HomaRes PSS API

For Booking and Manage Booking - v1.1

DOCUMENT PURPOSE

PSS Service APIs for availability, price quote, book and manage booking are detailed in this document.

Security level	External Use				
Company	HomaRes				
Version	Date	Change		Comment	By
1.0	01-01-2019			Initial Release	HomaRes
1.1	11-08-2020			IR Release	HomaRes

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1. Introduction

Online Travel Portals and other B2B integrators use this API of Passenger Service System (HomaRES PSS) for performing search, book and modify operations.

All the APIs are implemented as stateless, RESTful web services with XML message format. Services are allowed to be accessed over a secure HTTPS connection only. OpenTravel Alliance's (https://opentravel.org/) XML schema standards version 2013B is adopted for the message formats specification and is continuously being refined to keep up with the latest standards and technologies.

The scope of the document is to explain the various service APIs made available and standards followed in doing so. Each API is described with following details;

- Request and Response XML schema definitions
- Detailed description of the service
- Possible error messages returned by the server
- Sample request and response messages

2. Services – Summary

Operation	Request Schema	Response Schema	Resource
Ping	OTA_PingRQ.xsd	OTA_PingRS.xsd	/services/ping
Low Fare Search	OTA_AirLowFareSearchRQ.xsd	OTA_AirLowFareSearchRS.xsd	/availability/lowfaresearch
Fare Rule	OTAPSS_AirFareRuleRQ.xsd	OTAPSS_AirFareRuleRS.xsd	/availability/fareRuleInformation
Book & Ticket	OTA_AirBookRQ.xsd	OTA_AirBookRS.xsd	/booking/create
Read Reservation	OTA_ReadRQ.xsd	OTA_AirBookRS.xsd	/booking/read
Cancel Fee Query	OTA_AirBookModifyRQ.xsd	OTAPSS_AirBookModifyChargeRS.xsd	/modifybooking/fees
Cancel Booking	OTA_AirBookModifyRQ.xsd	OTA_AirBookRS.xsd	/modifybooking/cnxbkg

Split Booking	`OTA_AirBookModifyRQ.xsd`	`OTA_AirBookRS.xsd`	`/modifybooking/splitbkg`
Edit Booking Contact	`OTA_AirBookModifyRQ.xsd`	`OTA_AirBookRS.xsd`	`/modifybooking/editBookingContact`

Endpoint URL = <will be provided with test system access>

3. Security

All the services are authenticated using HTTP basic authentication. For this base64 encoded authorization key needs to be sent in the HTTP header as illustrated below. This key would be provided when API integration work is commenced. In the production environment, services are only made accessible over a secure HTTPS connection.

HTTP Header Name	Value
authorization	Base64 encoded String Example: `Ob6RzQODMh91yAdihui9gamZX2c4td1XOb6RzQODMh91yAdihui9gamZX2c4td1X`

If the Authorization HTTP header parameter is not presented or invalid, "`Authorization error`" is returned in response.

4. Common Message Standards

4.1 Payload Attributes

Following are common payload attributes that should be presented in every message.

Attribute	Description
EchoToken	A reference for additional message identification, assigned by the requesting host system.
TimeStamp	Timestamp (UTC) indicating the creation date and time of the message.
Target	Test or Production target system indicator.
Version	The OpenTravel message version indicated by a decimal value.
SequenceNmbr	The sequence number of the transaction assigned by the sending system for ordered message processing or message resynchronization.
PrimaryLangID	The primary language preference for the message encoded as ISO 639-3.

A sample Message root element is given below;

```
<OTA_AirLowFareSearchRQ xmlns="http://www.opentravel.org/OTA/2003/05"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" EchoToken="10001"
TimeStamp="2020-08-01T19:44:10-05:00" Target="Test" SequenceNmbr="1"
Version="2.001" PrimaryLangID="En-us">
```

4.2 Common Response Messages

Response Flag	Description
Success	Flag indicating that the request message was correctly processed.
Warning	In a successful message, it indicates that some processing issues were encountered while handling the query, but it did not prevent being processed.
Error	When error is encountered while processing the query, it is reported in the Error element. This Error code and description would be used to inquire on the issue. All errors are mapped to standard OTA error codes defined in the

	OTA code list.

4.3 Common Error List

List of general errors that could be returned by any of the services are given below.

Error Code	Error Name	Error Description
497	Authorization error	Authorization failed due to invalid login details.
197	Error occurred- please report	A general error occurred.
111	Invalid Request	Invalid data in the request.
169	Agent code invalid	Invalid Agent Code in POS.
171	Booking not made by this agent	Booking not made by this agent
172	Requested action not possible - Insufficient privilege for required action	Insufficient privilege to continue action
633	We are unable to process your request - Missing payload attributes	Missing payload attributes

4.4 Point of Sale (POS) specification

POS elements need to be sent for all requests and it holds information about the requestor. Required attributes are listed below.

Attribute	Description
AirlineVendorID	IATA assigned 2-letter airline code corresponding to target airline
ISOCountry	ISO 2-letter country code
ISOCurrency	ISO 3-letter currency code. This currency needs to be pre-agreed between the airline and the integrator.
RequestorID.Type	Type of the ID as per the OTA code list. Value 5 ("Travel Agent") must be set

RequestorID.ID	Unique identification code (Agency ID) given to the service requestor

A sample POS element is given below:

```
<POS>
      <Source AirlineVendorID="IR" ISOCountry="IR" ISOCurrency="IRR">
      <RequestorID Type="5" ID="ONLINETA"/> </Source>
</POS>
```

4.5 Passenger Type Code

Following are the passenger type codes supported.

- ADT
- CHD
- INF

4.6 Passenger Title Code

Following are the passenger title codes supported.

Passenger Type Code	Gender	Title
ADT	M	Mr
ADT	F	Mrs
ADT	F	Ms
CHD	M	Master
CHD	F	Miss
INF	M	Master
INF	F	Miss

4.7 Cabin

Following are the cabin classes supported.

- Economy
- Business

4.8   Direction

Following are the directions supported.

- OneWay
- Return
- Multi-city
- Open-jaw

4.9   Sales Type

Following are the sales types supported.

- STANDARD
- NEGO

5. API Specifications

5.1   Ping

The Ping message pair is used to test application connectivity by sending some specific text and determining if the receiving application is able to echo back the same text received. The free-text data that is passed in the request is echoed back in the response message.

Note that following HTTP header parameters are to be sent with every request.

Header Parameter	Value
Accept	application/xml
Content-Type	application/xml
Authorization	**<authorization_key>**

5.2   Low Fare Search

The Low Fare Search Request message requests priced itinerary options for flights between specific city pairs on specific dates for specific numbers and types of passengers. Sales type preference should be included under processing info to filter out the search results. Lowest total price per possible journey combinations are returned in the response. Oneway and Return low fare availability searches are supported.

Following are the list of error codes specific for low fare search.

Error Code	Error Name	Error Description
020	Number of passengers invalid	Invalid number of passengers.
026	At least one adult must be included	Child Only Bookings are not allowed (When the requesting user is not authorized to do so).
124	Too many infants requested	Too many infants requested (One infant per adult is only allowed).
531	Flight does not operate on date requested	No flights available on the requested date or route is not valid.
532	No Availability on requested date	Fares not available or flight(s) fully booked.

Note that following HTTP header parameters should be sent with every request.

Header Parameter	Value
Accept	application/xml
Content-Type	application/xml
Authorization	<authorization_key>

5.3 Retrieve Fare Rule

Requests fare rule information in free text form for specified flight segment and fare information. Fare rule display text information setup against respective fare would be returned in the response.

Following are the list of error codes specific for fare rule retrieval.

Error Code	Error Name	Error Description
320	Invalid information	Fare or Flight information given are invalid.
113	Mandatory details missing	Mandatory details missing - Flight Segment RPH.

91	Fare class mismatch	Mismatch in Flight Segment and Fare Basis Code.

5.4 Book & Ticket

The Book Request message requests the system to book a specific itinerary for one or more identified passengers. The message contains mandatory flight details, traveler details, pricing information (that were given in the low fare search response) and fulfillment (payment) details. If the requested seats are still available, the system will confirm the booking with payment fulfillment and send back the booking reference and ticket number(s) in the response along with flight details, traveler details and price details.

Additional Passenger Information:

Additional Passenger Information (or also known as Advance Passenger Information) required would be set up as per airport/route as per business requirements of the airline.

Following Advanced Passenger Information supported by API.

Passenger Information

- Date of Birth
- First Name
- Last Name
- Gender
- Nationality
- Title
- Travel With Adult
- Mobile Number
- Email

Passport Information

- Expiry Date
- Issuing Country
- Nationality
- Passport Number

VISA Information

- Applicable Country
- Issuing Date
- Nationality
- Place of Birth
- Place of Issue
- VISA Number

Identity Card Information

- Nationality
- ID Number

Residence Address Information

- Address Detail
- City
- Country
- State
- ZIP/Postal Code

Destination Address Information

- Address Detail
- City
- Country
- State
- ZIP/Postal Code

Booking Contact Information:

Booking contact information should be sent as separate element;

- Email
- Mobile Number
- Home Telephone Number

Please note that telephone number length should be between 8-16 including the country code. Expected format is (country code)area code + phone number.
Example: (44)12332223 where 44 is the country code part of the telephone number in this example.

Following are lists of error codes specific for book & ticket.

Error Code	Error Name	Error Description
009	Requested service is fully booked	Requested SSR, Meal or Baggage is Not Available.
041	Occupancy must include an adult	No accompanied adult found (If not authorized to do child only bookings).
058	Price(s) cannot be validated	Requested price is not valid or the price has been changed.

113	Mandatory booking details missing	Mandatory booking details e.g. APIS information.
115	Board basis/meal plan invalid	Invalid Meal Request.
146	Service requested incorrect	Invalid SSR, Seat or Baggage Request.
167	Payment rejected	Available Agent Credit is not enough.
526	Seat already assigned	Requested Seat Not Available.
532	No Availability on requested date	Flight is not available for the requested date
320	Invalid passport number	Passport number is invalid
531	No Flights or No Availability on date requested	Flight is closed
320	Invalid ID number	ID number is invalid
181	Invalid Country Code	Country code is invalid in passport details
320	Passenger Title is invalid	Invalid passenger title
317	Invalid telephone number	Telephone number is Invalid
224	Invalid email address	Email address is invalid
91	Booking information mismatch - Payment amount mismatch	Incorrect payment amount
163	Payment - Agent Information Mismatch	Invalid payment agent

5.5 Read Booking

The Read Request message is for retrieving booking details specifying the booking reference. If the requesting party is eligible to view the booking, the response would be sent with following booking details, which includes flight details, traveler details, contact details, fulfillment details and pricing details.

Following are lists of error codes specific for read booking.

Error Code	Error Name	Error Description
171	Booking not made by this agent	Not authorized to view this booking.

| 194 | No matching bookings found | Invalid or non existing PNR. |

5.6 Cancel Fee Query

The Cancel Fee Query Request message requests the cancellation fee and resulting refund/balance amount from cancellation. The Message consists of two sections, namely; the air reservation section with the booking information including flight details, traveler details, fulfilment and price details and air book modify request section including the modification type indicating the cancellation (refer OTA code type MOD). If booking information matched, the user is eligible to perform a cancellation. The booking is allowed to be canceled and the system will respond as 'success' along with the cancellation fee and the balance.

Following are lists of error codes specific for Cancel Balance.

Error Code	Error Name	Error Description
87	Booking reference invalid	No matching bookings found
91	Booking information mismatch	Booking Itinerary mismatch
172	Requested action not possible - Insufficient privilege for booking cancel	Insufficient privilege for booking cancel or cancel refund or restricted by fare rule.

5.7 Cancel Booking

The Cancel Booking Request message requests the cancellation of a specified booking. Message basically consists of two sections where the air reservation section with the booking information including flight details, traveler details, fulfilment and price details and air book modify request section including the modification type indicating the cancellation (refer OTA code type MOD), fulfillment data indicating cancellation fee. If booking information matched, the user is eligible to perform a cancellation and booking is allowed to be canceled then the system will respond as 'success' along with the booking details related to respective booking.

Following are lists of error codes specific for Cancel Booking.

Error Code	Error Name	Error Description
87	Booking reference invalid	No matching bookings found
91	Booking information mismatch	Booking Itinerary mismatch

172	Requested action not possible - Insufficient privilege for booking cancel	Insufficient privilege for booking cancel or cancel refund or cancel restricted by fare rule.

5.8 Split Booking

This is the API to split out one or more passengers of the booking. The message basically consists of two sections where the air reservation section contains the booking information including flight details, traveler details, and price details; and the air book modify request section contains the modification type indicating split booking (refer OTA code type MOD), details of travelers that required to be split into another booking. If booking information matches and the user is eligible to split the booking then the system will respond (success) along with the booking details related to the new booking that has been created by splitting the existing booking.

New booking created by split would be sent in response for successful split operation.

Error Code	Error Name	Error Description
87	Booking reference invalid	No matching bookings found
91	Booking information mismatch	Booking Itinerary mismatch
172	Requested action not possible - Insufficient privilege to continue action	Insufficient privilege to continue the action

5.9 Edit Booking Contact

This is the API to edit the contact details of the booking. The contact details should be sent along with PNR data. If booking information matches and the user is eligible to perform edit booking contact operation.
For successful contact details change operation, response is sent with updated contact details.

Error Code	Error Name	Error Description
172	Requested action not possible - Insufficient privilege for edit booking contact	Insufficient privilege for edit the booking contact details
172	Requested action not possible - Insufficient privilege to continue action or booking operation unauthorized	Insufficient privilege to continue action or the edit booking contact operation

860	Booking Contact details error	Contact details to be modified is not found in the booking or Contact information not changed
87	Booking reference invalid	No matching bookings found
91	Booking information mismatch	Booking Itinerary mismatch
113	Mandatory booking Contact details missing-contact information	Mandatory details missing

6. OTA Codes

Codes, which are commonly used in the request and response messages are described here. When applicable, OTA code tables are referenced in PSS API specifications. Following are the references from OTA code tables with custom added codes specifically noted as well.

Category	Code	Description
Flight Segment Status	16	CANCELLED
	39	CONFIRMED
	46	WAITLISTED
	50	OPEN
	83	NOSHO
	80	FLOWN
Booking Status	39	CONFIRMED
	16	CANCELLED
	1	TTL
Unit of Measure	15	LB
	16	KG
Payment Type	2	ON ACCOUNT
	100	BSP
Document Type	1	VISA
	2	PASSPORT
	5	ID CARD
Modification Type	1	CANCEL ITINERARY
	15	BALANCE PAYMENT
	17	EMAIL_ITINERARY