The ONLY Internet Company dedicated to serving Independent Car Rental Operators.

CRX™
car rental express

Car Rental Express Webservices Documentation

Implementation: OTA v1.0

Last Revised: August 24, 2005

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SUMMARY

Car Rental Express (CRX) Webservices allows Travel Source Affiliate to utilize a new way of accessing the CRX car rental stock. This document will outline the usage of the Car Rental Express Webservices for the OTA v1.0 implementation, and how to best implement this service into your system.

The OTA v1.0 implementation is implemented in SOAP and has 4 methods. These methods are:

- VehLocSearch – Used to search our list of agency locations.
- VehAvailRate – Used to search for vehicles and rates based on an itinerary, a vehicle type and a location.
- VehRes – Used to create a reservation on CRX.
- VehCancel – Used to cancel a reservation on CRX.

The usage of these methods will be described in more detail later in this document.

The OTA v1.0 implementation complies with the 2005A.

TARGET AUDIENCE

This document is intended to be read by software developers, and/or system analysts who are attempting to integrate their business systems with Car Rental Express. An understanding of XML, SOAP, and the Internet is required to fully appreciate this document. Also familiarity with the OpenTravel™ Alliance (OTA) specification would be beneficial.

DATA FLOW

While this may vary from implementation the general usage of the CRX Webservices is represented below:
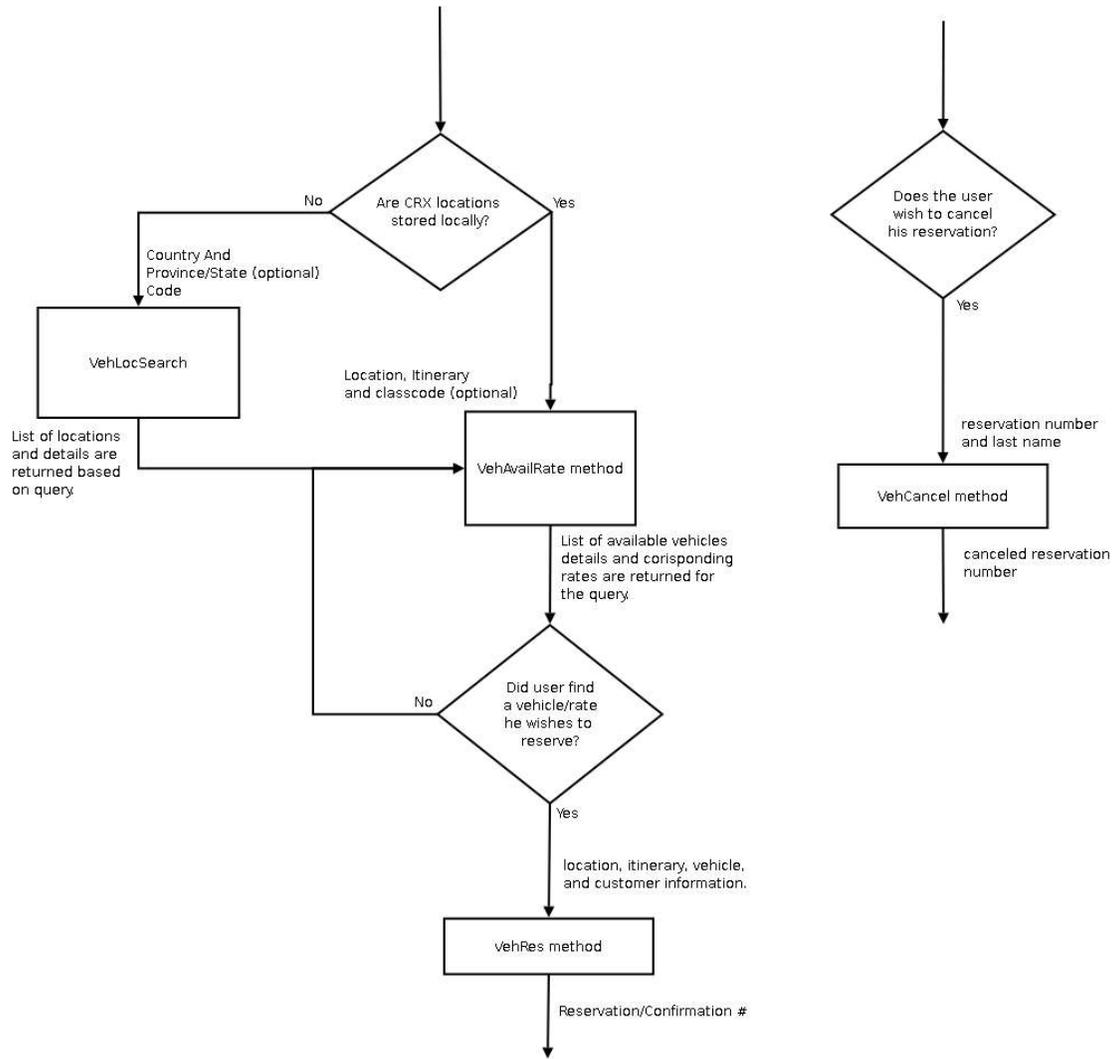

Figure 1: Usage Flow Diagram

METHOD DEFINITIONS

The OTA v1.0 implementation has 4 methods, VehLocSearch, VehRateAvail, VehRes, VehCancel. Each one of these methods is an implementation OpenTravel™ Alliance (OTA) specification which you can find at: http://www.opentravel.org. Every OTA request method contains a POS element. This element is required for you to create your request to CRX. You will use your travel source login information in this element to specify your identity to the CRX Server. An example POS element is displayed below.

```
<POS>
   <Source>
      <RequestorID>
         <CompanyName
               CompanyShortName="travel_source_username"
               Code="travel_source_password"
               CodeContext="password">
         </CompanyName>
      </RequestorID>
   </Source>
</POS>
```

Code Block 1: POS Element

The CompanyName tag is used to provide your credentials. The attribute CompanyShortName is used for your travel source username, the attribute Code is used for your password and the CodeContext always has to be *password*.

VehLocSearch Method

The VehLocSearch method is used to query CRX for locations with active agencies based on either a country, or a country and a province/state. It is recommended that this method is used initially to get all of the locations that the integrator wishes to use and then store the relevant information locally. This is recommended as it will often decrease load time and bandwidth of the integrators application.

Request

Only two elements from the OTA's VehLocSearch are currently being used in this implementation. They are the StateProv and CountryName elements found within the VehLocSearchCriterion/Address elements. Below is a sample VehLocSearchCriterion element searching for locations in British Columbia Canada.

```
<VehLocSearchCriterion>
  <Address>
    <StateProv StateCode="BC"></StateProv>
    <CountryName Code="CA"></CountryName>
  </Address>
</VehLocSearchCriterion>
```

Code Block 2: VehLocSearch Request

Both of these elements are optional and if both left blank all CRX locations will be returned.

For a full list of countries and codes supported by CRX please view the html version at:
https://secure.carrentalexpress.com/webservices/country_list.php

or the xml version here:
https://secure.carrentalexpress.com/webservices/country_list.xml.php

for a full list of provinces and codes supported by CRX please view the html version at:
https://secure.carrentalexpress.com/webservices/province_list.php

or the xml version here:
https://secure.carrentalexpress.com/webservices/province_list.xml.php

Response

Most elements returned from the VehLocSearch method are explained in detail in the OTA specifications . However a few key elements are explained you should take note of are described below.

The LocationDetail element contains an attribute Code. This attribute will be the unique identifier of the area used to search for a rate in the VehAvailRate **as such it may be useful to store this element locally**. The CodeContext attribute of this element should always be area_id. The Name attribute of this tag may also be useful to store along with the Code so you know what the code references.

VehAvailRate

The VehAvailRate method is used to query CRX for a listing of vehicles and their corresponding rates based on an area or airport code and an itinerary. A select few vehicle details can be used to further restrict your query.

Request

Only the VehAvailRQCore element is used by CRX for the rate query, and from that element only specific sub elements are used. Below is a sample VehAvailRQCore element with all the available sub elements in use.

```xml
<VehAvailRQCore Status="Confirmed">
  <VehRentalCore
          PickUpDateTime="2005-09-09T09:00:00"
          ReturnDateTime="2005-09-16T09:00:00">
    <PickUpLocation LocationCode="12" CodeContext="area_id">
    </PickUpLocation>
  </VehRentalCore>
  <VehPrefs>
    <VehPref AirConditionInd="true" TransmissionType="Automatic">
      <VehClass Size="5"></VehClass>
    </VehPref>
    <VehPref AirConditionInd="true" TransmissionType="Automatic">
      <VehClass Size="2"></VehClass>
    </VehPref>
  </VehPrefs>
</VehAvailRQCore>
```

Code Block 3: VehAvailRates Request

The PickUpLocation can either be used to specify an area with the area_id you received from the VehLocSearch or it can be used to specify a specific airport. To specify an area simply set the LocationCode attribute to the value of the area_id and set the CodeContext to area_id. To specify an airport code set the LocationCode to the 3 letter IATA airport code and set the CodeContext to IATA.

Remember at this time only the above information in Code Block 2 is used in determining what is returned.

Response

Most elements returned from the VehAvailRate method are explained in detail in the OTA specifications . However a few key elements are explained you should take note of are described below.

The Vendor element will hold the CRX companies unique identifier that will be required to make a reservation using the VehRes method. The attribute Code is used to store the company id when the CodeContext is set to company_id.

The VehIdentity element will hold the vehicles unique identifier that will also be required to make a reservation using the VehRes method. The attribute VehicleID_Number is used to store the vehicles unique identifier.

The RateQualifier element will hold the rate codes unique identifier that will also be required to make a reservation using the VehRes method. The attribute RateQualifier will hold the unique identifier for the rate code.

The LocationDetails element will hold the locations unique identifier that will also be required to make a reservation using VehRes. The attribute Code will hold the unique identifier for the location when the CodeContext is set to location_id.

VehRes

The VehRes method is used to create a reservation on Car Rental Express.

Request

A select number of customer elements as well as the itinerary, location identifier, vehicle identifier and rate code identifier are required to make a reservation. An example of all the used elements for making a reservation is given below.

```
<VehResRQCore Status="Available">
    <VehRentalCore PickUpDateTime="2005-09-20T10:00:00"
                   ReturnDateTime="2005-09-24T10:00:00">
        <PickUpLocation LocationCode="17" CodeContext="location_id">
        </PickUpLocation>
    </VehRentalCore>
    <Customer>
        <Primary BirthDate="1980-08-10">
            <PersonName>
                <GivenName>Test</GivenName>
                <Surname>Test</Surname>
            </PersonName>
            <Telephone AreaCityCode="123" PhoneNumber="1231234">
            </Telephone>
            <Email EmailType="1">email@domain.com</Email>
            <Address>
                <AddressLine>3337 w 4 ave</AddressLine>
                <CityName>Vancouver</CityName>
                <PostalCode>V6R1N6</PostalCode>
                <StateProv StateCode="BC">British Columbia</StateProv>
                <CountryName Code="CAD">Canada</CountryName>
            </Address>
            <CitizenCountryName Code="CAD"></CitizenCountryName>
        </Primary>
    </Customer>
    <RateQualifier RateQualifier="293750">
        <RateComments>
            <RateComment>This is a test reservation!</RateComment>
        </RateComments>
    </RateQualifier>
    <VendorPref Code="119" CodeContext="company_id">
    </VendorPref>
</VehResRQCore>
<VehResRQInfo>
    <Reference Type="16" ID="750" ID_Context="vehicle_id">
    </Reference>
</VehResRQInfo>
```

Code Block 4: VehRes Request

The PickUpLocation elements Code and CodeContext attributes are used to specify the location. The Code should be the value of the location_id and the CodeContext should be set to location_id.

The RateQualifier elements RateQualifier attribute is used to specify the rate code for the rental.

The VendorPref elements Code and CodeContext attributes are used to specify the agency. The Code should be the value of the company_id and the CodeContext

should be set to company_id.

The Reference elements ID and ID_Context are used to specify the vehicle. The ID should be set to the value of the vehicle_id and the ID_Context should be set to vehicle_id.

Response

Most elements returned from the VehAvailRate method are explained in detail in the OTA specifications . However a few key elements are explained you should take note of are described below.

The ConfID elements ID and ID_Context will return the reservation number of the newly created reservation. The ID is the value of the reservation number when the ID_Context is set to reservation_number.

VehCancel

The VehCancel method is used to cancel a reservation that has been made via the CRX webservices.

Request

A few elements of the VehCancel message are required to cancel a reservation. Below is a sample of a request message using all the required fields.

```
<VehCancelRQCore CancelType="Cancel">
   <UniqueID Type="8" ID="test-test-12345" ID_Context="reservation_number">
   </UniqueID>
   <PersonName>
      <Surname>Test</Surname>
   </PersonName>
</VehCancelRQCore>
```

Code Block 5: VehCancel Request

The UniqueIDs ID and ID_Context will specify the reservation you wish to cancel. The ID should be set to the value of the reservation number and the ID_Context should be set to reservation_number.

The Surname should be set to the surname of the person who made the reservation on CRX. This element is used to validate the cancellation.

Response

If the reservation was canceled successfully the reservation number will be returned for the canceled reservation in the UniqueID element.

FEEDBACK AND ADDITIONAL INFORMATION

If you wish to give feedback, suggest additional methods or are seeking additional information you can utilize our developers area located at:

https://secure.carrentalexpress.com/webservices/

You will find examples of usage, code samples, forums and much more to help you with your integration. If you require more specific help you can feel free to contact the webservices team at Car Rental Express by email:

webservices@carrentalexpress.com