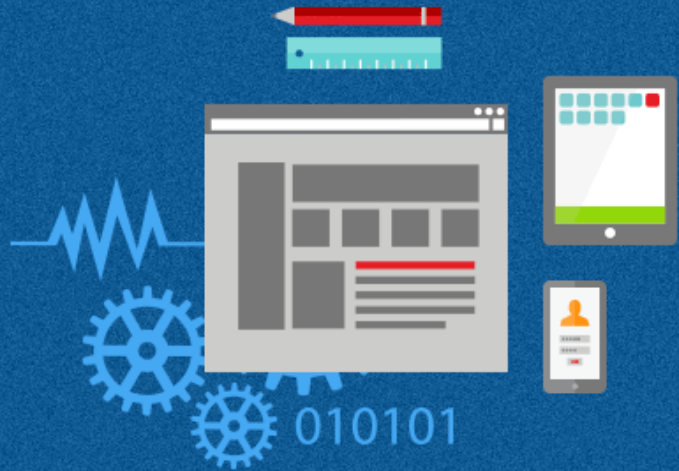


Sabre

**SABRE
APIs**



User Guide

OfferPriceRQ API

Price Offers for NDC Carrier Content / Integrate NDC Offers in Pricing

Schema Version 1.0.0

Release 2019.03

(March 2019)

Schema version 1.0.0

Document Edition 2.0 (March 2019)

This documentation is the confidential and proprietary intellectual property of Sabre Inc. Any unauthorized use, reproduction, preparation of derivative works, performance, or display of this document, or software represented by this document, without the express written permission of Sabre Inc. is strictly prohibited.

Sabre Travel Network and the Sabre Travel Network logo design are trademarks and/or service marks of an affiliate of Sabre Inc. All other trademarks, service marks, and trade names are owned by their respective companies.

© 2012-2019, Sabre Inc. All rights reserved.

Table of Contents

1	API Overview	1-1
1.1	Offer Price Introduction	1-1
1.1.1	NDC Update	1-1
1.2	About This Guide	1-2
1.3	API Information	1-2
1.3.1	Target Audience	1-2
1.3.2	Authentication	1-2
1.3.3	Version information	1-2
1.3.4	URI Scheme	1-2
1.3.5	Methods/Endpoints	1-2
1.3.6	Technology / Language	1-3
1.3.7	Response Type	1-3
1.3.8	Contact information	1-3
1.4	Price NDC Carrier Content with OfferPrice API	1-3
1.4.1	What is it?	1-3
1.4.2	What does it do?	1-3
1.4.3	How does it work?	1-3
2	Quick Start Guide	2-1
2.1	Introduction	2-1
2.2	Product Usage	2-1
2.2.1	Trying the API	2-1
2.3	Use Cases & Examples	2-1
2.3.1	Use Case 1	2-1
3	API Reference	3-1
3.1	Introduction	3-1
3.2	Beginner's Guide to Offer Shop and Offer Price	3-1
3.2.1	What is required in my Offer Shop and Offer Price request?	3-1
3.2.2	Looking for latest features and enhancements to Sabre APIs?	3-1
3.2.3	Number of versions supported?	3-1
3.3	Schema Definitions	3-1
3.3.1	Parameters Introduced to the Request Schema	3-1
3.3.2	Offer Item Sets to be Priced Together	3-4
3.3.3	Parameters Introduced to the Response Schema	3-4
4	Error Messages and Status Codes	4-1

4.1 Introduction	4-1
4.2 Error Messages	4-1
4.2.1 Sample Response with an Error Message Returned	4-1
4.2.2 API Specific Errors	4-2
4.2.3 REST API Common Errors.....	4-3
4.3 Status Codes	4-7

Glossary 1

API Overview

1.1 Offer Price Introduction

The purpose of the project is to create a new pricing solution named Offer Price within Pricing Domain Controller component (PDC) that will allow users to price offers that are stored in the Offer Store, regardless of the source of content (NDC, ATPCO or LCC).

All necessary details to complete the ticket, such as fare breakdown or fare calculation, will be in the Offer Store, this data was provided by Shopping. The JSON response contains only a subset of data. Offer Price will make sure the original price is still valid, using the same parameter already used in Shopping. Customers can add the Form of Payment and Frequent Flyer details to the Offer Price service.

In this release, Sabre Offer Price API supports all sources of content – ATPCO, LCC, and NDC – in a standardized format.

- The source of the content used is the one provided originally by Shopping.
- Customers can enter the Sabre Offer ID and Offer Price will internally convert it into the carrier one whenever needed.
- Offer Price will do the corresponding call to the different sources and have a standardized format to return all data to the Offer Store.
- Offer Price must be used after completing a Shopping request, which will return an Offer ID.
- City Pair Availability (CPA) flow is not supported in this initial release.

1.1.1 NDC Update

The new Offer Price service added to the pricing capabilities can price the air offers distributed through the New Distribution Capability (NDC) standard. The new capability allows a Sabre agency to shop and price options from NDC, LCC, or ATPCO, in one transaction. The returned content contains one integrated pricing response from all sources.

1.2 About This Guide

This guide provides information on the new *OfferPrice API* that allows users to price air offers distributed through the NDC standard. Each chapter is as follows:

- Chapter 1, “API Overview” describes overview information about the schemas.
- Chapter 2, “Quick Start Guide” describes the details of the product usage and examples.
- Chapter 3, “API Reference” describes the changes and new parameters added to the schemas.
- Chapter 4, “Error Messages and Status Codes” describes the error messages for Offer Price functionality.
- Glossary, provides a glossary of terms used in this document.

1.3 API Information

This service requires activation, if you are not a current *Bargain FinderSM Max* customer, please contact your Sabre Account Representative for assistance.

1.3.1 Target Audience

All Sabre APIs customers.

1.3.2 Authentication

[Sessionless Token](#)

1.3.3 Version information

OfferPrice Request/Response Version 1

1.3.4 URI Scheme

Environment	Host	BasePath	Schemes
PROD	https://api.havail.sabre.com/v1/offers/price	/v1	HTTPS

1.3.5 Methods/Endpoints

POST /v1/offers/price

1.3.5.1 Description

POST: Price offers from the NDC, ATPCO, and LCC content sources.

1.3.6 Technology / Language

REST/JSON

1.3.7 Response Type

REST/JSON Response

1.3.8 Contact information

Email: ShoppingWebservicesDocs@sabre.com

Url: <https://developer.sabre.com>

1.4 Price NDC Carrier Content with OfferPrice API

The purpose of this guide is to describe the New Distribution Capability (NDC) within the *OfferPrice* API.

1.4.1 What is it?

The NDC standard enhances the capability of communications between airlines and travel agents.

This capability enables Sabre to transform the way air products are retailed to leisure and business travelers, by addressing the industry's current distribution limitations:

- Product differentiation and time-to-market.
- Access to full and rich air content.
- Transparent Shopping and Pricing experience.

1.4.2 What does it do?

Offer Price supports offer content provided by NDC-compliant carriers for when a shopping call was made prior to pricing.

This solution:

- Reaches out to NDC carriers for offer details.
- Interacts with the Offer Store, a database that allows storing/retrieving Offers and their Offer items.

1.4.3 How does it work?

Offer Price adds the capability to price offers distributed through the NDC standard in one integrated response from all sources.

New parameters have been introduced to the *OfferPrice API*'s pricing capabilities. The pricing service is available to developers via REST/JSON request and response type.

• • •

2.1 Introduction

This chapter includes the following:

- Product usage (see this page).
- Use cases and examples (see this page).

2.2 Product Usage

This section includes instructions on how to enable and get pricing offers with any of the different content sources in the *OfferPrice API* request.

2.2.1 Trying the API

Use the [API Explorer](#) on [Sabre Dev Studio](#) to explore Sabre REST APIs by making calls to the test environment. Please note that you first need to [sign in](#) before testing the APIs. You can also view [written documentation](#).

2.3 Use Cases & Examples

The following use case is denoted via REST/JSON only.

2.3.1 Use Case 1

1. The agent selects an offer with the NDC source indicator and adds passenger data. The Offer Price JSON message is sent to the Sabre system.
2. If the shopping result has an NDC source indicator, an OfferPriceRQ message is sent to the carrier. The response is written to the Offer Store with a new offer time limit and the carrier's OfferID. The Offer Price response is returned to the client application with the fare information including the tax break down and the Sabre OfferID. (Carrier OfferIDs are not included in pricing responses). Up-sell options may also be returned in the OfferPriceRS message from NDC enabled carriers; the POS application may display these options to the user.
3. If the shopping result has an ATPCO or LCC indicator, the *Sabre®* system will call Revalidate itinerary. The response is written to the Offer Store with a new offer time limit and the OfferID. The Offer Price response is returned to the client application. The detailed fare information, including the tax break down, additional information on changes and refunds, and the Sabre OfferID is in the Offer Store.

4. If an offer created in shopping expired, the system shall cancel the transaction and the agent would need to start the process again.

2.3.1.1 Example of a simple OfferPrice Request

```
{
    "query": [{
        "offerItemId":
["cg02jzjk4jsuj04nc0-1-1"]
    }
    ],
    "params": {
        "formOfPayment": [{
            "binNumber":
"545250",
            "subCode": "FCA",
            "cardType": "VI"
        }
    ]
}
```

2.3.1.2 Example of a full OfferPrice Request

```
{
  "query": [{
    "offerItemId": [
      " do29wjbvxjqxs47iv0-1-1"
    ],
    "passengerId": [
      "Passenger1"
    ],
    "formOfPayment": "1"
  }
  ],
  "passengers": [{
    "id": "Passenger1",
    "type": "ADT",
    "frequentFlyer": [{
      "airline": "K0",
      "accountNumber": "123456789",
      "programName": "ADVANTAGE PLATINUM",
      "programCode": "PLT/SPH",
      "tierCode": "tCode",
      "tierName": "tName",
      "tierPriority": "PLATINUM",
      "signInID": ""
    }, {
      "airline": "VA",
      "accountNumber": "123456789",
      "programName": "ADVANTAGE PLATINUM",
      "programCode": "PLT/SPH",
      "tierCode": "tCode",
    }
  ]
}
```

```

        "tierName": "tName",
        "tierPriority": "PLATINUM",
        "signInID": "AAA"
    }
  ]
}
],
"params": {
  "formOfPayment": [{
    "id": "1",
    "binNumber": "545250",
    "subCode": "FCA",
    "cardType": "VI"
  }
]
}
}
}

```

2.3.1.3 Example of OfferPrice Response

```

{
  "id": "do29wjbvxjqxs47iv0",
  "version": "0.0.1",
  "response":
  {
    "offers": [
      {
        "id": "do29wjbvxjqxs47iv0-1",
        "ttl": "1200",
        "source": "ATPCO"
        "offerExpirationDateTime": "2019-01-15T14:34:29Z",
        "paymentTimeLimitDateTime": "",
        "purchaseTimeLimitDateTime": "2019-01-16T23:59:59Z",
        "commission":
        {
          "amount": "0.00",
          "percentage": "0.00"
        },
        "offerItems": [
          {
            "id": "do29wjbvxjqxs47iv0-1-1",
            "passengers": [
              {
                "id": "Passenger1",
                "ptc": "ADT",
                "requestedPtc": "ADT",
                "baggage": [],
                "price":
                {
                  "totalAmount":
                  {
                    "amount": "88.30",
                    "curCode": "USD"
                  },
                  "baseAmount":
                  {
                    "amount": "68.84",
                    "curCode": "USD"
                  }
                }
              }
            ]
          }
        ]
      }
    ]
  }
}

```

```

"taxes":
{
  "total":
  {
    "amount": "19.46",
    "curCode": "USD"
  },
  "breakdown": [
    {
      "amount":
      {
        "amount": "5.60",
        "curCode": "USD"
      },
      "nation": "US",
      "taxCode": "AY",
      "description": "PASSENGER CIVIL AVIATION SECURITY SERVICE
FEE"
    },
    {
      "amount":
      {
        "amount": "5.16",
        "curCode": "USD"
      },
      "nation": "US",
      "taxCode": "US1",
      "description": "TRANSPORTATION TAX DOMESTIC WHOLLY WITHIN
US AND 225 MILE BUFFER ZONE"
    },
    {
      "amount":
      {
        "amount": "4.20",
        "curCode": "USD"
      },
      "nation": "US",
      "taxCode": "ZP",
      "description": "FLIGHT SEGMENT TAX DOMESTIC"
    },
    {
      "amount":
      {
        "amount": "4.50",
        "curCode": "USD"
      },
      "nation": "US",
      "taxCode": "XF",
      "description": "PASSENGER FACILITY CHARGE"
    }
  ]
}
},
"fareComponents": [
{
  "price":
  {
    "totalAmount":
    {
      "amount": "88.30",
      "curCode": "USD"
    }
  }
}
]

```

```

    },
    "baseAmount":
    {
      "amount": "68.84",
      "curCode": "USD"
    },
    "taxes":
    {
      "total":
      {
        "amount": "19.46",
        "curCode": "USD"
      },
      "breakdown": [
        {
          "amount":
          {
            "amount": "5.60",
            "curCode": "USD"
          },
          "nation": "US",
          "taxCode": "AY",
          "description": "PASSENGER CIVIL AVIATION SECURITY
SERVICE FEE"
        },
        {
          "amount":
          {
            "amount": "5.16",
            "curCode": "USD"
          },
          "nation": "US",
          "taxCode": "US1",
          "description": "TRANSPORTATION TAX DOMESTIC WHOLLY
WITHIN US AND 225 MILE BUFFER ZONE"
        },
        {
          "amount":
          {
            "amount": "4.20",
            "curCode": "USD"
          },
          "nation": "US",
          "taxCode": "ZP",
          "description": "FLIGHT SEGMENT TAX DOMESTIC"
        },
        {
          "amount":
          {
            "amount": "4.50",
            "curCode": "USD"
          },
          "nation": "US",
          "taxCode": "XF",
          "description": "PASSENGER FACILITY CHARGE"
        }
      ]
    }
  },
  "fareBasis":
  {

```

```

        "fareBasisCode": "OVAKZSB3",
        "fareBasisCityPair": "DFWSFOAA",
        "rbd": "",
        "cabinType":
        {
            "cabinTypeCode": "Y",
            "cabinTypeName": "ECONOMY"
        }
    },
    "segments": [
        {
            "id": "PAX_SGMNT-2",
            "departure":
            {
                "airport": "DFW",
                "date": "2019-03-03T07:15:00"
            },
            "arrival":
            {
                "airport": "SFO",
                "date": "2019-03-03T08:56:00"
            },
            "services": [
                {
                    "name": "ALLOWANCE",
                    "serviceCode": "BG",
                    "reasonForIssuanceSubCode": "0DFAAAA"
                },
                {
                    "name": "UPTO50LB 23KG AND62LI 158LCM",
                    "serviceCode": "BG",
                    "reasonForIssuanceSubCode": "0GOACAA"
                },
                {
                    "name": "UPTO50LB 23KG AND62LI 158LCM",
                    "serviceCode": "BG",
                    "reasonForIssuanceSubCode": "0GOACAA"
                },
                {
                    "name": "CARRYON HAND BAGGAGE",
                    "serviceCode": "BG",
                    "reasonForIssuanceSubCode": "0LNABAA"
                },
                {
                    "name": "OVER100LB 45KG BAGGAGE",
                    "serviceCode": "BG",
                    "reasonForIssuanceSubCode": "0DQAEAA"
                }
            ]
        }
    ]
}
],
"totalPrice":
{
    "totalAmount":
    {

```

```
        "amount": "88.30",
        "curCode": "USD"
    },
    "baseAmount":
    {
        "amount": "68.84",
        "curCode": "USD"
    },
    "totalTaxes":
    {
        "amount": "19.46",
        "curCode": "USD"
    }
    }
}
]
```


API Reference

3.1 Introduction

This chapter includes the following:

- Beginner's guide to Offer Shop and Offer Price (see this page).
- Schema definitions (see this page).

3.2 Beginner's Guide to Offer Shop and Offer Price

This section answers beginner's questions about Offer Shop and Offer Price.

3.2.1 What is required in my Offer Shop and Offer Price request?

Please see the **OfferShop** and **OfferPrice** samples attached:



E2E_Sample_OfferShop.zip



E2E_Sample_OfferPrice.zip

3.2.2 Looking for latest features and enhancements to Sabre APIs?

You are in the right place, check the [Release Notes](#).

3.2.3 Number of versions supported?

Sabre APIs currently supports up to five versions of an API.

Check the [API Versioning page](#).

3.3 Schema Definitions

For information about parameter types and constraints, please refer to the **Offer Price API** file included in the resources folder in the documentation Package.

3.3.1 Parameters Introduced to the Request Schema

Name	Description	Schema
diags <i>optional</i>	List of diagnostics	< string > array

Name	Description	Schema
params <i>required</i>	The Params Schema	params
passengers <i>optional</i>	Passenger(s) information	< passengers > array
query <i>required</i>	Query for offer items and services to be repriced	< query > array

3.3.1.1 The Params Schema

Name	Description	Schema
formOfPayment <i>required</i>	Form Of Payment information section	< formOfPayment > array

3.3.1.1.1 Form of Payment information

Name	Description	Schema
binNumber <i>optional</i>	First six digits of a credit/debit card number. Required if subCode other than CA/CK is provided Pattern : " <code>^([0-9] {6}) \$</code> " Example : "545250"	string
cardType <i>optional</i>	The two letter payment card type Pattern : " <code>^([A-Z] {2}) \$</code> " Example : " MC ", "VI " "	string
id <i>optional</i>	Form of Payment ID. May be left empty if just one form of payment is provided Default : "1" Pattern : " <code>^(\\S) {0,64} \$</code> " Example : "1"	string
subCode <i>required</i>	Iata subCode for credit/debit cards or CA for cash or CK for check Pattern : " <code>^([A-Z0-9] {3} CA CK) \$</code> " Example : "FDA"	string

3.3.1.2 Passenger Information

Name	Description	Schema
frequentFlyer <i>optional</i>	Frequent Flyer Information	< frequentFlyer > array

Name	Description	Schema
id <i>required</i>	Passenger ID referenced from query Pattern : " <code>^(\\S*)\$</code> " Example : "Passenger1"	string
type <i>optional</i>	IATA Passenger Code Pattern : " <code>^[A-Z]([A-Z0-9]){2}\$</code> " Example : "ADT"	string

3.3.1.2.1 Frequent Flyer Account Information

Name	Description	Schema
accountNumber <i>required</i>	Account Number Pattern : " <code>^(\\S){0,64}\$</code> " Example : "123456789"	string
airline <i>required</i>	Airline Code Pattern : " <code>^[A-Z0-9]{2}\$</code> " Example : "VA"	string
programCode <i>optional</i>	Program Code Pattern : " <code>^(\\S){0,64}\$</code> " Example : "PLT/SPH"	string
programName <i>optional</i>	Program Name Pattern : " <code>^.{0,64}\$</code> " Example : "ADVANTAGE PLATINUM"	string
provider <i>optional</i>	Name of the organization providing loyalty program Pattern : " <code>^(\\S){0,64}\$</code> " Example : "1234"	string
signInID <i>optional</i>	Loyalty program Sign in id or user name Pattern : " <code>^(\\S{0,64})\$</code> " Example : "1234"	string
tierCode <i>optional</i>	Tier Code Pattern : " <code>^(\\S){0,64}\$</code> " Example : "tCode"	string
tierName <i>optional</i>	Tier Name Pattern : " <code>^(\\S){0,64}\$</code> " Example : "tName"	string
tierPriority <i>optional</i>	Tier Priority Text. Loyalty Program Priority within the tier. Pattern : " <code>^(\\S){0,64}\$</code> " Example : "PLATINUM"	string

3.3.2 Offer Item Sets to be Priced Together

Name	Description	Schema
formOfPayment <i>optional</i>	Reference to a Form of Payment information Default : "1" Pattern : "^ (\\S*) \$" Example : "1" - FormOfPayment_1"	string
offerItemId <i>required</i>	Offer Items to be priced together	< string > array
passengerId <i>optional</i>	Reference(s) to passenger(s) information applicable to a given offer items set	< string > array

3.3.3 Parameters Introduced to the Response Schema

Name	Description	Schema
id <i>optional</i>	Pricing Response ID Pattern : "^ [a-zA-Z0-9] * \$" Example : "bejq23zanr1"	string
messages <i>optional</i>	Warning, error and other messages generated by the system	< messages > array
response <i>optional</i>	Priced Offers	response
version <i>required</i>	The Version Schema Pattern : "^ [0-9\\.]* \$" Example : "0.0.0"	string
id <i>optional</i>	Pricing Response ID Pattern : "^ [a-zA-Z0-9] * \$" Example : "bejq23zanr1"	string
messages <i>optional</i>	Warning, error and other messages generated by the system	< messages > array
response <i>optional</i>	Priced Offers	response
version <i>required</i>	The Version Schema Pattern : "^ [0-9\\.]* \$" Example : "0.0.0"	string

3.3.3.1 Messages

Name	Description	Schema
Code <i>required</i>	Message code Example : 404	integer
message <i>required</i>	Message itself Pattern : " <code>^(.*)\$</code> " Example : "Failed to retrieve response from external service"	string
service <i>required</i>	Processing step during which message was created Pattern : " <code>^(\\w)*\$</code> " Example : "OFFER_STORE_PUT"	string
system <i>required</i>	Service from where message originated Pattern : " <code>^[A-Z]{0,20}\$</code> " Example : "OFFERSTORE"	string
type <i>required</i>	Type of message describing its severity ERROR/WARNING/INFO Pattern : " <code>^[A-Z]{0,7}\$</code> " Example : "ERROR"	string

3.3.3.2 Response

Name	Description	Schema
offers <i>required</i>	The Offers Schema	< offers > array

3.3.3.2.1 Offers

Name	Description	Schema
commission <i>required</i>	commission	commission
id <i>required</i>	Offer ID Pattern : " <code>^(-[0-9])\$</code> " Example : "bejq23zanr0-1"	string
offerExpirationDateTime <i>required</i>	Exact date time at which offer expires Pattern : " <code>^([12]\\d{3})-(0[1-9] 1[0-2])-(0[1-9] 1[0-2] 12\\d 3[01])T([1]{0,1}[0-9]{1} [2][0-3])(:[0-5][0-9]){2}Z?\$</code> " Example : "2018-12-24T10:37:56Z'"	string

Name	Description	Schema
offerItems <i>required</i>	Offer Items	< offerItems > array
paymentTimeLimitDateTime <i>optional</i>	The Paymenttimelimitdatetime Schema Pattern : "(^ ([12]\\d{3})-(0[1-9] 1[0-2])-(0[1-9] 12 3[01]))T([1]{0,1}[0-9]{1} [2][0-3])(:[0-5][0-9]){2}Z\$" Example : "null"	string
purchaseTimeLimitDateTime <i>optional</i>	The Purchasetimelimitdatetime Schema Pattern : "(^ ([12]\\d{3})-(0[1-9] 1[0-2])-(0[1-9] 12 3[01]))T([1]{0,1}[0-9]{1} [2][0-3])(:[0-5][0-9]){2}Z\$" Example : "2018-12-28T23:59:59Z"	string
Source <i>required</i>	Identifies the source of the content for the given offer. Example : "NDC, ATPCO, LCC"	Source
totalPrice <i>required</i>	Total price of an offer	totalPrice
ttl <i>required</i>	Time To Live in seconds Pattern : "[0-9]+\$" Example : "1200"	string

3.3.3.2.2 Commission

Name	Description	Schema
Amount <i>optional</i>	commission amount Pattern : "^\.\d{0-9}\$" Example : "0.00"	string
percentage <i>optional</i>	commission percentage Pattern : "^\.\d{0-9}\$" Example : "0.00"	string

3.3.3.2.3 OfferItems

Name	Description	Schema
id <i>required</i>	The Id Schema Pattern : "^[0-9]{2}\$" Example : "bejq23zanr0-1-1"	string
passengers <i>required</i>	Offer Item split by passengers	< passengers > array

3.3.3.2.4 Passengers

Name	Description	Schema
baggage <i>optional</i>	Fare Components	Baggage
fareComponents <i>required</i>	Fare Components	< fareComponents > array
fees <i>optional</i>	Fare fees	< fees > array
id <i>required</i>	Unique identifier of a passenger Pattern : " <code>^(\\w)*\$</code> " Example : "Passenger1"	string
price <i>required</i>	Price information for a passenger	price
ptc <i>required</i>	Iata PAX Type used in Pricing Pattern : " <code>^[A-Z][A-Z0-9]{2}\$</code> " Example : "ADT"	string
requestedPtc <i>required</i>	IATA PAX Type requested Pattern : " <code>^[A-Z][A-Z0-9]{2}\$</code> " Example : "ADT"	string
services <i>optional</i>		Services

3.3.3.2.5 FareComponents

Name	Description	Schema
brand <i>optional</i>	Brand information	brand
fareBasis <i>required</i>	Information about fare applied	fareBasis
price <i>required</i>	Price information of a given fare component	price
segments <i>required</i>	Flight segments covered by a fare component	< segments > array

3.3.3.2.6 Brand

Name	Description	Schema
brandName <i>required</i>	Brand name Pattern: " <code>^(.*)\$</code> " Example: "ECONOMY FULLY FLEX"	string
code <i>required</i>	Brand code Pattern: " <code>^[A-Z0-9]{2,10}\$</code> " Example: "ECONFLEX"	string
programCode <i>required</i>	Identifier of a brand program a given brand is part of Pattern: " <code>^[A-Z0-9]{1,10}\$</code> " Example: "CFFBA"	string

3.3.3.2.7 FareBasis

Name	Description	Schema
cabinType <i>required</i>	Travel class	cabinType
fareBasisCityPair <i>required</i>	Origin + Destinatin + Carrier code Pattern: " <code>^[A-Z]{6}[A-Z0-9]{2}\$</code> " Example: "WAWLASBA"	string
fareBasisCode <i>required</i>	alphabetic or alpha-numeric code used by airlines to identify a fare type and allow to find the rules applicable to that fare Pattern: " <code>^[A-Z][A-Z0-9/]+\$</code> " Example: "Y1N0C9M0"	string
rbd <i>required</i>	Reservation Booking Designator Pattern: " <code>^(§) [A-Z]{1}\$</code> " Example: "B"	string

3.3.3.2.8 CabinType

Name	Description	Schema
cabinTypeCode <i>required</i>	Cabin code Pattern: " <code>^[A-Z]\$</code> " Example: "Y"	string
cabinTypeName <i>required</i>	Cabin name Pattern: " <code>^(.*)\$</code> " Example: "ECONOMY"	string

3.3.3.2.9 Price

Name	Description	Schema
baseAmount <i>required</i>	Base amount	baseAmount
taxes <i>required</i>	Taxes applied to a fare component	taxes
totalAmount <i>required</i>	Total price of a fare component	totalAmount

3.3.3.2.10 BaseAmount

Name	Description	Schema
amount <i>required</i>	The Amount Schema Pattern : " <code>^\.\d{0-9}\$</code> " Example : "2656.00"	string
curCode <i>required</i>	The Curcode Schema Pattern : " <code>^[A-Z]{3}\$</code> " Example : "PLN"	string

3.3.3.2.11 Taxes

Name	Description	Schema
breakdown <i>required</i>	Detailed information about taxes applied	< breakdown > array
total <i>required</i>	Total tax amount	total

3.3.3.2.12 Breakdown

Name	Description	Schema
amount <i>required</i>	Tax amount	amount
description <i>required</i>	Tax description Pattern : " <code>^(.*)\$</code> " Example : "PASSENGER SERVICE CHARGE DEPARTURES"	string
nation <i>optional</i>	Country code Pattern : " <code>(^ [A-Z]{2})\$</code> " Example : "GB"	string

Name	Description	Schema
taxCode <i>required</i>	Tax code Pattern: " <code>^[A-Z][0-9A-Z]{1,2}\$</code> " Example: "UB"	string

3.3.3.2.13 Amount

Name	Description	Schema
amount <i>required</i>	The Amount Schema Pattern: " <code>^\.\.[0-9]\$</code> " Example: "29.90"	string
curCode <i>required</i>	The Curcode Schema Pattern: " <code>^[A-Z]{3}\$</code> " Example: "USD"	string

3.3.3.2.14 Total

Name	Description	Schema
amount <i>required</i>	Amount Pattern: " <code>^\.\.[0-9]\$</code> " Example: "81.13"	string
curCode <i>required</i>	Currency code Pattern: " <code>^[A-Z]{3}\$</code> " Example: "PLN"	string

3.3.3.2.15 TotalAmount

Name	Description	Schema
amount <i>required</i>	Total amount Pattern: " <code>^\.\.[0-9]\$</code> " Example: "2749.13"	string
curCode <i>required</i>	Currency Code Pattern: " <code>^[A-Z]{3}\$</code> " Example: "PLN"	string

3.3.3.2.16 Segments

Name	Description	Schema
arrival <i>optional</i>	Arunk indicator	ArnkInd

Name	Description	Schema
arrival <i>required</i>	Arrival location and time	arrival
cabinType <i>optional</i>	Cabin type	CabinType
departure <i>required</i>	Departure location and time	departure
id <i>required</i>	Unique segment's reference name Pattern: " <code>^([\w-] *\$ "</code> Example: "PAX_SGMNT-1"	string
services <i>optional</i>	The Services Schema	< services > array
rbd <i>optional</i>	Booking Code	RBD

3.3.3.2.17 Arrival

Name	Description	Schema
Airport <i>required</i>	Airport code Pattern: " <code>^[A-Z]{3}\$ "</code> Example: "LHR"	ArnkInd
date <i>required</i>	The date Schema Pattern: " <code>^([12]\\d{3}-(0[1-9] 1[0-2])-(0[1-9] 12 3[01]))T([1]{0,1}[0-9]{1} [2][0-3])(:[0-5][0-9]){2}Z?\$ "</code> Example: "2019-01-24T14:30:00"	arrival

3.3.3.2.18 Departure

Name	Description	Schema
airport <i>required</i>	Airport code Pattern: " <code>^[A-Z]{3}\$ "</code> Example: "WAW"	string
date <i>required</i>	The Date Schema Pattern: " <code>^([12]\\d{3}-(0[1-9] 1[0-2])-(0[1-9] 12 3[01]))T([1]{0,1}[0-9]{1} [2][0-</code>	string

Name	Description	Schema
	3]) (: [0-5] [0-9]) {2}z?.\$" Example: "2019-01-24T12:45:00'"	

3.3.3.2.19 fees

Name	Description	Schema
airline <i>optional</i>	Airline Identifier Example: "QF"	string
arrivalCity <i>optional</i>	Arrival City Example: "DFW"	string
boardCity <i>optional</i>	Boarding City Example: "KRX"	string
cardInfo <i>optional</i>	Card Info	cardInfo
fareAmount <i>optional</i>	Total fare fee amount	fareAmount
localAmount <i>optional</i>	Fee local amount	localAmount
maxChargeAmount <i>optional</i>	Max charge amount	maxChargeAmount
nature <i>optional</i>	Fee Nature Example: "OBFCA"	string
noChargeIndicator <i>optional</i>	No Charge Indicator Pattern: "^. \$"	string
percentageAmount <i>optional</i>	Fee Percentage Amount	maxChargeAmount
surchargeType <i>optional</i>	Surcharge type Example: "NNN"	string

3.3.3.2.20 cardInfo

Name	Description	Schema
binNumber <i>optional</i>	Card bin Number Example: "545250"	string

Name	Description	Schema
chargeAmount <i>required</i>	Card Charge Amount Example : " 5 . 60 "	string

3.3.3.2.21 fareAmount

Name	Description	Schema
amount <i>required</i>	Total amount Pattern : "^\\.[0-9]\$" Example : "2749.13"	string
curCode <i>required</i>	Currency Code Pattern : "^ [A-Z] {3} \$" Example : "USD"	string

3.3.3.2.22 localAmount

Name	Description	Schema
amount <i>required</i>	Total amount Pattern : "^\\.[0-9]\$" Example : "2749.13"	string
curCode <i>required</i>	Currency Code Pattern : "^ [A-Z] {3} \$" Example : "USD"	string

3.3.3.2.23 maxChargeAmount

Name	Description	Schema
amount <i>required</i>	Total amount Pattern : "^\\.[0-9]\$" Example : "2749.13"	string
curCode <i>required</i>	Currency Code Pattern : "^ [A-Z] {3} \$" Example : "USD"	string

3.3.3.2.24 percentageAmount

Name	Description	Schema
amount <i>required</i>	Total amount Pattern: " <code>^\.\d{0-9}\$</code> " Example: "2749.13"	string
curCode <i>required</i>	Currency Code Pattern: " <code>^[A-Z]{3}\$</code> " Example: "USD"	string

3.3.3.2.25 Price

Name	Description	Schema
baseAmount <i>required</i>	Base amount	baseAmount
taxes <i>required</i>	Tax summary information, including total tax amount.	taxes
totalAmount <i>required</i>	Total passenger's fare	totalAmount

3.3.3.2.26 BaseAmount

Name	Description	Schema
amount <i>required</i>	Amount Pattern: " <code>^\.\d{0-9}\$</code> " Example: "24765.00"	string
curCode <i>required</i>	Currency code Pattern: " <code>^[A-Z]{3}\$</code> " Example: "PLN"	string

3.3.3.2.27 Taxes

Name	Description	Schema
breakdown <i>required</i>	Detailed information about taxes applied	< breakdown > array
total <i>required</i>	Total tax monetary amount	total

3.3.3.2.28 Breakdown

Name	Description	Schema
amount <i>required</i>	A compulsory contribution to state revenue, levied by the government on workers' income and business profits or added to the cost of some goods, services, and transactions.	amount
description <i>required</i>	Tax Description Pattern: <code>"^(.*)\$"</code> Example: "AIRPORT TAX"	string
nation <i>optional</i>	Country Code Pattern: <code>"(^[A-Z]{2})\$"</code> Example: "US"	string
taxCode <i>required</i>	Tax Code Pattern: <code>"^[A-Z][0-9A-Z]{1,2}\$"</code> Example: "YQF"	string

3.3.3.2.29 Amount

Name	Description	Schema
amount <i>required</i>	Tax amount Pattern: <code>"^\.\.[0-9]\$"</code> Example: "5.70"	string
curCode <i>required</i>	The Curcode Schema Pattern: <code>"^[A-Z]{3}\$"</code> Example: "USD"	string

3.3.3.2.30 Total

Name	Description	Schema
amount <i>required</i>	Tax amount Pattern: <code>"^\.\.[0-9]\$"</code> Example: "402.53"	string
curCode <i>required</i>	Currency code Pattern: <code>"^[A-Z]{3}\$"</code> Example: "USD"	string

3.3.3.2.31 TotalAmount

Name	Description	Schema
amount <i>required</i>	The Amount Schema Pattern: <code>"^\.\.[0-9]\$"</code> Example: "6992.53"	string

Name	Description	Schema
curCode <i>required</i>	Currency code Pattern : " <code>^[A-Z]{3}\$</code> " Example : "NUC"	string

3.3.3.2.32 TotalPrice

Name	Description	Schema
baseAmount <i>required</i>	Base Amount excluding taxes, fees, and surcharges	baseAmount
equivAmount <i>optional</i>	Base amount in requested currency	equivAmount
totalAmount <i>required</i>	Total amount	totalAmount
totalTaxes <i>required</i>	Total tax amount applied to offer	totalTaxes

3.3.3.2.33 BaseAmount

Name	Description	Schema
amount <i>required</i>	Amount Pattern : " <code>^\.\d{0-9}\$</code> " Example : "24765.00"	string
curCode <i>required</i>	Currency code Pattern : " <code>^[A-Z]{3}\$</code> " Example : "PLN"	string

3.3.3.2.34 EquivAmount

Name	Description	Schema
amount <i>required</i>	The Amount Schema Pattern : " <code>^\.\d{0-9}\$</code> " Example : "6590.00"	string
curCode <i>required</i>	The Curcode Schema Pattern : " <code>^[A-Z]{3}\$</code> " Example : "USD"	string

3.3.3.2.35 TotalAmount

Name	Description	Schema
amount <i>required</i>	Amount Pattern : " <code>^\.\d{0-9}\$</code> " Example : "6992.53"	string
curCode <i>required</i>	Currency code Pattern : " <code>^[A-Z]{3}\$</code> " Example : "USD"	string

3.3.3.2.36 TotalTaxes

Name	Description	Schema
amount <i>required</i>	Amount Pattern : " <code>^\.\d{0-9}\$</code> " Example : "402.53"	string
curCode <i>required</i>	The Curcode Schema Pattern : " <code>^[A-Z]{3}\$</code> " Example : "USD"	string

3.3.3.2.37 RBD

Name	Description	Schema
RBD	Reservation Booking Designator	string

3.3.3.2.38 Services

Name	Description	Schema
name <i>required</i>	Service name Pattern : " <code>^(.*)\$</code> " Example : "CHANGE AFTER DEPARTURE"	string
reasonForIssuanceSubCode <i>optional</i>	IATA ancillary subcode Pattern : " <code>^[0-9A-Z]{3,7}\$</code> " Example : "06J"	string
segments <i>optional</i>		< string > array
serviceCode <i>optional</i>	IATA ancillary group code Pattern : " <code>^[A-Z0-9]*\$</code> " Example : "BF"	string

• • •

4.1 Introduction

This chapter includes the following:

- Error messages (see this page).
- Status codes (see “Status Codes,” page 4-7).

4.2 Error Messages

This section includes the following:

- Sample response with an error message returned (see this page).
- API specific errors (see “API Specific Errors,” page 4-2).
- REST API common errors (see “REST API Common Errors,” page 4-3).

4.2.1 Sample Response with an Error Message Returned

An example with an error message returned when OfferPrice failed to retrieve a response from an external service:

In the object, you can see the type of message, the additional description (a short message that should be the hint for the root cause), the error status code, and the name of the service that returned the error message.

Example with “Failed to retrieve response from external service” error message:

```
"messages": [  
  {  
    "type": "ERROR",  
    "additionalDescription": "Not Found",  
    "message": "Failed to retrieve response from external service",  
    "code": 404,  
    "service": "OFFER_STORE_GET"  
  }  
]
```

Example with “Timeout external service” error message:

```
"messages": [  
  {  
    "type": "ERROR",  
    "additionalDescription": null,  
    "message": "Timeout external service",  
    "code": 504,  
  }  
]
```

```
    "service": "ATSE_PRICING"
  }
],
```

Example with “Invalid ATK token provided in the header” error message:

```
"messages": [
  {
    "type": "ERROR",
    "additionalDescription": "$.query[0].offerItemId[0]: does not match
the regex pattern ^(\S*)-([0-9]+)-([0-9])+$",
    "message": "Invalid request header or body format",
    "code": 400,
    "service": "OFFER_PRICING"
  }
]
```

4.2.1.1 List of the Allowed Services

The list with the allowed services values that can return error messages:

- OFFER_STORE_GET
- OFFER_STORE_ID
- ATSE_PRICING
- LCC_PRICING
- NDC_CONNECTOR
- OFFER_STORE_PUT
- OFFER_PRICING
- GET_ATK_CREDENTIALS
- DESTROY_SESSION

4.2.2 API Specific Errors

#	Error	Cause	Resolution
1	Internal PDC service error HTTP Status code:500	Processing failed internally in the Offer Price module.	Retry your request.

#	Error	Cause	Resolution
2	Failed to retrieve response from external service HTTP Status code:404	Offer Price could not retrieve the valid offer from the OfferStore for specific offerItemId.	Retry your request.
3	Timeout external service HTTP Status code:504	Offer Price could not retrieve the response from external service in the expected processing time.	1. Retry your request. 2. If error persists, contact Sabre support.
4	Invalid request header or body format HTTP Status code:400	Offer Price request or the header is not valid in terms of schema validation.	1. Please correct header/body request. 2. Retry your request.
5	Invalid authentication header HTTP Status code:403	Invalid ATK token provided in the header.	1. Please correct the ATK Token header. 2. If error persists, contact Sabre support.
6	Could not destroy ICE Session HTTP Status code:410	Offer Price couldn't close the session created during the ATK to ATH conversion.	Retry your request.

4.2.3 REST API Common Errors

Note REST APIs: Verify your token credentials were set up correctly.

#	HTTP Status Code	Message	Text	Resolution
1	400	Bad Request	Invalid format for request	1. Verify your request includes valid parameters or values. 2. Verify the grant_type in the request payload.
2	400		ERR.2SG.CLIENT.INVALID_REQUEST	Verify your request includes valid parameters or values. Check API documentation.
3	401	Unauthorized	Not authorized to make this request. Check access level and	Verify your token credentials.

#	HTTP Status Code	Message	Text	Resolution
			refer to API documentation for access information.	
4	401	Unauthorized	invalid_client	Verify your token credentials.
5	401	Unauthorized	Credentials are missing or the syntax is not correct	Verify your base64-encoded token credentials were constructed properly.
6	401	Unauthorized	Wrong clientID or clientSecret	Verify password for the client ID.
7	401	Unauthorized	ERR.2SG.SEC.MISSING_CREDENTIALS	Verify you are using the correct data type.
8	401	Unauthorized	ERR.2SG.SEC.INVALID_CREDENTIALS	Verify your token credentials.
9	403	Forbidden	Request is for a resource that is forbidden	<ol style="list-style-type: none"> 1. Verify your token credentials allow authorization to call this API. 2. Contact your Sabre account manager to verify access.
10	403		ERR.2SG.SEC.NOT_AUTHORIZED	<ol style="list-style-type: none"> 1. Verify your token credentials allow authorization to call this API. 2. Contact your Sabre account manager to verify access.
11	403		ERR.2SG.CLIENT.SERVICE_UNKNOWN	<ol style="list-style-type: none"> 1. Verify URL is valid. 2. Verify whether your request is required segments, such as a version number. Check API documentation.

#	HTTP Status Code	Message	Text	Resolution
12	404	Not Found	Response does not contain any data	<ol style="list-style-type: none"> 1. No data found to fulfill the request. You might need to consider using fewer parameters/filters. 2. URL has missing segments, such as a version number. Check API documentation. 3. Verify URL is valid. Check API documentation.
13	405	Method Not Allowed		Method is not valid or authorized for this endpoint. Check API documentation.
14	406	Not Acceptable	Requested resource is only capable of generating content not acceptable according to the Accept headers sent in the request.	
15	413		ERR.2SG.CLIENT.INVALID_REQUEST	<ol style="list-style-type: none"> 1. Request URL too long. 2. Reduce the number of request parameters in the URL. Separate parameters into multiple requests.
16	413	FULL head		<ol style="list-style-type: none"> 1. Request URL too long. 2. Reduce the number of request parameters in the URL. Separate parameters into multiple requests.
17	429	too many requests	temporarily_unavailable	<ol style="list-style-type: none"> 1. Internal limit has been exceeded. 2. Wait at least 500 milliseconds and resend the request.

#	HTTP Status Code	Message	Text	Resolution
18	429	Throttled	Active token count is exceeded	<ol style="list-style-type: none"> 1. Maximum number of concurrent requests for the API have been exceeded. Contact your Sabre account manager to determine or increase your allocated concurrent request limit for this API. 2. Wait at least 500 milliseconds and resend the request.
19	429		ERR.2SG.GATEWAY.REQUEST_THROTTLED	<ol style="list-style-type: none"> 1. Maximum number of concurrent requests for the API have been exceeded. Contact your Sabre account manager to determine or increase your allocated concurrent request limit for this API. 2. Wait at least 500 milliseconds and resend the request.
20	500	Server Error		<ol style="list-style-type: none"> 1. API encountered an unexpected condition that prevented it from fulfilling the client's request. 2. Wait at least 500 milliseconds and resend the request.
21	500		ERR.2SG.SEC.INTERNAL_PROCESSING_ERROR	<ol style="list-style-type: none"> 1. API encountered an unexpected condition that prevented it from fulfilling the client's request. 2. Wait at least 500 milliseconds and resend the request.
22	500		ERR.2SG.GATEWAY.TIMEOUT	Wait at least 500 milliseconds and resend the request.
23	500		ERR.2SG.GATEWAY.INTERNAL_PROCESSING_ERROR	Wait at least 500 milliseconds and resend the request.

#	HTTP Status Code	Message	Text	Resolution
24	500		ERR.2SG.GATEWAY.INVALID_PROVIDER_RESPONSE	<ol style="list-style-type: none"> 1. The server cannot understand the response of the service because of bad format or failure to comply with protocol. Contact the Sabre support desk. 2. Wait at least 500 milliseconds and resend the request.
25	500		ERR.2SG.GATEWAY.PROVIDER_CONNECTION_ERROR	<ol style="list-style-type: none"> 1. Your request encountered a transport error. 2. Wait at least 500 milliseconds and resend the request.
26	503	Service Unavailable	Server is currently unavailable. Please try again later and report if problem persists.	Wait at least 500 milliseconds and resend the request.
27	504	Gateway Timeout	Server timed out trying to fulfill request. Please try again later and report if problem persists.	Wait at least 500 milliseconds and resend the request.

4.3 Status Codes

RESTful services use HTTP status codes to provide the result status of the executed service. For example, 200 for success, 404 when a resource is not found.

HTTP status codes are defined by section [10 of RFC 2616](#). The Internet Assigned Numbers Authority (IANA) maintains the official [registry of HTTP status codes](#).

Range	Meaning
2xx	Successful operation. Indicates that a request was successful, of which can succeed in multiple ways.
4xx	Client-side error. Usually, it indicates that there was a problem with the data sent in the request, but can also indicate infrastructure-related issues, e.g. authentication, throttling. In most cases the client can modify their request and resubmit.
5xx	Server-side error. Indicates a valid request was sent by the client, but it could not be processed due to software defects or external conditions like downline system unavailability. 5xx range status codes should not be utilized for validation or logical error handling.

• • •

Glossary

Term	Description
2SG	2nd Generation Services Gateway
ATPCO	Airline Tariff Publishing Company
BFM	Bargain Finder Max
CPA	City Pair Availability
IATA	International Air Transport Association
LCC	Low Cost Carriers
NDC	New Distribution Capability, IATA xml communication standard.
OTA	Online Travel Alliance
USG	Universal Service Gateway

• • •