

AirShopping V2

Interface Specification

June 2017

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# Disclaimer

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Please note that this document is for information only and does not necessarily imply that British Airways will be allowing the reader to access its APIs. All information on how to get access to the APIs can be found on <http://developer.ba.com/ndc_pilot>

As British Airways implements new products and features through NDC, this document will be updated. British Airways will keep its users informed of any significant change to the product, and the latest version of this user guide can always be provided upon request from selling.distribution@ba.com.

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#  Introduction

The AirShopping Webservice provides IATA Accredited Travel Agents, new retailers and Service Providers the ability to shop (availability) for flights as per IATA NDC schema standards.

AirShopping – this service returns priced availability for the requested origin and destination, date and cabin

## Support Details

### Commercial Support

For any assistance that you require with any commercial queries please contact:

 Selling.distribution@ba.com

### Technical Support

For any assistance with integration issues or general queries, please refer to the blog section available on <http://developer.ba.com>. This section is monitored daily by our technical team and should be the first point of contact for any integration queries.

For any assistance with suspected technical faults or issues please follow the process detailed below:

**System unavailable** – please telephone the British Airways IT Service Centre:

 +44 (0) 20 8562 4000

**System available, non-critical faults -** please send an email to:

**itsc.itsc@ba.com**

**Please have the following information available when calling or emailing the service centre:**

**If emailing, the email subject should be:**

* “ Company name – NDC Web Service issue”

**The call or email should include the following:**

* Your name and Company
* Your contact Telephone Number (including full dialling code)
* Full Location including country, town, building
* System / Technology / Hardware involved
* Number of users affected

**Short summary of the problem:**

* Error / System Message: Please put in specific error message received.
* Details of actions leading to problem / question (commands issued, buttons clicked etc)
* Example SOAP of request being sent (including username and password to connect to service.
* Example of any response received from the service.

Attachments of screenshots displaying the error would also be useful.

# Generic Message Elements

## Agency and Service Provider data

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Field Type** | **Data Type** | **Schema Definition****(http://www.ba.com/schema/)** | **Optional/Mandatory** | **Comments** |
| Party |  |  | **M** |  |
| Sender |  |  | **M** | Message sender information |
| TravelAgencySender |  |  | M | Specify the travel agency detailsPopulate TravelAgencySender section only if the request is originated by the Travel Agent |
| Name |  | Party/Sender/TravelAgencySender/Name | O | Travel agency name**Example:** ABC**Note:** This is an optional element in NDC schema. BA will neither use nor validate this element even if it was passed |
| Contacts |  |  | O | This is an optional element in NDC schema but for calling BA service this must be passed with requesting agent’s email address only if the requesting agent is an IATA agent**Note:** Agent contact will only be used in OrderCreate service. Therefore it is up to the client to pass agent email address in AirShopping, FlightPrice and SeatAvailability services |
| Contact |  |  | M |  |
| EmailContact |  |  | O | This is an optional element in NDC schema but for calling BA service (OrderCreate) this must be passed, if the requesting agent is an IATA agent. This is important as the eTicket confirmation email will only be sent to this email address for IATA agent’s bookingsFor non-IATA agents, this element need not be passed as the eTicket confirmation email will only be sent to the customer’s email address. However, BA will record this email address to the booking if provided for non-IATA agents |
| Address |  | Party/Sender/TravelAgencySender/Contacts/Contact/EmailContact/Address | M | Travel agency’s email address**Example:** **abc@tc.com**This is the requesting agent’s email address |
| OtherIDs |  |  | O | Specify Non-IATA agent details**Note:** This is an optional element in NDC schema but for calling BA services this must be passed if the requesting agent is a non- IATA agent |
| OtherID |  | Party/Sender/TravelAgencySender/OtherIDs/OtherID | M | Non-IATA agent code**Example:** 01010101 |
| IATA\_Number |  | Party/Sender/TravelAgencySender/IATA\_Number | O | Travel agent’s IATA number **Example:** 12345678**Note:** This is an optional element in NDC schema but for calling BA services this must be passed if the requesting agent is an IATA agent |
| AgencyID |  | Party/Sender/TravelAgencySender/AgencyID | M | Travel agency name**Example:** ABC**Note:** This is a mandatory element in NDC schema but BA will neither use nor validate this element. Suggestion is to pass travel agency name  |
| CorporateSender |  |  |  | Specify corporate detailsPopulate CorporateSender section only if the request is originated by the Corporate |
| Contacts |  |  | O | This is an optional element in NDC schema. Populate this section with the requesting corporate’s email address only if the corporate is directly creating a booking with BA via NDC ServicesDo not populate this section if Travel Management Company (TMC) is creating a booking on behalf of the corporate**Note:** Corporate contact will only be used in OrderCreate service. Therefore it is up to the client to pass corporate email address in AirShopping, FlightPrice and SeatAvailability services |
| Contact |  |  | M |  |
| EmailContact |  |  | O | This is an optional element in NDC schema but for calling BA service (OrderCreate) this must be passed, if the corporate is directly creating a booking with BA via NDC Services and the corporate has an IATA number. This is important as the eTicket confirmation email will only be sent to this email address for IATA agent’s bookingsFor corporates that have non-IATA number, this element need not be passed as the eTicket confirmation email will only be sent to the customer’s email address. However, BA will record this email address to the booking if provided for non-IATA corporates |
| Address |  | Party/Sender/CorporateSender/Contacts/Contacts/EmailContact/Address | M | Corporate’s email address**Example:** **abc@tc.com**This is the requesting corporate’s email address |
| ID |  | Party/Sender/CorporateSender/ID | M | Corporate’s JBID**Example:** IN3642FRUnique ID provided by BA |
| IATA\_Number |  | Party/Sender/CorporateSender/IATA\_Number | O | Corporate’s IATA or non-IATA number **Example:** 12345678Do not populate this section if Travel Management Company (TMC) is creating a booking on behalf of the corporate**Note:** This is an optional element in NDC schema. Populate this element with the requesting corporate’s IATA or non-IATA number only if the corporate is directly creating booking with BA via NDC Services |
| Participants |  |  | O | Specify Service Provider details**Note:** This is an optional element in NDC schema but if the calling client is a Service Provider then Participants details must be populated. If the calling client is not a Service Provider then Participants details should not be populated. |
| Participant |  |  | M |  |
| TravelAgencyParticipant |  |  | O | Populate this section only if the participant is a Travel Management Company (TMC) and is creating a booking for the corporate customer i.e request is originated by the corporate |
| SequenceNumber (Attribute) |  | Party/Participants/Participant/TravelAgencyParticipant/SequenceNumber (Attribute) | M | Unique numberExample: 2**Note:** It is recommended that each participant to increment the sequence number by 1.**Example:** If participant 1 gives sequence number as “2” participant 2 is advised to give sequence number as “3” |
| Contacts |  |  | O | This is an optional element in NDC schema. Populate this section with the requesting agent’s (TMC’s) email address only if the requesting agent is an IATA agent**Note:** Agent contact will only be used in OrderCreate service. Therefore it is up to the client to pass agent email address in AirShopping, FlightPrice and SeatAvailability services |
| Contact |  |  | M |  |
| EmailContact |  |  | O | This is an optional element in NDC schema but for calling BA service (OrderCreate) this must be passed, if the requesting agent (TMC) is an IATA agent. This is important as the eTicket confirmation email will only be sent to this email address for IATA agent’s bookingsFor non-IATA agents, this element need not be passed as the eTicket confirmation email will only be sent to the customer’s email address. However, BA will record this email address to the booking if provided for non-IATA agents (TMCs) |
| Address |  | Party/Participants/Participant/TravelAgencyParticipant/Contacts/Contact/ EmailContact/Address | M | Travel agency’s(TMC’s) email address**Example:** **abc@tc.com**This is the requesting agent’s email address |
| OtherIDs |  |  | O | Specify Non-IATA agent details**Note:** This is an optional element in NDC schema but for calling BA services this must be passed if the requesting agent (TMC) is a non- IATA agent |
| OtherID |  | Party/Participants/Participant/TravelAgencyParticipant/OtherIDs/OtherID | M | TMC’s Non-IATA agent code**Example:** 01010101 |
| IATA\_Number |  | Party/Participants/Participant/TravelAgencyParticipant/IATA\_Number | O | Travel agent’s (TMC’s) IATA number **Example:** 12345678**Note:** This is an optional element in NDC schema but for calling BA services this must be passed if the requesting agent (TMC) is an IATA agent |
| AgencyID |  | Party/Participants/Participant/TravelAgencyParticipant/AgencyID | M | Travel agency name**Example:** ABC**Note:** This is a mandatory element in NDC schema but BA will neither use nor validate this element. Suggestion is to pass travel agency name |
| AggregatorParticipant |  |  | O | Populate this section only if the calling client is a Service Provider |
| SequenceNumber (Attribute) |  | Party/Participants/Participant/AggregatorParticipant/ SequenceNumber (Attribute) | M | Unique numberExample: 2**Note:** It is recommended that each participant to increment the sequence number by 1.**Example:** If participant 1 gives sequence number as “2” participant 2 is advised to give sequence number as “3” |
| Name |  | Party/Participants/Participant/AggregatorParticipant/Name | O | Service Provider name**Example:** XYZ**Note:** This is an optional element in NDC schema. BA will neither use nor validate this element even if it was passed |
| AggregatorID |  | Party/Participants/Participant/AggregatorParticipant/AggregatorID | M | Service Provider ID provided by BA**Example:** 00123456All BA NDC services will validate this ID and allow only if the AggregatorID provided is valid |

### Example Agency and Service Provider data

**Travel Agent (IATA) accessing BA NDC Services via Service Provider**

<Party>

 <Sender>

 <TravelAgencySender>

 <Name>ABC</Name>

 <Contacts>

 <Contact>

 <EmailContact>

 <Address>agentemailaddress@abc.com</Address>

 </EmailContact>

 </Contact>

 </Contacts>

 <IATA\_Number>35209893</IATA\_Number>

 <AgencyID>ABC</AgencyID>

 </TravelAgencySender>

 </Sender>

 <Participants>

 <Participant>

 <AggregatorParticipant SequenceNumber="123">

 <Name>Travelco</Name>

 < AggregatorID > 00123456</AggregatorID >

 </AggregatorParticipant>

 </Participant>

 </Participants>

 </Party>

**Travel Agent (Non-IATA) accessing BA NDC Services via Service Provider**

<Party>

 <Sender>

 <TravelAgencySender>

 <Name>ABC</Name>

 <Contacts>

 <Contact>

 <EmailContact>

 <Address>agentemailaddress@abc.com</Address>

 </EmailContact>

 </Contact>

 </Contacts>

 <OtherIDs>

 <OtherID>0000007</OtherID>

 </OtherIDs>

 <AgencyID>ABC</AgencyID>

 </TravelAgencySender>

 </Sender>

 <Participants>

 <Participant>

 <AggregatorParticipant SequenceNumber="123">

 <Name>Travelco</Name>

 < AggregatorID > Travelco </AggregatorID >

 </AggregatorParticipant>

 </Participant>

 </Participants>

 </Party>

**Travel Management Company (TMC) accessing BA NDC Services for Corporates**

<Party>

 <Sender>

 <CorporateSender>

 <ID>IN3401FR</ID>

 </CorporateSender>

 </Sender>

 <Participants>

 <!--Participant 1 - TMC-->

 <Participant>

 <TravelAgencyParticipant SequenceNumber="1">

 <Contacts>

 <Contact>

 <EmailContact>

 <Address>ndcagent@abc.com</Address>

 </EmailContact>

 </Contact>

 </Contacts>

 <IATA\_Number>91266162</IATA\_Number>

 <AgencyID>ABCD</AgencyID>

 </TravelAgencyParticipant>

 </Participant>

 </Participants>

</Party>

**Travel Management Company (TMC) accessing BA NDC Services for Corporates via Service Provider**

<Party>

 <Sender>

 <CorporateSender>

 <ID>IN3401FR</ID>

 </CorporateSender>

 </Sender>

 <Participants>

 <!--Participant 1 - TMC-->

 <Participant>

 <TravelAgencyParticipant SequenceNumber="1">

 <Contacts>

 <Contact>

 <EmailContact>

 <Address>ndcagent@abc.com</Address>

 </EmailContact>

 </Contact>

 </Contacts>

 <IATA\_Number>91266162</IATA\_Number>

 <AgencyID>AMEX</AgencyID>

 </TravelAgencyParticipant>

 </Participant>

 <!--Participant 2 - Service Provider-->

 <Participant>

 <AggregatorParticipant SequenceNumber="2">

 <AggregatorID>00000780</AggregatorID>

 </AggregatorParticipant>

 </Participant>

 </Participants>

</Party>

**Corporate accessing BA NDC Services directly**

<Party>

 <Sender>

 <CorporateSender>

 <Contacts>

 <Contact>

 <EmailContact>

 <Address>ndcagent@abc.com</Address>

 </EmailContact>

 </Contact>

 </Contacts>

 <ID>IN3401FR</ID>

 <! — IATA or non-IATA number should be requested in the same field-->

 <IATA\_Number>12345678</IATA\_Number>

 </CorporateSender>

 </Sender>

</Party>

## Common Schemas

The attached schemas are common for AirShopping, FlightPrice, SeatAvailability and OrderCreate

 

# AirShopping Webservice

This service returns the eligibility for paid seating and the lead-in seating price for each sector of a booking. This service returns the eligibility for paid seating and the lead-in seating price for each sector of a booking.

This service returns priced availability for each flight for the requested origin and destination, date and cabin. The service also returns priced availability for the next higher cabins (normally the next 2 higher cabins). Example, if the availability is requested for Economy, service will return priced availability for Economy, Premium Economy and Business (assuming these cabins are offered on the route requested). The service also returns brand attributes for each cabin for which availability is returned.

## Interface Design

This web service is called with the following inputs:

* Origin and Destination (O&D)
* Cabin for the itinerary
* Number of passengers (anonymous) with passenger type
* Restriction Type (flexible or restricted) – “restricted” by default if not specified
* Leisure Fare Type

The output data this service returns includes:

Brand attributes for cabins for which availability is returned

List of airline offers where each airline offer contains

Total offer price for all passengers for the requested itinerary (contains one or more O&D)

Price per passenger type per cabin with fare and tax split

Flight details such as flight number, selling class etc.

List of calendar offers where each calendar offer contains

Lowest available single adult price for +/- 3 days of the requested date

Total price for the itinerary for various outbound and inbound combination

**Limitations:**

* Redemption availability is not supported
* Non flight (hotel) availability is not supported
* Maximum 6 Origin and Destination can be requested
* Calendar offers are not supported for Origin and Destination greater than 2.

## Schemas

The service adheres to the IATA NDC AirShopping schema version 16.1, with some modifications

**Schemas**

Main schemas used in the web service Also, please refer Section 2.2 for common schemas.

  

## Request and Response Definitions

### Request

|  |
| --- |
| **Service Input Parameters** |
| **Input Parameters** | **Type** | **Schema Definition****(**[**http://www**](http://www)**.ba.com****/schema/)** | **Optional/Mandatory** | **Comments** |
| Request object | AirShoppingRQ | AirShoppingRQ.xsd | M |  |
| **AirShoppingRQ Data Fields** |
| **Field Type** | **Data Type** | **Schema Definition****(**[**http://www**](http://www)**.ba.com/schema/)** | **Optional/Mandatory** | **Comments** |
| **Agency and Service Provider data See section 2.1** |  |  |  |  |
| Version (Attribute) |  | AirShoppingRQ/Version (Attribute) | M | Specify NDC schema message version. Always pass 16.1**Note:** This is a mandatory attribute in NDC schema. The service will not validate what is being passed in this attribute |
| PrimaryLangID (Attribute) |  | AirShoppingRQ/PrimaryLangID (Attribute) | O | Specifies the agent’s preferred language. Service response will be returned in this language**Note:** If the requested language is not supported by BA or if this is not passed in the request then the default language will be used, which is English**Example:** EN |
| AltLangID (Attribute) |  | AirShoppingRQ/AltLangID (Attribute) | O | Specifies the preferred language in which the mail to be sent. eTicket receipt email and any other communication emails from BA will be sent in this language**Note:** AltLangID will not be used even if it was passed in the AirShopping request, as there is no email sent at the shopping stage. If the requested language is not supported by BA or if this is not passed in the request then the default language will be used, which is English |
| Document |  |  | M |  |
| Name |  | AirShoppingRQ/Document/Name | O | Always pass “BA” |
| Travelers |  |  | M | BA accepts only anonymous traveler in the shopping request |
| Traveler |  |  | M | This must be repeated for each passenger. If the client wants to shop for 2 ADT, 2 CHD and 2 INF then Traveler should be repeated 6 times for each passenger |
| AnonymousTraveler |  |  | O | **Note:** This is an optional element in NDC schema but for calling BA service this must be passed |
| PTC |  | AirShoppingRQ/Travelers/Traveler/AnonymousTraveler/PTC | O | Passenger Type CodeBA accepts the following passenger type codesADTCHDINFIf any other passenger type code is passed then ADT price will be returned**Note:** This is an optional element in NDC schema but for calling BA service this must be passed |
| Age |  |  | O | Though this is an optional element, it is recommended to provide passenger’s age, as it will be used to identify if the passenger is a young adult.**Note:** UK Air Passenger Duty (APD) is not applicable to “young adults” aged 12 to 15 years inclusive for travel after 1 March 2016 |
| Value |  | AirShoppingRQ/Travelers/Traveler/AnonymousTraveler/Age/Value | M [Choice] | **Example:** 15 |
| BirthDate |  | AirShoppingRQ/Travelers/Traveler/AnonymousTraveler/Age/BirthDate | M [Choice] | Date of birth in “YYYY-MM-DD” format**Example:** 2002-01-01 |
| CoreQuery |  |  |  |  |
| OriginDestinations |  |  | M | Origin and destination (O&D) details |
| OriginDestination |  |  | M | This must be repeated for each O&D. If the request is for EDI-AMS return then this must be repeated twice one for EDI-AMS and one for AMS-EDI |
| Departure |  |  | M | Departure airport/city details |
| AirportCode |  | AirShoppingRQ/CoreQuery/OriginDestinations/OriginDestination/Departure/AirportCode | M | Accepts both airport code (LHR) and city code (LON) |
| Date |  | AirShoppingRQ/CoreQuery/OriginDestinations/OriginDestination/Departure/Date | M | Departure date**Example:** 2015-08-14 |
| Time |  | AirShoppingRQ/CoreQuery/OriginDestinations/OriginDestination/Departure/Time | O | Departure time |
| Arrival |  |  | M | Arrival airport/city details |
| AirportCode |  | AirShoppingRQ/CoreQuery/OriginDestinations/OriginDestination/Arrival/AirportCode | M | Accepts both airport code (LHR) and city code (LON) |
| Date |  | AirShoppingRQ/CoreQuery/OriginDestinations/OriginDestination/Arrival/Date | O | Departure date**Example:** 2015-08-21 |
| Time |  | AirShoppingRQ/CoreQuery/OriginDestinations/OriginDestination/Arrival/Time | O | Arrival time |
| CalendarDates |  |  | O | Indicates Calendar search date. Calendar recommendation will only be returned if the client specifies calendar search dates in the request |
| DaysBefore (Attribute) |  | AirShoppingRQ/CoreQuery/OriginDestinations/OriginDestination/DaysBefore (Attribute) | O | The number of days before the requested date**Example:** 3Calendar recommendation will be returned for the number of days specified before the requested date |
| DaysAfter (Attribute) |  | AirShoppingRQ/CoreQuery/OriginDestinations/OriginDestination/DaysAfter (Attribute) | O | The number of days after the requested date**Example:** 3Calendar recommendation will be returned for the number of days specified after the requested date |
| Preference |  |  | O | Fare and cabin preference can be specified here**Note:** This is an optional element in NDC schema but for calling BA service this must be passed to specify at least cabin preference |
| FarePreferences |  |  | O | Specify fare preference. BA accepts the below 2 fare preferences in the shopping request1) Flexible fare2) Restricted fareIf no fare preference is specified then by default restricted fare will be returnedAlso leisure fare can be requested under FarePreferences. BA supports the following Leisure fare types1) Inclusive Tour2) Contract Bulk3) Private Fare Adult4) Marine5) Humanitarian |
| Types |  |  | O |  |
| Type |  |  | M | Fare preference can be specified only at the itinerary level. Also leisure fare can be requested only at the itinerary level. If the client wants to request Leisure fare with Restricted fare type then Type tag should be repeated twice |
| Code |  | AirShoppingRQ/Preference/FarePreferences/Types/Type/Code | M | IATA PADIS Codeset 9910 - Fare qualifierBA accepts the following codes from codeset 9910754759758Where754 means Flexible fare759 means Restricted fare758 means Leisure fare |
| Definition |  | AirShoppingRQ/Preference/FarePreferences/Types/Type/ Definition | O | Leisure fare should be specified herePossible Leisure Fare types are1) Inclusive Tour2) Contract Bulk3) Private Fare Adult4) Marine5) Humanitarian |
| CabinPreferences |  |  | O | Cabin can only be specified for the whole itinerary**Example:** LHR-JFK-LHR journey can be requested in “Economy” cabin for the whole itineraryRequesting different cabin per O&D is not supported |
| CabinType |  |  | M | This can be specified only once |
| Code |  | AirShoppingRQ//Preference/CabinPreferences/CabinType/Code | M | IATA PADIS Codeset 9873 - Cabin class of service, codedBA accepts the following codes from codeset 98731245Where1 = First2 = Business4 = Premium Economy5 = Economy |

### Response

|  |
| --- |
| **Service Response Parameters** |
| **Input Parameters** | **Type** | **Schema Definition****(http://www.ba.com****/schema/)** | **Optional/Mandatory** | **Comments** |
| Response object | AirShoppingRS | AirShoppingRS.xsd | M |  |
| **AirShoppingRS Data Fields** |
| **Field Type** | **Data Type** | **Schema Definition****(http://www.ba.com/schema/)** | **Optional/Mandatory** | **Comments** |
| Document |  |  | M |  |
| Name |  | AirShoppingRS/Document/Name | M | Will be returned as “BA” |
| Success |  | AirShoppingRS/Success | M | The presence of the empty Success element explicitly indicates that the message succeeded |
| ShoppingResponseID |  |  | O |  |
| ResponseID |  | AirShoppingRS/ShoppingResponseID/ResponseID | M | Unique shopping response id. This is normally the date and time stamp**Example:** 2015-05-29T14:20:25.043Z |
| OffersGroup |  |  | M |  |
| AirlineOffers |  |  | M |  |
| TotalOfferQuantity |  | AirShoppingRS/OffersGroup/AirlineOffers/TotalOfferQuantity | O | The total number of Airline Offers returned by the airline.**Example:** 1350**Note:** This does not include the calendar offer |
| Owner |  | AirShoppingRS/OffersGroup/AirlineOffers/Owner | O | Will always be “BA” |
| AirlineOffer |  |  | O | List of offers for the requested date. Each offer will be ordered by lowest price first |
| RequestedDateInd (Attribute) |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/RequestedDateInd (Attribute) | O | Will be “True” when the airline offer is returned for the requested date for all O&D's. Will be "False" when the airline offer is not returned for the requested date even for one O&D |
| OfferID |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/OfferID | M | An unique offer id**Example:** OFFER1 |
| Owner (Attribute) |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/OfferID/Owner (Attribute) | M | Will always be “BA” |
| TotalPrice |  |  | O | The total price for the itinerary for all Travellers associated with this offer |
| SimpleCurrencyPrice |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/TotalPrice/SimpleCurrencyPrice | M | **Example:** 208.27 |
| Code (Attribute) |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/TotalPrice/SimpleCurrencyPrice/Code (Attribute) | O | Currency Code **Example:** GBP |
| PricedOffer |  |  | O |  |
| OfferPrice |  |  | M | Returns price for a single passenger per passenger typeThis will be repeated to return price per pax type. Example, if you have 2 ADT, 2 CHD and 2 INF then this should be repeated thrice one for ADT, one for CHD and one for INF**Note:** Price for Young adult passengers will be returned as separate OfferPrice |
| OfferItemID (Attribute) |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/OfferPrice/OfferItemID (Attribute) | O | An unique offer item id**Example:** 1 |
| RequestedDate |  |  | M |  |
| PriceDetail |  |  | M |  |
| TotalAmount |  |  | O | Tax information |
| SimpleCurrencyPrice |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/OfferPrice/RequestedDate/PriceDetail/TotalAmount/SimpleCurrencyPrice | M | Total tax for the itinerary per pax type**Example:** 65.99 |
| Code (Attribute) |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/OfferPrice/RequestedDate/PriceDetail/TotalAmount/SimpleCurrencyPrice/Code (Attribute) | O | Currency Code **Example:** GBP |
| BaseAmount |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/OfferPrice/RequestedDate/PriceDetail/BaseAmount | M | Total base fare for the itinerary per pax type**Example:** 26.00 |
| Code (Attribute) |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/OfferPrice/RequestedDate/PriceDetail/BaseAmount/Code (Attribute) | O | Currency Code **Example:** GBP |
| Taxes |  |  | O | Total tax for the itinerary per pax type |
| Total |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/OfferPrice/RequestedDate/PriceDetail/Taxes/Total | O | **Example:** 65.99 |
| Code (Attribute) |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/OfferPrice/RequestedDate/PriceDetail/Taxes/Total/Code (Attribute) | O | Currency Code **Example:** GBP |
| Associations |  |  | O | This is where the passengers that are associated with this offer are returnedIf the offer is returned 1 ADT, 1 CHD and 1 INF and for 2 O&D’s (LHRAMS and AMSLHR) then the passenger association is returned within OfferPrice and flight association is returned outside OfferPrice as flights are applicable for all passengers |
| AssociatedTraveler |  |  | O |  |
| TravelerReferences |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/OfferPrice/RequestedDate/Associations/AssociatedTraveler/TravelerReferences | M | Reference to each passenger of the same type. Example, if you have 2 ADT and this OfferPrice is for ADT then the TravelerReferences will be SH1 and SH2. Multiple references will be separated by a space.**Example:** SH1 SH2 |
| Associations |  |  | O | This is where the flights that are associated with this offer are returnedIf the offer is returned 1 ADT, 1 CHD and 1 INF and for 2 O&D’s (LHRAMS and AMSLHR) then the passenger association is returned within OfferPrice and flight association is returned outside OfferPrice as flights are applicable for all passengers |
| ApplicableFlight |  |  | O | Flights that are applicable for this offer. ApplicableFlight will be repeated per O&D.Example: If the response is for 2 O&D (LHRAMS and AMSLHR) then there will be 2 Associations each containing an ApplicableFlight with one FlightSegmentReference i.e one for LHRAMS and one for AMSLHR |
| FlightSegmentReference |  |  | O | List of flight segments that are applicable for this offerExample, if your O&D is EBI-ABQ and has 3 flight segments BA1434, BA117,BA5621 then FlightSegmentReference will be repeated thrice |
| ref (Attribute) |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/Associations/ApplicableFlight/FlightSegmentReference/ref (Attribute) | M | Unique reference to a flight segment**Example:** BA1434 |
| ClassOfService |  |  | M |  |
| Code |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/Associations/ApplicableFlight/FlightSegmentReference/ClassOfService/Code | M | Booking/Selling class**Example:** O |
| SeatsLeft (Attribute) |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/Associations/ApplicableFlight/FlightSegmentReference/ClassOfService/Code/SeatsLeft (Attribute) | O | No of seats available in this selling class**Example:** 7 |
| MarketingName |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/Associations/ApplicableFlight/FlightSegmentReference/ClassOfService/ MarketingName | O | The cabin this selling class belongs to**Example:** Euro Traveller |
| FlightReferences |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/Associations/ApplicableFlight/ FlightReferences | O | Reference to a flight that is applicable for this offer**Example:** Flight1 |
| PriceClass |  |  | O | This will be returned only when the offer is for a hand baggage only fare. Price class is always returned along with ApplicableFlight Associations to signify that the price class is associated with this flight segment |
| PriceClassReference |  | AirShoppingRS/OffersGroup/AirlineOffers/AirlineOffer/PricedOffer/Associations/PriceClass/PriceClassReference | M | Possible values areHandbaggageonlyBasicPlusPlusFlexBusinessUK |
| PriceCalendar |  |  | O | List of calendar offers. Each offer will be ordered by lowest price firstThis will return a lowest available single adult price for the itinerary for +/- 3 days of the requested date |
| PriceCalendarDate |  | AirShoppingRS/OffersGroup/AirlineOffers/PriceCalendar/PriceCalendarDate | M | Returns both outbound and inbound date**Example:** 2015-06-28 |
| OriginDestinationReference (Attribute) |  | AirShoppingRS/OffersGroup/AirlineOffers/PriceCalendar/PriceCalendarDate/OriginDestinationReference (Attribute) | M | Reference to an O&D for which the calendar offer is returned**Example:** OD1 |
| TotalPrice |  | AirShoppingRS/OffersGroup/AirlineOffers/PriceCalendar/TotalPrice | M | Lowest available single adult price for the itinerary for the outbound and inbound dates returned**Example:** 91.95 |
| Code (Attribute) |  | AirShoppingRS/OffersGroup/AirlineOffers/PriceCalendar/TotalPrice/Code (Attribute) | O | Currency Code **Example:** GBP |
| DataLists |  |  | O |  |
| AnonymousTravelerList |  |  | O | List of all passengers to whom the shopping response is returned |
| AnonymousTraveler |  |  | M | This will be repeated for each passenger |
| ObjectKey (Attribute) |  | AirShoppingRS/DataLists/AnonymousTravelerList/ AnonymousTraveler/ObjectKey (Attribute) | O | **Example:** SH1 |
| PTC |  | AirShoppingRS/DataLists/AnonymousTravelerList/ AnonymousTraveler/PTC | O | Passenger type code of this passenger**Example:** ADT |
| Age |  |  | O |  |
| Value |  | AirShoppingRS/DataLists/AnonymousTravelerList/ AnonymousTraveler/Age/Value | M [Choice] | **Example:** 15 |
| BirthDate |  | AirShoppingRS/DataLists/AnonymousTravelerList/ AnonymousTraveler/Age/BirthDate | M [Choice] | Date of birth in “YYYY-MM-DD” format**Example:** 2002-01-01 |
| DisclosureList |  |  | O | Marketing information (BA brand attributes) about each BA cabin is returned here  |
| Disclosures |  |  | M | This is a list and will be repeated for each BA cabin for which the offer is returned |
| ListKey (Attribute) |  | AirShoppingRS/DataLists/DisclosureList/Disclosures/ListKey (Attribute) | M | Cabin name for which the marketing information is returned**Example:** EuroTraveller |
| Description |  |  | M | This is a list and will be repeated for each BA brand attribute |
| Text |  | AirShoppingRS/DataLists/DisclosureList/Disclosures/Description/Text | O | BA brand attribute**Example:** Complimentary onboard food and bar service |
| FlightSegmentList |  |  | O |  |
| FlightSegment |  |  | M | Flight segment details.  |
| SegmentKey (Attribute) |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/SegmentKey (Attribute) | M | **Example:** BA0428 |
| Departure |  |  | M | Departure information |
| AirportCode |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Departure/AirportCode | M | Departure airport IATA code**Example:** LHR |
| Date |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Departure/Date | M | Local Departure date i.e. local to the departure location**Example:** 2015-07-01 |
| Time |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Departure/Time | O | Local Departure time i.e. local to the departure location**Example:** 06:50 |
| AirportName |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Departure/AirportName | O | Departure airport name**Example:** Heathrow (London) |
| Terminal |  |  | O |  |
| Name |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Departure/Terminal/Name | O | Departure Terminal**Example:** 5**Note:** If terminal information is not available then the service will return “unknown**”** |
| Arrival |  |  | M | Arrival information |
| AirportCode |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Arrival/AirportCode | M | Arrival airport IATA code**Example:** AMS |
| Date |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Arrival/Date | O | Local Arrival date i.e. local to the arrival location**Example:** 2015-07-01 |
| Time |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Arrival/Time | O | Local Arrival time i.e. local to the arrival location**Example:** 09:10 |
| ChangeOfDay |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Arrival/ChangeOfDay  | O | Number of days between arrival and departure**Example:** 1 |
| AirportName |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Arrival/AirportName | O | Arrival airport name**Example:** Amsterdam |
| Terminal |  |  | O |  |
| Name |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Arrival/Terminal/Name | O | Arrival Terminal**Example:** 1**Note:** If terminal information is not available then the service will return “unknown**”** |
| MarketingCarrier |  |  | M | Marketing carrier information |
| AirlineID |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/MarketingCarrier/AirlineID | M | Marketing carrier code**Example:** BA |
| Name |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/MarketingCarrier/Name | O | Marketing carrier name**Example:** British Airways |
| FlightNumber |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/MarketingCarrier/FlightNumber | M | Marketing flight number**Example:** 0428 |
| OperatingCarrier |  |  | O | Operating carrier information |
| AirlineID |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/OperatingCarrier /AirlineID | O | Operating carrier code**Example:** BA |
| Name |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/OperatingCarrier /Name | O | Operating carrier name**Example:** British Airways |
| Equipment |  |  | M | Aircraft information |
| AircraftCode |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Equipment/AircraftCode | M | **Example:** 767 |
| Name |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/Equipment/Name | O | **Example:** Boeing 767 jet |
| FlightDetail |  |  | O |  |
| FlightDuration |  |  | O | Flight segment duration  |
| Value |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/FlightDetail/FlightDuration/Value | M | **Example:** PT1H30M |
| Application |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/FlightDetail/FlightDuration/Application | O | Will always be “FlightTime” |
| Stops |  |  | O | Number of stops |
| StopQuantity |  | AirShoppingRS/DataLists/FlightSegmentList/FlightSegment/FlightDetail/Stops/StopQuantity | O | **Example:** 0 |
| FlightList |  |  | O |  |
| Flight |  |  | M | Flight details |
| FlightKey (Attribute) |  | AirShoppingRS/DataLists/FlightList/Flight/FlightKey (Attribute) | O | Unique flight key**Example:** Flight1 |
| Journey |  |  | O | Flight journey details |
| Time |  | AirShoppingRS/DataLists/FlightList/Flight/Journey/Time | O | Total journey duration of this flight**Example:** PT10H35M |
| SegmentReferences |  | AirShoppingRS/DataLists/FlightList/Flight/SegmentReferences | M | List of flight segment references associated with this flight**Example:** BA1447 BA0183 |
| OriginDestinationList |  |  | O |  |
| OriginDestination |  |  | M | Origin and destination details |
| OriginDestinationKey (Attribute) |  | AirShoppingRS/DataLists/OriginDestinationList/OriginDestination/OriginDestinationKey (Attribute) | M | **Example:** OD1 |
| DepartureCode |  | AirShoppingRS/DataLists/OriginDestinationList/OriginDestination/DepartureCode | M | Departure city code of the origin**Example:** LON |
| ArrivalCode |  | AirShoppingRS/DataLists/OriginDestinationList/OriginDestination/ArrivalCode | M | Arrival city code of the destination**Example:** AMS |
| PriceClassList |  |  | O |  |
| PriceClass |  |  | M | Price class details |
| ObjectKey (Attribute) |  | AirShoppingRS/DataLists/PriceClassList/PriceClass/ObjectKey (Attribute) | O | **Example:** Handbaggageonly |
| Name |  | AirShoppingRS/DataLists/PriceClassList/PriceClass/Name | M | Possible values areHandbaggageonlyBasicPlusPlusFlexBusinessUK |
| Code |  | AirShoppingRS/DataLists/PriceClassList/PriceClass/Code | O | Will always be **“**HBO”**Note:** This will be returned only for price classes “Basic” and “Handbaggageonly” |
| Descriptions |  |  | O | Marketing information about hand baggage only fare is returned here |
| Description |  |  | M | This is a list and will be repeated for each marketing information |
| Text |  | AirShoppingRS/DataLists/PriceClassList/PriceClass/Descriptions/Description/Text | O | Marketing information**Example:** No checked baggage allowance |
| Metadata |  |  | O |  |
| Other |  |  | O |  |
| OtherMetadata |  |  | M |  |
| CurrencyMetadatas |  |  | M |  |
| CurrencyMetadata |  |  | M | This is where the number of decimal that is applicable for the currency code is returned |
| MetadataKey (Attribute) |  | AirShoppingRS/Metadata/Other/OtherMetadata/ CurrencyMetadatas/CurrencyMetadata/MetadataKey (Attribute) | M | Unique key**Example:** GBP |
| Decimals |  | AirShoppingRS/Metadata/Other/OtherMetadata/ CurrencyMetadatas/CurrencyMetadata/Decimals | O | Number of decimal applicable for the currency code returned in the response**Example:** 2 |
| Errors |  |  | M | Error information |
| Error |  | AirShoppingRS/Errors /Error | M | This is a list so more than one error will be returned by repeating ErrorBA error code and message**Example:** AVM21098 - Route not served |
| ShortText (Attribute) |  | AirShoppingRS/Errors /Error/ShortText | O | PADIS error code**Example:** 421 |
| Code (Attribute) |  | AirShoppingRS/Errors /Error/Code | O | PADIS error message**Example:** Not Available and Waitlist is Close |

## URLs to access this web service

### Live URL

<https://api.ba.com/selling-distribution/AirShopping/V2>

***Note:*** *If you are operating on the earlier version of our APIs, the endpoint is*

*<https://api.ba.com/selling-distribution/AirShopping/V1>*

*Please note that this version does not support all the latest functionality and it uses IATA Schema 1.1.3*

### Test URL

<https://test.api.ba.com/selling-distribution/AirShopping/V2>

***Note:*** *If you are operating on the earlier version of our APIs, the endpoint is*

*<https://test.api.ba.com/selling-distribution/AirShopping/V1>*

*Please note that this version does not support all the latest functionality and it uses IATA Schema 1.1.3*

### Mandatory headers

In order to access our API, you will need to pass the following two headers for each call

**Client-key**: Your 24-bit API connection key

**SOAPAction:** AirShoppingV01

## Sample SOAP NDC Request to access this web service













## Sample SOAP NDC Response









## Sample SOAP NDC Response with errors



## Sample SOAP Response with errors

Any schema validation error will be returned as SOAP Fault



# Frequently Asked Questions

## FAQs

**Q: Can I change the 24-bit connection key provided by British Airways developer website?**

**A:** No, these keys are issued using a secured algorithm and cannot be modified. However if you feel that your key has been compromised, we can block the existing one and issue a new one for you.

**Q: Do I need to advise British Airways of any IP changes?**

A: No, the API endpoints are not dependent on your IP and therefore you do not need to let us know of any change on your end.

**Q: Can I modify the username used for the Developer website?**

**A:** Yes, you would need to register with a new name, and let your usual BA contact know so that your accesses can be transferred from your previous account to the new one.

# Usability Guide

## Usage advice

**AirShopping Service**

1. The service returns priced availability for the requested cabin and (up to) the next 2 higher cabins, if applicable. Example: If the requested cabin is “Economy”, the AirShopping response returns OfferGroup for “Economy”,” Premium Economy” and “Business” cabins as well.
2. The service returns brand attributes only when the OfferGroup contains flights that are both BA operated and marketed. For connection journeys and journeys that involve Codeshare flights (BA marketed and other carrier operated) brand attributes will not be returned.
3. The service returns availability for the nearest day (if applicable) when there is no availability or the flight is not operating on the requested date.
4. The service will return prices in the currency of the agent’s country provided that currency is accepted by the BSP (Billing and Settlement Plan). For countries that support more than one currency, the service will return in the currency that is accepted by the BSP for IATA Accredited agents, and the currency accepted by ba.com for other retailers. For example, Mexico supports both USD and MXN but the service returns the price in MXN for IATA-accredited agents, as MXN is what is accepted by the BSP. Other retailers will receive a price in USD.
5. The service returns flights based on British Airways carrier preferred availability.
6. The price is returned in the currency of the agent’s country regardless of point of commencement. Example: If the journey starts from London but the agent’s location is Paris then the price will be returned in EUR. It is not possible to proactively request a different currency at this point.
7. The service returns the lowest available Adult, Young Adult, Child and Infant prices.
8. The service returns airline offers sorted by TotalPrice in an ascending order. This will mean that the AirlineOffer will get more expensive as you work through the response.
9. Apart from returning the price and flight combination for the requested date, AirShopping service also returns the calendar offer i.e lowest available single adult price for +/- 3 days of the requested date without flight details. This calendar offer is only returned when the number of Origin and Destinations are 2 or less.
10. If the client were to select one of the calendar offer then a follow up AirShoppingRQ should be made with the new dates to get the full price and flight combinations for all passengers.
11. The service cannot be called for Group availability (more than 9 passengers).
12. The service cannot be called for Unaccompanied Minor (children travelling alone, up to age 15).
13. British Airways supports the following passenger types:
	* Adult (ADT)
	* Young Adults (ADT type, with a birth date comprised between 12 and 15 years old)
	* Child (CHD)
	* Infant (Infant)

If any other passenger type is passed in the AirShopping request the service treats it as Adult and returns Adult price. Example: If passenger type requested is Military (MIL) the service will return Adult (ADT) price.

1. The service now supports the below Leisure Fare types
	* Inclusive Tour
	* Humanitarian
	* Marine
	* Contact Bulk
	* Private Fare Adult

Clients will be able to request any of the above Leisure Fare types via AirShopping

1. Clients can only request one Leisure Fare type per request. If more than one Leisure Fare is requested then the service will apply the first Leisure Fare type it finds from the list
2. The service returns error if the requested Leisure fare is not available i.e the service will not default to the published fare if the requested leisure fare is not available
3. The service rejects request and returns error, if the agent is not eligible to request for leisure fare types
4. Calendar recommendation will not be returned if clients do not ask for it in AirShoppingRQ i.e if AirShoppingRQ didn’t have CalendarDates requested the service will not return calendar recommendation
5. Calendar recommendation will not be returned for requests containing more than 2 O&Ds even if the client requests for it
6. When calendar is requested the service will always return 7/7 calendar (i.e +/- 3 days from the requested date) although the schema allows the client to specify the exact number of days before and after the requested date they want the calendar recommendation for e.g. even if the client requests

AirShoppingRQ/CoreQuery/OriginDestinations/OriginDestination/CalendarDates/DaysBefore = “2” DaysAfter =”2”>

The service will only return calendar recommendation for 3 days before and 3 days after the requested date

1. Calendar recommendation will not be returned if both DaysBefore and DaysAfter are passed as “0”
2. The service returns calendar recommendation if at least one O&D contains DaysBefore and DaysAfter attributes with non-zero value

**General**

1. The service returns prices in exact decimal value based on the currency (e.g. GBP will be returned at 2 decimals, while JPY will be returned at integer level only).
2. The service checks if the agent calling the service has the right to create BA bookings. If the agent does not have such authority then the service will not proceed and will return an error.
3. The service checks if the requesting Travel Management Company (TMC) is allowed to service the corporate and returns error if it is not allowed.
4. The service returns responses in the agent’s preferred language. If the agent’s preferred language is not supported by BA or the agent’s preferred language is not passed in the request then the default language will be used, which is English. Please see section 7 for the languages that are supported by BA.
5. Air Passenger Duty (APD) no longer applies to passengers aged between 12 and under 16 years old travelling in Economy after 1st March 2016. For travel on or after this date, BA need to know if anyone in this age range is travelling so that APD is not charged for them. Therefore, it is advised for clients to provide passenger’s age in all BA NDC services so that the service will know the passenger is a young adult and won’t charge APD.

# Appendix 1 –Web Services error responses

## AirShopping error/ineligibility checks

|  |  |
| --- | --- |
| PADIS Error Code | PADIS Error Text |
| 1 | Invalid date |
| 304 | System Temporarily unavailable |
| 421 | Not Available and Waitlist is Close |

# Appendix 2 – Languages supported by BA

BA supports the below 11 languages

|  |  |
| --- | --- |
| Language Code | Language |
| EN | English |
| ES | Spanish |
| JA | Japanese |
| FR | French |
| IT | Italian |
| ZH | Chinese |
| DE | German |
| PT | Portuguese |
| RU | Russian |
| PL | Polish |
| SV | Swedish |