

Opera Hotel Edition



Opera Electronic Distribution Systems (OEDS)

Opera Web Suite Version 5.1 Developer's Guide

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Record of Changes

Date	Version	Description	Author
27 Dec 2004	1.0	Initial Release	C. Dimitrov
07 Sept 2006	2.0	Revised and Edited	S. Khomutetsky
08 Feb 2007	3.0	Edited	S. Khomutetsky
24 Oct 2007	4.0	Revised Appendix B to reflect changes in the authority server and the URL	S. Khomutetsky
08 Dec 2007	4.1	Replaced and updated functional descriptions.	S. Khomutetsky
08 July 2008	4.2	143535 – Updated Availability Limitations on page 45.	C. Hunter
02 October 2008	4.3	147593 – Added Secured Mode parameter section.	C. Hunter
05 Nov 2008	4.4	Meeting Room web service added.	C. Hunter
05 June 2009	4.5	Updated Availability function description under Availability web service.	C. Hunter
11 June 2009	4.6	157539 – Added UpdateAppUserPassword web function to Description of Functions section.	C. Hunter
16 June 2009	4.7	159201 – TravelAgentLookup function added to Name Service Functions.	C. Hunter
22 June 2009	4.8	159200 – New function named FetchProfile added under Name Service Functions.	C. Hunter
13 Aug 2009	4.9	159443 – Updated ModifyBooking description under Reservation service. CreateBooking functional description also	C. Hunter

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		updated.	
02 Oct. 2009	5.0	163147 – New web functions added under Membership: FetchPointsExchange and TransferPoints.	C. Hunter
24 Nov. 2009	5.1	166420 – Added FetchSubscription web function. Activity web service added. V5.0.02.01	C. Hunter
04 Dec. 2009	5.2	165755 – The following web functions have been added to Name service: FetchClaimsStatus, InsertClaim and UpdateClaim. V5.0.02.01	C. Hunter
30 Dec. 2009	5.3	167459 – Added the following web functions to the Membership service: ConsumeECertificate, FavoriteGuest, FetchECertificates and IssueECertificate. Added FetchProfileBenefits web function to the Name service. V5.0.02.01	C. Hunter
10 Feb. 2010	5.4	170798 – QueryAwardsSchedules function added to Information service table. V5.0.02.02	C. Hunter
19 April 2010	5.5	170770 – GuestServices web functions added. V5.0.02.02	C. Hunter
06/18/10	5.6	178568 – New GetScreenItems function added to Information service. V5.0.02.03	C. Hunter
07/19/10	5.7	176715 – New QueryProductItems function added to Information service. V5.0.02.03	C. Hunter
08/17/10	5.8	180516–New QueryPackageItems function added to Information. V5.0.02.03	C. Hunter
08/31/10	5.9	178204–New web functions added to Activity service: ActivityAvailability,	C. Hunter

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		CreateActivity, FetchActivity and CancelActivity. V5.0.02.03	
09/16/10	6.0	181813 – 2 new functions added to Reservation: FetchRoomUpgrades and Upgrade Reservation. V5.0.02.03	C. Hunter

Getting Started

This document provides all of the information necessary to develop custom applications that interact with OWS Web Services through the programming language of your choice. This functionality is provided through standard Web Services technologies. As of Opera Version 5.0, we have added new functions to allow for developers to create a Kiosk from the OWS web Services. This combined platform should provide our partners with an even broader base of tools to allow connectivity to the changing face of today's Guest.

What are Web Services?

Web Services are applications whose logic and functions are accessible using standard Internet protocols and data formats such as Simple Object Access Protocol (SOAP) over Hypertext Transfer Protocol (HTTP). A Web Services Description Language (WSDL) file defines the application programmatic Interface (API) and tools are used to generate API stubs in the language of choice. It is the Web Services (or SOAP) tools that are used to generate the stubs that then send SOAP formatted method calls to the server to enable widespread inter-operability.

Similar to component-based development, Web Services represent black-box functionality that can be reused without worrying about how the service is implemented. A Web Service interface is defined strictly in terms of the messages that the service accepts and generates. Applications using a Web Service can be implemented on any platform in any programming language as long as they can create and consume messages defined for the service interface. A Web Service can also aggregate other services to provide a higher-level set of features.

Why Should A Developer be Interested in Web Services?

- **Inter-operability** - Any Web Service can interact with any other Web Service and can be written in any language.
- **Communication** - Web Services communicate using HTTP and XML. Any connected device that supports these technologies can both host and access Web Services.
- **Easy to Understand** - The concepts behind Web Services are easy to understand and developers can quickly create and deploy them using many tools available on the Web.
- **Industry Support** - Major content providers and vendors support the Web Services movement.

The Simple Object Access Protocol (SOAP), a method of sharing messages between client and server, was developed to deal with the limitations of XML/HTTP. SOAP is a lightweight protocol intended for exchanging structured information in a decentralized, distributed environment. It uses XML technologies to define an extensible messaging framework, providing a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed

to be independent of any particular programming model and other implementation-specific semantics.

Tools and Platforms

Micros Systems provides a Web Services Description Language (WSDL) file from which you will need to generate stubs in the programming language of your choice. A SOAP toolkit for your particular programming language will generate the required stubs and SOAP message for each method call to the server. Be forewarned that there are new tools being developed all the time, and innovation is very rapid in this area. Most standard programming languages are represented.

SOAP allows third-party developers to interface with the Opera Web Suite (OWS) product using XML data files over the Hypertext Transfer Protocol (HTTP) protocol. SOAP structures these XML files into remote procedure calls.

Please see our .wsdl files for more information on the contents of OWS SOAP requests and responses. The reference section provides the semantics for calling each routine.

The different OWS services are described by WSDL schema documents and can be found at:

<http://webservices.micros.com/ows/5.1/Activity.wsdl>

<http://webservices.micros.com/ows/5.1/Availability.wsdl>

<http://webservices.micros.com/ows/5.1/Brochure.wsdl>

<http://webservices.micros.com/ows/5.1/GuestServices.wsdl>

<http://webservices.micros.com/ows/5.1/Information.wsdl>

<http://webservices.micros.com/ows/5.1/MeetingRoom.wsdl>

<http://webservices.micros.com/ows/5.1/Membership.wsdl>

<http://webservices.micros.com/ows/5.1/Name.wsdl>

<http://webservices.micros.com/ows/5.1/Reservation.wsdl>

<http://webservices.micros.com/ows/5.1/ResvAdvanced.wsdl>

<http://webservices.micros.com/ows/5.1/Security.wsdl>

<http://webservices.micros.com/ows/5.1/StayHistory.wsdl>

<http://webservices.micros.com/ows/5.1/UnitOwners.wsdl>

Associated schema (XSD) documents can be found at:

<http://webservices.micos.com/og/4.3/Core.xsd>

<http://webservices.micos.com/og/4.3/Common.xsd>

<http://webservices.micos.com/og/4.3/GuestServices.xsd>

<http://webservices.micos.com/og/4.3/HotelCommon.xsd>

<http://webservices.micos.com/og/4.3/MeetingRoom.xsd>

<http://webservices.micos.com/og/4.3/Activity.xsd>

<http://webservices.micos.com/og/4.3/Availability.xsd>

<http://webservices.micos.com/og/4.3/Name.xsd>

<http://webservices.micos.com/og/4.3/Reservation.xsd>

SOAP Action URI will be provided to you by Micros Systems, Inc. For example:

<https://yourdomain.com/yourows/yourwebservice.asmx>

SOAP Tools

This section provides information on toolkits commonly used to form SOAP messages.

Java

Java 2 Standard Edition Runtime + SDK 1.4.2 or later

<http://java.sun.com/j2se/1.5.0/index.jsp>

Apache Axis 1.3

<http://ws.apache.org/axis>

Perl

SOAP::Lite

<http://www.soaplite.com/>

PHP

NuSOAP

<http://www.sourceforge.net/projects/nusoap/>

.NET

.NET Framework SDK

<http://msdn.microsoft.com/webservices>

C++/VB and COM components

SOAP Toolkit 3.0

<http://msdn.microsoft.com/webservices/building/soaptk/>

Delphi

Borland® BizSnap™ – Web Services with XML technologies

<http://www.borland.com/delphi>

Development Platforms

This section provides information on Web Services development tools.

Sun Java Studio Enterprise

<http://www.sun.com/software/sundev/ide/index.xml>

Microsoft Visual Studio.NET

<http://msdn.microsoft.com/vstudio/productinfo/default.asp>

Borland Delphi Studio

<http://www.borland.com/delphi/>

Note: This information is included for reference only. Micros-Fidelio does not endorse any specific tools and the presence of tools on this list does not mean that Micros-Fidelio guarantees compatibility with the tools.

Sample Code

We have provided sample code for each service Opera Web Suite (OWS) offers, and have implemented this sample in Java, C#, VB.NET. A test tool is available inside GSIM folder, and sample XML messages are found within the XML messages folder, which can help during the development process. For more information how to use GSIM, see the readme.txt file. A test URI in all samples has been added to test.myfidelio.net host.

Note: For the code example, a dummy SOAP Action URL is being used <https://yourdomain.com/yourows/yourwebservice.asmx>. Please replace it with the one provided to you from Micros-Fidelio.

Java Environment

This build.xml file assumes you have installed the Axis toolkit. This code also assumes that you have setup the correct class path. The code can be compiled using J2SE 1.4.2.

The code generated for Java web services client is generated by using WSDL2Java:

```
java org.apache.axis.wsdl.WSDL2Java -o .\ -T 1.1 -  
Nhttp://tempuri.org/=com.micros.webservices -S true  
https://yourdomain.com/yourows/yourwebservice.asmx?wsdl
```

This will create namespace folders with the locator/stub code inside. You need to replace the http://tempuri.org with the corresponding Action URI located in AvailabilityServiceLocator.java.

```
// Use to get a proxy class for AvailabilityPort  
  
private java.lang.String AvailabilityPort_address =  
"https://yourdomain.com/yourows/yourwebservice.asmx" ;
```

For additional information, see update.bat, the generated code in the \Proxies\Java folder, and code samples in the \Samples\Java folder.

The SOAP header is not automatically generated into the locator class as in .NET. It exists in \log_4_3\Core\OGHeader.java. To initialize, setup the OGHeader and pass it to the function

void [setHeader\(SOAPHeaderElement header\)](#) from org.apache.axis.client.Stub before any calls to the Web Service's method.

C# Environment

This code was created with Visual Studio .Net. Web Services Enhancements 2.0 (WSE) was utilized for the WS-Security sample.

1. Install WSE on your development machine.
2. Create a new C# Windows Application solution in Visual Studio 2003.
3. Under menu Project-Add Web Reference, generate a proxy from the selected service.WSDL.
4. Edit the generated Reference.cs file and change the tempuri.org URL with the SOAP Action URI of the .asmx file:public AvailabilityService()

{this.Url ="https://yourdomain.com/yourows/yourwebservice.asmx";};
5. Copy the sample code or create your own code using the new proxy libraries.

You can also use the wsdl.exe tool from .NET Framework SDK to generate the client code. For example, with an availability service:

**wsdl /protocol:SOAP /namespace:OWS.Availability
http://webservices.micos.com/ows/5.1/Availability.wsdl**

This generates in the same folder as the AvailabilityService.cs class that you can import into your project. Follow step 4 (above) to change the default URI.

For additional information, see the code generated in \Proxies\C#.

Visual Basic .NET Environment

This code was created using Visual Studio 2003 with Web Services Enhancements (WSE) 2.0.

The following steps are used to create the sample application:

1. Install WSE on your development machine.
2. Create a new Visual Basic Windows Application solution in Visual Studio 2003.
3. Under the menu Project-Add Reference->Add reference to Microsoft.Web.Services.dll.
4. Under the menu Project-Add Web Reference, generate a proxy from the selected service .WSDL.
5. Edit the generated Reference.vb file and change the tempuri.org URL with the SOAP Action URI of the .asmx file.

```
Public Sub New()
```

```
MyBase.New
```

```
Me.Url = " https://yourdomain.com/yourrows/yourwebservice.asmx"
```

```
End Sub
```

6. Because of the Microsoft Visual Basic Deficiency, follow the Microsoft procedures in Knowledge Base 815211. The proxy file (Reference.vb) must also be edited for out parameters, as described the in KB815211 article.
7. Copy the sample code, or create your own code using the new proxy libraries.

You can also use wsdl.exe tool from .NET Framework SDK to generate the client code. For example, with availability service:

```
wsdl /protocol:SOAP /language:VB /namespace:OWS.Availability  
http://webservices.micros.com/ows/5.1/Availability.wsdl
```

This will generate in the same folder AvailabilityService.vb class that you can import into your project and follow from step 4 (above) to change the default URI. For additional information, see the generated code in \Proxies\VB.NET folder, and code samples under \Samples\VB.NET.

A Brief Description of the Functions

OWS currently includes the following services and functions:

Activity Service Functions

The following functions are currently provided through the Activity Web Service:

Function	Description
ActivityLookup	Retrieves a list of activities the guest has reserved.
ActivityAvailability	Retrieves available activities.
CancelActivity	Cancels guest activities.
CreateActivity	Creates guest activities.
FetchActivity	Fetches guest activities.

For the functional specifications, refer to the OWS Activity Message Spec document.

Availability Service Functions

The following functions are currently provided through the Availability Web Service:

Function	Description
Availability	<p>Retrieves lists of available rooms and rates. The user should provide at least a date range, hotel criteria, number of rooms, total guests, and number of children. Rate range or plans, rate tiers, alternate date searches, and search by membership number, specific room type or block criteria are also allowed.</p> <p>Setting the summaryOnly flag to true results in a General Availability request and setting the flag to false results in a Detail Availability request.</p>

Function	Description
FetchAvailableItems	Retrieves a list of available add-on items by date. The user should provide at least the date range (a maximum of seven days), hotel criteria, and the item class or group. Specifying an item group retrieves a list of available items in that group. Setting the isPackage flag to true adds attached packages to each item in the list and setting the flag false ignores package information for items.
FetchAvailablePackages	Retrieves a list of available add-on packages and package groups by date. The user should provide at least a date range and hotel criteria. Confirmation identifier, leg confirmation identifier, number of rooms, and counts of adults and children are also allowed.
FetchCalendar	Retrieves a list with room occupancy, rate, and restriction details by date. The user should provide at least a date range and hotel criteria. Room type or block, adult or child guest counts, and rate plan information are also allowed.
FetchItemGroups	Retrieves a list of available add-on items. Hotel criteria must be provided. Setting flag groupOnly to true (the default) retrieves the list of item groups and setting the flag to true retrieves a list of all available items.
GDSAreaAvailability	Fetches the availability status of a list of properties submitted in the request message. The response contains the property status, chain code, Property ID and the minimum and maximum rate ranges dynamically retrieved from the Opera database.
RegionalAvailability	Retrieves a list of hotels. The user must provide at least a geographic region code or hotel criteria, date range, and the number of guests. Number of rooms and a rate range are also allowed.
RegionalAvailabilityExt	Retrieves a list of and provides extended information about hotels. The user must provide at least a geographic region code or hotel criteria, date range, and number of guests. Number of rooms and a rate range are also allowed.

For the functional specifications, refer to the OWS Availability Message Spec document.

Brochure Service Functions

The following functions are currently provided through the Brochure Web Service:

Function	Description
SendBrochure	Sends a brochure, given the hotel criteria, brochure type, name identifier, and e-mail address.

For the functional specifications, refer to the OWS Brochure Message Spec document.

Guest Services Functions

The following functions are currently provided through the Guest Services Web Service:

Function	Description
UpdateRoomStatus	Updates the status of a room. Note: UpdateRoomStatus is reserved for future use and will be made available in future releases.
WakeUpCall	Retrieves the wakeup calls for a reservation. In addition, it can add wakeup calls and delete wakeup calls for the reservation. This function can only be utilized when a reservation is "IN HOUSE."

For the functional specifications, refer to the OWS Guest Services Message Spec document.

Information Service Functions

The following functions are currently provided through the Information Web Service:

Function	Description
CurrencyConverter	Returns the converted amount, given the original currency code, original amount, converted currency code, and hotel criteria. An exchange type is also allowed.
GetScreenItems	Retrieves all the screen items.
QueryAwardsSchedules	Returns Awards Schedules for Rate, Product and Upgrade awards types.
QueryChainInformation	Returns information about the chain, given the chain code. Information returned includes addresses, emails, phone numbers, marketing text, loyalty program details, booking conditions, and frequent flyer program details. This functionality is only available when in MyFidelio mode.
QueryHotelInformation	Retrieves information about a hotel, given the hotel criteria. Contact and location details as well as information about facilities, amenities, services, and alternative properties are provided.
QueryLov	Retrieves a list of values, given the query type string. A wide variety of resort configuration details are viewable.
QueryPackageItems	Returns package groups/packages/item groups/items setup in the resort.
QueryProductItems	Returns product groups/products/item groups/items setup in the resort.
QueryRate	Retrieves rate information, given the hotel and rate codes. A date range is also allowed. The information includes policies, requirements, restrictions, and other descriptive details.

For the functional specifications, refer to the OWS Information Message Spec document.

Meeting Room Service Functions

The following functions are currently provided through the Meeting Room Web Service:

Function	Description
MeetingAvailability	Single-property general or detailed availability for function space.
MeetingCancelEvent	(Not Implemented yet) Deletes existing event.
MeetingCreateEvent	Create an event which includes meeting room, miscellaneous Items, Menu, additional menu items and sleeping rooms.
MeetingCreatePackageEvent	Create a packaged event which includes Package ID, additional miscellaneous Items, menu items, and sleeping rooms.
MeetingFetchBEO	Generates a BEO (banquet event order) and returns a file location and name and a UNC path. A PDF file is created for the BEO and stored in a local shared folder on the OEDS server.
MeetingFetchEvent	Fetch created event with the ability to return meeting room, miscellaneous Items, menu, and menu items.
MeetingFetchMenu	Returns configured menus and related menu items depending on the request. The data returned will be for one property.
MeetingFetchMenuItem	Depending on the request, returns configured menu items. The data returned will be for one property.
MeetingFetchMiscellaneousItem	Returns all configured miscellaneous items for one property.
MeetingFetchPackageEvent	Fetch created packaged event will have the ability to return package, meeting room, miscellaneous Items, menus, additional menu items and miscellaneous Items.
MeetingModifyEvent	(Not Implemented yet) Modify created event.

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Function	Description
MeetingMultiPropertyAvailability	Multi-property availability will return function space availability for more than one property depending on the request.
MeetingPackageAvailability	Returns general or detailed package availability for a property.

For the functional specifications, refer to the OWS Meeting Room Message Spec document.

Membership Service Functions

The following functions are currently provided through the Membership Web Service:

Function	Description
AddPromoSubscription	Adds a promotional subscription to a membership, given the membership identifier and promotion information.
ConsumeECertificate	Consume an issued e-certificate.
ConsumePoints	Adds customer points and returns the transaction identifier, given the membership identifier and loyalty award program request details.
ConsumePointsOthers	Adds customer points and returns the transaction identifier, given the membership number and product award details.
DeletePromoSubscription	Deletes a promotional subscription from a membership, given the membership identifier and promotion information.
FavoriteGuest	Add/Delete/Fetch favorite guest to/from a profile.
FetchECertificates	Fetch all e-certificates issued to a profile.
FetchEnrollmentCode	Retrieves the enrollment code for a membership, given the membership identifier.
FetchMemberTierWizard	Returns the membership upgrade requirements, the current membership level or the membership level for an upgrade or downgrade given a future evaluation date and membership ID.
FetchMembershipTransactions	Retrieves a list of membership transactions, given the membership identifier or membership record.
FetchNextCardNumber	Retrieves a membership card number, given the membership type.
FetchPointsExchange	Retrieves the membership type points based on the exchange rate setup between the two membership types.
FetchProductAwards	Retrieves a list of product awards in effect, given the membership type and level, date range, and number of rooms. Details on the product award requirements are provided.

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Function	Description
FetchPromoSubscriptions	Retrieves a list of promotional subscriptions attached to a membership, given the membership identifier.
FetchRateAwards	Retrieves a list of rate awards in effect, given the membership type and level, date range, number of rooms, points range minimum and maximum values, and a list of hotel references. Details on the rate award requirements are provided.
FetchStatement	Retrieves a hotel loyalty program statement for a membership, given the membership identifier and the statement identifier and date. Summary information and details on the membership transactions are provided.
FetchStatementRefs	Retrieves a list of statement records, given the membership identifier or membership record. Each record includes the statement identifier and date.
FetchUpgradeAwards	Retrieves a list of award upgrades in effect, given the membership type and level, date range, and number of rooms. Details on the upgrade and its requirements are provided.
IssueECertificate	Issue e-certificate to a profile.
TransferPoints	Transfer points from one membership type to another membership type.
UpdateEnrollmentCode	Adds or modifies the enrollment code of a membership, given the membership identifier and new enrollment code.

For the functional specifications, refer to the OWS Membership Message Spec document.

Name Service Functions

The following functions are currently provided through the Name Web Service:

Function	Description
DeleteAddress	Deletes a specific address from a profile, given the address identifier.
DeleteComment	Deletes a specific comment from a profile, given the name and comment identifiers.
DeleteCreditCard	Deletes a specific credit card record from a profile, given the credit card identifier.
DeleteEmail	Deletes a specific e-mail record from a profile, given the e-mail identifier.
DeleteGuestCard	Deletes a specific membership number from a profile, given the guest card identifier.
DeletePassport	Deletes the passport information from a profile, given the name identifier.
DeletePhone	Deletes a specific phone record from a profile, given the phone record identifier.
DeletePreference	Deletes a specific preference from a profile, given the name identifier and the preference.
DeletePrivacyOption	Deletes the privacy option settings for a profile, given the name identifier.
FetchAddressList	Retrieves a list of address records from a profile, given the name identifier.
FetchClaimsStatus	Fetches the status of the claim submitted by a profile.
FetchCommentList	Retrieves the list of comments from a profile, given the name identifier.
FetchCreditCardList	Retrieves the list of credit card records from a profile, given the name identifier.
FetchEmailList	Retrieves the list of e-mail address records from a profile, given the name identifier.

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Function	Description
FetchGuestCardList	Retrieves the list of membership records from a profile, given the name identifier.
FetchName	Retrieves the name record from a profile, including any birthday and gender information, given the name identifier.
FetchNameUDFs	Retrieves the list of user-defined field values from a profile, given the name identifier.
FetchPhoneList	Retrieves the list of phone records from a profile, given the name identifier
FetchPreferenceList	Retrieves the list of preferences from a profile, given the name identifier.
FetchPrivacyOption	Retrieves the list of privacy option settings for a profile, given the name identifier.
FetchProfile	Sends profile request to Opera and Opera returns all of the profile information in the response message.
FetchProfileBenefits	Fetch all promotions and e-certificates associated with a profile.
FetchSubscription	Retrieves all the external system Namelds of the profile.
GetPassport	Retrieves the passport information from a profile, given the name identifier.
InsertAddress	Adds an address record to a profile, given the name identifier and address information to insert.
InsertClaim	Submits a claim for a profile.
InsertComment	Adds a comment to a profile, given the name identifier and comment information to insert.

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Function	Description
InsertCreditCard	Adds a credit card record to a profile, given the name identifier and credit card information to insert.
InsertEmail	Adds an e-mail address record to a profile, given the name identifier and e-mail address to insert.
InsertGuestCard	Adds a membership record to a profile, given the name identifier and membership information to insert.
InsertPhone	Adds a phone record to a profile, given the name identifier and phone information to insert.
InsertPreference	Adds a preference to a profile, given the name identifier and preference description.
InsertUpdateNameUDFs	Adds to or modifies the list of user-defined field values in a profile, given the name identifier and a list of UDF records.
InsertUpdatePrivacyOption	Adds to or modifies the list of privacy option settings for a profile, given the name identifier and a list of privacy option setting records.
NameLookup	Retrieves a list of profile records, given the name look-up credit card or membership criteria.
RegisterName	Creates a new profile and its name identifier, given at least the person's name record. Native name record, birth date, gender, address record, phone record, passport record, login name, and login password are also allowed. Specifying the login information also creates a web user.
TravelAgentLookup	Allows the look up of travel agent given the NameID (IATA Number). Returns the travel agent's company name, address, phone number, email address, and IATA number in the response.

Function	Description
UpdateAddress	Modifies an address record in a profile, given the address information.
UpdateClaim	Adds comments to an existing claim.
UpdateComment	Modifies a comment record in a profile, given the name identifier and comment information.
UpdateCreditCard	Modifies a credit card record in a profile, given the credit card information.
UpdateEmail	Modifies an e-mail address record in a profile, given the e-mail address information.
UpdateGuestCard	Modifies a membership record in a profile, given the membership information.
UpdateName	Modifies the name information in a profile, given at least the name identifier and person's name record. Native name record, birth date, and gender are also allowed.
UpdatePassport	Adds or modifies the passport record in a profile, given the name identifier and passport information.
UpdatePhone	Modifies a phone record in a profile, given the phone information.

For the functional specifications, refer to the OWS Name Message Spec document.

Reservation Service Functions

The following functions are currently provided through the Reservation Web Service:

Function	Description
AssignRoom	Assigns the room number for a reservation, given at least the hotel criteria and reservation identifier. Requested room number and station identifier are also allowed.
BookHoldItems	Attaches held inventory items to a reservation, given the hotel criteria, confirmation or reservation identifier, and the list of hold item identifiers to attach.
CancelBooking	Cancels a reservation and returns a cancellation identifier, given at least the hotel criteria, confirmation identifier, and cancellation type summary. GDS identifier and Leg confirmation identifier are also allowed.
ClearItemHold	Returns a held item to available inventory, given the hotel criteria and hold item identifier.
ConfirmBooking	Confirms a booking for a GDS channel type, given hotel reference information and the booking confirmation number, and the GDS ID (optional). If this is a multileg booking, the leg number is also allowed. The response includes the result and confirmation number. Used only when Session Control is active in Channel setup.
CreateBooking	Creates a new reservation and returns confirmation and reservation identifiers, given at least hotel reservation criteria including room stay, guest information, and confirmation instructions. Reservation history information, user defined values, and bill header are also allowed. Multiple rate codes, including multiple child rates, are supported. CreateBooking also allows packages to be attached to the reservation during the booking process.
CreateItemHold	Creates a hold item and returns a hold item identifier, given the hotel criteria, item code, quantity, and date range.
DeleteInventoryItem	Removes inventory attached to a reservation, given at least the hotel criteria, confirmation or reservation identifier, and item or item group representing a collection of items to remove. Leg confirmation identifier is also allowed. If a single deleted item is the sole element of a package, the package is also removed from the reservation.

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Function	Description
DeletePackages	Removes an add-on package from a reservation, given at least the hotel criteria, confirmation identifier, and product code. Leg confirmation identifier is also allowed.
EmailConfirmation	Sends a reservation confirmation, given the confirmation identifier and e-mail address.
FetchBookedInventoryItems	Retrieves the list of inventory items attached to a reservation, given at least the hotel criteria and confirmation or reservation identifier. Leg confirmation identifier is also allowed. Details including the item code and quantity are provided for each date.
FetchBookedPackages	Retrieves the list of packages and package groups attached to a reservation, given at least the hotel criteria, and confirmation identifier. Leg confirmation identifier is also allowed. Details about each package or package group and expected charges by date are provided.
FetchBooking	Retrieves a reservation, given at least the confirmation identifier or GDS identifier or customer reference identifier. Hotel criteria, leg confirmation identifier, and external hotel reference and leg confirmation number are also allowed. Details are provided on the room stay, guest profile, and confirmation instructions.
FetchBookingForPointUpdate	Retrieves a custom list of reservations for assigning consumed membership points, given the hotel criteria.
FetchHoldItems	Retrieves a list of items on hold, given the hotel criteria and a comma-separated list of hold item identifiers. The item code, quantity, and date range of the held items are provided.
FetchRoomUpgrades	Fetch Room Upgrade available for member reservation.
FetchSummary	Retrieves a reservation, given the confirmation identifier. Summary information is provided on the status, room stay, and guest profile.
FutureBookingSummary	Retrieves a list of reservations for future dates, given some filtering criteria. The filtering may be by date range (booked or arrival date), name or corporate identifier, last name, first name, credit card number, search level (subgroup, group, or booker), and/or other defined filters (creation date, contract identifier, membership record, hotel criteria, confirmation identifier, reservation identifier, and key track data). Source and Origin codes for reservations can also be returned in the response.

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Function	Description
IgnoreBooking	Ignores (cancels) a booking for a GDS channel type, given hotel reference information and the booking confirmation number, and the GDS ID (optional). If this is a multileg booking, the leg number is also allowed. The response includes the result and confirmation number. Used only when Session Control is active in Channel setup.
ModifyBooking	Modifies a reservation, given the updated reservation record. The confirmation identifier in the record is used to fetch the existing reservation. Key track data is also allowed. Multiple rate codes, including multiple child rates, are supported. ModifyBooking also allows packages to be attached or updated during modification of the booking. In addition, moving a reservation from one resort to another with the same change is also supported.
ModifyItemHold	Modifies a held item, given the hotel criteria, hold item identifier, and the new quantity and/or date range values.
ReleaseRoom	Releases the assigned room number from a reservation, given at least the hotel criteria and reservation identifier. Station identifier is also allowed.
SetDailyPoints	Retrieves a reservation for assigning consumed membership points, given the hotel criteria, confirmation identifier, and list of earned points by date range or start date plus duration.
UpdateInventoryItem	Adds or updates inventory items attached to a reservation, given at least the hotel criteria, confirmation or reservation identifier, item code or item group, and desired quantity and/or date range. Leg confirmation identifier is also allowed. The quantity and date range apply to an item or all items in an item group.
UpdatePackages	Adds or updates a package or package group attached to a reservation, given the quantity. Hotel criteria, confirmation identifier, product code, leg number, and stay date range is also allowed. Details about the package or package group and expected charges by date are provided.
UpgradeReservation	Upgrade Reservation from one room type to another room type.

For the functional specifications, refer to the OWS Reservation Message Spec document.

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Reservation Advanced Service Functions

The following functions are currently provided through the Reservation Advanced Web Service:

Function	Description
AdditionalKeys	Generates additional room keys for an in-house guest, given at least the hotel criteria, reservation identifier or key track, station identifier, and desired number of keys. User identifier, key encoder, and get-key-track indicator are also allowed. If the latter indicator has value true, the key track is returned.
AlternateRooms	Generates a list of alternate room types and rooms for a guest, given the hotel criteria and either reservation identifier or key track. Rate information is also provided.
CancelCheckIn	Converts the status of a reservation from checked-in to due-in, given at least the hotel criteria, and either reservation identifier or key track. Printer designation and cancellation type summary are also allowed.
CheckIn	Checks a guest in, given at least the hotel criteria and reservation identifier or key track. Credit card information, printer designation, number of keys, key encoder, approval code, get-print-out indicator, and get-key-track indicator are also allowed. If the indicators have value true, the registration is printed and the key track is returned. Check-in information including the invoice number and room number is provided.
CheckOut	Checks a guest out and generates the final bill, given at least the hotel criteria and reservation identifier or key track. Credit card information and printer designation are also allowed.
FetchKeyData	Retrieves KeyTrack data attached to the reservation, given the reservation information.
FetchPromotionCode	Retrieves a list of promotion codes available at the hotel.
FetchResPromotionCode	Retrieves promotion codes attached to the reservation.
FetchRoomSetup	Retrieves room setup information, given the room type and room number. Hotel reference information is also allowed. Returns the room type and number, suite type (if applicable), phone number,

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Function	Description
	maximum occupancy, housekeeping section code, smoking preference, and room description, amongst other details about the room is setup.
FetchRoomStatus	Retrieves room status information for the requested room or room type. The response includes the room number and type, next reservation date, room status and the valid dates of the room status, front office status, occupancy condition and housekeeping status, and the service status.
GuestMessages	Retrieves the messages not yet flagged as received for a guest, given at least the hotel criteria and reservation identifier or key track. Line length is also allowed. Arriving, departing, and in-house guests are considered.
Invoice	Retrieves an invoice, given at least the hotel criteria and reservation identifier or key track. Printer designation is also allowed. An itemized bill is provided.
MakePayment	Post a payment, given at least the hotel criteria, reservation identifier or key track, credit card information, and charge amount. Posting date, posting time, short comment, long comment, station identifier, and user identifier are also allowed.
PayRouting	Retrieves lists of routing instructions and payment methods, given the hotel criteria and reservation identifier or key track. Window number, window user, and room number are included. This information is provided only for notification that part of the stay may be handled by different pay windows.
PostCharge	Adds charges to a guest account, given at least the hotel criteria, reservation identifier or key track, and charge amount. Posting date, posting time, short comment, long comment, station identifier, user identifier, account number, and article number are also allowed.
PrintPreCheckOutBill	Generates a bill, given at least the hotel criteria and reservation identifier or key track. Printer designation is also allowed. The bill may either be generated as a PDF file that the kiosk may retrieve over the network and print, or it may be directly printed.
ReservationRequestCode	Retrieves a list of special requests with a reservation, including profile preferences, given the hotel criteria and reservation identifier or key track. The request type, code, source, and description are provided.

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Function	Description
SetKeyData	Stores key track data in Opera, given the hotel reference information, reservation ID, and/or key track data.
SetResPromotionCode	Stores promotional information related to a reservation, given the reservation request information and the promotion code(s).
UpdateMethodOfPayment	Updates the method of payment, given the Hotel Code, Key track or Opera Reservation Id, Folio View Number, and Credit Card data. From a kiosk, the method of payment can be changed on individual folio windows, not just for the entire reservation.

For the functional specifications, refer to the OWS Reservation Advanced Message Spec document.

Security Service Functions

The following functions are currently provided through the Security Web Service:

Function	Description
AuthenticateNRUser	Authenticates a non-registered (no membership profile) user and returns the name identifier, given the user last name, confirmation identifier, and credit card number.
AuthenticateUser	Authenticates a user and returns the name identifier, given the membership number, last name, and password.
CreateAppUser	Creates an application user profile and returns the name identifier, given the profile details, and user group type, as well as a login name, password, and expiration date.
CreateUser	Creates a web user, given the name identifier and a login name and password.
DeleteAppUser	Deletes an application user profile, given the login name and password.
ExtAuthenticateUser	Authenticates a user and returns the login profile, given the login name and password.
FetchAppUser	Retrieves a list of application users, given the login name. Login and name profile details are also returned.
FetchQuestionList	Retrieves a list of predefined secret questions that users can choose from and answer for further authentication.
GeneratePassword	Returns an automatically generated password, given the login name.
LoginAppUser	Authenticates an application user using the login name and password credentials, and returns the security identifier (company name and user group type) and license key.
UpdateAppUser	Modifies an application user profile and returns the name identifier, given the login name, password, and expiration date, as well as the name profile and user group information.
UpdateAppUserPassword	Updates the user's password given the application user's loginName, oldPassword, and newPassword. This allows users to change their passwords without logging into the application. A Success or Error Result is returned.
UpdatePassword	Modifies the login password, given the membership number,

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Function	Description
	last name, old password (if not a new user), and new password.
UpdateQuestion	Modifies the answer to a user's chosen secret question, given the name identifier, pre-defined question identifier, and new answer.
UserAccountLock	Performs a lock or unlock operation on a user account, given the login name and the lock action type.
ValidateQuestion	Validates a user answer to a chosen special question and returns the password, given the membership number, question identifier, and an answer.

For the functional specifications, refer to the OWS Security Message Spec document.

Stay History Service Functions

The following functions are currently provided through the Stay History Web Service:

Function	Description
StayHistory	Retrieves a list of past reservations, given the guest name and agent identifiers. A date range is also allowed. Only reservations with status checked-out or cancelled are returned. Considerable detail is provided about the guests, amenities, services, facilities, rates, charges, and communications.

For the functional specifications, refer to the OWS Stay History Message Spec document.

Unit Owners Service Functions

The following functions are currently provided through the Unit Owners Web Service:

Function	Description
AddProfileToContract	Adds a profile to a contract, given the guest name, requesting name, contract, and resort identifiers, and the relationship of the guest to the contract owner.
DeleteProfileFromContract	Removes a profile from a contract, given the guest name, requesting name, resort, and resort identifiers.
FetchAuthorizedProfiles	Retrieves a list of contracts, given the name, resort, and/or contract identifiers. Contracts of the owner, co-owners, and family/friends are included. Information about the contract type, unit, effective dates, rate plans, and attached profiles is provided.
FetchContract	Retrieves a contract, given at least the name identifier. The resort and contract identifiers and the requestor role (primary-owner, co-owner, or friends-and-family) are also allowed, and are returned. Information about the contract type, unit, effective dates, rate plans, and attached profiles is provided.
FetchContractDetails	Retrieves details of a contract, given the name and resort identifiers. The contract identifier is also allowed and is returned. Information includes financial arrangements, restrictions, contract documents, and insurance policies in addition to information about the contract type, unit, effective dates, rate plans, and attached profiles.
OwnedUnitAvailability	Retrieves unit availability by contract, given at least the name identifier and stay date range. Contract and resort identifiers as well as a list of guest counts and the room type code are also allowed. For each contract, information includes the contract identifier, type, unit, effective dates, rate plans, and attached profiles, as well as a list of room types with rate details.
OwnerStatementDetails	Retrieves the file names of the owner statement and summary information, given the name and resort identifiers and the stay date range.
UpdateProfileInContract	Modifies a family/friend guest profile, given the guest name, requestor name, contract, and resort identifiers as well as the relationship of the requestor.

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For the functional specifications, refer to the OWS Unit Owners Message Spec document.

Secured Mode

The Secured Mode OWS application parameter, when enabled, determines if User Credentials are required to use the OWS Web Service functions. When the parameter value is set to Y, each Web Service function will follow the Opera Permissions that are attached to the User Credentials, which are being passed as an argument to the function. If the User Credentials are required to use the Web Service function, the Opera user permissions will be read to determine whether or not the Web Service function can be used.

The available values for the Secured Mode parameter are Y (Yes) and N (No), which will make the parameter active or inactive, respectively.

The example below shows the Authentication section of a request message with the Authentication complex type for the Username and UserPassword elements. The Authentication will be included in all request and response messages when the Secured Mode parameter is enabled.

Authentication example

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Header>
    <OGHeader transactionID="15451251" timeStamp="2008-12-08T09:15:28.0368750-05:00"
      xmlns="http://webservices.micros.com/og/4.3/Core/">
      <Origin entityID="WEST" systemType="WEB"/>
      <Destination entityID="WEST" systemType="ORS"/>
      <Authentication>
        <UserCredentials>
          <UserName>USERNAME</UserName>
          <UserPassword>PASSWORD</UserPassword>
          <Domain>RESORT</Domain>
        </UserCredentials>
      </Authentication>
    </OGHeader>
  </soap:Header>
```

Header				
<pre><xs:element name="OGHeader" type="tns:OGHeader"> <xs:annotation> <xs:documentation xml:lang="en">The header values as sent in a SOAP message for all request to the web service.</xs:documentation> </xs:annotation> </xs:element></pre>				
Name	Type	Data Type	Use	Comment
OGHeader	element	OGHeader	required	The header values, sent as a SOAP header element in the message.

OGHeader				
<pre><xs:complexType name="OGHeader"> <xs:sequence> <xs:element name="Origin" type="tns:EndPoint"/> <xs:element name="Destination" type="tns:EndPoint"/> <xs:element name="Intermediaries" type="tns:EndPointList" minOccurs="0"/> <xs:element name="Authentication" minOccurs="0"> <xs:annotation> <xs:documentation xml:lang="en">Authentication element that is used to identify who the caller is and if they are allowed to call the web service. This element is optional as it is only used when the web service is running in secure mode.</xs:documentation> </xs:annotation> <xs:complexType> <xs:sequence> <xs:element name="UserCredentials"> <xs:complexType></pre>				

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```
<xs:sequence>

  <xs:element name="UserName" type="xs:string">

    <xs:annotation>

      <xs:documentation xml:lang="en">User Name of the person
requesting to use the application. They can make a booking on behalf of any one
else.</xs:documentation>

    </xs:annotation>

  </xs:element>

  <xs:element name="UserPassword" type="xs:string">

    <xs:annotation>

      <xs:documentation xml:lang="en">Password that is used to
authenticate the user and is as provided by Opera.</xs:documentation>

    </xs:annotation>

  </xs:element>

  <xs:element name="Domain" type="xs:string">

    <xs:annotation>

      <xs:documentation xml:lang="en">Domain identifies the user as
to what Authentication platform they belong to. The default is OPERA and has been added to allow for the
possibility of Federated Authentication at a later stage.</xs:documentation>

    </xs:annotation>

  </xs:element>

  <xs:element name="SecurityId" type="xs:string" minOccurs="0"/>

</xs:sequence>

</xs:complexType>

</xs:element>

<xs:element name="Licence" minOccurs="0">

  <xs:complexType>

    <xs:sequence>

      <xs:element name="Key" minOccurs="0">

        <xs:annotation>
```

```

        <xs:documentation xml:lang="en">The key will be in the form of
a GUID and is used to check if the user calling the web service is really authorised to do so or not. The key
is issued by Opera application.</xs:documentation>

        </xs:annotation>

        <xs:simpleType>

            <xs:restriction base="xs:string">

                <xs:pattern value="\{[\dA-Fa-f]{8}\-[\dA-Fa-f]{4}\-[\dA-Fa-
f]{4}\-[\dA-Fa-f]{4}\-[\dA-Fa-f]{12}\}" />

            </xs:restriction>

        </xs:simpleType>

    </xs:element>

</xs:sequence>

</xs:complexType>

</xs:element>

</xs:sequence>

</xs:complexType>

</xs:element>

</xs:sequence>

<xs:attribute name="transactionID" type="xs:string"/>

<xs:attribute name="authToken" type="xs:string"/>

<xs:attribute name="timeStamp" type="xs:dateTime"/>

<xs:attribute name="primaryLangID" use="optional" default="E">

    <xs:annotation>

        <xs:documentation xml:lang="en">Identifies the primary language preference for the
message. The human language is identified by ISO 639 codes.</xs:documentation>

    </xs:annotation>

    <xs:simpleType>

        <xs:restriction base="xs:string"/>

    </xs:simpleType>

```

</xs:attribute>				
</xs:complexType>				
Name	Type	Data Type	Use	Comment
Origin	element	EndPoint	required	The system that the message originated from (mapped as the channel code).
Destination	element	EndPoint	required	The system that the message will be returned to.
Intermediaries	element	EndPointList	optional	The additional systems that the message will be processed in.
Authentication	element	Authentication	optional	The message authentication details.
transactionID	attribute	string	required	The unique message identification number.
authToken	attribute	string	optional	An authenticated token for the current message.
timeStamp	attribute	string	required	The time stamp for the current message.
primaryLangID	attribute	string	optional	The language that the response message will be displayed in. If not specified, the default language is E (English).

Availability Request with Authentication

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Header>
    <OGHeader transactionID="256478994" primaryLangID="E" timeStamp="2008-10-
10T09:55:16.3618750-05:00" xmlns="http://webservices.micos.com/og/4.3/Core/">
      <Origin entityID="WEST" systemType="WEB" />
      <Destination entityID="TI" systemType="ORS" />
      <Authentication>
        <UserCredentials>
          <UserName>USERNAME</UserName>
          <UserPassword>PASSWORD</UserPassword>
          <Domain>RESORT</Domain>
        </UserCredentials>
      </Authentication>
    </OGHeader>
  </soap:Header>
  <soap:Body>
    <AvailabilityRequest xmlns:a="http://webservices.micos.com/og/4.3/Availability/"
xmlns:hc="http://webservices.micos.com/og/4.3/HotelCommon/" summaryOnly="true"
xmlns="http://webservices.micos.com/ows/5.1/Availability.wsdl">
      <a:AvailRequestSegment availReqType="Room" numberOfRooms="1" roomOccupancy="1"
totalNumberOfGuests="1" totalNumberOfChildren="0">
        <a:StayDateRange>
          <hc:StartDate>2008-10-10T00:00:00.0000000-05:00</hc:StartDate>
          <hc:EndDate>2008-10-11T00:00:00.0000000-05:00</hc:EndDate>
        </a:StayDateRange>
        <a:RatePlanCandidates>
          <a:RatePlanCandidate ratePlanCode="DBR" />
        </a:RatePlanCandidates>
        <a:HotelSearchCriteria>
          <a:Criterion>
            <a:HotelRef chainCode="WC" hotelCode="SEFIVE" />
          </a:Criterion>
        </a:HotelSearchCriteria>
      </a:AvailRequestSegment>
    </AvailabilityRequest>
  </soap:Body>
</soap:Envelope>
```

Availability Response with Authentication

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:wsa="http://schemas.xmlsoap.org/ws/2004/08/addressing">
  <soap:Header>
    <OGHeader transactionID="256478994" timeStamp="2008-10-
10T09:55:16.4854640-
05:00" primaryLangID="E" xmlns="http://webservices.micros.com/og/4.3/Core/">
      <Origin entityID="TI" systemType="ORS"/>
      <Destination entityID="WEST" systemType="WEB"/>
      <Authentication>
        <UserCredentials>
          <UserName>USERNAME</UserName>
          <UserPassword>PASSWORD</UserPassword>
          <Domain>RESORT</Domain>
        </UserCredentials>
      </Authentication>
    </OGHeader>
    <wsa:Action>http://webservices.micros.com/ows/5.1/Availability.wsdl#AvailabilityRespon
se</wsa:
Action>
    <wsa:MessageID>urn:uuid:e320cf0b-da27-49bf-928e-
6c932da8ea3c</wsa:MessageID>
    <wsa:RelatesTo>urn:uuid:eb84c110-794f-4f42-9349-
338e3463d249</wsa:RelatesTo>

    <wsa:To>http://schemas.xmlsoap.org/ws/2004/08/addressing/role/anonymous</wsa:To>
  </soap:Header>
  <soap:Body>
    <AvailabilityResponse
  xmlns:hc="http://webservices.micros.com/og/4.3/HotelCommon/"
  xmlns:c="http://webservices.micros.com/og/4.3/Common/"
  xmlns:a="http://webservices.micros.com/og/4.3/Availability/"
  summaryOnly="true"
  xmlns="http://webservices.micros.com/ows/5.1/Availability.wsdl">
      <Result resultStatusFlag="SUCCESS"/>
      <AvailResponseSegments>
        <a:AvailResponseSegment>
          <a:RoomStayList>
            <hc:RoomStay>
              <hc:RatePlans>
                <hc:RatePlan
ratePlanCode="DBR"
                hold="true">
              <hc:RatePlanDescription>
```

```

<hc:Text>DBAR1</hc:Text>

    </hc:RatePlanDescription>

    <hc:AdditionalDetails>

        <hc:AdditionalDetail

            detailType="MarketingInformation">
            <hc:AdditionalDetailDescription>
            <hc:Text>Thank you for List Booking
                                                    with WEST-SEFIVE</hc:Text>

            </hc:AdditionalDetailDescription>

            </hc:AdditionalDetail>

            <hc:AdditionalDetail

                detailType="CommissionPolicy">
            <hc:AdditionalDetailDescription>

                <hc:Text>No commission available</hc:Text>

                </hc:AdditionalDetailDescription>

                </hc:AdditionalDetail>

                <hc:AdditionalDetail detailType="TaxInformation">
                <hc:AdditionalDetailDescription>

                    <hc:Text>Room tax 15.6 PCT Occupancy Tax 3.6 PCT Transit Tax 1.0 PCT </hc:Text>

                </hc:AdditionalDetailDescription>

                </hc:AdditionalDetail>

                </hc:AdditionalDetails>

            <hc:CancellationDateTime period="P1DT7H">2008-10-
09T01:00:00</hc:CancellationDateTime>

            </hc:RatePlan>
            <hc:RatePlan

                ratePlanCode="MGM" hold="true">

                <hc:RatePlanDescription>

                <hc:Text>Package Rate MGM Test</hc:Text>

                </hc:RatePlanDescription>

```

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```

<hc:AdditionalDetails>

  <hc:AdditionalDetail detailType="MarketingInformation">

    <hc:AdditionalDetailDescription>

      <hc:Text>Thank you for List Booking with WEST-SEFIVE</hc:Text>

    </hc:AdditionalDetailDescription>

  </hc:AdditionalDetail>

  <hc:AdditionalDetail detailType="CommissionPolicy">

    <hc:AdditionalDetailDescription>

      <hc:Text>No commission available</hc:Text>

    </hc:AdditionalDetailDescription>

  </hc:AdditionalDetail>

  <hc:AdditionalDetail detailType="TaxInformation">

    <hc:AdditionalDetailDescription>

      <hc:Text>Room tax 15.6 PCT Occupancy Tax 3.6 PCT Transit Tax 1.0 PCT </hc:Text>

    </hc:AdditionalDetailDescription>

  </hc:AdditionalDetail>

</hc:AdditionalDetails>

  <hc:CancellationDateTime period="P1DT7H">2008-10-
09T01:00:00</hc:CancellationDateTime>

  </hc:RatePlan>
  <hc:RatePlan
ratePlanCode="AMEX" hold="true">

    <hc:RatePlanDescription>

      <hc:Text>Third
Night Free with AMEX Card</hc:Text>

    </hc:RatePlanDescription>

  </hc:AdditionalDetails>

  <hc:AdditionalDetail detailType="MarketingInformation">

    <hc:AdditionalDetailDescription>

      <hc:Text>Thank you for List Booking with WEST-SEFIVE</hc:Text>

```

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```

    </hc:AdditionalDetailDescription>
    </hc:AdditionalDetail>
    <hc:AdditionalDetail detailType="CommissionPolicy">
    <hc:AdditionalDetailDescription>
    <hc:Text>Commission policy is 10 PERCENT</hc:Text>
    </hc:AdditionalDetailDescription>
    </hc:AdditionalDetail>
    </hc:AdditionalDetails>

    <hc:CancellationDateTime period="P327906DT8H">1111-01-
    01T00:00:00</hc:CancellationDateTime>
    </hc:RatePlan>
    </hc:RatePlans>
    <hc:RoomTypes>
    <hc:RoomType
    roomTypeCode="KNG" numberOfUnits="93">
    <hc:RoomTypeDescription>
    <hc:Text>K -
    King Room</hc:Text>
    </hc:RoomTypeDescription>
    </hc:RoomType>
    </hc:RoomTypes>
    <hc:RoomRates>
    <hc:RoomRate
    roomTypeCode="KNG" ratePlanCode="DBR">
    <hc:Rates>
    <hc:Rate
    rateOccurrence="DAILY" rateChangeIndicator="false">
    <hc:Base currencyCode="USD">200</hc:Base>
    </hc:Rate>
    </hc:Rates>
    <hc:Total
    currencyCode="USD">200</hc:Total>
    </hc:RoomRate>
    <hc:RoomRate
    roomTypeCode="KNG" ratePlanCode="MGM">
    <hc:Rates>
    <hc:Rate
    rateOccurrence="DAILY" rateChangeIndicator="false">
    <hc:Base currencyCode="USD">153</hc:Base>

```

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```

                                </hc:Rate>
                                </hc:Rates>
                                <hc:Total
currencyCode="USD">153</hc:Total>
                                </hc:RoomRate>
                                <hc:RoomRate
roomTypeCode="KNG" ratePlanCode="AMEX">
                                <hc:Rates>
                                <hc:Rate
rateOccurrence="DAILY" rateChangeIndicator="false">
                                <hc:Base currencyCode="USD">117.55</hc:Base>
                                </hc:Rate>
                                </hc:Rates>
                                <hc:Total
currencyCode="USD">117.55</hc:Total>
                                </hc:RoomRate>
                                </hc:RoomRates>
                                <hc:HotelReference chainCode="WC"
hotelCode="SEFIVE">Opera Demo Hotel, Medium</hc:HotelReference>
                                <hc:HotelContact>
                                <hc:Addresses>
                                <hc:Address>

                                <c:AddressLine>1415 Fifth Ave.</c:AddressLine>

                                <c:cityName>Naples</c:cityName>

                                <c:countryCode>US</c:countryCode>

                                </hc:Address>
                                </hc:Addresses>
                                <hc:ContactEmails>

                                <hc:ContactEmail>5thavesales@hotels.com</hc:ContactEmail>
                                </hc:ContactEmails>
                                <hc:ContactPhones>
                                <hc:Phone
phoneType="FAX">
                                <c:PhoneNumber>9543764555</c:PhoneNumber>
                                </hc:Phone>
                                <hc:Phone
phoneType="VOICE">
                                <c:PhoneNumber>2397895678</c:PhoneNumber>
                                </hc:Phone>
                                </hc:ContactPhones>
                                <hc:HotelInformation>
                                <hc:HotelInfo
hotelInfoType="CHECKININFO">
                                <c:Text>

```

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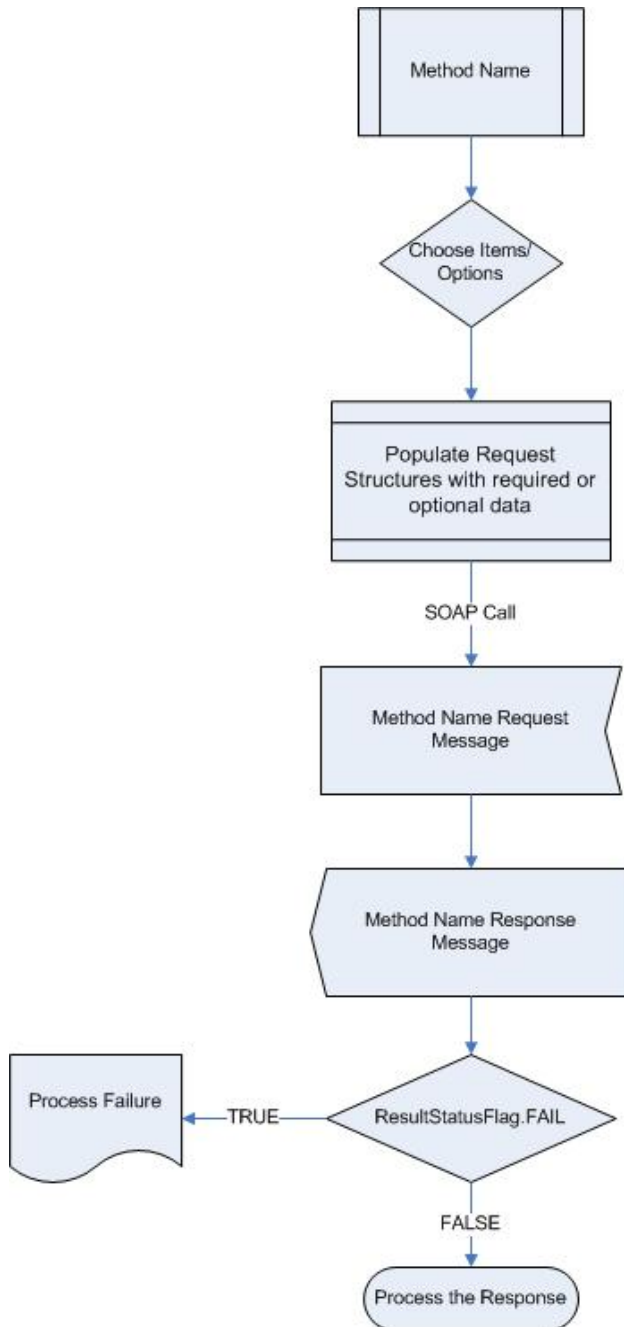
```

        <c:TextElement>08:00</c:TextElement>
    </c:Text>
</hc:HotelInfo>
<hc:HotelInfo
    <c:Text>
        <c:TextElement>15:00</c:TextElement>
    </c:Text>
</hc:HotelInfo>
</hc:HotelInformation>
</hc:HotelContact>
</hc:RoomStay>
</a:RoomStayList>
</a:AvailResponseSegment>
</AvailResponseSegments>
</AvailabilityResponse>
</soap:Body>
</soap:Envelope>

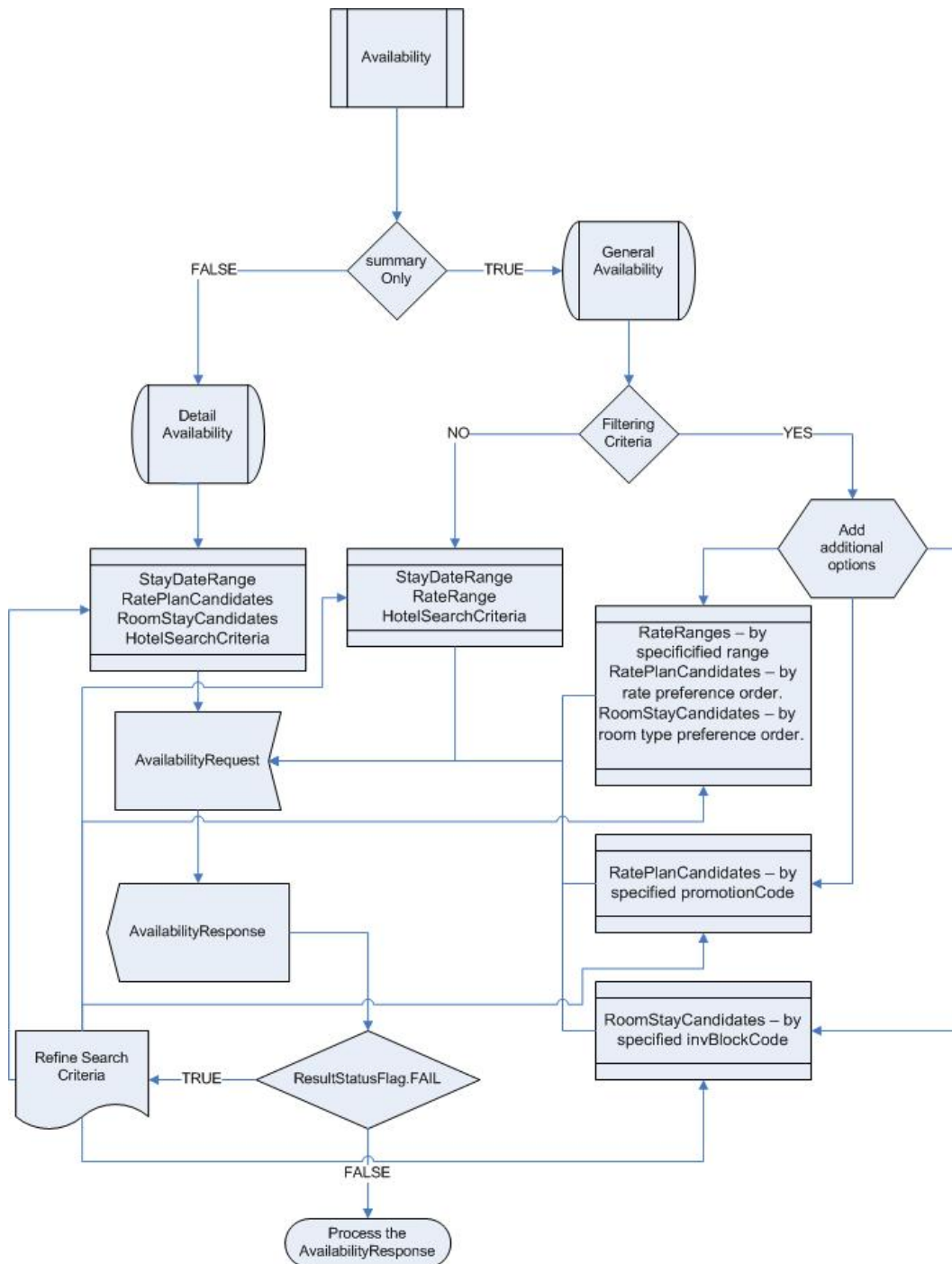
```

Logical Workflow Diagrams

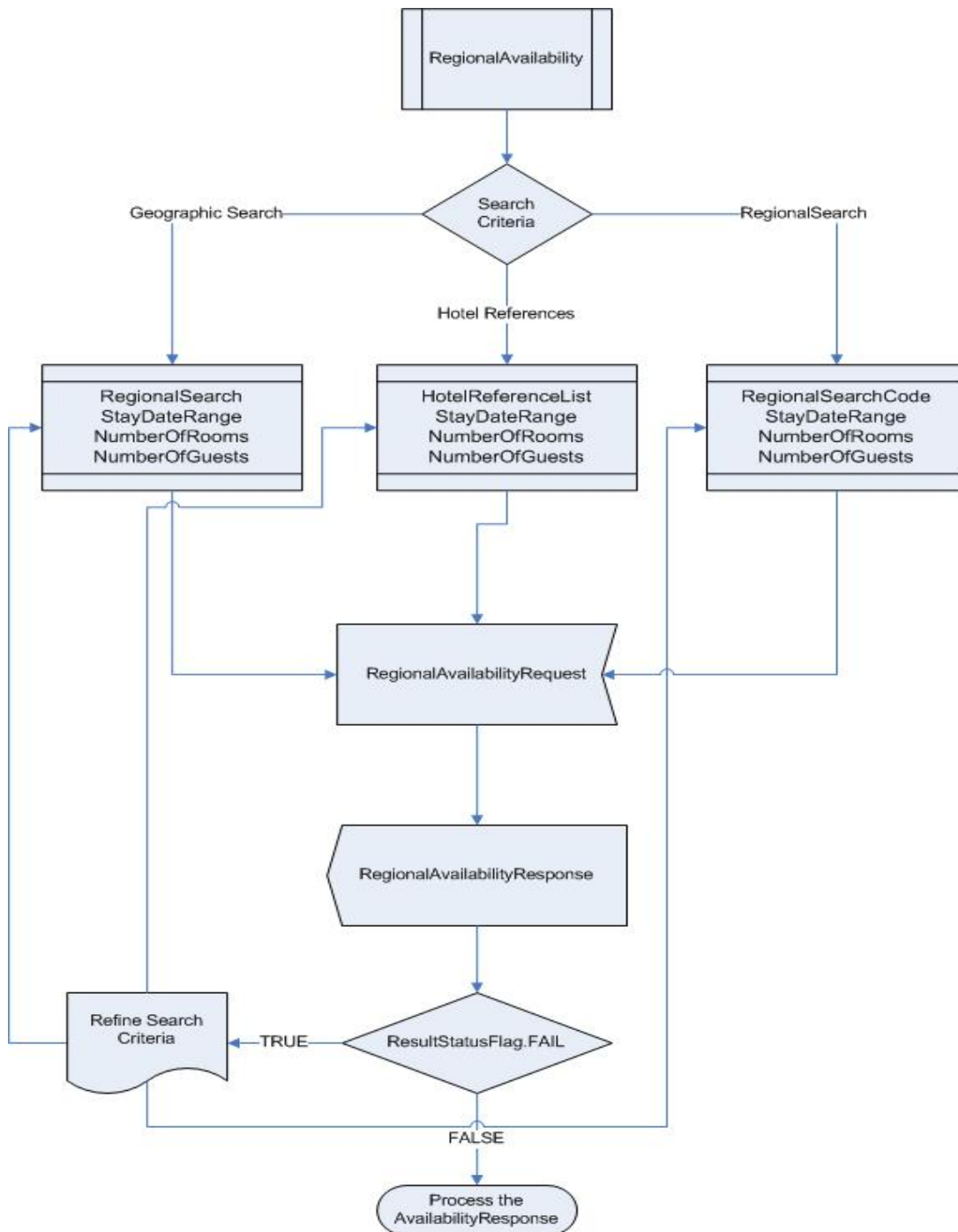
Common Logical flowchart for all services:



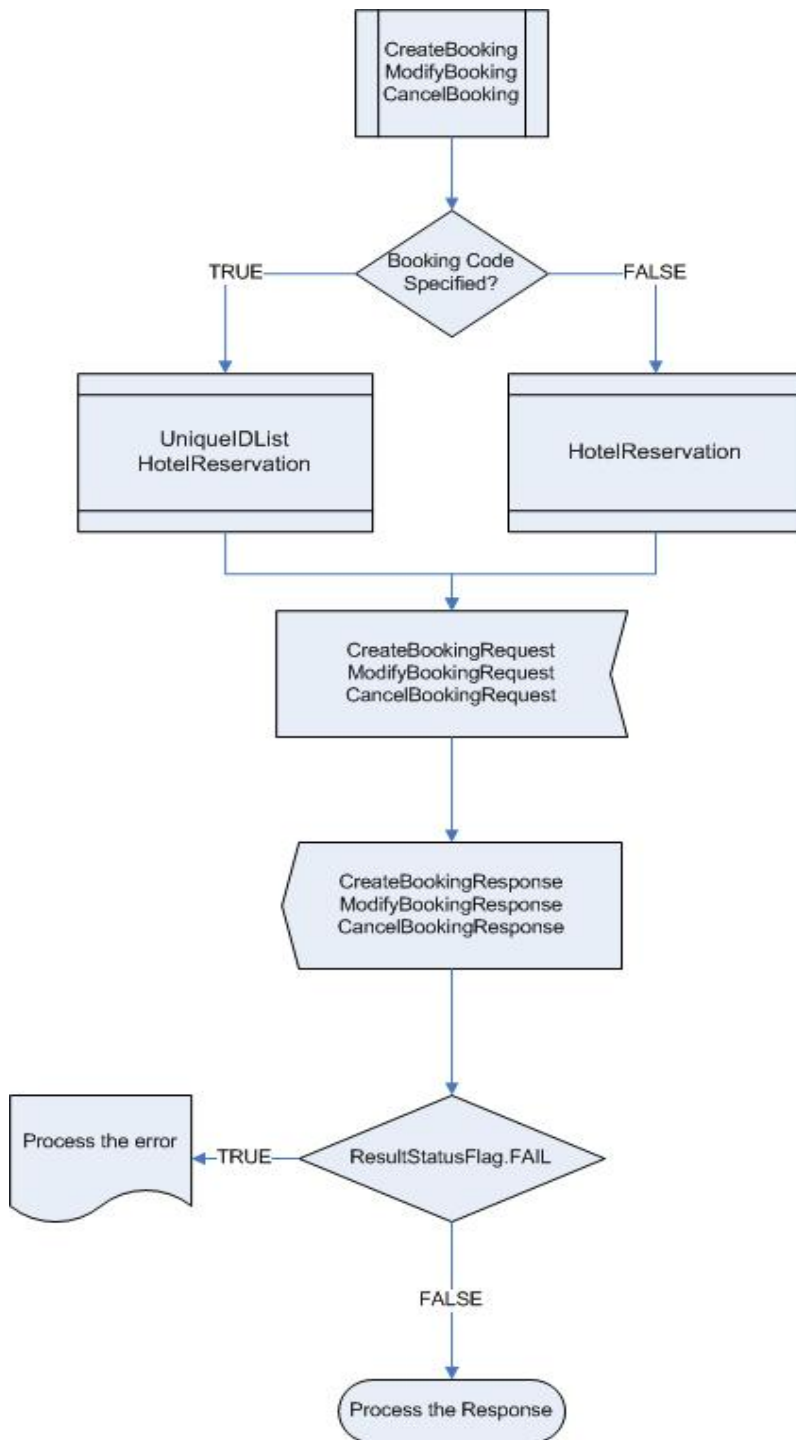
Availability Service - Availability method flowchart:



Availability Service – RegionalAvailability method flowchart:



Reservation Service – CreateBooking/ModifyBooking/CancelBooking method flowchart:



The SOAP Header and Opera Channels

Opera allows companies that use Global Distribution System (GDS) or Alternative Distribution Systems (ADS), such as central reservation systems, travel agents, and Web sites, access to read and write to the database. For example, a travel agent can use GDS to inquire about a property's availability, and then make a reservation that is stored in the database. To have channels work properly in an Opera environment, you need to:

- Create and configure channels using Opera Reservation System (ORS) in configuration mode. The channel you create in Opera is associated with the GDS/ADS host, and can be for the hotel's Web site, one of the four GDS such as Amadeus, or ADS such as Expedia.
- Map conversion codes used in Opera to the codes used on the GDS/ADS host. For example, if you have a corporate rate for a global company such as Micros Systems, Inc., you need to map this rate code to the GDS/ADS access code equivalent. This means that all travel agents in the world can see the same corporate rate and property codes, regardless of which channel or system they are using.

For more information, refer to the Opera Channel Management documentation.

Header

Channel configurations affect the setup of the SOAP header. In OWS, a SOAP header is represented as "OGHeader". Below is an example of the code:

```
System.Xml.Serialization.XmlTypeAttribute(Namespace="http://webservices.micros.com/og/4.3/Core/")]
```

```
[System.Xml.Serialization.XmlRootAttribute(Namespace="http://webservices.micros.com/og/4.3/Core/", IsNullable=false)]
```

```
public class OGHeader : System.Web.Services.Protocols.SoapHeader {

    public EndPoint Origin;

    public EndPoint Destination;

    [System.Xml.Serialization.XmlArrayItemAttribute(IsNullable=false)]
    public EndPoint[] Intermediaries;

    public OGHeaderAuthentication Authentication;

    [System.Xml.Serialization.XmlAttributeAttribute()]
    public string transactionID;
```

```
[System.Xml.Serialization.XmlAttributeAttribute()]  
public string authToken;  
[System.Xml.Serialization.XmlAttributeAttribute()]  
public System.DateTime timeStamp;  
[System.Xml.Serialization.XmlIgnoreAttribute()]  
public bool timeStampSpecified; }
```


Origin, Destination and Intermediaries

Origin, destination and intermediaries must have channel and channel type set up. The origin defines where the request will be received, and the destination is where the request originated from. In case there are intermediaries in-between, an origin and destination list can be added. For example:

```
OGHeader oHead = new OGHeader();

...

//Origin Endpoints

oHead.Origin = new EndPoint();

oHead.Origin.entityID = "AA";

oHead.Origin.systemType = "GDS";

//Destination Endpoints

oHead.Destination = new EndPoint();

oHead.Destination.entityID = "TI";

oHead.Destination.systemType = "ORS";

//Intermediates Endpoints


EndPoint ep1 = new EndPoint();

ep1.systemType = oHead.Origin.entityID;
```

Transaction ID

The transaction ID is a six-digit random number.

The Authorization Token

The authorization token is unique ID similar to the global unique identifier, such as

{82DA3509-6DF5-4302-AE17-B1417068F351}.

Time Stamp

The time stamp is the time the request is being made, and `timeStampSpecified` is a Boolean flag which must be true in case you specify a timestamp; otherwise, it is not turned on.

Authentication

Authentication is where you specified the user credentials that will be used for the session, such as:

```
//Authentication Endpoints

oHead.Authentication = new OGHeaderAuthentication();

oHead.Authentication.UserCredentials = new
    OGHeaderAuthenticationUserCredentials();

oHead.Authentication.UserCredentials.UserName = "IBMBOOKER";

oHead.Authentication.UserCredentials.UserPassword = "IBMBOOKER";

oHead.Authentication.UserCredentials.Domain = "IBMDOMAIN";
```

Payment and Guarantee

Each hotel has its own available and predefined methods for payment and guarantees, as well as accepted credit card types. To obtain information about the available and predefined methods and accepted credit card types for a specific hotel, use the **QueryHotelInformation** method from the information service. For additional information, refer to the OWS Information Message Spec document.

The tables below describe the entire set of payment methods, guarantee methods, and credit card types.

Valid abbreviations for a payment are:

Abbreviation	Description
CA	Cash
VO	Voucher
IN	Invoice
PR	Prepayment
CC	Credit Card

Valid abbreviations for guarantee method are:

Abbreviation	Description
GT	Guaranteed by travel agent
GX	Guaranteed by credit card
CO	Guaranteed by company name
GC	Guaranteed by corporate ID
GP	Guaranteed by deposit
DX	Guaranteed by credit card deposit
XX	Guaranteed to release time

Valid abbreviations for credit cards accepted are:

Abbreviation	Description
AB	Bank card
AX	American Express
BB	Barclay card
BF	Carte Bleu
CB	Credit Blanche
DC	Diner's card
DI	Discover card
EC	Eurocard
IL	En route
JC	Japanese Credit Bureau
MC	Master Card
VI	Visa
XS	Access Card

Restrictions

- It is the user's responsibility to control that unique NameIDs and TransactionIDs are used.
- If OWS is used via the Internet, a security check is needed for the OWS server that the application is run on.
- Up to four people can be booked for one room in each request.
- Restrictions can be setup from Channel Management.

For additional information, refer to the Opera Channel Management documentation.

Availability Limitations

Tuning Note - When utilizing both General and Regional Availability Calls Simultaneously for Websites displaying availability with a single click:

In most cases, regional availability, general availability response time is less than a second from Opera to the website. However calling the web service in and in-appropriate way can cause degradation in response time and performance. An example of this can be seen when a User is searching availability in Dallas, this requires the website to make a call to regional availability requesting Dallas as the city, and the response returns with all available properties in Dallas, with minimum and maximum rate amounts for each property. Once the list of properties are returned to website, the user picks one property at a time and makes a call to general availability for that property.

Some websites make a call to general availability for all properties returned by regional availability without the user selecting a specific property, and this increases time response. This process is known as "stacking" calls. Micros does not recommend this procedure as a best practice. If the client does decide to implement this process, they should be aware that the below formula needs to be used to gain an accurate view of the potential impact this may have on the guest experience on the web.

Stacking both General and Regional availability calls back-to-back, can be calculated by using the following:

$$Rt = ((2 \times Nm) \times (5 \times Nr) \times (2 \times Nd)) \times Np + ((5 \times Ng) \times Nm \times (5 \times Np))$$

Where: Rt is total response time in milliseconds

Nm – number of rooms

Nr – number of rates

Nd – number of days

Np – number of properties covered by the General/Regional availability request(s)

Ng – number of guests

Security

A Secure Sockets Layer (SSL) is a set of cryptographic technologies that provides authentication, confidentiality, and data integrity. SSL is most commonly used between Web browsers and Web servers to create a secure communication channel. It can also be used to secure communications between client applications and Web Services.

All data over a session must be protected from unauthorized parties. All servers used by Opera Web Suite (OWS) implementers must maintain access control in order to prevent unauthorized use of the system.

Implementers must support SSL and must accept self signed certificates or those signed by a recognized certificate authority (VerySign Inc., Thawte Inc.).

Even experienced Web Services developers often get caught by the default secure SSL configuration. Refer to [Appendix B](#) for additional information on how to install an SSL certificate.

Glossary

SOAP	Simple Object Access Protocol (SOAP) is a lightweight protocol intended for exchanging structured information in a decentralized, distributed environment. SOAP uses XML technologies to define an extensible messaging framework, which provides a message construct that can be exchanged over a variety of underlying protocols. The framework has been designed to be independent of any particular programming model and other implementation specific semantics.
XML	<p>Extensible Markup Language (XML) describes a class of data objects called XML documents and partially describes the behavior of computer programs which process them. XML is an application profile or restricted form of Standard Generalized Markup Language (SGML) [ISO 8879].</p> <p>XML documents are made up of storage units called entities, which contain either parsed or unparsed data. Parsed data is made up of characters, some of which form character data, and some of which form markup. Markup encodes a description of the document's storage layout and logical structure. XML provides a mechanism to impose constraints on the storage layout and logical structure.</p>
URI	Uniform Resource Identifier (URI) is the generic term for all types of names and addresses that refers to objects on the World Wide Web.
XSD	XML Schema Definition language (XSD) is the current standard schema language for all XML documents and specifies how to formally describe the elements in an XML document.
WSDL	<p>Web Services Description Language (WSDL) is an XML format for describing network services as a set of endpoints operating on messages containing either document-oriented or procedure-oriented information. The operations and messages are described abstractly, and then bound to a concrete network protocol and message format to define an endpoint. Related concrete endpoints are combined into abstract endpoints (services).</p> <p>WSDL is extensible to allow description of endpoints and their</p>

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	<p>messages regardless of what message formats or network protocols are used to communicate, however, the only bindings described are in conjunction with SOAP 1.1, HTTP GET/POST, and MIME.</p>
Java	<p>Java is an object-oriented language similar to C++, but simplified to eliminate language features that cause common programming errors. Java source code files (files with a .java extension) are compiled into a format called byte code (files with a .class extension), which can then be executed by a Java interpreter.</p> <p>Compiled Java code can run on most computers because Java interpreters and runtime environments, known as Java Virtual Machines (VMs), exist for most operating systems. Byte code can also be converted directly into machine language instructions by a just-in-time compiler (JIT).</p>
.NET	<p>A Microsoft operating system platform (similar to Java) that incorporates applications and common languages such as C#, VB.NET, a suite of tools and services and a change in the infrastructure of the company's Web strategy.</p> <p>There are four main principles of .NET from the perspective of the user:</p> <ul style="list-style-type: none"> • It erases the boundaries between applications and the Internet. Instead of interacting with an application or a single Web site, .NET will connect the user to an array of computers and services that will exchange and combine objects and data. • Software will be rented as a hosted service over the Internet instead of purchased on a store shelf. Essentially, the Internet houses all of the applications and data. • Users will have access to their information on the Internet from any device, anytime, anywhere. • There will be new ways to interact with application data, such as speech and handwriting recognition.
Perl	<p>Practical Extraction and Report Language (Perl) is a programming language, especially designed for processing text. Because of its strong text processing abilities, Perl has become one of the most popular languages for writing executable scripts. Perl is an interpretive language, which makes it easy to build and</p>

	test simple programs.
PHP	PHP Hypertext Preprocessor is a server-side, HTML-embedded scripting language used to create dynamic Web pages. In an HTML document, PHP script (similar syntax to that of Perl or C) is enclosed within special tags, similar to Active Server Pages and Cold Fusion.
ASP	Active Server Pages (ASP) provides a server-side scripting environment that can be used to create and run dynamic, interactive Web server applications. ASP combines HTML pages, script commands, and Component Object Model (COM) components to create interactive Web pages, or powerful Web-based applications, written in Windows scripting languages such as VBScript and Jscript.

Appendix A: Status Codes

The status code's description can be setup from Channel Management.

ERROR CODE	DESCRIPTION
INVALID_OR_MISSING_SEARCH_TYPE	The search key word is invalid for the chain or property.
PROPERTY_NOT_FOUND	The property was not found.
NO_PROPERTY	The property does not exist.
NUMBER_OF_MIN_ADV_DAYS_REQUIRED_BOOK	The minimum number of advance days required to book.
NUMBER_OF_MAX_ADV_DAYS_REQUIRED_BOOK	The maximum number of advance day required to book.
INVALID_ALLOTMENT_CODE	The allotment code is not valid for the property.
INVENTORY_NOT_AVAILABLE_BLOCK_CODE	The inventory for block code is not available for the property.
ROOM_RESTRICTED_BLOCK_CODE	The rooms are restricted for a block code.
INVALID_PROMOTION_CODE	The promotion code is invalid for the property.
INVALID_RATE_CODE_FOR_PROMOTION_CODE	PROMOTION CODE IS NOT VALID FOR RATECODE
OWSNAME-000002	The name ID is null.
OWSNAME-000003	The first name is null.
OWSNAME-000004	The last name is null.
OWSNAME-000005	The name type is null or invalid.
OWSNAME-000006	The native fields are null.
OWSADD-000001	Invalid Address ID.

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ERROR CODE	DESCRIPTION
OWSADD-000002	Invalid Address Type.
OWSADD-000003	The country was not specified.
OWSADD-000004	Invalid country.
OWSADD-000005	Invalid city.
OWSPHONE-000001	Invalid Phone ID.
OWSPHONE-000002	The phone number cannot exceed 2000 characters.
OWSPHONE-000003	Invalid phone type.
OWSPHONE-000004	Phone number is null.
OWSEMAIL-000001	Invalid Email ID.
OWSEMAIL-000002	Email ID is greater than 2000 characters.
OWSEMAIL-000003	Invalid Email address.
OWSEMAIL-000004	Email address is null.
OWSPASS-000001	The passport number is null.
OWSPASS-000002	The passport number is greater than 40 characters.
OWSPASS-000003	The passport issue date is null.
OWSPASS-000004	The passport place of issue is null.
OWSPASS-000005	The passport place of issue is greater than 80 characters.
OWSGEN-000001	The message ID is null.
OWSCC-000001	The credit card type is not specified.
OWSCC-000002	Invalid credit card type.
OWSCC-000003	The credit card number is not specified.

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ERROR CODE	DESCRIPTION
OWSCC-000004	Invalid credit card number.
OWSCC-000005	Invalid credit card ID.
OWSCC-000006	The credit card name is not specified.
OWSCC-000007	Invalid credit card type.
OWSCC-000008	The expiration date is null.
OWSCC-000009	Invalid expiration date.
OWSCC-000010	The credit card with this type and number already exists.
OWSCC-000011	The credit card type can not be updated.
OWSMEM-000001	The membership type is null.
OWSMEM-000002	The membership card is null.
OWSMEM-000003	The name on the card is null.
OWSMEM-000004	Duplicate membership.
OWSMEM-000005	Invalid membership ID.
OWSMEM-000006	The expiration date is null.
OWSMEM-000007	The membership type can not be updated.
OWSPRE-000001	The preference type is null.
OWSPRE-000002	The preference value is null.
OWSPRE-000003	Invalid preference type.
OWSPRE-000004	Invalid preference value.
OWSPRE-000005	The record does not exist.
OWSCOMM-000001	Invalid comment ID.
OWSCOMM-000002	The comment title and comment is null.
OWSCOMM-000003	The comment ID is null.

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ERROR CODE	DESCRIPTION
MISSING_CONFIRMATION_NO	No confirmation number was found.
TOO_LATE_TO_MODIFY_RESERVATION	Changing this reservation is not allowed.
INVALID_RATE_CODE_FOR_ALLOTMENT_CODE	The rate code is not valid for this channel.
OWSNAME-000001	Invalid name ID.
OWSSH-000001	No stay history was found for the name ID in the date range provided.
OWSSS-000001	The login name is null.
OWSSS-000002	Invalid login name.
OWSSS-000003	The password is null.
OWSSS-000004	Invalid password.
OWSSS-000005	The guest's last name is null.
OWSSS-000006	The confirmation number is null.
OWSSS-000007	The credit card number is null.
OWSSS-000008	The booking does not exist for the given combination of last name, confirmation number, and credit card number.
OWSSS-000009	The user already exists.
OWSSS-000010	An error occurred when inserting the record.
OWSSS-000011	The record was not updated.
OWSSS-000012	The secret question is null.
OWSSS-000013	Invalid secret question code.
OWSSS-000014	The secret answer is null.
OWSSS-000015	The secret question/answer was not updated.
OWSSS-000016	Incorrect secret answer.

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ERROR CODE	DESCRIPTION
OWSSS-000017	The name ID was already registered.
GUEST_NAME_NOT_ENTERED	The guest's name was not entered, or an invalid profile ID was provided.
OWSSS-000018	Duplicate record.
OWSSS-000019	The new password is null.
OWSSS-000020	The old and new passwords are identical.
OWSSS-000021	The name ID is not registered
MISSING_MARKETCODE_OR_TRXCODE - FOR_RATECODE	The market code or transaction code is not setup for the rate code on the rate setup.
RESTRICTION_ON_CANCELORMODIFY	The user is not allowed to modify or cancel the reservation.
ERR_INS_RES_HEADER	Not used.
FREQUENT_GUEST_NUMBER_REQUIRED	A guest membership number is required.
ROLLAWAY_NOT_AVAILABLE	The requested rollaway product is not available.
CRIB_NOT_AVAILABLE	The requested crib product is not available.
INVALID_CREDIT_CARD_NUMBER	Invalid credit card number.
TOO_LATE_TO_BOOK	It is too late to book, modify, or cancel the reservation.
INVALID_CREDIT_CARD	The credit card information is not valid.
INVALID_GUARANTEE_INFO	The guarantee information is not valid.
INVALID_GUARANTEE	The guarantee code is not valid.
GUARANTEE_REQUIRED	The guarantee is required.
INVALID_CORPORATE_GUARANTEE	The corporate guarantee code is not valid.
GUARANTEE_NOT_ACCEPTED	The guarantee provided is not accepted for the

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ERROR CODE	DESCRIPTION
	reservation.
INVALID_TRAVEL_AGENT_GUARANTEE	The travel agent guarantee code provided is not valid.
INVALID_CREDIT_CARD_EXPIRATION	The credit card expiration date is not valid.
NUMBER_ROOMS_EXCEEDS_LIMIT	The requested number of rooms exceeds the number of rooms the system allows you to book.
INVALID_PROPERTY	Invalid property code.
INVALID_RATE_CODE	Invalid rate code.
RATE_CODE_UNAVAILABLE	The rate code is not available.
ROOM_UNAVAILABLE	The room type is not available.
INVALID_ROOM_CATEGORY	Invalid room category or room type.
ROOM_INV_NOT_AVAILABLE	The requested room category is not available.
ROOM_RESTRICTED	The room is restricted.
PROPERTY_NOT_AVAILABLE	The requested property is not available.
PRIOR_STAY	The requested stay is prior to the business date.
INVALID_ACTION_CODE	The action code is invalid.
TOO_LATE_TO_CANCEL	It is too late to cancel the reservation.
INVALID_CARRIER	The carrier code is invalid.
BOOKING_PREVIOUSLY_CANCELLED	The booking was previously cancelled.
CORPORATE_NUMBER_INVALID	The corporate number is not valid.
CORPORATE_NUMBER_REQUIRED	The corporate number is required.
CONFIRM_NO_MUST_EXIST	The confirmation number is invalid or does not exist.
BOOKING_MUST_EXIST	The booking does not exist.
FREQUENT_GUEST_NUMBER_INVALID	The frequent guest or membership number is invalid.

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ERROR CODE	DESCRIPTION
INVALID_CURRENCY_CODE	The currency code is invalid. CURRENCY CODE IS INVALID
DAYS_STAY_MISMATCH	The number of nights and the arrival/departure days do not match.
TOO_MANY_EXTRAS	Not used.
NUMBER_NIGHTS_EXCEEDS_LIMIT	The requested number of nights exceeds the number of nights the system allows you too book.
AMADEUS_MULTINAME_RATE	Not used.
CANCEL_UPDATE_HD_ERROR	CANCEL_UPDATE_HD_ERROR
GENERAL_UPD_FAILURE	There are some critical database errors. Please contact the networks administrator.
GUEST_NAME_CANNOT_BE_DELETED	You are not allowed to delete the guest name.
GUEST_NAME_CANNOT_BE_MODIFIED	You are not allowed to make any changes to the guest name.
INVALID_CHAINCODE	The chain code is invalid.
RATE_PLAN_MISSING	The rate plan code is missing.
MULTI_LEG_ERROR	The multi-leg reservation can not be modified through the GDS.
NUMBER_ADULTS_EXCEEDS_LIMIT	The requested number of adults exceeds the number the system allows you to book.
NUMBER_OF_NIGHTS_CTA_RESTRICTION	A close to arrival restriction exists.
NUMBER_OF_NIGHTS_MLOS_RESTRICTION	A minimum length of stay restriction exists.
OUT_DATE_NOT_IN_INVENTORY	A close to departure restriction exists.
PREV_SEGMENT_FAILED	The previous segment failed.
RATE_CODE_NOT_AVAILABLE	The rate code is not available.

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ERROR CODE	DESCRIPTION
RATE_INVALID	The rate code is invalid.
MAX_OCCUPANCY	The requested occupancy is more than the system allows you to book for the room type.
CTA_RESTRICTION_ON_IN_DATE	A close to arrival restriction exists.
MAX_RATE_INVALID	The maximum rate is invalid.
MIN_RATE_INVALID	The minimum rate is invalid.
MISSING_CHAIN_CODE	The chain code is missing.
MISSING_START_DATE	The start date is missing.
MISSING_END_DATE	The end date is missing.
PROPERTY_RESTRICTED	The property is restricted.
REQUEST_NOT_PROCESSED	Unable to process the request.
NUMBER_ROOMS_MISSING	The number of rooms is missing.
INVALID_CITY_CODE	Invalid city code.
CANCELLATION_CONFIRMED_PENALTIES_APPLIED	The cancellation was confirmed and the penalties were applied.
UNABLE_TO_CANCEL_ARRIVAL_DATE_HAS_PASSED	Unable to cancel. The arrival date has passed.
BOOKING_NOT_FOUND	The booking was not found.
END_DATE_INVALID	The end date is invalid.
START_DATE_INVALID	The start date is invalid.
MISSING_ROOM_TYPE	The room type is missing.
MISSING_PROP_ID	The property ID is missing.
MISSING_ROC	The ROC is missing.
INVALIDGDS	Invalid GDS.
TOOMANYRATEPLANS	Too many rate plans.

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ERROR CODE	DESCRIPTION
SYSTEM_ERROR	A system error has occurred.
RESTRICTION_ON_CANCEL_OR_MODIFY_CONTACT_HOTEL	There is a restriction placed to cancel or modify. Please contact the hotel.
SESSION_NOT_UPDATED	The reservation is in a still session.
OTHER_SESSION	The reservation is in a still session.
DEPOSIT_REQUIRED	A deposit required to complete the booking.
OWSCON-000001	No Record was found for the combination of last name, confirmation number, and/or credit card number.
OWSNAME-000007	Invalid membership number/name ID.
OWSNAME-000008	The membership number/name ID is null.
OWSCEMAIL-000001	The confirmation letter is null.
OWSCEMAIL-000002	The email address is null.
OWSCEMAIL-000003	The confirmation number is null.
OWSBR-000001	The required send method is not configured for this property.
OWSBR-000002	Email ID is not found for this email address.
OWSBR-000003	Failed to get the script.
OWSBR-000004	Failed to get the Html text.
OWSBR-000005	An error occurred in sending the email.
OWSBR-000006	An error occurred in sending the email.
INVALID_COMPANY_ID_OR_SECURITY_ID	The company ID or secure ID is not valid or is null.
ALLOCATION_OR_NEGOTIATED_RATE_NOTSETUP_FOR_COMPANY	The allocation or negotiated rates are not set up for this company. Please correct the setup.

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ERROR CODE	DESCRIPTION
OWSCEMAIL-000004	Invalid confirmation number or the reservation was not found.

Appendix B: How to Install the SSL Certificate

Purpose

For a Secure Socket Layer to be established between two connection points, the certificate needs to be issued, reissued, or installed using the Server Authentication option. The certificate must be installed at the server that requires a secure connection in order to correctly process the cryptographic procedures. Certificates should be distributed internally for administrative and development staff, and for our customers that we have sold our products to or have established a working relationship with.

Steps To Install

A. Generate a Certificate Request File Using the Certificate Wizard in IIS 5.0

The Certificate Wizard that comes with Internet Information Services (IIS) 5.0 makes managing server certificates easier than ever before. Next steps describe how to create a **certificate request file** using the wizard.

The first step you will need to perform to get a server certificate is creating the request file. To generate a new certificate request (to be sent to a **certificate authority** or CA for processing), perform the following steps:

NOTE: The certificate request fails if it contains non-alphanumeric characters. Between creating the request file (that is, completing the steps below) and installing the certificate, do **NOT** perform any of the following actions:

- Change the computer name or Web site bindings.
- Apply service packs or security patches.
- Change encryption levels (that is, apply the high encryption pack if needed).
- Delete the pending certificate request.
- Change any of the Web site's Secure Communications properties.

To successfully generate a request file, follow these steps:

1. Open the Internet Services Manager (or your custom MMC containing the IIS snap-in).
2. Browse to the site where you want to enable secure communications, normally Default Web Site.
3. Right-click the friendly name of the site and select *Properties*.

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4. Click the **Directory Security** tab, and under the Secure Communications section, select the **Server Certificate** button. This starts the new Web Site Certificate Wizard.
5. The Welcome to the Web Server Certificate Wizard window appears. Select the **Next** button.
6. Select the *Create a New Certificate* radio button and select the **Next** button (there should be a slight pause before the next screen appears).
7. Select the *Prepare a New Request but Send it Later* radio button and select the **Next** button.
8. Enter a friendly name for the site in the *Name* field.

NOTE: This can be anything you want it to be. For example, the friendly name of the site in the MMC, or the name of the customer the Web site belongs to.

9. Select the bit length of the key you want to use in the *Bit Length* field and then select the **Next** button.

NOTE: Typically, this is 1024 or 512. For more information on bit length and SGC, see the IIS Help that is located on the server at the following address:

`http://<servername>/iishelp/iis/htm/core/iistesc.htm`

Note that in order for this URL to work, you must replace server name with the name of your IIS server.

10. Enter your Organization (O) and your Organizational Unit (OU). For example, if your company is called Widgets and you are setting up a Web server for the Sales department, you would enter Widgets for the Organization and Sales for your Organizational Unit. Select the **Next** button when complete.
11. Enter the Common Name (CN) for your site. This should be the same name that the user will input when requesting your Web site. For example, if a user inputs `http://www.widgets.microsoft.com` to access your Web site, then your CN would be `www.widgets.microsoft.com`. When complete, select the **Next** button.

NOTE: This is important when the customer Web site has defined a dynamic DNS name or has register domain name like <http://www.swedenhotels.com>. In this example, the CN must be `www.swedenhotels.com`.

12. Enter the country/region, state/providence city/locality. It is very important that you do not abbreviate the names of the state or city. When complete, select the **Next** button.

13. Select a name for the certificate request file you are about to create. This file will contain all the information you created here, as well as your public key for your site. You can browse the file name if you want. The default name for the file is Certreq.txt. When you have finished this step, select the **Next** button. This creates a .txt file when you are complete.
14. You will now be presented with a summary screen of all the information you entered. Make sure all this information is correct, and then select the **Next** button.

You have now created your certificate request file. In order for this certificate to be used, submit this file to a Certificate Authority (online authority). They will generate a certificate response file, which contains your public key and is digitally signed by the Certificate Authority.

An Online authority, such as Thawte or Verisign, requires a purchase of the SSL certificate. Another option is to use the Micros-Fidelio Authority option, which can be trusted by our customers because all Micros Fidelio products are sold with secure communication. The Micros-Fidelio Authority option acts the same way as the online authorities. In order to establish a trust relationship, refer to [section D](#).

B. Post the Request File to the Micros-Fidelio Root CA

The Root Authority Web site serves any common operations connected with SSL certificates. To reach the Web site, connect to the corporate network using VPN.

Microsoft Certificate Services -- Micros-Fidelio Root CA

Home

Welcome

Use this Web site to request a certificate for your Web browser, e-mail client, or other program. By using a certificate, you can verify your identity to people you communicate with over the Web, sign and encrypt messages, and, depending upon the type of certificate you request, perform other security tasks.

You can also use this Web site to download a certificate authority (CA) certificate, certificate chain, or certificate revocation list (CRL), or to view the status of a pending request.

For more information about Certificate Services, see [Certificate Services Documentation](#).

Select a task:

- [Request a certificate](#)
- [View the status of a pending certificate request](#)
- [Download a CA certificate, certificate chain, or CRL](#)

To submit the request file you just have created in [section A](#), follow these steps:

1. Go to the following URL: <https://www.microsdc.com/certsrv>.
2. Select Request a certificate.
3. Select advanced certificate request.
4. Select Submit a certificate request by using a base-64-encoded CMC or PKCS #10 file, or submit a renewal request by using a base-64-encoded PKCS #7 file.
5. Locate the certreq.txt file (from [section A](#)) using Notepad.
6. Copy the contents from the certreq.txt file from Notepad by pressing Ctrl+C and paste it into the **Saved Request** window or select the **Browse** button for a file to insert link and then select the **Submit** button. Your request is then submitted with a request ID number.
7. Select *DER encoded* and click on **Download Certificate**.

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8. Save the response file and install it, as shown in [section C](#).

C. Install a New Certificate with the Certificate Wizard for Use in SSL

To install the response file, follow these steps:

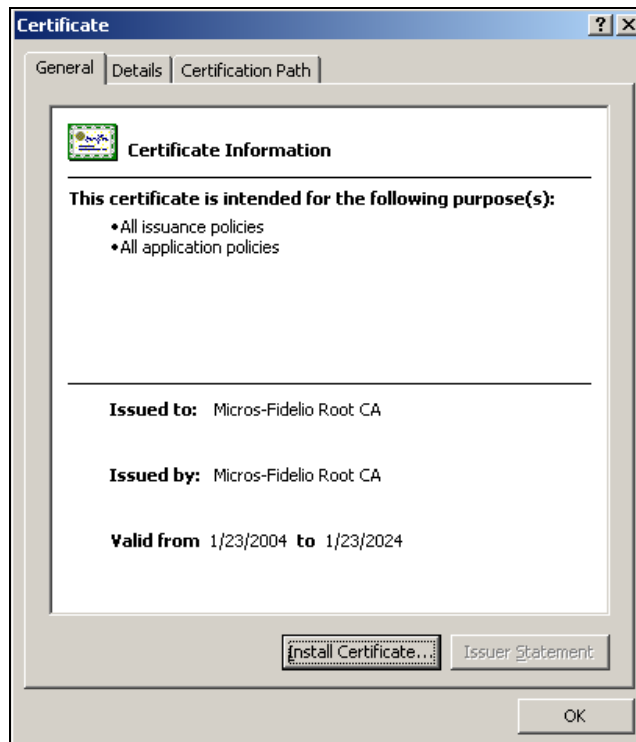
1. Open Internet Services Manager or the custom MMC containing the Internet Information Services snap-in.
2. Expand Internet Information Services (if needed) and browse to the Web site you have a pending certificate request on.
3. Right-click on the site and then select the **Properties** button.
4. Select the Directory Security tab.
5. Under the Secure Communications section, select *Server Certificate*.
6. On the Web Site Certificate Wizard, select the **Next** button.
7. Select *Process the Pending Request and Install the Certificate*. Select the **Next** button.
8. Enter the location of the certificate response file (you may also browse to the file), and then select the **Next** button.
9. Read the summary screen to be sure that you are processing the correct certificate, and then select the **Next** button.
10. You will see a confirmation screen. When you have read the information on this screen, select the **Next** button.

You now have a server certificate installed. You may want to test the Web site to ensure that everything is working correctly. Be sure to use https:// when you test connectivity to the site.

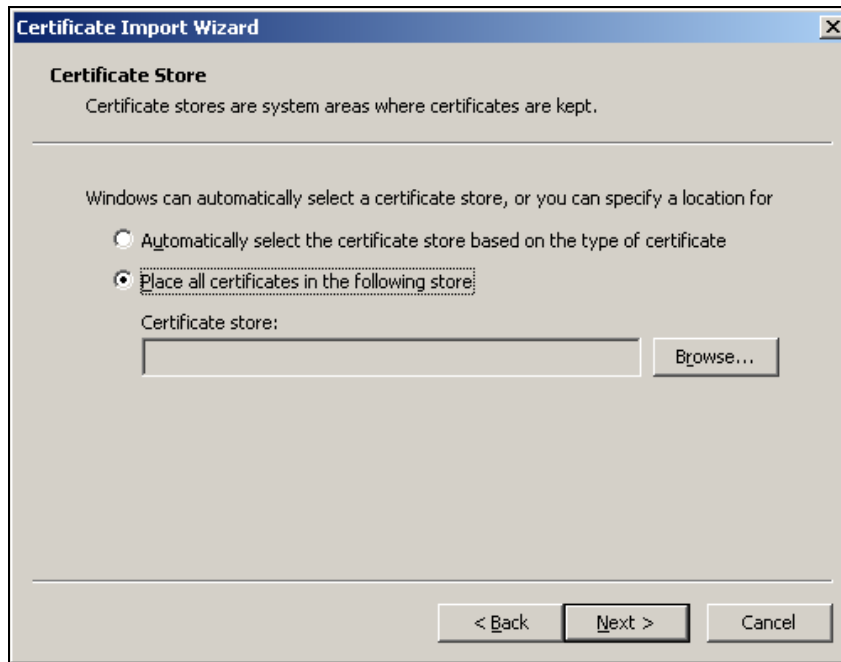
D. Install a Micros-Fidelio CA Certificate

To trust certificates issued from this certification authority we need to follow next steps:

1. Go to the following URL: <https://www.microsdc.com/certsrv>.
2. Select Download a CA certificate, certificate chain, or CRL.
3. Select Download CA certificate.
4. You will be prompted to open or save the certificate. Save it a known location and then select the **Open** button. The following will appear:



5. Select the **Install Certificate...** button. The Certificate Import Wizard appears. Select the **Next** button.
6. Select the *Place all certificates in the following store* radio button and select the **Browse...** button.



7. The Select Certificate Store window appears. Select the Local Computer folder (as shown below) and select the **OK** button.



8. Select the **Next** button and then select the **Finish** button.