



# **Point of Sale 2012B Specification**

**Version 1.0**

**19 October 2012**

## 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 This Specification at a Glance

This specification outlines a common data definition and protocol implementation for the venerable and commonly implemented hospitality industry “Property Management System (PMS) interface”. Compared to legacy interface communication methods, this interface increases scalability, redundancy and speed of transactions, and improves suitability for implementation within a wide area network or cloud computing environment. The common data definition is designed to provide backwards compatibility so that all data included in vendor-specific interfaces can be transmitted using this interface specification.

This specification outlines the data structures and methods used by PMS and Point of Sale (POS) systems to be able to:

- Look up and verify guest or membership account information
- Post charges to a guest or membership account
- Allow front desk or membership accounting personnel to look up charge posting details in the same format as the transaction was originally provided to a guest/member to help resolve billing questions

The data definitions are built upon elements of the [HTNG Customer Profile v1.0 Specification](#) and the [HTNG Folio Detail Exchange v1.0 Specification](#). This includes the lookup of customer profiles and the representation of transactional information. Similar to all recent HTNG efforts, these messages share Open Travel Alliance message components.

## 2 Document Information

### 2.1 Document History

Version	Date	Author	Comments
0.01	21 Jun 2012	Mark Jelley, Garrett Mathieu, Terry Berglund, Eric Sullender, Kevin Gaiman, Jay Rosamilia	Completed use cases
0.02	28 Jun 2012	Mark Jelley	Drafted implementation notes
0.03	2 Jul 2012	Workgroup Jay Rosamilia	Updated use cases Seeded flow diagrams and sample messages
0.04	6 Jul 2012	Jay Rosamilia	Added Implementation on voids and reversals, role definitions
0.05	10 Jul 2012	Point of Sale Workgroup	Seeded data fields
0.06	16 Jul 2012	Mark Jelley	Drafted This Spec at a Glance section and posed some data element feedback
0.07	16 Jul 2012	Point of Sale Workgroup	Updated data fields
0.08	18 Jul 2012	Point of Sale Workgroup	Decided to limit scope (removed some use cases) and finalized data field identification
0.09	20 Jul 2012	HTNG Staff	Updated roles
0.10	27 Jul 2012	Point of Sale Workgroup	Updated data fields
0.11	6 Aug 2012	Point of Sale Workgroup	Modified sample posting message
0.12	13 Aug 2012	Point of Sale Workgroup	Modified sample posting message
0.13	21 Aug 2012	Point of Sale Workgroup	Added sample account lookup messages and modified sample posting message
0.14	27 Aug 2012	Point of Sale Workgroup	Modified sample posting message
0.15	28 Aug 2012	Point of Sale Workgroup	Created sample refund, void, and check zoom messages
0.16	4 Sep 2012	Point of Sale Workgroup	Modified sample check zoom message
0.17	17 Sep 2012	Point of Sale Workgroup	Added Data Elements for Posting/Void message. Added content to sections 1 and 2.

0.90	21 Sep 2012	Kylene Reese	Prepared for HTNG Member Review
0.95	12 Oct 2012	Kylene Reese	Prepared for Workgroup vote
1.0	19 Oct 2012	Point of Sale Workgroup	2012B Release

## 2.2 Document Purpose

A myriad of different Point of Sale systems post charges to PMS systems using different data formats and a mix of communication methods, and provide varying levels of transaction detail. The wide range of different interfaces with different features complicates and increases the cost of supporting multiple interfaces to a single system and reduces the number of consumer choices available for implementation.

Many legacy systems use serial communications with limited data speeds that can limit transaction speed or cause communication bottlenecks in businesses with higher transaction volumes or at peak hours; or are more difficult to implement and manage over a wide area network due to specific cabling requirements, distance limitations, or need for protocol conversion equipment.

Although serial interfaces are inherently secure due to their point-to-point known connectivity, web services offer a secure means of transport and more flexibility for implementation in cloud computing or WAN environments and provide the ability to use the same network infrastructure for multiple interfaces.

This specification provides a single data structure and payload mechanism that all systems can use to look up accounts and post transactions in the level of detail required for the business and agreed upon by the parties implementing the interface. In doing this, compatibility with all systems is ensured while still allowing for flexibility in the data that is transmitted to a given PMS system.

By using a web services interface, the communication methods and protocols are unified, easing the system support and allowing systems to be implemented across a range of network topologies without the use of special cabling and protocol conversion equipment.

## 2.3 Scope

This document includes use cases of key transactions, including account lookup, posting, voids, refunds and check detail lookup.

Offline transaction handling and data redundancy has been accounted for within the message structure, but no solution, guidance or use cases are provided in this version of the interface for handling of offline transactions. A future release of this specification will address offline account lookup and charge posting.

The data storage format and data management mechanisms of account information looked up via this interface is left to the developer.

No information or guidance is given related to the configuration and setup that determines how posted transactions are further processed for use in accounting, membership or other systems that might receive (or have access to) the PMS system. This is left to business partners implementing this interface or to other interface specifications entirely.

## 2.4 Relationship to Other Standards

This specification and its supporting schemas leverage the existing OpenTravel Alliance methodology for message construction and draw upon data definitions common to several HTNG specifications as of October 2012.

Related specifications:

- [HTNG Customer Profile v1.0](#)
- [HTNG Folio Detail Exchange v1.0](#)
- [HTNG Single Guest Itinerary 2008B](#)
- [Open Travel Alliance Specifications](#)

Useful resources:

- [Implementing Web Services Using HTNG Specifications – A Quick Start Guide for Software Developers](#)
- HTNG Discussion Board – currently available at <http://www2.htng.org/discussion>

## 2.5 Audience

This document is intended to be used by software developers who are designing and implementing interfaces between hospitality PMS, Membership Accounting and Point of Sale systems to facilitate guest/member account lookup and support account billing processes or consolidation of cash control information from multiple POS systems to a single PMS system or Back of House Accounting system.

The document specifically targets hospitality software developers, integrators and operators.

## 2.6 Overview

Content contained in this document has been designed to provide a firm understanding of the components that must be implemented, or can optionally be implemented, to meet the requirements of this specification. A brief overview of each section is as follows:

[Section 3 – Component Scenarios](#)

This section includes definitions for each component used to implement the interface. Each component definition includes an explanation of system roles and provides a use case, message flow diagram and sample message data for the component.

#### Section 4 – Messages

Detailed Data Element tables and sample messages are provided in this section.

#### Section 5 – Appendices

This section includes implementation requirements, links, any referenced documents, as well as common HTNG schema components referenced in this document. The technical artifacts (XSDs and WSDLs) for this certification release can be found in a separate ZIP file included with the specification.

## **2.7 Known Limitations**

The data configuration, pre- and post-processing of data transmitted via the interface, and coordination of configuration for a specific interface between POS and PMS systems is left to each software developer, respectively.

Future functionality that has not yet been outlined includes the following:

- Offline account lookup and charge posting features
- Automation of an end-of-day audit of interface transaction postings aimed to ensure the accuracy of financial data posted via the interface

## **2.8 Further Considerations**

By using this interface specification, it is possible to consolidate cash control information from multiple POS systems to a single PMS system or Back Office Accounting system by posting all transaction types or tender types to the PMS system, and if required, by passing the posted transactions along to other systems as needed. No guidance is provided in this specification for how to accomplish this functionality.

## 3 Component Scenarios

### 3.1 Online Account Lookup

#### 3.1.1 Overview

This use case describes the business and system processes and requirements for the search for accounts (for example, guest folios, membership accounts, house accounts, AR accounts) along with the associated profile.

#### 3.1.2 Roles

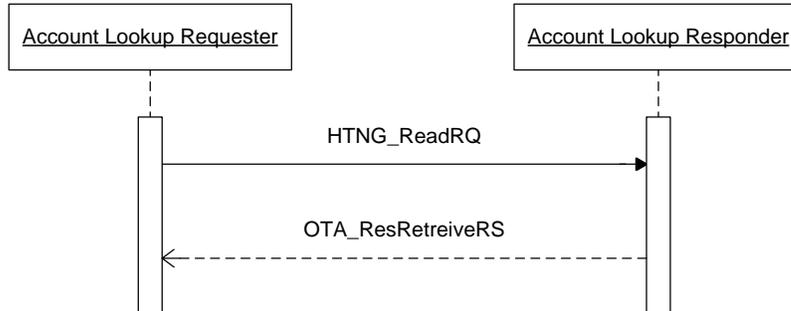
Role Name	Definition	Example
Account Lookup Requestor	A system that needs to determine whether a particular guest is staying in the hotel, or to lookup an existing (house, membership, etc.) account.	Point of Sale
Account Lookup Responder	A system that holds information about hotel guests, their associated reservations, and accounts.	Property Management System

#### 3.1.3 Use Case

Assumptions:	<ul style="list-style-type: none"> <li>The Account Lookup Requestor and Account Lookup Responder have an agreed set of parameters that can be used to identify an account.</li> </ul>
Pre-conditions:	<ul style="list-style-type: none"> <li>The Account Lookup Requestor is aware of some basic information that can be used to identify a specific account (e.g. Surname, Guest ID, Membership ID, Guest Folio ID, etc.).</li> </ul>
Trigger:	<ul style="list-style-type: none"> <li>The Account Lookup Requestor has the need to uniquely identify an account.</li> </ul>
Basic Course of Events:	<ol style="list-style-type: none"> <li>The Account Lookup Requestor sends a request to the Account Lookup Responder containing one or more parameters.</li> <li>The Account Lookup Responder searches the database and locates matching accounts and their associated profiles.</li> <li>The Account Lookup Responder builds a message containing the matching results.</li> <li>The Account Lookup Responder returns the message to the Account Lookup Requestor.</li> </ol>
Post-conditions:	<ul style="list-style-type: none"> <li>The Account Lookup Requestor can link an account to a check, close a check to the guest account, or even display the results to the screen.</li> </ul>
Exception Path:	<ul style="list-style-type: none"> <li>The Account Lookup Responder is unable to locate an account using the criteria supplied by the Account Lookup Requestor.</li> </ul>

Alternative Paths:	None
--------------------	------

### 3.1.4 Message Flows



### 3.1.5 Sample Request

```

<HTNG_ReadRQ EchoToken="a" TimeStamp="2001-12-17T09:30:47Z" version="0.0" Target="Test"
xmlns="http://www.opentravel.org/OTA/2003/05">
  <POS>
    <Source>
      <RequestorID Type="0" ID_Context="a" ID="a"/>
    </Source>
  </POS>
  <UniqueID Type="0" ID_Context="a" ID="a"/>
  <ReadRequests>
    <HotelReadRequest HotelCode="a" ChainCode="a" BrandCode="a">
      <Verification>
        <PersonName PartialName="true">
          <GivenName>a</GivenName>
          <Surname>a</Surname>
        </PersonName>
        <CustLoyalty MembershipID="a" VendorCode="a" ProgramID="a"/>
        <ReservationTimeSpan End="1967-08-13" Start="1967-08-13"/>
        <Room RoomID="101"/>
      </Verification>
    </HotelReadRequest>
  </ReadRequests>
</HTNG_ReadRQ>
    
```

### 3.1.6 Sample Response

```

<OTA_ResRetrieveRS EchoToken="a" TimeStamp="2001-12-17T09:30:47Z" version="0.0" Target="Test"
xmlns="http://www.opentravel.org/OTA/2003/05">
  <Success/>
  <Warnings>
    <Warning Type="0" Status="a" RecordID="a" ShortText="a" Code="0">String</Warning>
  </Warnings>
  <ReservationsList>
    <HotelReservation RoomStayReservation="true"
ResStatus="Reserved|Inhouse|CheckedOut|Cancelled">
      <RoomStays>
        <RoomStay MarketCode="" DiscountCode="" RoomStayStatus=""
RoomID="101">
          <RoomRates>
            <RoomRate RoomTypeCode="KING" RatePlanCode="PKG123"
Count="2"/>
            <RoomRate RoomTypeCode="KING" RatePlanCode="PKG123"
Count="2"/>
          </RoomRates>
          <GuestCounts>
            <GuestCount AgeQualifyingCode="10"
Count="2"/>
            <GuestCount AgeQualifyingCode="8"
Count="2"/>
          </GuestCounts>
        </RoomStay>
      </RoomStays>
    </HotelReservation>
  </ReservationsList>
  <TimeSpan Start="2012-08-20" End="2012-08-21"/>
</OTA_ResRetrieveRS>
    
```

```

        </RoomStays>
        <ResGuests>
            <ResGuest VIP="true" PrimaryIndicator="true">
                <Profiles>
                    <ProfileInfo>
                        <UniqueID Type="" ID="" ID_Context=""/>
                        <Profile>
                            <Customer>
                                <PersonName>

                                    <NamePrefix>Mr.</NamePrefix>
                                    <GivenName>Jay</GivenName>
                                    <Surname>Rosamilia</Surname>

                                </PersonName>
                                <CustLoyalty MembershipID="a"
VendorCode="a" ProgramID="a" LoyalLevel="Gold" />
                            </Customer>
                        </ProfileInfo>
                    </Profiles>
                    <Comments>
                        <Comment Name="" GuestViewable="false">
                            <Text Language="en-us"></Text>
                        </Comment>
                    </Comments>
                </ResGuest>
            </ResGuests>
            <TPA_Extensions>
                <TPA_Extension>
                    <AvailableCredit CurrencyCode="USD" Amount="128.37.00"
DecimalPlaces="0"/>
                </TPA_Extension>
            </TPA_Extensions>
        </HotelReservation>
    </ReservationsList>
</OTA_ResRetrievers>

```

## 3.2 Online Charge Posting

### 3.2.1 Overview

This use case describes the business and system processes and requirements for online (real time) posting of charges to previously identified accounts (for example, guest folios, membership accounts, house accounts, AR accounts).

Note that the message payload may be a mixture of positive and negative values. This is particularly useful when performing merchandise exchanges where the value of the originally purchased item differs from value of the new item.

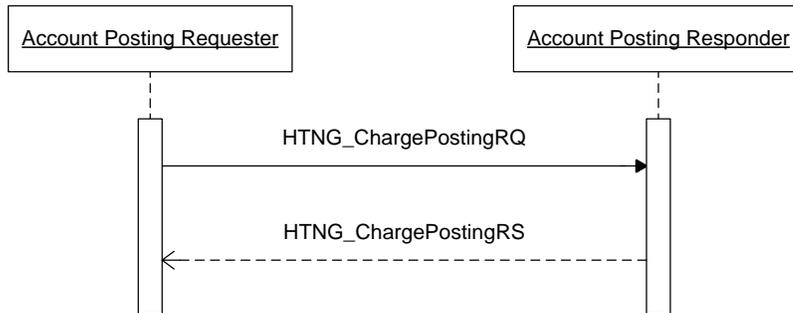
### 3.2.2 Roles

Role Name	Definition	Example
Account Posting Requestor	A system that has the need to post charges to guest rooms or accounts.	Point of Sale Charge Posting System
Account Posting Responder	A system that houses guests and accounts that receive charge requests and posts them to the appropriate folios.	Folio/Membership Accounting System PMS

### 3.2.3 Use Case

Assumptions:	<ul style="list-style-type: none"> <li>• The Account Posting Requestor and Account Posting Responder have an agreed set of parameters that can be used to identify an account.</li> <li>• Determining whether a guest has sufficient credit will be based on the implementation.</li> </ul>
Pre-conditions:	<ul style="list-style-type: none"> <li>• The Account to which the charges will be posted has been previously identified (see: Online (or Offline) Account Lookup)</li> </ul>
Trigger:	<ul style="list-style-type: none"> <li>• The Account Posting Requestor has the need to post a charge to an account.</li> </ul>
Basic Course of Events:	<ol style="list-style-type: none"> <li>1) The Account Posting Requestor sends a request to the Account Posting Responder containing one or more parameters used to identify the account along with the supporting information representing the charge(s) to be posted.</li> <li>2) The Account Posting Responder searches the database and locates matching account and its associated profile.</li> <li>3) The Account Posting Responder posts the charge(s) to the appropriate account.</li> <li>4) The Account Posting Responder returns the response message to the Account Posting Requestor.</li> </ol>
Post-conditions:	<ul style="list-style-type: none"> <li>• The Account Posting Requestor posts the appropriate payment to the check.</li> </ul>
Exception Path:	<ul style="list-style-type: none"> <li>• The Account Lookup Responder transmits a negative acknowledgement message in response to the account charge message.                             <ul style="list-style-type: none"> <li>○ The Account Posting Responder is unable to locate an account using the criteria supplied by the Account Lookup Requestor.</li> <li>○ The Account Posting Responder determines the account is not in good standing or otherwise not eligible (based upon the Account Posting Responder's business rules) for charge posting (i.e. Credit Limit, In-house guest, etc.).</li> </ul> </li> </ul>
Alternative Paths:	<ul style="list-style-type: none"> <li>• None</li> </ul>

### 3.2.4 Message Flows



### 3.2.5 Sample Request \_ Standard Charge Posting

```

<HTNG_ChargePostingRQ EchoToken="a" TimeStamp="2001-12-17T09:30:47Z" Version="0.0" Target="Test"
xmlns="http://www.opentravel.org/OTA/2003/05">
  <POS>
    <ota:Source>
      <ota:RequestorID Type="0" ID_Context="a" ID="a">
        <ota:CompanyName CodeContext="a" CompanyShortName="a"
Department="a" Division="a" Code="a"/>
      </ota:RequestorID>
    </ota:Source>
  </POS>
  <PropertyInfo ChainCode="a" HotelName="a" BrandCode="a" HotelCode="a" BrandName="a"
HotelCodeContext="a">
    <Posting ID="67436984" ZoomInKey="" Void="false">
      <RevenueCenter ID="3" Description="">
        <Terminal ID=""/>
      </RevenueCenter>
      <TotalPostingAmount CurrencyCode="AAA" Amount="66.00" DecimalPlaces="0"/>
      <ServerInfo EmployeeId="3215"></ota:EmployeeInfo>
      <CashierInfo EmployeeId="3241"></ota:EmployeeInfo>
      <Transaction TicketID="4651" Table="23" Covers="2" OpenTime="2012-12-31T06:23"
CloseTime="2012-12-31T06:52" MealPeriodID="" DigitsDialed="" Duration="" Extension="" />
      <RevenueDetails>
        <RevenueDetail ReferenceID="Sort Order?" CurrencyCode="AAA"
Amount="20.00" Description="a" DecimalPlaces="0" RevenueCategoryCode="14" SubTypeID="Local">
          <FolioIDs>
            <FolioID>0</FolioID>
          </FolioIDs>
          <ExtendedPrice Type="0" AmountBeforeTax="20.00"
CurrencyCode="USD" Quantity="2" DecimalPlaces="0"/>
        </RevenueDetail>
        <RevenueDetail PMSRevenueCode="" ReferenceID="" CurrencyCode="USD"
Amount="20.000" Description="Tip" DecimalPlaces="0" RevenueCategoryCode="10" SubTypeID="TIP">
          <FolioIDs>
            <FolioID>0</FolioID>
          </FolioIDs>
          <ExtendedPrice Type="0" AmountBeforeTax="20.00"
CurrencyCode="USD" Quantity="2" DecimalPlaces="0"/>
        </RevenueDetail>
        <RevenueDetail ReferenceID="" CurrencyCode="USD" Amount="20.000"
Description="Tip" DecimalPlaces="0" RevenueCategoryCode="10" SubTypeID="SERVICECHARGE">
          <FolioIDs>
            <FolioID>0</FolioID>
          </FolioIDs>
          <ExtendedPrice Type="0" AmountBeforeTax="20.00"
CurrencyCode="USD" Quantity="2" DecimalPlaces="0"/>
        </RevenueDetail>
      </RevenueDetails>
      <ota:TaxItems CurrencyCode="AAA" Amount="6.00" DecimalPlaces="0">
        <ota:Tax CurrencyCode="AAA" Amount="6.00" DecimalPlaces="0"
Code="0">
          <ota:TaxDescription Name="a"/>
        </ota:Tax>
      </ota:TaxItems>
    </Tenders>
  </Posting>
</PropertyInfo>
</HTNG_ChargePostingRQ>
    
```

```

Description="Room Charge" DecimalPlaces="0" RevenueCategoryCode="1" SubTypeID="RMCHG"
TenderID="19">
    <RevenueDetail ReferenceID="" CurrencyCode="USD" Amount="66.00"
    <FolioIDs>
        <FolioID>0</FolioID>
    </FolioIDs>
    <Account Type="Account|Room|Extension" ID="123456"/>
    </RevenueDetail>
</Tenders>
</Transaction>
</Posting>
</HTNG_ChargePostingRQ>
    
```

### 3.2.6 Sample Response

```

<HTNG_ChargePostingRS EchoToken="a" TimeStamp="2001-12-17T09:30:47Z" Version="0.0" Target="Test"
xmlns="http://htng.org/2012B" xmlns:ota="http://www.opentravel.org/OTA/2003/05">
    <Success/>
    <PostingGUID>String</PostingGUID>
    <TotalPostingAmount CurrencyCode="AAA" Amount="66.00" DecimalPlaces="0"/>
    <Accounts>
        <Account Type="0" ID_Context="a" ID="a">
            <PersonName>
                <GivenName></GivenName>
                <Surname></Surname>
            </PersonName>
        </Account>
    </Accounts>
</HTNG_ChargePostingRS>
    
```

## 3.3 Online Void Posting

### 3.3.1 Overview

This use case describes the business and system processes and requirements for online (real time) posting of voids to previous transaction(s) on accounts (for example, guest folios, membership accounts, house accounts, AR accounts). This will include a full audit reversal of any package routing and be made against a different transaction identifier to a charge or a refund.

### 3.3.2 Roles

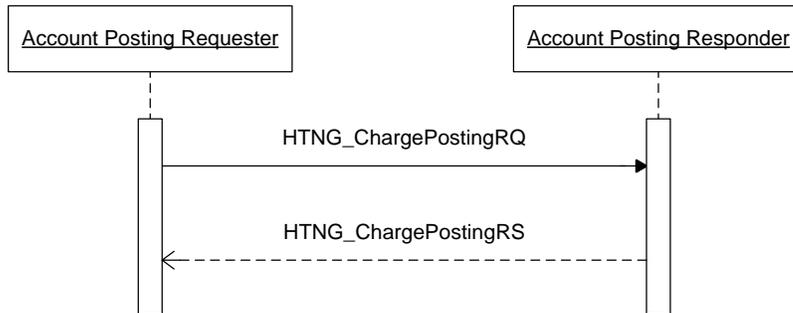
Role Name	Definition	Example
Account Posting Requestor	A system that has the need to post charges to guest rooms or accounts.	Point of Sale Charge Posting System
Account Posting Responder	A system that houses guests and accounts that receive charge requests and posts them to the appropriate folios.	Folio/Membership Accounting System PMS

### 3.3.3 Use Case

Assumptions:	<ul style="list-style-type: none"> <li>The Account Posting Requestor and Account Posting Responder have an agreed set of parameters that can be used to identify an account and determine credit limits for an account.</li> </ul>
--------------	--

Pre-conditions:	<ul style="list-style-type: none"> <li>• The transaction to be voided has been identified by the Account Posting Requestor.</li> <li>• The Account to which the charges should be voided has been previously identified by the Account Posting Requestor.</li> </ul>
Trigger:	<ul style="list-style-type: none"> <li>• The Account Posting Requestor has the need to void a charge previously made to an account.</li> </ul>
Basic Course of Events:	<ol style="list-style-type: none"> <li>1) The Account Posting Requestor sends a request to the Account Posting Responder containing one or more parameters used to identify the transaction AND the account along with the supporting information representing the void to be posted.</li> <li>2) The Account Posting Responder searches the database and locates matching transaction.</li> <li>3) The Account Posting Responder searches the database and locates matching account and its associated profile.</li> <li>4) The Account Posting Responder voids the appropriate transaction and any necessary backing detail to the account and applies a specific transaction identifier.</li> <li>5) The Account Posting Responder returns the response message to the Account Posting Requestor.</li> </ol>
Post-conditions:	<ul style="list-style-type: none"> <li>• The Account Posting Requestor can then accept that the void has been posted.</li> <li>• The Account Posting Requestor may now re-apply payment for the charge as necessary.</li> </ul>
Exception Paths:	<ul style="list-style-type: none"> <li>• The Account Posting Responder is unable to locate a transaction or an account using the criteria supplied by the Account Lookup Requestor.</li> <li>• The Account Posting Responder determines the transaction is not eligible based upon the Account Posting Responder's business rules for voiding charges.</li> <li>• The Account Lookup Responder transmits a negative acknowledgement message in response to the void charge message.</li> </ul>
Alternative Paths:	<ul style="list-style-type: none"> <li>• None</li> </ul>

### 3.3.4 Message Flows



### 3.3.5 Sample Request

```
<HTNG_ChargePostingRQ EchoToken="a" TimeStamp="2001-12-17T09:30:47Z" Version="0.0" Target="Test"
xmlns="http://www.opentravel.org/OTA/2003/05">
  <POS>
    <ota:Source>
      <ota:RequestorID Type="0" ID_Context="a" ID="a">
        <ota:CompanyName CompanyShortName="a" Department="a" Division="a"/>
      </ota:RequestorID>
    </ota:Source>
  </POS>
  <UniqueID Type="0" ID_Context="a" ID="a"/>
  <PropertyInfo ChainCode="a" HotelName="a" BrandCode="a" HotelCode="a" BrandName="a"
HotelCodeContext="a">
  <Posting ID="" ZoomInKey="" Void="true">
    <RevenueCenter ID="3" Description="">
      <Terminal ID=""/>
    </RevenueCenter>
    <TotalPostingAmount CurrencyCode="AAA" Amount="-5.00" DecimalPlaces="1"/>
    <ServerInfo EmployeeId="3215"></ota:EmployeeInfo>
    <CashierInfo EmployeeId="3241"></ota:EmployeeInfo>
    <Transaction TicketID="4651" Table="23" Covers="2" OpenTime="2012-12-31T06:23"
CloseTime="2012-12-31T06:52" MealPeriodID="" DigitsDialed="" Duration="" Extension="" />
    <RevenueDetails>
      <RevenueDetail ReferenceID="Sort Order?" CurrencyCode="AAA"
Amount="10.000" Description="T Shirt" DecimalPlaces="1" RevenueCategoryCode="14"
SubTypeID="Local">
        <ExtendedPrice Type="0" AmountBeforeTax="20.00"
CurrencyCode="USD" Quantity="2" DecimalPlaces="1"/>
      </RevenueDetail>
      <RevenueDetail ReferenceID="Sort Order?" CurrencyCode="AAA"
Amount="-15.000" Description="Sweatchirt" DecimalPlaces="1" RevenueCategoryCode="14"
SubTypeID="Local">
        <ExtendedPrice Type="0" AmountBeforeTax="20.00"
CurrencyCode="USD" Quantity="2" DecimalPlaces="1"/>
      </RevenueDetail>
    </RevenueDetails>
    <ota:TaxItems CurrencyCode="AAA" Amount="1.123" DecimalPlaces="1">
      <ota:Tax CurrencyCode="AAA" Amount="1.123" DecimalPlaces="1"
code="0">
        <ota:TaxDescription Name="a"/>
      </ota:Tax>
    </ota:TaxItems>
    <Tenders>
      <RevenueDetail ReferenceID="" CurrencyCode="USD" Amount="-5.000"
Description="Room Charge" DecimalPlaces="2" RevenueCategoryCode="19" SubTypeID="RMCHG"
TenderID="23">
        </RevenueDetail>
      </Tenders>
    </Transaction>
  </Posting>
</HTNG_ChargePostingRQ>
```

### 3.3.6 Sample Response

```
<HTNG_ChargePostingRS EchoToken="a" TimeStamp="2001-12-17T09:30:47Z" Version="0.0" Target="Test"
xmlns="http://htng.org/2012B" xmlns:ota="http://www.opentravel.org/OTA/2003/05">
  <Success/>
  <PostingGUID>String</PostingGUID>
  <TotalPostingAmount CurrencyCode="AAA" Amount="1.123" DecimalPlaces="1"/>
  <Accounts>
    <Account Type="0" ID="a"/>
  </Accounts>
</HTNG_ChargePostingRS>
```

## 3.4 Online Check Detail Lookup

### 3.4.1 Overview

This use case describes the business and system processes and requirements for the search for Point of Sale check details.

### 3.4.2 Roles

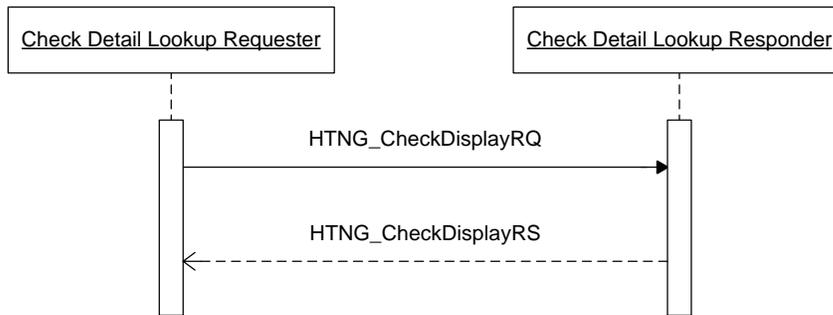
Role Name	Definition	Example
Check Detail Lookup Requestor	A system that has previously received a charge posting but would like to view the charge detail.	Folio/Membership Accounting System PMS
Check Detail Lookup Responder	A system that had previously posted a charge to another system and is able to present a full representation of the original charge.	Point of Sale Charge Posting System

### 3.4.3 Use Case

Assumptions:	<ul style="list-style-type: none"> <li>The Check Detail Lookup Requestor and Check Detail Lookup Responder have an agreed set of parameters that can be used to identify a Point of Sale check.</li> </ul>
Pre-conditions:	<ul style="list-style-type: none"> <li>The Check Detail Lookup Requestor is aware of some basic information that can be used to identify a specific Point of Sale check (e.g. Check Number).</li> </ul>
Trigger:	<ul style="list-style-type: none"> <li>The Check Detail Lookup Requestor has the need to uniquely identify a Point of Sale check.</li> </ul>
Basic Course of Events:	<ol style="list-style-type: none"> <li>The Check Detail Lookup Requestor sends a request to the Check Detail Lookup Responder containing one or more parameters.</li> <li>The Check Detail Lookup Responder searches the database and locates Point of Sale check details.</li> <li>The Check Detail Lookup Responder builds a message containing the matching results.</li> <li>The Check Detail Lookup Responder returns the message to the Check Detail Lookup Requestor.</li> </ol>

Post-conditions:	<ul style="list-style-type: none"> <li>The Check Detail Lookup Requestor has the Point of Sale check detail in context and can display the results to the screen.</li> </ul>
Exception Path:	<ul style="list-style-type: none"> <li>The Check Detail Lookup Responder is unable to locate Point of Sale check details using the criteria supplied by the Check Detail Lookup Requestor.</li> </ul>
Alternative Paths:	None

### 3.4.4 Message Flows



### 3.4.5 Sample Request

```

<HTNG_CheckDisplayRQ EchoToken="a" TimeStamp="2001-12-17T09:30:47Z" Version="0.0" Target="Test"
xmlns="http://www.opentravel.org/OTA/2003/05">
  <POS>
    <ota:Source>
      <ota:RequestorID Type="0" ID_Context="a" ID="a">
        <ota:CompanyName CompanyShortName="a" Department="a" Division="a"/>
      </ota:RequestorID>
    </ota:Source>
  </POS>
  <UniqueID Type="0" ID_Context="a" ID="a"/>
  <PropertyInfo ChainCode="a" HotelName="a" BrandCode="a" HotelCode="a"/>
  <CheckZoom ZoomInKey="SOME-GUID" TextFormat="PlainText"/>
</HTNG_CheckDisplayRQ>

```

### 3.4.6 Sample Response

```

<HTNG_CheckDisplayRS EchoToken="a" TimeStamp="2001-12-17T09:30:47Z" Version="0.0" Target="Test"
xmlns="http://www.opentravel.org/OTA/2003/05">
  <Success/>
  <CheckZoom ZoomInKey="SOME-GUID" TextFormat="PlainText">
    Restaurant
    16 Laura T
    -----
    Tbl 712/1   Chk 1394   Gst 15
           04/13/12 05:55:24
    -----
    15 MEPS BUFFET           142.50
       %Gratuity             25.65
       Tax:                   11.40
    MEPS FOOD0044245
       Room Charge           179.55
    -----16 Check closed-----
    -----04/13/12 05:55:46-----
  </CheckZoom>
</HTNG_CheckDisplayRS>

```

## 4 Messages

### 4.1 Online Account Lookup

#### 4.1.1 Data Element Table – Request

Element   @Attribute	Num	Description/Contents
HTNG_ReadRQ	1	Root element of the message.
@EchoToken	1	A reference for additional message identification, assigned by the requesting host system. When a request message includes an echo token, the corresponding response message MUST include an echo token with an identical value.
@TimeStamp	1	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).
@Version	1	For all OpenTravel versioned messages, the version of the message is indicated by a decimal value.
HTNG_ReadRQ / POS / Source	1	This holds details regarding the requestor. It may be repeated to also accommodate the delivery systems.
HTNG_ReadRQ / POS / Source / RequestorID	1	An identifier of the entity making the request (e.g., ATA/IATA/ID number, Electronic Reservation Service Provider (ERSP), Association of British Travel Agents (ABTA)).
@Type	0..1	A reference to the type of object defined by the UniqueID element. Refer to OpenTravel Code List Unique ID Type (UIT).
@ID_Context	0..1	Used to identify the source of the identifier (e.g., IATA, ABTA).
@ID	1	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.
HTNG_ReadRQ / UniqueID	0..1	An identifier used to uniquely reference an object in a system (e.g., an airline reservation reference, customer profile reference, booking confirmation number, or a reference to a previous availability quote).

Element   @Attribute	Num	Description/Contents
@ID	1	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.
@Type	0..1	A reference to the type of object defined by the UniqueID element. Refer to OpenTravel Code List Unique ID Type (UIT).
@ID_Context	0..1	Used to identify the source of the identifier (e.g., IATA, ABTA).
HTNG_ReadRQ / ReadRequests	1	A grouping of Read Requests by travel vertical.
HTNG_ReadRQ / ReadRequests / HotelReadRequest	1	To request a profile when the profile identifier is not known.
@HotelCode	0..1	Describes whether the line item refers to an individual Hotel property.
@ChainCode	0..1	Describes whether the line item refers to a Chain (e.g. Courtyard, Doubletree).
@BrandCode	0..1	Describes whether the line item refers to a Brand (e.g. Marriott, Hilton).
HTNG_ReadRQ / ReadRequests / HotelReadRequest / UniqueID	0..1	An identifier used to uniquely reference an object in a system (e.g., an airline reservation reference, customer profile reference, booking confirmation number, or a reference to a previous availability quote).
@ID	1	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.
@Type	1	A reference to the type of object defined by the UniqueID element. Refer to OpenTravel Code List Unique ID Type (UIT).
@ID_Context	0..1	Used to identify the source of the identifier (e.g., IATA, ABTA).
HTNG_ReadRQ / ReadRequests / HotelReadRequest / Verification	1	This is to be used for verification that the record to be returned is the specific record requested.
HTNG_ReadRQ / ReadRequests / HotelReadRequest / Verification / PersonName	0..1	Detailed name information for the customer.
@PartialName	0..1	When true, the full name is not provided.

Element   @Attribute	Num	Description/Contents
HTNG_ReadRQ / ReadRequests / HotelReadRequest / Verification / PersonName / GivenName	0..1	Given name, first name or names.
HTNG_ReadRQ / ReadRequests / HotelReadRequest / Verification / PersonName / Surname	1	Family name, last name. May also be used for full name if the sending system does not have the ability to separate a full name into its parts, e.g. the surname element may be used to pass the full name.
HTNG_ReadRQ / ReadRequests / HotelReadRequest / Verification / CustLoyalty	0..1	Loyalty program information for the customer.
@MembershipID	1	Unique identifier of the member in the program (membership number, account number, etc.).
@VendorCode	0..1	Indicate the partner(s)/vendor(s) for which the customer loyalty number is valid.
@ProgramID	0..1	Identifier to indicate the company owner of the loyalty program.
HTNG_ReadRQ / ReadRequests / HotelReadRequest / Verification / ReservationTimespan	0..1	The start and end date of the reservation.
@Start	1	The starting value of the time span.
@End	1	The ending value of the time span.
HTNG_ReadRQ / ReadRequests / HotelReadRequest / Verification / Room	0..1	Used to convey information about a single room or a suite comprised of room components. The populated values on this entity are used as the query parameters.
@RoomID	1	A string value representing the unique identification of a room.

#### 4.1.2 Data Element Table – Response

Element   @Attribute	Num	Description/Contents
OTA_ResRetrieveRS	1	Root element of the message.
@EchoToken	1	A reference for additional message identification, assigned by the requesting host system. When a request message includes an echo token, the corresponding response message MUST include an echo token with an identical value.

Element   @Attribute	Num	Description/Contents
@TimeStamp	1	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).
@Version	1	For all OpenTravel versioned messages, the version of the message is indicated by a decimal value.
@Target	0..1	Used to indicate whether the request is for the Test or Production system.
OTA_ResRetrieveRS / Success	0..1	The presence of the empty Success element explicitly indicates that the OpenTravel versioned message succeeded.
OTA_ResRetrieveRS / Warnings	0..1	Used in conjunction with the Success element to define one or more business errors.
OTA_ResRetrieveRS / Warnings / Warning	1..n	Used when a message has been successfully processed to report any warnings or business errors that occurred.
@Type	1	The Warning element MUST contain the Type attribute that uses a recommended set of values to indicate the warning type. The validating XSD can expect to accept values that it has NOT been explicitly coded for and process them by using Type ="Unknown". Refer to OpenTravel Code List Error Warning Type (EWT).
@Status	0..1	If present, recommended values are those enumerated in the OTA_ErrorRS, (NotProcessed   Incomplete   Complete   Unknown) however, the data type is designated as string data, recognizing that trading partners may identify additional status conditions not included in the enumeration.
@ShortText	1	An abbreviated version of the error in textual format.
@Code	0..1	If present, this refers to a table of coded values exchanged between applications to identify errors or warnings. Refer to OpenTravel Code List Error Codes (ERR).

Element   @Attribute	Num	Description/Contents
OTA_ResRetrieveRS / RoomInformationList	0..1	The result set generated by the query sent in the request.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation		One line in a list of hotel reservations. It may contain the reservation id, booked date, arrival and departure dates, number of nights and rooms, hotel info, guest info, and room info.
@RoomStayReservation	0..1	Boolean True if this reservation is reserving rooms. False if it is only reserving services.
@ResStatus	1	Indicates the status of the reservation.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / RoomStays	0..1	Collection of room stays.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / RoomStays / RoomStay	1..n	Details on the Room Stay including Guest Counts, Time Span of this Room Stay, pointers to Res Guests, guest Memberships, Comments and Special Requests.
@MarketCode	0..1	The code that relates to the market being sold to (e.g., the corporate market, packages).
@DiscountCode	0..1	A discount code known to the hotel.
@RoomStayStatus	0..1	Identifies the status of the room stay.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / RoomStays / RoomStay / RoomRates	0..1	A collection of Room Rates associated with a particular Room Stay.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / RoomStays / RoomStay / RoomRates / RoomRate	1..n	Individual rate amount. This rate is valid for a range of number of occupants and an occupant type.
@RoomTypeCode	0..1	Specific system room type code, ex: A1K, A1Q, etc.
@RatePlanCode	0..1	A string value may be used to request a particular code or an ID if the guest qualifies for a specific rate, such as AARP, AAA, a corporate rate, etc., or to specify a negotiated code as a result of a negotiated rate.

Element   @Attribute	Num	Description/Contents
@RoomID	0..1	A string value representing the unique identification of a room.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / RoomStays / RoomStay / RoomRates / RoomRate / GuestCounts	0..1	A collection of Guest Counts associated with the room rate.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / RoomStays / RoomStay / RoomRates / RoomRate / GuestCounts / GuestCount	1..n	A recurring element that identifies the number of guests and ages of the guests.
@AgeQualifyingCode	0..1	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 OpenTravel Code List Age Qualifying Code (AQC).
@Count	0..1	The number of guests in one AgeQualifyingCode or Count.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / RoomStays / RoomStay / Comments	0..1	A collection of Comment objects. Comments which apply to the whole Reservation or a particular Room Stay or Service.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / RoomStays / RoomStay / Comments / Comment	1..n	Comment details.
@Name	0..1	In many cases the description repeats, this will allow you to define the information that is being sent, typically used when multiple occurrences of ParagraphType are being sent.
@GuestViewable	0..1	When true, the comment may be shown to the consumer. When false, the comment may not be shown to the consumer.

Element   @Attribute	Num	Description/Contents
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / RoomStays / RoomStay / Comments / Comment / Text	1	Formatted text content.
@Language	0..1	Language identification.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / RoomStays / RoomStay / TimeSpan	0..1	The Time Span which covers the Room Stay.
@Start	1	The starting value of the time span.
@End	1	The ending value of the time span.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / ResGuests	0..1	Collection of guests associated with the reservation.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / ResGuests / ResGuest	1..n	The ResGuest object contains the information about a guest associated with a reservation.
@VIP	0..1	Guest is VIP indicator.
@PrimaryIndicator	0..1	When true indicates this is the primary guest.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / ResGuests / ResGuest / Profiles	1	A collection of Profile objects or Unique IDs of Profiles.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / ResGuests / ResGuest / Profiles / ProfileInfo	1..n	A collection of Profiles or Unique IDs of Profiles.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / ResGuests / ResGuest / Profiles / ProfileInfo / UniqueID	1	A unique ID for a Profile. This element repeats to accommodate multiple unique IDs for a single Profile across multiple systems.

Element   @Attribute	Num	Description/Contents
@ID	1	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.
@Type	1	A reference to the type of object defined by the UniqueID element. Refer to OpenTravel Code List Unique ID Type (UIT).
@ID_Context	0..1	Used to identify the source of the identifier (e.g., IATA, ABTA).
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / ResGuests / ResGuest / Profiles / ProfileInfo / Profile	0..1	Provides detailed information regarding either a company or a customer Profile.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / ResGuests / ResGuest / Profiles / ProfileInfo / Profile / Customer	0..1	Detailed customer information for this Profile.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / ResGuests / ResGuest / Profiles / ProfileInfo / Profile / Customer / PersonName	1	Detailed name information for the customer.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / ResGuests / ResGuest / Profiles / ProfileInfo / Profile / Customer / PersonName / NamePrefix	0..1	The Salutation for the name. This SHOULD be a value representing an individual (Mr., Mrs., Dr.) and not Mr. and Mrs.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / ResGuests / ResGuest / Profiles / ProfileInfo / Profile / Customer / PersonName / GivenName	0..1	Given name, first name or names.

Element   @Attribute	Num	Description/Contents
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / ResGuests / ResGuest / Profiles / ProfileInfo / Profile / Customer / PersonName / SurName	0..1	Family name, last name. May also be used for full name if the sending system does not have the ability to separate a full name into its parts, e.g. the surname element may be used to pass the full name.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / ResGuests / ResGuest / Profiles / ProfileInfo / Profile / Customer / CustLoyalty	0..1	Loyalty program information for the customer.
@MembershipID	1	Unique identifier of the member in the program (membership number, account number, etc.).
@VendorCode	0..1	Indicate the partner(s)/vendor(s) for which the customer loyalty number is valid.
@ProgramID	0..1	Identifier to indicate the company owner of the loyalty program.
@LoyalLevel	0..1	Indicates special privileges in program assigned to individual.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / TPA_Extensions	0..1	A placeholder in the schema to allow for additional elements and attributes to be included if required, per Trading Partner Agreement (TPA).
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / TPA_Extensions / TPA_Extension	0..n	A single instance of a Trading Partner Agreement extension.
OTA_ResRetrieveRS / RoomInformationList / HotelReservation / TPA_Extensions / TPA_Extension / AvailableCredit	0..1	Used to convey information about the available credit of an account.
@Amount	1	The total amount of available credit as determined by the responding system.
@CurrencyCode	0..1	The code specifying a monetary unit. Use ISO 4217, three alpha code.

Element   @Attribute	Num	Description/Contents
@DecimalPlaces	0..1	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).

## 4.2 Online Charge/Void Posting

### 4.2.1 Data Element Table – Request

Element   @Attribute	Num	Description/Contents
HTNG_ChargePostingRQ	1	Root element of the message.
@EchoToken	1	A reference for additional message identification, assigned by the requesting host system. When a request message includes an echo token, the corresponding response message MUST include an echo token with an identical value.
@TimeStamp	1	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).
@Version	1	For all OpenTravel versioned messages, the version of the message is indicated by a decimal value.
HTNG_ChargePostingRQ / POS / Source	1	This holds details regarding the requestor. It may be repeated to also accommodate the delivery systems.
HTNG_ChargePostingRQ / POS / Source / RequestorID	1	An identifier of the entity making the request (e.g., ATA/IATA/ID number, Electronic Reservation Service Provider (ERSP), Association of British Travel Agents (ABTA)).
@Type	0..1	A reference to the type of object defined by the UniqueID element. Refer to OpenTravel Code List Unique ID Type (UIT).
@ID_Context	0..1	Used to identify the source of the identifier (e.g., IATA, ABTA).

Element   @Attribute	Num	Description/Contents
@ID	1	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.
HTNG_ChargePostingRQ / POS / Source / RequestorID / CompanyName	0..1	Identifies the company that is associated with the UniqueID.
@CompanyShortName	1	Used to provide the company common name.
@Department	0..1	The department name or ID with which the contact is associated.
@Division	0..1	The division name or ID with which the contact is associated.
HTNG_ChargePostingRQ / PropertyInfo	0..1	Information pertaining to a given hotel property.
@HotelCode	1	Describes whether the line item refers to an individual Hotel property.
@ChainCode	0..1	Describes whether the line item refers to a Chain (e.g. Courtyard, Doubletree).
@BrandCode	0..1	Describes whether the line item refers to a Brand (e.g. Marriott, Hilton).
HTNG_ChargePostingRQ / Posting	1	Describes the charge posting and associated information.
@ID	1	A unique identifier for this posting.
@ZoomInKey	0..1	Used by the HTNG_CheckDisplayRQ message to retrieve a preformatted version of the charge posting.
@Void	0..1	Indicates the desire to void a previously posted transaction. This value is assumed to be "false" if not present.
HTNG_ChargePostingRQ / Posting / RevenueCenter	1	Information pertaining to the revenue center that generated the posting.
@ID	1	The identifier for the revenue center.
@Description	0..1	The revenue center description.
HTNG_ChargePostingRQ / Posting / TotalPostingAmount	0..1	An amount pertaining to the overall posting.
@Amount	1	The sum of all line items, taxes, gratuities, etc.

Element   @Attribute	Num	Description/Contents
@DecimalPlaces	0..1	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).
@CurrencyCode	0..1	The code specifying a monetary unit. Use ISO 4217, three alpha code.
HTNG_ChargePostingRQ / Posting / ServerInfo	0..1	Information about the server.
@EmployeeId	1	The employee ID for the server.
HTNG_ChargePostingRQ / Posting / CashierInfo	0..1	Information about the cashier.
@EmployeeId	1	The employee ID for the cashier.
HTNG_ChargePostingRQ / Posting / Transaction	1	Transactional information pertaining to a check/invoice.
@TicketID	1	The check/invoice number representing the charges.
@Table	0..1	The table served.
@Covers	0..1	The number of individuals seated at the table.
@OpenTime	0..1	Open time of the check.
@CloseTime	0..1	Close time of the check.
@MealPeriod	0..1	Meal period.
@DigitsDialed	0..1	The digits dialed to complete a telephone call.
@Duration	0..1	The length of a telephone call.
@Extension	0..1	The extension that made the telephone call.
HTNG_ChargePostingRQ / Posting / Transaction / RevenueDetails	1	A collection of line items.
HTNG_ChargePostingRQ / Posting / Transaction / RevenueDetails / RevenueDetail	1..n	The line item detail of specific revenue transactions.
@ReferenceID	0..1	The unique transaction identifier for this posting.

Element   @Attribute	Num	Description/Contents
@Amount	1	A monetary amount.
@DecimalPlaces	0..1	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).
@CurrencyCode	0..1	The code specifying a monetary unit. Use ISO 4217, three alpha code.
@Description	1	The line item detail description for this posting.
@RevenueCategoryCode	1	Describes the type of revenue generated. Refer to OpenTravel Code List Revenue Category Code (RCC).
@SubTypeID	0..1	A value used to further detail the category.
@PMSRevenueCode	0..1	The transaction code assigned by the PMS.
HTNG_ChargePostingRQ / Posting / Transaction / RevenueDetails / RevenueDetail / ExtendedPrice	0..1	The total amount charged for the service including additional amounts and fees.
@AmountBeforeTax	1	The unit amount not including any associated tax (e.g., sales tax, VAT, GST or any associated tax).
@DecimalPlaces	0..1	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).
@CurrencyCode	0..1	The code specifying a monetary unit. Use ISO 4217, three alpha code.
@Quantity	1	The number of items purchased.
HTNG_ChargePostingRQ / Posting / Transaction / TaxItems	1	A collection of taxes.
@Amount	1	A monetary amount.

Element   @Attribute	Num	Description/Contents
@DecimalPlaces	0..1	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).
@CurrencyCode	0..1	The code specifying a monetary unit. Use ISO 4217, three alpha code.
HTNG_ChargePostingRQ / Posting / Transaction / TaxItems / Tax	1..n	An individual tax.
@Code	1	Code identifying the fee (e.g., agency fee, municipality fee). Refer to OpenTravel Code List Fee Tax Type (FTT).
@Amount	1	A monetary amount.
@DecimalPlaces	0..1	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).
@CurrencyCode	0..1	The code specifying a monetary unit. Use ISO 4217, three alpha code.
HTNG_ChargePostingRQ / Posting / Transaction / TaxItems / Tax / TaxDescription	0..1	Text description of the taxes in a given language.
@Name	1	In many cases the description repeats, this will allow you to define the information that is being sent, typically used when multiple occurrences of ParagraphType are being sent.
HTNG_ChargePostingRQ / Posting / Transaction / Tenders	1	A collection of tenders.
HTNG_ChargePostingRQ / Posting / Transaction / Tenders / RevenueDetail	1..n	The line item detail of specific revenue transactions.
@ReferenceID	0..1	The unique transaction identifier for this posting.
@Amount	1	A monetary amount.

Element   @Attribute	Num	Description/Contents
@DecimalPlaces	0..1	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).
@CurrencyCode	0..1	The code specifying a monetary unit. Use ISO 4217, three alpha code.
@Description	1	The line item detail description for this posting.
@RevenueCategoryCode	1	Describes the type of revenue generated. Refer to OpenTravel Code List Revenue Category Code (RCC).
@SubTypeID	0..1	A value used to further detail the category.
@PMSRevenueCode	0..1	The transaction code assigned by the PMS.
HTNG_ChargePostingRQ / Posting / Transaction / Tenders / RevenueDetail / Account	1	The account for which a charge will be applied.
@Type	1	The type of account. Possible values are "Account", "Room", "Extension".
@ID	1	An identifier representing the account for a which an amount will be posted.

#### 4.2.2 Data Element Table – Response

Element   @Attribute	Num	Description/Contents
HTNG_ChargePostingRS	1	Root element of the message.
@EchoToken	1	A reference for additional message identification, assigned by the requesting host system. When a request message includes an echo token, the corresponding response message MUST include an echo token with an identical value.
@TimeStamp	1	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).

Element   @Attribute	Num	Description/Contents
@Version	1	For all OpenTravel versioned messages, the version of the message is indicated by a decimal value.
@Target	0..1	Used to indicate whether the request is for the Test or Production system.
HTNG_ChargePostingRS / Success	0..1	The presence of the empty Success element explicitly indicates that the OpenTravel versioned message succeeded.
HTNG_ChargePostingRS / Warnings	0..1	Used in conjunction with the Success element to define one or more business errors.
HTNG_ChargePostingRS / Warnings / Warning	1..n	Used when a message has been successfully processed to report any warnings or business errors that occurred.
@Type	1	The Warning element MUST contain the Type attribute that uses a recommended set of values to indicate the warning type. The validating XSD can expect to accept values that it has NOT been explicitly coded for and process them by using Type ="Unknown". Refer to OpenTravel Code List Error Warning Type (EWT).
@Status	0..1	If present, recommended values are those enumerated in the OTA_ErrorRS, (NotProcessed   Incomplete   Complete   Unknown) however, the data type is designated as string data, recognizing that trading partners may identify additional status conditions not included in the enumeration.
@ShortText	1	An abbreviated version of the error in textual format.
@Code	0..1	If present, this refers to a table of coded values exchanged between applications to identify errors or warnings. Refer to OpenTravel Code List Error Codes (ERR).
HTNG_ChargePostingRS / PostingGUID	1	A unique identifier for this posting.
HTNG_ChargePostingRS / TotalPostingAmount	1	An amount pertaining to the overall posting.
@Amount	1	The sum of all line items, taxes, gratuities, etc.

Element   @Attribute	Num	Description/Contents
@CurrencyCode	0..1	The code specifying a monetary unit. Use ISO 4217, three alpha code.
@DecimalPlaces	0..1	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).
HTNG_ChargePostingRS / Accounts	0	A collection of accounts that had charges posted to them.
HTNG_ChargePostingRS / Accounts / Account	1..n	The account for which a charge was applied.
@Type	0..1	The type of account. Possible values are "Account", "Room", "Extension".
@ID	1	An identifier representing the account for a which an amount will be posted.

## 4.3 Online Check Detail Lookup

### 4.3.1 Data Element Table – Request

Element   @Attribute	Num	Description/Contents
HTNG_CheckDisplayRQ	1	Root element of the message.
@EchoToken	1	A reference for additional message identification, assigned by the requesting host system. When a request message includes an echo token, the corresponding response message MUST include an echo token with an identical value.
@TimeStamp	1	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).
@Version	1	For all OpenTravel versioned messages, the version of the message is indicated by a decimal value.
HTNG_CheckDisplayRQ / POS / Source	1	This holds details regarding the requestor. It may be repeated to also accommodate the delivery systems.

Element   @Attribute	Num	Description/Contents
HTNG_CheckDisplayRQ / POS / Source / RequestorID	1	An identifier of the entity making the request (e.g., ATA/IATA/ID number, Electronic Reservation Service Provider (ERSP), Association of British Travel Agents (ABTA)).
@Type	0..1	A reference to the type of object defined by the UniqueID element. Refer to OpenTravel Code List Unique ID Type (UIT).
@ID_Context	0..1	Used to identify the source of the identifier (e.g., IATA, ABTA).
@ID	1	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.
HTNG_CheckDisplayRQ / CheckZoom	1	A container element used to convey the query parameters for performing a check display.
@ZoomInKey	1	A unique reference to a previously posted check.
@TextFormat	0..1	The format for which the check display should be represented. Possible values are "PlainText" and "HTML".

#### 4.3.2 Data Element Table – Response

Element   @Attribute	Num	Description/Contents
HTNG_CheckDisplayRS	1	Root element of the message.
@EchoToken	1	A reference for additional message identification, assigned by the requesting host system. When a request message includes an echo token, the corresponding response message MUST include an echo token with an identical value.
@TimeStamp	1	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).
@Version	1	For all OpenTravel versioned messages, the version of the message is indicated by a decimal value.

Element   @Attribute	Num	Description/Contents
@Target	0..1	Used to indicate whether the request is for the Test or Production system.
HTNG_CheckDisplayRS / Success	0..1	The presence of the empty Success element explicitly indicates that the OpenTravel versioned message succeeded.
HTNG_CheckDisplayRS / Warnings	0..1	Used in conjunction with the Success element to define one or more business errors.
HTNG_CheckDisplayRS / Warnings / Warning	1..n	Used when a message has been successfully processed to report any warnings or business errors that occurred.
@Type	1	The Warning element MUST contain the Type attribute that uses a recommended set of values to indicate the warning type. The validating XSD can expect to accept values that it has NOT been explicitly coded for and process them by using Type ="Unknown". Refer to OpenTravel Code List Error Warning Type (EWT).
@Status	0..1	If present, recommended values are those enumerated in the OTA_ErrorRS, (NotProcessed   Incomplete   Complete   Unknown) however, the data type is designated as string data, recognizing that trading partners may identify additional status conditions not included in the enumeration.
@ShortText	1	An abbreviated version of the error in textual format.
@Code	0..1	If present, this refers to a table of coded values exchanged between applications to identify errors or warnings. Refer to OpenTravel Code List Error Codes (ERR).
HTNG_CheckDisplayRS / CheckZoom	0..1	Contains the preformatted check representation.
@ZoomInKey	0..1	A unique reference to a previously posted check.
@TextFormat	0..1	The format for which the check display should be represented.

## 5 Appendices

### 5.1 Implementation Notes

#### 5.1.1 Void versus Refund

Trading partners will need to decide whether they will use Online Void Posting, Online Charge Posting (with negative values), or a combination of both.

For clarity, the Online Void Posting should be used when a previous posting must be reversed in its entirety due to a posting error. This is important for complex accounting scenarios that require charge routing, package entitlements (and breakage), loyalty benefits, etc., where the Account Posting Requester may not be aware of the business rules of the Account Posting Responder.

Care should be taken to ensure proper controls and logging is in place to prevent theft.

### 5.2 Referenced Documents

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

Document Title	Location/URL
HTNG Customer Profile v1.0 Specification	<a href="http://collaboration.htng.org/specs/documents.php?action=show&amp;dcat=44&amp;qdid=24346">http://collaboration.htng.org/specs/documents.php?action=show&amp;dcat=44&amp;qdid=24346</a>
HTNG Folio Detail Exchange v1.0 Specification	<a href="http://collaboration.htng.org/specs/documents.php?action=show&amp;dcat=44&amp;qdid=24347">http://collaboration.htng.org/specs/documents.php?action=show&amp;dcat=44&amp;qdid=24347</a>
HTNG Single Guest Itinerary 2008B	<a href="http://collaboration.htng.org/specs/documents.php?action=show&amp;dcat=25&amp;qdid=22364">http://collaboration.htng.org/specs/documents.php?action=show&amp;dcat=25&amp;qdid=22364</a>
OpenTravel Alliance Specifications	<a href="http://opentravel.org/Specifications/Default.aspx">http://opentravel.org/Specifications/Default.aspx</a>