Guest & Room Status Messaging Specifications 2010B

Version 1.1
22 October 2010

Guest & Room Status Messaging Workgroup

About HTNG

Hotel Technology Next Generation (HTNG) is a non-profit association with a mission to foster, through collaboration and partnership, the development of next-generation systems and solutions that will enable hoteliers and their technology vendors to do business globally in the 21st century; to be recognized as a leading voice of the global hotel community, articulating the technology requirements of hotel companies of all sizes to the vendor community; and to facilitate the development of technology models for hospitality that will foster innovation, improve the guest experience, increase the effectiveness and efficiency of hotels, and create a healthy ecosystem of technology suppliers.

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1. Document History

1.1 Functional Change Log

Version	Date	Comments
V1.0 (2009B)	24 Sep 2009	Included Check-in, Check-out, Room Move and Guest Information Change.
V1.1 (2010B)	22 Oct 2010	Replaced the use of xs:any by using OpenTravel's TPA_Extensions; fixed StreetNumber type and added AffectedGuest element within HTNG_StayUpdateNotification.

2. Document Information

2.1 Document 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.

2.2 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.

2.3 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.

2.4 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 3 - Business Process

This chapter explains the business process that corresponds to the messaging outlined in this document. 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 4 - Schemas

This chapter outlines the design decisions, 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 5 - Implementation Requirements

This chapter is intended to indicate the mandatory and optional requirements for implementing this specification.

2.5 Document Terms

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

Term	Definition
Preferences	Desired behavior and environment details associated with a Guest
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
Room Sharing	More than one Guest is occupying a given Room, each responsible for their

	own charges
Suite	A collection of rooms that can be sold as a single unit of inventory

2.6 Referenced Documents

The following table shows additional documents upon which this specification depends:

Document Title	Location/URL
HTNG Web Services Framework Version 2.1.1	http://collaboration.htng.org/specs/
OpenTravel 2008B Release	http://www.opentravel.org

3. Business Process

3.1 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.

3.2 Roles

There are two different roles that are defined for this specification:

- Room Stay Information Provider
- 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.

3.3 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.

3.4 Use Cases

3.4.1 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 check-in 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 room(s)
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 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 upon 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).

3.4.2 Check-Out

Assumptions
The Guest has a reservation and the guest profile, the reservation type(s) are in the 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 a 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 a 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 events 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 (i.e., 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).

3.4.3 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 Guest's settings in a graceful manner. A mechanism to establish a new key/access privileges will be offered to the room #1 Guest(s).

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 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 and the following will need to occur:

1. If a device is unready for check-out, a corresponding message is issued by that device directly to the in-room controller, kiosk, or related by a 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 (i.e., 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).

3.4.4 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 ensures that the following occurs:
- 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), an exception should be noted and highlighted to the downstream system's administrative support.

3.5 Message Flows

This section will describe each Use Case and the messages that have been defined in order to enable the use cases.

3.5.1 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.

3.5.2 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.

3.5.3 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.

3.5.4 Guest Changes Information

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.

4. Schemas

This chapter outlines the design decisions, the messages, and common types that comprise the technical artifacts for this certification release of GRSM v1.1 that can be found in a separate ZIP file included with specification.

3.6 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.

3.6.1 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_2010B.xsd) and a common simple schema types file (HTNG_SimpleTypes_2010B.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 much 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, 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_2010B.xsd and HTNG_SimpleTypes_2010B.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, otherwise 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 common schema files, in order to not confuse implementers of the specifications, the name of the common files will be labeled with the release they were intended for.

3.6.2 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, these message definitions are named (HTNG_xxxx.xsd) and are in a namespace (http://htng.org/2010B) 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.

3.6.3 WSDL Construction

The WSDL for this first release of the 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/2010B). 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.

3.6.4 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. However, in an effort to avoid any non-determanistic content models, we allow use of the xs:any type within a TPA_Extensions element.

3.6.5 OpenTravel Code Tables

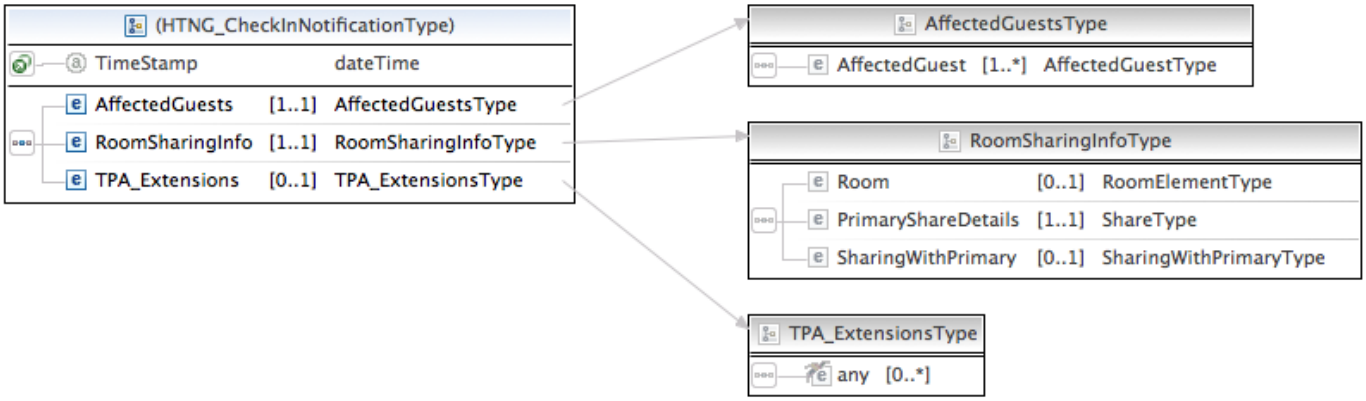
Because this specification has built many data objects in a style that is based on OpenTravel 2008B release, it has also defined several code table types that will have a need to reference back to the OpenTravel code tables, which are kept in a spreadsheet and schema form within the OpenTravel organization. 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.

3.7 Guest & Room Status Messaging Messages

The following sections describe in more detail the four different messages defined as part of the GRSM v1.1 specification.

3.7.1 HTNG_CheckInNotification

The HTNG_CheckInNotification message is defined within the HTNG_CheckInNotification.xsd schema definition file, which imports the HTNG_ComplexTypes_2010B.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_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:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
```

```
      </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 an 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/2010B HTNG_CheckInNotification.xsd"
   xmlns:tns="http://htng.org/2010B" 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 an 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/2010B HTNG_CheckInNotification.xsd"
   xmlns:tns="http://htng.org/2010B" 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 an 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/2010B HTNG_CheckInNotification.xsd"
   xmlns:tns="http://htng.org/2010B" 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.

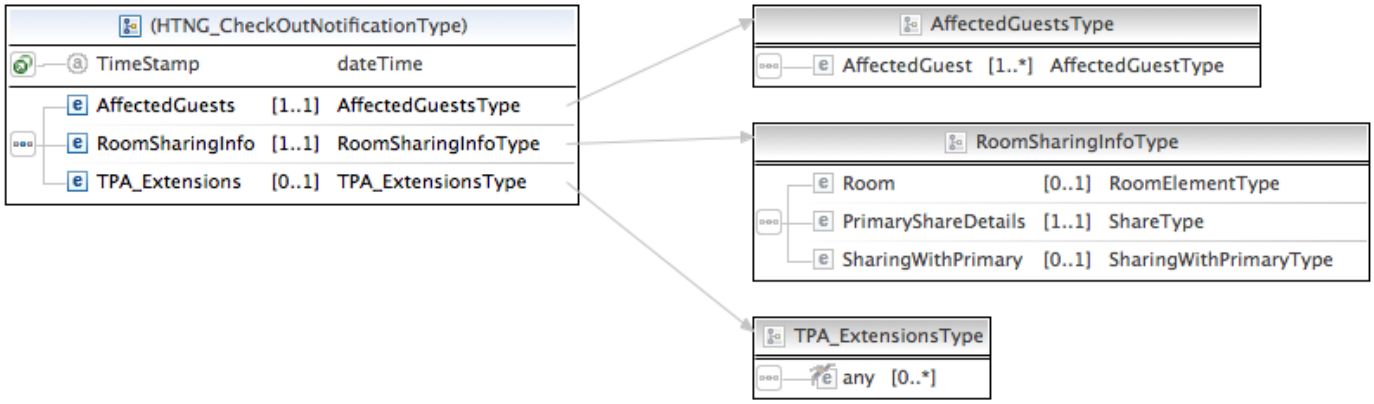
The following XML example is an HTNG_CheckInNotification message that would be sent for the Room Sharing Check-In scenario above:

```
<?xml version="1.0" encoding="UTF-8"?>
<tns:HTNG_CheckInNotification TimeStamp="2009-07-10T16:20:47Z"
   xsi:schemaLocation="http://htng.org/2010B HTNG_CheckInNotification.xsd"
   xmlns:tns="http://htng.org/2010B" 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>
```

3.7.2 HTNG_CheckOutNotification

The HTNG_CheckOutNotification message is defined within the HTNG_CheckOutNotification.xsd schema definition file, which imports the HTNG_ComplexTypes_2010B.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_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:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
      </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 an HTNG_CheckOutNotification message that would be sent for the simple check-out scenario above:

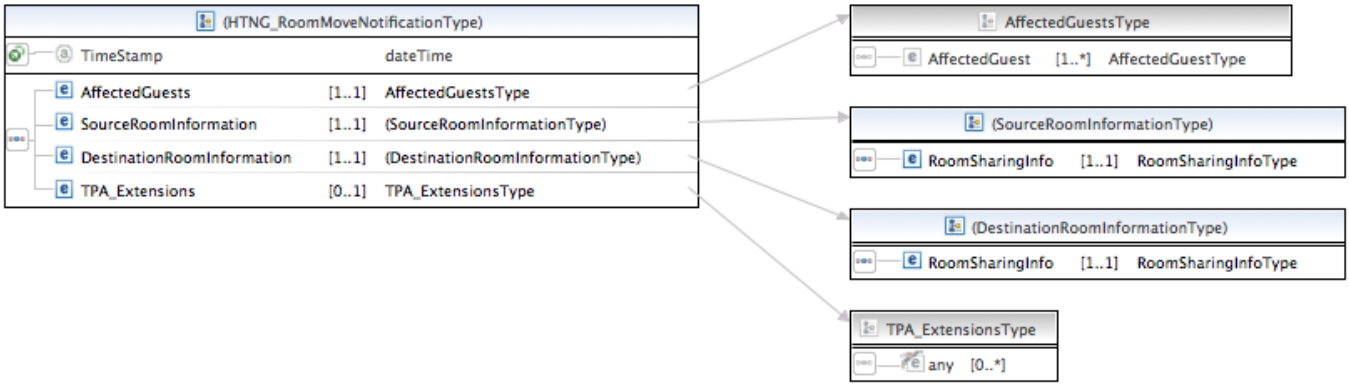
```
<?xml version="1.0" encoding="UTF-8"?>
<tns:HTNG_CheckOutNotification TimeStamp="2001-12-17T09:30:47Z"
   xsi:schemaLocation="http://htng.org/2010B HTNG_CheckOutNotification.xsd"
   xmlns:tns="http://htng.org/2010B" xmlns:htng="http://htng.org/Common"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
   <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>
```

3.7.3 HTNG_RoomMoveNotification

The HTNG_RoomMoveNotification message is defined within the HTNG_RoomMoveNotification.xsd schema definition file, which imports the HTNG_ComplexTypes_2010B.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_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:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
      </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 an HTNG_RoomMoveNotification message that would be sent for the simple room move scenario above:

```
<?xml version="1.0" encoding="UTF-8"?>
<tns:HTNG_RoomMoveNotification TimeStamp="2001-12-17T09:30:47Z"
   xsi:schemaLocation="http://htng.org/2010B HTNG_RoomMoveNotification.xsd"
   xmlns:tns="http://htng.org/2010B" 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" />
```

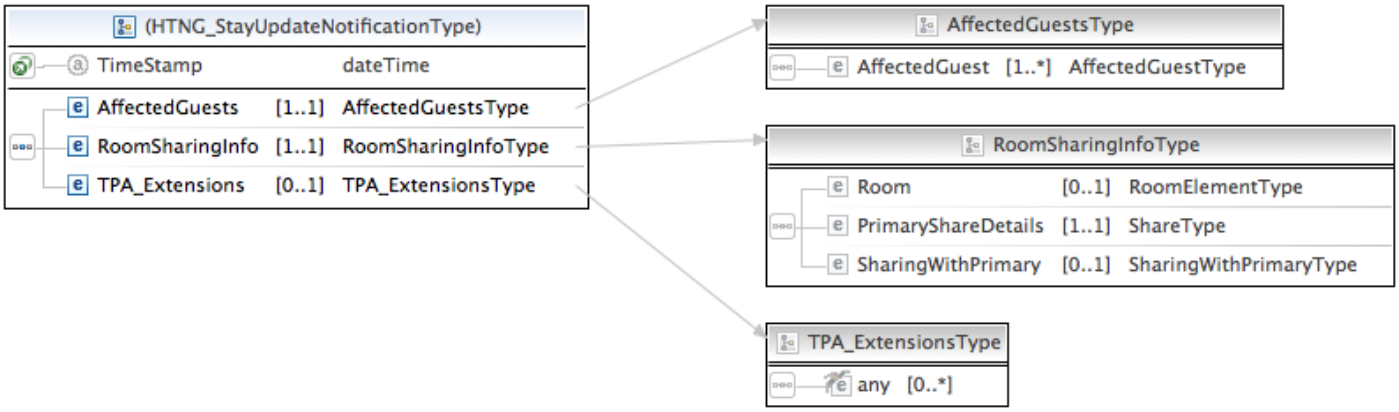
```
            </htng:HotelReservationIDs>
            <htng:RoomTypes>
               <htng:RoomType RoomTypeCode="KING" InvBlockCode="GRP123" IsRoom="true">
                  <htng:RoomDescription Language="en-us" Formatted="true"
                     TextFormat="PlainText">
                     Ocean 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>
```

3.7.4 HTNG_StayUpdateNotification

The HTNG_StayUpdateNotification message is defined within the HTNG_StayUpdateNotification.xsd schema definition file, which imports the HTNG_ComplexTypes_2010B.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_StayUpdateNotification

```
<xs:element name="HTNG_StayUpdateNotification">
   <xs:complexType>
      <xs:sequence>
         <xs:element name=”AffectedGuests” type=”common:AffectedGuestsType” minOccurs=”1”/>
         <xs:element name="RoomSharingInfo" type="common:RoomSharingInfoType" minOccurs="1"/>
         <xs:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
      </xs:sequence>
      <xs:attributeGroup ref="common:HTNG_PayloadStdAttributes"/>
   </xs:complexType>
</xs:element>
```

Name	Type	Data Type	Use	Comments
AffectedGuests	Element	AffectedGuests	required	These are the Guests whose stay information is changing.
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 version="1.0" encoding="UTF-8"?>
<tns:HTNG_StayUpdateNotification TimeStamp="2001-12-17T09:30:47Z"
   xsi:schemaLocation="http://htng.org/2010B HTNG_StayUpdateNotification.xsd"
   xmlns:tns="http://htng.org/2010B" 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"
```

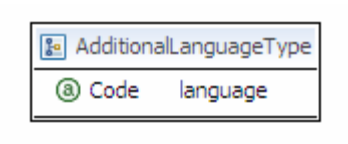
```
            CreatorID="CRS123" SourceOfBusiness="Internet" LastModifierID="AGT123"
            LastModifyDateTime="2008-12-17T09:30:47Z">
            <htng:HotelReservationIDs>
               <htng:HotelReservationID ResID_Date="2008-12-17T09:30:47Z"
                  ResID_SourceContext="CRS123" 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_StayUpdateNotification>
```

3.8 Complex Types

This section outlines the details of the common complex types found in the HTNG_ComplexTypes_2010B.xsd schema definition file. The Data Types in these tables are either from schema or from HTNG_SimpleTypes_2010B.xsd schema definition file. Most should be self-explanatory.

3.8.1 Additional Language Type

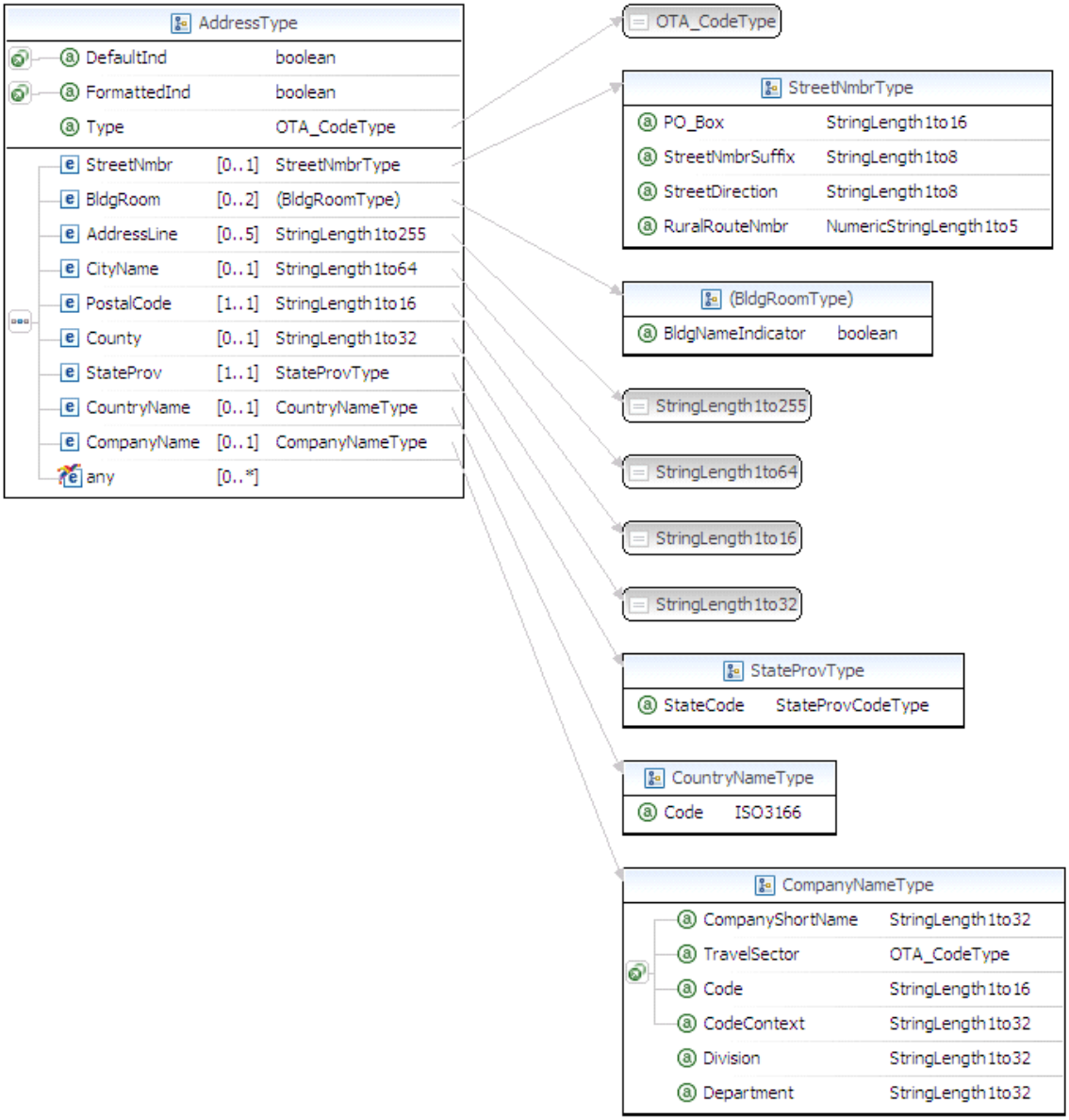


AdditionalLanguageType

```
<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 Guest.

3.8.2 Address Type



AddressType

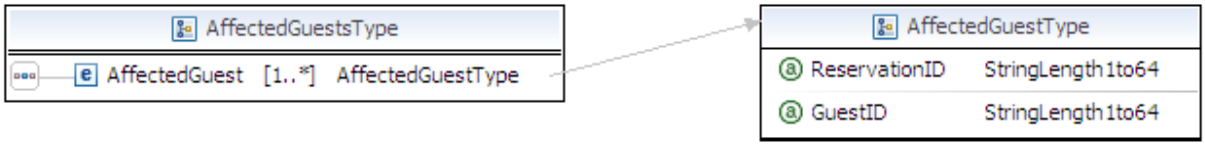
```
<xs:complexType name="AddressType">
   <xs:sequence>
      <xs:element minOccurs="0" name="StreetNmbr" type="tns:StreetNmbrType"/>
      <xs:element maxOccurs="2" minOccurs="0" name="BldgRoom">
         <xs:complexType>
            <xs:simpleContent>
               <xs:extension base="tns:StringLength0to64">
                  <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:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
   </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

3.8.3 Affected Guests Type



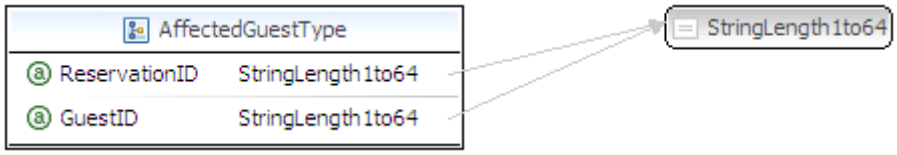
AffectedGuestsType

```
<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.

3.8.4 Affected Guest Type

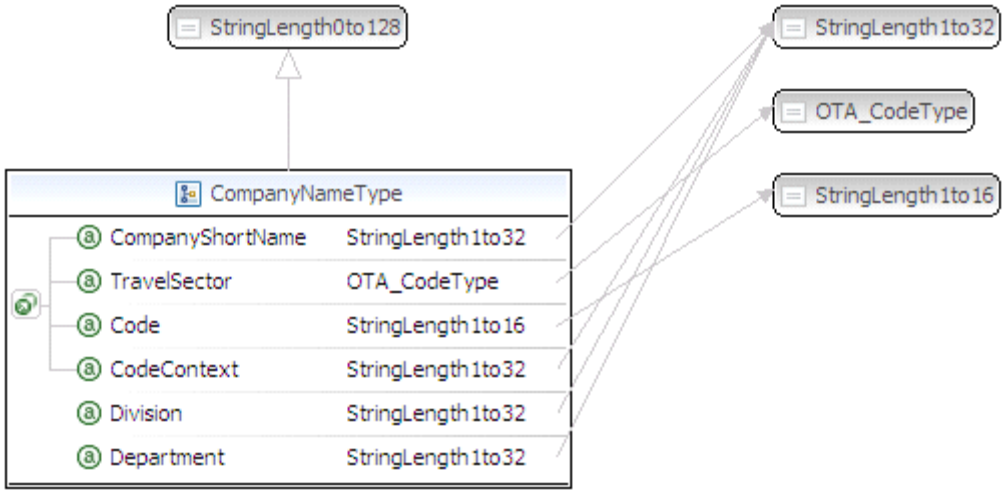


AffectedGuestType

```
<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.

3.8.5 Company Name Type



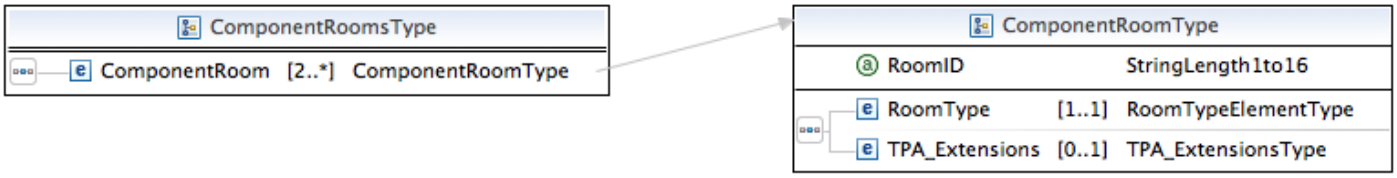
CompanyNameType

```
<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.

3.8.6 ComponentRoomsType

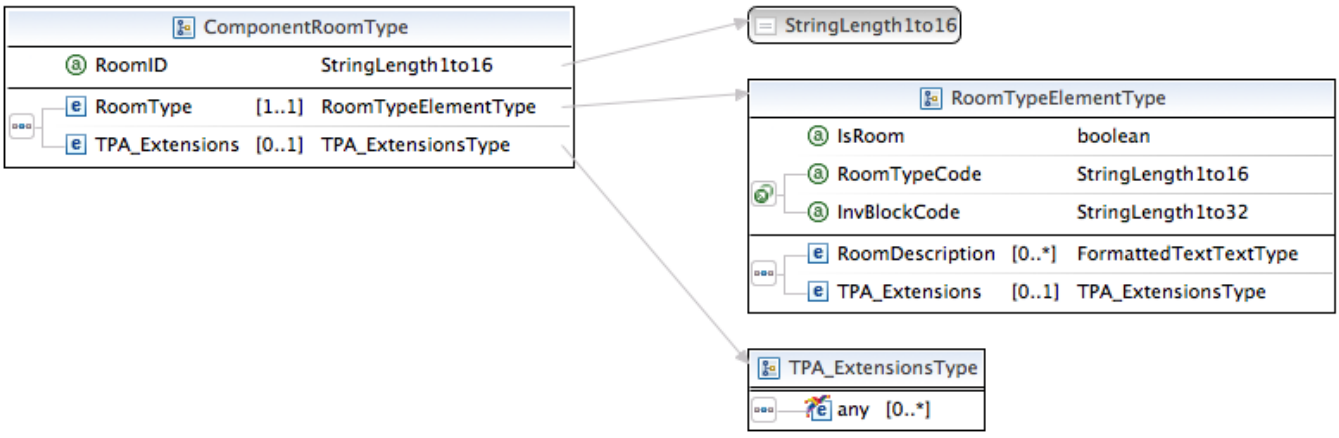


ComponentRoomsType

```
<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.

3.8.7 ComponentRoom Type

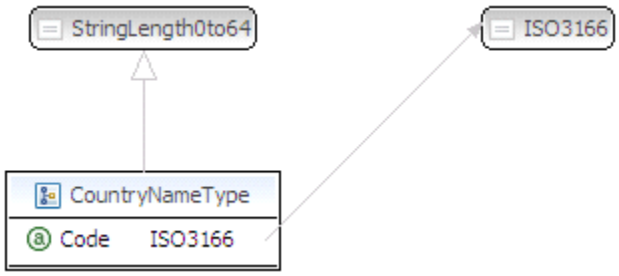


ComponentRoomType

```
<xs:complexType name="ComponentRoomType">
   <xs:sequence>
      <xs:element maxOccurs="1" minOccurs="1" name="RoomType" type="tns:RoomTypeElementType" />
         <xs:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
   </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.

3.8.8 Country Name Type

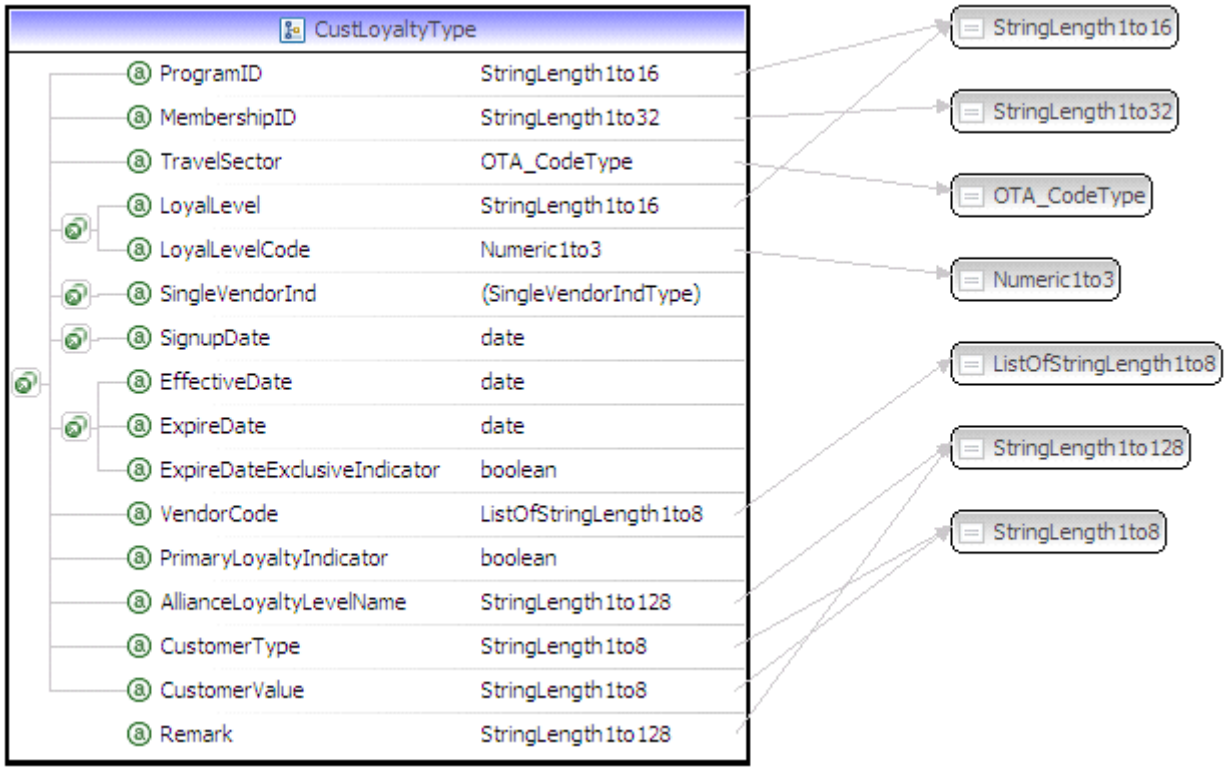


CountryNameType

```
<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.

3.8.9 Customer Loyalty Type

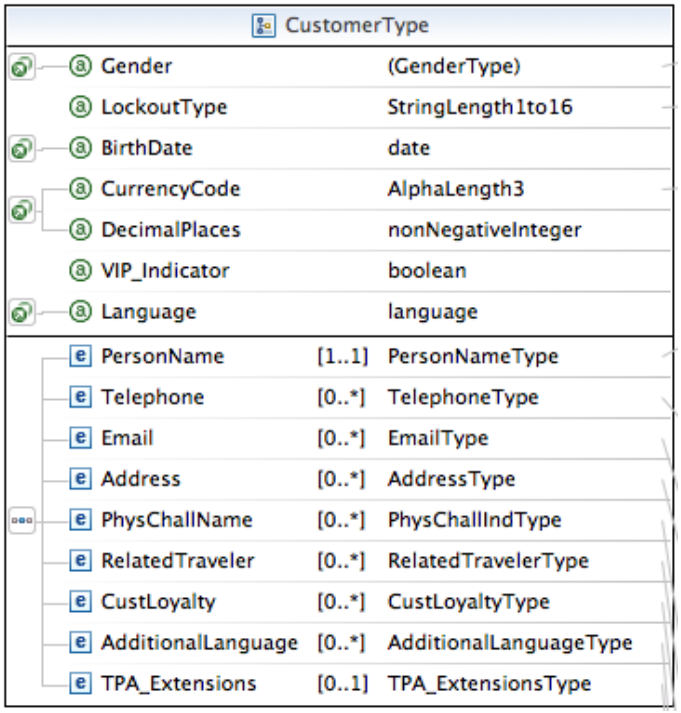


CustLoyaltyType

```
<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.

3.8.10 Customer Type



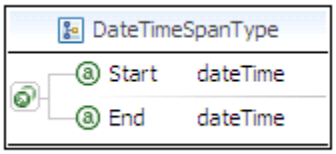
CustomerType

```
<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:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
   </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.

3.8.11 Date Time Span Type

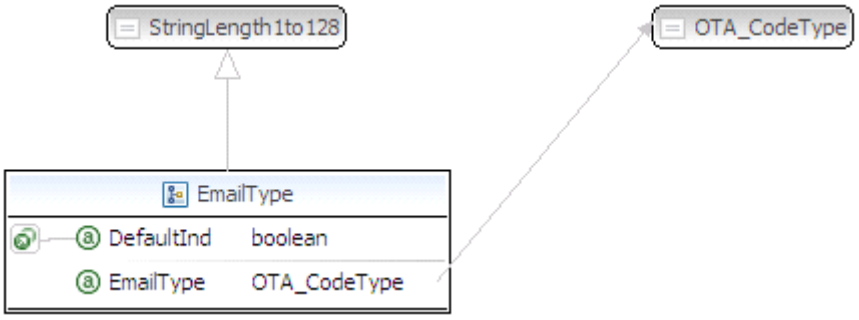


DateTimeSpanType

```
<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.

3.8.12 Email Type

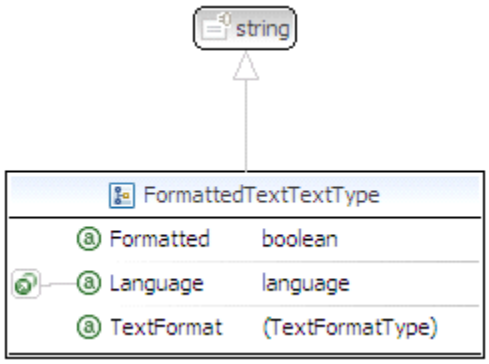


EmailType

```
<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).

3.8.13 Formatted Text Text Type



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.

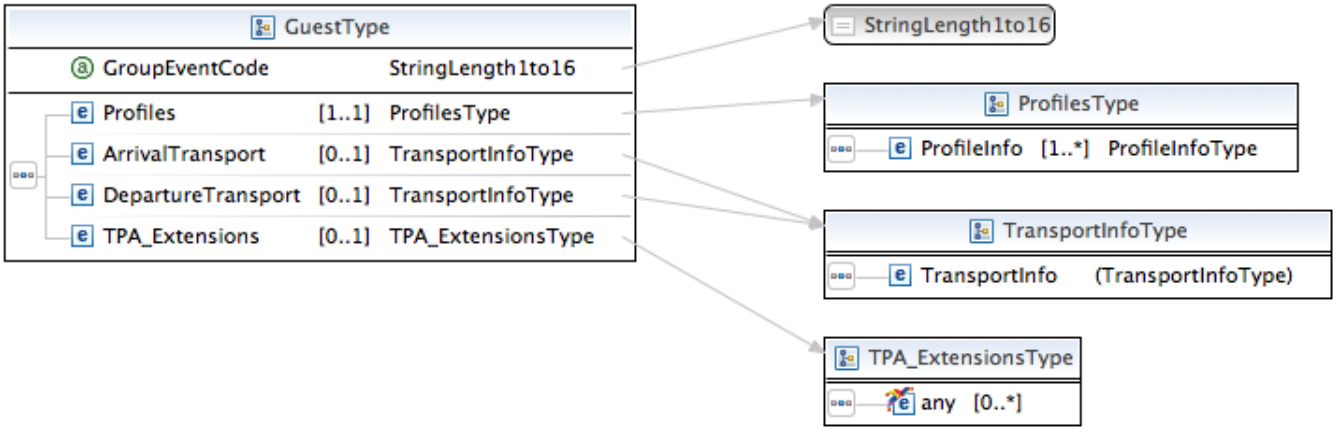
3.8.14 Guest Counts Type

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			

3.8.15 Guest Type

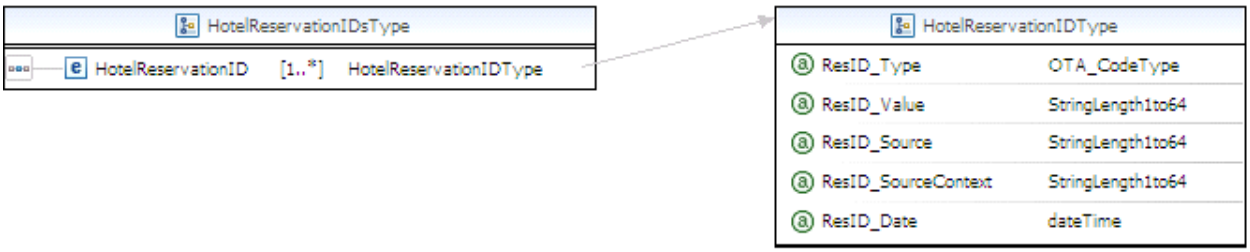


GuestType

```
<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:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
   </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.

3.8.16 Hotel Reservation IDs Type

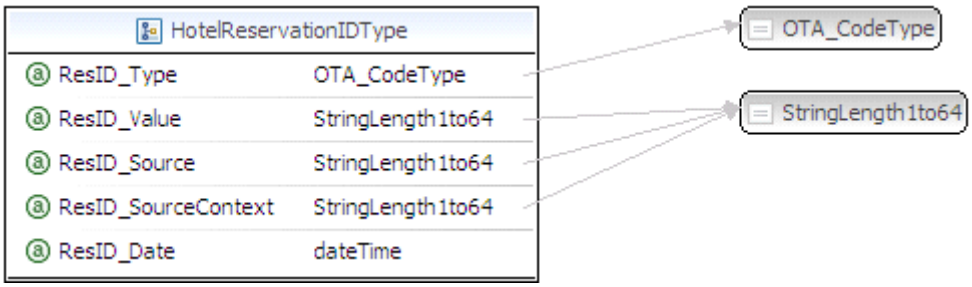


HotelReservationIDsType

```
<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.

3.8.17 Hotel Reservation ID Type



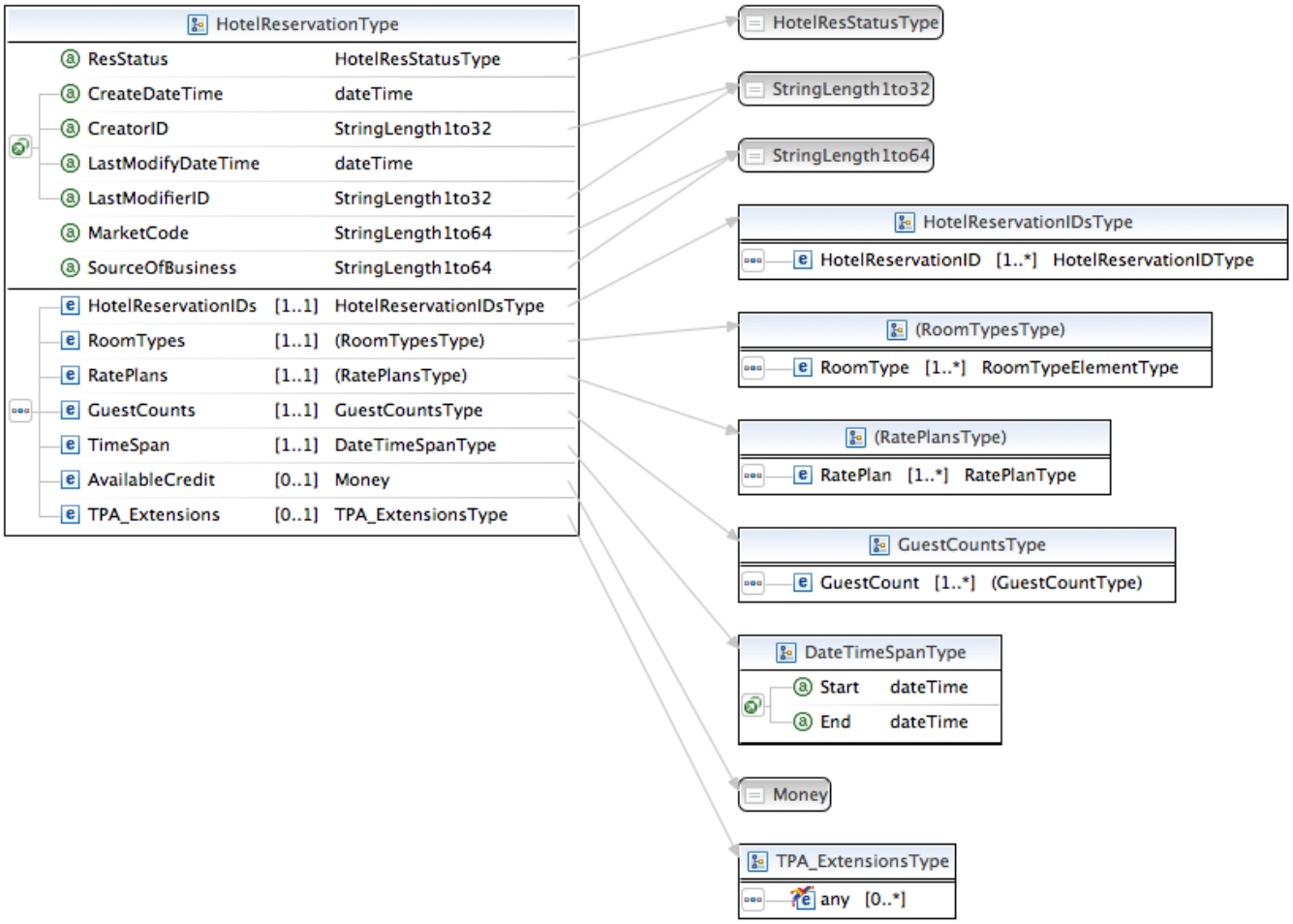
HotelReservationIDType

```
<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.

3.8.18 Hotel Reservation Type



HotelReservationType

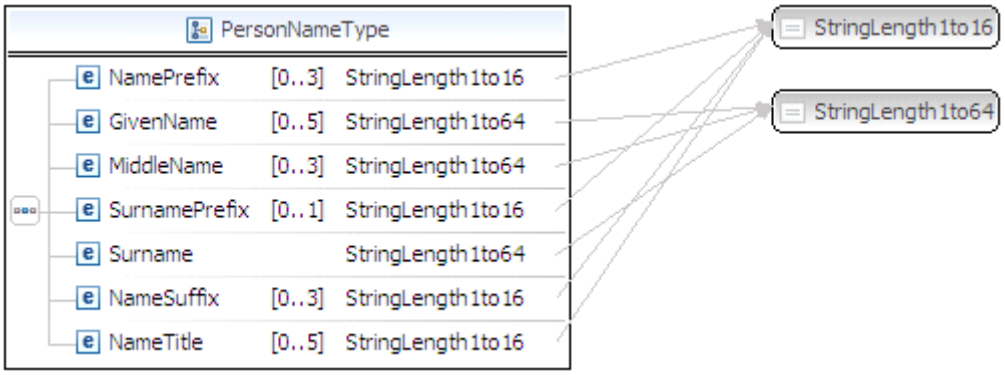
```
<xs:complexType name="HotelReservationType">
   <xs:sequence>
      <xs:element maxOccurs="1" minOccurs="1" name="HotelReservationIDs"
type="tns:HotelReservationIDsType" />
      <xs:element minOccurs="1" name="RoomTypes">
         <xs:complexType>
            <xs:sequence>
               <xs:element 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:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
      </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

3.8.19 Person Name Type

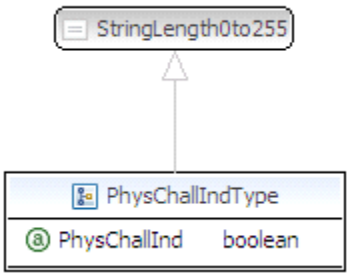


PersonNameType

```
<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.
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.).

3.8.20 Phys Chall Ind Type

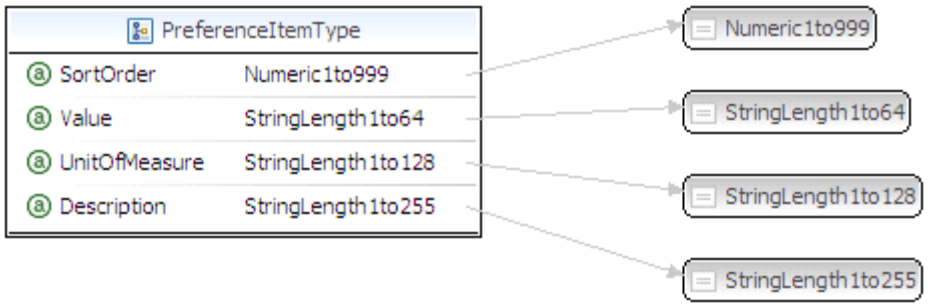


PhysChallIndType

```
<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.

3.8.21 Preference Item Type

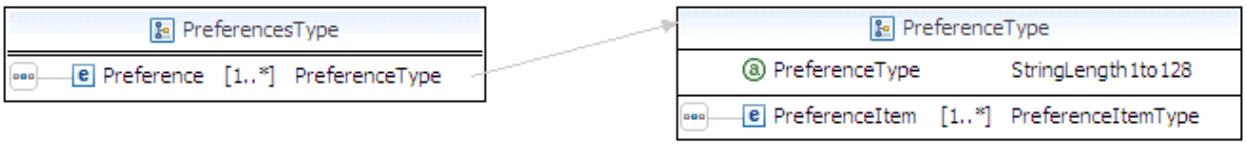


PreferenceItemType

```
<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).

3.8.22 Preferences Type

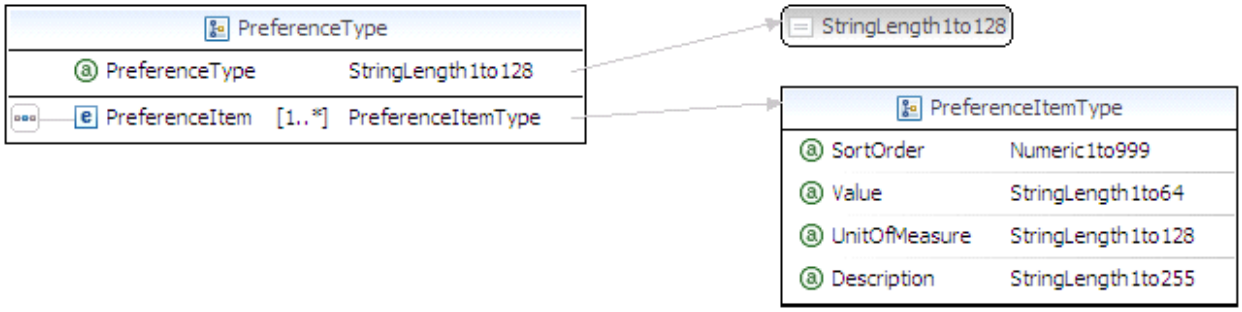


PreferencesType

```
<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.

3.8.23 Preference Type

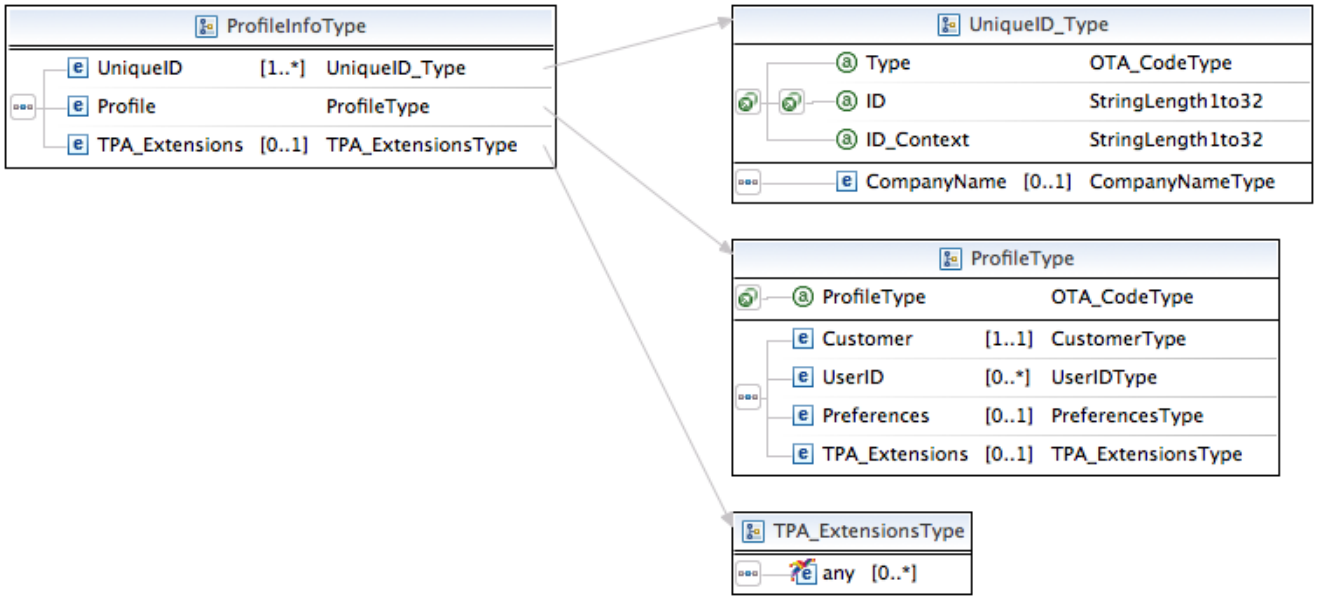


PreferenceType

```
<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).

3.8.24 Profile Info Type

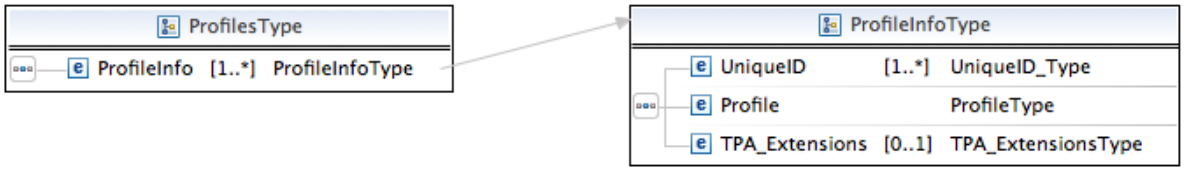


ProfileInfoType

```
<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:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
   </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.

3.8.25 Profiles Type

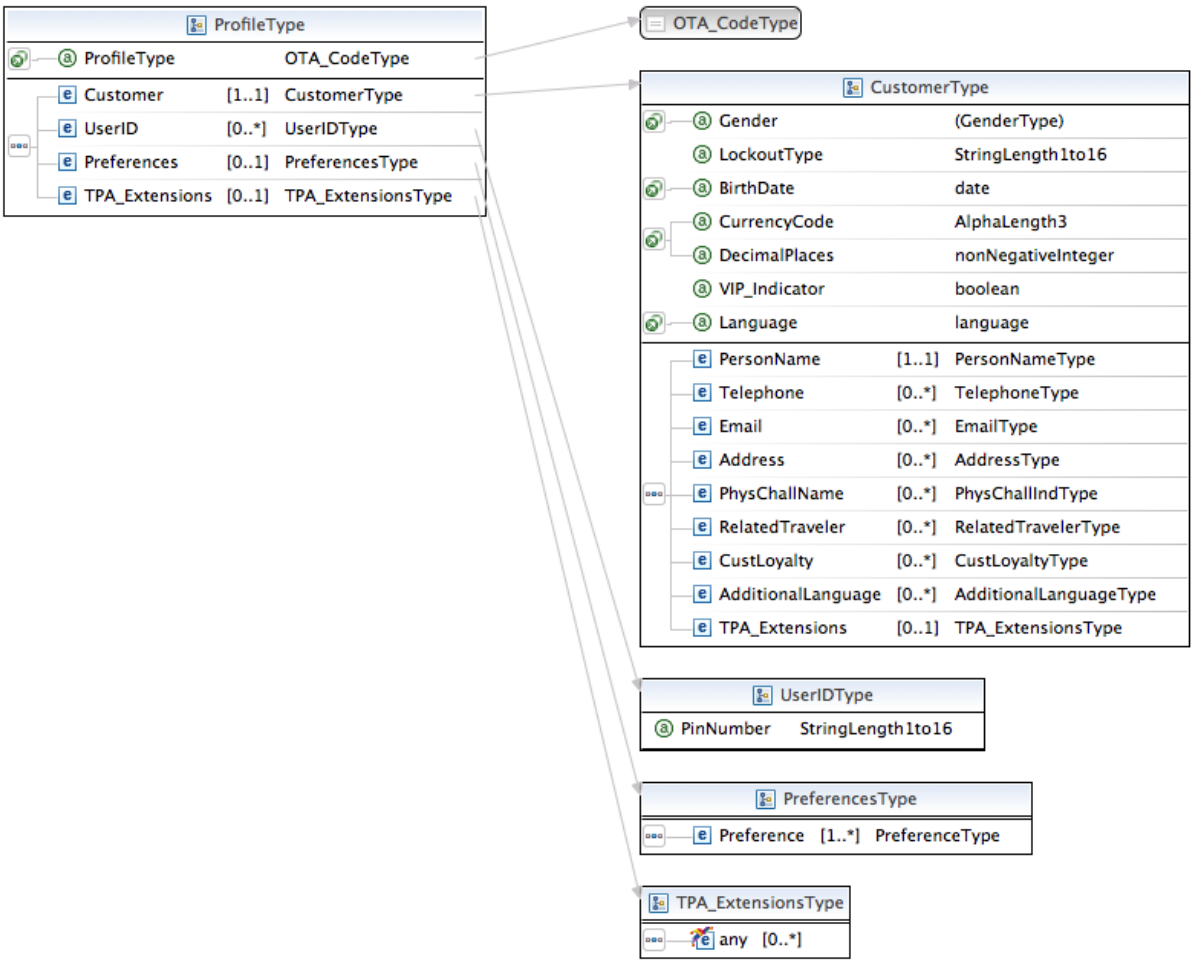


ProfilesType

```
<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.

3.8.26 Profile Type

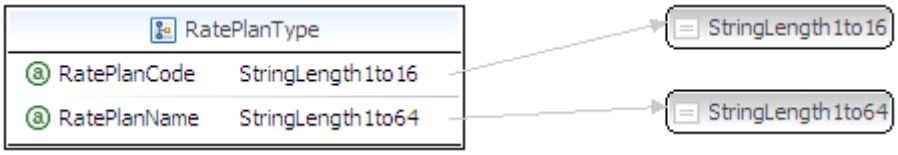


ProfileType

```
<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:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
   </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.

3.8.27 Rate Plan Type

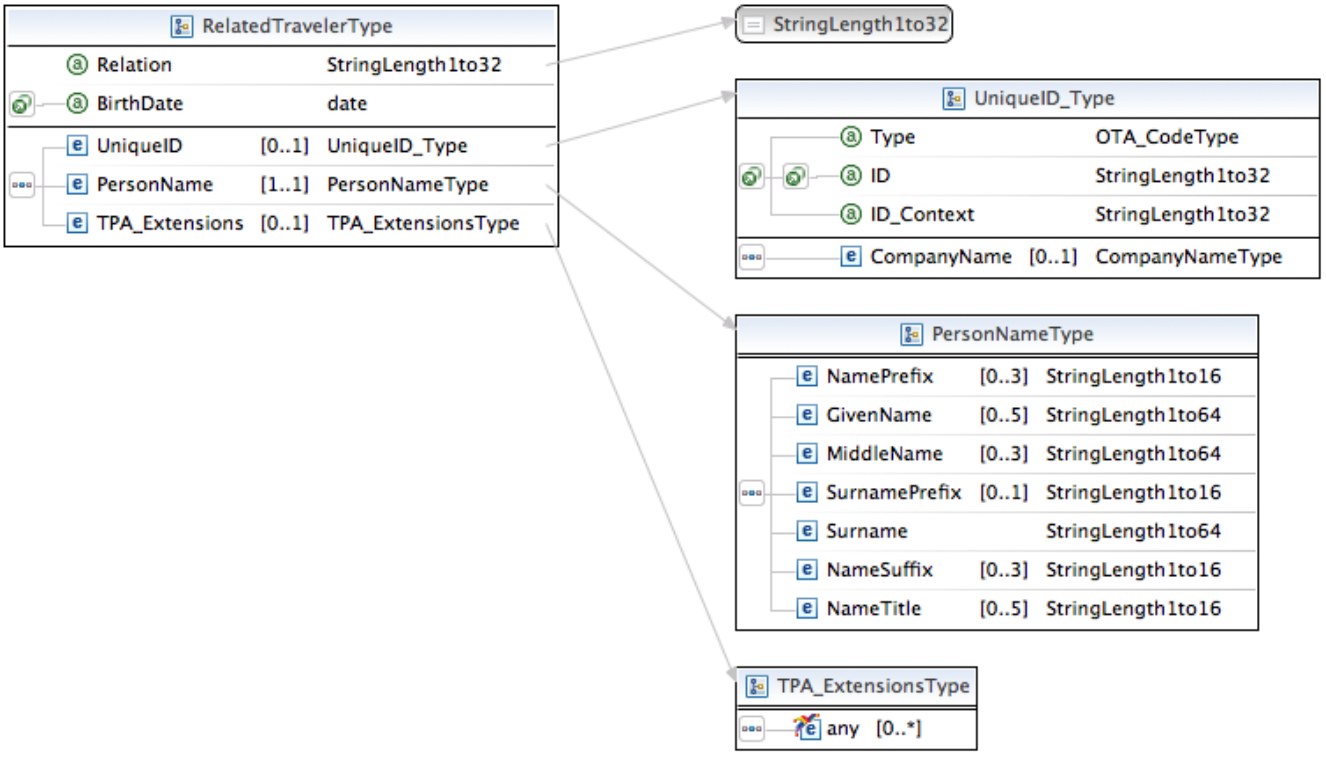


RatePlanType

```
<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.

3.8.28 Related Traveler Type



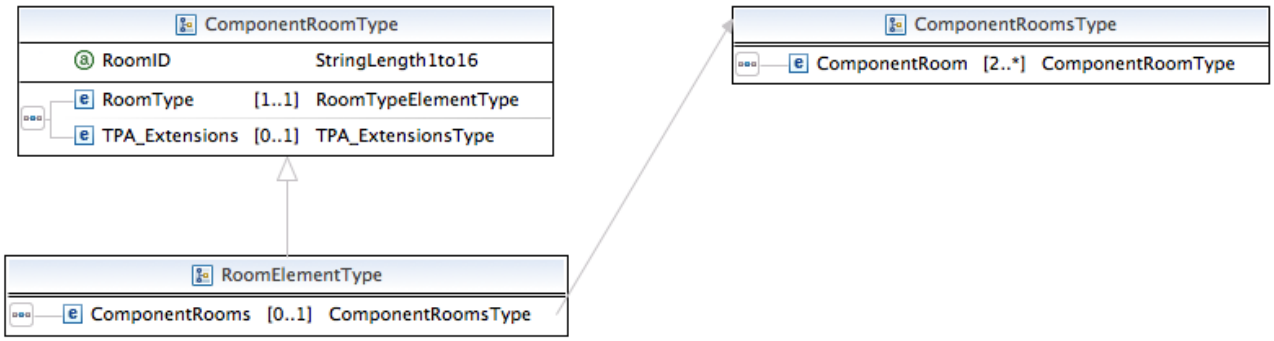
RelatedTravelerType

```
<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:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
   </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.

3.8.29 Room Element Type



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).

3.8.30 Room Sharing Info Type

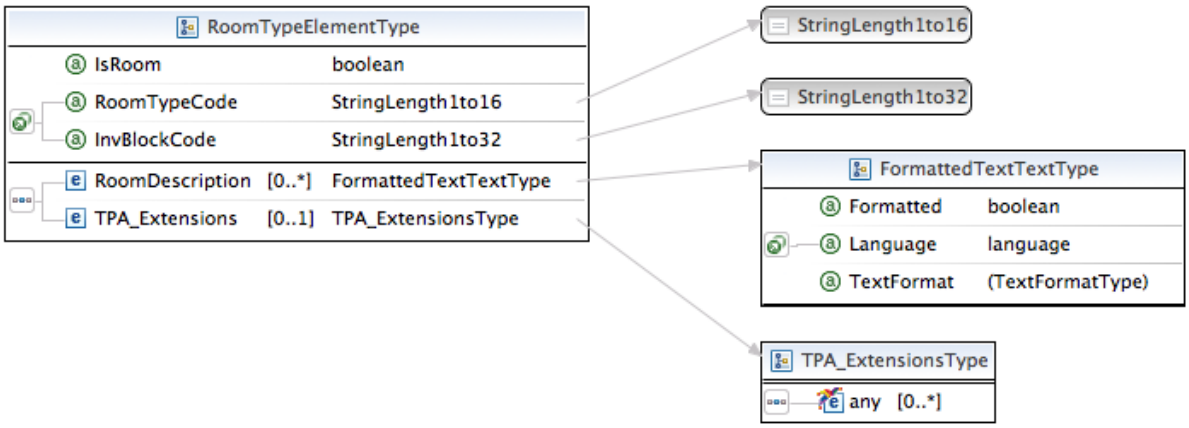
RoomSharingInfoType

```
<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).

3.8.31 Room Type Element Type

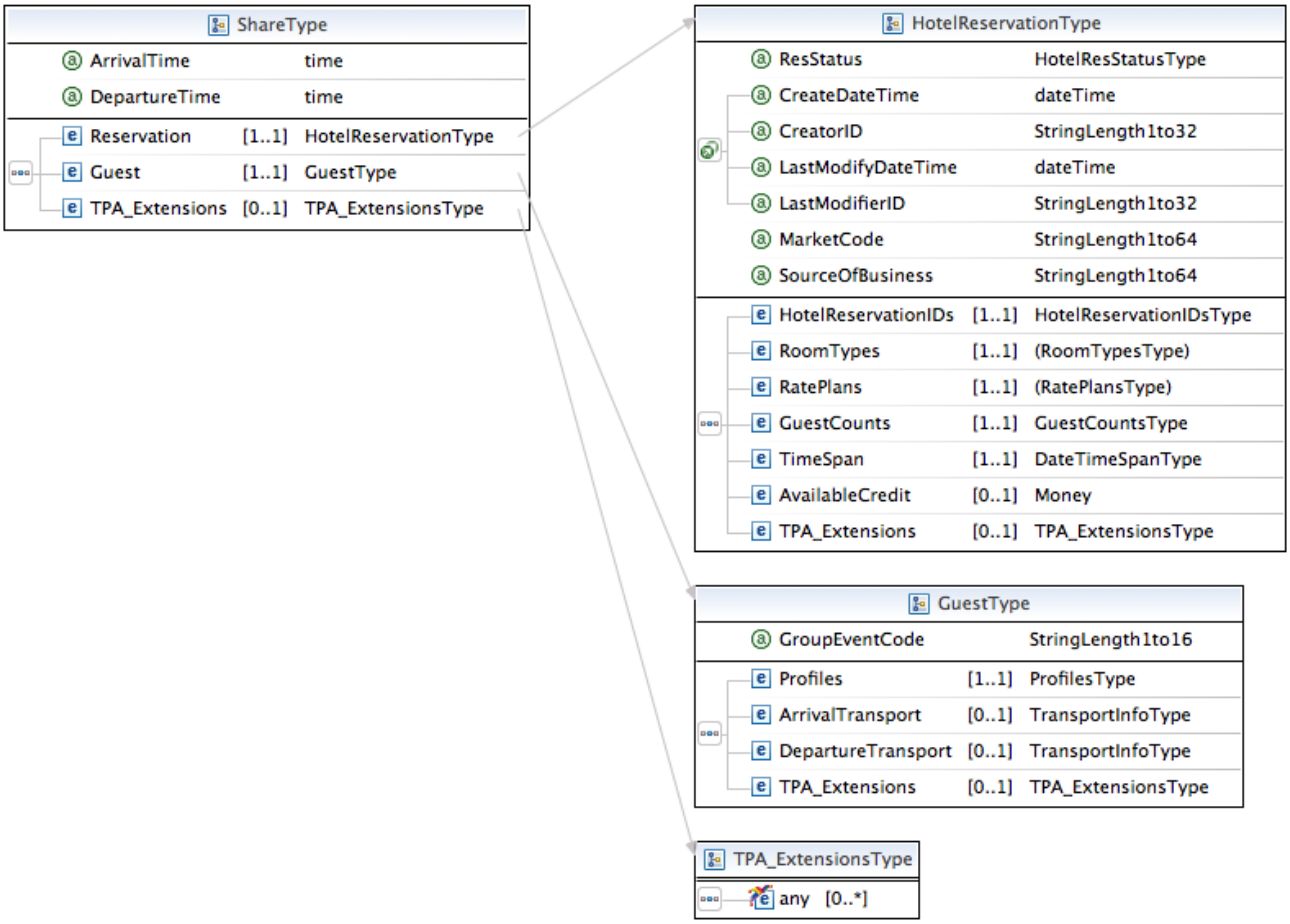


RoomTypeElementType

```
<xs:complexType name="RoomTypeElementType">
   <xs:sequence>
      <xs:element maxOccurs="unbounded" minOccurs="0" name="RoomDescription"
type="tns:FormattedTextTextType"/>
      <xs:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
   </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.

3.8.32 Share Type

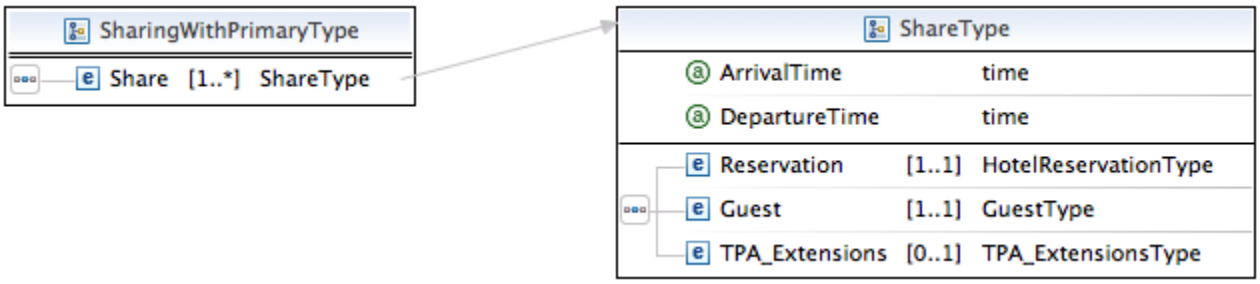


ShareType

```
<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:element name="TPA_Extensions" type="common:TPA_ExtensionsType" minOccurs="0"/>
   </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.

3.8.33 Sharing With Primary Type

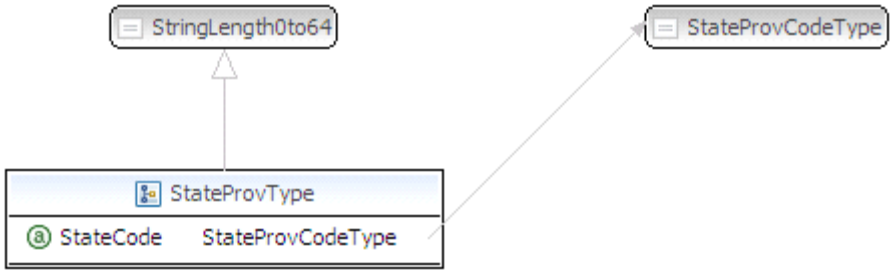


SharingWithPrimaryType

```
<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	Details for a share (reservation and Guest) that is not the primary share.

3.8.34 State Prov Type

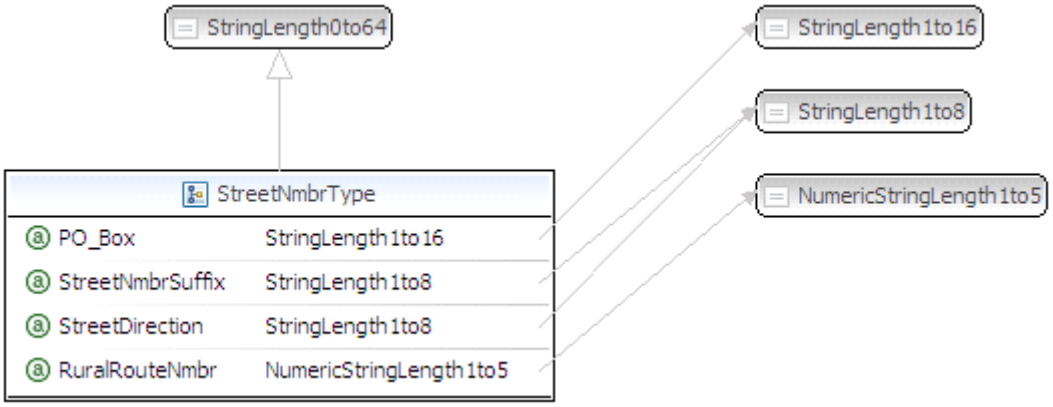


StateProvType

```
<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.

3.8.35 Street Number Type

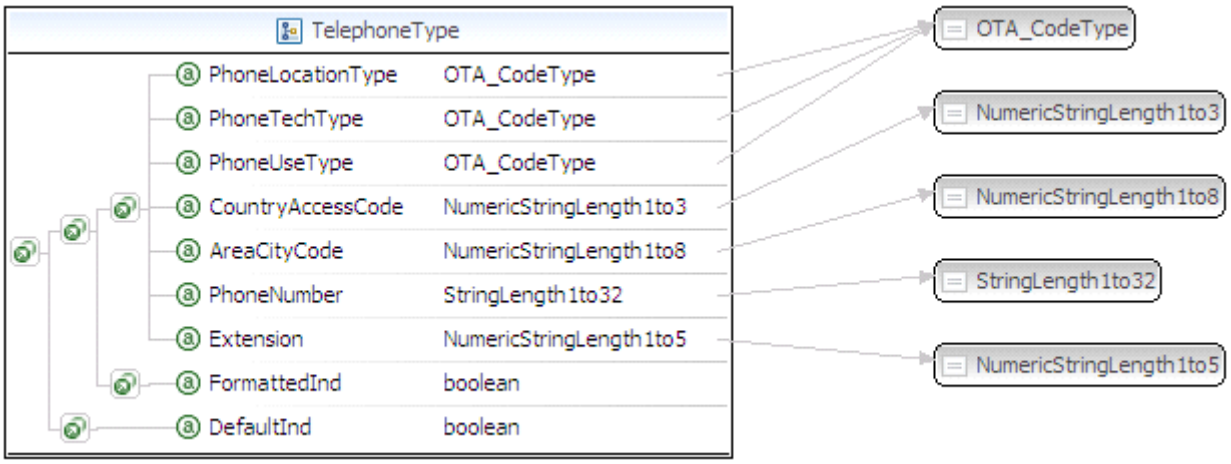


StreetNmbrType

```
<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).

3.8.36 Telephone Type



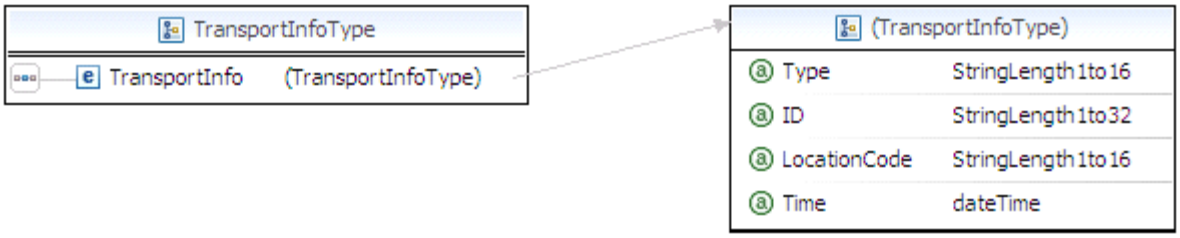
TelephoneType

```
<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.

3.8.37 Transport Info Type



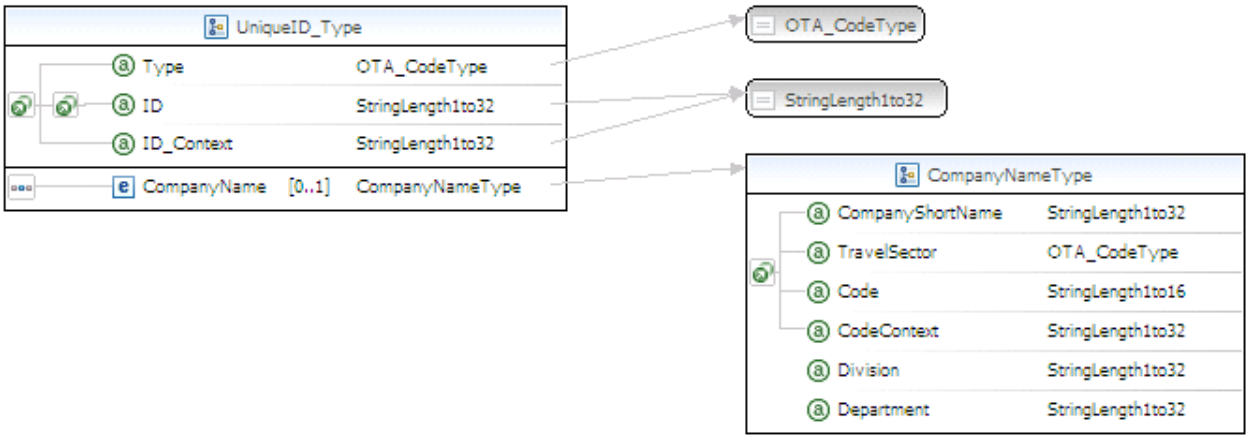
TransportInfoType

```
<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	Type of transport 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

3.8.38 Unique ID Type

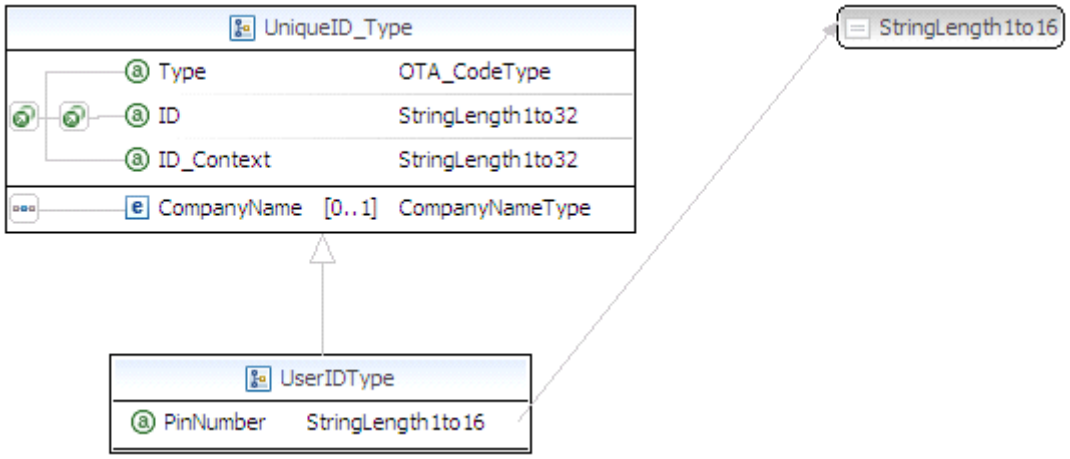


UniqueID_Type

```
<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			

3.8.39 User ID Type



UserIDType

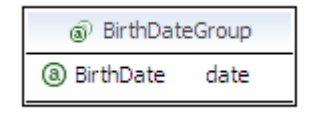
```
<xs:complexType name="UserIDType">
   <xs:complexContent>
      <xs:extension base="tns:UniqueID_Type">
         <xs:attribute name="PinNumber" type="tns:StringLength1to16" use="optional"/>
      </xs:extension>
   </xs:complexContent>
</xs:complexType>
```

Name	Type	Data Type	Use	Comments
PinNumber	attribute	StringLength1to16	optional	The personal identification number (password) for this user ID.

3.9 Attribute Groups

This section outlines the details of the common attribute groups found in the HTNG_ComplexTypes_2010B.xsd schema definition file. The Data Types in these tables are either from schema or from HTNG_SimpleTypes_2010B.xsd schema definition file. Most should be self-explanatory.

3.9.1 Birth Date Group

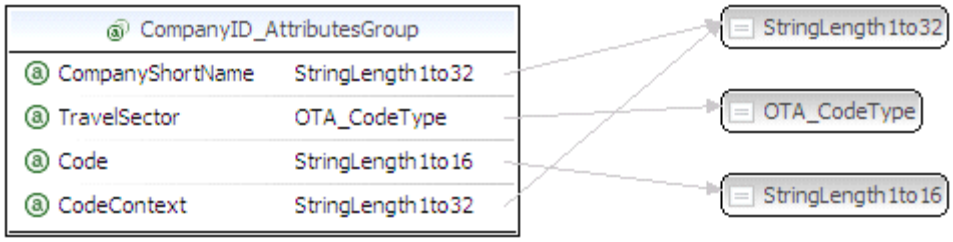


BirthDateGroup

```
<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.

3.9.2 Company ID Attributes Group

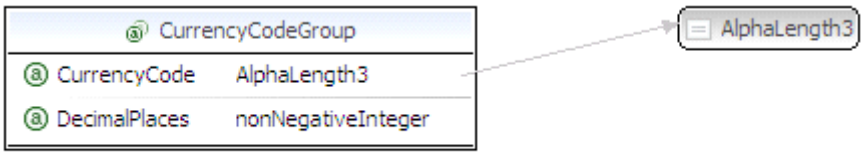


CompanyID_AttributesGroup

```
<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.

3.9.3 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).

3.9.4 Customer Loyalty Group

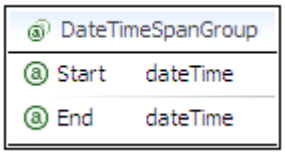
CustomerLoyaltyGroup

```
<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).

3.9.5 Date Time Span Group

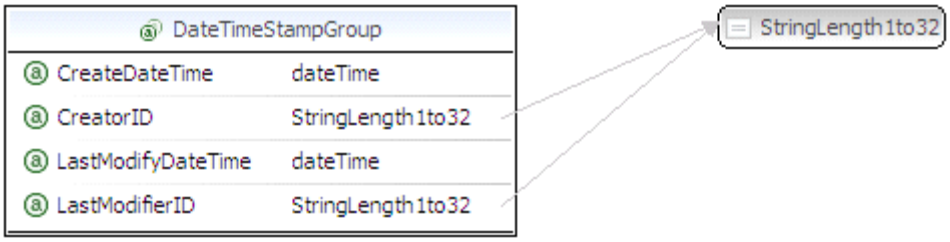


DateTimeSpanGroup

```
<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.

3.9.6 Date Time Stamp Group

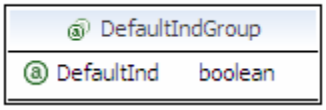


DateTimeStampGroup

```
<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.

3.9.7 Default Ind Group

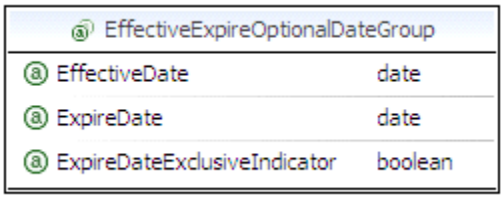


DefaultIndGroup

```
<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.

3.9.8 Effective Expire Optional Date Group

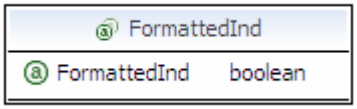


EffectiveExpireOptionalDateGroup

```
<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.

3.9.9 Formatted Ind

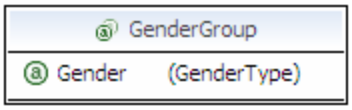


FormattedInd

```
<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.

3.9.10 Gender Group



GenderGroup

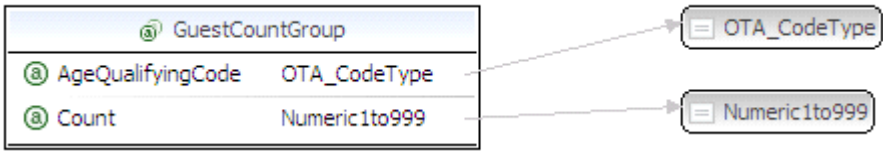
```
<xs:attributeGroup name="GenderGroup">
   <xs:attribute name="Gender" use="optional">
      <xs:simpleType>
         <xs:restriction base="xs:NMTOKEN">
            <xs:enumeration value="Male" />
            <xs:enumeration value="Female" />
            <xs:enumeration value="Unknown" />
         </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	

3.9.11 Guest Count Group



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.

3.9.12 HTNG Payload Std Attributes

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).

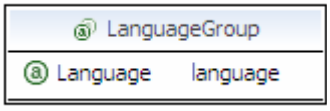
3.9.13 ID Group

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.

3.9.14 Language Group

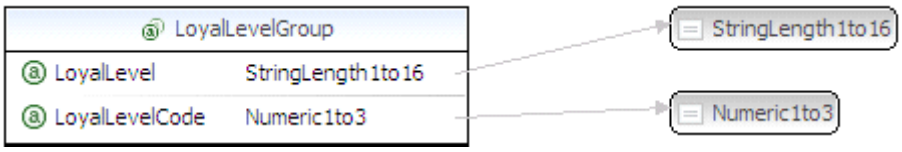


LanguageGroup

```
<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.

3.9.15 Loyal Level Group

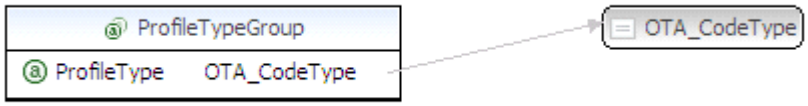


AddressType

```
<xs:attributeGroup name="LoyalLevelGroup">
   <xs:attribute name="LoyalLevel" type="tns:StringLength1to16" use="optional"/>
   <xs:attribute name="LoyalLevelCode" type="tns:Numeric1to3" use="optional"/>
</xs:attributeGroup>
```

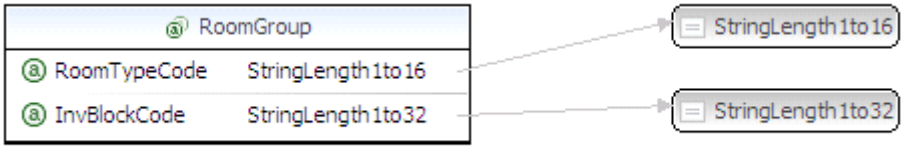
Name	Type	Data Type	Use	Comments
LoyalLevel	attribute	StringLength1to16	optional	Indicates special privileges in program assigned to individual.
LoyalLevelCode	attribute	Numeric1to3	optional	Provides a numeric code assigned to a particular loyalty level.

3.9.16 Profile Type Group



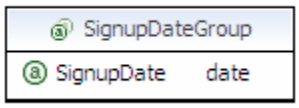
AddressType				
<xs:attributeGroup name="ProfileTypeGroup"> <xs:attribute name="ProfileType" type="tns:OTA_CodeType" use="optional"/> </xs:attributeGroup>				
Name	**Type**	**Data Type**	**Use**	**Comments**
ProfileType	attribute	OTA_CodeType	optional	Code to specify a profile such as Customer, Tour Operator, Corporation, etc. Refer to OTA Code List Profile Type (PRT).

3.9.17 Room Group



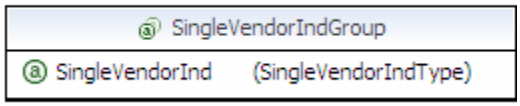
RoomGroup				
<xs:attributeGroup name="RoomGroup"> <xs:attribute name="RoomTypeCode" type="tns:StringLength1to16" use="required"/> <xs:attribute name="InvBlockCode" type="tns:StringLength1to32" use="optional"/> </xs:attributeGroup>				
Name	**Type**	**Data Type**	**Use**	**Comments**
RoomTypeCode	attribute	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.

3.9.18 Signup Date Group



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.

3.9.19 Single Vendor Ind Group



SingleVendorIndGroup

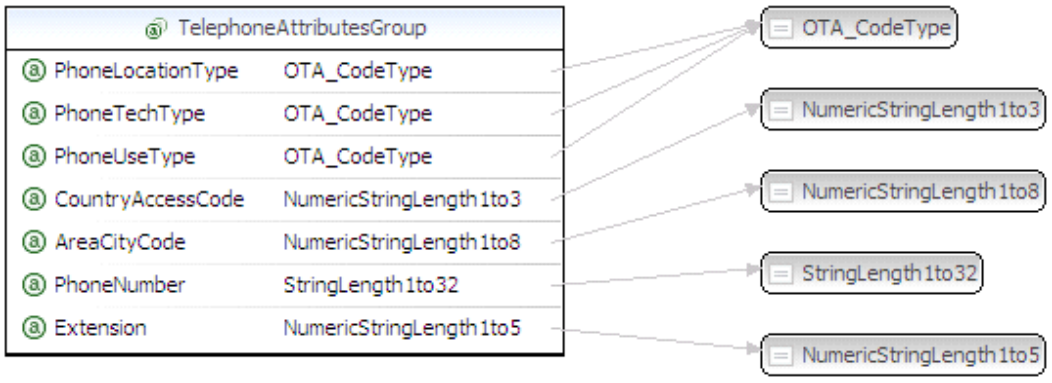
```
<xs:attributeGroup name="SingleVendorIndGroup">
   <xs:attribute name="SingleVendorInd">
      <xs:simpleType>
         <xs:restriction base="xs:NMTOKEN">
            <xs:enumeration value="SingleVndr"></xs:enumeration>
            <xs:enumeration value="Alliance"></xs:enumeration>
         </xs:restriction>
      </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.

3.9.20 Telephone Attributes Group



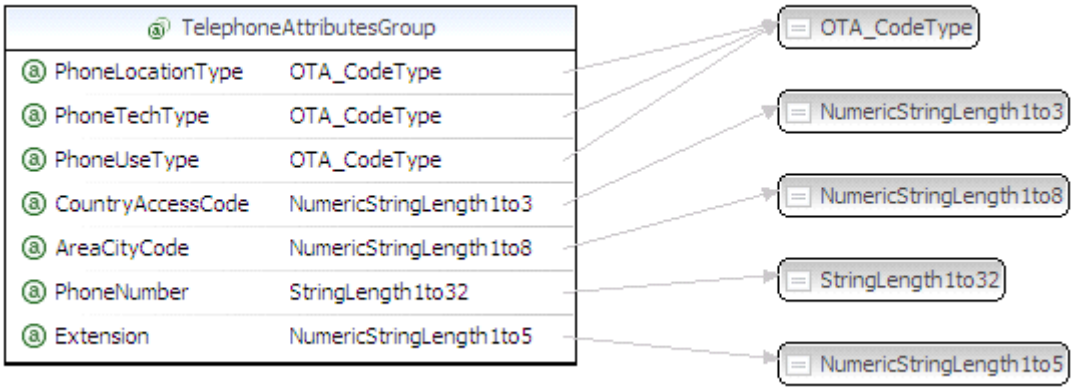
TelephoneAttributesGroup

```
<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.

3.9.21 Telephone Info Group



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.

3.9.22 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.

3.9.23 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).

5. 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.