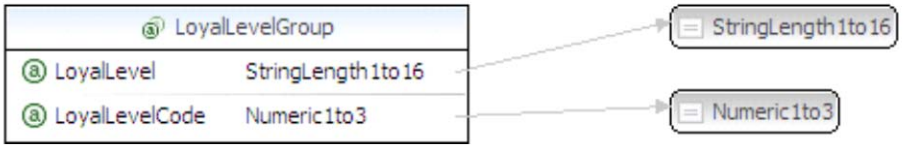
LanguageGroup

```
<xs:attributeGroup name="LanguageGroup">
```

```
   <xs:attribute name="Language" type="xs:language" use="optional"/>
</xs:attributeGroup>
```

Name	Type	Data Type	Use	Comments
Language	attribute	language	optional	Language identification.

Loyal Level Group

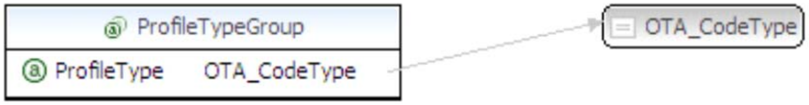

LoyalLevelGroup
LoyalLevel
StringLength1to16
LoyalLevelCode
Numeric1to3
StringLength1to16
Numeric1to3

AddressType

```
<xs:attributeGroup name="LoyalLevelGroup">
   <xs:attribute name="LoyalLevel" type="tns:StringLength1to16" use="optional"/>
   <xs:attribute name="LoyalLevelCode" type="tns:Numeric1to3" use="optional"/>
</xs:attributeGroup>
```

Name	Type	Data Type	Use	Comments
LoyalLevel	attribute	StringLength1to16	optional	Indicates special privileges in program assigned to individual.
LoyalLevelCode	attribute	Numeric1to3	optional	Provides a numeric code assigned to a particular loyalty level.

Profile Type Group

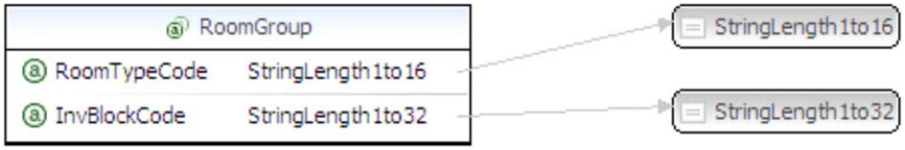

ProfileTypeGroup
ProfileType
OTA_CodeType
OTA_CodeType

AddressType

```
<xs:attributeGroup name="ProfileTypeGroup">
   <xs:attribute name="ProfileType" type="tns:OTA_CodeType" use="optional"/>
</xs:attributeGroup>
```

Name	Type	Data Type	Use	Comments
ProfileType	attribute	OTA_CodeType	optional	Code to specify a profile such as Customer, Tour Operator, Corporation, etc. Refer to OTA Code List Profile Type (PRT).

Room Group


RoomGroup
RoomTypeCode StringLength1to16
InvBlockCode StringLength1to32
StringLength1to16
StringLength1to32

RoomGroup

```
<xs:attributeGroup name="RoomGroup">
  <xs:attribute name="RoomTypeCode" type="tns:StringLength1to16" use="required"/>
  <xs:attribute name="InvBlockCode" type="tns:StringLength1to32" use="optional"/>
</xs:attributeGroup>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
RoomTypeCode	attribute	StringLength1to16	required	Specific system room type code, ex: A1K, A1Q etc.
InvBlockCode	attribute	StringLength1to32	optional	A code or identification number that identifies the room stay as part of a group, package tour, or block of rooms designated in the inventory.

Signup Date Group

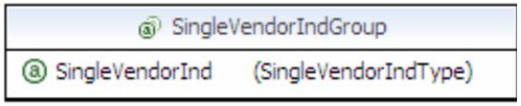
SignupDateGroup
SignupDate date

SignupDateGroup

```
<xs:attributeGroup name="SignupDateGroup">
  <xs:attribute name="SignupDate" type="xs:date" use="optional"/>
</xs:attributeGroup>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
SignupDate	attribute	date	optional	Indicates when the member signed up for the loyalty program.

Single Vendor Ind Group


SingleVendorIndGroup
SingleVendorInd (SingleVendorIndType)

SingleVendorIndGroup

```
<xs:attributeGroup name="SingleVendorIndGroup">
```

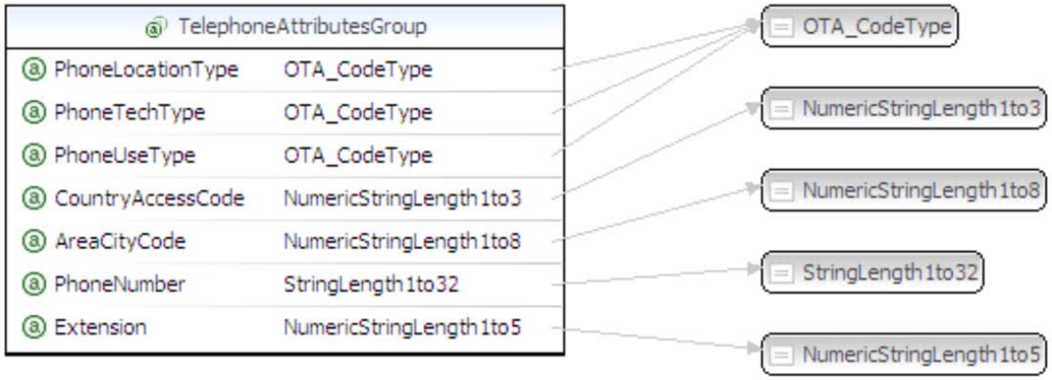
```
  <xs:attribute name="SingleVendorInd">
    <xs:simpleType>
      <xs:restriction base="xs:NMTOKEN">
        <xs:enumeration value="SingleVndr"></xs:enumeration>
        <xs:enumeration value="Alliance"></xs:enumeration>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
</xs:attributeGroup>
```

Name	**Type**	**Data Type**	**Use**	**Comments**
SingleVendorInd	attribute	(SingleVendorIndEnum)	optional	Indicates if program is affiliated with a group of related offers accumulating credits.

(SingleVendorIndEnum)

Enumeration Type	**Enumeration Value**	**Comments**
string	SingleVndr	Indicates the program is not part of an alliance.
string	Alliance	Indicates the program is part of an alliance.

Telephone Attributes Group


TelephoneAttributesGroup
PhoneLocationType OTA_CodeType
PhoneTechType OTA_CodeType
PhoneUseType OTA_CodeType
CountryAccessCode NumericStringLength1to3
AreaCityCode NumericStringLength1to8
PhoneNumber StringLength1to32
Extension NumericStringLength1to5
OTA_CodeType
NumericStringLength1to3
NumericStringLength1to8
StringLength1to32
NumericStringLength1to5

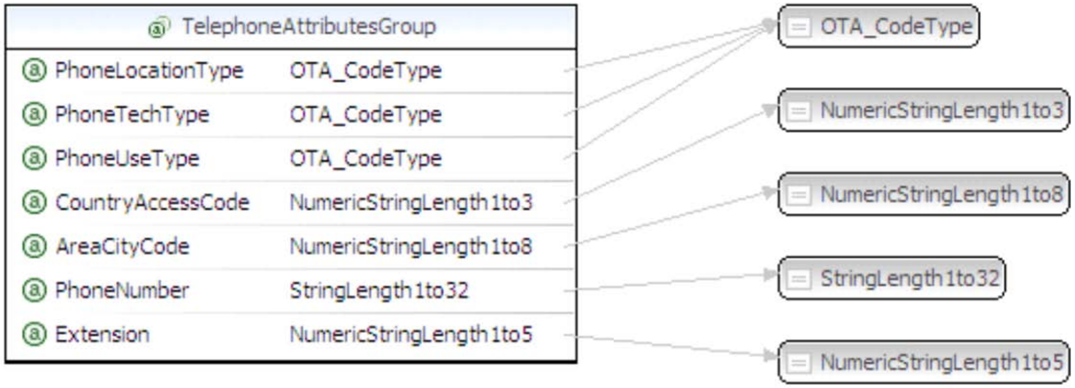
TelephoneAttributesGroup

```
<xs:attributeGroup name="TelephoneAttributesGroup">
  <xs:attribute name="PhoneLocationType" type="tns:OTA_CodeType" use="optional"/>
  <xs:attribute name="PhoneTechType" type="tns:OTA_CodeType" use="optional"/>
  <xs:attribute name="PhoneUseType" type="tns:OTA_CodeType" use="optional"/>
  <xs:attribute name="CountryAccessCode" type="tns:NumericStringLength1to3" use="optional"/>
  <xs:attribute name="AreaCityCode" type="tns:NumericStringLength1to8" use="optional"/>
  <xs:attribute name="PhoneNumber" type="tns:StringLength1to32" use="required"/>
  <xs:attribute name="Extension" type="tns:NumericStringLength1to5" use="optional"/>
</xs:attributeGroup>
```

Name	**Type**	**Data Type**	**Use**	**Comments**

PhoneLocationType	attribute	OTA_CodeType	optional	Refer to OTA Code List Phone Location Type (PLT).
PhoneTechType	attribute	OTA_CodeType	optional	Indicates type of technology associated with this telephone number, such as Voice, Data, Fax, Pager, Mobile, TTY, etc. Refer to OTA Code List Phone Technology Type (PTT).
PhoneUseType	attribute	OTA_CodeType	optional	Describes the type of telephone number, in the context of its general use (e.g. Home, Business, Emergency Contact, Travel Arranger, Day, Evening). Refer to OTA Code List Phone Use Type (PUT).
CountryAccessCode	attribute	NumericStringLength1to3	optional	Code assigned by telecommunications authorities for international country access identifier.
AreaCityCode	attribute	NumericStringLength1to8	optional	Code assigned for telephones in a specific region, city, or area.
PhoneNumber	attribute	StringLength1to32	required	Telephone number assigned to a single location.
Extension	attribute	NumericStringLength1to5	optional	Extension to reach a specific party at the phone number.

Telephone Info Group


TelephoneAttributesGroup
PhoneLocationType OTA_CodeType
PhoneTechType OTA_CodeType
PhoneUseType OTA_CodeType
CountryAccessCode NumericStringLength1to3
AreaCityCode NumericStringLength1to8
PhoneNumber StringLength1to32
Extension NumericStringLength1to5
OTA_CodeType
NumericStringLength1to3
NumericStringLength1to8
StringLength1to32
NumericStringLength1to5

TelephoneInfoGroup

```
<xs:attributeGroup name="TelephoneInfoGroup">
  <xs:attributeGroup ref="tns:TelephoneGroup"/>
  <xs:attributeGroup ref="tns:DefaultIndGroup"/>
```

```
</xs:attributeGroup>
```

Name	Type	Data Type	Use	Comments
TelephoneGroup	attributeGroup			Detailed telephone information.
DefaultIndGroup	attributeGroup			Indicates that the receiving system should assume the default value if the user specifies no overriding value or action.

Telephone Group

TelephoneGroup

```
<xs:attributeGroup name="TelephoneGroup">
  <xs:attributeGroup ref="tns:TelephoneAttributesGroup"/>
  <xs:attributeGroup ref="tns:FormattedInd"/>
</xs:attributeGroup>
```

Name	Type	Data Type	Use	Comments
TelephoneAttributesGroup	attributeGroup			Provides telephone information details.
FormattedInd	attributeGroup			Identifies if the associated data is formatted into its individual pieces, or exists as a single entity.

Unique ID Group

UniqueID_Group

```
<xs:attributeGroup name="UniqueID_Group">
  <xs:attribute name="Type" type="tns:OTA_CodeType" use="required"/>
  <xs:attributeGroup ref="tns:ID_Group"/>
  <xs:attribute name="ID_Context" type="tns:StringLength1to32" use="optional"/>
</xs:attributeGroup>
```

Name	Type	Data Type	Use	Comments
Type	attribute	OTA_CodeType	required	A reference to the type of object defined by the UniqueID element. Refer to OTA Code List Unique ID Type (UIT).
ID_Group	attributeGroup			Used to provide a required unique identifier.
ID_Context	attribute	StringLength1to32	optional	Used to identify the source of the identifier (e.g., IATA, ABTA).

Chapter 52 Implementation Requirements

This chapter is usually intended to indicate the mandatory and optional requirements for implementing this specification. Given the importance and detailed nature of the Conformance Statement Questionnaire, please reference the CSQ for this release to see those requirements.