API Developer Notes

Hotel Shopping and Booking

25 October 2011

Version 1.2

Contents

Overview

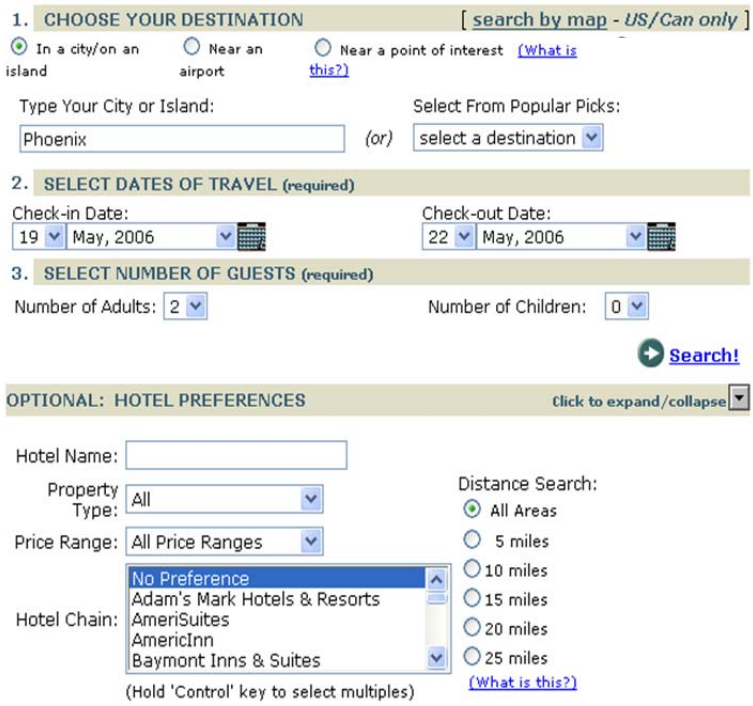
Hotel shopping information is held in the Galileo RoomMaster product. The hotel Shopping process typically starts with a request to obtain hotel availability for the traveler's criteria, although room rates can be accessed directly if the RoomMaster property number is known. The traveler then selects from the list of properties, and rates for that property are obtained. Descriptive information for each property can also be retrieved. A specific rate can then be selected, and rules and details for that rate displayed.

Shopping for Hotels

The minimum information required for a hotel availability request is a location, a check-in date, a check-out date, and the number of adult travelers. You can also include optional search criteria in the request to get closer to an exact match of the traveler's needs. Optional criteria include, but are not limited to:

- Hotel chain preferences.
- A reference point with a distance stipulation.
- A hotel name.
- A postal code.

The following example shows a sample Availability screen:



If the traveler has already booked a flight on your site, it is good practice to pre-populate the location, check-in date, and check-out date based on the previous flights, as shown in the preceding image. As with any user interface, the traveler should be prohibited from entering invalid information, such as:

- Dates that have already passed.
- Dates in the distant future.
- A check-out date that is before the check-in date.

You can dynamically validate the hotel location using Galileo's Reference Data. Depending on the product, Reference Data (also known as *local data*) is available for download or is distributed with the product.

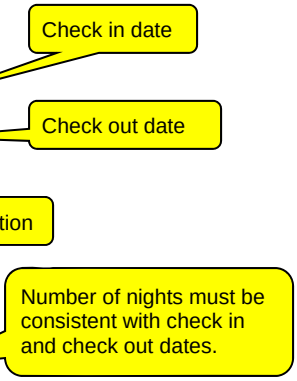
Locations can be airport or city codes or actual airport or city names. In some cases, the city and airport code are the same (e.g., BOS for the city of Boston and Logan International airport), while in other cases, there are several cities under one code (e.g., NYC for New York with airports JFK, EWR, and LGA).

Many cities have the same name and the city must be specifically selected from a similar names list before proceeding with the availability request. It is a good practice to verify the location entries against Reference Data. It is also possible to use Reference Data to search for matches on partial location names. Instead of a city or airport, a reference point, such as EIFFELTOWER or DISNEYLAND, can be used.

Using a Simple Hotel Availability Request

A simple hotel availability request, using the HotelAvailability_# transaction, looks similar to:

```
<HotelAvailability_#>
   <AvailabilityRequestMods>
      <HotelRequestHeader>
         <StartDt>20060511</StartDt>
         <EndDt>20060515</EndDt>
         <City>LAS</City>
      </HotelRequestHeader>
      <HotelRequest>
         <ReqInd>C</ReqInd>
         <NumNights>4</NumNights>
         <NumPersons>2</NumPersons>
      </HotelRequest>
   </AvailabilityRequestMods>
</HotelAvailability_#>
```



The preceding availability request is functional, but does not take advantage of the options that can be included, such as reference points, distance restrictions, and amenity specifications.

Note that the request can use either a city code or an airport code for the location in the <City> element. If the complete city name is entered by the traveler, it must be converted by the application to a city code. If an invalid location code is used, an error response is returned, as shown in the following *Invalid Location Code Response* example.

Invalid Location Code Response

The following response is returned when an invalid location code is entered in the hotel availability request:

```
<HotelAvailability_# xmlns="">
   <HotelAvailability>
      <HotelType>
         <HtlTypeInd>E</HtlTypeInd>
      </HotelType>
      <HotelError>
         <ErrMsgAry>
```

```
            <ErrMsg>
                <Msg><![CDATA[   REFERENCE POINT NOT FOUND]]></Msg>
                <Num>0002</Num>
                <ErrSeverityInd>W</ErrSeverityInd>
            </ErrMsg>
        </ErrMsgAry>
    </HotelError>
</HotelAvailability>
</HotelAvailability_#>
```

Using Reference Points in a Hotel Availability Request

Reference points are one of the most useful options that can be added to a hotel availability search because they allow the traveler to choose a hotel based on a specific location that the traveler wants to be near. Reference points include: convention centers, stadiums, visitor attractions, and often suburban town names. Reference points can also be used with a distance specification if the traveler wants to be no further (or closer) than a certain distance to/from a location.

Reference Point Request

Use the HotelReferencePoint_# request to obtain the list of reference points for a location from the CRS.

```
<HotelReferencePoint_#>
    <RefPtListMods>
        <City>CHI</City>
    </RefPtListMods>
</HotelReferencePoint_#>
```

Reference Point Response

The HotelReferencePoint_# response includes a count of the reference points returned in the response, and one or more blocks of reference points. Each block is represented by a <RefPtListDetail> element. Each of these elements can contain up to 33 reference points and multiple elements can be returned. However, there is a limit to the number of references that can be returned in one response. If more reference points are available than can be returned, the value of <MoreRefPtInd> is *Y*.

To obtain additional reference points, a subsequent request with the point count and <DBKey> number must be made, as shown in the *Additional Reference Points Request Example*, which follows this example. The reference point names included in an availability request must be entered exactly as they are presented in the list sent in the response.

You can also use Galileo's Reference Data to find reference points. Depending on the product, Reference data (also known as *local data*) is available for download or is distributed with the product.

```
<HotelReferencePoint_# xmlns="">
    <RefPtList>
        <Type>R</Type>
        <RefPtQual>
            <CurItemCnt>80</CurItemCnt>
```

```
        <TotItemCnt>80</TotItemCnt>
        <MoreRefPtInd>Y</MoreRefPtInd>
        <DBKey>238627345</DBKey>
    </RefPtQual>
</RefPtList>
<RefPtListDetail>
    <TotItemCnt>80</TotItemCnt>
    <RefPtAry>
        <RefPt>
            <Type>A</Type>
            <Name>ABBOTT LABORATORIES DEERFIELD</Name>
        </RefPt>
        <RefPt>
            <Type>A</Type>
            <Name>ACCENTURE</Name>
        </RefPt>
        <RefPt>
            <Type>S</Type>
            <Name>ADDISON</Name>
        </RefPt>
        <RefPt>
            <Type>A</Type>
            <Name>ADLER PLANETARIUM</Name>
        </RefPt>
        • • •
    </RefPtAry>
</RefPtListDetail>
<RefPtListDetail>
    <TotItemCnt>80</TotItemCnt>
    <RefPtAry>
        <RefPt>
            <Type>S</Type>
            <Name>BRIDGEVIEW</Name>
        </RefPt>
        <RefPt>
            <Type>S</Type>
            <Name>BROADVIEW</Name>
        </RefPt>
        • • •
```

More points available.

A=Attraction
S=Suburban
P=Port
X=Train station

Reference point name.

First block of reference points

Second block of reference points

```
            <RefPt>
                <Type>A</Type>
                <Name>GLENDALE POLO CLUB</Name>
            </RefPt>
        </RefPtAry>
    </RefPtListDetail>
</HotelReferencePoint_#>
```

Additional Reference Points Request Example

```
<HotelReferencePoint_#>
    <RefPtListMods>
        <City>CHI</City>
        <MoreInd>Y</MoreInd>
        <MoreQual>
            <ItemsCnt>80</ItemsCnt>
            <DBKey>238627345</DBKey>
        </MoreQual>
    </RefPtListMods>
</HotelReferencePoint_#>
```

Total number of points returned so far from <TotItemCnt> node in response.

Database key from response in preceding code example.

Hotel Availability Request with a Reference Point

To add a reference point to the HotelAvailability_# request, include the reference point name as the value of the <RefPt> node.

```
<HotelAvailability_#>
    <AvailabilityRequestMods>
        <HotelRequestHeader>
            <StartDt>20060511</StartDt>
            <EndDt>20060515</EndDt>
            <City>CHI</City>
            <RefPt>MUSEUM OF SCIENCE AND INDUSTRY</RefPt>
            <NoRelaxInd>Y</NoRelaxInd>
        </HotelRequestHeader>
        <HotelRequest>
            <ReqInd>C</ReqInd>
            <NumNights>4</NumNights>
            <NumPersons>2</NumPersons>
        </HotelRequest>
    </AvailabilityRequestMods>
</HotelAvailability_#>
```

Properties associated with the reference point are returned. See *Distance Specification* for details on adding a distance restriction to the search.

Using a Postal Code as a Reference Point

The HotelAvailability_# request can also use a postal code (or zip code in the US) as a reference point. To specify a postal code as the reference point value, use the characters **PC-**, the country code, and then the postal code in the <RefPt> node. For example:

```
<HotelAvailability_#>
    <AvailabilityRequestMods>
        <HotelRequestHeader>
            <StartDt>20060511</StartDt>
            <EndDt>20060515</EndDt>
            <RefPt>PC-US89109</RefPt>
        </HotelRequestHeader>
        <HotelRequest>
            <ReqInd>C</ReqInd>
            <NumNights>4</NumNights>
            <NumPersons>2</NumPersons>
        </HotelRequest>
    </AvailabilityRequestMods>
</HotelAvailability_#>
```

Request for US zip code 89109.

When using the postal code in the request, the <RefPt> and <City> elements are ignored if included. However, your application can use the postal code to obtain the country code to include in the request.

Obtaining Reference Points from a Local Database

If you obtain reference points from Galileo's Reference Data (also know as *local data*), your application will populate fields more quickly. You can store this data locally for faster transactions. For example, when a traveler enters a city name in your application, a drop-down box of reference points can be populated more quickly from a local database than if the reference points are obtained directly from (multiple) requests to Apollo.

Depending on the product, Reference Data is available for download or is distributed with the product:

- **Galileo Web Services (GWS)** uses Travel Codes Translator eBL to encode and decode reference data. Because Travel Codes Translator eBL interfaces directly the Reference Data Content Manager web site, all GWS customers using Travel Codes Translator eBL automatically have access to current reference data.

  See the *Travel Codes Translator eBL* book in the GWS Help for more information.

The following products use localdata.mdb exclusively. The reference points are located in the reference_points table and can be retrieved using the following SQL statement and replacing **CHI** with the appropriate location code.

```
Select Name from reference_points Where CityCode=CHI Order by Name";
```

- **Galileo Desktop** includes Reference Data in the localdata.mdb database, which is located in \FP\SWDIR. Every 90 days, users are prompted to update this file using an Update Web Service that is accessed through Viewpoints e-Agent feature.

- **XML Select** includes Reference Data distribution files in the product installation. By default, these files are located in: C:\Program Files\Galileo International\XML Select\SDK\Local Data.
- **XML API Desktop Solution 3**, which uses Galileo Desktop, installs localdata.mdb with the product.

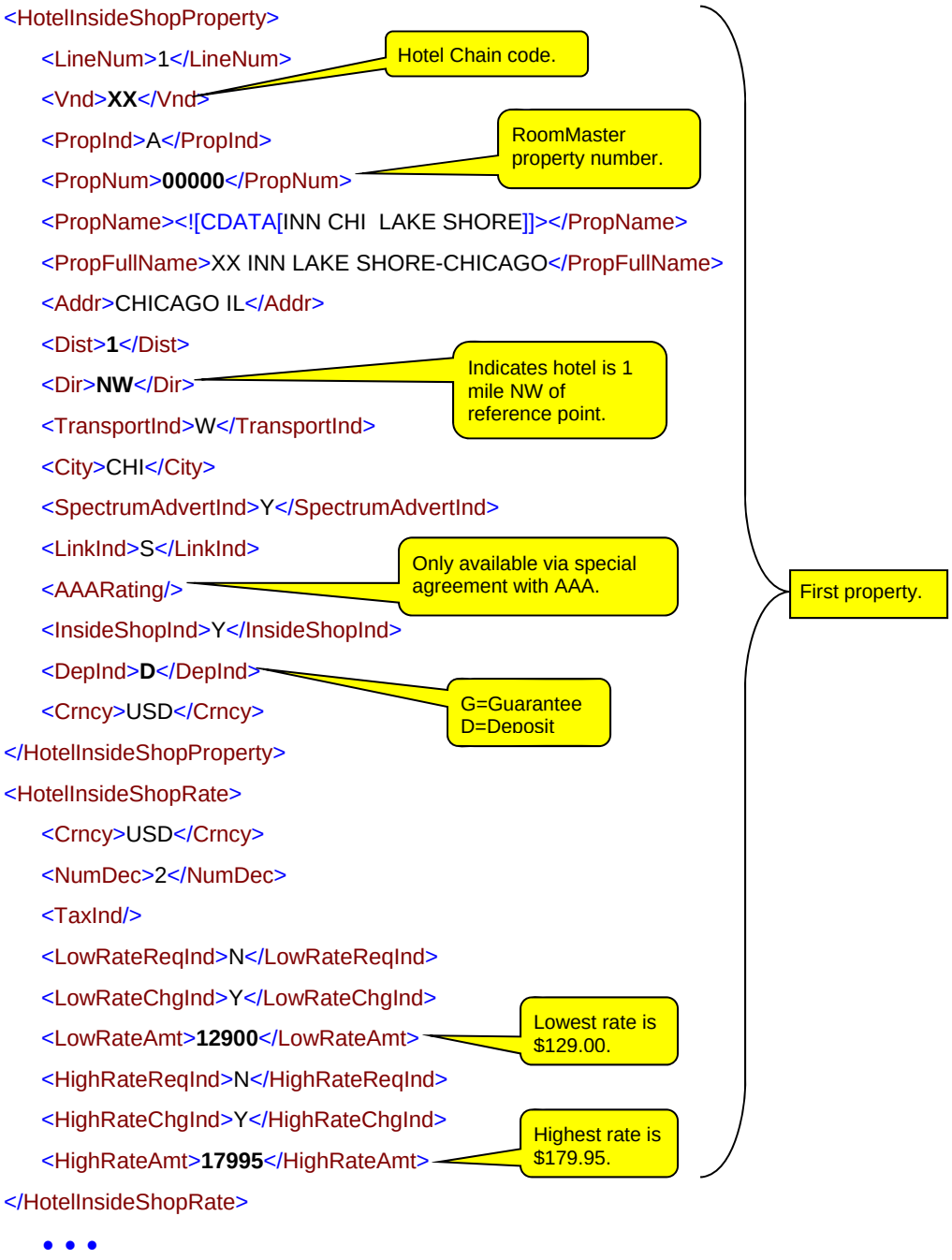
  Note: XML API Desktop Solution 2 is not used in conjunction with Galileo Desktop. Therefore, localdata.mdb is not automatically installed in Solution 2.

Hotel Availability Response

The HotelAvailability_# response contains summary information and a pair of nodes for each property. The level of participation returned in the response can be Inside Shopper, Inside Availability, or RoomMaster, depending on the vendor's participation level. See the *API Developer Notes: Hotel Participation Levels* document for details.

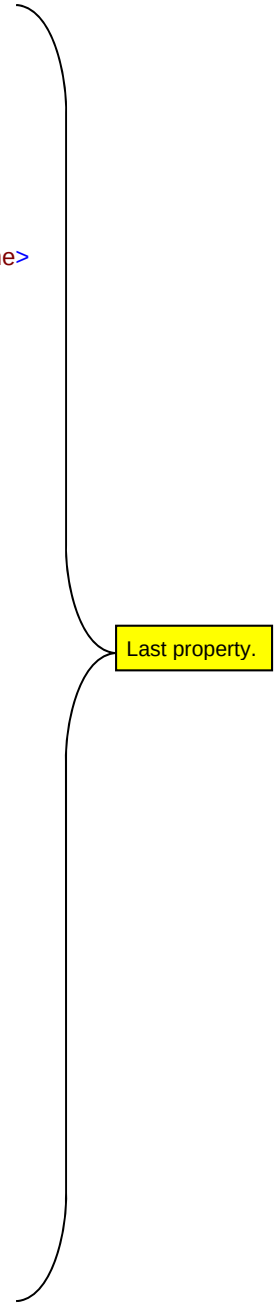
```
<HotelAvailability_# xmlns="">
    <HotelAvailability>
        <HotelType>
            <HtlTypeInd>P</HtlTypeInd>
        </HotelType>
        <HotelPropHeader>
            <City>CHI</City>
            <HtlRefPt>MUSEUM OF SCIENCE AND INDUSTRY</HtlRefPt>
            <RefPtPostalInd>R</RefPtPostalInd>
            <State>IL</State>
            <MileKmInd>M</MileKmInd>
            <CityCodeRefMatch>Y</CityCodeRefMatch>
        </HotelPropHeader>
        <HtlAvailHeader>
            <CatInd>C</CatInd>
            <StartDt>20060511</StartDt>
            <EndDt>20060515</EndDt>
            <NumNights>4</NumNights>
            <NumPersons>2</NumPersons>
            <PrefPropCnt/>
            <NeutralAvailInd/>
        </HtlAvailHeader>
        <HotelPropertyListCount>
            <TotCnt>14</TotCnt>
        </HotelPropertyListCount>
```

Summary information.


<HotelInsideShopProperty>
<LineNum>1</LineNum>
<Vnd>XX</Vnd>
<PropInd>A</PropInd>
<PropNum>00000</PropNum>
<PropName><![CDATA[INN CHI LAKE SHORE]]></PropName>
<PropFullName>XX INN LAKE SHORE-CHICAGO</PropFullName>
<Addr>CHICAGO IL</Addr>
<Dist>1</Dist>
<Dir>NW</Dir>
<TransportInd>W</TransportInd>
<City>CHI</City>
<SpectrumAdvertInd>Y</SpectrumAdvertInd>
<LinkInd>S</LinkInd>
<AAARating/>
<InsideShopInd>Y</InsideShopInd>
<DepInd>D</DepInd>
<Crncy>USD</Crncy>
</HotelInsideShopProperty>
<HotelInsideShopRate>
<Crncy>USD</Crncy>
<NumDec>2</NumDec>
<TaxInd/>
<LowRateReqInd>N</LowRateReqInd>
<LowRateChgInd>Y</LowRateChgInd>
<LowRateAmt>12900</LowRateAmt>
<HighRateReqInd>N</HighRateReqInd>
<HighRateChgInd>Y</HighRateChgInd>
<HighRateAmt>17995</HighRateAmt>
</HotelInsideShopRate>
• • •
Hotel Chain code.
RoomMaster property number.
Indicates hotel is 1 mile NW of reference point.
Only available via special agreement with AAA.
G=Guarantee D=Deposit
Lowest rate is $129.00.
Highest rate is $179.95.
First property.

```
<HotelInsideShopProperty>
    <LineNum>3</LineNum>
    <Vnd>YY</Vnd>
    <PropInd>A</PropInd>
    <PropNum>88545</PropNum>
    <PropName>YY REGENCY</PropName>
    <PropFullName>YY REGENCY CHICAGO</PropFullName>
    <Addr>2233 S MARTIN L KING</Addr>
    <Dist>5</Dist>
    <Dir>NW</Dir>
    <TransportInd>L</TransportInd>
    <City>CHI</City>
    <SpectrumAdvertInd>N</SpectrumAdvertInd>
    <LinkInd>S</LinkInd>
    <AAARating/>
    <InsideShopInd>Y</InsideShopInd>
    <DepInd>G</DepInd>
    <Crncy>USD</Crncy>
</HotelInsideShopProperty>

<HotelInsideShopRate>
    <Crncy>USD</Crncy>
    <NumDec>2</NumDec>
    <TaxInd/>
    <LowRateReqInd/>
    <LowRateChgInd/>
    <LowRateAmt>21900</LowRateAmt>
    <HighRateReqInd/>
    <HighRateChgInd/>
    <HighRateAmt>23900</HighRateAmt>
</HotelInsideShopRate>
```



```
        <HotelGetMore>
            <StartDBKey>1610567</StartDBKey>
            <EndDBKey>1610528</EndDBKey>
            <RefPtDBKey>238497289</RefPtDBKey>
            <BitMap>1111111111111111</BitMap>
            <TotNumProps>14</TotNumProps>
            <SubtotalNumPropsRet>0</SubtotalNumPropsRet>
            <MoreInd>Y</MoreInd>
            <DBPropTok>00000000</DBPropTok>
            <DBPropKey>0</DBPropKey>
        </HotelGetMore>
    </HotelAvailability>
</HotelAvailability_#>
```

See Amenities section.

Note that the two nodes that contain property information are not grouped into a hierarchy, and you must use the *Next Sibling* feature of your XML parser to get the rate information. Also note that not all properties return rate range information. For properties that do not return a rate range, the node following the <HotelInsideShopProperty> node looks similar to:

```
    <HotelError>
        <ErrMsgAry>
            <ErrMsg>
                <Msg>REQUEST HOC FOR RATES</Msg>
                <Num>0606</Num>
                <ErrSeverityInd>W</ErrSeverityInd>
            </ErrMsg>
        </ErrMsgAry>
    </HotelError>
```

This message indicates a Complete Hotel Availability request is required to obtain rates for this property.

Requesting Availability with Alternate Currencies

The hotel rate range amounts are typically returned in the currency of the property location. Occasionally, a hotel may choose to return data in an alternate currency. Therefore, if you are shopping for hotels in Paris, the rates are quoted in Euros. If you are looking in London, the rates are quoted in British pounds. You can request that the hotel rates be returned in both the “native” currency and another currency, such as US dollars.

Note: Alternate rates are based on the daily exchange rate and may change upon check-in.

To add the alternate currencies section to your request, include the following line in the <HotelRequestHeader> section after the reference point specification. Replace the EUR value with the currency of your choice.

```
<DesiredAltCrncy>EUR</DesiredAltCrncy>
```

If the native rates are in a different currency than the desired alternate currency, alternate rates are returned in the requested currency in the section following the <HotelInsideShopProperty> node.

If the desired alternate currency is the same as the native currency, no alternative rates are returned, and this section is omitted.

For example, an application always displays rates in USD regardless of the native currency. If a user looks at rates for a hotel in New York City, the native rates are USD. If a user looks at rates for a hotel in Paris, the native rates are EUR. If the application always specifies the alternate currency to be USD, additional currency values are **only** displayed for non-US hotels.

The additional section with the alternate currency looks similar to:

```
<HotelAlternateCurrency>
    <AltCurrency>EUR</AltCurrency>
    <NumDec>2</NumDec>
    <LowRate>6921</LowRate>
    <HighRate>9887</HighRate>
</HotelAlternateCurrency>
```

If alternate rates are returned, the <HotelInsideShopProperty> node is followed by the <HotelAlternateCurrency> node. If alternate rates are not returned, the <HotelInsideShopProperty> node is followed by the <HotelInsideShopRate> node. Your application must look at the name of the sibling node following the <HotelInsideShopProperty> node in order to process the response properly.

Also, your application should display the stored currency along with the alternate currency. It is best to use terminology similar to:

Rate: 69.21 EUR, or approximately 84.00 USD

The display is important because the native rate is the rate the traveler is actually charged. By the time the traveler checks out, the currency exchange rate is likely to be different.

Adding Search Criteria Using the Hotel Slot Array

The hotel slot array can be used to further narrow the hotel search. The slot array is essentially a prioritized list of criteria that you can add to the availability request. The slot array is used to add distance restrictions, hotel chain preferences, multi-level rate codes, and to include amenities preferences. Up to 15 entries can be included in the slot array.

The slot array section is added to the availability request after the <HotelRequest> section. The general format for adding a slot array to the search criteria is:

```
<HotelSlotData>
    <SlotIDAry>
        <SlotID>
            <ID>D </ID>
            <Priority>01</Priority>
            <Data><![CDATA[000M  -015]]></Data>
        </SlotID>
        <SlotID>
            <ID>Z</ID>
            <Priority>02</Priority>
```

Criterion type.

Priority weighting.

Information specific to criterion.

```
            <Data>EM</Data>
        </SlotID>
            • • •        Additional entries
    </SlotIDAry>
</HotelSlotData>
```

Only one search qualifier can be included in a slot, and only the required number of <Slot> elements can be included in the request. Each <Slot> elements contains three sub-elements:

- **<ID>** identifies the type of search qualifier.
- **<Priority>** identifies the ranking or weighting of that qualifier. The value of each priority in a slot array must be unique.
- **<Data>** is the specific value of the qualifier, and it varies according the value of <ID>.

The priority value must be unique for different slot IDs. However, all qualifiers with the same <ID> value must be assigned the same priority. For example, two slots for Amenities, where <ID> = A, must both be assigned the same Priority number.

The criteria can be enforced or relaxed by including the <NoRelaxInd> element in the <HotelRequestHeader> node.

```
<NoRelaxInd>Y</NoRelaxInd>
```

Y=Relax criteria
M=Criteria is mandatory

Set <NoRelaxInd> to M to specify that the hotel properties in the response must conform to all search qualifiers in the request. Set <NoRelaxInd> to Y if other properties can be returned if no qualifying properties are available.

Distance Specification

The format to add a distance restriction to the slot array is:

```
<SlotID>
    <ID>D </ID>
    <Priority>01</Priority>
    <Data><![CDATA[000M  -015]]></Data>
</SlotID>
```

Specifies radius of up to 15 miles.

The general form of the data specification is:

DDDmddaDDD

DDD	The lower range, three-digit distance, left zero filled.
M or **K**	Miles or Kilometers.
dd	The two-character direction. One character may be blank, but two characters must be entered. N=North, S=South, E=East, W=West, NE=Northeast, NW=Northwest, SE=Southeast, and SW=Southwest.
a	The Action Code. Y=greater than, - = less than, or blank.
DDD	The upper range, three-digit distance, left zero filled.

Important! You should never use a distance restriction with a postal code request.

Chain Code Specification

One or more hotel chain codes can be added to the request criteria. All chain code entries are given a different priority level. A list of chain codes and the corresponding chain names can be retrieved from the *localdata.mdb* database using this SQL statement:

Select Code, Name from hotels Order by Name

GWS customers can access chain codes using Travel Codes Translator eBL Encode/Decode or the Hotel Content file data available through download with the GWS product.

The format to add a chain code is:

```
<SlotID>
    <ID>Z</ID>
    <Priority>02</Priority>
    <Data>HI</Data>
</SlotID>
```

Hotel chain code.

Up to three chains can be requested in one request.

Amenities Specification

The search can be extended to look for specific amenities as well. The list of amenities is quite extensive and is shown in

Appendix A: Slot Array Types. Each amenity is indicated by a two-digit number. The slot format for an amenity is:

```
<SlotID>
    <ID>A</ID>
    <Priority>03</Priority>
    <Data>46</Data>
</SlotID>
```

Code for indoor pool. See Appendix B.

Up to eight amenities can be requested in one request.

When including amenities specifications, you may have to relax the restrictions (as noted in the preceding example) to be sure that at least some hotels are returned. If the restrictions are relaxed, the response indicates which criteria were used in the following section:

```
<HotelGetMore>
    <StartDBKey>1610567</StartDBKey>
    <EndDBKey>1610528</EndDBKey>
    <RefPtDBKey>238497289</RefPtDBKey>
    <BitMap>1110111111111111</BitMap>
    <TotNumProps>14</TotNumProps>
    <SubtotalNumPropsRet>0</SubtotalNumPropsRet>
    <MoreInd>Y</MoreInd>
    <DBPropTok>00000000</DBPropTok>
    <DBPropKey>0</DBPropKey>
</HotelGetMore>
```

Indicates which slot array criteria were used.

The preceding response indicates that the slot array entries 1, 2, and 3 were used to generate the response, but entry 4 was not.

If <NoRelaxInd> has a value of **M** in the request, the slot arrays are returned as all **1**s. A mandatory search is very restrictive and may return no results if the search is too narrow.

Rate Category

A rate category code specification can be included in the slot array entry:

```
<SlotID>
    <ID>C</ID>
    <Priority>04</Priority>
    <Data>R</Data>
</SlotID>
```

Code for rack rates
See Appendix C

Up to eight rate categories can be requested in one request.

This entry may be useful for finding special rates for government, military, or associations, such as automobile clubs.

Room/Bedding Type

A room/bedding type specification can be included with the following slot array entry:

```
<SlotID>
    <ID>B</ID>
    <Priority>05</Priority>
    <Data>A1K</Data>
</SlotID>
```

Code for Deluxe Room with one king bed.

Standard room types are included in the **misc** table of *localdata.mdb*. GWS customers can access RoomMaster room/bedding type using Travel Codes Translator eBL Encode/Decode.

Property Type

A property type specification can be included with the following slot array entry:

```
<SlotID>
    <ID>P</ID>
    <Priority>06</Priority>
    <Data>07</Data>
</SlotID>
```

Code for Castle
See Appendix D.

Multi-Level Rate Codes

Special negotiated rates can be accessed by using multi-level (ML) rate codes in a slot array entry. The rate code is included in <Data> to make the entry look like:

```
<SlotID>
    <ID>M</ID>
    <Priority>01</Priority>
    <Data>WEBHTL</Data>
</SlotID>
```

Up to three multi-level rate codes can be requested in one request.

Notes:

- An ML request returns only properties that support that particular ML rate code. No other properties are returned.
- An Availability request, including a multi-level rate access code, results in a list of available rate/room types. These rates start with those rates that meet the multi-level rate request, followed by all other available rate/room type. A multi-level rate code always takes priority over other slots in the array.
- All rate codes in the same request must have the same priority.

Hotel Property Descriptions

Two sources of information about a hotel property are available:

- **Descriptions** contain information about the property itself.
- **Rules** contain information specific to a rate code for a property.

However, the rule information tends to contain an overlap of description information.

Properties vary widely in their support of descriptive keywords, which makes the display of certain important information, such as the cancellation policy, a challenge.

Hotel Description Request

Hotel descriptions are based on a set of keywords and descriptive text associated with each keyword. A maximum of four keywords can be sent in one request. However, it is recommended that only one or two keywords are sent in a request to limit the number of More tokens that must be sent. Not all properties support all keywords, so the supported keywords for a particular property are retrieved before other description information is requested by setting <WantKeyworkList> to *Y*.

The format for a hotel description request is:

```
<HotelDescription_#>
   <HotelDescMods>
      <StartDt>20060511</StartDt>
      <Chain/>
      <PropID>08250</PropID>
      <KeywordAry>
         <Keyword>DESC</Keyword>
         <Keyword>CANC</Keyword>
      </KeywordAry>
      <WantKeyworkList>Y</WantKeyworkList>
      <MoreInd>N</MoreInd>
   </HotelDescMods>
</HotelDescription_#>
```

Requests specific keywords—up to three keywords can be sent in the array. Most properties support DESC and CANC.

Requests the list of keywords.

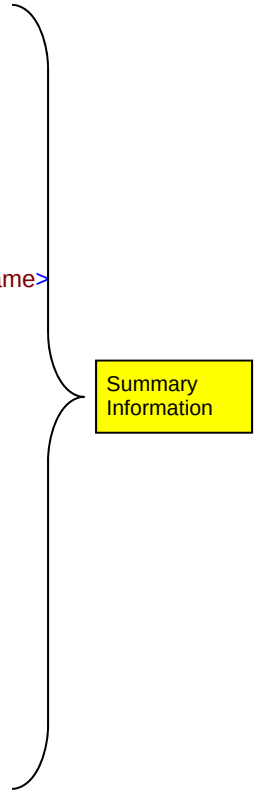
The preceding HotelDescription_# request combines the keyword request with requests for two keywords commonly support by most properties (DESC and CANC, description and cancel policy). It is a good practice to combine the HotelDescription_# request with the HotelCompleteAvailability_# request so that when a traveler selects a property, the hotel rates display. See *Hotel Rate Request* for details. You can combine the requests using the *MultiSubmitXml* method of Web Services. The keyword list is then available to display on the rates display screen.

Hotel Description Response

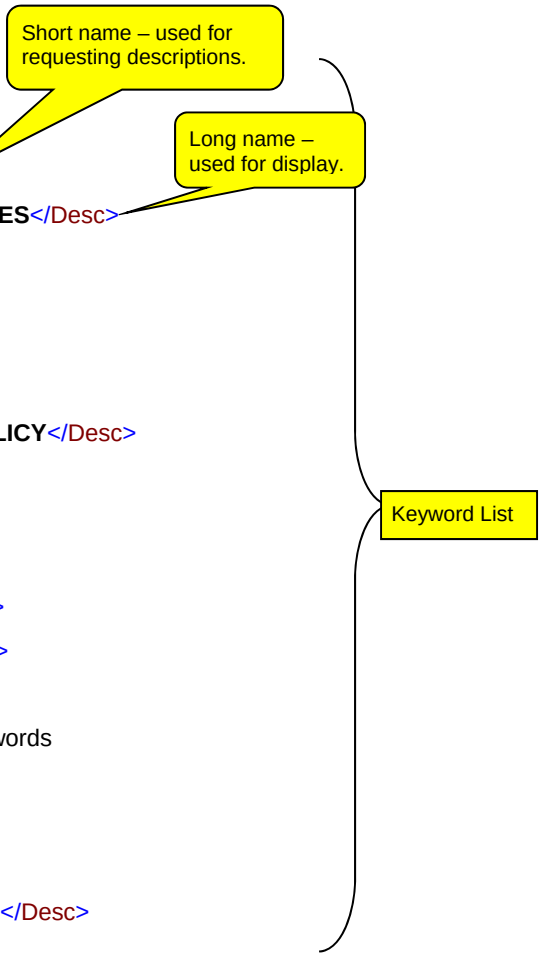
The HotelDescription_# response begins with a review of the request, followed by the list of keywords, and then the descriptive information for the requested keywords. Each line of text returned for a keyword is combined to form the entire description.

For example:

```
<HotelDescription_#>
  <HotelDescHeader>
    <ResponseInd>P</ResponseInd>
    <PropKeywordQual>
      <Chain>MV</Chain>
      <PropID>8250</PropID>
      <Name>NEW YORK NEW YORK HOTEL AND CASINO</Name>
      <KeyworkCnt>27</KeyworkCnt>
      <TextLineCnt>10</TextLineCnt>
      <BrochureCnt>0</BrochureCnt>
      <AddrCnt>0</AddrCnt>
      <MoreInd>N</MoreInd>
      <NextKeyword>0</NextKeyword>
      <DBKey>0</DBKey>
      <Offset>0</Offset>
      <TextType/>
      <Status/>
    </PropKeywordQual>
  </HotelDescHeader>
```



```
<HotelDescMenuItems>
    <TotItemCnt>27</TotItemCnt>
    <SupportedKeywordsAry>
        <SupportedKeywords>
            <Num>0</Num>
            <Keyword>BOOK</Keyword>
            <Desc>BOOKING GUIDELINES</Desc>
        </SupportedKeywords>
        <SupportedKeywords>
            <Num>1</Num>
            <Keyword>CANC</Keyword>
            <Desc>CANCELLATION POLICY</Desc>
        </SupportedKeywords>
        <SupportedKeywords>
            <Num>2</Num>
            <Keyword>COMM</Keyword>
            <Desc>COMMISSION</Desc>
        </SupportedKeywords>
            • • •        Additional keywords
        <SupportedKeywords>
            <Num>26</Num>
            <Keyword>MULT</Keyword>
            <Desc>MULTILEVEL RATES</Desc>
        </SupportedKeywords>
    </SupportedKeywordsAry>
</HotelDescMenuItems>
```



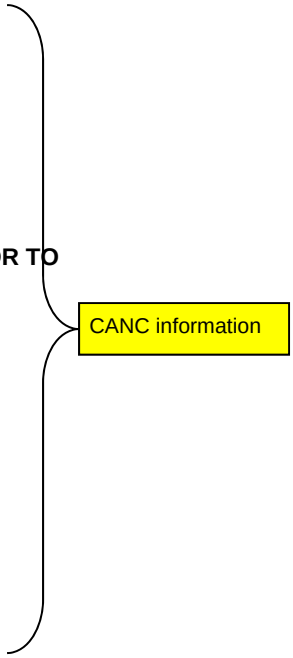
```
<HotelDescKeywordText>
        <TotItemCnt>10</TotItemCnt>
        <TextItemAry>
            <TextItem>
                <LineType>T</LineType>
                <Text/>
            </TextItem>
            <TextItem>
                <LineType>K</LineType>
                <Text>HOTEL DESCRIPTION</Text>
            </TextItem>
            <TextItem>
                <LineType>T</LineType>
                <Text>-</Text>
            </TextItem>
            <TextItem>
                <LineType>T</LineType>
                <Text/>
            </TextItem>
            <TextItem>
                <LineType>T</LineType>
                <Text><![CDATA[- 2024 ROOMS      - 45 LEVELS]]></Text>
            </TextItem>
            <TextItem>
                <LineType>T</LineType>
                <Text><![CDATA[- ELEVATORS       - INTERIOR CORRIDORS]]></Text>
            </TextItem>
            <TextItem>
                <LineType>T</LineType>
                <Text/>
            </TextItem>
```

K=Keyword header
T=Freeform text

First real line of text.

DESC information

```
            <TextItem>
                <LineType>K</LineType>
                <Text>CANCELLATION POLICY</Text>
            </TextItem>
            <TextItem>
                <LineType>T</LineType>
                <Text>ALL RESERVATIONS MUST BE CANCELLED 48 HOURS PRIOR TO
                 ARRIVAL TO</Text>
            </TextItem>
            <TextItem>
                <LineType>T</LineType>
                <Text>AVOID FORFEITURE OF ONE NIGHT ROOM AND TAX.</Text>
            </TextItem>
        </TextItemAry>
    </HotelDescKeywordText>
</HotelDescription_#>
```



Getting Hotel Room Rates

After submitting the HotelAvailability_# and the HotelDescription_# requests, the application has acquired a list of potential properties for the traveler, and the traveler has selected a property. The traveler now requires the current room options and associated rates for that property.

Hotel Rate Request

The hotel rate request, or Hotel Complete Availability (HOC) request, uses the RoomMaster property number that was returned in the earlier HotelAvailability_# response.

```
<HotelCompleteAvailability_#>
    <HotelCompleteAvailabilityMods>
        <HotelInsideAvailability>
            <ArrivalDt>20060511</ArrivalDt>
            <DepartureDt>20060515</DepartureDt>
            <NumNights>4</NumNights>
            <NumAdults>2</NumAdults>
            <Vnd/>
            <RMNum>08250</RMNum>
            <PropName/>
            <ShortAddr/>
            <AltAvailInd>N</AltAvailInd>
            <Spare1/>
            <RMOnlyInd>N</RMOnlyInd>
            <NoRelaxInd>Y</NoRelaxInd>
            <NumSlots/>
            <StoredCrncy/>
            <NumDecStoredCrncy/>
            <AltCrncy>EUR</AltCrncy>
            <NumDecAltCrncy/>
        </HotelInsideAvailability>
    </HotelCompleteAvailabilityMods>
</HotelCompleteAvailability_#>
```

It is recommended that you continue to use the slot data you used in HotelIndex_#, HotelAvailability_#, or HotelCompleteAvailability_#. An alternate currency can also be included in the request.

> Note that several of the nodes are named differently than in the HotelAvailability_# request, for example, <AltCurrency> is <AltCrncy> and <NumDec> is <NumDecAltCrncy>.

Hotel Rate Response

The HotelCompleteAvailability_# response is lengthy and contains nearly all the information needed to book the hotel room. The response begins with a reflection of the request, followed by a series of HotelRate elements which describe the available rates.

The following response is an abridged example of the HotelCompleteAvailability_# response:

```
<HotelCompleteAvailability_#>
    <HotelCompleteAvailability>
        <HotelType>
            <HtlTypeInd>I</HtlTypeInd>
        </HotelType>
        <HotelPropHeader>
            <City>LAS</City>
            <HtlRefPt/>
            <RefPtPostalInd/>
            <State/>
            <MileKmInd/>
            <CityCodeRefMatch/>
        </HotelPropHeader>
        <HtlAvailHeader>
            <CatInd/>
            <StartDt>20060511</StartDt>
            <EndDt>20060515</EndDt>
            <NumNights>4</NumNights>
            <NumPersons>2</NumPersons>
            <PrefPropCnt/>
            <NeutralAvailInd/>
        </HtlAvailHeader>
        <HotelPropertyRecord>
            <Vnd>MV</Vnd>
            <RMID>8250</RMID>
            <PropName>NEW YORK NEW YORK</PropName>
            <ShortAddr/>
            <Dist>0</Dist>
            <Dir/>
            <Locn/>
            <Transportation/>
            <InsideLinkInd>I</InsideLinkInd>
            <AAARating/>
```

Inside Availability property.

Note: Roommaster responses can present challenges such as unconfirmed space and monitoring message queues.

Summary Information

```
    <Advertiser/>
</HotelPropertyRecord>
<HotelVendorMarketing>
    <VMsg>THANK YOU FOR BOOKING</VMsg>
</HotelVendorMarketing>
<HotelInsideAvailMore>
    <VKeys>B1KSEN</VKeys>
</HotelInsideAvailMore>
<HotelCurrency>
    <StoredCrncy/>
    <StoredDecPos/>
    <AltCrncy>EUR</AltCrncy>
    <NumDecs>2</NumDecs>
</HotelCurrency>
<HotelRate>
    <StoredCrncy>USD</StoredCrncy>
    <StoredNumDec>2</StoredNumDec>
    <MoreRatesInd>Y</MoreRatesInd>
    <IARatesOnlyInd>N</IARatesOnlyInd>
    <AvailNeedInd/>
    <TaxInd/>
    <RateChgInd>Y</RateChgInd>
    <RoomByReq/>
    <RateCatInd/>
    <DispRate>ROH</DispRate>
    <VStoredRateAmt>16999</VStoredRateAmt>
    <BIC>ROHRAC</BIC>
    <RateGuarInd/>
    <PricingType/>
    <TotAmt>0</TotAmt>
</HotelRate>
<HotelAlternateRates>
    <AltCrncy>EUR</AltCrncy>
    <NumDec>2</NumDec>
    <AltRateGuarInd/>
    <AltRateAmt>14007</AltRateAmt>
    <TotRateType/>
    <AltTotRateAmt>0</AltTotRateAmt>
</HotelAlternateRates>
```

Summary Information continued.

Rate changes during the stay – see *Changing Rates*.

Indicates room type, when available, depending on the property.

Room rate for first night.

First rate.

Rate code.

Requested alternate currency.

Rate in alternate currency.

```
        <HotelRateDescription>
            <Desc>DELUXE SKYLINE ROOM: 1920 S ART DECO STYLE</Desc>
        </HotelRateDescription>
        <HotelRateDescription>
            <Desc><![CDATA[REQUEST KING OR 2 QUEENS  SMOKING OR NON]]></Desc>
        </HotelRateDescription>
        <HotelRateDescription>
            <Desc>PREVAILING RATE</Desc>
        </HotelRateDescription>
            • • •        Additional rate nodes
    </HotelCompleteAvailability>
</HotelCompleteAvailability_#>
```

First rate continued.

Note that the response indicates a rate change during the stay. Rates are often different on Friday and Saturday versus other days of the week. When the value of <RateChgInd> is *Y*, it is important to indicate the rate change to the traveler and to take the additional step of retrieving an array of rates for each night during the stay, as described in *Hotel Rate Rules*.

Hotel Rate Rules

After the travelers see the rates, they may also want to see the rules associated with a specific rate. Again, different properties can return a different range of rules, however, the list of rule types that can be expected is:

Rule ID	Rule Type
G3	Promotional data
RD	Rate description
RI	Room rate data
F1	Rate text
F2	Guarantee
F3	Cancellation
F4	Deposit
F5	Check in/out
F6	Room detail
F7	Extra charges
F8	Packages
F9	Property
G0	Location
G1	Miscellaneous
RE	Rate amount
RA	Alternate Rate Amount
F0	Rate comment
AD	Address
FX	FAX
PH	Phone

Many rules are more informational than actual restrictions or requirements. Several rules, such as the cancellation rule, the guarantee and deposit rules, and the check-in/check-out times are important to the traveler. Not all properties include the cancellation policy as part of the response. If an F3 rule is not returned, look for the cancellation policy in the HotelDescription_# response.

Hotel Rules Request

The HotelRules_# request obtains rate rules, and includes information returned in the rate response, such as the rate code. This request looks similar to:

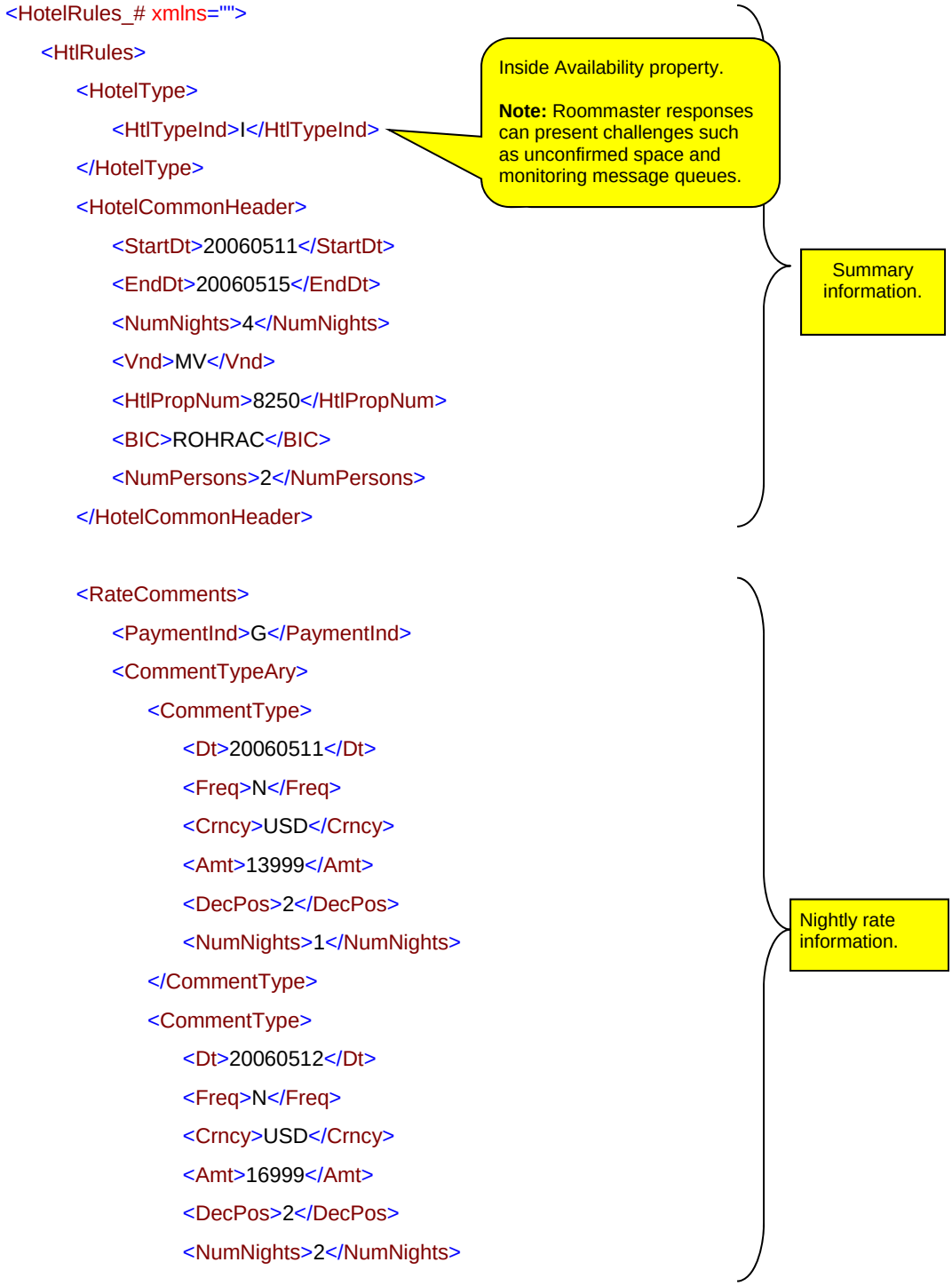
```
<HotelRules_#>
    <HtlRulesMods>
        <RulesRequest>
            <StartDt>20060511</StartDt>
            <EndDt>20060515</EndDt>
            <NumNights>4</NumNights>
            <NumPersons>2</NumPersons>
            <Vnd>MV</Vnd>
            <HtlPropNum>08250</HtlPropNum>
            <HtlCity>LAS</HtlCity>
            <BIC>ROHRAC</BIC>
            <StoredCurrency>USD</StoredCurrency>
            <StoredRateAmt>16999</StoredRateAmt>
            <AltCurrency/>
            <CDNum/>
            <RateAccess/>
            <RateCat/>
            <RetHOVIInd>Y</RetHOVIInd>
        </RulesRequest>
    </HtlRulesMods>
</HotelRules_#>
```

Rate code.

Set to '*Y*' to get individual night rates when the rate changes.

Hotel Rules Response

The HotelRules_# response begins with summary information. If the value of <RetHOVIInd> is set to 'Y', a <RateComments> section may exist if the rate changes. See the Changing Rates section. This is followed by a list of <HotelRuleTypeInfo> nodes which contain the rule information.



```
            </CommentType>
            <CommentType>
                <Dt>20060514</Dt>
                <Freq>N</Freq>
                <Crncy>USD</Crncy>
                <Amt>8999</Amt>
                <DecPos>2</DecPos>
                <NumNights>1</NumNights>
            </CommentType>
            <CommentType>
                <Dt>20060514</Dt>
                <Freq>T</Freq>
                <Crncy>USD</Crncy>
                <Amt>56996</Amt>
                <DecPos>2</DecPos>
                <NumNights>1</NumNights>
            </CommentType>
        </CommentTypeAry>
    </RateComments>
    <HotelCurrencyInfo>
        <StoredCurrency>USD</StoredCurrency>
        <StoredDecPos>2</StoredDecPos>
        <AltCurrency/>
        <AltDecPos>1</AltDecPos>
        <TotNumItems>35</TotNumItems>
    </HotelCurrencyInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>AD</RuleTypeInd>
        <Text>3790 LAS VEGAS BOULEVARD</Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>AD</RuleTypeInd>
        <Text>LAS VEGAS NV 89109</Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>PH</RuleTypeInd>
        <Text><![CDATA[ 702  740-6969]]></Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>FX</RuleTypeInd>
```

Nightly rate information continued

Rule information.

```
        <Text><![CDATA[ 702  740-6920]]></Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>G3</RuleTypeInd>
        <Text>THANK YOU FOR BOOKING</Text>
    </HotelRuleTypeInfo>

    <HotelRuleTypeInfo>
        <RuleTypeInd>RD</RuleTypeInd>
        <Text><![CDATA[  ROHRAC]]></Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>RD</RuleTypeInd>
        <Text><![CDATA[              PREVAILING RATE]]></Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>RE</RuleTypeInd>
        <Text>13999</Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>F0</RuleTypeInd>
        <Text>STARTING 11 MAY FOR 1 NIGHT</Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>RE</RuleTypeInd>
        <Text>16999</Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>F0</RuleTypeInd>
        <Text>STARTING 12 MAY FOR 2 NIGHTS</Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>RE</RuleTypeInd>
        <Text>8999</Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>F0</RuleTypeInd>
        <Text>STARTING 14 MAY FOR 1 NIGHT</Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
```

Rule information continued.

```
        <RuleTypeInd>RE</RuleTypeInd>
        <Text>56996</Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>F0</RuleTypeInd>
        <Text><![CDATA[TOTAL  STARTING 11 MAY FOR 4 NIGHTS]]></Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>RI</RuleTypeInd>
        <Text><![CDATA[  COMMISSION POLICY FOR TRAVEL AGENTS IS 10 PERCENT]]></Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>RI</RuleTypeInd>
        <Text><![CDATA[  ROOM TAX - 9 PCT]]></Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>F2</RuleTypeInd>
        <Text><![CDATA[  MUST GUARANTEE ROOM WITH DEPOSIT AX CA DS JCB MC VA VI]]></Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>F4</RuleTypeInd>
        <Text><![CDATA[  A DEPOSIT POLICY IS MANDATORY]]></Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>F3</RuleTypeInd>
        <Text><![CDATA[  CANCEL BY 11PM 09-MAY-06]]></Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>F5</RuleTypeInd>
        <Text><![CDATA[  CHECK IN TIME: 1500]]></Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>F5</RuleTypeInd>
        <Text><![CDATA[  CHECK OUT TIME: 1100]]></Text>
    </HotelRuleTypeInfo>
    <HotelRuleTypeInfo>
        <RuleTypeInd>F6</RuleTypeInd>
        <Text><![CDATA[  DELUXE SKYLINE ROOM: 1920 S ART DECO STYLE]]></Text>
```

Guarantee policy.

Deposit policy

Cancel policy

Rule information continued.

```
        </HotelRuleTypeInfo>
        <HotelRuleTypeInfo>
            <RuleTypeInd>F6</RuleTypeInd>
            <Text><![CDATA[  REQUEST KING OR 2 QUEENS  SMOKING OR NON]]></Text>
        </HotelRuleTypeInfo>
        <HotelRuleTypeInfo>
            <RuleTypeInd>F6</RuleTypeInd>
            <Text><![CDATA[  ADJOINING OR CONNECTING. ALL REQUEST SUBJECT TO]]></Text>
        </HotelRuleTypeInfo>
        <HotelRuleTypeInfo>
            <RuleTypeInd>F7</RuleTypeInd>
            <Text><![CDATA[  EXTRA PERSON INFORMATION:]]></Text>
        </HotelRuleTypeInfo>
        <HotelRuleTypeInfo>
            <RuleTypeInd>F7</RuleTypeInd>
            <Text><![CDATA[    EXTRA ADULT - 30.00 USD]]></Text>
        </HotelRuleTypeInfo>
        <HotelRuleTypeInfo>
            <RuleTypeInd>F7</RuleTypeInd>
            <Text><![CDATA[    EXTRA CHILD - 0.00 USD]]></Text>
        </HotelRuleTypeInfo>
        <HotelRuleTypeInfo>
            <RuleTypeInd>F9</RuleTypeInd>
            <Text><![CDATA[  NEW YORK - NEW YORK]]></Text>
        </HotelRuleTypeInfo>
        <HotelRuleTypeInfo>
            <RuleTypeInd>G0</RuleTypeInd>
            <Text><![CDATA[  DIRECTIONS:]]></Text>
        </HotelRuleTypeInfo>
        <HotelRuleTypeInfo>
            <RuleTypeInd>G0</RuleTypeInd>
            <Text><![CDATA[    - DIRECTIONS FROM LAS AIRPORT]]></Text>
        </HotelRuleTypeInfo>
        <HotelRuleTypeInfo>
            <RuleTypeInd>G0</RuleTypeInd>
            <Text><![CDATA[    TAKE PARADISE FROM THE AIRPORT AND GO WEST ON
TROPICANA]]></Text>
        </HotelRuleTypeInfo>
        <HotelRuleTypeInfo>
            <RuleTypeInd>G0</RuleTypeInd>
```

Rule information continued.

```
            <Text><![CDATA[    FOLLOW TROPICANA TO LAS VEGAS BLVD. ON THE
NORTHWEST]]></Text>
        </HotelRuleTypeInfo>
        <HotelRuleTypeInfo>
            <RuleTypeInd>G0</RuleTypeInd>
            <Text><![CDATA[    CORNER OF TROPICANA AND LAS VEGAS BLVD  THE MAIN
ENTRANCE]]></Text>
        </HotelRuleTypeInfo>
        <HotelRuleTypeInfo>
            <RuleTypeInd>G0</RuleTypeInd>
            <Text><![CDATA[    IS LOCATED OFF OF TROPICANA.]]></Text>
        </HotelRuleTypeInfo>
    </HtlRules>
</HotelRules_#>
```

Changing Rates

If a rate response indicates that the rate changes during the stay, issue a rules request with the value of <RetHOVIInd> set to *Y*. This response returns information that can be used to build an array of nightly rates for display to the traveler.

It is acceptable to set the value of <RetHOVIInd> to *Y* for all rule requests. If the rate does not change, the <RateComments> section is omitted in the response.

The nightly rate information shown in the *Hotel Rules Response* is repeated in the following example with more annotation.

```
<RateComments>
    <PaymentInd>G</PaymentInd>
    <CommentTypeAry>
        <CommentType>
            <Dt>20060511</Dt>
            <Freq>N</Freq>
            <Crncy>USD</Crncy>
            <Amt>13999</Amt>
            <DecPos>2</DecPos>
            <NumNights>1</NumNights>
        </CommentType>

        <CommentType>
            <Dt>20060512</Dt>
            <Freq>N</Freq>
            <Crncy>USD</Crncy>
            <Amt>16999</Amt>
            <DecPos>2</DecPos>
            <NumNights>2</NumNights>
        </CommentType>

        <CommentType>
            <Dt>20060514</Dt>
            <Freq>N</Freq>
            <Crncy>USD</Crncy>
            <Amt>8999</Amt>
            <DecPos>2</DecPos>
            <NumNights>1</NumNights>
        </CommentType>

        <CommentType>
            <Dt>20060514</Dt>
            <Freq>T</Freq>
            <Crncy>USD</Crncy>
            <Amt>56996</Amt>
            <DecPos>2</DecPos>
            <NumNights>1</NumNights>
        </CommentType>
    </CommentTypeAry>
</RateComments>
```

Starting date of this rate

Number of nights this rate applies

Total amount = $569.96

Night	Rate
May 11	$139.99
May 12	$169.99
May 13	$169.99
May 14	$89.99

Booking a Hotel

To this point in the hotel process, you have gathered the information necessary to book the hotel room that the traveler has selected. Online booking applications typically book hotel rooms using a credit card as the form of guarantee or deposit. Although most hotels require a credit card to guarantee the room, especially for late check-in, some hotels also require a deposit at the time of booking. The credit card is typically charged the deposit amount immediately upon booking.

Note: It is recommended that you have a means to verify the credit card before sending the sell to reduce the chances of a failure due to invalid credit card number or fraud.

Making the Booking

The safest strategy for booking a room is to assume that the room requires a guarantee. If you try to book with a guarantee and the request is not successful, try to book again with a deposit. To perform a booking request, include a <HtlSegSellMods> section within the PNRBFMangement_# transaction. The <HtlSegSellMods> section is usually preceded by a <PNRBFPrimaryBldChgMods>section, though it can be preceded by multiple sections. See the *Booking with a Guarantee* or *Booking with a Deposit* sections for details.

A complete booking request with the primary section included is shown in *Appendix E: Booking Request*.

Booking Triple or Quad Occupancy

Previously, the CRS supported only double occupancy (2 persons per room). Therefore, extra adults and extra child traveler information had to be entered when the segment was sold.. Currently, the CRS supports triple and quad occupancy, provided that the vendor supports triple and quad occupancy.

To add extra adults or children in a double occupancy room, you must specify details such as extra adult, extra children, adult rollaway bed, and child rollaway bed during the sell. See the *PNRBFManagement_#* help topic in the *Transactions* book. In GWS help, the *Transactions* book is located in the *XML Select Service* book.

Booking with a Guarantee

Within the PNRBFMangement_# transaction, a typical booking request with a guarantee looks similar to:

```
<HtlSegSellMods>
    <HotelSell>
        <SegNum>1</ SegNum >
        <SellStatusInd/ >
        <StartDt>20100623</StartDt>
        <EndDt>20100624</EndDt>
        <NumNights>01</ NumNights >
        <PrimaryCity>DEN</ PrimaryCity >
        <Chain>BU </Chain>
        <RoomMasterID>03958</RoomMasterID>
        <BIC>NDD1RAC</BIC>
        <HtlPropName/ >
        <NumAdults>2</ NumAdults >
        <NumRooms>1</NumRooms>
        <ConfNum/ >
        <RateGuarInfo/ >
        <RateChgInd/ >
        <MultiDayRateInd/>
        <Currency/ >
        <DecPos/ >
        <ExtraChargeDecPos/ >
        <RateAmt/ >
        <MultilevelRate/>
        <DataStoreIndicator/
    </HotelSell>
    <HotelOptionalData>
        <FldAry>
            <Fld>
                <ID>GT</ID>
                <Contents>VI4444333322221111EXP0911</Contents>
            </Fld>
        </FldAry>
    </ HotelOptionalData >
</HtlSegSellMods>
```

GT for guarantee

Credit card information

If the booking with a guarantee request is not successful, the response looks similar to:

```
<PNRBFManagement_# xmlns="">
    <HtlSegSell>
        <HotelType >
            <HotelTypeInd>F</ HotelTypeInd >
        </HotelType >
        <HotelError >
            <ErrMsgAry >
                <ErrMsg>
                    <Msg>UNSUCCESSFUL LINK SELL- MSG FROM LINK VENDOR</ErrMsg>
                    <Num>R211</Num>
                </ErrMsg>
            </ErrMsgAry >
        <HotelError >
    <HtlSegSell>
<PNRBFManagement_# xmlns="">
```

The text returned varies from property to property, so it is recommended that you do not try to parse this information.

Booking with a Deposit

When the error code in a response indicates a failed booking, resend the PNRBFManagement_# booking request using the deposit format, which looks similar to:

```
    <HtlSegSellMods>
        <HotelSell>
            <SegNum>1</ SegNum >
            <SellStatusInd/ >
            <StartDt>20100623</StartDt>
            <EndDt>20100624</EndDt>
            <NumNights>01</ NumNights >
            <PrimaryCity>DEN</ PrimaryCity >
            <Chain>BU </Chain>
            <RoomMasterID>03958</RoomMasterID>
            <BIC>NDD1RAC</BIC>
            <HtlPropName/ >
```

```
            <NumAdults>2</ NumAdults >
            <NumRooms>1</NumRooms>
            <ConfNum/ >
            <RateGuarInfo/ >
            <RateChgInd/ >
            <MultiDayRateInd/>
            <Currency/ >
            <DecPos/ >
            <ExtraChargeDecPos/ >
            <RateAmt/ >
            <MultilevelRate/>
            <DataStoreIndicator/
        </HotelSell>
        <HotelOptionalData>
            <FldAry>
                <Fld>
                    <ID>DP</ID>
                    <Contents>VI4444333322221111EXP0911</Contents>
                </Fld>
            </FldAry>
        </ HotelOptionalData >
    </HtlSegSellMods>
```

DP for deposit

Successful Response

If the booking attempt is successful, the response looks similar to:

```
<PNRBFManagement_# xmlns="">
    <HtlSegSell>
        <HotelType >
            <HotelTypeInd>0</ HotelTypeInd>
        </HotelType >
        <HotelSell>
            <SegNum>1</ SegNum >
            <SellStatusInd>SS</ SellStatusInd >
            <StartDt>20100623</StartDt>
            <EndDt>20100624</EndDt>
            <NumNights>01</ NumNights >
            <PrimaryCity>DEN</ PrimaryCity >
            <Chain>BU </Chain>
            <RoomMasterID>3958</RoomMasterID>
```

```
        <BIC>NDD1RAC</BIC>
        <HtlPropName/ >
            <![CDATA[ BAYMONT DENVER  ]]>
        </HtlPropName >
        <NumAdults>2</ NumAdults >
        <NumRooms>1</NumRooms>
        <ConfNum>74178997</NumRooms>
        <RateGuarInfo>RG</RateGuarInfo>
        <RateChgInd> N</RateChgInd >
        <MultiDayRateInd> N</MultiDayRateInd>
        <Currency>USD</Currency>
        <DecPos> 2</DecPos>
        <ExtraChargeDecPos> 2</ExtraChargeDecPos>
        <RateAmt>000010999</RateAmt>
        <MultilevelRate/>
        <DataStoreIndicator/
    </HotelSell>
    <HotelOptionalData>
        <FldAry>
            <Fld>
                <ID>BS</ID>
                <Contents>AGT14537482</Contents>
            </Fld>
            <Fld>
                <ID>DP</ID>
                <Contents> VI4444333322221111EXP0911</Contents>
            </Fld>
            </Fld>
            <Fld>
                <ID>NL</ID>
                <Contents> TEST</Contents>
            </Fld>
            <Fld>
                <ID>NF</ID>
                <Contents> BOB</Contents>
            </Fld>
            <Fld>
                <ID>PT</ID>
                <Contents> AT</Contents>
```

```
                </Fld>
                <Fld>
                    <ID>TR</ID>
                    <Contents> 12594</Contents>
                </Fld>
            </FldAry>
        </HotelOptionalData>
        <HotelRule >
            <RuleInfoAry>
                <RuleInfo/>
                <RuleInfo>CXL: CANCEL BEFORE 6PM</RuleInfo>
                <RuleInfo><![CDATA[ THANK YOU FOR BOOKING WITH BAYMONT! * ]]></RuleInfo>
            </RuleInfoAry>
        </HotelRule >
    </HtlSegSell >
</PNRBFManagement_#>
```

It is helpful if your application remembers whether a guarantee or deposit was used to complete the booking, if only to inform the customer that a charge was made to their credit card if the booking required a deposit.

Appendix A: Slot Array Types

Value	Qualifier	Description
A	Amenity	Multiple property features can be requested, such as indoor pool, concierge, disabled access, or conference rooms.
B	Room Type	The type of room, such as suite or deluxe room with a king-sized bed. **Note:** The room type can be indicated as part of the booking code, for example, *A1K* or *B*D*. However, room type should be used with caution because rate codes do not always indicate room types within the code.
C	Rate Category	Rate categories define the general room rate, such as standard, corporate, government, and weekend.
D	Distance and Direction Qualifier	The minimum or maximum distance the hotel should be from the reference point, city, or airport.
E	AAA Rating	One-digit value from *1* to *5* diamonds. Or a range, for example, *1–5*. *Note*: Not compatible with Travel Screen
FG	Frequent Guest Number	The 2- or 3-character hotel chain code, followed by a frequent guest number of up to 17 characters.
ID	Special Rate Identification Number	The 2- or 3-character hotel chain code, followed by a special rate identification number of up to 17 characters.
L	Location	A general property location within the requested city. Includes city, airport, resort, suburb, downtown, beach, and country (rural) locations.
M	Rate Access	A negotiated rate code between an organization and a vendor. Multi-level rates can be created for corporations or other organizations that offered discounts with preferred vendors. A 6-character rate access code (multi-level rate code) identifies properties and rates that apply to a specific organization. **Note:** The rate access qualifier is never relaxed.
N	Property Name	The first three to twelve characters of the property name.
P	Property Types	The type of hotel property, such as hotel, motel, suites, condo, and resort.
R	Rate Value	A specified rate or range of rate that can be targeted. Specifications or ranges for hotel rates are: *-999999999* = less than or equal *Y99999999* = greater than or equal *999999999* = within 10% *999999999-999999999* = range Rates must be rounded up to whole number, with no implied decimal, and zero filled. **Note:** Rate value denotes a flat rate. For example, a rate value qualifier of "200 - 300 will return properties with rates that fall between that range. However, rate value is not subject to currency conversion. For example, requesting a rate of 200 - 300 for a hotel in New York will search for rates in 200 - 300 US Dollars, while a search in Rome will try to match rates for 200 to 300 Italian lira. Rate value is also not applicable for locations that list rates in multiple currencies. For example, hotel properties in Geneva, Switzerland typically list rates in both Swiss francs and German marks.

Value	Qualifier	Description
T	Transportation	Transportation to from a hotel property, such as walking, limousine, public, taxi, and courtesy bus.
X	City Preferences	For use with TravelScreen transactions only.
Y	General Preferences	For use with TravelScreen transactions only.
Z	Chains	The 2-character vendor chain code. Up to six (6) chain codes can be searched.
@	Rate Access Code (Travelscreen and TDS response)	The 6-character rate access code (multi-level rate code). Rate access codes are assigned for corporate or other organizational rates. Used only for Travelscreen and TDS (The Data Store) requests only -- other requests should use the Rate Access qualifier, "M".

Appendix B: Amenity Types

Value	Amenity
01	Air Conditioning
02	Airline Desk
03	Child Care
04	Balcony
05	Kids Programs
06	Hair Salon
07	Internet
08	Breakfast
09	Car Rent Desk
10	Casino
11	Coffee Shop
12	Kids Stayfree
13	Computer Bus
14	Concierge Desk
15	Concierge Level
16	Connect Rooms
17	Continental Breakfast
18	Dinner
19	Efficiency
20	Elevators
21	Entertainment
22	Family Plan
23	Fireplace
24	Free Trans
25	Game Room
26	Gift Shop
27	Golf
28	Handicap Fac
29	Health Club
30	Microwave
31	Kitchen
32	Laundry/Valet
33	Lounge
34	Lunch
35	Meal Plan

Value	Amenity
41	Parking
42	Free Parking
43	Small Pets
44	Phone Service
45	Pool – Includes indoor and outdoor
46	Indoor Pool
47	Outdoor Pool
48	Porters
49	Refrigerator
50	Restaurant
51	Room Service
52	Oriental Room
53	Western Room
54	Safe in Room
55	Safe Deposit
56	Sauna
57	Secretary Srv
58	Shower
59	Skiing – Includes snow and water
60	Snow Skiing
61	Water Skiing
62	Spa
63	Tennis Court
64	Tour Desk
65	TV
66	TV, Cable
67	VCR
68	Water Bed
69	Private Bath
70	Wet Bar
71	120 AC
72	120 DC
73	220 AC
74	220 DC
75	Fax Service

Value	Amenity
36	Meeting Rooms
37	Mini Bar
38	Movie/In-house
39	Multilingual
40	No Smoking Room

Value	Amenity
76	Jogging Track
77	Sofa Bed
78	Photo Copy Service
79	Bathtub
80	Fire Safety

Appendix C: Rate Types

Value	Rate Category
R	RAC Rate
C	Corporate
W	Weekend
P	Package
S	Senior Citizen
G	Government
M	Military
B	Club
A	Association
F	Family Plan
T	Tour
I	Travel Industry
V	Convention
L	Special/Promotional
N	Negotiated

Appendix D: Property Types

Value	Property Type
01	Hotel
02	Motel
03	Inn
04	All Suite
05	Condo
06	Villa
07	Castle
08	Pension
09	Resort
10	Convention
11	Bed/Breakfast
12	Other

Appendix E: Booking Request

```
<PNRBFManagement_#>
    <PNRBFPrimaryBldChgMods>
        <ItemAry>
            <Item>
                <DataBlkInd>N</DataBlkInd>
                <NameQual>
                    <EditTypeInd>A</EditTypeInd>
                    <EditTypeIndAppliesTo/>
                    <AddChgNameRmkQual>
                        <NameType/>
                        <LNameID>1</LNameID>
                        <LName>TEST</LName>
                        <LNameRmk/>
                        <NameTypeQual>
                            <FNameAry>
                                <FNameItem>
                                    <PsgrNum>01</PsgrNum>
                                    <AbsNameNum>1</AbsNameNum>
                                    <FName>JOE</FName>
                                </FNameItem>
                            </FNameAry>
                        </NameTypeQual>
                    </AddChgNameRmkQual>
                </NameQual>
            </Item>
```

Primary passenger name.

```
<Item>
    <DataBlkInd>N</DataBlkInd>
    <NameQual>
        <EditTypeInd>A</EditTypeInd>
        <EditTypeIndAppliesTo/>
        <AddChgNameRmkQual>
            <NameType/>
            <LNameID>2</LNameID>
            <LName>JILL</LName>
            <LNameRmk/>
            <NameTypeQual>
                <FNameAry>
                    <FNameItem>
                        <PsgrNum>01</PsgrNum>
                        <AbsNameNum>2</AbsNameNum>
                        <FName>SMITH</FName>
                    </FNameItem>
                </FNameAry>
            </NameTypeQual>
        </AddChgNameRmkQual>
    </NameQual>
</Item>
<Item>
    <DataBlkInd>P</DataBlkInd>
    <PhoneQual>
        <EditTypeInd>A</EditTypeInd>
        <AddPhoneQual>
            <City>DEN</City>
            <Type>R</Type>
            <PhoneNumber>303 555-1212</PhoneNumber>
        </AddPhoneQual>
    </PhoneQual>
</Item>
<Item>
    <DataBlkInd>T </DataBlkInd>
    <TkQual>
        <Tk>T/</Tk>
    </TkQual>
</Item>
```

Second passenger name.

Phone number.

Ticket arrangement.

```
            <Item>
                <DataBlkInd>E</DataBlkInd>
                <EndMarkQual>
                    <EndMark>E</EndMark>
                </EndMarkQual>
            </Item>
        </ItemAry>
    </PNRBFPrimaryBldChgMods>
    <HtlSegSellMods>
        <StartDt>20060511</StartDt>
        <EndDt>20060515</EndDt>
        <NumPersons>2</NumPersons>
        <NumRooms>1</NumRooms>
        <Chain>MV </Chain>
        <RoomMasterID>08250</RoomMasterID>
        <BIC>ROHRAC</BIC>
        <RateAccess1/>
        <RateAccess2/>
        <RateAccess3/>
        <NumExtraAdults/>
        <NumExtraChildren/>
        <NumCrib/>
        <NumAdultRollaway/>
        <NumChildRollaway/>
        <SellSource>I</SellSource>
        <RetRuleTxtInd>Y</RetRuleTxtInd>
        <OnReqInd/>
        <AltAvailInd/>
        <OptFldIDAry>
            <OptFldID>
                <ID>GT</ID>
                <Contents>VI4444333322221111EXP0906</Contents>
            </OptFldID>
            <OptFldID>
                <ID>FG</ID>
                <Contents>316487362</Contents>
            </OptFldID>
            <OptFldID>
                <ID>SI</ID>
                <Contents>Need noisy, drafty room with poor lighting</Contents>
```

End item for the primary section.

Hotel booking section.

Credit Card

Frequent guest number.

Special instructions.

```
            </OptFldID>
        </OptFldIDAry>
    </HtlSegSellMods>
    <PNRBFSecondaryBldChgMods>
        <ItemAry>
            <Item>
                <DataBlkInd>H</DataBlkInd>
                <AssocRmkQual>
                    <EditTypeInd>H</EditTypeInd>
                    <HtlQual>
                        <StartDt>20060511</StartDt>
                        <Vnd>MV</Vnd>
                        <Airp>LAS</Airp>
                        <PropNum>08250</PropNum>
                        <RateCode>ROHRAC</RateCode>
                    </HtlQual>
                    <AssocRmkTypeQual>
                        <EditTypeInd>A</EditTypeInd>
                        <AddQual>
                            <RmkAry>
                                <RmkInfo>
                                    <Rmk>HOTEL REMARK 1</Rmk>
                                </RmkInfo>
                                <RmkInfo>
                                    <Rmk>HOTEL REMARK 2</Rmk>
                                </RmkInfo>
                            </RmkAry>
                        </AddQual>
                    </AssocRmkTypeQual>
                </AssocRmkQual>
            </Item>
            <Item>
                <DataBlkInd>E</DataBlkInd>
                <EndQual>
                    <EndMark>E</EndMark>
                </EndQual>
            </Item>
        </ItemAry>
    </PNRBFSecondaryBldChgMods>
</PNRBFManagement_#>
```

Hotel booking section.

Associated Remarks

End item for the secondary section.