

Hilton Transaction Exchange Developer's Guide

Version 2.1

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Record of Changes

Change		
Number	Date	Reason for Change
1.1	10/1/2005	Initial release of document including the transactions OTA_HotelSearch OTA_HotelAvail OTA_Ping
1.2	11/23/2005	Changes:
1.3	12/10/05	Changes:
1.3.1	2/2/06	Changes: Replaced Engine with Exchange Changed Interface version from 1.0 to 1.3
1.3.2	2/07/06	Changes: • OTA_HotelResModify
1.3.3	2/15/06	Changes: Replaced the OTA_HotelSearchRS example Changed section 2.5
2.0	3/21/06	Changes:
2.1	9/27/06	Changes

1 Introduction

1.1 What is the Hilton Transaction Exchange?

The Hilton Transaction Exchange is a web service that customers can use to perform business functions with Hilton Hotels Corporation. Using this service, client applications can get the same type of information and perform the same types of tasks that are available today through Global Distribution Systems (GDS) or websites such as http://www.hilton.com. Using the infrastructure of the internet provides core search and reservation functionality for all hotels in the Hilton Family of Brands. The Hilton Family of Brands includes Hilton, Conrad, Doubletree, Hampton, Hilton Garden Inn, Embassy Suites, Homewood Suites by Hilton, Waldorf=Astoria Collection and Scandic Hotels. By exchanging information with the Hilton Transaction Exchange, customers can build applications that perform business functions such as searching for and booking hotel rooms, getting information about a hotel, checking room rates and availability, and canceling or modifying a reservation.

Because the Transaction Exchange is built on open standards, customers can leverage the existing skills of their IT organization when developing client applications. In addition, the prospect of reuse is much greater, compared to a proprietary solution. The OpenTravelTM Alliance (OTA) has defined an industry standard that enables travel-related systems to conduct business with each other. The transactions that are provided by the Hilton Transaction Exchange are a subset of those defined in the OTA specification. The messaging and protocol layers also use standards-based technologies.

1.2 About the Developer's Guide

The purpose of this document is to communicate the set of instructions, guidelines and technical information needed to interact with the Hilton Transaction Exchange. This is a programmer's guide. The reader should be familiar with the underlying technologies used, including XML, HTTPS and SOAP.

In this document, XML schemas are shown three ways. Schema diagrams show the hierarchical structure of the XML from left to right. Schema information in table format is more detailed. The table columns are:

- Level the depth of the element in the XML structure, starting with 0 as the highest-level element
- Name the name of the element or attribute. Attributes use the convention @name.
- Type the data type of an attribute.
- Occurrences the number of times an element should exist in an XML file.
- Required if an attribute is required or not. If it is listed in the table and is not required, then it is an optional attribute.

• Hilton version – the earliest version of the Hilton Transaction Exchange API that supports the attribute.

The third way in which XML data is shown is as simple text, which is used mainly for examples of XML requests and responses. Examples are for illustration only: any rates, hotel codes, distances, addresses or other information in the examples should not be considered accurate.

1.3 Customer Registration

Before using the Transaction Exchange, customers must register with Hilton Hotels Corporation. After the registration process is complete, you will have these items associated with your account:

- Customer ID a unique identifier based on your company name
- Username a 'login' name for authentication
- Password the password for the assigned Username

When sending requests to the Hilton Transaction Exchange, these values must be populated in various fields of the XML.

During the registration process you will need to provide us with the range of IP addresses from which you will be connecting to our servers. We will have to add these IP addresses to our firewall. This process usually takes around 5-7 business days.

1.4 Technical Support

If you have production questions or problems, please contact Hilton Transaction Exchange Support by emailing **hte_support@hilton.com**. When contacting Hilton, please provide your name, company name, telephone number, and a description of the problem, including the exact wording of any error messages. For development related questions, please contact your Hilton IT representative directly.

1.5 Features

The Hilton Transaction Exchange allows developers to make sophisticated applications that can:

- Search for hotels around cities or other geographical locations.
- Check the availability of a particular hotel for a specific date range.
- Get room rate information for a hotel.
- Obtain a hotel's address, contact information and amenities
- Reserve hotel rooms for a customer
- Modify an existing reservation
- Cancel an existing reservation
- Obtain client-specific rates and special rate plans

1.6 Change History

Changes to the Hilton Transaction Exchange Developers Guide will be indicated at the start of this document in the Record of Changes section. A more detailed explanation of the changes will be included in the Appendix at the end of the document.

2 Messaging Protocol

2.1 Call Semantics

The Hilton Transaction Exchange is an interactive application meant for web-based clients. Messages are sent by the client via an HTTPS POST. The Hilton Transaction Exchange receives the message, performs the business tasks and responds back to the client immediately.

In distributed processing terms, each message sent will use a Type A delivery mechanism. This type of messaging is used for the expedient delivery of interactive messages, generally in the form of request/response pairs. As far as the client is concerned, Type A messages have "atleast-once" call semantics, meaning the messages are idempotent. The server does not keep the requests or the responses and does not use a "store-and-forward" model.

A client may issue a request more than once if the response to the first call is lost in transmission, but the CommDescriptor@RetryIndicator attribute, which is contained in the SOAP header, *must be set to true when retransmitting*. Otherwise, the message will be received and processed a second time. For instance, if a client sends a message to the Hilton Transaction Exchange in order to book a room, and the response (including the confirmation number) is not received by the client, a second message can be sent to book the room, but the RetryIndicator attribute should be "true". Otherwise, a duplicate reservation may be made.

2.2 Standards Compliance

The following standards are supported by the Hilton Transaction Exchange:

- OpenTravelTM Alliance (OTA) 2004B specification
- Simple Object Access Protocol (SOAP) 1.1
- HyperText Transfer Protocol (HTTP) 1.1
- Secure Sockets Layer (SSL) 3.0
- Extensible Markup Language (XML) 1.0

All communications performed will be transmitted over a secure connection. Specifically, the HTTPS wire protocol is used to transport SOAP formatted XML messages carrying an OTA payload.

2.3 SOAP

According to the SOAP specification, all SOAP messages contain an envelope which in turn contains a header and a body. The header consists of communication information while the SOAP body contains the primary content of the message. In using the Hilton Transaction Exchange, the body contains the OTA XML message. See http://www.w3.org/TR/2000/NOTE-SOAP-20000508/ for more information on the SOAP 1.1 specification.

Here is an example of a SOAP message:

Note that the value for "xmlns:soap-env" is only an example and may be different based on the SOAP engine used to parse SOAP envelopes.

2.3.1 SOAP Header

The SOAP header has two attributes: Actor and MustUnderstand. They are not used by the Hilton Transaction Exchange, but a SOAP header containing these attributes will be accepted.

The following diagram shows the structure of the Hilton Transaction Exchange's SOAP Header.

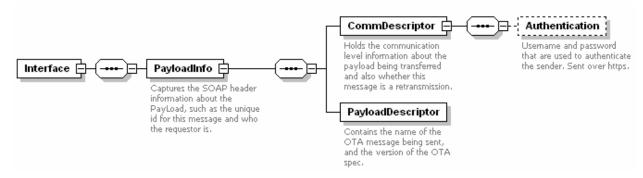


Figure 1. SOAP Header XML structure

The attributes are listed in the following table.

Level	Name	Туре	Occurrences	Required	Hilton version
0	Header		1		1.1
1	Interface		1		1.1
	@xmlns	URI		N	1.1
	@Name	xs:string		N	1.1
	@Version	xs:string		Y	1.1
2	PayloadInfo		1		1.1
	@ RequestId	xs:string		Y	1.1
	@ RequestorId	xs:string		Υ	1.1
	@ ResponderId	xs:string		Y	1.1
3	CommDescriptor		1		1.1
	@ Sourceld	xs:string		Y	1.1
	@DestinationId	xs:string		Y	1.1
	@RetryIndicator	xs:boolean		N	1.1
4	Authentication		1		1.1
	@Username	xs:string		Y*	1.1
	@Password	xs:string		Y*	1.1
3	PayloadDescriptor		1		1.1
	@Name	xs:string		Υ	1.1
	@Version	xs:string		N	1.1

^{*}required only for SOAP requests, not responses

Table 1. SOAP Header Elements and Attributes

The xmlns attribute should be http://www.hilton.com/ota/header. The value of Interface@Name is "HiltonTransactionEngine". The value of Interface@Version is the version number of this interface, which is "2.1".

The PayloadInfo element's RequestId attribute is an identifier generated by the originator of the message. It is used to track messages and should be unique to your application. The combination of CommDescriptor@SourceId and PayloadInfo@RequestId represent a unique identifier for each message received by the Hilton Transaction Exchange.

For a request message (OTA "RQ" messages), the PayloadInfo@RequestorId attribute is a hilton-assigned value, which is tied to your company. It is the Customer ID described in section 1.3. ResponderId should always be "Hilton".

CommDescriptor@RetryIndicator should be set to true when a message is a retransmission of a previous message.

SourceId is the name of your application. DestinationId is the name of our application, which is "HiltonTxnEngine". You should populate SourceId and DestinationId in your requests. The header of the response message will also have these two attributes populated, but the values will be reversed: the SourceId will be "HiltonTxnEngine" and the DestinationId will be the name of your application.

The Authentication element contains your Hilton-supplied username and password. (See section 1.3.) PayLoadDescriptor has business-level information about the payload being transferred. The Name attribute is the name of the OTA message being sent in the body. The Version attribute is the version of the OTA spec being used. The value is "2004B".

This example of a SOAP header shows a request from 123 Travel Agency to the Hilton Transaction Exchange. The header indicates that the payload contains a request for an availability check.

```
<soap-env:Header>
                <Interface xmlns="http://www.hilton.com/ota/header" Name="HiltonTransactionEngine"</pre>
        Version="2.1">
                     <PayloadInfo RequestId="1" RequestorId="123TravelAgency" ResponderId="Hilton">
                         <CommDescriptor SourceId="123TrvBookingEngine" DestinationId="HiltonTxnEngine"</p>
RetryIndicator="false">
                             <a href="#"><Authentication Username="123ta001" Password=" blue038" /></a>
                         </CommDescriptor>
                         <PayloadDescriptor Name="OTA_HotelAvailRQ" Version="2.1" />
                     </PayloadInfo>
               </soap-env:Header>
        One possible response header for this request is:
        <SOAP-ENV:Header>
                 <Interface xmlns="http://www.hilton.com/ota/header" Version="1.0"</pre>
        Name="HiltonTransactionEngine">
                   <PayloadInfo RequestId="1" RequestorId="Hilton" ResponderId="123TravelAgency ">
                      <CommDescriptor SourceId="HiltonTxnEngine" DestinationId="123TryBookingEngine"/>
                      <PayloadDescriptor Version="2.1" Name="OTA_HotelAvailRS"/>
```

2.3.2 SOAP Body

</PayloadInfo>

</SOAP-ENV:Header>

The SOAP body for a request message contains the OTA message, as shown in the following example:

If there are SOAP errors, the body will contain the faults. See section 2.5.2 for a discussion of SOAP errors.

2.4 HTTPS

The Hilton Transaction Exchange uses the HTTPS wire protocol as the transport layer that carries the SOAP messages. Although SOAP might be used in conjunction with a variety of HTTP request methods, the SOAP 1.1 specification only defines SOAP within HTTP POST requests.

The HTTPS response will follow the semantics of the HTTP status codes. For instance, a 200 status code indicates that the request was received and understood while a 404 response means that the URI was not found. Errors are explained in the next section. For the list of HTTP 1.1 status codes, see http://www.w3.org/Protocols/HTTP/HTRESP.html.

HTTPS applications must use the media type "text/xml" when sending or receiving SOAP messages. The POST URL must point to /ota/OTA.pl.

An example of an HTTPS request header is:

POST /ota/OTA.pl HTTPS/1.1 Content-Type: text/xml; charset="UTF-8" Content-Length: 1234 SOAPAction: ""

An example of a successful HTTPS response header is:

HTTPS/1.1 200 OK Content-Type: text/xml; charset="UTF-8" Content-Length: 1234

2.5 SSL

As stated in the previous section the transactions are only available via Secure Socket Layer (SSL) protocol. HTE's certificates are signed by Verisign. Browsers typically already have Verisign's root certificates installed in them so no warnings are received about certificate validation. In order to prevent client applications from getting an error on certificate validation Verisign's root certificate must be installed in the SSL library being used for client development. Verisign's root certificate can be obtained from the following URL: http://www.verisign.com/support/roots.html

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2.6 Errors

2.6.1 HTTPS Errors

Because the Hilton Transaction Exchange uses HTTPS as the transport mechanism, responses are sometimes HTTP errors, represented by the 4xx and 5xx error codes.

This example of an HTTPS response signifies an HTTP 404 error:

HTTPS/1.1 404 Not Found

Content-Type: text/xml; charset="UTF-8"

Content-Length: 1234

Another example of an unsuccessful HTTPS response header is:

HTTPS/1.1 500 SOAP Fault

Content-Type: text/xml; charset="UTF-8"

Content-Length: 1234

If there is a SOAP error while processing a request (as shown in the previous example), the SOAP HTTPS server will issue an HTTP 500 "Internal Server Error" response. A SOAP message containing a SOAP Fault element will be included in the response. See the next section for more details about SOAP errors.

2.6.2 SOAP Errors

If a SOAP error occurs during processing, the SOAP body contains a SOAP Fault element. (If there are no SOAP errors, the Body will contain the OTA response. See section 2.3.2.)

The Fault element contains the error information, as shown in the following diagram.

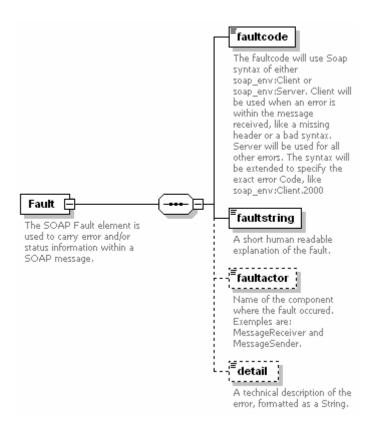


Figure 2. SOAP Fault XML structure

The elements inside the Fault element are listed in the following table.

Level	Name	Туре	Occurrences	Required	Hilton version
0	Body		1		1.1
1	Fault		1		1.1
2	faultcode		1	Y	1.1
2	faultstring		1	Y	1.1
2	faultactor		1	N	1.1
2	detail		1	N	1.1
3	text		1	Υ	1.2

Table 2. SOAP Fault Elements and Attributes

Note that the Fault element can only appear once in a SOAP message, therefore only the first error encountered is reported. SOAP faults are divided into two categories: Client and Server. Client faults will be used when an error is due to invalid or missing data sent by a client. All other errors are Server errors. Server errors will all have a code of 2100,

but the accompanying faultstring attribute will contain a detailed description of the specific server error. The SOAP faults that can occur are:

faultcode	faultstring
2000	Missing Header
2001 Malformed XML	
2002	Invalid Interface Name
2003	Unsupported Interface Version
2004	Invalid namespace
2005	Unsupported OTA Transaction in PayloadDescriptor
2006	Invalid DestinationId
2007	Authentication Error – Invalid Username
2008	Authentication Error – Invalid Password
2100	Server Error
3000	Data Error In The OTA Message

Table 3. SOAP Fault Codes and Messages

The following is an example of an Invalid Username fault:

This is a response that shows an error caused by malformed XML in the request:

3 Messaging Content

3.1 Overview

The OTA is a consortium consisting of approximately 150 member companies from all sectors of the travel industry. It is comprised of several working groups, each focusing on a different aspect of the travel sector – Air, Hotel, Car etc. The goal of the OTA is to promote electronic commerce in the travel sector. In order to reach this goal, they have developed a set of specifications so that businesses can more easily share information. The transactions that are provided by the Hilton Transaction Exchange conform to OTA specifications.

3.2 XML

The OTA has chosen Extensible Markup Language (XML) as the data format for their specifications. They have XML Schema Definition (XSD) files available for each transaction in the specification. The Hilton Transaction Exchange complies with the 2004B version of the OTA specification, which is available on their website: http://www.opentravel.org/2004B/. The OTA-defined XML message is included in the SOAP body.

For flexibility, the XML schemas contain only minimal restrictions. In some cases, the Hilton Transaction Exchange has attributes that are needed in order to complete the business task being requested. In this document, for each transaction supported by the Transaction Exchange, the required attributes are listed in the corresponding table of XML elements and attributes. Note that the OTA schema definitions may not have defined these attributes as "required". In this case, the request will be validated by the XSD, but will not be sufficient for completing the transaction. If an attribute is required by the Transaction Exchange, and it is missing, an appropriate error will be generated and included in the SOAP response.

4 Supported Transactions

The Hilton Transaction Exchange supports the following OTA schemas:

OTA Schema Pair	Purpose
OTA_HotelAvailRQ/RS	Check the availability of hotels based on date ranges, room types, etc. The results include rate information.
OTA_HotelSearchRQ/RS	Find all hotels within a radius of a location.
OTA_HotelResRQ/RS	Make a reservation.
OTA_HotelResModifyRQ/RS	Modify an existing reservation.
OTA_HotelDescriptiveInfo	Provides detailed descriptive information about a hotel property.
OTA_Cancel	Cancel an existing reservation.
OTA_PingRQ/RS	A "test" message used to verify application connectivity.

Table 4. Hilton Transaction Exchange Supported Transactions

Each schema pair listed in the table is described in more detail below. There is a chapter dedicated to each pair which includes examples, use cases, and the XML attributes and elements that are supported by the Hilton Transaction Exchange.

4.1 Common Elements

4.1.1 Root Element

All OTA messages share a common root element. The attributes of this element are shown in the following table.

Level	Name	Туре	Occur- rences	Required	Hilton version
0	Root		1		1.1
	@xmlns	xs:string		Y	1.1
	@TimeStamp	xs:dateTime		Y	1.1
	@Target	xs:NMTOKEN		Y	1.1
	@ Version	xs:decimal		Y	1.1
	@PrimaryLangID	xs:language		N	1.1

Table 5. Root Elements and Attributes

Note that the xmlns attribute is different than the attribute of the same name in the SOAP header. The value should be "http://www.opentravel.org/OTA/2003/05

The TimeStamp attribute indicates the creation date and time of the message in GMT format. See section 2.3.1 for an explanation of the format of the GMT timestamp. The format is YYYY-MM-DDThh:mm:ss.ss[+|-]hh:mm. It signifies a Greenwich Mean Time (GMT) value, plus or minus an offset. So, for Eastern Standard Time, the offset would be GMT minus 5 hours, and the end of TimeStamp would be "-05:00". It signifies the time the message was sent.

Target must be either "Test" or "Production". Version is the version of the Hilton Transaction Exchange that is being used for this message. PrimaryLangID is optional. The only supported value is "en-us".

Below is an example of an OTA_HotelAvailRQ message that was sent May 11th 2005 at 23:17 GMT.

<OTA_HotelAvailRQ TimeStamp="2005-05-11T23:17:42-06:00" Target="Production" Version="2.1" PrimaryLangID="en-us" xmlns="http://www.opentravel.org/OTA/2003/05/">

{ subelements go here }

</OTA_HotelAvailRQ>

4.1.2 POS Element

The POS element is used to identify the requestor in all of the messages sent to the Hilton Transaction Exchange. It is of the type OTA_PosType, which is defined in the schema OTA_CommonTypes.xsd.

The structure of the POS_Type element is shown in the following diagram. It is contained in all of the hilton-supported requests - the "RQ" messages. The element name in each of the requests is POS.

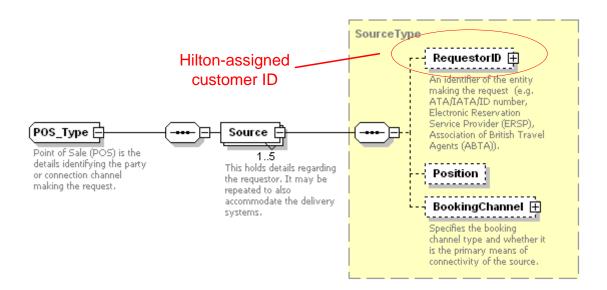


Figure 3. POS element showing RequestorID element

The following table shows the attributes of the POS element that are supported by the Hilton Transaction Exchange.

Level	Name	Туре	Occurences	Required	Hilton version
0	POS		1		1.1
1	Source		1		1.1
2	RequestorID		1		1.1
	@ID	StringLength1to32		Y	1.1
	@Туре	OTA_CodeType		Y	1.1
2	BookingChannel		1		1.1
	@Туре	OTA_CodeType		Y	1.1

Table 6. POS Elements and Attributes

The Position element is not used. RequestorID@ID is your Customer ID, which is assigned during registration. See section 1.3 for registration instructions. For the RequestorID@Type, the OTA Code List Unique Id Type (UIT) value of "1" should always be used, which is used for "Customer". The value of the attribute BookingChannel@Type should always be "7". The OTA Code List Booking Channel Type (BCT) defines "7" as "Internet".

This is an example of a POS element:

4.1.3 Success, Warning and Errors Elements

The response messages (OTA messages whose names end in "RS") will always return either a Success element or an Errors element. The Success element has no attributes. If the element is present, then the transaction was successful. (You will see the tag "<Success/>" in the response.)

If the Errors element exists, it will include one Error sub-element. Only the first error generated by the Transaction Exchange will be returned. The Type attribute contains the OTA Code List Error Warning Type (EWT). The Transaction Exchange will always return one of the error codes from this list. It is included in Appendix A of this document for convienence. ShortText is a human-readable text description of the error. It will always be populated when there is an error.

The response could have Warning elements also. For instance, if a request is received that checks availability for a single property and there is no availability, the response will have a Success element (because the transaction was successful) and also a warning saying there was no availability for that property.

5 OTA_HotelSearch

The OTA_HotelSearchRQ/RS transaction is used to search for a list of hotel properties that meet specified search criteria. It is sometimes referred to as a "wide-area search". Unlike OTA_HotelAvailRS/RQ, availability is not checked, so there is no need to pass in a date range. Rate information is not provided in the response. The information that is returned in the response is sufficient enough to be able to select a single hotel for subsequent transactions, such as checking availability and booking a room. It is also possible to obtain a list of all the properties available for all the Hilton brands by using this transaction.

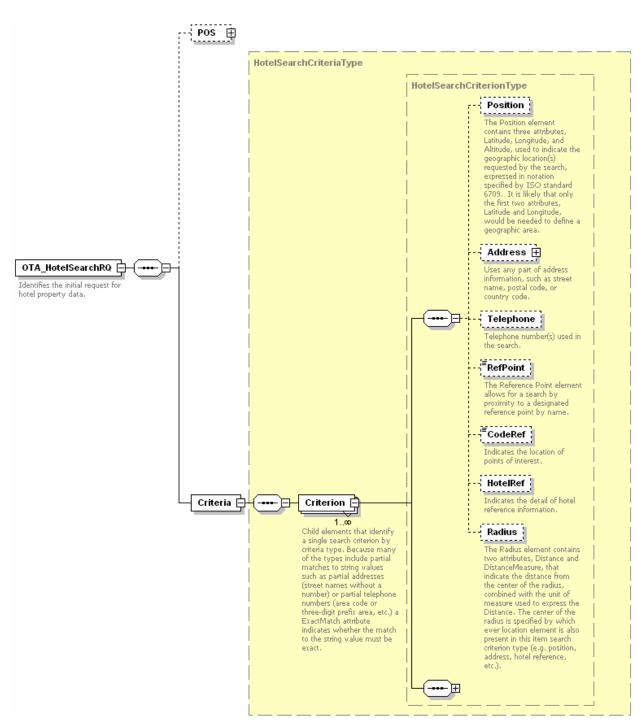


Figure 4. OTA_HotelSearchRQ schema

5.1 OTA_HotelSearchRQ Elements and Attributes

The following table shows the attributes of the Criteria element that are supported by the Hilton Transaction Exchange.

Level	Name	Туре	Occurences	Required	Hilton version
0	OTA_HotelSearchRQ			Υ	1.1
1	Criteria		1	Υ	1.1
2	Criterion		1	Υ	1.1
3	Position		01	N	1.1
	@Latitude	StringLength1to64		Υ	1.1
	@Longitude	StringLength1to64		Υ	1.1
3	Address		01	N	1.1
4	AddressLine		03	Υ	1.1
4	CityName		01	N	1.1
4	PostalCode		01	N	1.1
4	County		01	N	1.1
4	StateProv		01	N	1.1
	@StateCode	StateProvCodeType		Υ	1.1
4	CountryName		01	N	1.1
	@Code	ISO3166		Υ	1.1
3	CodeRef		01	N	1.1
	@LocationCode	StringLength1to8		Υ	1.1
	@CodeContext	StringLength1to32		Υ	1.1
3	HotelRef		01	N	1.1
	@BrandCode	StringLength1to8		Y	1.1
3	Radius		01	N	1.1
	@Distance	NumericStringLength1to16		Y	1.1
	@DistanceMeasure	StringLength1to16		N	1.1

Table 7. OTA_HotelSearchRQ Elements and Attributes

The Position element contains a latitude and longitude and is for specifying the geographic center of the search. If the Position element is supplied, the latitude and longitude are required. The other way to specify a search location is by using the Address element.

The OTA has defined two ways to use the Address element. The FormattedInd attribute of Address is used to specify whether or not the address is "formatted". For the Hilton Transaction Exchange, this attribute is not used because it will always be assumed the address is *not* formatted. The difference lies in whether or not the StreetNmbr and BldgRoom sub-elements are used. When an address is formatted, the StreetNmbr and BldgRoom elements contain part of the street address. This is not how the server expects the data. In our case, we use an "unformatted" address, meaning up to three AddressLine elements, containing free-form text, should be used to pass in the Address to be searched on. (This is also reflected in the preceding table – since the StreeNmbr and BldgRoom elements are not used, they are not listed in the table, even though they are part of the XML schema.)

To search for hotels around an airport, the CodeRef element should be used. The value of the attribute CodeContext should always be "IATA". The LocationCode is the 3-letter International Air Transportation Code (IATA) code. (See http://www.iata.org for more information on airport codes.)

The HotelRef element has the attribute BrandCode, which is used to search for a specific brand. See Appendix A for a list of Hilton-specific brand codes. Only one BrandCode element is allowed in the request. To retrieve the list of all properties in the Hilton corporate system, the HotelRef element's BrandCode attribute should be "*". In this case, the Address, CodeRef and Radius should not be included and if they are, will be ignored.

The Radius element is optional. If it is not present in the request, it will default to 20 miles. The DistanceMeasure attribute should either be "Mile" or "Km". The maximum search radius allowed is 50. The minimum distance allowed is 1. Only integers should be used.

5.2 OTA_HotelSearchRQ Examples

<BookingChannel Type="7"/>

</Source>

This is an example of a search for hotels around a specific geographic location, specified as a latitude/longitude using the Position element. The default search radius of 20 miles will be used.

```
<OTA HotelSearchRQ TimeStamp="2005-30-09T13:21:15-06:00" Target="Production" Version="2.1" PrimaryLan-
gID="en-us" xmlns="http://www.opentravel.org/OTA/2003/05">
<POS>
    <Source>
         <RequestorID Type="1" ID="Customer1"/>
         <BookingChannel Type="7"/>
    </Source>
</POS>
<Criteria>
         <Position Latitude="43.5942" Longitude="-116.178"/>
    </Criterion>
</Criteria>
</OTA_HotelSearchRQ>
This next example is a search for DoubleTree hotels within 50 kilometers of Topeka, Kansas.
<OTA HotelSearchRQ TimeStamp="2005-30-09T13:21:15-06:00" Target="Production" Version="2.1" PrimaryLan-
gID="en-us" xmlns="http://www.opentravel.org/OTA/2003/05">
    <POS>
             <RequestorID Type="1" ID="Customer1"/>
```

```
</POS>
    <Criteria>
         <Criterion>
             <Address>
                  <CityName>Topeka</CityName>
                  <StateProv StateCode="KS"/>
                  <CountryName Code="US"/>
             </Address>
             <HotelRef BrandCode="DT"/>
             <Radius Distance="50" DistanceMeasure="Km"/>
         </Criterion>
    </Criteria>
</OTA HotelSearchRQ>
An example of a 20-mile search for hotels around a specific street address is below.
<OTA_HotelSearchRQ TimeStamp="2005-30-09T13:21:15-06:00" Target="Production" Version="2.1" PrimaryLan-
gID="en-us" xmlns="http://www.opentravel.org/OTA/2003/05">
    <POS>
         <Source>
             <RequestorID Type="1" ID="Customer1"/>
             <BookingChannel Type="7"/>
         </Source>
    </POS>
    <Criteria>
    <Criterion>
         <Address>
             <AddressLine>600 Main St.</AddressLine>
             <CityName>Norfolk</CityName>
             <PostalCode>23523</PostalCode>
             <StateProv StateCode="VA"/>
              <CountryName Code="US"/>
         </Address>
    </Criterion>
    </Criteria>
</OTA_HotelSearchRQ>
This example is a search for hotels around the Toronto, Canada airport. The three-letter IATA
airport code for this airport is "YYZ".
<OTA HotelSearchRQ TimeStamp="2005-30-09T13:21:15-06:00" Target="Production" Version="2.1" PrimaryLan-
gID="en-us" xmlns="http://www.opentravel.org/OTA/2003/05">
    <POS>
         <Source>
             <RequestorID Type="1" ID="Customer1"/>
             <BookingChannel Type="7"/>
         </Source>
    </POS>
    <Criteria>
         <Criterion>
         <CodeRef LocationCode="YYZ" CodeContext="IATA"/>
         </Criterion>
    </Criteria>
</OTA HotelSearchRQ>
The following example will return a list of all properties in all brands.
<OTA_HotelSearchRQ TimeStamp="2005-30-09T13:21:15-06:00" Target="Production" Version="2.1" PrimaryLan-
gID="en-us" xmlns="http://www.opentravel.org/OTA/2003/05">
    <POS>
         <Source>
             <RequestorID Type="1" ID="Customer1"/>
             <BookingChannel Type="7"/>
         </Source>
```

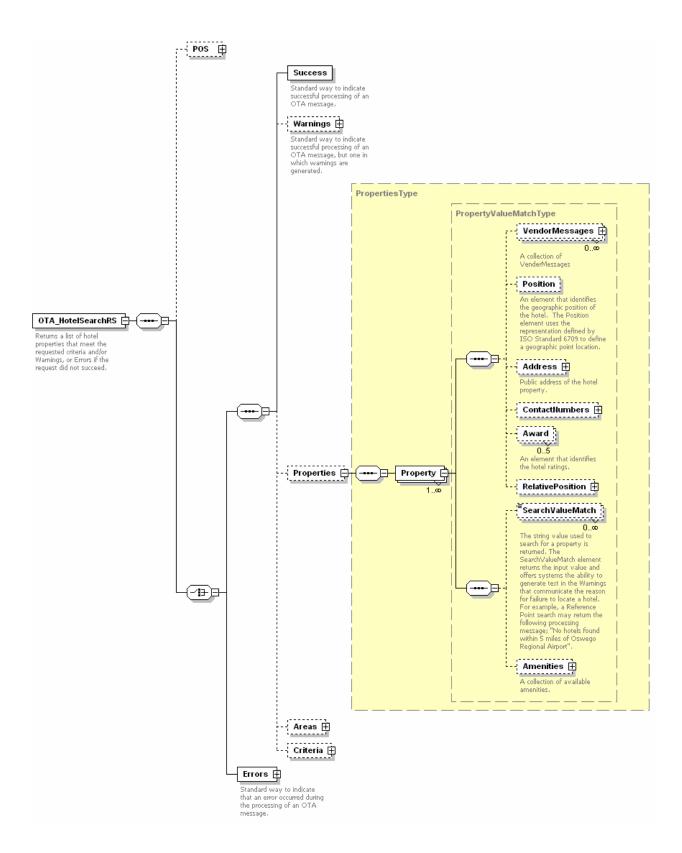


Figure 5. OTA_HotelSearchRS schema

5.3 OTA_HotelSearchRS Elements and Attributes

The following table shows the attributes of the OTA_HotelSearchRS elements that are supported by the Hilton Transaction Exchange.

Level	Name	Туре	Occur- rences	Required	Hilton version
0	OTA_HotelSearchRS		1	Y	1.1
1	Success		01	N	1.1
1	Errors		01	N	1.1
2	Error		1	N	1.1
	@Туре	OTA_CodeType		Y	1.1
	@ShortText	StringLength1to64		Y	1.1
1	Warnings		01	N	1.1
2	Warning		0n	N	1.1
	@Туре	OTA_CodeType		Y	1.1
	@ShortText	StringLength1to64		Y	1.1
1	Properties	StringLength1to64	1	Y	1.1
2	Property		0n	Y	1.1
	@BrandCode	StringLength1to8		Y	1.1
	@HotelCode	StringLength1to16		Y	1.1
	@HotelName	StringLength1to128		Y	1.1
3	Address		1	Y	1.1
4	AddressLine		1	Y	1.1
4	CityName		1	Y	1.1
4	PostalCode		1	N	1.1
4	County		1	N	1.1
4	StateProv		1	N	1.1
	@StateCode	StateProvCodeType		Y	1.1
4	CountryName		1	Y	1.1
	@Code	ISO3166		Y	1.1
3	ContactNumbers		01	N	1.1
4	ContactNumber		1	N	1.1
	@PhoneNumber	StringLength1to32		Y	1.1
3	RelativePosition		1	Y	1.1
	@Distance	xs:string		Y	1.1

	@DistanceUnitName	DistanceUnitNameType		Υ	1.1
1	Criteria		1	Y	1.1
2	Criterion		1	Y	1.1
3	Position		01	N	1.1
	@Latitude	StringLength1to64		Y	1.1
	@Longitude	StringLength1to64		Υ	1.1
3	Address		01	N	1.1
4	AddressLine		1	Υ	1.1
4	CityName		1	Υ	1.1
4	PostalCode		1	N	1.1
4	County		1	N	1.1
4	StateProv		1	N	1.1
	@StateCode	StateProvCodeType		Υ	1.1
4	CountryName		1	Υ	1.1
	@Code	ISO3166		Υ	1.1
3	CodeRef		01	N	1.1
	@LocationCode	StringLength1to8		Υ	1.1
	@CodeContext	StringLength1to32		Υ	1.1
3	HotelRef		01	N	1.1
	@BrandCode	StringLength1to8		Y	1.1
3	Radius		01	N	1.1
	@Distance	NumericStringLength1to16		Υ	1.1
	@DistanceMeasure	StringLength1to16		N	1.1

Table 8. OTA_HotelSearchRS Elements and Attributes

A Property element is included in the response for each hotel that meets the search criteria. There will always be a BrandCode, HotelCode, and HotelName for each property returned.

For a discussion of the Address element, see section 5.1.

If present, the ContactNumbers element will contain only one ContactNumber element, with the Phone-Number attribute populated. (Only one contact number is supplied for each hotel.)

The search criteria provided in the OTA_HotelSearchRQ request could have been a latititude and longitude, the name of a city, a street address, an airport, etc. The RelativePosition element contains the distance between the property and the requested search location. DistanceUnit can be either "Mile", signifying miles or "Km" for kilometers. The DistanceUnit attribute will be consistent with the request, for instance, if you specify a 20 kilometer search radius, the distances of the properties to the center will be in kilometers.

Criteria and its sub-elements will contain the values that were passed to the Transaction Exchange in the OTA_HotelSearchRQ message, plus additional information. For instance, a request may not have included a Postion element (latitude and longitude) but the response could.

5.4 OTA_HotelSearchRS Examples

This is an example of a result for a city search of Denver, Colorado. The properties within a 15-mile search radius are a Hampton Inn, a Doubletree and a Garden Inn. The distance to the city center is shown in the RelativePosition element. The original search criteria are included in the response.

```
<OTA HotelSearchRS xmlns="http://www.opentravel.org/OTA/2003/05" Target="Test" PrimaryLangID="en-us" Ver-
sion="2.1" TimeStamp="2006-02-15T13:04:15.80-06:00">
  <Success/>
  <Properties>
    <Property BrandCode="HP" HotelName="Hampton Inn & Suites Denver-Downtown, CO" HotelCode="DENDT">
      <Address>
        <AddressLine>1845 SHERMAN</AddressLine>
        <CityName>DENVER</CityName>
        <PostalCode>80203</PostalCode>
        <StateProv StateCode="CO"/>
         <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="0.44"/>
    </Property>
    <Property BrandCode="ES" HotelName="Embassy Suites Hotel Denver Downtown" HotelCode="DENDW">
      <Address>
        <AddressLine>1881 CURTIS STREET</AddressLine>
        <CityName>DENVER</CityName>
        <PostalCode>80202</PostalCode>
        <StateProv StateCode="CO"/>
        <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="0.82"/>
    </Property>
    <Property BrandCode="HP" HotelName="Hampton Inn & Suites Denver-Speer Boulevard, CO" Hotel-
Code="DENCO">
      <Address>
         <AddressLine>2728 ZUNI STREET</AddressLine>
        <CityName>DENVER</CityName>
        <PostalCode>80211</PostalCode>
        <StateProv StateCode="CO"/>
        <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="2.07"/>
    </Property>
    <Property BrandCode="HP" HotelName="Hampton Inn & Suites Denver-Cherry Creek" HotelCode="DENCC">
        <AddressLine>4150 EAST KENTUCKY AVENUE</AddressLine>
        <CitvName>GLENDALE</CitvName>
        <PostalCode>80246</PostalCode>
        <StateProv StateCode="CO"/>
        <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="3.61"/>
    <Property BrandCode="DT" HotelName="Doubletree Hotel Denver" HotelCode="RLDV">
      <Address>
        <AddressLine>3203 QUEBEC STREET</AddressLine>
```

```
<CityName>DENVER</CityName>
        <PostalCode>80207</PostalCode>
        <StateProv StateCode="CO"/>
         <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="4.59"/>
    </Property>
    <Property BrandCode="ES" HotelName="Embassy Suites Hotel Denver - Aurora" HotelCode="DENAR">
      <Address>
        <AddressLine>4444 N HAVANA</AddressLine>
        <CityName>DENVER</CityName>
        <PostalCode>80239</PostalCode>
        <StateProv StateCode="CO"/>
         <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="6.84"/>
    </Property>
    <Property BrandCode="ES" HotelName="Embassy Ste Hotel Denver SE (Hampden Ave North Tech Center)"
HotelCode="DENHP">
      <Address>
        <AddressLine>7525 EAST HAMPDEN AVE</AddressLine>
        <CityName>DENVER</CityName>
        <PostalCode>80231</PostalCode>
        <StateProv StateCode="CO"/>
        <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="7.38"/>
    </Property>
    <Property BrandCode="HP" HotelName="Hampton Inn Denver-SW (Lakewood)" HotelCode="DENLK">
      <Address>
        <AddressLine>3605 SOUTH WADSWORTH BOULEVARD</AddressLine>
        <CityName>LAKEWOOD</CityName>
        <PostalCode>80235</PostalCode>
        <StateProv StateCode="CO"/>
        <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="8.04"/>
    </Property>
    <Property BrandCode="HP" HotelName="Hampton Inn Denver West Federal Center" HotelCode="DENLW">
        <AddressLine>137 UNION BOULEVARD</AddressLine>
        <CityName>LAKEWOOD</CityName>
        <PostalCode>80228</PostalCode>
        <StateProv StateCode="CO"/>
        <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="8.07"/>
    </Property>
    <Property BrandCode="DT" HotelName="Doubletree Hotel Denver - North" HotelCode="DENNS">
      <Address>
        <AddressLine>8773 YATES DRIVE</AddressLine>
        <CitvName>WESTMINSTER</CitvName>
        <PostalCode>80031</PostalCode>
        <StateProv StateCode="CO"/>
        <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="8.80"/>
    </Property>
    <Property BrandCode="HP" HotelName="Hampton Inn Denver/ NW/Westminster" HotelCode="DENWM">
      <Address>
        <AddressLine>5030 W. 88TH PLACE</AddressLine>
        <CityName>WESTMINSTER</CityName>
```

```
<PostalCode>80030</PostalCode>
    <StateProv StateCode="CO"/>
    <CountryName Code="US"/>
  </Address>
  <RelativePosition DistanceUnitName="Mile" Distance="8.92"/>
</Property>
<Property BrandCode="HP" HotelName="Hampton Inn Denver-E.-Aurora" HotelCode="DENAO">
  <Address>
    <AddressLine>1500 SOUTH ABILENE</AddressLine>
    <CityName>AURORA</CityName>
    <PostalCode>80012</PostalCode>
    <StateProv StateCode="CO"/>
    <CountryName Code="US"/>
  </Address>
  <RelativePosition DistanceUnitName="Mile" Distance="8.97"/>
</Property>
<Property BrandCode="HP" HotelName="Hampton Inn & Suites Denver-Tech Center" HotelCode="DENUS">
  <Address>
    <AddressLine>5001 S. ULSTER ST.</AddressLine>
    <CityName>DENVER</CityName>
    <PostalCode>80237</PostalCode>
    <StateProv StateCode="CO"/>
    <CountryName Code="US"/>
  </Address>
  <RelativePosition DistanceUnitName="Mile" Distance="9.18"/>
</Property>
<Property BrandCode="DT" HotelName="Doubletree Hotel Denver Southeast" HotelCode="DENIT">
  <Address>
    <AddressLine>13696 EAST ILIFF PLACE</AddressLine>
    <CityName>AURORA</CityName>
    <PostalCode>80014</PostalCode>
    <StateProv StateCode="CO"/>
    <CountryName Code="US"/>
  </Address>
  <RelativePosition DistanceUnitName="Mile" Distance="9.30"/>
</Property>
<Property BrandCode="GI" HotelName="Hilton Garden Inn Denver Airport" HotelCode="DENAH">
  <Address>
    <AddressLine>16475 EAST 40TH CIRCLE</AddressLine>
    <CitvName>AURORA</CitvName>
    <PostalCode>80011</PostalCode>
    <StateProv StateCode="CO"/>
    <CountryName Code="US"/>
  </Address>
  <RelativePosition DistanceUnitName="Mile" Distance="10.13"/>
</Property>
<Property BrandCode="HP" HotelName="Hampton Inn Denver-Southeast" HotelCode="DENSB">
  <Address>
    <AddressLine>9231 E ARAPAHOE RD</AddressLine>
    <CityName>ENGLEWOOD</CityName>
    <PostalCode>80112</PostalCode>
    <StateProv StateCode="CO"/>
    <CountryName Code="US"/>
  </Address>
  <RelativePosition DistanceUnitName="Mile" Distance="11.37"/>
</Property>
<Property BrandCode="ES" HotelName="Embassy Suites Hotel Denver Tech Center" HotelCode="DENTC">
  <Address>
    <AddressLine>10250 E. COSTILLA AVENUE</AddressLine>
    <CityName>CENTENNIAL</CityName>
    <PostalCode>80112</PostalCode>
    <StateProv StateCode="CO"/>
```

```
<CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="11.83"/>
    </Property>
    <Property BrandCode="HP" HotelName="Hampton Inn Denver-West/Golden" HotelCode="DENGD">
      <Address>
         <AddressLine>17150 WEST COLFAX AVE</AddressLine>
         <CityName>GOLDEN</CityName>
         <PostalCode>80401</PostalCode>
         <StateProv StateCode="CO"/>
         <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="11.88"/>
    </Property>
    <Property BrandCode="HP" HotelName="Hampton Inn Denver - North/Thornton" HotelCode="DENTH">
      <Address>
         <AddressLine>243 EAST 120TH AVE</AddressLine>
         <CityName>THORNTON</CityName>
         <PostalCode>80233</PostalCode>
         <StateProv StateCode="CO"/>
         <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="12.09"/>
    </Property>
    <Property BrandCode="HP" HotelName="Hampton Inn Denver-Intl Airport" HotelCode="DENGW">
      <Address>
         <AddressLine>6290 TOWER ROAD</AddressLine>
         <CityName>DENVER</CityName>
         <PostalCode>80249</PostalCode>
         <StateProv StateCode="CO"/>
         <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="12.31"/>
    </Property>
    <Property BrandCode="ES" HotelName="Embassy Suites Hotel Denver International Airport" Hotel-</p>
Code="DENIA">
      <Address>
         <AddressLine>7001 YAMPA ST.</AddressLine>
         <CityName>DENVER</CityName>
         <PostalCode>80249</PostalCode>
         <StateProv StateCode="CO"/>
         <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="12.60"/>
    </Property>
    <Property BrandCode="GI" HotelName="Hilton Garden Inn Denver South/Meridian" HotelCode="DENDS">
      <Address>
         <AddressLine>9290 MERIDIAN BOULEVARD</AddressLine>
         <CityName>ENGLEWOOD</CityName>
         <PostalCode>80112</PostalCode>
         <StateProv StateCode="CO"/>
         <CountryName Code="US"/>
      </Address>
      <RelativePosition DistanceUnitName="Mile" Distance="14.93"/>
    </Property>
  </Properties>
  <Criteria>
    <Criterion>
      <Address>
         <CityName>denver</CityName>
         <StateProv StateCode="CO"/>
         <CountryName Code="US"/>
```

```
</Address>
<Radius DistanceMeasure="Mile" Distance="15"/>
</Criterion>
</Criteria>
</OTA HotelSearchRS></OTA HotelSearchRS>
```

The following example is in response to a city search for Nome, Alaska. There are no Hilton brand hotels within 50 miles of Nome. Therefore the response will contain a Success element, but no Property elements, since no properties were found.

```
<OTA_HotelSearchRS TimeStamp="2005-05-11T23:17:42-06:00" Target="Production" Version="2.1"
xmlns="http://www.opentravel.org/OTA/2003/05/">
        <Success/>
        <Criteria>
                <Criterion>
                        <Address>
                                 <CityName>Nome</CityName>
                                 <StateProv StateCode="AK"/>
                                 <CountryName Code="US"/>
                        </Address>
                        <Radius Distance="50" DistanceMeasure="Mile"/>
                </Criterion>
        </Criteria>
</OTA_HotelSearchRS>
This is a response to a request for a list of all properties in the Hilton system.
<OTA_HotelSearchRS TimeStamp="2005-05-11T23:17:42-06:00" Target="Production" Version="2.1"
xmlns="http://www.opentravel.org/OTA/2003/05">
        <Success/>
        <Properties>
                <Property BrandCode="HA" HotelCode="DENCB" HotelName="Hampton Inn & Suites Denver-
        Cherry Creek">
                </Property>
                <Property BrandCode="GI" HotelCode="DENAI" HotelName="Hilton Garden Inn Denver Airport">
                </Property>
        </Properties>
        <Criteria>
                <Criterion>
                        <HotelRef BrandCode="*"/>
                </Criterion>
        </Criteria>
</OTA_HotelSearchRS>
```

6 OTA_HotelAvail

The OTA_HotelAvailRQ message is used to search for hotel rooms that are available for booking. Unlike OTA_HotelSearchRQ/RS, it returns availability and rate information. It is common for an OTA_HotelSearchRQ message to precede an OTA_HotelAvailRQ, in order to obtain a list of eligible properties.

The OTA_HotelAvailRQ/RS messages are used to check:

- Availability of a single property
- Availability of multiple properties
- Rate quotes for a single property for all available room types
- Rate quotes for multiple properties for the best available rate for a single adult.

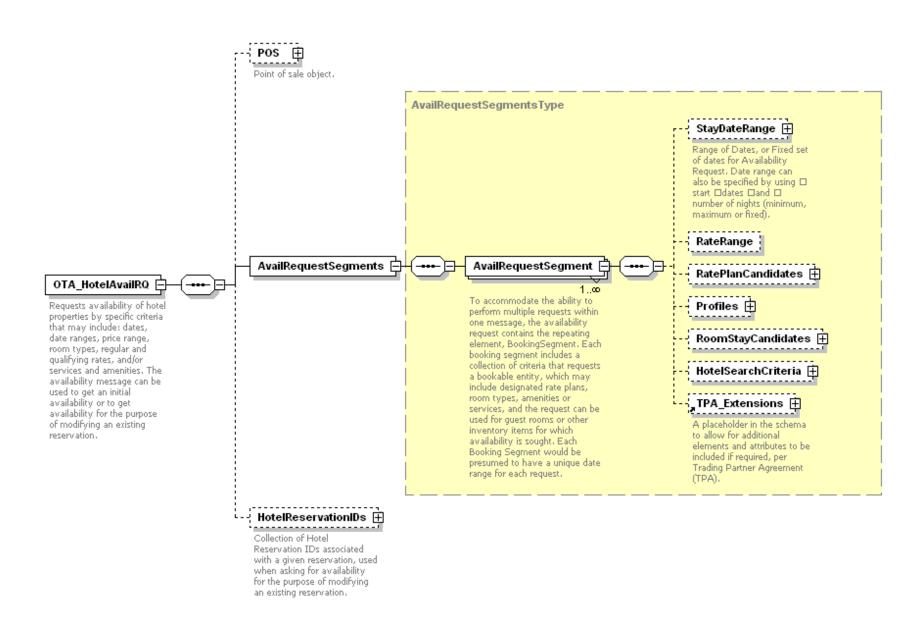


Figure 6. OTA_HotelAvailRQ schema

6.1 OTA_HotelAvailRQ Elements and Attributes

The elements included in the OTA_HotalAvailRQ schema that are used by the Hilton Transaction Exchange are POS and AvailRequestSegments. The element HotelReservationIDs is not supported. See chapter 5 for a description of the POS sub-elements and attributes.

In order to return rate and availability information for a hotel, the Hilton-specific hotel code (which is a unique identifier assigned to each property) is required. The request should always include a date range.

The hotel codes can be obtained by using the OTA_HotelSearch transaction. If a single hotel code is provided in the OTA_HotelAvailRQ request, all the room types that are available will be returned in the response. However, if multiple hotel codes are requested only one rate per hotel is returned. The rate returned is the best rate available for a single adult in that hotel.

At this point, the Hilton Transaction Exchange does not provide a way to search based on property or room amenities. For instance, you cannot search for a non-smoking room with a Kingsize bed, or a property that has a restaurant and a swimming pool. Even if this type of information is returned in the OTA_HotelAvailRS message, it is not possible to use them as part of the search criteria.

The following table shows the attributes of the AvailRequestSegment element that are supported by the Hilton Transaction Exchange.

Level	Name	Туре	Occurrences	Required	Hilton version
0	AvailRequestSegments		1	Y	1.3
1	AvailRequestSegment		1	Y	1.1
2	StayDateRange		1	Y	1.1
	@Start	DateType		Y	1.1
	@Duration	DurationType		Υ	1.1
2	RatePlanCandidates		1	N	2.0
3	RatePlanCandidate		1	Υ	2.0
	@RatePlanCategory	StringLength1to64		Υ	2.0
	@RatePlanID	StringLength1to64		Υ	2.0
2	RoomStayCandidates		01	N	1.2
3	RoomStayCandidate		1	N	1.2
	@Quantity	Numeric1to999		Υ	1.3
4	GuestCounts		1n	N	1.2
	@IsPerRoom	xs:boolean		Υ	1.2
5	GuestCount		12	N	1.2

	@AgeQualifyingCode	OTA_CodeType		Y	1.2
	@Count	Numeric1to999		Y	1.2
2	HotelSearchCriteria		1	Y	1.1
3	Criterion		125	Y	1.3
4	HotelRef		1	Y	1.1
	@HotelCode	StringLength1to16		Y	1.1

Table 9. OTA_HotelAvailRQ Elements and Attributes

No matter what type of request you want to do, it is necessary to provide a date range. The element StayDateRange attributes Start and Duration must be populated. The Start attribute's format is YYYY-MM-DD. The maximum stay that can be requested is ninety days. Duration has to be in the format P[0-90]D. The schema defines the DateWindowRange as a sub-element of StayDateRange, but it is not supported by the Transaction Exchange (and is therefore not in the table).

RatePlanCandidates is used to check the availability of certain client specific rates. Negotiated rates of the same type are grouped into a single category which can be passed in the RatePlanCategory attribute. RatePlanID attribute specifies a special ID code that is associated with the rate.

RoomStayCandidates contains guest count information. The Quantity attribute specifies the number of rooms needed. The IsPerRoom attribute must always be "1". The GuestCount element contains the age and number of guests for the room. The AgeQualifyingCode should either be "10" to specify adult or "8" for a child. (These are the values from the OTA Code List Age Qualifying Code (AQC).) *The number of guests is applied to each room.* For instance, if the Quantity attribute is "3" and the GuestCount element specifies two adults and two children, then the availability check (including the rates returned) will be for three rooms with two adults and two children in *each* room. You have to provide at least one GuestCount element, specifying the number of adults. The maximum number of adults per room is four. At most two GuestCount elements are allowed: one for the number of adults and one for the number of children.

HotelRef contains the Hilton-specific hotel code (provided in the HotelCode attribute). Typically, hotel codes are obtained in a response and then used to narrow a search after the initial request. For instance, an OTA_HotelSearch request could be used to get a list of hotel codes for hotels in New York City. The availability of a specific hotel could then be checked by setting the HotelRef attribute to one of the hotel codes (and providing a date range and any other necessary information). Up to twenty-five HotelRef elements may be provided.

6.2 OTA_HotelAvailRQ Examples

This is an example of a request that checks the availability of three hotels for January 1, 2007 through January 3, 2007 for 1 Adult in 1 Room.

```
<OTA_HotelAvailRQ TimeStamp="2006-09-27T15:29:20-06:00" Target="Production" Version="2.1" PrimaryLan-
gID="en-us" xmlns="http://www.opentravel.org/OTA/2003/05">
  <POS>
    <Source>
       <RequestorID Type="1" ID="customer1"/>
       <BookingChannel Type="7"/>
    </Source>
  </POS>
  <AvailRequestSegments>
    <AvailRequestSegment>
       <StayDateRange Start="2007-01-01" Duration="P2D"/>
       <RoomStayCandidates>
         <RoomStayCandidate Quantity="">
           <GuestCounts IsPerRoom="1">
              <GuestCount AgeQualifyingCode="10" Count="1"/>
           </GuestCounts>
         </RoomStayCandidate>
       </RoomStayCandidates>
       <HotelSearchCriteria>
         <Criterion>
           <HotelRef HotelCode="MIAOP"/>
         </Criterion>
         <Criterion>
           <HotelRef HotelCode="MIAOF"/>
         </Criterion>
         <Criterion>
           <HotelRef HotelCode="NYCTS"/>
         </Criterion>
       </HotelSearchCriteria>
    </AvailRequestSegment>
  </AvailRequestSegments>
</OTA HotelAvailRQ>
```

This example is an availability check for a specific hotel in Miami, Florida: The DoubleTree Ocean Point Resort & Spa. The Hotel Code for this property is "MIAOP". This example also looks for 2 available rooms with space for 2 Adults and 1 Child in each room.

```
<OTA HotelAvailRQ TimeStamp="2006-09-27T15:33:17-06:00" Target="Production" Version="2.1" PrimaryLan-
gID="en-us" xmlns="http://www.opentravel.org/OTA/2003/05">
  <POS>
    <Source>
      <RequestorID Type="1" ID="customer1"/>
      <BookingChannel Type="7"/>
    </Source>
  </POS>
  <AvailRequestSegments>
    <AvailRequestSegment>
      <StayDateRange Start="2007-01-01" Duration="P2D"/>
      <RoomStayCandidates>
         <RoomStayCandidate Quantity="2">
           <GuestCounts IsPerRoom="1">
             <GuestCount AgeQualifyingCode="10" Count="2"/>
             <GuestCount AgeQualifyingCode="8" Count="1"/>
```

</GuestCounts>

```
</RoomStayCandidate>
</RoomStayCandidates>
</RoomStayCandidates>
<HotelSearchCriteria>
</Criterion>
</Criterion>
</HotelSearchCriteria>
</AvailRequestSegment>
</AvailRequestSegments>
</OTA_HotelAvailRQ>
```

This is an example of a request that checks the availability of a specific hotel in New York for 2 nights for 1 adult and 1 child in each room. This request also checks for the availability of a special negotiated Rate Id IB1.

```
<OTA_HotelAvailRQ TimeStamp="2006-09-27T15:34:38-06:00" Target="Production" Version="2.1" PrimaryLan-
gID="en-us" xmlns="http://www.opentravel.org/OTA/2003/05">
  <POS>
    <Source>
      <RequestorID Type="1" ID="customer1"/>
      <BookingChannel Type="7"/>
    </Source>
  </POS>
  <AvailRequestSegments>
    <AvailRequestSegment>
      <StayDateRange Start="2007-01-01" Duration="P2D"/>
      <RatePlanCandidates>
         <RatePlanCandidate RatePlanCategory="CORPORATE" RatePlanID="IB1"/>
      </RatePlanCandidates>
      <RoomStayCandidates>
         <RoomStayCandidate Quantity="2">
           <GuestCounts IsPerRoom="1">
             <GuestCount AgeQualifyingCode="10" Count="1"/>
             <GuestCount AgeQualifyingCode="8" Count="1"/>
           </GuestCounts>
         </RoomStayCandidate>
      </RoomStayCandidates>
      <HotelSearchCriteria>
         <Criterion>
           <HotelRef HotelCode="NYCTS"/>
         </Criterion>
      </HotelSearchCriteria>
    </AvailRequestSegment>
  </AvailRequestSegments>
</OTA_HotelAvailRQ>
```

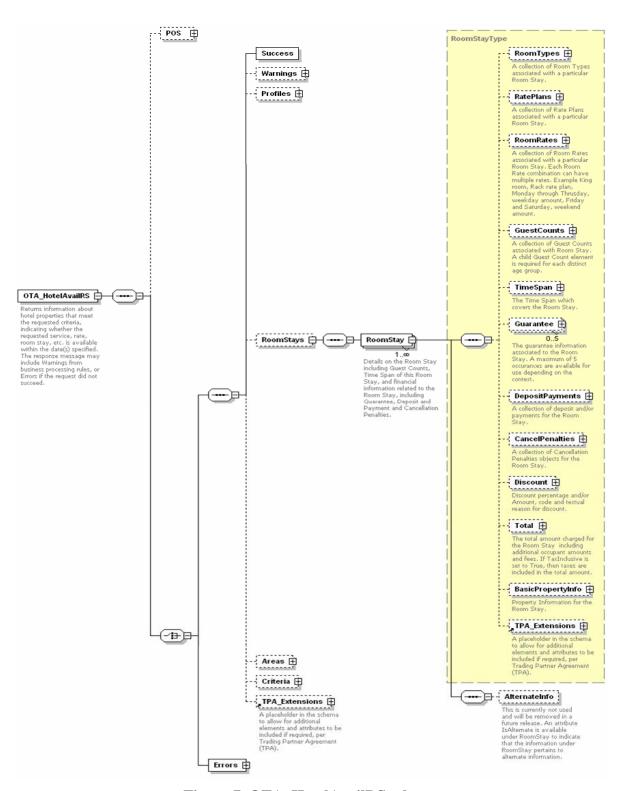


Figure 7. OTA_HotelAvailRS schema

6.3 OTA_HotelAvailRS Elements and Attributes

When requesting rates and availability for multiple properties, the rates that will be returned are considered to be the "best available" at each property for one adult, regardless of the room type. However, when the request is for a single property, all the room types that are available for the date range are provided. All rate quotes are for daily rates. (For instance, there will not be any three-day rate quotes.)

The following table shows the attributes of the OTA_HotelAvailRS elements that are supported by the Hilton Transaction Exchange.

Level	Name	Туре	Occurrences	Required	Hilton version
0	OTA_HotelAvailRS		1	Υ	1.1
1	Success		01	N	1.1
1	Errors		01	N	1.1
2	Error		1	Υ	1.1
	@Туре	OTA_CodeType		Υ	1.1
	@ShortText	StringLength1to64		Υ	1.1
1	Warnings		01	N	1.1
2	Warning		0n	Υ	1.1
	@Туре	OTA_CodeType		Υ	1.1
	@ShortText	StringLength1to64		Υ	1.1
1	RoomStays		1	N	1.1
2	RoomStay		1n	Υ	1.1
3	RatePlans		01	N	2.1
4	RatePlan		1n	Υ	2.1
	@RatePlanCode	StringLength1to64		Υ	2.1
	@RateChangeIndicator	RateIndicatorType		Υ	2.1
3	RoomRates		1	Υ	1.1
4	RoomRate		1n	Υ	1.1
	@BookingCode	StringLength1to16		N	1.1
	@RoomTypeCode	StringLength1to64		Υ	1.1
	@RatePlanCode	StringLength1to64		Υ	1.1
	@RatePlanID	StringLength1to64		N	2.0
_	@EffectiveDate	xs:date		N	1.1
	@ExpireDate	xs:date		N	1.1

5	Rates		1	Υ	1.1
6	Rate		1n	Υ	1.1
	@EffectiveDate	xs:date		N	1.1
	@ExpireDate	xs:date		N	1.1
7	Base		1	Υ	1.1
	@AmountBeforeTax	Money		N	1.1
	@AmountAfterTax	Money		N	1.1
	@CurrencyCode	AlphaLength3		Υ	1.1
	@DecimalPlaces	xs:nonNegativeInteger		Υ	1.1
7	CancelPolicies		1	Υ	2.0
8	CancelPenalty		1	Υ	2.0
9	PenaltyDescription		1	Υ	2.0
10	Text		1	Υ	2.0
7	PaymentPolicies		1	Υ	2.0
8	RequiredPayment		15	Υ	2.0
	@PaymentCode	StringLength1to8		Υ	2.0
9	AmountPercent		1	N	2.0
	Amount	Money		Υ	2.0
	CurrencyCode	AlphaLength3		Υ	2.0
5	RoomRateDescription		1	Υ	1.1
6	Text		1	Υ	1.1
5	Features		1	N	1.1
6	Feature		1n	Υ	1.1
	@RoomAmenity	OTA_CodeType		Υ	1.1
7	Description		01	Υ	1.1
8	Text		05	Υ	1.1
3	TimeSpan		1	Υ	1.1
	@Start	DateType		Υ	1.1
	@Duration	DurationType		N	1.1
3	BasicPropertyInfo		1	Y	1.1
	@BrandCode	StringLength1to8		Y	1.1
	@HotelCode	StringLength1to8		Y	1.1
	@HotelName	StringLength1to128		Y	1.1
1	Criteria		1	Y	1.1
2	Criterion		1n	Y	1.3
3	HotelRef		1	Υ	1.3

@HotelCode	StringLength1to16		Υ	1.1
------------	-------------------	--	---	-----

Table 10. OTA_HotelAvailRS Elements and Attributes

The RoomTypeCode is a Hilton-specific value representing the room type. The RoomTypeDescription element's Name attribute is also Hilton-specific. An example is "2nd Floor King".

The RoomRate element's EffectiveDate and ExpireDate attributes will always be populated. Each Rate element has sub-elements Base, CancelPolicies and PaymentPolicies. The AmountBeforeTax attribute contains the base dollar amount of the daily rate. The AmountAfterTax attribute includes the applicable taxes in the daily rate. At least one of these attributes will always be populated, and it is possible that both will be, depending on the hotel. The amount returned back is the rate for the arrival date per room. If there are any rate changes during the stay they could be included in the RatePlans Element. The RatePlans element is a collection of rate plans that have rate changes associated with the room stay. The RatePlan@RateChangeIndicator will always be "ChangeDuringStay". CurrencyCode is an ISO 4217, three-letter currency code. See http://www.id3.org/iso4217.html for the list of possible values. The CancelPolices element defines the cancellation policy for the rate plan and room type specified in the RoomRate element that it belongs to. Similarly the guarantee/deposit policies for this room are specified in the PaymentPolicies element. If the guarantee policy requires a deposit then the deposit amount will be returned in the Amount attribute of the AmountPercent element. A list of all the Guarantee Policies supported by HTE is provided in the table below.

PaymentCode	Description
FP	FULL PREPAYMENT NO CXL
CC	CREDIT CARD GUARANTEE
TA	GUARANTEE TO TRAVEL AGENT
CD	CREDIT CARD DEPOSIT
CO	GUARANTEE TO COMPANY
CR	GUARANTEE TO COMPANY
4P	4PM HOLD
6P	6PM HOLD

Table 11. Guarantee Polices supported by the Hilton Transaction Exchange

Feature elements are used to describe the room. Both human-readable text and Hilton-specific codes are used to describe/classify the room. Instead of having a value from the OTA Code List Room Amenity Type (RMA), the RoomAmenity attribute is a value from the Hilton Hotels Room Amenity Codes table in Appendix A of this document. There are nine possible values. There may be more than one instance of this attribute, for instance, if a room is classified as a non-smoking suite with two beds, then there will be three RoomAttribute attributes with the values of "7", "2" and "1", respectively. If a meal plan is associated with the room stay then the value of the RoomAttribute could be "8" and the Text element within the Feature element would

have the meal plan code. The meal plan code can be mapped to its description using the Hilton Hotels Meal Plan Codes table in Appendix A of this document.

The TimeSpan element is equivalent to the StayDateRange element in the original request.

For this message, the BrandCode, HotelCode and HotelName will always be populated in the BasicPropertyInfo element.

Criteria and its sub-elements will contain the values that were passed to the Transaction Exchange in the request.

6.4 OTA_HotelAvailRS Examples

The following example is a response to an availability check for two properties for February 7th through the 12th. In this example we were searching for 3 rooms each with 1 adult. Only one rate for one room type is returned for each property – the "best available" rate.

```
<OTA HotelAvailRS xmlns="http://www.opentravel.org/OTA/2003/05" Target="Test" PrimaryLangID="en-us" Ver-
sion="2.1" TimeStamp="2006-09-28T08:18:33.08-05:00">
  <Success/>
  <RoomStavs>
    <RoomStay>
      <RoomRates>
        <RoomRate BookingCode="BAR" RatePlanCode="SHHNQ1" RoomTypeCode="KXCP" Effective-
Date="2007-02-07" ExpireDate="2007-02-12">
           <Rates>
             <Rate EffectiveDate="2007-02-07" ExpireDate="2007-02-12">
               <Base DecimalPlaces="0" CurrencyCode="USD" AmountBeforeTax="89.00"/>
           </Rates>
           <RoomRateDescription>
             <Text>BEST AVAILABLE RATE...BEST UNRESTRICTED RATE</Text>
           </RoomRateDescription>
           <Features>
             <Feature RoomAmenity="7"/>
             <Feature>
               <Description>
                 <Text>KING ACCESSIBLE/ NSMKG</Text>
               </Description>
             </Feature>
           </Features>
        </RoomRate>
      </RoomRates>
      <TimeSpan Start="2007-02-07" End="2007-02-12"/>
      <BasicPropertyInfo BrandCode="HP" HotelName="Hampton Inn & Suites Chicago-Hoffman Estates," Hotel-
Code="CHIHM"/>
    </RoomStay>
    <RoomStay>
      <RoomRates>
        <RoomRate BookingCode="BAR" RatePlanCode="SHHNQ1" RoomTypeCode="KSTY" Effective-
Date="2007-02-07" ExpireDate="2007-02-12">
             <Rate EffectiveDate="2007-02-07" ExpireDate="2007-02-12">
               <Base DecimalPlaces="0" CurrencyCode="USD" AmountBeforeTax="109.00"/>
             </Rate>
           </Rates>
```

```
<RoomRateDescription>
             <Text>BEST AVAILABLE RATE...BEST UNRESTRICTED RATE</Text>
           </RoomRateDescription>
           <Features>
             <Feature RoomAmenity="6"/>
             <Feature>
                <Description>
                  <Text>SMOKING 1 KING SOFA SLEEPE</Text>
                </Description>
             </Feature>
           </Features>
         </RoomRate>
      </RoomRates>
      <TimeSpan Start="2007-02-07" End="2007-02-12"/>
      <BasicPropertyInfo BrandCode="HP" HotelName="Hampton Inn Chicago-Schaumburg" Hotel-
Code="CHIHG"/>
    </RoomStay>
  </RoomStays>
  <Criteria>
    <Criterion>
      <HotelRef HotelCode="CHIHG"/>
    </Criterion>
    <Criterion>
      <HotelRef HotelCode="CHIHM"/>
    </Criterion>
  </Criteria>
</OTA_HotelAvailRS>
```

This is an example of a response to an availability check for a specific property, the Frankfurt Hilton. The stay is for January 1st for one night for 2 adults in 1 room. Only the room types and rates that are available for that night are included. (For each room type, at least one room is available at the designated rate at the time the request was made.) The hotel code for this property is "FRAHI".

```
<OTA HotelAvailRS xmlns="http://www.opentravel.org/OTA/2003/05" Target="Test" PrimaryLangID="en-us" Ver-
sion="2.1" TimeStamp="2006-09-28T08:22:56.36-05:00">
  <Success/>
  <RoomStays>
    <RoomStay>
      <RoomRates>
         <RoomRate BookingCode="BAR" RatePlanCode="LV5" RoomTypeCode="K1J" EffectiveDate="2007-01-
01" ExpireDate="2007-01-02">
             <Rate EffectiveDate="2007-01-01" ExpireDate="2007-01-02">
                <Base DecimalPlaces="0" CurrencyCode="EUR" AmountAfterTax="279.00"/>
                <CancelPolicies>
                  <CancelPenalty>
                    <PenaltyDescription>
                      <Text>4PM Cxl on Arr Date</Text>
                    </PenaltyDescription>
                  </CancelPenalty>
                </CancelPolicies>
                <PavmentPolicies>
                  <RequiredPayment PaymentCode="4P"/>
                  <RequiredPayment PaymentCode="CC"/>
                  <RequiredPayment PaymentCode="CO"/>
                  <RequiredPayment PaymentCode="TA"/>
                </PaymentPolicies>
             </Rate>
           </Rates>
           <RoomRateDescription>
```

```
<Text>STANDARD RATE</Text>
          </RoomRateDescription>
          <Features>
            <Feature RoomAmenity="0"/>
            <Feature RoomAmenity="2"/>
            <Feature RoomAmenity="8">
               <Description>
                 <Text>N</Text>
               </Description>
             </Feature>
            <Feature>
               <Description>
                <Text>KING JUNIOR SUITE - FLEXIBLE RATE...SEPARATE LIVING AREA, LOUNGE AC-
CESS, TOP FLOOR...WLAN, MINERAL WATER, MAGAZINES, HIFI...</Text>
               </Description>
             </Feature>
          </Features>
        </RoomRate>
        <RoomRate BookingCode="BAR" RatePlanCode="LV5" RoomTypeCode="K1" EffectiveDate="2007-01-
01" ExpireDate="2007-01-02">
          <Rates>
             <Rate EffectiveDate="2007-01-01" ExpireDate="2007-01-02">
               <Base DecimalPlaces="0" CurrencyCode="EUR" AmountAfterTax="179.00"/>
               <CancelPolicies>
                <CancelPenalty>
                   <PenaltyDescription>
                     <Text>4PM Cxl on Arr Date</Text>
                   </PenaltyDescription>
                </CancelPenalty>
               </CancelPolicies>
               <PaymentPolicies>
                <RequiredPayment PaymentCode="4P"/>
                <RequiredPayment PaymentCode="CC"/>
                <RequiredPayment PaymentCode="CO"/>
                 <RequiredPayment PaymentCode="TA"/>
               </PaymentPolicies>
            </Rate>
          </Rates>
          <RoomRateDescription>
            <Text>STANDARD RATE</Text>
          </RoomRateDescription>
          <Features>
            <Feature RoomAmenity="0"/>
            <Feature RoomAmenity="8">
              <Description>
                <Text>N</Text>
              </Description>
            </Feature>
            <Feature>
              <Description>
                <Text>KING HILTON GUEST ROOM - FLEXIBLE RATE...MODERN ROOM WITH LARGE
</Description>
             </Feature>
          </Features>
        </RoomRate>
        <RoomRate BookingCode="BAR" RatePlanCode="LV5" RoomTypeCode="K1DRA" EffectiveDate="2007-</p>
01-01" ExpireDate="2007-01-02">
          <Rates>
            <Rate EffectiveDate="2007-01-01" ExpireDate="2007-01-02">
               <Base DecimalPlaces="0" CurrencyCode="EUR" AmountAfterTax="209.00"/>
              <CancelPolicies>
```

```
<CancelPenalty>
                    <PenaltyDescription>
                      <Text>4PM Cxl on Arr Date</Text>
                    </PenaltyDescription>
                 </CancelPenalty>
               </CancelPolicies>
               <PavmentPolicies>
                 <RequiredPayment PaymentCode="4P"/>
                 <RequiredPayment PaymentCode="CC"/>
                 <RequiredPayment PaymentCode="CO"/>
                 <RequiredPayment PaymentCode="TA"/>
               </PaymentPolicies>
             </Rate>
           </Rates>
           <RoomRateDescription>
             <Text>STANDARD RATE</Text>
           </RoomRateDescription>
           <Features>
             <Feature RoomAmenity="0"/>
             <Feature RoomAmenity="8">
               <Description>
                 <Text>N</Text>
               </Description>
             </Feature>
             <Feature>
               <Description>
                 <Text>KING HILTON DELUXE ROOM PLUS-FLEXIBLE RATE...PANORAMIC VIEW, FLOOR
TO CEILING WINDOWS,...TEA/COFFEE TRAY,HIFI,SAFE, PRINTERFAX,WLAN...</Text>
               </Description>
             </Feature>
           </Features>
        </RoomRate>
        <RoomRate BookingCode="BAR" RatePlanCode="LV5" RoomTypeCode="T2RO" EffectiveDate="2007-01-
01" ExpireDate="2007-01-02">
           <Rates>
             <Rate EffectiveDate="2007-01-01" ExpireDate="2007-01-02">
               <Base DecimalPlaces="0" CurrencyCode="EUR" AmountAfterTax="199.00"/>
               <CancelPolicies>
                 <CancelPenalty>
                    <PenaltyDescription>
                      <Text>4PM Cxl on Arr Date</Text>
                   </PenaltyDescription>
                 </CancelPenalty>
               </CancelPolicies>
               <PaymentPolicies>
                 <RequiredPayment PaymentCode="4P"/>
                 <RequiredPayment PaymentCode="CC"/>
                 <RequiredPayment PaymentCode="CO"/>
                 <RequiredPayment PaymentCode="TA"/>
               </PaymentPolicies>
             </Rate>
           </Rates>
           <RoomRateDescription>
             <Text>STANDARD RATE</Text>
           </RoomRateDescription>
           <Features>
             <Feature RoomAmenity="1"/>
             <Feature RoomAmenity="8">
               <Description>
                 <Text>N</Text>
               </Description>
             </Feature>
```

```
<Feature>
               <Description>
                 <Text>TWIN HILTON DELUXE ROOM - FLEXIBLE RATE...PARK VIEW, WITH LARGE DESK
AND WLAN...TEA COFFEE TRAY, SAFE, SEPARATE BATH AND SHOWER ... </ Text>
               </Description>
             </Feature>
           </Features>
        </RoomRate>
        <RoomRate BookingCode="BAR" RatePlanCode="LV5" RoomTypeCode="T2" EffectiveDate="2007-01-01"</p>
ExpireDate="2007-01-02">
           <Rates>
             <Rate EffectiveDate="2007-01-01" ExpireDate="2007-01-02">
               <Base DecimalPlaces="0" CurrencyCode="EUR" AmountAfterTax="179.00"/>
               <CancelPolicies>
                 <CancelPenalty>
                    <PenaltyDescription>
                      <Text>4PM Cxl on Arr Date</Text>
                    </PenaltyDescription>
                 </CancelPenalty>
               </CancelPolicies>
               <PaymentPolicies>
                 <RequiredPayment PaymentCode="4P"/>
                 <RequiredPayment PaymentCode="CC"/>
                 <RequiredPayment PaymentCode="CO"/>
                 <RequiredPayment PaymentCode="TA"/>
               </PaymentPolicies>
             </Rate>
           </Rates>
           <RoomRateDescription>
             <Text>STANDARD RATE</Text>
           </RoomRateDescription>
           <Features>
             <Feature RoomAmenity="1"/>
             <Feature RoomAmenity="8">
               <Description>
                 <Text>N</Text>
               </Description>
             </Feature>
             <Feature>
               <Description>
                 <Text>TWIN HILTON GUESTROOM - FLEXIBLE RATE...MODERN ROOM WITH WORKING
DESK, 2 PHONE LINES...TEA/COFFEE TRAY, SAFE, SEPARATE SHOWER. WLAN ... </ Text>
               </Description>
             </Feature>
           </Features>
        </RoomRate>
        <RoomRate BookingCode="BAR" RatePlanCode="LV5" RoomTypeCode="T2E" EffectiveDate="2007-01-
01" ExpireDate="2007-01-02">
           <Rates>
             <Rate EffectiveDate="2007-01-01" ExpireDate="2007-01-02">
               <Base DecimalPlaces="0" CurrencyCode="EUR" AmountAfterTax="229.00"/>
               <CancelPolicies>
                 <CancelPenalty>
                   <PenaltyDescription>
                      <Text>4PM Cxl on Arr Date</Text>
                    </PenaltyDescription>
                 </CancelPenalty>
               </CancelPolicies>
               <PaymentPolicies>
                 <RequiredPayment PaymentCode="4P"/>
                 <RequiredPayment PaymentCode="CC"/>
                 <RequiredPayment PaymentCode="CO"/>
```

```
<RequiredPayment PaymentCode="TA"/>
               </PaymentPolicies>
             </Rate>
           </Rates>
           <RoomRateDescription>
             <Text>STANDARD RATE</Text>
           </RoomRateDescription>
           <Features>
             <Feature RoomAmenity="1"/>
             <Feature RoomAmenity="3"/>
             <Feature RoomAmenity="8">
               <Description>
                 <Text>X</Text>
               </Description>
             </Feature>
             <Feature>
               <Description>
                 <Text>TWIN HILTON EXECUTIVE ROOM - FLEXIBLE RATE...LOUNGE ACCESS,FREE
BREAKFAST, DRINKS, TOP FLOOR...LARGE DESK, WLAN, SEPARATE BATH AND SHOWER ... </ Text>
               </Description>
             </Feature>
           </Features>
        </RoomRate>
        <RoomRate BookingCode="BAR" RatePlanCode="LV5" RoomTypeCode="K1RO" EffectiveDate="2007-
01-01" ExpireDate="2007-01-02">
           <Rates>
             <Rate EffectiveDate="2007-01-01" ExpireDate="2007-01-02">
               <Base DecimalPlaces="0" CurrencyCode="EUR" AmountAfterTax="199.00"/>
               <CancelPolicies>
                 <CancelPenalty>
                   <PenaltyDescription>
                      <Text>4PM Cxl on Arr Date</Text>
                   </PenaltyDescription>
                 </CancelPenalty>
               </CancelPolicies>
               <PaymentPolicies>
                 <RequiredPayment PaymentCode="4P"/>
                 <RequiredPayment PaymentCode="CC"/>
                 <RequiredPayment PaymentCode="CO"/>
                 <RequiredPayment PaymentCode="TA"/>
               </PaymentPolicies>
             </Rate>
           </Rates>
           <RoomRateDescription>
             <Text>STANDARD RATE</Text>
           </RoomRateDescription>
           <Features>
             <Feature RoomAmenity="0"/>
             <Feature RoomAmenity="8">
               <Description>
                 <Text>N</Text>
               </Description>
             </Feature>
             <Feature>
               <Description>
                 <Text>KING HILTON DELUXE ROOM - FLEXIBLE RATE...PARK VIEW, WORKING DESK,
OPENING WINDOW...TEA/COFFEE TRAY, SAFE, SEPARATE SHOWER. WLAN...</Text>
               </Description>
             </Feature>
           </Features>
        </RoomRate>
        <RoomRate BookingCode="BAR" RatePlanCode="LV5" RoomTypeCode="K1E" EffectiveDate="2007-01-
```

```
01" ExpireDate="2007-01-02">
           <Rates>
             <Rate EffectiveDate="2007-01-01" ExpireDate="2007-01-02">
               <Base DecimalPlaces="0" CurrencyCode="EUR" AmountAfterTax="229.00"/>
               <CancelPolicies>
                 <CancelPenalty>
                    <PenaltyDescription>
                      <Text>4PM Cxl on Arr Date</Text>
                    </PenaltyDescription>
                 </CancelPenalty>
               </CancelPolicies>
               <PavmentPolicies>
                 <RequiredPayment PaymentCode="4P"/>
                 <RequiredPayment PaymentCode="CC"/>
                 <RequiredPayment PaymentCode="CO"/>
                 <RequiredPayment PaymentCode="TA"/>
               </PaymentPolicies>
             </Rate>
           </Rates>
           <RoomRateDescription>
             <Text>STANDARD RATE</Text>
           </RoomRateDescription>
           <Features>
             <Feature RoomAmenity="0"/>
             <Feature RoomAmenity="3"/>
             <Feature RoomAmenity="8">
               <Description>
                  <Text>X</Text>
               </Description>
             </Feature>
             <Feature>
               <Description>
                  <Text>KING HILTON EXECUTIVE ROOM - FLEXIBLE RATE...LOUNGE ACCESS,FREE
BREAKFAST, DRINKS, TOP FLOOR...LARGE DESK, WLAN, SPEARATE BATH AND SHOWER ... </ Text>
               </Description>
             </Feature>
           </Features>
         </RoomRate>
      </RoomRates>
      <TimeSpan Start="2007-01-01" End="2007-01-02"/>
      <BasicPropertyInfo BrandCode="HI" HotelName="Hilton Frankfurt" HotelCode="FRAHI"/>
    </RoomStay>
  </RoomStays>
  <Criteria>
    <Criterion>
      <HotelRef HotelCode="FRAHI"/>
    </Criterion>
  </Criteria>
</OTA HotelAvailRS>
```

This is an example of a response to an availability check for a specific property, the London Hilton on Park Lane. The stay is for November 24th for 2 nights for 1 adult in 1 room. The hotel code for this property is "LONHI". The RateChangeIndicator attribute is set to "ChangeDuring-Stay" for rate plan that has a rate change associated with it.

```
</RatePlans>
      <RoomRates>
        <RoomRate BookingCode="LEISURE" RatePlanCode="PR20BB" RoomTypeCode="K1E" Effective-
Date="2006-11-24" ExpireDate="2006-11-26">
           <Rates>
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      <HotelRef HotelCode="LONHI"/>
    </Criterion>
  </Criteria>
</OTA_HotelAvailRS>
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The following example is a response to an availability check for a single property for December 31st for 2 nights. In this case, the property had no availability for those dates, so there is no RoomRates element in the response.

The following example is a response to an availability check for the special rate ID "IB1" for the property, NYCTS for December 12th for 3 nights, 2 adults. In this case since the special rates were available they are returned along with the other published rates.

```
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sion="2.1" TimeStamp="2006-09-28T08:33:37.14-05:00">
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             <Feature>
               <Description>
                  <Text>1 KING BED...CITY-RIVER VIEW..HI-SPEED INTERNET..2
PHONES...DATAPORT.LAPTOP.SAFE.COFFEEMAKER.HAIRDRYER...</Text>
               </Description>
             </Feature>
           </Features>
         </RoomRate>
         <RoomRate BookingCode="CORPORATE" RatePlanCode="IQ" RoomTypeCode="D2" Effective-
Date="2006-12-12" ExpireDate="2006-12-15" RatePlanID="IB1">
             <Rate EffectiveDate="2006-12-12" ExpireDate="2006-12-15">
               <Base DecimalPlaces="0" CurrencyCode="USD" AmountBeforeTax="309.00"/>
               <CancelPolicies>
                  <CancelPenalty>
                    <PenaltyDescription>
                      <Text>6PM Cxl on Arr Date</Text>
                    </PenaltyDescription>
                 </CancelPenalty>
               </CancelPolicies>
               <PavmentPolicies>
                 <RequiredPayment PaymentCode="CC"/>
                 <RequiredPayment PaymentCode="CO"/>
                  <RequiredPayment PaymentCode="TA"/>
               </PaymentPolicies>
             </Rate>
           </Rates>
           <RoomRateDescription>
             <Text>I B M...CANCEL BY 6PM HOTEL TIME DAY OF ARRIVAL</Text>
           </RoomRateDescription>
           <Features>
```

```
<Feature RoomAmenity="1"/>
             <Feature RoomAmenity="8">
               <Description>
                  <Text>N</Text>
               </Description>
             </Feature>
             <Feature>
               <Description>
                 <Text>2 DOUBLE BEDS...CITY-RIVER VIEW..HI SPEED INTERNET..2
PHONES...DATAPORT.LAPTOP.SAFE.COFFEEMAKER.HAIRDRYER...</Text>
               </Description>
             </Feature>
           </Features>
         </RoomRate>
         <RoomRate BookingCode="BAR" RatePlanCode="DJ" RoomTypeCode="HOUS" EffectiveDate="2006-12-
12" ExpireDate="2006-12-15">
           <Rates>
             <Rate EffectiveDate="2006-12-12" ExpireDate="2006-12-15">
               <Base DecimalPlaces="0" CurrencyCode="USD" AmountBeforeTax="569.00"/>
               <CancelPolicies>
                 <CancelPenalty>
                    <PenaltyDescription>
                      <Text>Cxl 1 day prior to Arrival</Text>
                    </PenaltyDescription>
                 </CancelPenalty>
               </CancelPolicies>
               <PavmentPolicies>
                 <RequiredPayment PaymentCode="CC"/>
                 <RequiredPayment PaymentCode="CO"/>
                 <RequiredPayment PaymentCode="TA"/>
               </PaymentPolicies>
             </Rate>
           </Rates>
           <RoomRateDescription>
             <Text>BEST AVAILABLE RATE...BEST UNRESTRICTED RATE.</Text>
           </RoomRateDescription>
           <Features>
             <Feature RoomAmenity="8">
               <Description>
                 <Text>N</Text>
               </Description>
             </Feature>
             <Feature>
               <Description>
                 <Text>ROOM SELECTED AT CHECK-IN...CITY-RIVER VIEW..HI-SPEED INTERNET..2
PHONES...DATAPORT.LAPTOP.SAFE.COFFEEMAKER.HAIRDRYER...</Text>
               </Description>
             </Feature>
           </Features>
         </RoomRate>
         <RoomRate BookingCode="BAR" RatePlanCode="DJ" RoomTypeCode="K1SRU1" EffectiveDate="2006-
12-12" ExpireDate="2006-12-15">
           <Rates>
             <Rate EffectiveDate="2006-12-12" ExpireDate="2006-12-15">
               <Base DecimalPlaces="0" CurrencyCode="USD" AmountBeforeTax="719.00"/>
               <CancelPolicies>
                 <CancelPenalty>
                    <PenaltyDescription>
                      <Text>Cxl 1 day prior to Arrival</Text>
                    </PenaltyDescription>
                  </CancelPenalty>
               </CancelPolicies>
```

```
<PavmentPolicies>
                 <RequiredPayment PaymentCode="CC"/>
                 <RequiredPayment PaymentCode="CO"/>
                 <RequiredPayment PaymentCode="TA"/>
               </PaymentPolicies>
             </Rate>
           </Rates>
           <RoomRateDescription>
             <Text>BEST AVAILABLE RATE...BEST UNRESTRICTED RATE.</Text>
           </RoomRateDescription>
           <Features>
             <Feature RoomAmenity="0"/>
             <Feature RoomAmenity="2"/>
             <Feature RoomAmenity="8">
               <Description>
                 <Text>N</Text>
               </Description>
             </Feature>
             <Feature>
               <Description>
                 <Text>1 KING BED DELUXE SUITE...1.5 BATH.650SQ FT..HI-SPEED INTERNET..44TH
FL...FAX..CD STEREO..LAPTOP/SAFE..PULLOUT SOFA...</Text>
               </Description>
             </Feature>
           </Features>
        </RoomRate>
        <RoomRate BookingCode="CORPORATE" RatePlanCode="IQ" RoomTypeCode="RR" Effective-
Date="2006-12-12" ExpireDate="2006-12-15" RatePlanID="IB1">
           <Rates>
             <Rate EffectiveDate="2006-12-12" ExpireDate="2006-12-15">
               <Base DecimalPlaces="0" CurrencyCode="USD" AmountBeforeTax="569.00"/>
               <CancelPolicies>
                 <CancelPenalty>
                   <PenaltyDescription>
                      <Text>6PM Cxl on Arr Date</Text>
                   </PenaltyDescription>
                 </CancelPenalty>
               </CancelPolicies>
               <PaymentPolicies>
                 <RequiredPayment PaymentCode="CC"/>
                 <RequiredPayment PaymentCode="CO"/>
                 <RequiredPayment PaymentCode="TA"/>
               </PaymentPolicies>
             </Rate>
           </Rates>
           <RoomRateDescription>
             <Text>I B M...CANCEL BY 6PM HOTEL TIME DAY OF ARRIVAL</Text>
           </RoomRateDescription>
           <Features>
             <Feature RoomAmenity="8">
               <Description>
                 <Text>N</Text>
               </Description>
             </Feature>
             <Feature>
               <Description>
                 <Text>ROOM SELECTED AT CHECK-IN...CITY-RIVER VIEW..HI-SPEED INTERNET..2
PHONES...DATAPORT..LAPTOP..COFFEEMAKER..HAIRDRYER.SAFE...</Text>
               </Description>
             </Feature>
           </Features>
        </RoomRate>
```

7 OTA_HotelRes

The OTA_HotelResRQ message is used to reserve one or more rooms at a hotel. It is often preceded by an OTA_HotelAvailRQ/RS message, which is used to check the availability of the hotel before attempting the reservation. The availability check does not hold rooms, therefore it cannot be assumed that the room is available at the time of the OTA_HotelResRQ request. There is no requirement to check the availability before sending a reservation request, as long as all the necessary information (such as the hotel code, brand code and room code) is available.

The reservation request is an atomic request that can either be approved or denied. If there is a problem booking the reservation, the OTA_HotelResRS response will return an appropriate business message. For instance, if the reservation requires a deposit and there is no payment information included in the request, it will be denied. Once the request is made and a successful result is returned, a reservation exists from that point forward.

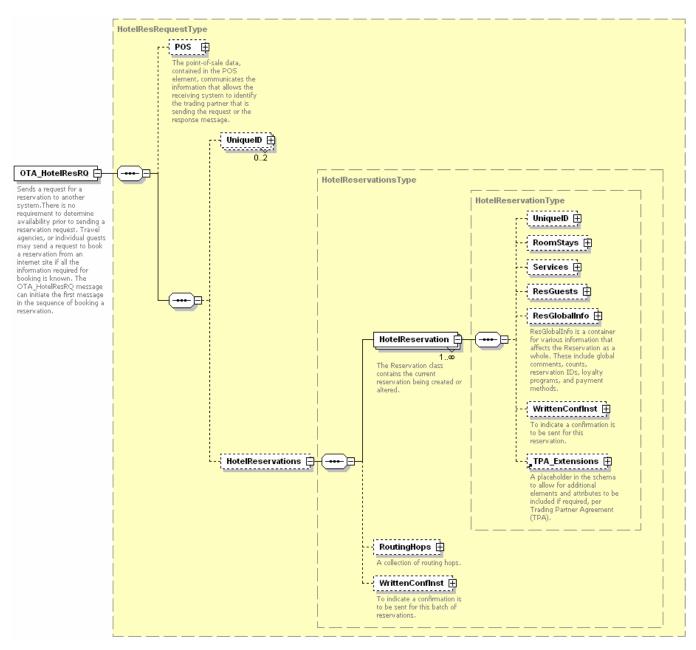


Figure 8. OTA_HotelResRQ schema

7.1 OTA_HotelResRQ Elements and Attributes

The OTA specification defines four acceptable values (enumerations) for the ResStatus attribute of the OTA_HotelResRQ element: "Initiate", "Ignore", "Modify", and "Commit". The purpose of this field is to allow modification of a reservation request before the reservation has been made. The Hilton Transaction Exchange will accept two of these values: Initiate and Commit. The value of Initiate for the ResStatus attribute signifies that the request is a 'trial run' of the reservation. No confirmation number will be returned for this type of request because a reservation is not actually being made. When the ResStatus is set to Commit, a reservation is being made. In this case, the reservation will either be successful and a booking is made, or an appropriate error response will be returned. We suggest that you always do an Initiate before a Commit.

The following table shows the attributes of the HotelReservations element that are supported by the Hilton Transaction Exchange.

Level	Name	Туре	Occurrences	Required	Hilton version
0	OTA_HotelResRQ		1	Υ	1.2
	@ResStatus	TransactionActionType	1	Υ	1.2
1	HotelReservations		1	Υ	1.2
2	HotelReservation		1	Υ	1.2
3	RoomStays		1	Υ	1.2
4	RoomStay		1	Υ	1.2
5	RoomTypes		1	Υ	1.2
6	RoomType		1	Υ	1.2
	@RoomTypeCode	StringLength1to16		Υ	1.2
	@NumberOfUnits	Numeric1to999		Υ	1.2
7	Amenities		01	N	1.2
8	Amenity		12	Υ	1.2
	@RoomAmenity	OTA_CodeType		Υ	1.2
5	RatePlans		1	Υ	1.2
6	RatePlan		1	Y	1.2
	@BookingCode	StringLength1to16		N	2.0
	@RatePlanID	StringLength1to64		N	2.0
	@RatePlanCode	StringLength1to16		Υ	1.2
5	BasicPropertyInfo		1	Υ	1.2
	@BrandCode	StringLength1to16		Υ	1.2
	@HotelCode	StringLength1to8		Υ	1.2
3	ResGuests		1	Υ	1.2

4	ResGuest		1	Υ	1.2
5	Profiles		1	Υ	1.2
6	ProfileInfo		1	Υ	1.2
7	Profile		1	Υ	1.2
8	Customer		1	Υ	1.2
9	PersonName		1	Υ	1.2
10	NamePrefix		1	N	2.0
10	GivenName		1	Υ	1.2
10	Surname		1	Υ	1.2
9	Telephone		1	Υ	1.2
	@PhoneNumber	StringLength1to32		Υ	1.2
9	Email		1	N	1.2
	@ DefaultInd	Boolean		N	2.0
9	Address		1	Υ	1.2
10	AddressLine		13	Υ	1.2
10	CityName		1	Υ	1.2
10	PostalCode		1	Υ	1.2
10	County		01	N	1.2
10	StateProv		01	N	1.2
	@StateCode	StateProvCodeType		Υ	1.2
10	CountryName		1	Υ	1.2
	@Code	ISO3166		Υ	1.2
3	ResGlobalInfo		1	Υ	1.2
4	GuestCounts		1	Υ	1.2
	@IsPerRoom	xs:boolean		Υ	1.2
5	GuestCount		12	Υ	1.2
	@AgeQualifyingCode	OTA_CodeType		Υ	1.2
	@Count	Numeric1to999		Υ	1.2
4	TimeSpan		1	Υ	1.2
	@Start	DateOrTimeOr- DateTimeType		Υ	1.2
	@Duration	DurationType		Υ	1.2
4	Memberships		01	N	1.2
5	Membership		12	Υ	1.2
	@AccountID	StringLength1to32		Υ	1.2
	@ProgramCode	StringLength1to32		Y	1.2

4	Comments		01	N	1.2
5	Comment		13	Υ	1.2
6	Text		1	Υ	1.2
4	Guarantee		1	Y	1.2
	@GauranteeCode	StringLength1to32		Y	2.0
5	GuaranteesAccepted		1	Y	1.2
6	GuaranteeAccepted		1	Υ	1.2
7	PaymentCard		1	Y	1.2
	@CardType	OTA_CodeType		Υ	1.2
	@CardCode	PaymentCardCodeType		Υ	1.2
	@CardNumber	NumericStringLength1to19		Υ	1.2
	@ExpireDate	MMYYDate		Υ	1.2
4	HotelReservationIDs		01	N	1.2
5	HotelReservationID		1	Υ	1.2
	@ResID_Value	StringLength1to64		Y	1.2
	@ResID_Date	xs:dateTime		Υ	1.2
	@ResID_Source	StringLength1to64		Υ	1.2
	@ResID_Type	Numeric		Υ	1.2

Table 12. OTA_HotelResRQ Elements and Attributes

An OTA_HotelResRQ message should always contain *one and only one* HotelReservation element.

The RoomStay element contains information about the room or rooms that are being booked. The RoomTypeCode attribute is a Hilton-specific code that is typically obtained from an OTA_HotelAvailRS message. The NumberOfUnits attribute cannot be greater than four.

The acceptable RoomAmenity values are either Smoking/Non Smoking or One Bed/Two Beds see Appendix A for their codes. Special rate plan codes, such as those used for negotiated rates, can be passed in using the RatePlanCode attribute of the RatePlan element. The RatePlanCode is required. If a special client specific rate is requested then the BookingCode and RatePlanID attributes also need to be populated. The BasicPropertyInfo element contains the HotelCode and BrandCode, which are Hilton-specific. See Appendix A for the brand code values.

Information about the guests is captured in the ResGuests element. There must be at least one ResGuest element. The PersonName element has several subelements, but the Transaction Exchange only accepts NamePrefix which is optional, GivenName and Surname which are required. The Address element should have at least one <AddressLine> element, up to three <AddressLine> elements are allowed. The StateCode attribute is required for the United States and Canada, but not for other countries. Email is optional, if sent it should be in the user@domain format. If attribute DefaultInd is set to "true" an email confirmation will be sent to email address provided.

ResGlobalInfo contains guest count information. The IsPerRoom attribute must always be "1". The GuestCount element contains the age and number of guests for the room. The AgeQualifyingCode should either be "10" to specify adult or "8" for a child. (These are the values from the OTA Code List Age Qualifying Code (AQC).) You have to provide at least one GuestCount element, specifying the number of adults. The maximum number of adults per room is four. At most two GuestCount elements are allowed: one for the number of adults and one for the number of children. The TimeSpan element must have the Start and Duration attributes populated.

You may provide up to two Membership elements. The only two memberships supported at this time are HHonors (HHonors is the Hilton guest reward program.) and Airline. For HHonors, the ProgramCode value is "HH", and the guest's HHonors account number must be in the AccountId attribute. Only one HHonors account can be associated with the reservation, even if there are multiple HHonors members who will be staying as guests. If a HHonors number is being sent in the request then the <surname> needs to match the last name in the HHonors profile. The list of valid memberships and their respective ProgramCode values are available www.iata.org.

You are allowed to include up to three comments as part of the reservations. They are sent as free-form text in the Text element. An example is: <Text>Guest requests a first floor room please if one is available. </Text>. Each Text element can be up to 50 characters.

Any one of the Guarantee Policy that was returned in the OTA_HotelAvailRS transaction needs to be sent in GuaranteeCode attribute of the Guarantee element. Depending on the guarantee policy the PaymentCard element may or may not be required.

PaymentCard element is required for gurantee policies Credit Card Guarantee (CC) and Credit Card Deposit (CR). The PaymentCard element has four attributes, all of which are required. The payment information could be used to "hold" the reservation or it could be used to pay for the room(s) at the time of the reservation, depending on the guarantee policy of the reservation. For CardType attribute values, refer to the OTA Code ListCard Type (CDT). The 2004B version of the OTA spec allows these values for the CardCode attribute:

Value	Credit Card
AX	American Express
*BC	Bank Card
*BL	Carte Bleu
СВ	Carte Blanche
DN	Diners Club
DS	Discover Card
**EC	Eurocard
JC	Japanese Credit Bureau Credit Card
MC	Master Card
*TP	Universal Air Travel Card
VI	Visa

Table 13. OTA 2004B Specification Credit Card Codes

* - Not supported by Hilton Transaction Exchange ** - Available only at some properties

If you want to associate a unique identifier with this reservation then you could use the HoteReservationIDs element which is a collection of HotelReservationID elements. For the OTA_HotelResRQ transaction there will be a single occurrence of the HotelReservationID element and it will contain the identifier that you could like to use to identify the reservation in the ResID_Value attribute, the ResID_Type will always be "14" (refer to the unique Id list table), the ResID_Source will be your company name, Res_Date will be the date of the creation of this reservation. This information will be echoed back in the OTA_HotelResRS.

7.2 OTA_HotelResRQ Examples

This is an example of a request to book a room at the Waldorf London Hilton in London, GB. The hotel code is "LONWA" and the brand code for Hilton International is "HI". One room with two adults and one child is needed for two nights. (The AgeQualifyingCode value of "10" is used for adults.) The OTA Card Type value of "1" is used to designate a credit card (in this case a Visa).

```
<OTA_HotelResRQ TimeStamp="2005-05-11T23:17:42-06:00" Target="Production" Version="2.1" PrimaryLan-
gID="en-us" xmlns="http://www.opentravel.org/OTA/2003/05" ResStatus="Commit">
<POS>
        <Source>
               <RequestorID Type="4" ID="customer1">
                <BookingChannel Type="2">
        </Source>
</POS>
<HotelReservations>
        <HotelReservation>
               <RoomStays>
                     <RoomStav>
                        <RoomTypes>
                          <RoomType RoomTypeCode="Q1D" NumberOfUnits="1">
                                <Amenities>
                                        <Amenity RoomAmenity="7"/>
                                        <Amenity RoomAmenity="1"/>
                                </Amenities>
                          </RoomType>
                       </RoomTypes>
                       <RatePlans>
                                <RatePlan RatePlanCode="LV2"/>
                        </RatePlans>
                        <BasicPropertyInfo BrandCode="HI" HotelCode="LONWA"/>
                     </RoomStay>
                </RoomStays>
                <ResGuests>
                       <ResGuest>
                               <Profiles>
                                       <ProfileInfo>
                                               <Profile>
                                                        <Customer>
                                                               <PersonName>
                                                                        <GivenName>Ben</GivenName>
                                                                        <Surname>Johnson</Surname>
```

```
</PersonName>
                                                               <Telephone PhoneNumber="9018765432"/>
                                                               <Email>abc@google.com</Email>
                                                               <Address>
                                                                   <AddressLine>123 Main</AddressLine>
                                                                   <CityName>Memphis</CityName>
                                                                   <PostalCode>38018</PostalCode>
                                                                   <StateProv StateCode="TN"/>
                                                                   <CountryName Code="US"/>
                                                               </Address>
                                                       </Customer>
                                               </Profile>
                                       </ProfileInfo>
                               </Profiles>
                       </ResGuest>
                </ResGuests>
                <ResGlobalInfo>
                       <GuestCounts IsPerRoom ="True">
                               <GuestCount AgeQualifyingCode="10" Count="2"/>
                               <GuestCount AgeQualifyingCode="8" Count="1"/>
                       </GuestCounts>
                       <TimeSpan Start="2005-12-12" Duration="P2D"/>
                       <Memberships>
                               <Membership AccountID="975023933" ProgramCode="HH"/>
                               <Membership AccountID="00175008470" ProgramCode="UA "/>
                       </Memberships>
                        <Comments>
                               <Comment>
                                       <Text>Comment One</Text>
                               </Comment>
                               <Comment>
                                       <Text>Comment Two</Text>
                               </Comment>
                               <Comment>
                                       <Text>Comment Three</Text>
                               </Comment>
                       </Comments>
                       <Guarantee GuaranteeCode="CC"/>
                               <GuaranteesAccepted>
                                       <GuaranteeAccepted>
                                               <PaymentCard CardType="1" CardCode="VI" CardNum-
ber="4444111144441111" ExpireDate="0907"/>
                                       </GuaranteeAccepted>
                               </GuaranteesAccepted>
                        </Guarantee>
                       <HotelReservationIDs>
                               <HotelReservationID ResID_Value="4234556567" ResID_Date = "2005-05-</p>
11T23:17:42-06:00" ResID_Source="LONDONTOWN" ResID_Type="14"/>
                        </HotelReservationIDs>
                </ResGlobalInfo>
        </HotelReservation>
</HotelReservations>
</OTA_HotelResRQ>
```

This is an example of a request to book a room at the Times Square Hilton, New York. The hotel code is "NYCTS" and the brand code for Hilton is "HI". One room with one adult is needed for two nights. The room is booked at a special client rate and guaranteed to the company.

```
<OTA_HotelResRQ TimeStamp="2006-03-15T14:2:1-06:00" Target="Production" Version="2.1" PrimaryLangID="en-
us" xmlns="http://www.opentravel.org/OTA/2003/05" ResStatus="Commit">
 <POS>
    <Source>
      <RequestorID Type="4" ID="customer1"/>
      <BookingChannel Type="2"/>
   </Source>
 </POS>
 <HotelReservations>
    <HotelReservation>
      <RoomStays>
        <RoomStay>
          <RoomTypes>
            <RoomType RoomTypeCode="K1" NumberOfUnits="1"></RoomType>
          </RoomTypes>
          <RatePlans>
            <RatePlan RatePlanID="IB1" BookingCode="CORPORATE" RatePlanCode="IQ"/>
          </RatePlans>
          <BasicPropertyInfo BrandCode="HI" HotelCode="NYCTS"/>
        </RoomStay>
      </RoomStays>
      <ResGuests>
        <ResGuest>
          <Profiles>
            <ProfileInfo>
              <Profile>
                 <Customer>
                   <PersonName>
                     <GivenName>Shoba</GivenName>
                     <Surname>Victoria</Surname>
                   </PersonName>
                   <Telephone PhoneNumber="9014563212"/>
                   <Email>A@M.COM</Email>
                   <Address>
                     <AddressLine>12 SPRING GARDENS</AddressLine>
                     <CityName>Memphis</CityName>
                     <PostalCode>38018</PostalCode>
                     <StateProv StateCode="TN"/>
                     <CountryName Code="us"/>
                   </Address>
                 </Customer>
              </Profile>
            </ProfileInfo>
          </Profiles>
        </ResGuest>
      </ResGuests>
      <ResGlobalInfo>
        <GuestCounts IsPerRoom="1">
          <GuestCount AgeQualifyingCode="10" Count="1"/>
        </GuestCounts>
        <TimeSpan Start="2006-06-10" Duration="2"/>
        <Guarantee GuaranteeCode="CO"/>
      </ResGlobalInfo>
    </HotelReservation>
 </HotelReservations>
</OTA_HotelResRQ>
```

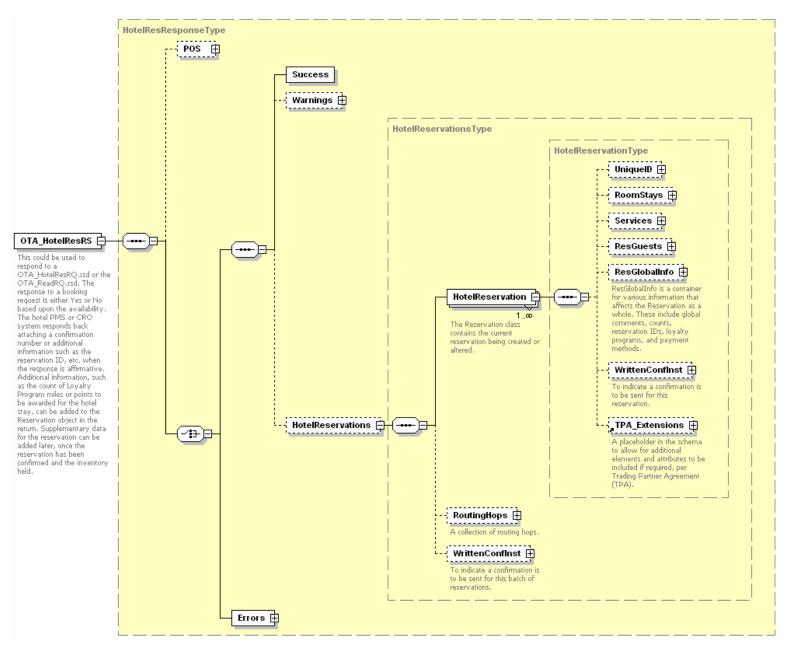


Figure 9. OTA_HotelResRS schema

7.3 OTA_HotelResRS Elements and Attributes

If the ResStatus of the request is "Commit", the OTA_HotelResRS message returns confirmation that a reservation has been made, including a unique confirmation number that identifies the reservation. If the ResStatus of the request is "Initiate", the same information will be returned, but there will be no confirmation number and no reservation is made. Of course, if there is an error with either type of request, an appropriate error is returned. Whether successful or not, information received in the OTA_HotelResRQ message is included in the response.

The following table shows the attributes of the OTA_HotelResRS elements that are supported by the Hilton Transaction Exchange.

Level	Name	Туре	Occur- rences	Required	Hilton version
0	OTA_HotelResRS		1		1.2
	@ ResResponseType	TransactionStatusType		Y	1.2
1	Success		01	N	1.2
1	Errors		01	N	1.2
2	Error		1	Υ	1.2
	@Туре	OTA_CodeType		Υ	1.2
	@ShortText	StringLength1to64		Υ	1.2
1	Warnings		01	N	1.1
2	Warning		0n	Υ	1.1
	@Туре	OTA_CodeType		Υ	1.1
	@ShortText	StringLength1to64		Υ	1.1
1	HotelReservations		1	Υ	1.2
2	HotelReservation		1	Υ	1.2
3	RoomStays		1	Υ	1.2
4	RoomStay		1	Υ	1.2
5	RoomTypes		1	Υ	1.2
6	RoomType		1	Υ	1.2
	@RoomTypeCode	StringLength1to16		Υ	1.2
	@NumberOfUnits	Numeric1to999		Υ	1.2
7	RoomDescription		1	Υ	1.2
8	Text		1	Y	1.2
5	RatePlans		1	Υ	1.2
6	RatePlan		1	Y	1.2

	@RatePlanCode	StringLength1to16		Υ	1.2
7	RatePlanDescription		1	Υ	1.2
8	Text			Υ	1.2
5	RoomRates		1	Υ	1.2
6	RoomRate		1	Υ	1.2
	@EffectiveDate	xs:date		Υ	1.2
	@ExpireDate	xs:date		Υ	1.2
	@RoomTypeCode	StringLength1to64		Υ	1.2
	@RatePlanCode	StringLength1to64		Υ	1.2
7	Rates		1	Υ	1.2
8	Rate		1n	Υ	1.2
	@EffectiveDate	xs:date		N	1.2
	@ExpireDate	xs:date		N	1.2
9	Base		1	Υ	1.2
	@AmountBeforeTax	Money		N	1.2
	@AmountAfterTax	Money		N	1.2
	@CurrencyCode	AlphaLength3		Υ	1.2
	@DecimalPlaces	xs:nonNegativeInteger		Υ	1.2
5	BasicPropertyInfo			Y	1.2
	@BrandCode	StringLength1to16		Y	1.2
	@HotelCode			Υ	1.2
	@HotelName	StringLength1to128		Υ	1.2
3	ResGlobalInfo		1	Υ	1.2
4	Guarantee		1	Υ	1.2
5	GuaranteeDescription		1	Y	1.2
6	Text		1	Υ	1.2
4	CancelPenalties		1	Υ	1.2
5	CancelPenalty		1	Υ	1.2
6	PenaltyDescription		1	Υ	1.2
7	Text		1	Υ	1.2
4	Total		1	Υ	1.2
	@AmountAfterTax	Money		Υ	1.2
	@CurrencyCode	AlphaLength3		Υ	1.2
	@DecimalPlaces	xs:nonNegativeInteger		Υ	1.2
5	Taxes		1	Υ	1.2
6	Tax		1	Υ	1.2

	@Code	OTA_CodeType		Υ	1.2
	@Amount	Money		N	1.2
	@Percent	Percentage		N	1.2
	@CurrencyCode	AlphaLength3		Υ	1.2
	@DecimalPlaces	xs:nonNegativeInteger		Υ	1.2
4	HotelReservationIDs		02	N	1.2
5	HotelReservationID		12	Υ	1.2
	@ResID_Value	StringLength1to64		Υ	1.2
	@ResID_Date	xs:dateTime		Υ	1.2
	@ResID_Source	StringLength1to64		Υ	1.2
	@ResID_Type	Numeric		Υ	1.2

Table 14. OTA HotelResRS Elements and Attributes

If the ResStatus within the OTA_HotelResRQ was set to "Commit" then the OTA_HotelResRS@ResResponseType will be either "Committed" or "Unsuccessful" or "Ignored", if set to "Initiate" the reply will be "Ignored" or "Unsuccessful".

There will be only one HotelReservation element in the message.

The RoomStays element contains the RoomTypes and the RatePlans element which have the same information that was in the OTA_HotelResRQ. RatePlanDescription element has a description of the rate plan.

The RoomRate element has the same format as the OTA_HotelAvailRS message. (See section 6.3.) The EffectiveDate and ExpireDate attributes will always be populated. If there is a rate change, there will be more than one Rate sub-element. For instance, an availability check for January 1st through the 10th may yield one room rate for January 1st through the 5th and a different rate for the 6th through the 10th. In this case, there would be two Rate elements.

Each Rate element has a sub-element named Base. The AmountBeforeTax attribute contains the base dollar amount of the daily rate. CurrencyCode is an ISO 4217, three-letter currency code. See http://www.id3.org/iso4217.html for the list of possible values. The BrandCode, HotelCode and HotelName will always be populated in the BasicPropertyInfo element.

The ResGlobalInfo element will be populated with the Guarantee and Cancel policy information. The Total element has the AmountAfterTax attribute that will be the total amount charged for the reservation. The Tax element has Code (refer to the OTA Code Fee List type table) which identifies the fees applied to the rate, the code can be either "14 or "17". If the Tax@Code is "14" then the Tax@Amount will have the service charges that were applied to the rate and if Tax@Code is "17" then the Tax@Amount will include all taxes and additional fees that were applied to the rate.

The information that was sent in the HotelReservationID element of the OTA_HotelResRQ will be echoed back in the HotelReservationID element of the OTA_HotelResRS along with a Ho-

telReserervationID element from HTE if a reservation was made. The attribute ResID_Value in the HotelReservationID element is the confirmation number of the reservation, ResID_Date is the timestamp that the reservation was made in the Hilton reservation system, ResID_Source will be "Hilton" and ResID_Type(refer the Unique Id list table) will be "10".

7.4 OTA_HotelResRS Examples

This is an example of a successful response to a request to book one room for one night. Taxes and service charges are returned in the Tax element. The room stay has a meal plan code of "X" (Executive Floor Breakfast) associated with it.

```
<OTA_HotelResRS xmlns="http://www.opentravel.org/OTA/2003/05" Target="Test" PrimaryLangID="en-us" Ver-
sion="2.1" ResResponseType="Committed" TimeStamp="2006-09-28T12:48:41.06-05:00">
  <Success/>
  <HotelReservations>
    <HotelReservation>
      <RoomStays>
        <RoomStay>
           <RoomTypes>
             <RoomType RoomTypeCode="K1E" NumberOfUnits="1">
               <RoomDescription>
                 <Text>KING EXECUTIVE</Text>
               </RoomDescription>
               <Amenities>
                 <Amenity RoomAmenity="8">X</Amenity>
               </Amenities>
             </RoomType>
           </RoomTypes>
           <RatePlans>
             <RatePlan RatePlanCode="LV3">
               <RatePlanDescription>
                 <Text>BEST AVAILABLE RATE</Text>
               </RatePlanDescription>
             </RatePlan>
           </RatePlans>
           <RoomRates>
             <RoomRate RatePlanCode="LV3" RoomTypeCode="K1E" EffectiveDate="2006-11-02" Expire-
Date="2006-11-06">
               <Rates>
                 <Rate EffectiveDate="2006-11-02" ExpireDate="2006-11-06">
                   <Base DecimalPlaces="2" CurrencyCode="USD" AmountBeforeTax="195.00"/>
                 </Rate>
               </Rates>
             </RoomRate>
           </RoomRates>
           <BasicPropertyInfo BrandCode="HI" HotelName="HILTON PONCE GOLF & CASINO RESORT" Hotel-</p>
Code="PNCHI"/>
        </RoomStay>
      </RoomStays>
      <ResGlobalInfo>
        <Guarantee>
           <GuaranteeDescription>
             <Text>CREDIT CARD GUARANTEE</Text>
           </GuaranteeDescription>
        </Guarantee>
        <CancelPenalties>
```

```
<CancelPenalty>
              <PenaltyDescription>
                <Text>4PM Cxl on Arr Date</Text>
              </PenaltyDescription>
           </CancelPenalty>
         </CancelPenalties>
         <Total DecimalPlaces="2" CurrencyCode="USD" AmountAfterTax="920.40">
           <Taxes>
             <Tax Code="14" DecimalPlaces="2" Amount="54.60" CurrencyCode="USD"/>
             <Tax Code="17" DecimalPlaces="2" Amount="85.80" CurrencyCode="USD"/>
           </Taxes>
         </Total>
         <HotelReservationIDs>
           <HotelReservationID ResID Type="10" ResID Source="Hilton" ResID Value="3253531789"</p>
ResID Date="2006-09-28T12:48:41.83-05:00"/>
         </HotelReservationIDs>
       </ResGlobalInfo>
    </HotelReservation>
  </HotelReservations>
</OTA_HotelResRS>
```

The following example is a request that has failed, due to the fact that the PaymentCard element's ExpireDate attribute is invalid. (The MMYY value of "2007" is not correct.) Error Type "3" is a "Biz rule" error in the OTA Code List Error Warning Type (EWT).

This example is the response for a request to book a room at the Times Square Hilton, New York for one room with one adult for 4 nights at a special client specific rate and reservation is guaranteed to the company.

```
<OTA HotelResRS xmlns="http://www.opentravel.org/OTA/2003/05" Target="Test" PrimaryLangID="en-us" Ver-
sion="2.1" ResResponseType="Committed" TimeStamp="2006-09-28T12:45:52.20-05:00">
  <Success/>
  <HotelReservations>
    <HotelReservation>
      <RoomStays>
        <RoomStay>
           <RoomTypes>
             <RoomType RoomTypeCode="K1D" NumberOfUnits="1">
               <RoomDescription>
                 <Text>1 KING BED DELUXE ROOM</Text>
               </RoomDescription>
               <Amenities>
                 <Amenity RoomAmenity="8">N</Amenity>
               </Amenities>
             </RoomType>
           </RoomTypes>
           <RatePlans>
             <RatePlan RatePlanCode="IQ">
               <RatePlanDescription>
                 <Text>IBM CORPORATE RATE</Text>
               </RatePlanDescription>
             </RatePlan>
```

```
</RatePlans>
           <RoomRates>
             <RoomRate RatePlanCode="IQ" RoomTypeCode="K1D" EffectiveDate="2006-11-02" Expire-
Date="2006-11-06">
                 <Rate EffectiveDate="2006-11-02" ExpireDate="2006-11-06">
                    <Base DecimalPlaces="2" CurrencyCode="USD" AmountBeforeTax="549.00"/>
                 </Rate>
               </Rates>
             </RoomRate>
           </RoomRates>
           <BasicPropertyInfo BrandCode="HI" HotelName="TIMES SQUARE HILTON" HotelCode="NYCTS"/>
         </RoomStay>
      </RoomStays>
      <ResGlobalInfo>
         <Guarantee>
           <GuaranteeDescription>
             <Text>GUARANTEE TO COMPANY</Text>
           </GuaranteeDescription>
         </Guarantee>
         <CancelPenalties>
           <CancelPenalty>
             <PenaltyDescription>
               <Text>6PM Cxl on Arr Date</Text>
             </PenaltyDescription>
           </CancelPenalty>
         </CancelPenalties>
         <Total DecimalPlaces="2" CurrencyCode="USD" AmountAfterTax="2503.82">
           <Taxes>
             <Tax Code="14" DecimalPlaces="2" Amount="0.00" CurrencyCode="USD"/>
             <Tax Code="17" DecimalPlaces="2" Amount="307.82" CurrencyCode="USD"/>
           </Taxes>
         </Total>
         <HotelReservationIDs>
           <HotelReservationID ResID_Type="10" ResID_Source="Hilton" ResID_Value="3247956872"</p>
ResID_Date="2006-09-28T12:45:53.35-05:00"/>
         </HotelReservationIDs>
      </ResGlobalInfo>
    </HotelReservation>
  </HotelReservations>
</OTA_HotelResRS>
```

8 OTA_HotelResModify

The OTA_HotelResModifyRQ message is used to make a change to an existing reservation. Before attempting the modification, it may be useful, but not necessary, to perform an OTA_HotelAvailRQ in order to verify that the new date range, room types, etc. are available.

A reservation can only be modified if the following two conditions are met:

- The reservation that you are trying to modify must contain the same account information that was used to make the reservation. (You can't modify a reservation that you didn't make.)
- The OTA_HotelResModifyRQ message must contain the confirmation number of the reservation.

The modification request is an atomic request that can either be approved or denied. If there is a problem modifying the reservation, the OTA_HotelResModifyRS response will return an appropriate business message. For instance, if the reservation requires a deposit and there is no payment information included in the request, it will be denied. Once the request is made and a successful result is returned, the modification requested will have been completed.

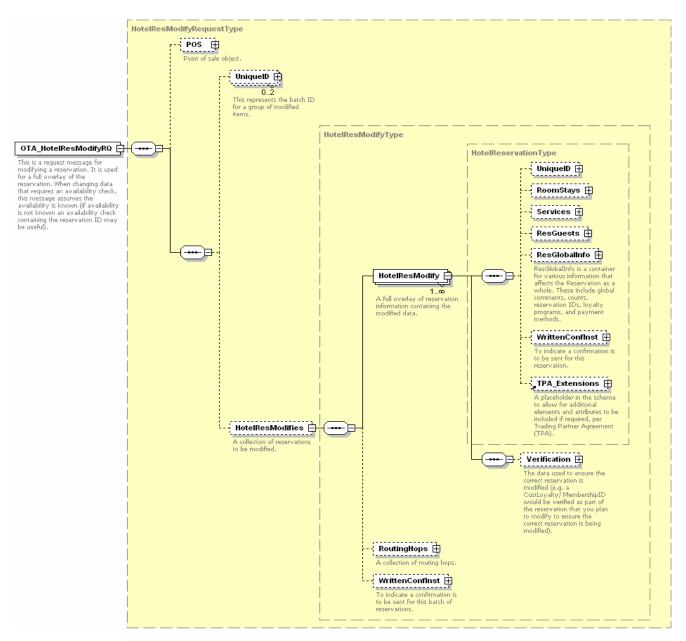


Figure 10. OTA_HotelResModifyRQ schema

8.1 OTA_HotelResModifyRQ Elements and Attributes

The OTA_HotelResModifyRQ schema is very similar to the OTA_HotelResRQ, except that the element names "HotelReservations" and "HotelReservation" are replaced by the element names "HotelResModifies" and "HotelResModify" respectively.

The OTA specification defines four acceptable values (enumerations) for the ResStatus attribute of the OTA_HotelResModifyRQ element: "Initiate", "Ignore", "Modify", and "Commit". The purpose of this field is to allow modification of a reservation request before the reservation has been made. The Hilton Transaction Exchange will accept two of these values: Initiate and Commit. The value of Initiate for the ResStatus attribute signifies that the request is a 'trial run' of the reservation. No confirmation number will be returned for this type of request because a reservation is not actually being made. When the ResStatus is set to Commit, a modification is being made. In this case, the reservation will either be successful and a modification is made, or an appropriate error response will be returned.

A modification can be classified as either an "inventory" or "non-inventory" modification. The difference being that an inventory modification may result in rate change. It is strongly suggested that a "Trial-run" (ResStatus of "Initiate") is performed prior to actually committing the modification.

Elements which will result in a possible inventory change include Room stays, Guest Counts and Time span. Elements which will not result in an inventory change include ResGuests, Membership, Comments and Guarantee elements.

All elements must be re-sent even if they are not being modified.

Please note that you are not able to modify any BasicPropertyInfo elements, if attempted the modification will fail.

The following table shows the attributes of the HotelResModifies element that are supported by the Hilton Transaction Exchange.

Level	Name	Туре	Occurrences	Required	Hilton version
0	OTA_HotelResModifyRQ		1	Y	1.2
	@ResStatus	TransactionAction Type		Y	1.2
1	HotelResModifies		1	Y	1.2
2	HotelResModify		1	Υ	1.2
3	RoomStays		1	Y	1.2
4	RoomStay		1	Υ	1.2
5	RoomTypes		1	Y	1.2
6	RoomType		1	Y	1.2
	@RoomTypeCode	StringLength1to16		Y	1.2

	@NumberOfUnits	Numeric1to999		Y	1.2
7	Amenities		01	N	1.2
8	Amenity		12	N	1.2
	@RoomAmenity	OTA_CodeType		Υ	1.2
5	RatePlans		1	Υ	1.2
6	RatePlan		1	Υ	1.2
	@BookingCode	StringLength1to16		N	2.0
	@RatePlanID	StringLength1to64		N	2.0
	@RatePlanCode	StringLength1to16		Υ	1.2
5	BasicPropertyInfo		1	Υ	1.2
	@BrandCode	StringLength1to16		Υ	1.2
	@HotelCode	StringLength1to16		Υ	1.2
	@HotelName	StringLength1to128		Υ	1.2
3	ResGuests		1	Υ	1.2
4	ResGuest		1	Y	1.2
5	Profiles		1	Y	1.2
6	ProfilesInfo		1	Y	1.2
7	Profile		1	Υ	1.2
8	Customer		1	Y	1.2
9	PersonName		1	Y	1.2
10	NamePrefix		1	N	2.0
10	GivenName		1	Y	1.2
10	Surname		1	Y	1.2
9	Telephone		1	Υ	1.2
	@PhoneNumber	StringLength1to32		Y	1.2
9	Email		01	N	1.2
	DefaultInd	Boolean		N	2.0
9	Address		1	Υ	1.2
10	AddressLine		12	Υ	1.2
10	CityName		1	Υ	1.2
10	PostalCode		01	N	1.2
10	County		01	N	1.2
10	StateProv		01	N	1.2
	@StateCode	StateProvCodeType		N	1.2
10	CountryName		1	Υ	1.2
	@Code	ISO3166		Υ	1.2

3	ResGlobalInfo		1	Υ	1.2
4	GuestCounts		1	Υ	1.2
	@IsPerRoom	xs:boolean		Υ	1.2
5	GuestCount		12	Υ	1.2
	@AgeQualifyingCode	OTA_CodeType		Υ	1.2
	@Count	Numeric1to999		Υ	1.2
4	TimeSpan		1	Υ	1.2
	@Start	DateOrTimeOr- DateTimeType		Υ	1.2
	@Duration	DurationType		Υ	1.2
4	Memberships		01	N	1.2
5	Membership		12	Υ	1.2
	@AccountID	StringLength1to32		Υ	1.2
	@ProgramCode	StringLength1to32		Υ	1.2
4	Comments		01	N	1.2
5	Comment		13	Υ	1.2
6	Text		1	Υ	1.2
4	Guarantee		1	Υ	1.2
	@GuaranteeCode			Υ	2.0
5	GuaranteesAccepted		01	N	1.2
6	GuaranteeAccepted		1	Υ	1.2
7	PaymentCard		1	Υ	1.2
	@CardType	OTA_CodeType		Υ	1.2
	@CardCode	PaymentCardCodeType		Υ	1.2
	@CardNumber	NumericStringLength1to19		Υ	1.2
	@ExpireDate	MMYYDate		Υ	1.2
4	HotelReservationIDs		02	N	1.2
5	HotelReservationID		1	Υ	1.2
	@ResID_Value	StringLength1to64		Υ	1.2
	@ResID_Date	xs:dateTime		Υ	1.2
	@ResID_Source	StringLength1to64		Υ	1.2
	@ResID_Type	Numeric		Υ	1.2

 $Table~15.~OTA_HotelResModifyRQ~Elements~and~Attributes$

Elements can be added, modified but not removed.

Within the Membership element, once a HH membership has been entered, it cannot be deleted or changed. Other memberships can be added or changed but not deleted.

When making a modification you must include the Hilton confirmation number, this will be included in the HotelReservationIds element. The ResID will contain the Hilton confirmation number. Changes or additions are allowed to your unique identifier only.

8.2 OTA_HotelResModifyRQ Examples

This is an example of a request to modify the address on a booking for Hilton Ponce in Puerto Rico. The hotel code is "PNCHI" and the brand code for Hilton International is "HI". One room with one adults and one child is needed for one night. (The AgeQualifyingCode value of "10" is used for adults.) The address originally supplied was

In this example you can see that all elements that were supplied as part of the original booking have been re-sent as part of the modify request. Note that the Hilton confirmation number and your unique identifier are also now present in the HotelReservationIDs element.

```
<OTA_HotelResModifyRQ TimeStamp="2006-09-26T9:6:41-06:00
"Target="Production" Version="2.1" PrimaryLangID="en-us" xmlns="http://www.opentravel.org/OTA/2003/05"
ResStatus="Commit">
    <POS>
        <Source>
            <RequestorID Type="4" ID="customer1"/>
            <BookingChannel Type="2"/>
       </Source>
   </POS>
   <HotelResModifies>
        <HotelResModify>
            <RoomStays>
                <RoomStav>
                   <RoomTypes>
                       <RoomType RoomTypeCode="K1E" NumberOfUnits="1"/>
                    </RoomTypes>
                   <RatePlans>
                       <RatePlan RatePlanCode="LV3"/>
                   </RatePlans>
                   <BasicPropertyInfo BrandCode="HI" HotelCode="PNCHI"/>
            </RoomStays>
            <ResGuests>
```

```
<ResGuest>
                    <Profiles>
                        <ProfileInfo>
                            <Profile>
                                <Customer>
                                    <PersonName>
                                        <GivenName>Test</GivenName>
                                        <Surname>test</Surname>
                                    </PersonName>
                                    <Telephone PhoneNumber="281082188"/>
                                    <Address>
                                        <AddressLine>123 main</AddressLine>
                                        <CityName>memphis</CityName>
                                        <PostalCode>897655</PostalCode>
                                        <StateProv StateCode="tn"/>
                                        <CountryName Code="us"/>
                                    </Address>
                                </Customer>
                            </Profile>
                        </ProfileInfo>
                    </Profiles>
                </ResGuest>
            </ResGuests>
            <ResGlobalInfo>
                <GuestCounts IsPerRoom="1">
                    <GuestCount AgeQualifyingCode="10" Count="1"/>
                    <GuestCount AgeQualifyingCode="8" Count="1"/>
                </GuestCounts>
                <TimeSpan Start="2006-09-29" Duration="1"/>
                <Memberships>
                    <Membership AccountID="975023933" ProgramCode="HH"/>
                    <Membership AccountID="00175008470" ProgramCode="UA"/>
                </Memberships>
         <Comments>
           <Comment>
             <Text>Comment One</Text>
           </Comment>
           <Comment>
             <Text>Comment Two</Text>
           </Comment>
           <Comment>
             <Text>Comment Three</Text>
           </Comment>
         </Comments>
                <Guarantee GuaranteeCode="TA"/>
               <HotelReservationIDs>
                    <HotelReservationID ResID_Type="10" ResID_Source="Hilton" ResID_Value="3247768048"</p>
ResID_Date="2006-09-26T09:06:45.00-05:
"/>
                    <HotelReservationID ResID_Value="4234556567" ResID_Date = "2006-02-07T13:37:03.98-</p>
06:00" ResID_Source="CLIENT.COM" ResID_Type="14"/>
                </HotelReservationIDs>
            </ResGlobalInfo>
        </HotelResModify>
    </HotelResModifies>
</OTA_HotelResModifyRQ>
```

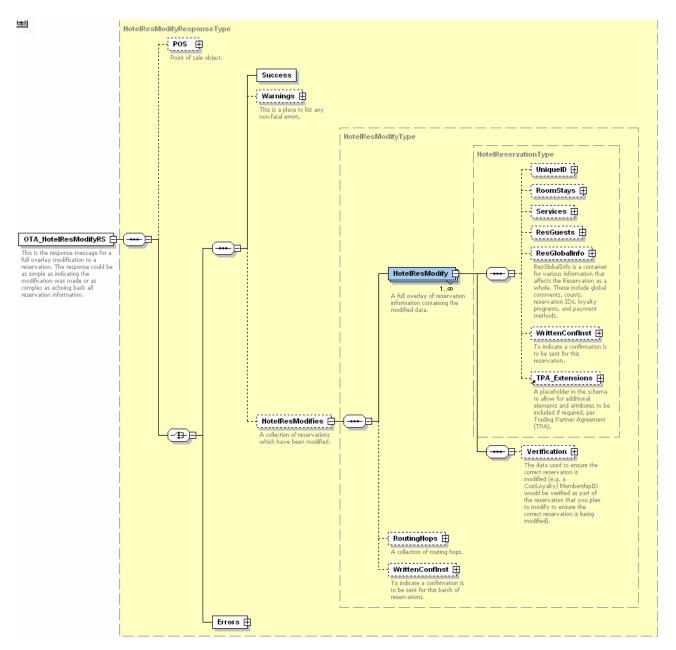


Figure 11. OTA_HotelResModifyRS schema

8.3 OTA_HotelResModifyRS Elements and Attributes

The OTA_HotelResModifyRS message is identical to the OTA_HotelResRS message, except that the element names "HotelReservations" and "HotelReservation" are replaced by the element names "HotelResModifies" and "HotelResModify", respectively.

If the ResStatus within the OTA_HotelResModifyRQ was set to "Commit" then the ResResponseType will be either "Committed" or "Unsuccessful", if set to "Initiate" the reply will be "Ignore" or 'Unsuccessful".

The following table shows the attributes of the OTA_HotelResRS elements that are supported by the Hilton Transaction Exchange.

Level	Name	Туре	Occur- rences	Required	Hilton Version
0	OTA_HotelResModifyRS		1	Y	1.2
	@ResResponseType	TransactionStatusType		Y	1.2
1	Success		01	N	1.2
1	Errors		01	N	1.2
2	Error		1	N	1.2
	@Туре	OTA_CodeType		Y	1.2
	@ShortText	StringLength1to64		Y	1.2
1	Warnings		01	N	1.2
2	Warning		0n	N	1.2
	@Туре	OTA_CodeType		Y	1.2
	@ShortText	StringLength1to64		Y	1.2
1	HotelResModifies		1	Y	1.2
2	HotelResModify		1	Y	1.2
3	RoomStays		1	Y	1.2
4	RoomStay		1	Y	1.2
5	RoomTypes		1	Y	1.2
6	RoomType		1	Y	1.2
	@RoomTypeCode	StringLength1to16		Y	1.2
	@NumberOfUnits	Numeric1to999		Y	1.2
7	RoomDescription		1	Y	1.2
8	Text		1	Y	1.2
5	RatePlans		1	Y	1.2

6	RatePlan		1	Υ	1.2
-	@RatePlanCode	Ctringle and the 16	1	Y	1.2
		StringLength1to16			
7	RatePlanDescription	Otalia al ara ath 41a C4	1	Y	1.2
	@Name	StringLength1to64		Y	1.2
5	RoomRates		1	Y	1.2
6	RoomRate		1	Y	1.2
	@EffectiveDate	xs:date		Υ	1.2
	@ExpireDate	xs:date		Υ	1.2
	@RoomTypeCode	StringLength1to64		Y	1.2
	@RatePlanCode	StringLength1to64		Y	1.2
7	Rates		1	Y	1.2
8	Rate		1n	Υ	1.2
	@EffectiveDate	xs:date		Υ	1.2
	@ExpireDate	xs:date		Υ	1.2
9	Base		1	Υ	1.2
	@AmountBeforeTax	Money		N	1.2
	@AmountAfterTax	Money		N	1.2
	@CurrencyCode	AlphaLength3		Υ	1.2
	@DecimalPlaces	xs:nonNegativeInteger		Υ	1.2
5	BasicPropertyInfo		1	Υ	1.2
	@BrandCode	StringLength1to16		Υ	1.2
	@HotelCode	StringLength1to16		Υ	1.2
	@HotelName	StringLength1to128		Υ	1.2
3	ResGlobalInfo		1	Υ	1.2
4	Guarantee		1	Υ	1.2
5	GuaranteeDescription		1	Υ	1.2
6	Text		1	Υ	1.2
4	CancelPenalties		1	Υ	1.2
5	CancelPenalty		1	Υ	1.2
6	PenaltyDescription		1	Υ	1.2
7	Text		1	Υ	1.2
4	Total		1	Υ	1.2
	@AmountAfterTax	Money		Υ	1.2
	@CurrencyCode	AlphaLength3		Y	1.2
	@DecimalPlaces	xs:nonNegativeInteger		Y	1.2
	J = 55iaii 14500	1.5		•	

6	Tax			Υ	1.2
	@Туре	OTA_CodeType		Υ	1.2
	@Amount	Money		Υ	1.2
	@Percent	Percentage		Υ	1.2
	@CurrencyCode	AlphaLength3		Υ	1.2
	@DecimalPlaces	xs:nonNegativeInteger		Υ	1.2
4	HotelReservationIDs		1	Υ	1.2
5	HotelReservationID		12	Υ	1.2
	@ResID_Value	StringLength1to64		Υ	1.2
	@ResID_Date	xs:dateTime		Υ	1.2
	@ResID_Source	StringLength1to64		Υ	1.2
	@ResID_Type	Numeric		Υ	1.2

Table 16. OTA_HotelResModifyRS Elements and Attributes

8.4 OTA_HotelResModifyRS Examples

This is an example of a successful response to a request to modify a reservation from 2 to 3 nights. The original elements were:

```
<RoomRates>
            <RoomRate RatePlanCode="LV3" RoomTypeCode="Q1D" EffectiveDate="2006-06-06" Ex-
pireDate="2006-06-08">
               <Rates>
                 <Rate EffectiveDate="2006-06-06" ExpireDate="2006-06-07">
                   <Base DecimalPlaces="2" CurrencyCode="GBP" AmountBeforeTax="118.50"/>
               </Rates>
             </RoomRate>
        </RoomRates>
        <OTA_HotelResModifyRS xmlns="http://www.opentravel.org/OTA/2003/05" Target="Test" Pri-
maryLangID="en-us" Version="2.1" ResResponseType="Committed" TimeStamp="2006-02-
07T13:39:54.86-06:00">
  <Success/>
  <HotelResModifies>
    <HotelResModify>
      <RoomStays>
         <RoomStay>
           <RoomTypes>
             <RoomType RoomTypeCode="Q1D" NumberOfUnits="1">
               <RoomDescription>
                 <Text>QUEEN HILTON DELUXE</Text>
               </RoomDescription>
             </RoomType>
```

```
</RoomTypes>
           <RatePlans>
             <RatePlan RatePlanCode="LV3">
               <RatePlanDescription>
                 <Text>BEST AVAILABLE RATE</Text>
               </RatePlanDescription>
             </RatePlan>
           </RatePlans>
           <RoomRates>
             <RoomRate RatePlanCode="LV3" RoomTypeCode="Q1D" EffectiveDate="2006-06-06" Ex-
pireDate="2006-06-08">
               <Rates>
                 <Rate EffectiveDate="2006-06-06" ExpireDate="2006-06-08">
                    <Base DecimalPlaces="2" CurrencyCode="GBP" AmountBeforeTax="239.00"/>
               </Rates>
             </RoomRate>
           </RoomRates>
           <BasicPropertyInfo BrandCode="HI" HotelName="WALDORF LONDON HILTON" Hotel-
Code="LONWA"/>
        </RoomStay>
      </RoomStays>
      <ResGlobalInfo>
         <Guarantee>
           <GuaranteeDescription>
             <Text>CREDIT CARD GUARANTEE</Text>
           </GuaranteeDescription>
         </Guarantee>
         <CancelPenalties>
           <CancelPenalty>
             <PenaltyDescription>
               <Text>4PM Cxl on Arr Date</Text>
             </PenaltyDescription>
           </CancelPenalty>
         </CancelPenalties>
         <Total DecimalPlaces="2" CurrencyCode="GBP" AmountAfterTax="561.65">
             <Tax Code="17" DecimalPlaces="2" Amount="83.65" CurrencyCode="GBP"/>
           </Taxes>
        </Total>
        <HotelReservationIDs>
           <HotelReservationID ResID_Type="10" ResID_Source="Hilton" ResID_Value="3228371334"</p>
ResID_Date="2006-02-07T13:39:57.98-06:00"/>
         </HotelReservationIDs>
      </ResGlobalInfo>
    </HotelResModify>
  </HotelResModifies>
</OTA_HotelResModifyRS>
```

The following example is a request that has failed, due to the fact that the PaymentCard element's ExpireDate attribute is invalid. (The MMYY value of "2007" is not correct.) Error Type "3" is a "Biz rule" error in the OTA Code List Error Warning Type (EWT).

9 OTA_Cancel

The OTA_CancelRQ/RS messages are used to cancel a previously made reservation. The request will cancel the entire reservation. If you need to cancel a "segment" of a reservation, then it is a modification and you should send an OTA_HotelResModifyRQ message.

A reservation can only be cancelled if the following two conditions are met:

- The reservation was made by you.
- The OTA_CancelRQ message contains the confirmation number of the reservation.

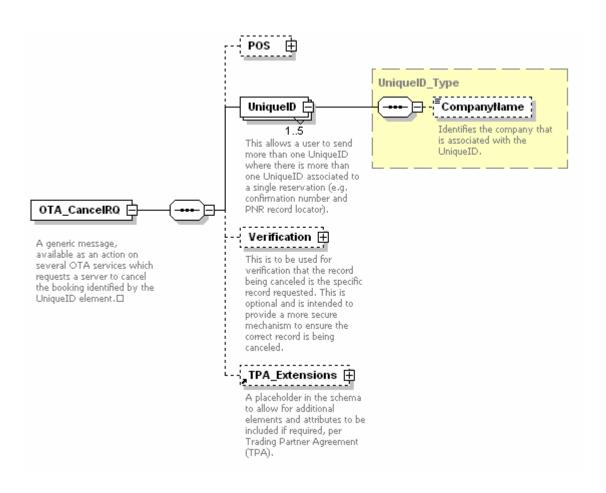


Figure 12. OTA_CancelRQ schema

8.1 OTA_CancelRQ Elements and Attributes

In the OTA_CancelRQ message, the CancelType attribute should always be "Commit". No partial or pending cancellations are allowed

Level	Name	Туре	Occur- rences	Required	Hilton version
0	OTA_CancelRQ		1		1.2
	@CancelType	TransactionActionType			1.2
1	UniqueID		12	Y	1.2
	@ID	StringLength1to32		Y	1.2
	@Туре	OTA_CodeType		Y	1.2
2	CompanyName		1		1.2
1	Verification		1	Y	1.2
2	PersonName		1	Y	1.2
3	GivenName		1	Y	1.2

3	Surname	1	Υ	1.2
2	Vendor	2	Y	1.2
	@Code		Y	1.2
2	ReservationTimeSpan	1	Υ	1.2
	@Start		Υ	1.2
	@Duration		Υ	1.2

Table 17. OTA_CancelRQ Elements and Attributes

There can be 2 occurrences of the UniqueID element. One to contain the confirmation number generated by the HTE Exchange which is required and the other for any identifier that you maintain for the reservation on your side which is optional. The value of the UniqueID@Type should be "10", (according to the OTA Code List Unique ID Type) which signifies that the ID is a HTE reservation number and "14" to send in your identifier. UniqueID@ID will be the actual reservation number or identifier associated with the UniqueID@Type. Verification is the container element for the cancellation verification information. Guest name, Property information and the time span of reservation need to be sent in the Verification element to ensure that the correct booking is being cancelled. The Vendor element is used to send in the property information. The possible values for Vendor@Code are "2" for BrandCode and "3" for HotelCode.

The following is an example of OTA_CancelRQ, "987" is the identifier used by the company "Hotels123" sending in the transaction, and this information will be echoed back in the reply transaction. "3091234567" is the confirmation number that was returned by the Hilton Transaction Exchange in the OTA_HotelResRS transaction, this is required for the reservation to be cancelled.

<GivenName>John</GivenName>

<Surname>Smith</Surname>

</PersonName>

<Vendor Code="2">HI</Vendor>

<Vendor Code="3">LONWA</Vendor>

<ReservationTimeSpan Start="2006-01-09" Duration="P5D"/>

</Verification>

</OTA_CancelRQ>

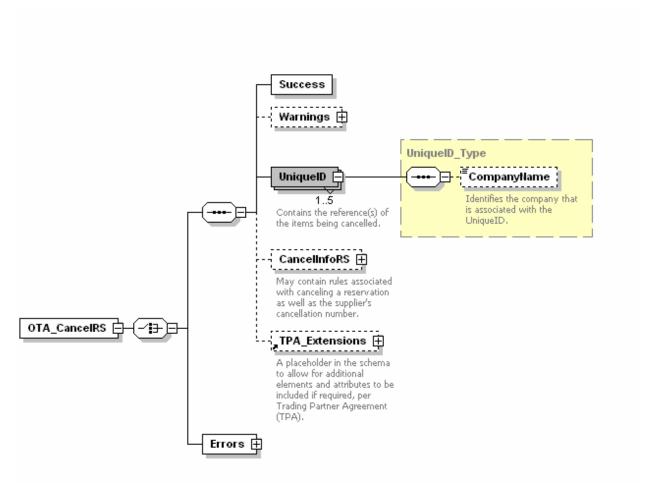


Figure 13. OTA_CancelRS schema

8.2 OTA_CancelRS Elements and Attributes

The OTA_CancelRS message will indicate that either the cancellation was successful or it was not. If the reservation was successfully cancelled, a <Success/> element and a cancellation number will be provided.

Level	Name	Туре	Occur- rences	Required	Hilton version
0	OTA_CancelRS		1		1.2
	@ Status	TransactionStatusType	1	Y	1.2
1	UniqueID		12	Y	1.2
	@ID	StringLength1to32	1	Υ	1.2

	@Туре	OTA_CodeType	1	Y	1.2
2	CompanyName		1		1.2
1	CancelInfoRS		01		1.2
2	UniqueID		1		1.2
	@ID	StringLength1to32	1		1.2
	@Туре	OTA_CodeType	1		1.2
3	CompanyName		1		1.2

Table 18. OTA_CancelRS Elements and Attributes

OTA_CancelRS@Status will be "Cancelled" if the cancellation was successful or "Ignored" if the cancellation was not successful.

The UniqueID elements that were sent in the OTA_CancelRQ will be echoed back in the UniqueID elements in OTA_CancelRS element.

If the cancellation was successful then CancelInfoRS element will contain a UniqueID element with the UniqueID@Type attribute of "10" (according to the OTA Code List Unique ID Type (UIT)) and UniqueID@ID will be the cancellation number.

If the cancellation was not successful, an <Error> element will be provided, and it will include the reason why the reservation could not be cancelled. An Error Type value of "3" indicates a "Biz rule" according to the OTA Code List Error Warning Type (EWT).

The following example are two possible responses.

A successful response:

An unsuccessful response:

```
<OTA_CancelRS TimeStamp="2005-05-11T23:17:42-06:00" Target="Production" Version="2.1" Primary-LangID="en-us" xmlns="http://www.opentravel.org/OTA/2003/05/"> <Errors>
```

<Error Type="3" ShortText="Cancel Policy">The reservation could not be cancelled because of the cancellation policy that is currently in effect.

</Errors>
</OTA_CancelRS>

10 OTA_Ping

The OTA_Ping message is used to test application connectivity. Free-form text data that is passed to the server in the request is echoed back in the response message.

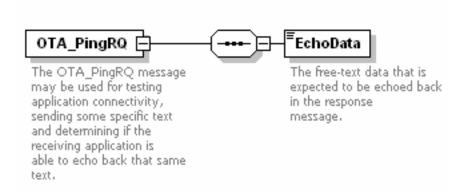


Figure 14. OTA_PingRQ schema

10.1 OTA_PingRQ Elements and Attributes

The supported attributes and elements for this request are shown in the following table.

Level	Name	Туре	Occurences	Required	Hilton version
0	OTA_PingRQ		1		
	@Timestamp	xs:dateTime		Y	1.0
	@Target	xs:NMTOKEN		Υ	1.0
	@Version	xs:decimal		Υ	1.0
	@PrimaryLangID	xs:language		Υ	1.0
	@xmlns	URI		Y	
1	EchoData		1		

Table 19. OTA_PingRQ Elements and Attributes

The following is an example of a request.

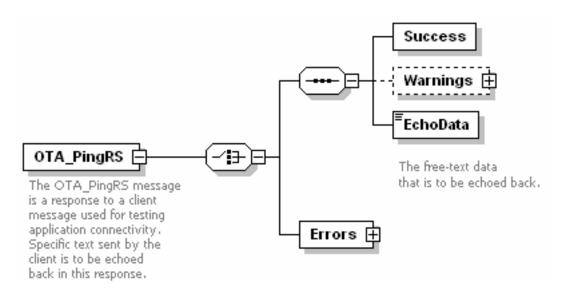


Figure 15. OTA_PingRS schema

10.2 OTA_PingRS Elements and Attributes

The elements and attributes supported by the Transaction Exchange shown below.

Level	Name	Туре	Occurences	Required	Hilton version
0	OTA_PingRS		1		
	@Timestamp	xs:dateTime		Y	1.0
	@Target	xs:NMTOKEN		Y	1.0
	@Version	xs:decimal		Υ	1.0
	@PrimaryLangID	xs:language		Y	1.0
	@xmlns	URI		Y	
1	EchoData		1		

Table 20. OTA_PingRS Elements and Attributes

The following is an example of a response.

11. OTA_HotelDescriptiveInfo

The OTA_ HotelDescriptiveInfoRQ/RS messages are used to provide detailed descriptive information about a hotel property. The OTA_ HotelDescriptiveInfoRQ message must contain the hotel property's HotelCode. The OTA_HotelDescriptiveInfoRS message is intended to provide detailed information regarding a property's different service offerings, amenities, area information, as well as policies and the local contact information. The maximum number of HotelCodes that can be requested in a single request to the Hilton Transaction Exchange is limited to twenty-five requests.

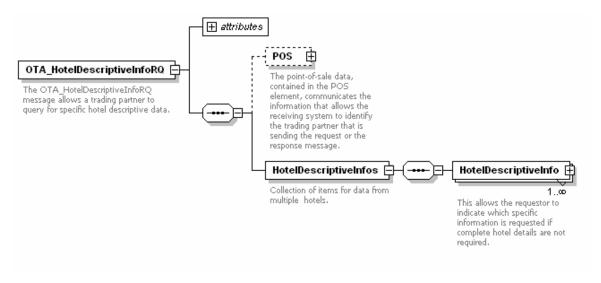


Figure 166. OTA_HotelDescriptiveInfoRQ schema

11.1 OTA_HotelDescriptiveInfoRQ Elements and Attributes

The OTA_ HotelDescriptiveInfoRQ message is used to gain descriptive information regarding a particular property by simply providing the property's HotelCode.

The following shows the supported attributes and elements for this request.

Level	Name	Туре	Occurrences	Required	Hilton version
0	OTA_HotelDescriptiveInfoRQ		1		2.0
1	HotelDescriptiveInfos		1	Y	2.0
2	HotelDescriptiveInfo		125	Y	2.0
	@ HotelCode	StringLength1to8		Υ	2.0

Table 211. OTA_HotelDescriptiveInfoRQ Elements and Attributes

The following is an example of a request for Hotel Descriptive Information:

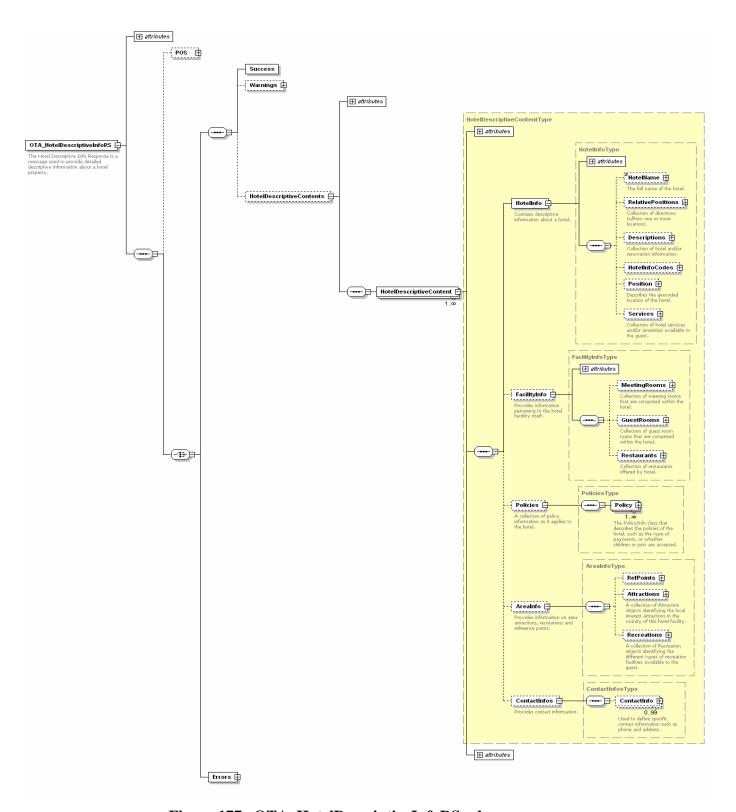


Figure 177. OTA_HotelDescriptiveInfoRS schema

11.2 OTA_HotelDescriptiveInfoRS Elements and Attributes

The following table shows the attributes of the OTA_HotelDescriptiveInfoRS that are supported by the Hilton Transaction Exchange.

Level	Name	Туре	Occurrences	Required	Hilton Version
0	OTA_HotelDescriptiveInfoRS		1	Y	2.0
1	Success		01	N	2.0
1	Errors		01	Ν	2.0
2	Error		1	Υ	2.0
	@Type	OTA_CodeType		Y	
	@shortText	StringLength1to64		Y	
1	Warrnings		01	N	2.0
	@Type	OTA_CodeType		Y	
1	HotelDescriptiveContents		1	Υ	2.0
2	HotelDescriptiveContent		125	Y	2.0
	@ HotelCityCode	StringLength1to8			
	@ HotelName	StringLength1to128			
	@ ChainCode	StringLength1to8			
	@ HotelCode	StringLength1to16			
3	HotelInfo		1	Y	2.0
4	Descriptions		1	Y	2.0
5	Description		1	Υ	2.0
6	Text		1	Y	2.0
6	URL		1	Y	2.0
4	Position		1	Υ	2.0
	@Latitude	StringLength1to64	1	Υ	2.0
	@Longitude	StringLength1to64	1	Υ	2.0
4	Services		1n	N	2.0
	@CodeDetail	StringLength1to64		Υ	2.0
	@Code	OTA_CodeType (HAC)		N	2.0
	@ProximityCode	ProximityType		Υ	2.0
	@ BusinessServiceCode	OTA_CodeType (BUS)		N	2.0
3	FacilityInfo			N	2.0

Level	Name	Туре	Occurrences	Required	Hilton Version
	@ LastUpdated	dateTime		Υ	2.0
4	GuestRooms			Υ	2.0
5	GuestRoom			Υ	2.0
6	Amenities		1n	Υ	2.0
	@ CodeDetail	StringLength1to64		Υ	2.0
	@ RoomAmenityCode	OTA_CodeType (RMA)		Υ	2.0
	@ ProximityCode	ProximityType		Υ	2.0
3	Policies			Υ	2.0
4	Policy			Υ	2.0
5	PolicyInfo			Υ	2.0
	@ CheckInTime	TimeOrDateTimeType		Υ	2.0
	@ CheckOutTime	TimeOrDateTimeType		Υ	2.0
3	AreaInfo			N	2.0
4	Recreations			Υ	2.0
5	Recreation		1n	Υ	2.0
	@ CodeDetail	StringLength1to64		Υ	2.0
	@ Code	OTA_CodeType (RST)		Υ	2.0
	@ ProximityCode	ProximityType		Υ	2.0
3	ContactInfos			Υ	2.0
4	ContactInfo		1	Υ	2.0
5	Addresses		1	Υ	2.0
6	Address		1	Υ	2.0
7	AddressLine		13	Υ	2.0
7	CityName		1	N	2.0
7	PostalCode		01	N	2.0
7	StateProv		01	N	2.0
7	CountryName		1	N	2.0
5	Phones		1	Υ	2.0
6	Phone		1	Υ	2.0
	@ PhoneNumber	StringLength1to32	1	N	2.0
	@ PhoneTechType	OTA_CodeType (PTT)	1	N	2.0

 $Table~22.~OTA_HotelDescriptiveInfoRS~Elements~and~Attributes$

An example of a successful response:

<Text>The Hilton Chicago O'Hare is ideally located in the heart of O'Hare International Airport. The hotel is within walking distance to all O'Hare Airport terminals and the Chicago CTA L train system. The Hilton Chicago O'Hare Airport is also minutes away from the Donald A. Stephens Convention Center, Rosemont Theater, and Allstate Arena. The hotel presents all the amenities of a full-service hotel including Andiamo and Gaslight restaurants, in-room dining, Sports Edition Lounge, business center and shops. The hotel also boasts a full athletic club that includes the most modern fitness equipment, lap pool, jacuzzi, steam room, sauna, massage therapists and tanning bed. The Hilton Chicago O'Hare Airport also offers customers new modern services and amenities including self check-in kiosks, wireless high speed internet access as well as some new "Enviro-Rooms" designed for customers with allergy related sensitivities. There are 43 meeting rooms conveniently located on the Conference Level as well as ballrooms which can accommodate up to 400 people. State-of-the-art telecommunications and audio visual systems are available with full conference capabilities. It is these exceptional meeting facilities combined with high levels of service that the Hilton Chicago O'Hare Airport has earned recognitions within the meeting industry for Best Airport Hotel in the country.

```
<URL>http://www.hilton.com/en/hi/hotels/index.jhtml?ctyhocn=CHIOHHH</URL>
    </Description>
  </Descriptions>
  <Position Latitude="41.9787" Longitude="-87.895"/>
  <Services>
    <Service CodeDetail="Meeting Rooms" Code="24" ProximityCode="onsite"/>
    <Service CodeDetail="Restaraunt" Code="76" ProximityCode="onsite"/>
    <Service CodeDetail="High Speed Internet" Code="178" ProximityCode="onsite"/>
    <Service CodeDetail="Wireless Internet Access" Code="179" ProximityCode="onsite"/>
    <Service CodeDetail="Whirlpool" Code="102" ProximityCode="onsite"/>
    <Service CodeDetail="Pool" Code="71" ProximityCode="onsite"/>
    <Service CodeDetail="Wheel chair access!" Code="101" ProximityCode="onsite"/>
    <Service CodeDetail="Business Center" ProximityCode="onsite" BusinessServiceCode="39"/>
  </Services>
</HotelInfo>
<FacilityInfo LastUpdated="2005-09-09T13:52:57-06:00">
  <GuestRooms>
    <GuestRoom>
       <Amenities>
         <Amenity CodeDetail="Pets Allowed" RoomAmenityCode="140"/>
       </Amenities>
    </GuestRoom>
  </GuestRooms>
</FacilityInfo>
<Policies>
  <Policv>
    <PolicyInfo CheckInTime="15:00:00" CheckOutTime="24:00:00"/>
  </Policy>
</Policies>
<AreaInfo>
  <Recreations>
    <Recreation CodeDetail="Fitness Center" Code="23" ProximityCode="onsite"/>
    <Recreation/>
  </Recreations>
</AreaInfo>
<ContactInfos>
  <ContactInfo>
    <Addresses>
```

Appendix A. Constants

The following Hilton-specific constant values should be used. For OTA-specified constants, see the 2004B OTA specification code table.

Hilton H	otels Brand Codes		
Code	Value	Code	Value
HP	Hampton Inns	HI	Hilton Hotels & Waldorf=Astoria Collection
ES	Embassy Suites	DT	DoubleTree
HW	Homewood Suites	SH	Scandic
GI	Garden Inns	СН	Conrad

OTA Code Lis	st Error Warning Type (EW	T) – 2004B Specification
Code	Name	Description
1	Unknown	Indicates an unknown error
2	No implementation	Indicates that the target business system has no implementation for the intended request.
3	Biz rule	Indicates that the XML message has passed a low-level validation check, but that the business rules for the request message were not met.
4	Authentication	Indicates the message lacks adequate security credentials
5	Authentication timeout	Indicates that the security credentials in the message have expired
6	Authorization	Indicates the message lacks adequate security credentials
7	Protocol violation	Indicates that a request was sent within a message exchange that does not align to the message
8	Transaction model	Indicates that the target business system does not support the intended transaction-oriented operation
9	Authentical model	Indicates the type of authentication requested is not recognized
10	Required field missing	Indicates that an element or attribute that is required by the schema (or required by agreement between trading partners) is missing from the message

Hilton Hotels Mea	I Plan Codes
Meal Plan Code	Description
А	Full American Plan
В	Buffet Breakfast
С	Continental Breakfast
D	Dinner
E	Brazilian Breakfast
F	Full English Breakfast
G	Israeli Breakfast
Н	Japanese Breakfast
I	Breakfast & Dinner
J	Childs Breakfast
К	Childs Lunch
L	Lunch
M	Modified American Plan
N	None
0	Buffet Lunch
Р	Buffet Dinner
R	3 Course Lunch
S	3 Course Dinner
Т	Rm Svc Continental Breakfast
U	Breakfast & Lunch
V	Rm Svc English Breakfast
W	Childs Dinner
X	Executive Floor Breakfast
Z	All Inclusive

Hilton Hotels R	ate Plan Codes	
Code	Name	Description
BAR	Best Available Rate	This rate is the lowest published rate for the day or days associated with the stay for the room type selected at the property.
CORPORATE	Corporate Rate	Corporate rates are those rates that are available only to the specific company at the hotel for a specific room type. These may be static or floating depending on how the rate for the company has been configured for the specific hotel.
LEISURE	Leisure Rate	Each brand has a specific set of leisure rates that are available to the general public. These rates may differ from BAR but will also have specific amenities or options associated with the rate - for example, free breakfast or a food and beverage credit.
MEMBERSHIP	Membership Rate	Typically this includes AAA and AARP rates only. Brands may choose to include additional rate plans in this category in the future.
ADV PUR- CHASE	Advance Purchase	Internet rates that require full pre-payment at time of booking. These rates may be lower than BAR but do not allow cancellation after booking.

Hilton Hotels F	Room Amenity Codes	
Code	Name	Description
0	One Bed	Indicates that the room has one bed, regardless of bed the type.
1	Two Beds	Indicates that the room has two beds, regardless of the bed type.
2	Suite	Indicates the room is classified as a suite.
3	Executive	Indicates the room is classified as an executive room.
4	Towers	The location of the room is a tower in the hotel.
5	Accessible	The room is handicapped-accessible.
6	Smoking	Indicates the room is a smoking room.
7	Non-smoking	Indicates the room is a non-smoking room.

8 Meal Plan The meal plan code associated with the room stay

Appendix B. References

The following documents and publications are referenced in this document:

SOAP 1.1 Specification http://www.w3.org/TR/2000/NOTE-SOAP-20000508/

HTTP 1.1 Status Codes http://www.w3.org/Protocols/HTTP/HTRESP.html

IATA codes http://www.iata.org

ISO 4217 Currency Codes http://www.id3.org/iso4217.html

OTA 2004B Specification http://www.opentravel.org/2004B/

XML 1.0 Specification http://www.w3.org/TR/2004/REC-xml-20040204/

Appendix C. Acronyms and Abbreviations

The following acronyms and abbreviations are used in this document:

HTTP HyperText Transfer Protocol

IATA International Air Transportation Code

OTA Open Travel Alliance

SOAP Simple Object Access Protocol

SSL Secure Sockets Layer

XML Extensible Markup Language

XSD XML Schema Definition

Appendix D. Definitions

The following terms are used in this document:

D.1 Closed Architecture

A design for a system (either hardware, software, or both) which is proprietary. This makes it difficult to connect the system to other systems or products. See *Open Architecture*.

D.2 Digital Certificate

An attachment to an electronic message used for security purposes. The most common use of a digital certificate is to verify that a user sending a message is who he or she claims to be, and to provide the receiver with the means to encode a reply. To send an encrypted message, the sender must apply for a digital certificate from a Certificate Authority. The Certificate Authority provides two keys – a public key and a private key, both of which are required to encrypt and decrypt the message successfully.

D.3 Industry Standard

A definition or format that has been approved by a recognized standards organization. Standards exist for programming languages, operating systems, data format, communications protocols and electrical interfaces.

D.4 Open Architecture

A design involving hardware and/or software systems that conform to specifications that are public, resulting in systems that can use standard components.

D.5 Standards-Based Computing

The practice of deploying hardware or software that is in general use in the industry, either because it meets the criteria of a standards organization (industry standard) or because general market acceptance has resulted in widespread use (de facto standard).

D.6 Tunneling

A technology that enables one network to send its data via another network's connections. Tunneling works by encapsulating a network protocol within packets carried by the second network.. For instance, the Internet Inter-Orb Protocol (iiop) embeds its own network protocol within tcp/ip packets carried by the internet. Tunneling is also called *encapsulation*.

D.7 Web Service

A software resource or reusable component that is made available on the internet or an intranet.

Appendix E. Record of Changes

The following section details changes that have been applied to this document.

E.1 Release Version 1.1

Initial release of the Hilton Transaction Exchange.

Additions

- Introduction
- Messaging Protocol
- Messaging Content
- Supported Transactions
- OTA_HotelSearch
- OTA_HotelAvail
- OTA_Ping
- Appendix A Constants
- Appendix B References
- Appendix C Acronyms and Abbreviations
- Appendix D Definitions

E.2 Release Version 1.2

Enhancement to add book, modify and cancel functionality.

Changes

- Messaging Protocol
 - Made changes to Soap Fault elements
- OTA_HotelSearch
 - o Filled the required column for OTA_HotelSearchRQ and OTA_HotelSearchRS
- OTA HotelAvail
 - Added the RoomStayCandidates Element to the OTA_HotelAvailRQ Element and Attributes table
 - o Added some description related to the RoomStayCandidates Element
 - o Included the RoomStayCandidates Element in OTA_HotelAvailRQ Examples
 - o Rate changes will not be returned in the OTA_HotelAvailRS
 - o The Rate returned in OTA_HotelAvailRS will be for the first day of arrival
 - Moved the <criteria> element in all the OTA_HotelAvailRS transaction below the <RoomStays> element.
 - o Filled the required column for OTA_HotelAvailRQ and OTA_HotelAvailRS

Additions

- OTA_HotelRes
- OTA_HotelResModify
- OTA_Cancel
- Appendix E Record of Changes

E.3 Release Version 1.3

Enhanced all the transactions to be OTA compliant.

Changes

- Messaging Protocol
 - o Changed the xmlns in the SOAP body to www.opentravel.org/OTA/2003/05
 - O Changed the value of the xmlns attribute in the <Interface> element to "http://www.hilton.com/ota/header"
- Supported Transactions
 - o Changed the value of the xmlns attribute in the root elements to www.opentravel.ord/OTA/2003/05
- OTA HotelSearch
 - o The Version attribute was changed from "2004B" to "1.3".
 - o The Primary-LangID attribute was corrected to read PrimaryLangID.
 - o The xmlns attribute was changed to http://www.opentravel.org/OTA/2003/05/.
 - o Changed all the examples
 - o The DistanceMeasure will be either "Mile" or "Km"
 - o In OTA_HotelSearchRS moved the <Criteria> element after <Properties>
 - o <PostalCode> element was moved to be immediately below <CityName>
 - o Attribute Release was removed from <OTA HotelSearchRS> examples

• OTA HotelAvail

- o The Version attribute was changed from "2004B" to "1.3".
- o The Primary-LangID attribute was corrected to read PrimaryLangID.
- o The xmlns attribute was changed to http://www.opentravel.org/OTA/2003/05/.
- o Removed attribute ResStatus from element <OTA_HotelSearchRQ>
- Added <AvailRequestSegments> in the OTA_HotelAvailRQ to wrap the <Avail-RequestSegment>
- o The Duration attribute of the <StayDateRange> element has been redefined to be of the format P[0-90]D.
- o Changed the value of attribute IsPerRoom from "True" to "1"
- o Only one <HotelRef> element can be under <Criterion>.
- o Multiple < Criterion > elements are allowed.
- Moved the attribute <Quantity> from the <RoomStayCandidates> element to <RoomStayCandidate>
- o Attribute Release was removed from <OTA HotelAvailRS> examples

OTA_HotelRes

- o The Version attribute was changed from "2004B" to "1.3".
- o The Primary-LangID attribute was corrected to read PrimaryLangID.
- o The xmlns attribute was changed to http://www.opentravel.org/OTA/2003/05/.
- o The Duration attribute of the <StayDateRange> element has been redefined to be of the format P[0-90]D.
- Changed the element <ProfilesInfo> to <ProfileInfo>
- o ResID_Date in the <HotelReservationID> element needs to be datetime type
- Removed attribute Name from element <RatePlanDescription> and added a child element <Text>
- o Changed the value of attribute IsPerRoom from "True" to "1"
- o Changed attribute Type in the <Tax> element to attribute Code
- o Attribute Release was removed from <OTA_HotelResRS> examples
- Maximum of three <AddressLine> elements can sent in the OTA_HotelResRQ transaction.
- o Changed Table 20. OTA 2004B Specification Credit Card Codes to make a note of the Credit cards that are not supported by HTE.

OTA_HotelResModify

OTA_Cancel

- o The Version attribute was changed from "2004B" to "1.3".
- o The Primary-LangID attribute was corrected to read PrimaryLangID.
- o The xmlns attribute was changed to http://www.opentravel.org/OTA/2003/05/.
- The Duration attribute of the <StayDateRange> element has been redefined to be of the format P[0-90]D.
- o Changed all the examples
- o Moved the <ReservationTimeStamp> element after the <Vendor> element
- o Attribute Release was removed from <OTA_CancelRS> examples

OTA_Ping

- o The Version attribute was changed from "2004B" to "1.3".
- o The Primary-LangID attribute was corrected to read PrimaryLangID.
- o The xmlns attribute was changed to http://www.opentravel.org/OTA/2003/05/.

o Included the <Success/> element in the OTA_PingRS example

E.4 Release Version 1.3.2

Included OTA_HotelResModify

E.5 Release Version 1.3.3

- The example for the OTA_HotelSearchRS had invalid properties specified, so replaced it with a correct response.
- Changed section 2.5 regarding SSL and the certificates.

E.6 Release Version 2.0

- OTA HotelAvail
 - o Added new elements and attributes to the Table 9. for version 2.0
 - Added explanation for elements and attributes in <RatePlanCandidates>
 - Added a new example for OTA_HotelAvailRQ
 - o Added new elements and attributes to the Table 10. for version 2.0
 - o Added explanation for the new elements and attributes
 - o Added Table 11 which lists all the guranatee policies supported by HTE.
 - o Changed the examples to include the new elements for version 2.0
 - Added a new example for client specific rates

• OTA HotelRes

- o Added new elements for version 2.0 in the Table 12
- o Added explanation for all the new elements and attributes
- o Changed the existing example to include the GuranteeCode attribute since it is mandatory for version 2.0
- o Added a new example to book client specific rates and request email confirmation
- OTA_HotelResModify
 - o Added new elements for version 2.0 in Table 15
- OTA HotelDescriptiveInfo
 - Added entire new section.

E.7 Release Version 2.1

- SOAP header
 - o Changed the value of the ResponderId from "hilton" to "Hilton".

o Removed the examples and included new examples for version 2.1

SOAP Body

o Changed the example

• Common Elements

o Removed the explanation on attribute EchoToken since it is not used by HTE.

• OTA_HotelSearch

- o Changed the version to "2.1" in all the examples.
- o Removed the explanation on attribute SearchValueMatch@Match since it was not used in the OTA_HotelSearchRS transaction.

• OTA HotelAvail

- o Added a line to state that only single adult rates are returned if multiple hotels are sent in OTA_HotelAvailRQ.
- o Changed the examples.
- o Added new attributes for OTA_HotelAvailRS
- o Changed additional guarantee codes in Table 11.

OTA_HotelRes

- o Changed the occurrence for element Guarantee.
- o Changed the examples.
- Added explanantion for service charges.
- o Added attribute Gurantee@GuaranteeCode.
- o Changed the version to "2.1" in all the examples.

OTA_Cancel

o Changed the version to "2.1" in all the examples.

OTA_Ping

o Changed the version to "2.1" in all the examples.

OTA_HotelDescriptiveInfo

- o Changed the version to "2.1" in all the examples.
- Added Appendix F Best Practices and Frequently Asked Questions.

Compatible Releases

• Version 2.1 is backward compatible with v2.0.

Appendix F. Best Practices and Frequently Asked Questions (FAQ)

Listed below are best practices and some frequently asked questions regarding HTE errors, development, troubleshooting, and connectivity. Click on the question to go an answer.

- My request times out.
- I am getting a "403 Forbidden" error.
- Why am I getting a handshake failure?
- Why am I getting no response from your server?
- I am getting a "connection is refused" message.
- I am getting a "certificate expired" message.
- Why I am getting a "certificate does not match" error.
- Why am I receiving a "no trusted certificate found" error?
- I still can't connect to the Hilton server.
- My elements contain namespace prefixes and my transactions are failing. What do I do?
- Does OTA offer a WSDL for creating my xml transactions?

Connectivity Error Messages – If you receive one or more of the following errors, please verify the IP address you are using is within the IP range that you originally provided us. Many times a client may undergo network changes during the development process and be attempting to use an IP address that has not been previously authenticated against the Hilton firewalls.

- Request timed out.
- Http status: 403 Forbidden.
- FaultString: javax.net.ssl.SSLHandshakeException. Received fatal alert: handshake_failure.
- There is no error or there is no response from our server or the connection is refused.

Verify with your network engineers that your IP addresses are allowing connection to Hilton on ports 11200 and 11201 only. In some instances, client networks have translated the https request to other incorrect ports, i.e. 80.

If you discover that your IP address is not within the range you provided to Hilton, please let us know immediately by contacting your development rep or by emailing <a href="https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https://https:/

Certificate Related Error Messages – HTE requires a signed Verisign certificate. If you encounter any of the errors below, please verify that a Verisign certificate has been loaded into your SSL library. See the Developer's Guide, page 8, for additional information.

- Certificate Expired -or- Certificate Does Not Match
- sun.security.validator.ValidatorException: No trusted certificate found.

Additional Connectivity Test – If all the above problems have been ruled out or corrected, please perform the test(s) below. This test will help us determine if the issue is on your end or our end.

From your box do the following:

- wget https://htestg.hilton.com:11201/ota/OTA.pl (For HTE Stg)
- wget https://hte.hilton.com:11201/ota/OTA.pl (For HTE Prod)

The correct response from us should be -

```
wget https://hte.hilton.com:11201/ota/OTA.pl
https://hte.hilton.com:11201/ota/OTA.pl
=> `OTA.pl'
Resolving hte.hilton.com... done.
Connecting to hte.hilton.com[192.251.124.81]:11201... connected.
HTTP request sent, awaiting response... 411 Length Required
ERROR 411: Length Required
```

If you get the following, please contact us immediately with the IP address from where you did the above test and date when you performed this test. This will help us research our firewall logs and analyze the issue.

```
wget https://hte.hilton.com:11201/ota/OTA.pl
https://hte.hilton.com:11201/ota/OTA.pl
=> `OTA.pl'
Resolving hte.hilton.com... done.
Connecting to hte.hilton.com[192.251.124.81]:11201... connected.
```

Unable to establish SSL connection

Element Prefixes – Some development tools will insert a namespace prefix such as ":ns1" or ":element" at the beginning of each element. HTE does not accept any leading element prefixes. Some of our clients have found helpful information regarding namespace prefixes at this Java Forum location: http://forum.java.sun.com/thread.jspa?threadID=697876&tstart=75

Web Services Description Language (WSDL) – The OTA community has not defined a WSDL to be used in conjunction with HTE xml transaction development at this time. Some of our clients have found helpful information at the below locations.

- Open Travel Alliance website -http://www.opentravel.org/pdf/projects/2006A/Arch2006AProjectTeamProposal_WSDL_Pub.pdf.
- Google Groups: <u>OTA Implementors Forum</u> (see specific entry "Working with OTA schema services using Weblogic").