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# About the AIDM

## Overview

IATA's Airline Industry Data Model (AIDM) is an infrastructure that see the upgrade of our messaging standards development capability.

It aims to become a single point of access to store structured information including:

- Industry-agreed vocabulary
- Data definitions and their relationships
- Related business requirements

Each message development project can easily leverage existing models developed by other standards groups to generate interoperable messaging standards faster and with higher quality.

## What is the AIDM?

### Approach

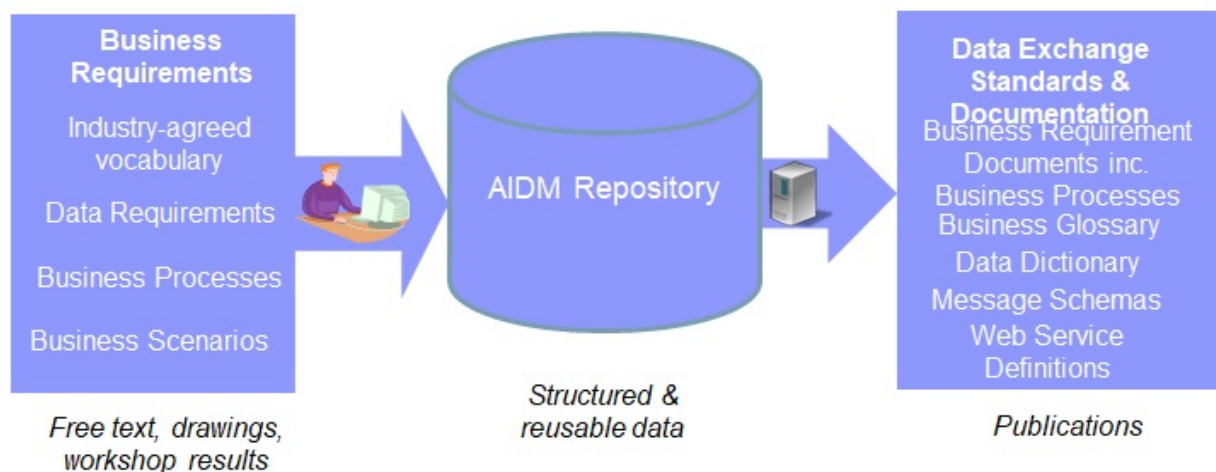
- Capability enabling new standards development and subsequent maintenance for airline industry data exchanges
- One living model, shared by projects, with defined structure and behavior enabling the automated model-driven generation of data exchange specifications
- Users of the model can view, extend and adapt definitions contained in the model

### Benefits

- + Increased consistency of definitions and format
- + Faster development of new standards
- + Faster deployment of new standards
- + Breaking down silos

## The AIDM Process

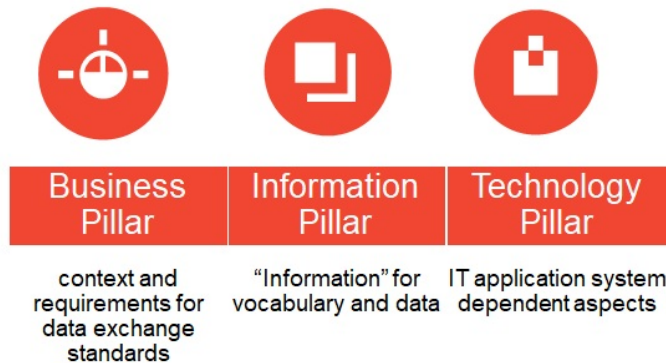
All Information in one repository with rigorous structure and rich inputs and outputs





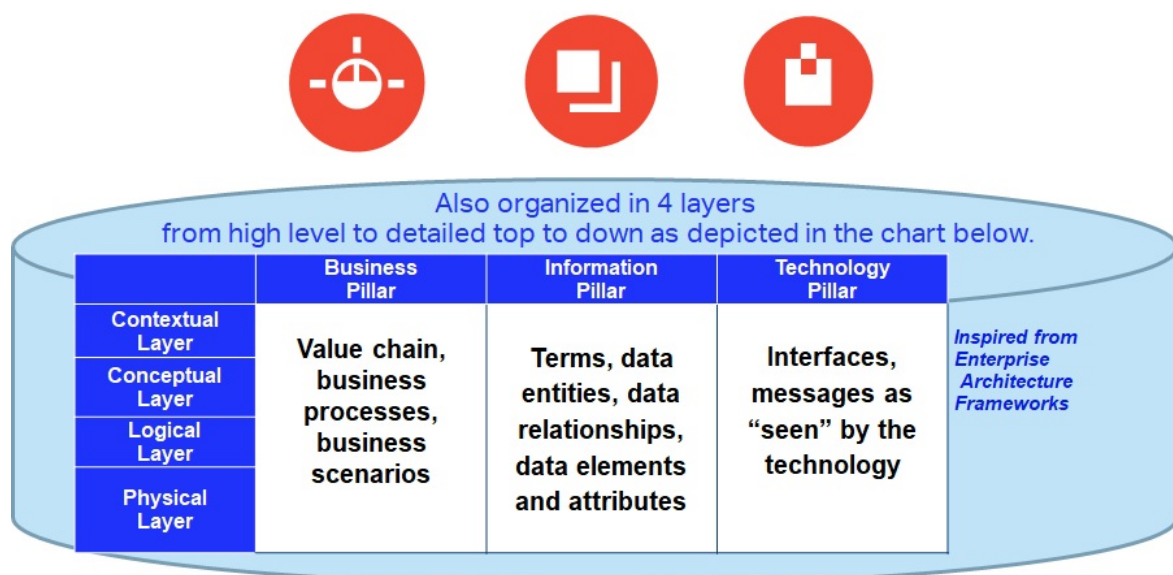
# Repository Partitioning

## Repository contents organized in 3 pillars



- Different Pillars enabling to handle the big variety of contents, from business architecture to Information and Technology models, and their shared nature across many users, a rigorous internal organization of the repository.

## Also organized in 4 layers



- Different Layers to include 3 technology platform-independent layers at the higher levels, and the Physical, platform-specific layer(e.g. XSD-specific layer whose models are automatically generated from the previous layers).
- For a given pillar, it is suggested to model layers top-down, modelling high level before full detail, and platform-independent business models before platform-specifics
- Each model artifact will be located in a specific pillar and layer.



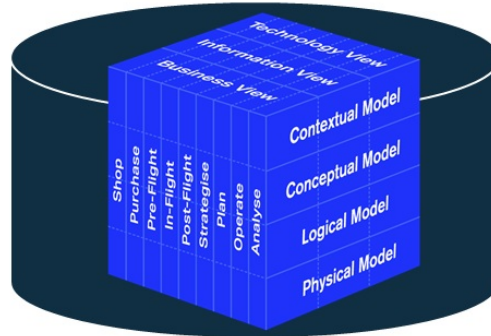
# AIDM Repository partitioning

Models in the pillars and layers can be viewed through different “stakeholder views”,

- which filter elements meaningful to operational responsible of Airline Value Chain Primary Activities.

The choice of a stakeholder view is driving what and how to view, not how the models are transformed and generated.

Showing the stakeholder views on the left side, the repository can be visualized as a cube.



- the AIDM also needs to be able to offer differentiated views ( often diagrams ) to various stakeholders, introducing a 3rd dimension

## View the Models

### AIDM Navigator

AIDM can be navigating from the links below. The table consists of short names used for EA repository partition packages and modelling guideline document names

|                  | Business Pillar   | Information Pillar  | Technology pillar   |
|------------------|---|---|---|
| Contextual Layer | <b>B1</b><br>Value Chain,<br>Participants Catalog                 | <b>I1</b><br>Business Glossary,<br>Information Domains,<br>Subject Areas          |   |
| Conceptual Layer | <b>B2</b><br>2nd+ Level Business<br>Process, Business<br>Messages |   |   |
| Logical Layer    | <b>B3</b><br>Use Cases, User<br>Stories, Business<br>Scenarios    | <b>I3</b><br>Logical Information<br>Models<br>(Data Entities & All<br>Attributes) | <b>T3</b><br>Sequence Diagrams,<br>State Machine<br>Diagrams, Logical<br>Message Data<br>Models |
| Physical Layer   |   | <b>I4</b><br>XML Library Shema<br>Model<br>(complex types)                        | <b>T4</b><br>Platform-specific<br>Message Schema<br>Models, WSDL<br>diagrams                    |

# AIDM Getting Access to the Modeling Repository

**Before getting access, it will be worthwhile understanding the following aspects :**

The AIDM model resides in one central repository

The modeling tool used is “Enterprise Architect” (EA) from Sparx Systems,

The EA software needs to be installed on the user’s workstation, in an MS Windows environment,

The AIDM repository is located on a server in the cloud, accessed from the work-station EA software through http,

For read-only users, Sparx offers a version called EA Lite, free of license. We recommend EA Lite for reviewers of AIDM who do not intend to create or modify models in EA,

Users intending to create or modify or export models in/from EA need to install the full EA product, requiring a license. Unless they already have a license, IATA will allocate one from a set of keys provided for free by Sparx, for the purpose of contributing to the AIDM.

## Steps to get access

1. Decide if you need update or read access,
2. If applicable (see above lines), get a license key from the AIDM Administrator,
3. Install EA on your workstation,
4. Get an EA user-id and connection info from the AIDM Administrator,
5. If looking at work in progress, get briefed on where to find what.

## Downloading EA and getting a user-id

**To install EA :**

EA Lite can be downloaded and installed directly from the Sparx web page :

<http://www.sparxsystems.com>, latest version 15.1

<https://www.sparxsystems.com/products/ea/15.1/index.html>

Note : installation takes about 1 hour, and requires admin rights to your workstation.

*Contact the AIDM Administrator to create a user-id (xxxxx) for you to access the repository with the activation code. Note that even with EA full, the user may have either update or read-only rights depending on your current needs.*

If you already have EA on your workstation (because it’s used in your company) :

If you already have version 13.5 or higher, and Corporate Edition, then just use it to access the AIDM, Otherwise you can either upgrade or have two versions of EA co-installed on the same workstation ; our AIDM Administrator can tell you how.

## To access the cloud repository :

1. On the EA Start Page : click on “Connect to Cloud”
2. On the Cloud Connection window : Name= <enter a name that has meaning to you; anything will do> URL= <https://datamodel.iata.org> ; ModelName= datamodel ; can leave UserName & Password empty
3. On the Login to EA Repository window : UserID=xxxxx; Password=12345
4. Inside EA: you may then want to change your password.

Cloud Connection ✕

Name:

Protocol:  Server:  Port:

Model Name:

## Get involved

### Who uses the AIDM?

*Shorten and add to "About AIDM"*

The AIDM and associated methodology is used by all standards groups under the governance of [IATA Passenger Standards Conference \(PSC\)](#) in their pursuit of modern data exchange standards.

Since its initial release in early 2016, a number of industry projects have used the AIDM to deliver new messaging standards or align existing standards to the common concepts stored in the integrated model.

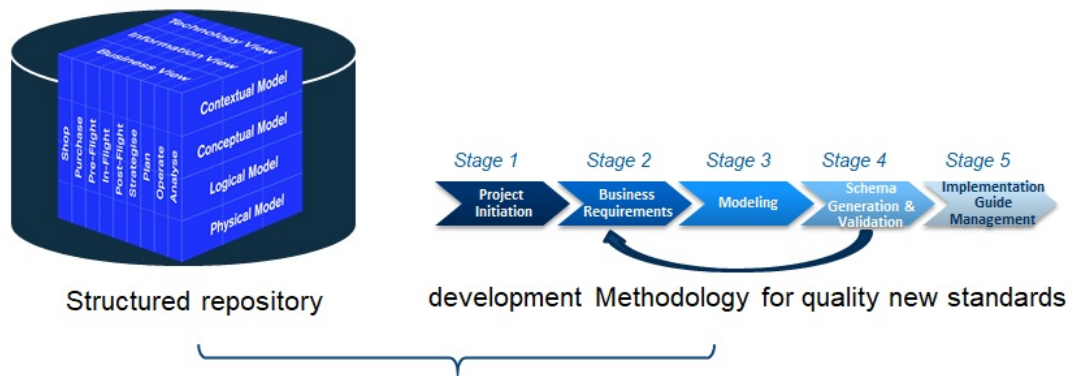
The AIDM can also be used by airline industry IT system developers leveraging AIDM contents as a starting point for data definitions while designing and implementing their companies' IT systems.

### What is in the AIDM?

*Remove and incorporate specific standards in introduction*

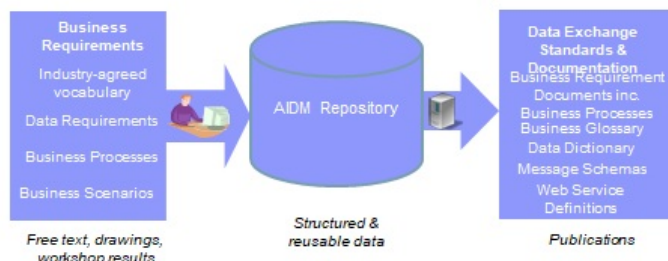
Many IATA data exchange standards are produced from the AIDM, including those for Baggage, Offers and Orders, Aircraft Load Control as well as Settlement with Orders, with several more in the pipeline.

## Two facets of the AIDM



- To be agile in the development of standards and future-proof **whatever the technology needs are;**
- provide users with formally modeled requirements, data and technical specifications;
  - maximize the re-use via platform-independent models'
  - provide interoperability across the industry.

# All information in one repository with rigorous structure and rich inputs and outputs



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## AIDM Models and users



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## Want to get involved?

*Expand to also link to SSW, ATSB, PSC activities - describe role of business Board*

We are keen to collect feedback about the industry methodology that is helping standards setting move into a modern age.

The AIDM and associate methodology is maintained by the [Architecture and Technology Strategy Board \(ATSB\)](#). If you are Data or Business Architect from IATA Member Airline or Strategic Partner and want to take part in integrating new models to the AIDM and evolving the modeling methodology, join your peers in ATSB groups on the [IATA Standards Setting Workspace](#).

Alternatively, please contact the [ATSB Secretary](#) for more information.

# AIDM Modeling and Technology Standards

## AIDM Modeling Guidelines and Technology Standards Documentation

These files contain the latest technical standards and best practices endorsed by the Architecture and Technology Strategy Board for passenger standards development. Included standards and best practices:

| Standard   | Description   |
|--|---|
| <a href="#">AIDM Modeling Guidelines</a>                       | <i>IATA rules and guidelines for the development of airline messaging standards in AIDM pillars (Business, Information, Technology) and layers 4 layers (Contextual, Conceptual, Logical, Physical). Separate guideline document do exist for each of the partitions defined by the pillar and layer.</i>   |
| <a href="#">AIDM Methodology Process Charts</a>                | <i>IATA Process charts that graphically organize modelling guidelines into sequences of activities</i>  |
| <a href="#">IATA XML Best Practices</a>                        | <i>IATA rules and guidelines for the production of XML schemas and messages</i>   |
| <a href="#">IATA Open Air API Standards and Best Practices</a> | <i>IATA rules and guidelines for the use of RESTful API technology in the airline industry, and an API ecosystem conformant to the standards</i>  |
| <a href="#">Reference Communication Model</a>                  | <b>*The Systems and Communications Reference (SCR) is a multi-volume set of documents which describes the protocols, standards and implementation issues related to inter system communications for the airline and aeronautical communities. It is the definitive reference for airlines, vendors, travel partners, network service providers and others who wish to participate in such inter-system communication. *</b> |

## AIDM Project and CR Templates

**Link to AIDM BRD and CR Templates documents per stage gate.**

[AIDM BRD and CR Templates](#)



# AIDM Training Details

## **Airline Industry Data Model (AIDM) Methodology and Tool (LIVE virtual classroom)**

Learn Airline Industry Data Model (AIDM) rationale, concepts, structure and methodology. The AIDM enables the generation of interoperable and easy to use messaging standards, with consistent definitions and format of data exchanges and faster time to market for new or changed data exchange standards. AIDM is an integrated living model, developed with SPARX Systems Enterprise Architect (EA), a powerful visual modeling platform. In AIDM, all information is stored in one repository. Users of the model can view, extend and adapt definitions contained in the model. You will learn how to navigate the AIDM and find parts of the model you can leverage for designing and implementing your companies' IT systems or data exchange components, as well as how to influence and tune AIDM repository contents and messaging standards generated.

## **Virtual Course Content**

[Airline Industry Data Model \(AIDM\) Methodology and Tool \(Virtual Classroom\)](#)

## **Physical Course Content**

[Airline Industry Data Model \(AIDM\) Methodology and Tool \(Classroom, 3 days\)](#)

# Introduction

## Welcome to the Enhanced and Simplified Distribution Guide

This website holds information and best practices to aid with implementations of Enhanced and Simplified Distribution. This site is managed by the Offer and Order Standard Setting Groups.

### Disclaimer

The information contained in this publication is subject to constant review in the light of changing government requirements and regulations. No reader should act on the basis of any such information without referring to applicable laws and regulations and/or without taking appropriate professional advice. Although every effort has been made to ensure accuracy, the International Air Transport Association shall not be held responsible for any loss or damage caused by errors, omissions, misprints or misinterpretation of the contents hereof. Furthermore, the International Air Transport Association expressly disclaims any liability to any person or entity in respect of anything done or omitted, by any such person or entity in reliance on the contents of this publication.

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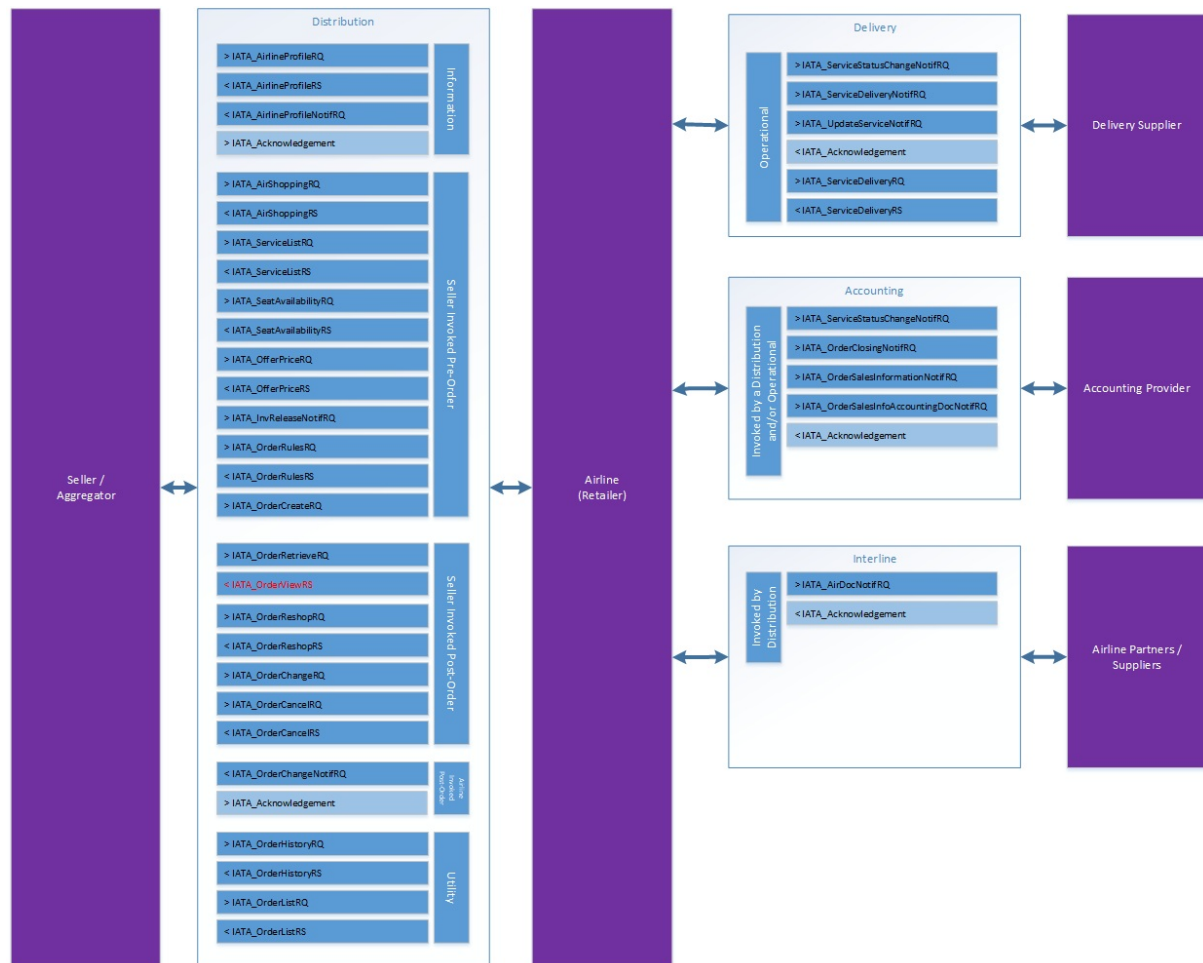
Senior Vice President, Marketing and Commercial Services  
International Air Transport Association  
800 Place Victoria, P.O. Box 113  
Montreal, Quebec, Canada H4Z 1M1

# Messages

## Overview

Enhanced and Simplified Distribution consist of a standard set of messages designed under Resolution 787 (Enhanced Distribution) and Resolution 797 (ONE Order).

Each message is used in an interaction with a concrete set of actors, as noted below, this Getting Started Guide briefly describes what each message does.



## Distribution Messages

### AirlineProfile

The Airline Profile schemas provide the ability for an Airline to communicate information to the Seller on a periodic basis with general information about the products and Services, or about that Airline.

With shopping requests, the Airline Profile provides information about what it is willing to receive and has the capability to respond to. These schemas are a way for an Airline to manage the volume of requests they receive and reduce queries it cannot fulfil.

Note the Airline Profile is not the equivalent of today's schedule – whilst it includes information about the routes an Airline will accept a shopping request for, the purpose of doing so is to avoid receiving unnecessarily large volumes of irrelevant requests.

An Airline's Profile is also available for consumption by other Airlines (ORAs), alongside Sellers and Aggregators, for interline requests. This is to help them decide which Airlines (POAs) to send a further shopping request to, where the ORA cannot fulfil the Seller/Aggregator's entire request with its own Services.

## **AirlineProfileNotif**

The Airline Profile schemas provide the ability for an Airline to communicate information to the Seller on a periodic basis with general information about the products and Services, or about that Airline.

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## **AirShopping**

The AirShopping transaction set supports both specific and flexible shopping experiences for anonymous or personalized shopping. Both functionally-rich attribute shopping and affinity shopping support date range or specific month (calendar) shopping, amongst other features.

The response returns Offers which may include branded or itinerary-priced Offers with or without ancillary Services. It also returns applicable rules for the integrated prices as well as for each Service. The message also returns multi-media content at message level as well as media references at the individual Offer level.

## **OfferPrice**

The OfferPrice transaction set may return two different sets of content. Based on request attributes, the response may initially provide additional à la carte ancillary services that are applicable and available for the selected Offer.

If no ancillary services are available, the message returns a final pricing. If ancillary services are available, the modified pricing request includes selected services and returns a final pricing that includes service(s) selection. The response message also returns multi-media content at the message level.

## **SeatAvailability**

The SeatAvailability transaction set returns data used to construct respective seat maps with fully integrated fees for any identified premium seats. The message also returns multi-media content at the message level with media content references at the individual Service level.

## **ServiceList**

The purpose of ServiceList is to return a list of all applicable ancillary services that meet the Sellers request qualifiers and flights. The message supports shopping for additional a la carte services to complement any selected Offer, as well as shopping for specialty service items not generally included in an initial Offer but rather based on service search filters, e.g. sports equipment specialty baggage and unaccompanied minor fees. The message also returns multi-media content at both the message and individual service levels identified in the Offer.

In a distribution context, this message is used by the Airline Offer and/or Order Management System to present relevant a la carte Offers to the Seller. For NDC interline, this message can be used to present POA Offers to the ORA. Within an Order Management System, the Airline could have external Service Providers, in which case this message can be used to provide relevant Offers from the Service Provider to the Airlines Offer/Order Management System.

## **OrderRules**

This message pair is used to query the airline and return information around fares, conditions, products and services including general compliance and regulatory information.

Note: Information returned within this message is not programmatically readable. Programmatically readable and relevant rule information for the Seller relating to Change and Cancel fees (for example) will be found within the relevant message where ever there is reference to an Offer or an Order. See Offer and Order Rules.

## **OrderReshop**

specified Order Items in an Order or for new shopping requests to add to an existing Order. The ORA responds with new Offers within the context of the existing Order. The response will include details of any additional collection or refund due against proposed changes (including a full cancellation).

## **OrderCreate**

OrderCreate is an outbound message from Seller/Aggregator to Airline (and ORA to POA if applicable) that contains the details of a selected Offer and is used to request the creation of an Order by the ORA (or POA). Within OrderCreate, full passenger information will be sent. Payment information may or may not be included within the request from Seller/Aggregator to ORA.

OrderView returns up to date contents of an Order such as pricing information, conditions, time limits, Order status and passenger information. When payment has been processed at the time of Order Creation it also includes the status of this and, where they have already been issued, at least accountable document references (and further accountable document data if required).

## **OrderChange**

The OrderChange transaction requests modifications to an Order by specifying which Order Items to change and which Offer Items to replace them with. When the ORA has applied the change, the updated view of the Order is returned.

## **OrderChangeNotif**

The OrderChangeNotif transaction sends an unsolicited notification of a voluntary or involuntary change to an Order.

### **OrderQuote**

The OrderQuote transaction (paired with the OrderReshopRS) is used only when an Order is present and used to quote the total price of the proposed change when additional ancillaries are requested on the changed itinerary.

### **OrderRetrieve**

The OrderRetrieve transaction retrieves a specified Order that matches the request identifier for the Order.

Order Retrieve is used to return an Order using a distinct criterion (such as Order ID, Booking Reloc, Document Number) and is not used to search for Orders. Other criteria within the request are used for validation purposes.

Order Retrieve is the only message that supports the request for an Order using something other than an Order ID, for example, a Booking Reloc or Document Number, from this point onwards. If PNR's (shaped as Orders) are used, the Airline shall return the Reloc within the Order ID field for Sellers.

### **OrderHistory**

The OrderHistory transaction set requests the transaction history and audit trail for a specified Order.

### **OrderList**

The OrderList transaction set retrieves a list of Orders that match one or more search criteria.

### **OrderView**

OrderView returns up to date content of an Order such as pricing information, conditions, time limits, Order status and passenger information.

When payment has been processed at the time of Order creation it also includes the status of this and, where they have already been issued, at least accountable document references (and further accountable document data if required).

## **Delivery Messages**

### **ServiceDelivery**

This message is intended to be used by the Delivery Provider to prepare for delivery of Services for which it is responsible. The information provided by the message is used to support the delivery and servicing by the relevant Delivery Provider.

The Delivery Provider requests information from the Airline's OMS about a Service (including the passenger's entitlement) and its current status, and the Airline responds with all relevant information about the Service to be delivered, along with the latest status. Note that the Airline may have changed the status of the Service as a result of receiving the ServiceDelivery request, depending on internal processes.

The criteria used to request this information may be singular, or batched for example per Passenger, per Order/Service or flight. The Service Delivery response contains the full details of the Services in the Order and all relevant flight information.

### **ServiceDeliveryNotif**

The Service Delivery Notification request is intended to be used by the OMS to inform Delivery Providers about the Services to be delivered. This information may be sent for an individual passenger, an Order, or may be provided for an entire flight or a given period of time. In case of multiple Service delivery by a Delivery Provider the entire itinerary is sent with the message. Note that the notification of Service delivery does not necessarily imply that Service delivery can be started.

This message is triggered by the Airline's Order Management System to the Delivery Provider. Upon completion of the message processing, the delivery partner has successfully been informed of the Services that are to be delivered. For example, an Airline Order Management System may send flight information (including passenger entitlement) and status to a ground handler. In case of multiple Service delivery by a Delivery Provider the entire itinerary is sent with the message.

### **UpdateServiceNotif**

The message may be used by a Delivery Provider to inform the Order Management System of updates to the Service(s) that occur during the period of Service delivery, or used it can be used by the Order Management System to inform the other carrier partner(s) of updates (in case of interlining).

This message is intended to be used for communicating necessary information related to the delivery of a Service, such as providing the Order Management System with assigned baggage tag identifiers, the weight of bags, seats assigned to passengers, advanced passenger information that may have been collected and so on. The Order Management System then ensures that this data is stored for later use (if necessary). Note that this Service is not intended to be used for the addition of new paid Services, nor for any exchange of payment related information.

### **ServiceStatusChangeNotif**

The Service Status Change Notification (SSCN) request message (ServiceStatusChangeNotifRQ) is used to notify the Order Management System of any change in status to Services within an Order. The status of a Service is used to track the ability of the Airline or Delivery Provider to deliver a particular Service, and/or track whether a Service has been consumed. This message may be triggered directly from a delivery process, but may also be triggered by an automated process, such as the expiration of a time limit in which a service was to be consumed within. The Service Status Change Notification message is used to advise the status of all Services (flights, flight-related ancillaries, ground Services etc.) throughout the lifecycle of the Service.

The Service Status Change Notification request is used solely to advise of changes in status to a Service. This may be the Delivery Provider confirming to the Order Management System that they are able to provide a Service (e.g. lounge access).

The message can also be used to report a milestone event in the delivery of a particular Service, such as a passenger being boarded, or accepted for boarding, a bag being loaded, a requested meal being loaded on board etc. Therefore, reporting of a Service delivery milestone allows the progress of Service delivery to be tracked from an operational perspective, supporting other operational processes such as bag reconciliation and weight and balance tasks. However, the reporting of a milestone event does not necessarily imply or trigger a change of the status of the Service (for example, a passenger boarding does not trigger a status update for any flight Service).

## **Accounting Messages**

### **OrderSalesInformationNotif**

The Order Sales Information Notification (OSIN) request is used to advise the Accounting System of information regarding Services within an Order. This information may include the following:

- The Services purchased
- Their prices and all applicable taxes, fees and charges associated with them at Order item level
- Internal and settlement values (incl. taxes, fees and charges (TFCs)) at Service level
- Payment information.

This message is the primary means for informing Accounting System(s) of information regarding Services within an Order. The Order Management System is responsible for ensuring that relevant changes in the Order are communicated to the Accounting System.

Whenever a new Service has been booked and confirmed within an Order and payment commitment has been received, this message is used to inform the Airline's Accounting System that a new financial liability has been taken. If payment information is included, the payment commitment may be in the form of a receivable (such as a deposit that has been paid for an Order). In the case of additional payments for a particular Service (e.g. the remaining outstanding balance), these must also be communicated to the Accounting System.

The Accounting System must also be advised of any conditions related to the consumption and refundability of any Service, and the date at which any revenue associated with the Service can be recognised (e.g. the expiry date of a particular entitlement). Similarly, the fact that an item is not refundable must also be communicated.

Where payment has been committed against changes to an Order, the OSIN RQ message is also used to advise of such changes to items within an Order, including the cancellation of a Service, refund of payment or a change of status. These scenarios will be described in the "Accounting" Business Functions section.

### **ServiceStatusChangeNotif**

The Service Status Change Notification request message is also used by the OMS to advise the Airline Accounting System of the final delivery status of a Service (delivered, removed, expired, not claimed, failed to deliver). However, this message is only intended to be used to trigger the recognition of revenues and/or trigger interline billing, based on the final delivery status of a Service. For other interactions with the Accounting System, the OSIN message is to be used.



Reporting of Service usage provides the ability to perform revenue accounting for an ORA. It depends on the fact that a Service has been delivered, or that a customer is no longer eligible for the Service. For example, a passenger may have missed their flight and is not eligible to rebook onto another flight. Reporting of Service usage allows the communication of adjustments in tax amounts between sales and usage time, when calculated by the OMS.

### **OrderClosingNotif**

Order Closing Notification (OrderClosingNotifRQ) is used to inform an Accounting System that no further updates are to be expected for an entire Order. Once an Order is closed, no further changes can be made to it. Closed Orders may, however, still be retrieved.

Order Closing Notification is the only mechanism to set an Order to "CLOSED" status. After this, no further changes may be made to an Order. Typically, an Order is only closed when all of the Services in the Order have been delivered.

### **OrderSalesInfoAccountingDocNotif**

Same as the OrderSalesInformationNotif message in the context of Tickets.

### **Other**

#### **Acknowledgement**

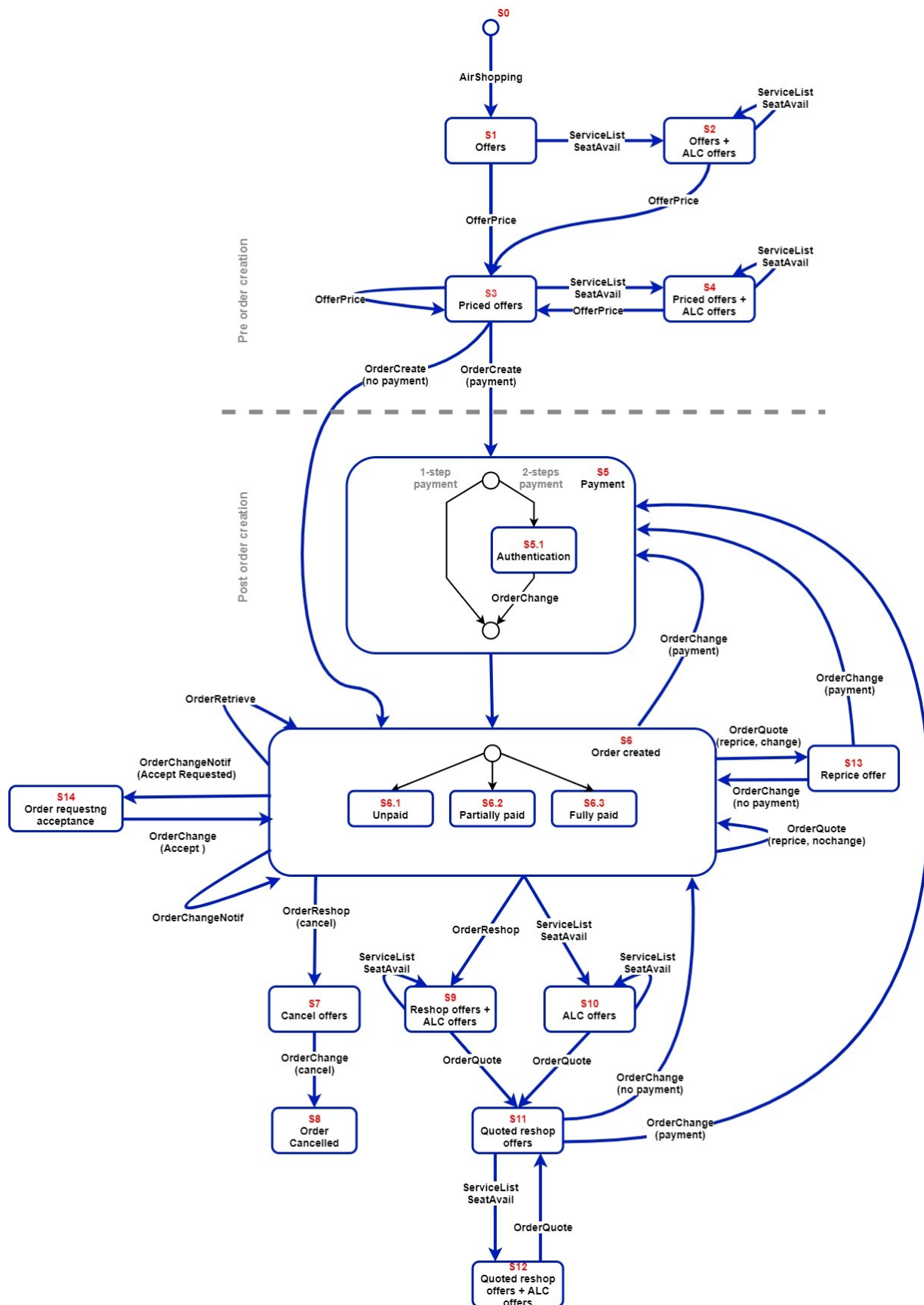
This message response is reserved to reply to an unsolicited Notif to advise the sender that the message was delivered.

# Standard Flows

## Overview

The below diagrams represent a flow which has been used in the Offer & Order Use Cases.

## Voluntary State Diagram



## Voluntary States

| States |  |
|--------|--|
| S0     | initial state, no precondition.                                  |
| S1     | received flight offers.  |
| S2     | received a la carte offers (seats, services) for a flight offer. |

|     |   |
|-----|---|
| S3  | received a priced offer.  |
| S4  | received a la carte offers (seats, services) for a priced flight offer.   |
| S5  | payment process state. Contains an actual intermediate state (S5.1) only in case of authentication needed (e.g. 3DS, AMOP, ...). No intermediate state for BSP (S5 transitions immediately to S6 in that case). |
| S6  | order created. Sub-states S6.1, S6.2 and S6.3 detail the overall order payment status.  |
| S7  | received a full order cancellation offer.   |
| S8  | accepted a full order cancellation offer, order is cancelled.   |
| S9  | received flight reshop offers (with or without a la carte offers) for an order.   |
| S10 | received a la carte offers for an order.  |
| S11 | received quoted offers.   |
| S12 | received Quoted offers and Ala carte offers for Quoted Offer  |
| S13 | received repriced offer from the airline  |

## Voluntary Transitions

| Transitions              |  |
|--------------------------|--|
| S0<br>→<br>S1            | shop for flights   |
| S1<br>→<br>S2            | shop for seats/services on an offer                      |
| S1,<br>S2<br>→<br>S3     | price offer(s)   |
| S3<br>→<br>S6            | order creation without payment                           |
| S3<br>→<br>S5<br>→<br>S6 | order creation with payment                              |
| S6<br>→<br>S7            | request full order cancellation offer                    |
| S7<br>→<br>S8            | accept full order cancellation offer                     |
| S6<br>→<br>S9            | reshop for flights                                       |
| S6<br>→<br>S10           | shop for seats/services on an order                      |
| S9,<br>S10<br>→<br>S11   | quote reshop offers and/or a la carte offers on an order |
| S11<br>→<br>S6           | accept a quoted offer on an order, without payment       |

|                           |   |
|---------------------------|---|
| S11<br>→<br>S5<br>→<br>S6 | accept a quoted offer on an order, with payment |
| S11-<br>>                 |   |

# Backwards Compatability

## Rules

Starting from 21.3, the Offer and Order messages will become backwards compatible for all future releases according to the rules defined by the Offer & Order and CMIG Working Groups. These messages will follow the below rules to ensure backwards compatible changes.

## Scope

- Backwards Compatibly will be enforced for all Offer & Order Messages within the Enhanced and Simplified Distribution messages. (Seller <-> Airline interactions).
- Best efforts for backwards compatibility for Accounting and Delivery messages
- Interline messages will not be backwards compatible.

# **Release Numbering**

## **Change in Release Cycles**

The Architecture and Technology Strategy Board (ATSB) endorsed a change to the release cycles for the Enhanced and Simplified Distribution Messages (including Offer and Order), where the group now has more flexibility to release changes to the standard up to 4 times a year, or every 3 months (as opposed to every 6 months as it was prior to 2021).

## **Release Numbering**

The current release numbering scheme is based on the Year and the Release Count for that Year.

For example, 21.1 is the first release of 2021. 17.2 was the second release of 2017.

## **Available Release Slots**

Prior to 2021, there were two release slots (generally in March and September), labelled '1' and '2'.

As of 2021, there are four available release slots (March, June, September and December), labelled in sequence.

## **Enhanced and Simplified Distribution Release Windows**

While there is the capability to release up to four times in one year. The Shop-Order Board (SOSB) has kept the existing two releases per year.

The release cycle will continue to be in March and September, however will be labeled 21.1 and 21.3.

With approval from the SOSB, the Offer and Order Messages may be released in the two additional slots, or moved to another slot (for example, a release can be delayed from September to December if need be).

# Use of Imperative Language

## Scope

This document defines the use of imperative language across the Implementation Guidance documentation.

The Implementation Guidance is by definition, the individuals' choice to implement, however in order to increase interoperability with multiple systems, Implementers should follow the recommendations in this Implementation Guidance.

## Definition

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED", "MAY", and "OPTIONAL" in this Guidance are to be interpreted as described in [RFC2119](#) including [ERRATA](#).

## Disclaimer

The Implementation Guidance is a best practices information source for Implementers thus usage of MUST/SHALL is not advisable. Instead, SHOULD or RECOMMENDED is to be used, although in some instances the usage of words like REQUIRED will be reasonable to use when imposed by the schema message standard.

However, in the best intent to avoid variances in implementations consequences of not following the recommendation SHOULD be explained and understood.



# Journey

## Overview

This section provides an overview of the journey concept in Enhanced and Simplified Distribution Messages.

## Origin and Destination

Origin and Destination are the points between which a passenger travels without regards to specific itineraries.

## Passenger Journey

Passenger Journey represents one or more passenger segments from a given origin to reach a given destination.

## Passenger Segment

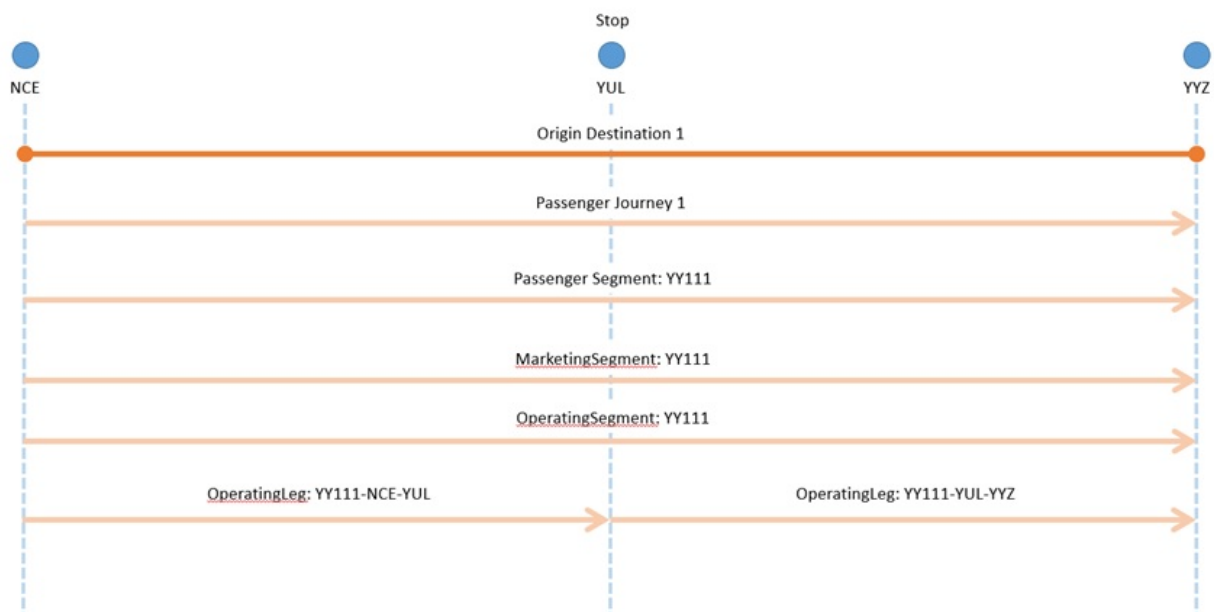
Combination of one or multiple legs on the itinerary of a single flight number

## Leg

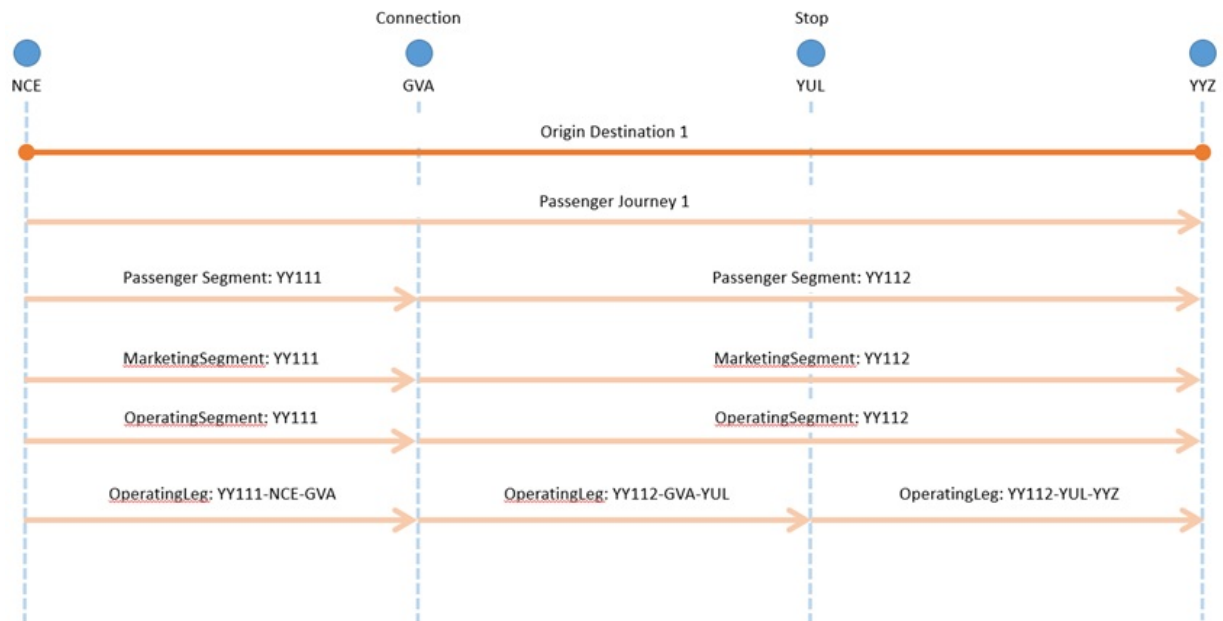
Represents a non-stop operation between two points.

## Illustration of journey from Nice to Toronto via Montreal:

OW NCE-YYZ – Direct – Stop in YUL



## Illustration of journey from Nice to Montreal via Geneva:



## Example XML snippets of Journey (OW NCE YYZ):

Illustration of journey from Nice to Toronto via Montreal

| Markup  | Copy |
|---|------|
| <pre> &lt;DataLists&gt;   &lt;DatedMarketingSegmentList&gt;     &lt;DatedMarketingSegment&gt;       &lt;Arrival&gt;         &lt;AircraftScheduledDateTime&gt;2022-05-04T20:38:00-05:00&lt;/AircraftScheduledDateTime&gt;         &lt;IATA_LocationCode&gt;YYZ&lt;/IATA_LocationCode&gt;       &lt;/Arrival&gt;       &lt;CarrierDesigCode&gt;YY&lt;/CarrierDesigCode&gt;       &lt;DatedMarketingSegmentId&gt;DMSEG001&lt;/DatedMarketingSegmentId&gt;       &lt;DatedOperatingSegmentRefId&gt;DOSEG001&lt;/DatedOperatingSegmentRefId&gt;       &lt;Dep&gt;         &lt;AircraftScheduledDateTime&gt;2022-05-04T15:15:00+01:00&lt;/AircraftScheduledDateTime&gt;         &lt;IATA_LocationCode&gt;NCE&lt;/IATA_LocationCode&gt;       &lt;/Dep&gt;       &lt;MarketingCarrierFlightNumberText&gt;111&lt;/MarketingCarrierFlightNumberText&gt;     &lt;/DatedMarketingSegment&gt;   &lt;/DatedMarketingSegmentList&gt;   &lt;DatedOperatingLegList&gt;     &lt;DatedOperatingLeg&gt;       &lt;Arrival&gt;         &lt;AircraftScheduledDateTime&gt;2022-05-04T17:38:00-05:00&lt;/AircraftScheduledDateTime&gt;         &lt;IATA_LocationCode&gt;YUL&lt;/IATA_LocationCode&gt;       &lt;/Arrival&gt;       &lt;DatedOperatingLegID&gt;LEG001&lt;/DatedOperatingLegID&gt;       &lt;Dep&gt;         &lt;AircraftScheduledDateTime&gt;2022-05-04T15:15:00+01:00&lt;/AircraftScheduledDateTime&gt;         &lt;IATA_LocationCode&gt;NCE&lt;/IATA_LocationCode&gt;       &lt;/Dep&gt;     &lt;/DatedOperatingLeg&gt;     &lt;DatedOperatingLeg&gt;       &lt;Arrival&gt;         &lt;AircraftScheduledDateTime&gt;2022-05-04T20:38:00-05:00&lt;/AircraftScheduledDateTime&gt;         &lt;IATA_LocationCode&gt;YYZ&lt;/IATA_LocationCode&gt;       &lt;/Arrival&gt;       &lt;DatedOperatingLegID&gt;LEG002&lt;/DatedOperatingLegID&gt;       &lt;Dep&gt; </pre> |      |

```

        <AircraftScheduledDateTime>2022-05-04T18:10:00-05:00</AircraftScheduledDateTime>
        <IATA_LocationCode>YUL</IATA_LocationCode>
    </Dep>
</DatedOperatingLeg>
</DatedOperatingLegList>
<DatedOperatingSegmentList>
    <DatedOperatingSegment>
        <CarrierDesigCode>YY</CarrierDesigCode>
    <DatedOperatingLegRefID>LEG001</DatedOperatingLegRefID>
        <DatedOperatingLegRefID>LEG002</DatedOperatingLegRefID>
        <DatedOperatingSegmentId>DOSEG001</DatedOperatingSegmentId>
    </DatedOperatingSegment>
</DatedOperatingSegmentList>
<OriginDestList>
    <OriginDest>
        <DestCode>NCE</DestCode>
        <OriginCode>YTO</OriginCode>
        <OriginDestID>OD001</OriginDestID>
        <PaxJourneyRefID>JRN001</PaxJourneyRefID>
    </OriginDest>
</OriginDestList>
<PaxJourneyList>
    <PaxJourney>
        <PaxJourneyID>JRN001</PaxJourneyID>
        <PaxSegmentRefID>SEG001</PaxSegmentRefID>
    </PaxJourney>
</PaxJourneyList>
<PaxSegmentList>
    <PaxSegment>
        <CabinTypeAssociationChoice>
            <SegmentCabinType>
                <CabinTypeCode>5</CabinTypeCode>
            </SegmentCabinType>
        </CabinTypeAssociationChoice>
        <DatedMarketingSegmentRefId>DMSEG001</DatedMarketingSegmentRefId>
        <PaxSegmentID>SEG001</PaxSegmentID>
    </PaxSegment>
</PaxSegmentList>
</DataLists>

```

# Augmentation Points

## Overview

Augmentation Points within the messages are undefined elements which allow any Implementer to add any structure within the message for any defined purpose.

## Request

This section documents the key elements for the Augmentation Points within the request.

### Sending a Custom Structure to an Airline

A seller may choose to send a bilateral or specific structure to an Airline as agreed. Any Structure can be added to this element.

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:IATA_ServiceListRQ&gt;   &lt;iata:AugmentationPoint&gt;     &lt;other:BilateralStructure&gt;       &lt;other:Something/&gt;       &lt;other:Something/&gt;     &lt;/other:BilateralStructure&gt;   &lt;/iata:AugmentationPoint&gt; &lt;/iata:IATA_ServiceListRQ&gt;</pre> |      |

**Note**  
The "Bilateral Structure" element in the example is by way of illustration and will not be found in the standard.

## Response

### Receiving a Custom Structure from an Airline

An airline may choose to send a bilateral or specific structure to a seller as agreed. Any structure can be added to this element.

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:IATA_ServiceListRS&gt;   &lt;iata:AugmentationPoint&gt;     &lt;other:BilateralStructure&gt;       &lt;other:Something/&gt;       &lt;other:Something/&gt;     &lt;/other:BilateralStructure&gt;   &lt;/iata:AugmentationPoint&gt; &lt;/iata:IATA_ServiceListRS&gt;</pre> |      |

**Note**

The "Bilateral Structure" element in the example is by way of illustration and will not be found in the standard.

# Identifier Usage

## Overview

Identifiers are used throughout the Offer and Order to identify entities in and outside of the messages. They are of an ID\_Type and restricted to a string, however this document stipulates further restrictions to these identifiers. Offer in this context will be either a new offer created without any preconditions via Airshopping or Offer created during reshopping using OrderReshopRQ

## ID Format, Uniqueness and Persistence

### Offer

| Item             | Format                | Uniqueness   | Persistence   | Additional Notes |
|------------------|-----------------------|--|---|------------------|
| Offer ID         | String (max 64 chars) | Airline unique.<br><br>Globally unique when Owner Code is used as a Composite key. | Persistent within a shopping transaction as defined by the Airline. |                  |
| Offer Item ID    | String (max 64 chars) | Unique within an Offer.  | Airline defined   |                  |
| Offer Service ID | String                | Airline defined  | Airline defined   |                  |

### Order

| Item          | Format          | Uniqueness   | Persistence | Additional Notes |
|---------------|-----------------|--|-------------|------------------|
| Order ID      | Order ID Format | Global   | Yes         |                  |
| Order Item ID | String          | Airline defined<br><br>Best practice is to make the Order Item ID unique within the Order. | Yes         |                  |

|                       |        |   |     |   |
|-----------------------|--------|---|-----|---|
| Order Item Service ID | String | Airline defined<br><br>Best practice is to make the Service ID unique within the Order. | Yes | ServiceID of unchanged services during reshops will be persistent and will be the same in the newly exchanged Orderitem. As the service in an Order is persistent and unique in an Order. |
|-----------------------|--------|---|-----|---|

## Passenger

| Item          | Format | Uniqueness     | Persistence  |
|---------------|--------|----------------|--------------|
| Pax ID        | String | Airline unique | Within Order |
| Individual ID | String | Airline unique | Within Order |
| Visa ID       | String | Airline unique | Within Order |
| ContactInfoID | String | Airline unique | Within Order |

## Segments

| Item                       | Format | Uniqueness     | Persistence  |
|----------------------------|--------|----------------|--------------|
| Dated Marketing Segment ID | String | Airline unique | Within Order |
| Dated Operating Segment ID | String | Airline unique | Within Order |
| Dated Operating Leg ID     | String | Airline unique | Within Order |

## Passenger Segments

| Item                  | Format | Uniqueness     | Persistence  |
|-----------------------|--------|----------------|--------------|
| Passenger Segment ID  | String | Airline unique | Within Order |
| Passenger Journey ID  | String | Airline unique | Within Order |
| Origin Destination ID | String | Airline unique | Within Order |

## Legacy

| Item              | Format       | Uniqueness     | Persistence |
|-------------------|--------------|----------------|-------------|
| Booking Ref (PNR) | String (5-7) | Airline unique | Yes         |
| Document Number   | Integer (8)  | Airline unique | Yes         |
| Coupon Number     | Integer (8)  | Airline unique | Yes         |

# Referencing by Identifier

## Overview

Within the Enhanced and Simplified messages, there exists a concept to reduce the repetition of information in some messages through the use of referencing collections in a 'datalist'.

These are used to force the party to send back information in a referenced collection when the reference to that collection is mandatory.



# Reference to Times

## UTC or Local Time

Best practice is to use UTC, following ISO 8601, for all elements unless

- they relate to a flight which require the date and time to be returned in the local time of the location of the arrival/departure of that flight
- they relate to a document issuance date/time. The **Point Of Issuance** defines the local time (as per the element ../TicketDocInfo/IssueInfo/IATA\_LocationCode)

## Examples of Dates, Times and Duration

### Format for a Local Time

When specifying a local time.

| Markup                | Copy |
|-----------------------|------|
| <Time>14:30:47</Time> |      |

### Format for a Local Date

When specifying a local date.

| Markup                  | Copy |
|-------------------------|------|
| <Date>2001-12-17</Date> |      |

### Format for a Local Date and Time

When specifying a local date and time.

| Markup                                   | Copy |
|--|------|
| <DateTime>2001-12-17T14:30:47</DateTime> |      |

### Format for a UTC Time

When specifying a time in UTC, include the Zulu indicator.

| Markup                 | Copy |
|------------------------|------|
| <Time>13:30:47Z</Time> |      |

### Format for a UTC Date and Time

When specifying a date and time in UTC, include the Zulu indicator.

| Markup | Copy |
|--------|------|
|        |      |

```
<DateTime>2001-12-17T14:30:47Z</DateTime>
```

## Format for a Duration

When specifying a duration.

| Markup   | Copy |
|--|------|
| <pre>&lt;Duration&gt;P1Y2M2DT10H30M&lt;/Duration&gt;</pre> |      |

# Time limits

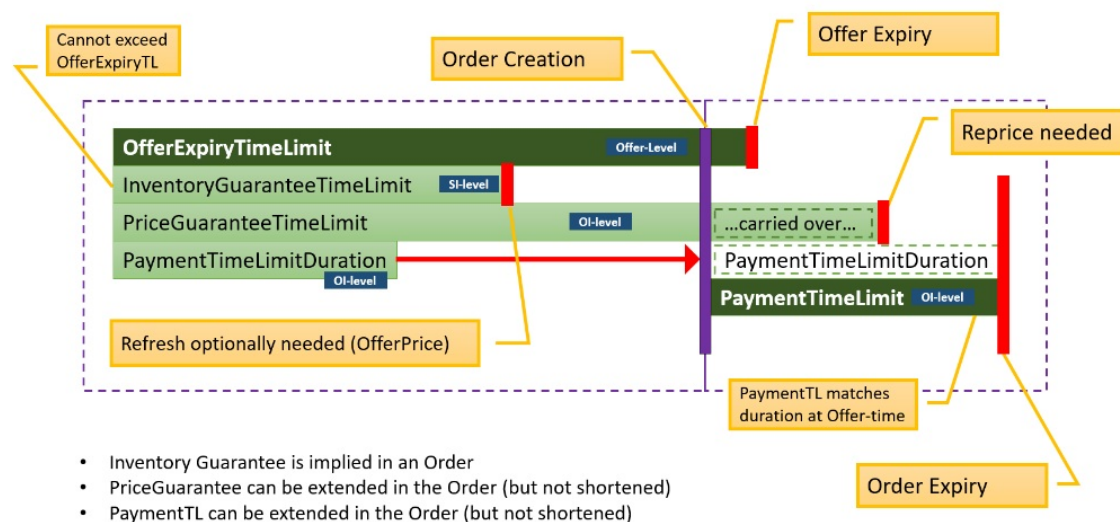
## Scope of Article

Note the following Time Limits are out of scope of this document: Deposit Time Limit, Naming Time Limit, Bilateral Time Limit and Inventory Guarantee Time Limits.

## Overview

Time limits are a mechanism for the Airline to advise the Seller of upcoming events of expiry, for example, the time when an Offer will expire, or when inventory will be removed if there has been no commitment to the Order.

Time Limits should follow standard datetime and duration formats.



## Time Limits within the Context of an Offer

Each of these time limits can be used in the context of any Offers within a message (e.g. Offer, A la Carte Offer, Repriced Offer etc)

## Offer Expiry Time Limit

The length of time an offer will persist in an airline's offer management system for use in subsequent transactions. Upon expiry, the expectation is that the offer is no longer retrievable, and the shopping process must begin again. Note the presence of an Offer Time Limit does not indicate either a guarantee of price or inventory against a given Offer item within the Offer.

Should the offer time limit expire, any other time limit also expires unless an Order has been created.

## Advising an Offer Expiry

An Airline may advise on the Seller of an Offer Expiry Time Limit at the **Offer Level**

```

<ALaCarteOffer>
  <OfferExpirationTimeLimitDateTime>2004-06-
25T14:36:56+02:00</OfferExpirationTimeLimitDateTime>
  <OfferID>GUID</OfferID>
</ALaCarteOffer>

```

## Price Guarantee Time Limit

The length of time the price of an offer item is guaranteed. In the absence of the price guarantee time limit, the price is not guaranteed. Upon expiry, the price may no longer be guaranteed and either a new shopping process should begin, or the offer should be repriced resulting in a new Offer.

Should the price guarantee time limit extend beyond Order creation, the remaining length of time persists into the corresponding Order Item. The airline can increase the remaining length of time beyond the original time limit should they wish to.

Note: Where a price guarantee time limit is applied, there is no guarantee that related inventory is guaranteed by the airline against a given offer item.

## Advising of a Price Guarantee

An Airline may return a Price Guarantee Time Limit at the **Offer Item Level**.

| Markup   | Copy |
|--|------|
| <pre> &lt;ALaCarteOffer&gt;   &lt;!--...--&gt;   &lt;ALaCarteOfferItem&gt;     &lt;OfferItemID&gt;GUID&lt;/OfferItemID&gt;     &lt;!--...--&gt;     &lt;PriceGuaranteeTimeLimitDateTime&gt;2002-04- 30T17:11:37+02:00&lt;/PriceGuaranteeTimeLimitDateTime&gt;   &lt;/ALaCarteOfferItem&gt; &lt;/ALaCarteOffer&gt; </pre> |      |

## Payment Time Limit (as a Duration or DateTime)

This field is used to indicate the duration of time after Order creation that payment commitment is required for an order item, or a static datetime in which payment commitment is required. If the duration field has a value of 0 then instant payment at order create is required. If no value is returned, then no advice has been given.

For example:

- PaymentTimeLimitDuration: PT48H3M6S - shows the amount of time.
- PaymentTimeLimitDuration: PT0H0M0S - indicates instant payment is required.
- PaymentTimeLimitDateTime: 2018-01-01 – shows a static payment commitment date time

For version 19.1, the Ticketing Time Limit was removed from the schemas, as if an Airline wishes to communicate this information, it can be provided as a payment time limit.

The Payment Time Limit is contained within the **Offer Item level**, for example an Airline can return the following to indicate the duration of the payment time limit.

| Markup  | Copy |
|---|------|
| <code>&lt;iata:PaymentTimeLimitDuration&gt;P1M7DT16H36M36S&lt;/iata:PaymentTimeLimitDuration&gt;</code> |      |

| Markup  | Copy |
|---|------|
| <pre> &lt;iata:ALaCarteOffer&gt;   &lt;!--...--&gt;   &lt;iata:ALaCarteOfferItem&gt;     &lt;iata:OfferItemID&gt;&lt;/iata:OfferItemID&gt;     &lt;!--...--&gt;     &lt;iata:PaymentTimeLimit&gt;       &lt;iata:PaymentTimeLimitDuration&gt;P1M7DT16H36M36S&lt;/iata:PaymentTimeLimitDuration&gt;     &lt;/iata:PaymentTimeLimit&gt;     &lt;!--...--&gt;   &lt;/iata:ALaCarteOfferItem&gt; &lt;/iata:ALaCarteOffer&gt; </pre> |      |

OR for indication of instant payment required:

| Markup  | Copy |
|---|------|
| <code>&lt;iata:PaymentTimeLimitDuration&gt;P1M7DT16H36M36S&lt;/iata:PaymentTimeLimitDuration&gt;</code> |      |

| Markup   | Copy |
|--|------|
| <pre> &lt;iata:ALaCarteOffer&gt;   &lt;!--...--&gt;   &lt;iata:ALaCarteOfferItem&gt;     &lt;iata:OfferItemID&gt;&lt;/iata:OfferItemID&gt;     &lt;!--...--&gt;     &lt;iata:PaymentTimeLimit&gt;       &lt;iata:PaymentTimeLimitDuration&gt;PTM0DT0H0M0S&lt;/iata:PaymentTimeLimitDuration&gt;     &lt;/iata:PaymentTimeLimit&gt;     &lt;!--...--&gt;   &lt;/iata:ALaCarteOfferItem&gt; &lt;/iata:ALaCarteOffer&gt; </pre> |      |

OR to inform of a static payment time limit date time:

| Markup   | Copy |
|--|------|
| <pre> &lt;iata:ALaCarteOffer&gt;   &lt;!--...--&gt;   &lt;iata:ALaCarteOfferItem&gt;     &lt;iata:OfferItemID&gt;GUID&lt;/iata:OfferItemID&gt;     &lt;!--...--&gt;     &lt;iata:PaymentTimeLimit&gt;       &lt;iata:PaymentTimeLimitDateTime&gt;2011-09- 27T20:07:52&lt;/iata:PaymentTimeLimitDateTime&gt;     &lt;/iata:PaymentTimeLimit&gt;     &lt;!--...--&gt;   &lt;/iata:ALaCarteOfferItem&gt; &lt;/iata:ALaCarteOffer&gt; </pre> |      |

## Time Limits within the Context of an Order

### Payment Time Limit

The time limit by which a commitment to pay must be made for the given Order Item. Upon expiry it is expected that the Order item is removed from the Order. If no value is returned, then no advice has been given.

For example:

- `PaymentTimeLimitDateTime: 2015-01-01T12:53:12Z` - indicates the date time by which payment commitment is required.

For version 19.1, the Ticketing Time Limit was removed from the schemas, as if an Airline wishes to communicate this information, it can be provided as a payment time limit. Note that the Duration Option is not available within the within an Order, as the Duration is relative to Order creation, hence simply a datetime is used.

### Requesting to place an Order on Hold

A Seller may request to create an Order with the absence of payment.

### Advising the Seller of the Payment Time Limits

An Airline may return a Payment Time Limit element which is set at an Order Item level.

| Markup  | Copy |
|---|------|
| <pre>&lt;Order&gt;   &lt;!--...--&gt;   &lt;OrderID&gt;XBXXX1A2B3C4D&lt;/OrderID&gt;   &lt;!--...--&gt;   &lt;OrderItem&gt;     &lt;!--...--&gt;     &lt;OrderItemID&gt;&lt;/OrderItemID&gt;     &lt;PaymentTimeLimitDateTime&gt;2018-08-13T13:59:38Z&lt;/PaymentTimeLimitDateTime&gt;     &lt;!--...--&gt;   &lt;/OrderItem&gt; &lt;/Order&gt;</pre> |      |

### Granular Price Time Limits

If an Airline decides to guarantee a price to the Seller/Customer, the Airline may wish to guarantee a part of the total price.

As well, in such scenario, the price guarantee time limit should not exceed the payment time limit. Payment time limit can be longer than the price guarantee time limit. If the price guarantee is expired, a repricing is recommended before payment.

The Airline can either use the Price Guarantee Time Limit Date Time to specify that the price is guaranteed without specifying (within the message) what part (if not all) of the Price is guaranteed. Or, the airline can describe (and change) the guarantees depending on the pricing component (Amount, Fee or Tax).

The Amount, Fee and Tax time limits only need to be taken into account if the Price Guarantee Time Limit has been populated. If so, the Price Guarantee Time Limit shall be the maximum time limit for all Tax, Amount and Fee limits

The below table shows two scenarios for guaranteeing a price to the Seller:

1. Within the Price Guarantee Time Limit, the Airline guarantees the total price (base amount, surcharge and taxes) for a total of 30 minutes.
2. Within the Price Guarantee Time Limit, the Airline guarantees the Base fare and a Tax for 5 days, but only the other tax for 4 hours, and the surcharge for 30 minutes

| Price Type         | Amount   | Price, Tax or Fee Guarantee Time Limit in Offer | Price, Tax or Fee Guarantee Time Limit in Order |
|--------------------|----------|---|---|
| Fare (Base Amount) | 1.00 CHF | 30 mins*  | 5 days*   |
| Tax                | 1.00 CHF | 30 mins   | 5 days  |
| Tax                | 1.00 CHF | 30 mins   | 4 hours   |
| Tax                | 1.00 CHF | 30 mins   | 4 hours   |
| Surcharge          | 1.00 CHF | 30 mins   | 30 mins   |

**Note**

The breakdown of price guarantee within the Order can also be implemented in the Offer and vice versa.

# Distribution Chain

## Overview

The Distribution Chain aids Airlines identify the parties within the transaction from the Customer (via any intermediaries) to the Airline. Each party can identify themselves as a Seller, Distributer or Carrier, and optionally add additional identification information along with a mandatory identifier.

## Sample Implementation

A Distribution Chain Link will be added for each party in the chain; its the responsibility of that last organisation before the airline to ensure all the information is relevant and complete before sending to the airline.

### Some items to note:

- The Ordinal is the order at which the parties have corresponded, in increments of 1, seeded at 1.
- The Organisation ID can be any type of identifier (for example a carrier code such as 'XB' or an Aggregator identifier as bilaterally defined)
- The Role is defined as Seller, Distributor or Carrier (as per the Enum)
- Optionally, parties can add additional contact information within

### CLID

For identification of corporate fares, CLID, please use the Offer and Order Criteria.

| Markup   | Copy |
|--|------|
| <pre>&lt;n1:DistributionChain&gt;   &lt;cns:DistributionChainLink&gt;     &lt;cns:Ordinal&gt;1&lt;/cns:Ordinal&gt;     &lt;cns:OrgRole&gt;Seller&lt;/cns:OrgRole&gt;     &lt;cns:ParticipatingOrg&gt;       &lt;cns:OrgID&gt;SELLER0001&lt;/cns:OrgID&gt;     &lt;/cns:ParticipatingOrg&gt;   &lt;/cns:DistributionChainLink&gt;   &lt;cns:DistributionChainLink&gt;     &lt;cns:Ordinal&gt;2&lt;/cns:Ordinal&gt;     &lt;cns:OrgRole&gt;Carrier&lt;/cns:OrgRole&gt;     &lt;cns:ParticipatingOrg&gt;       &lt;cns:OrgID&gt;XB&lt;/cns:OrgID&gt;     &lt;/cns:ParticipatingOrg&gt;   &lt;/cns:DistributionChainLink&gt; &lt;/n1:DistributionChain&gt;</pre> |      |

## Distribution Chain Roles



| <b>Roles</b>       | <b>Meaning</b>   | <b>Examples of Organizations that may perform the role</b> |
|--------------------|--|--|
| <b>Seller</b>      | An organization that offers a shopping capability to a shopper.  | Acme Travel Agency   |
| <b>Distributor</b> | An organization that provides a distribution capability. Consolidator, Aggregator, also known as an intermediary except for the Seller which is also an intermediary is represented separately.  | Global Aggregators R Us                                    |
| <b>Carrier</b>     | An organization that carries the passenger, baggage, or goods, and/or commits to delivering the carriage as well as any related services such as issuance of the ticket, creation of Order, etc. |  |

## Using the Distribution Chain

### Scenario 1

General / Corporate (Corporate ID/CLID passed in ProgramContract/ContractID or Corporate Code passed in ProgramAccount (Corp fares)

| Markup  | Copy |
|---|------|
| <p>Ordinal: 1</p> <p>Role: Seller</p> <p>ParticipatingOrg/Name: Acme Travel Agency</p> <p>ParticipatingOrg/OrgID: Identification</p> <p>SalesAgent/ID: * Potentially a sub agent, as bilaterally agreed.</p> <p>SalesBranch/ID: * PCC as bilaterally agreed</p> <p>Ordinal: 2</p> <p>Role: Distributer</p> <p>ParticipatingOrg/Name: Global Aggregators R Us</p> <p>ParticipatingOrg/OrgID: AGG0001</p> <p>SalesAgent/ID:</p> <p>SalesBranch/ID:</p> <p>Ordinal: 3</p> <p>Role: Carrier</p> <p>ParticipatingOrg/Name: IATA Air</p> <p>ParticipatingOrg/OrgID: XB</p> <p>SalesAgent/ID:</p> <p>SalesBranch/ID:</p> |      |

### Scenario 2

General / Corporate directly calling the Carrier (Corporate ID/CLID passed in  
ProgramContract/ContractID or Corporate Code passed in ProgramAccount (Corp fares)

| Markup  | Copy |
|---|------|
| <p>Ordinal: 1</p> <p>Role: Seller<br/>ParticipatingOrg/Name: Jerry's Corporate Systems<br/>ParticipatingOrg/OrgID: ABC0001 * for example: IATA, TIDS, or BILATERAL Identifier<br/>SalesAgent/ID:<br/>SalesBranch/ID:</p> <p>Ordinal: 2</p> <p>Role: Carrier<br/>ParticipatingOrg/Name: IATA Air<br/>ParticipatingOrg/OrgID: XB<br/>SalesAgent/ID:<br/>SalesBranch/ID:</p> |      |

### Scenario 3

TIDs agent with Consolidator

--> Shopping

| Markup  | Copy |
|---|------|
| <p>Ordinal: 1</p> <p>Role: Seller<br/>ParticipatingOrg/Name: TIDs Agent<br/>ParticipatingOrg/OrgID: 88888888<br/>SalesAgent/ID:<br/>SalesBranch/ID:</p> <p>Ordinal: 2</p> <p>Role: Distributer<br/>ParticipatingOrg/Name: Global Aggregators R Us<br/>ParticipatingOrg/OrgID: AGG0001<br/>SalesAgent/ID:<br/>SalesBranch/ID:</p> <p>Ordinal: 3</p> <p>Role: Carrier<br/>ParticipatingOrg/Name: IATA Air<br/>ParticipatingOrg/OrgID: XB<br/>SalesAgent/ID:<br/>SalesBranch/ID:</p> |      |

--> Paying

| Markup  | Copy |
|---|------|
| <p>Ordinal: 1</p> <p>Role: Seller<br/> ParticipatingOrg/Name: Consolidator Agent<br/> ParticipatingOrg/OrgID: 8888555<br/> SalesAgent/ID:<br/> SalesBranch/ID:</p> <p>Ordinal: 2</p> <p>Role: Distributer<br/> ParticipatingOrg/Name: Global Aggregators R Us<br/> ParticipatingOrg/OrgID: AGG001<br/> SalesAgent/ID:<br/> SalesBranch/ID:</p> <p>Ordinal: 3</p> <p>Role: Carrier<br/> ParticipatingOrg/Name: IATA Air<br/> ParticipatingOrg/OrgID: XB<br/> SalesAgent/ID:<br/> SalesBranch/ID:</p> |      |

## Scenario 4

### OTA

| Markup  | Copy |
|---|------|
| <p>Ordinal: 1</p> <p>Role: Seller<br/> ParticipatingOrg/Name: Acme Online Travel Agency<br/> ParticipatingOrg/OrgID: 98345672<br/> SalesAgent/ID:<br/> SalesBranch/ID:</p> <p>Ordinal: 2</p> <p>Role: Carrier<br/> ParticipatingOrg/Name: IATA Air<br/> ParticipatingOrg/OrgID: XB<br/> SalesAgent/ID:<br/> SalesBranch/ID:</p> |      |

## When to populate the Chain

It is understood that each party adds to the Distribution Chain as needed however the last Distributor (last organization before the airline) is responsible for populating this structure.

| Markup            | Copy |
|-------------------|------|
| <p>Ordinal: 2</p> |      |

Role: Distributer  
ParticipatingOrg/Name: Global Aggregators R Us  
ParticipatingOrg/OrgID: AGG0001  
SalesAgent/ID:  
SalesBranch/ID:

Ordinal: 3

Role: CarrierParticipatingOrg/Name: IATA Air  
ParticipatingOrg/OrgID: XB  
SalesAgent/ID:  
SalesBranch/ID:

# Payload Attributes

## Overview

The Payload Attributes are used outside the context of the message to identify and group message sets for debugging purposes.

## Payload Attributes Request and Response Elements

### Transaction ID

A universally unique identifier used to identify a transaction set. The Transaction ID is used by the Seller to identify the outbound requesting message, the transaction ID is then echoed back by the receiving party in the response.

This allows for both systems to find the message pair (RQ/RS) if one message is present. For example, if the OrderViewRS returns an error, using the echoed back transaction ID, the requestor can find the request that caused that error using that same Transaction ID.

### OrderCreateRQ

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:PayloadAttributes&gt;   &lt;iata:TrxID&gt;6379132c-6440-4bc1-b6ea-359b7222bfa7&lt;/iata:TrxID&gt; &lt;/iata:PayloadAttributes&gt;</pre> |      |

### OrderCreateRS

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:PayloadAttributes&gt;   &lt;iata:TrxID&gt;6379132c-6440-4bc1-b6ea-359b7222bfa7&lt;/iata:TrxID&gt; &lt;/iata:PayloadAttributes&gt;</pre> |      |

### Correlation ID

A universally unique identifier used to identify a set of messages that were used together. The Correlation ID is generated by the Seller and echoed back by the Airline.

This is used to find all messages that led up to the point at which there was a potential failure or to understand how a message flow was implemented. For example, if an Order fails, the OrderViewRS will return a failure message and within the transaction element, the Correlation ID. By searching logs for that Correlation ID, all messages from AirShopping, OfferPrice and OrderCreate can be found and linked.

### AirShoppingRQ

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:PayloadAttributes&gt;   &lt;iata:CorrelationID&gt;b1159451-0b7c-4da8-9926-86f48ec48ab6&lt;/iata:CorrelationID&gt;   &lt;iata:TrxID&gt;6379132c-6440-4bc1-b6ea-359b7222bfa7&lt;/iata:TrxID&gt; &lt;/iata:PayloadAttributes&gt;</pre> |      |

## AirShoppingRS

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:PayloadAttributes&gt;   &lt;iata:CorrelationID&gt;b1159451-0b7c-4da8-9926-86f48ec48ab6&lt;/iata:CorrelationID&gt;   &lt;iata:TrxID&gt;6379132c-6440-4bc1-b6ea-359b7222bfa7&lt;/iata:TrxID&gt; &lt;/iata:PayloadAttributes&gt;</pre> |      |

## OfferPriceRQ

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:PayloadAttributes&gt;   &lt;iata:CorrelationID&gt;b1159451-0b7c-4da8-9926-86f48ec48ab6&lt;/iata:CorrelationID&gt;   &lt;iata:TrxID&gt;1119132c-6440-4bc1-b6ea-359b7222bfa7&lt;/iata:TrxID&gt; &lt;/iata:PayloadAttributes&gt;</pre> |      |

## OfferPriceRS

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:PayloadAttributes&gt;   &lt;iata:CorrelationID&gt;b1159451-0b7c-4da8-9926-86f48ec48ab6&lt;/iata:CorrelationID&gt;   &lt;iata:TrxID&gt;1119132c-6440-4bc1-b6ea-359b7222bfa7&lt;/iata:TrxID&gt; &lt;/iata:PayloadAttributes&gt;</pre> |      |

## OrderCreateRQ

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:PayloadAttributes&gt;   &lt;iata:CorrelationID&gt;b1159451-0b7c-4da8-9926-86f48ec48ab6&lt;/iata:CorrelationID&gt;   &lt;iata:TrxID&gt;2229132c-6440-4bc1-b6ea-359b7222bfa7&lt;/iata:TrxID&gt; &lt;/iata:PayloadAttributes&gt;</pre> |      |

## OrderViewRS

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:PayloadAttributes&gt;   &lt;iata:CorrelationID&gt;b1159451-0b7c-4da8-9926-86f48ec48ab6&lt;/iata:CorrelationID&gt;   &lt;iata:TrxID&gt;2229132c-6440-4bc1-b6ea-359b7222bfa7&lt;/iata:TrxID&gt; &lt;/iata:PayloadAttributes&gt;</pre> |      |

## Language

The Language, or Locale is used to request a specific language preference for the responding message.

For example, a Seller requests the message response to be in French.

| Markup   | Copy |
|--|------|
| <pre>&lt;iata:PayloadAttributes&gt;   &lt;iata:PrimaryLangID&gt;fr-FR&lt;/iata:PrimaryLangID&gt; &lt;/iata:PayloadAttributes&gt;</pre> |      |

Or, Seller requests the response to be in Australian English.

| Markup   | Copy |
|--|------|
| <pre>&lt;iata:PayloadAttributes&gt;   &lt;iata:PrimaryLangID&gt;en-AU&lt;/iata:PrimaryLangID&gt; &lt;/iata:PayloadAttributes&gt;</pre> |      |

The Airline responds with US English.

| Markup   | Copy |
|--|------|
| <pre>&lt;iata:PayloadAttributes&gt;   &lt;iata:PrimaryLangID&gt;en-US&lt;/iata:PrimaryLangID&gt; &lt;/iata:PayloadAttributes&gt;</pre> |      |

## Timestamp

The sending or responding party may time stamp the message at the time that the message is ready for transmission.

| Markup   | Copy |
|--|------|
| <pre>&lt;iata:PayloadAttributes&gt;   &lt;iata:Timestamp&gt;2010-03-23T10:49:55+01:00&lt;/iata:Timestamp&gt; &lt;/iata:PayloadAttributes&gt;</pre> |      |

## Version

Used for sending information to another party. Note that having the version of the message in the message provides no benefit, however this may be used for other bilateral purposes (such as an aggregator detailing a sourcing message version).

## Retransmission ID

Used for recovering a failed transaction, by requesting the Airline to re-send the initial response if it recieved it.

# Bundles

## Overview

This document describes the bundle concept as a retailing capability as opposed to the way it is constructed by the Offer creation processes.

## Bundle

The Airline is driving the offer construction and can decide to bundle services together with a single price. All conditions and attributes which only exist at OfferItem level therefore apply to all of the individual services of the OfferItem.

There is no “bundle indicator” required as this is implied in the OfferItem construction. Multiple services under the same OfferItem are tied together.

## Flexible selection of Bundle items – so called "Pick M of N"

Within an Offer, the airline can make the proposal of a menu of bundled items for the seller/customer to select a subset of items desired. A single price is defined regardless of the selection being made.

This capability is leveraging the basic bundle representation described above. The list of options that are returned additionally includes the maximum number of services (expressed as a quantity) that the seller/customer could select.



# Price Classes

## Overview

A Price Class is a retailing element that showcases a branding or commercial naming of the overall level of service of an Offer, PaxJourney or FareComponent. It is a simplified description of the benefits (or specificities, including lack of benefits) meant to be shown to the traveller to improve transparency and ease disclosure of the product properties.

Notice however that the Price Class is not a commitment nor a guarantee on the level of service finally delivered to the passenger. Two examples:

1. If an Offer is associated to a Price Class that is described as entailing a business cabin, this does not necessarily mean that all flights of the itinerary will be flown in business cabin (e.g., because that cabin may not exist on some flights of the itinerary).
2. If the Price Class states that the Offer is refundable, actual refundability conditions must be checked as part of the offer change & cancel restrictions (where all the conditions are precisely described).

Price Classes can be used to convey branding related to e.g, Branded Fares / Fare Families.

## Description of a Price Class

A Price Class is typically described by:

- a name
- and optionally:
  - a textual description of its properties
  - rich media illustrating the benefits
  - association to one or more cabins

## Usage of Price Classes

### Associated to a Fare Component

This usage mimics the former concept of Fare Families/ Branded Fares. Each Fare Component can be associated to a Price Class (via FareComponentType/PriceClassRefID) describing some high-level characteristics of the Fare Component.

### Associated to an Offer or PaxJourney(s)

This usage allows the airline to associate a Price Class to an Offer (via JourneyOverviewType/PriceClassRefID) or to a PaxJourney/list of multiple PaxJourneys (via JourneyOverviewType/JourneyPriceClassType/PriceClassRefID). This usage can only happen for offers containing flights (AirShoppingRS, OfferPriceRS, OrderReshopRS).

#### Note:

Price classes should be associated to either Fare Component Level or Offer/Pax Journey level but should not be combined in order to avoid confusion which one should be returned to the traveller.

## **As eligibility condition for A La Carte Offer Items**

A La Carte Offer Items can have a specific Price Class as eligibility condition (EligibilityType/ PriceClassRefID), meaning that the item is only available if associated to an Offer in that Price Class. Just like Price Class, eligibility Price Class is provided for information purposes as the ultimate eligibility check will be done by the airline and may not exactly match what provided in terms of eligibility information.

# Price Differentials

## Overview

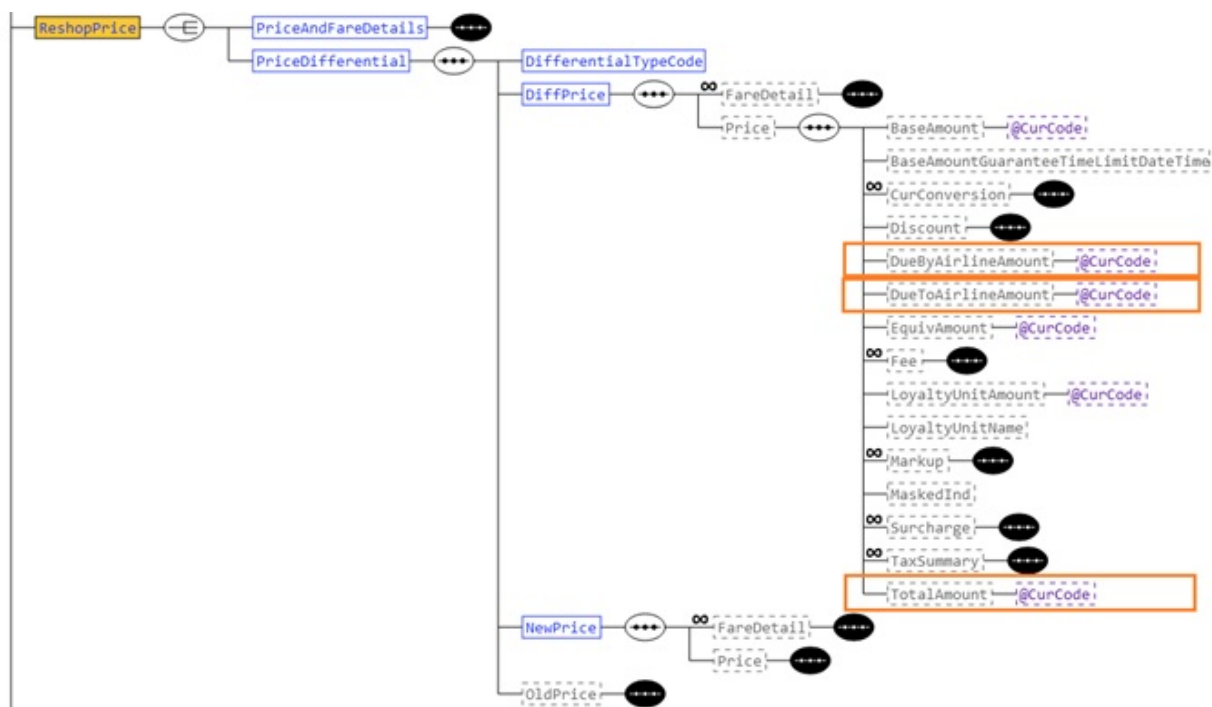
The price differential structure is used to show the difference in payment when a change is taking place. It presents the Old Price (the price on the current Order) and the New Price of the Offer regardless of the Order; and the PriceDiff which is the difference between the old Order and the new Offer.

## DiffPrice

The price differential will inform the customer about the total amount due to the airline and the total amount due by the airline.

The DueByAirlineAmount is the amount an airline will return to the customer. The DueToAirlineAmount is the amount an airline will collect from the customer. Both the values should always be positive. These amounts consider any penalties that could be associated with the change or cancel.

The TotalAmount value in Diff Price represents the difference of price for the product from OldPrice and New Price without considering penalties that may be associated with the change or cancellation of the product.



# Price Decimals

## Overview

It is best practice for an airline to always send decimal places in the amount values for currencies defined in IATA Resolution 024d as having decimal points. The format should be in accordance with IATA Resolution 024d.

## Currency with a decimal subdivision

### Two Decimals

Example of TotalAmount using Pound Sterling (GBP) which is a currency specified with two decimals

| Markup   | Copy |
|--|------|
| <pre>&lt;TotalAmount CurCode="GBP"&gt;10230.00&lt;/TotalAmount&gt;</pre> |      |

### Three Decimals

Example of TotalAmount using Tunisian Dinar (TND) which is a currency specified with three decimals

| Markup   | Copy |
|--|------|
| <pre>&lt;TotalAmount CurCode="TND"&gt;1234.000&lt;/TotalAmount&gt;</pre> |      |

### Example of Currency without a decimal

Example of TotalAmount using Japanese Yen (JPY) which is a currency specified without a decimal

| Markup  | Copy |
|---|------|
| <pre>&lt;TotalAmount CurCode="JPY"&gt;10230&lt;/TotalAmount&gt;</pre> |      |

# Tax Summary

## Overview

The Tax Summary and Tax Types are used to display tax information relating to the parent structure. The below examples show how Tax information can be represented in this structure.

Note that the Tax Summary Type contains properties such as AllRefundableInd, ApproximateInd, CollectionInd, TotalRefundableTaxAmount and TotalTaxAmount which may be a duplication of information summed in the TaxType. Where possible, it's use and compute this desired information from the Tax Type as opposed to using the Tax Summary Information.

## Minimum Information Required

As a minimum, when presenting Tax Information, the Airline shall send through the Amount, the Tax Code and the Name of the Tax.

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:TaxSummary&gt;   &lt;cns:Tax&gt;     &lt;cns:Amount CurCode="USD"&gt;10&lt;/cns:Amount&gt;     &lt;cns:TaxCode&gt;AA&lt;/cns:TaxCode&gt;     &lt;cns:TaxName&gt;Name of the Tax as per TTBS&lt;/cns:TaxName&gt;   &lt;/cns:Tax&gt;   &lt;cns:Tax&gt;     &lt;cns:Amount CurCode="USD"&gt;10&lt;/cns:Amount&gt;     &lt;cns:TaxCode&gt;AA&lt;/cns:TaxCode&gt;     &lt;cns:TaxName&gt;Name of the Tax as per TTBS&lt;/cns:TaxName&gt;   &lt;/cns:Tax&gt; &lt;/cns:TaxSummary&gt;</pre> |      |

# Discounts

## Overview

Discounts can be applied on all Price structures using the DiscountType. This advises the Seller that a reduction in the price has been applied, which can be either a percentage of the amount, or a fixed amount, as detailed below.

The Price Amount will show the final price after the discount was applied.

A seller can also requests to apply a particular discount code to be applied in the shopping request using

## Percentage Discount

If a percentage discount is applied, the discount structure may show the percentage value and the amount prior to the discount along with a short description or reason for the discount and any related discount code applied.

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:Discount&gt;   &lt;cns:AppText&gt;Your Discount Code&lt;/cns:AppText&gt;   &lt;cns:DescText&gt;Family Discount Deal&lt;/cns:DescText&gt;   &lt;cns:DiscountPercent&gt;10&lt;/cns:DiscountPercent&gt;   &lt;cns:PreDiscountedAmount CurCode="CHF"&gt;20&lt;/cns:PreDiscountedAmount&gt; &lt;/cns:Discount&gt;</pre> |      |

## Fixed Price Discount

Similarly, if the discount is a set amount, its simply shown in the DiscountAmount element.

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:Discount&gt;   &lt;cns:AppText&gt;Your Discount Code&lt;/cns:AppText&gt;   &lt;cns:DescText&gt;Family DIscount Deal&lt;/cns:DescText&gt;   &lt;cns:DiscountAmount CurCode="CHF"&gt;10&lt;/cns:DiscountAmount&gt;   &lt;cns:PreDiscountedAmount CurCode="CHF"&gt;20&lt;/cns:PreDiscountedAmount&gt; &lt;/cns:Discount&gt;</pre> |      |

# Fees

## Overview

A fee is an additional component on top of the Base Amount used to describe various additional costs associated with the price.

## A Fee with a Fixed Amount

A Fee that is fixed can be represented as below, noting that the ApproximateInd is set to false, there is a Code to programmatically describe the fee and a friendly description.

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:Fee&gt;   &lt;cns:Amount CurCode="USD"&gt;10&lt;/cns:Amount&gt;   &lt;cns:ApproximateInd&gt;false&lt;/cns:ApproximateInd&gt;   &lt;cns:DescText&gt;A Fee Description&lt;/cns:DescText&gt;   &lt;cns:DesigText&gt;USC&lt;/cns:DesigText&gt;   &lt;cns:RefundInd&gt;true&lt;/cns:RefundInd&gt; &lt;/cns:Fee&gt;</pre> |      |

## An Approximate Fee

If a fee total cannot be determined at the time of display, the airline can return an approximate fee which is either an approximate value, or a percentage of the BaseAmount.

Snippet below shows an approximate fee between two bounds.

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:Fee&gt;   &lt;cns:ApproximateInd&gt;true&lt;/cns:ApproximateInd&gt;   &lt;cns:DescText&gt;A Fee Description&lt;/cns:DescText&gt;   &lt;cns:DesigText&gt;USD&lt;/cns:DesigText&gt;   &lt;cns:MaximumAmount CurCode="USD"&gt;11&lt;/cns:MaximumAmount&gt;   &lt;cns:MinimumAmount CurCode="USD"&gt;9&lt;/cns:MinimumAmount&gt; &lt;/cns:Fee&gt;</pre> |      |

Snipping showing a percentage fee with optional min and max amounts also populated.

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:Fee&gt;   &lt;cns:ApproximateInd&gt;true&lt;/cns:ApproximateInd&gt;   &lt;cns:DescText&gt;A Fee Description&lt;/cns:DescText&gt;   &lt;cns:DesigText&gt;USD&lt;/cns:DesigText&gt;   &lt;cns:MaximumAmount CurCode="USD"&gt;10&lt;/cns:MaximumAmount&gt;   &lt;cns:MinimumAmount CurCode="USD"&gt;9&lt;/cns:MinimumAmount&gt;   &lt;cns:Percent&gt;1&lt;/cns:Percent&gt; &lt;/cns:Fee&gt;</pre> |      |

## Additional Features

Additionally, the fee structure can return the fee in the local currency, and note if the fee is refundable should the Order be cancelled. The Time Limit also signifies the time and date at which this fee is not guaranteed should this be in an Offer or an unconfirmed Order.

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:Fee&gt;   &lt;cns:Amount CurCode="USD"&gt;10&lt;/cns:Amount&gt;   &lt;cns:ApproximateInd&gt;false&lt;/cns:ApproximateInd&gt;   &lt;cns:DescText&gt;A Fee Description&lt;/cns:DescText&gt;   &lt;cns:DesigText&gt;USD&lt;/cns:DesigText&gt;   &lt;cns:GuaranteeTimeLimitDateTime&gt;2001-12- 17T09:30:47Z&lt;/cns:GuaranteeTimeLimitDateTime&gt;   &lt;cns:LocalAmount CurCode="CHF"&gt;7&lt;/cns:LocalAmount&gt;   &lt;cns:RefundInd&gt;true&lt;/cns:RefundInd&gt; &lt;/cns:Fee&gt;</pre> |      |



# Commission and Margin

## Commission

The Airline may provide information relating to the commission that will be applied to the sale of an Offer.

The Airline may provide a commission percentage or set value within a Commission structure, not both.

An Airline may provide more than one commission structure with different Commission Codes, for example the Airline may send a 'standard' or 'supplemental' commission.

## Commission Response Elements

### Airline Advises a Set Value Commission

An airline may advise the Seller that an Item has a set commission value.

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:Commission&gt;   &lt;iata:Amount CurCode="CHF"&gt;1.00&lt;/iata:Amount&gt; &lt;/iata:Commission&gt;</pre> |      |

### Airline Advises a Percentage Commission

An Airline may advise the Seller that an Item has a set Commission percentage. If a percentage is provided, the airline shall also provide the amount to which the percentage is applied to.

| Markup   | Copy |
|--|------|
| <pre>&lt;iata:Commission&gt;   &lt;iata:Percentage&gt;1.00&lt;/iata:Percentage&gt;   &lt;iata:PercentageAppliedToAmount CurCode="CHF"&gt;1.0&lt;/iata:PercentageAppliedToAmount&gt; &lt;/iata:Commission&gt;</pre> |      |

### Airline Advises Commission Type

An airline may advise the Seller the type of commission that is being applied to the Offer item using the CommissionCode element

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:Commission&gt;   &lt;iata:Amount CurCode="CHF"&gt;1.00&lt;/iata:Amount&gt;   &lt;iata:CommissionCode&gt;STANDARD&lt;/iata:CommissionCode&gt; &lt;/iata:Commission&gt;</pre> |      |

## Commission Code

Note there is no codeset for this element.

#### 04. Airline Advises Multiple Commission Types

An airline may send multiple commissions which would be applied.

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:Commission&gt;   &lt;iata:CommissionCode&gt;STANDARD&lt;/iata:CommissionCode&gt;   &lt;iata:Percentage&gt;1.0&lt;/iata:Percentage&gt;   &lt;iata:PercentageAppliedToAmount CurCode="CHF"&gt;1.00&lt;/iata:PercentageAppliedToAmount&gt; &lt;/iata:Commission&gt; &lt;iata:Commission&gt;   &lt;iata:Amount CurCode="CHF"&gt;1.00&lt;/iata:Amount&gt;   &lt;iata:CommissionCode&gt;SUPPLEMENTAL&lt;/iata:CommissionCode&gt; &lt;/iata:Commission&gt;</pre> |      |

## Margin

A Seller may apply a margin to an Airline Offer before quoting a price to the Customer.

This document describes the scenario in which the Seller is the Merchant of Record and the Airline does not set the amount that is ultimately quoted to the Customer.

#### Out of Scope

- Airline as Merchant of Record
- Airline sets the amount that is quoted to the Customer

#### Adding a Margin to an Offer

The process for the Seller to apply a margin to an Offer is possible by following the below process.

1. The Seller sends a Shopping Request to the Airline
2. The Airline responds with Offers and the price of each Offer, including applicable taxes, fees & charges
3. The Seller may choose to add an additional amount (margin) to the Airline Offer and quote a combined Airline Offer Price + Margin to the Customer
4. If the Seller wishes to proceed with the Order, the Seller asks the Airline to create an Order for the amount quoted in the Airline Offer (less the margin),
5. The Seller collects payment from the Customer. The Seller can bill the customer for Airline Price + Taxes, Fees & Charges + Margin in one single transaction
6. The Airline creates an Order for the amount agreed between Seller and Airline, including any applicable taxes, fees and charges.
7. The Airline's Order will not contain any record of the Seller's margin
8. The Airline can mask the price so that it is not visible to the customer and can indicate to the Seller that the price is masked, using the Price Mask Indicator
9. The Seller pays the Airline the agreed amount, the Airline Offer Price, via BSP/ARC

# Baggage Ancillary

## Overview

Piece and Weight based baggage paradigms are supported in the Offer and Order messages with various capabilities to describe a bag, its associations and its attributes. The below guidance demonstrates how this is achieved today.

## Baggage Concepts

There are 3 main restrictions to cover to represent a Bag: Weight, Dimension, Pieces. Each item, is optional, but if populated, represents a restriction.

## Weight

Ability to support baggage expressed in weight , weight can be a range with Min and Max weight, and in Pounds or Kilograms. The Airline can return either Pounds or Kilograms, or both if they prefer. The Airline Has to specify a Max Weight, but no Min weight is required.

| Markup   | Copy |
|--|------|
| <pre>&lt;BaggageAllowance&gt;   &lt;BaggageAllowanceID&gt;2&lt;/cns:BaggageAllowanceID&gt;   &lt;DescText&gt;23 Kgs Checked Baggage Allowance&lt;/cns:DescText&gt;   &lt;TypeCode&gt;Checked&lt;/cns:TypeCode&gt;   &lt;WeightAllowance&gt;     &lt;MaximumWeightMeasure&gt;23&lt;/cns:MaximumWeightMeasure&gt;     &lt;MinimumWeightMeasure&gt;0.5&lt;/cns:MimumWeightMeasure&gt;     &lt;WeightUnitOfMeasurement&gt;KGM&lt;/cns:WeightUnitOfMeasurement&gt;   &lt;/WeightAllowance&gt; &lt;/BaggageAllowance&gt;</pre> |      |

## Piece and Weight

Ability to support baggage expressed in pieces with associated weight, in this example, a simple integer is used to express the amount of Bags are allowed at this weight.

| Markup   | Copy |
|--|------|
| <pre>&lt;BaggageAllowance&gt;   &lt;BaggageAllowanceID&gt;2&lt;/BaggageAllowanceID&gt;   &lt;DescText&gt;1 x 23 Kgs Checked Baggage Allowance&lt;/DescText&gt;   &lt;PieceAllowance&gt;     &lt;TotalQty&gt;1&lt;/TotalQty&gt;   &lt;/PieceAllowance&gt;   &lt;TypeCode&gt;Checked&lt;/TypeCode&gt;   &lt;WeightAllowance&gt;     &lt;MaximumWeightMeasure&gt;23&lt;/MaximumWeightMeasure&gt;     &lt;MimumWeightMeasure&gt;0.5&lt;/MimumWeightMeasure&gt;     &lt;WeightUnitOfMeasurement&gt;KGM&lt;/WeightUnitOfMeasurement&gt;   &lt;/WeightAllowance&gt; &lt;/BaggageAllowance&gt;</pre> |      |

## Piece, Weight and Dimensions

Ability to support baggage expressed in pieces, weight, with associated Dimensions. The Airline can return the min, max, and linear representation of the dimensions in centimeters or inches, or both.

| Markup  | Copy |
|---|------|
| <pre>&lt;BaggageAllowance&gt;   &lt;BaggageAllowanceID&gt;3&lt;/BaggageAllowanceID&gt;   &lt;DescText&gt;1 x 50Lbs (Size Restricted) Checked Baggage Allowance&lt;/DescText&gt;   &lt;TypeCode&gt;Checked&lt;/TypeCode&gt;   &lt;MaximumDimensionAllowance&gt;     &lt;HeightMeasure&gt;60&lt;/HeightMeasure&gt;     &lt;LengthMeasure&gt;50&lt;/LengthMeasure&gt;     &lt;LengthUnitOfMeasurement&gt;FOT&lt;/LengthUnitOfMeasurement&gt;     &lt;LinearMeasure&gt;140&lt;/LinearMeasure&gt;     &lt;WidthMeasure&gt;40&lt;/WidthMeasure&gt;   &lt;/MaximumDimensionAllowance&gt;   &lt;MaximumDimensionAllowance&gt;     &lt;HeightMeasure&gt;10&lt;/HeightMeasure&gt;     &lt;LengthMeasure&gt;10&lt;/LengthMeasure&gt;     &lt;LengthUnitOfMeasurement&gt;FOT&lt;/LengthUnitOfMeasurement&gt;     &lt;LinearMeasure&gt;30&lt;/LinearMeasure&gt;     &lt;WidthMeasure&gt;10&lt;/WidthMeasure&gt;   &lt;/MaximumDimensionAllowance&gt;   &lt;PieceAllowance&gt;     &lt;TotalQty&gt;1&lt;/TotalQty&gt;   &lt;/PieceAllowance&gt;   &lt;TypeCode&gt;Checked&lt;/TypeCode&gt;   &lt;WeightAllowance&gt;     &lt;MaximumWeightMeasure&gt;23&lt;/MaximumWeightMeasure&gt;     &lt;MinimumWeightMeasure&gt;0.5&lt;/MinimumWeightMeasure&gt;     &lt;WeightUnitOfMeasurement&gt;KGM&lt;/WeightUnitOfMeasurement&gt;   &lt;/WeightAllowance&gt; &lt;/BaggageAllowance&gt;</pre> |      |

## No Baggage Allowance

Ability to explicitly mention that there is no baggage allowance included. The Airline will simply return a Baggage Allowance with 0 pieces.

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:BaggageAllowance&gt;   &lt;cns:BaggageAllowanceID&gt;1&lt;/cns:BaggageAllowanceID&gt;   &lt;cns:DescText&gt;No Included Checked Baggage&lt;/cns:DescText&gt;   &lt;cns:SubTypeText&gt;Bag&lt;/cns:SubTypeText&gt;   &lt;cns:PieceAllowance&gt;     &lt;cns:TotalQty&gt;0&lt;/cns:TotalQty&gt;   &lt;/cns:PieceAllowance&gt; &lt;/cns:BaggageAllowance&gt;</pre> |      |

## Baggage Pooling

Ability for the baggage allowances to be pooled within the Order is supported through the Baggage Associations Type.

### Pooled Example:

In the below example, each passenger will have 2 bags at 23Kgs Weight Allowance, but as they are both within the Baggage Association, they can pool their baggage allowance.

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:BaggageAssociations&gt;   &lt;cns:BaggageAllowanceRefID&gt;1&lt;/cns:BaggageAllowanceRefID&gt;   &lt;cns:PaxRefID&gt;Pax-1&lt;/cns:PaxRefID&gt;   &lt;cns:PaxRefID&gt;Pax-2&lt;/cns:PaxRefID&gt; &lt;/cns:BaggageAssociations&gt;</pre> |      |

### Non-Pooled Example:

In the below example, as each passenger has their own baggage association of 2 bags and 23Kgs weight allowance, they cannot pool their bags, so each passenger will get 23 kgs and a max of 2 bags.

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:BaggageAssociations&gt;   &lt;cns:BaggageAllowanceRefID&gt;1&lt;/cns:BaggageAllowanceRefID&gt;   &lt;cns:PaxRefID&gt;Pax-1&lt;/cns:PaxRefID&gt; &lt;/cns:BaggageAssociations&gt; &lt;cns:BaggageAssociations&gt;   &lt;cns:BaggageAllowanceRefID&gt;2&lt;/cns:BaggageAllowanceRefID&gt;   &lt;cns:PaxRefID&gt;Pax-2&lt;/cns:PaxRefID&gt; &lt;/cns:BaggageAssociations&gt;</pre> |      |

### Baggage Allowance for the above examples:

| Markup   | Copy |
|--|------|
| <pre>&lt;BaggageAllowance&gt;   &lt;BaggageAllowanceID&gt;1&lt;/BaggageAllowanceID&gt;   &lt;DescText&gt;23 Kgs Checked Baggage Allowance&lt;/DescText&gt;   &lt;PieceAllowance&gt;     &lt;TotalQty&gt;2&lt;/TotalQty&gt;   &lt;/PieceAllowance&gt;   &lt;TypeCode&gt;Checked&lt;/TypeCode&gt;   &lt;WeightAllowance&gt;     &lt;MaximumWeightMeasure&gt;23&lt;/MaximumWeightMeasure&gt;     &lt;MinimumWeightMeasure&gt;0.5&lt;/MimumWeightMeasure&gt;     &lt;WeightUnitOfMeasurement&gt;KGM&lt;/WeightUnitOfMeasurement&gt;   &lt;/WeightAllowance&gt; &lt;/BaggageAllowance&gt;</pre> |      |

## Extra Baggage Allowance

To add a nominal additional weight (for example, 10kgs) the airline can offer a 1kg bag in ServiceList for the Seller to choose a Qty of 10. The Airline will then return the Baggage Allowance as one 10kg Bag.

Example:

| Markup  | Copy |
|---|------|
| <pre>&lt;BaggageAllowance&gt;   &lt;BaggageAllowanceID&gt;1&lt;/BaggageAllowanceID&gt;   &lt;DescText&gt;Extra 1 x 1Kg Checked Baggage Allowance&lt;/DescText&gt;   &lt;PieceAllowance&gt;     &lt;TotalQty&gt;1&lt;/TotalQty&gt;   &lt;/PieceAllowance&gt;   &lt;TypeCode&gt;Checked&lt;/TypeCode&gt;   &lt;WeightAllowance&gt;     &lt;MaximumWeightMeasure&gt;1&lt;/MaximumWeightMeasure&gt;     &lt;WeightUnitOfMeasurement&gt;KGM&lt;/WeightUnitOfMeasurement&gt;   &lt;/WeightAllowance&gt; &lt;/BaggageAllowance&gt;</pre> |      |

## Baggage Taxonomy

### Baggage Type

A bag type may be further classified by detailed the location of the bag during the flight, please refer to Codeset Directory for more information.

| Type                  | Description  |
|-----------------------|--|
| Carry on              | Signifies that the Bag can be brought into the Cabin for storage.                      |
| Carryon Overhead      | Signifies that the Bag can be brought into the Cabin for storage in the overhead bins. |
| Carryon Personal Item | Signifies that the Bag is a personal item.   |
| Checked               | Signifies that the Bag will be stored in the belly of the aircraft.                    |

### Baggage Characteristics

Additional Baggage Characteristics can be used to determine specific characteristics for the bag, for example, **Fragile**, **Oversize** etc.

## Baggage Disclosures

### Disclosing Baggage Information

Ability to attach baggage disclosure information is also possible using the BaggageDisclosureRefID.

## Unsupported Capabilities

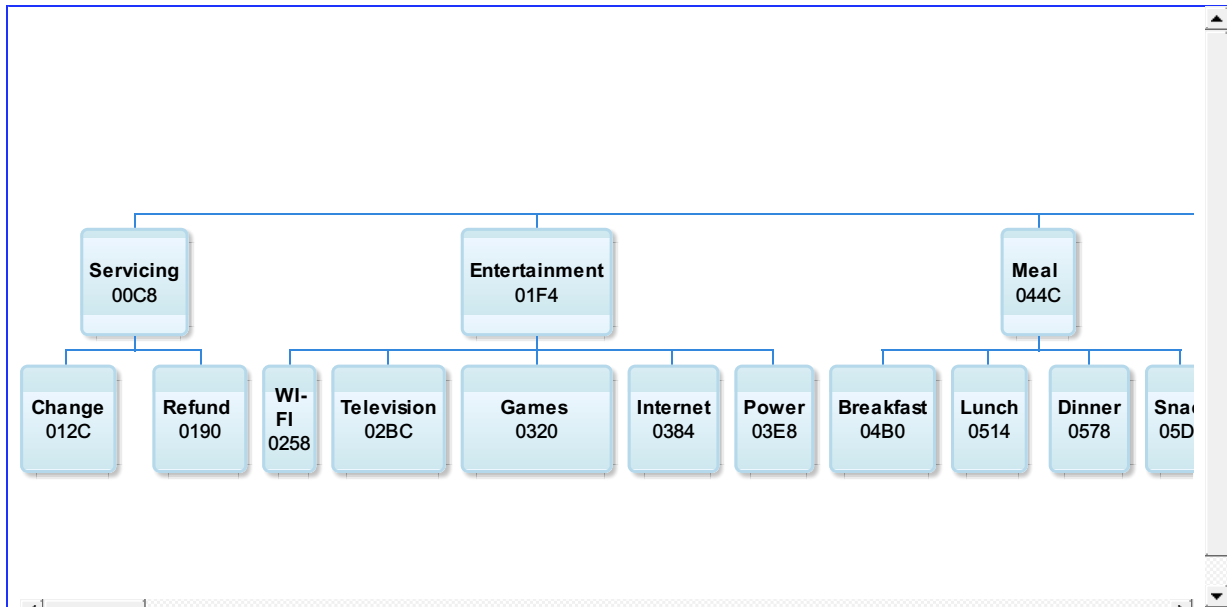
Some capabilities are not supported in the distribution messages to date, some are detailed below.

1. The ability to associate baggage to frequent flyer tiers for anonymous passengers, however the baggage can be associated to a passenger which would suggest that the airline can return tier related baggage information.

# Airline Taxonomy

## Overview

The Airline Taxonomy is a shared language for Airlines to describe their products and services to Sellers and a way for Sellers to optionally request specific features in an Offer.



## Codeset

The Taxonomy is a hierarchy of related items which is used to convey the context of the product or service and can be found in [this section](#).

As the Taxonomy is a hierarchy, the level of granularity can be customized, for example, by adding '0064' for 'Flight' as an Airline Taxonomy, the Airline is describing that the Service is a flight, however by stipulating '04B0' for 'Breakfast', the airline is also advising that Breakfast is part of a Meal Service, which is on the Flight.

## Management of the Airline Taxonomy

The Airline Taxonomy is a codeset managed by Airlines through the Standards Settings Governance. During a release, the Standards Group can **add** items to the Airline Taxonomy at any time. Items can only be **changed** or **removed** in a new release.

To request changes to the Airline Taxonomy, email [standards@iata.org](mailto:standards@iata.org) or contact a representative within the Offer Group.

## Airline Taxonomies at Different Levels

The Airline Taxonomy is attached at various items such as a Service, Service Definition, Offer Item etc; which potentially leads to various implementations. These below examples try to explain the preference on how the Airline may use this to appropriately describe their products and services.

### 1. Passenger Segment Taxonomy vs. Offer Level

1. If 'Snacks' were offered to all passengers on a flight, it would make sense to add the



Airline Taxonomy at the Passenger Segment Level or the Dated Operating Leg Level to signify that regardless of the passengers Service, they would receive Snacks (05DC).

2. Conversely, if Snacks were an optional item, or included in the Offer specifically, then it would make sense to add the Snack (05DC) to the Service Level or the Offer Item Level, as Snacks may not be available for all Offers on that flight.

## 2. Offer/Order Item vs Service Level

1. If an item relates specifically to a Service within an Offer Item, for example, a wheelchair (0898), then it makes sense to add this taxonomy item at the service level as it defines the Service being offered.
2. Conversely, an Airline may add an Airline Taxonomy at the Offer Item level which will apply to everything with that OfferItem, such as Change (012C) denoting that the OfferItem and all services within are changeable.

## 3. Consolidating Airline Taxonomies

1. If an Offer/Order Item has three Services, and those Services all have the same Taxonomy item, which has not been derived from a PaxSegment, ServiceDefinition or Dated Operating Leg, for example, Refundable (0190), the Airline may be consolidated up to the Offer/Order Item Level. As this is within the Offer or Order structure.
2. Conversely, it does not make sense to consolidate Airline Taxonomies from the Pax Segment, Dated Operating Leg or Service Definition to the Offer/Order Item level as these can be derived.

# Request Services using the Airline Taxonomy

## Requesting a Specific Service using the Airline Taxonomy

A Seller may use the Airline Taxonomy (or bilateral) to request specific products or services within the Offers to be returned. In this example, the Seller requests Offers with WIFI.

| Markup   | Copy |
|--|------|
| <pre>&lt;iata:shoppingcriteria&gt; &lt;iata:servicecriteria&gt; &lt;iata:taxonomycode&gt;0258&lt;/iata:taxonomycode&gt; &lt;/iata:servicecriteria&gt; &lt;/iata:shoppingcriteria&gt;</pre> |      |

## Requesting not to return Specific Services

A Seller may wish to filter the other way by specifically requesting that one or more services are not returned. In this example, the Seller requests that the Airline does not return any Offers which have alcoholic drinks included.

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:shoppingcriteria&gt; &lt;iata:servicecriteria&gt; &lt;iata:includeind&gt;false&lt;/iata:includeind&gt; &lt;iata:taxonomycode&gt;0258&lt;/iata:taxonomycode&gt; &lt;/iata:servicecriteria&gt; &lt;/iata:shoppingcriteria&gt;</pre> |      |

## Requesting Multiple Services using the Airline Taxonomy

The Seller may choose to have any Offer which contains any of the following services.

| Markup   | Copy |
|--|------|
| <pre>&lt;iata:shoppingcriteria&gt; &lt;iata:servicecriteria&gt; &lt;iata:taxonomycode&gt;0258&lt;/iata:taxonomycode&gt; &lt;iata:taxonomycode&gt;01F4&lt;/iata:taxonomycode&gt; &lt;/iata:servicecriteria&gt; &lt;/iata:shoppingcriteria&gt;</pre> |      |

## Requesting Services as Bilaterally Agreed between Parties

A Seller may specifically request a service that has been bilaterally agreed between the Airline and the Sellers previously. In this example, the Seller understands that the value ZZZA is a Pet Grooming Service, which the Seller would like within the returned Offers.

| Markup   | Copy |
|--|------|
| <pre>&lt;iata:shoppingcriteria&gt; &lt;iata:servicecriteria&gt; &lt;iata:taxonomycode&gt;ZZZA&lt;/iata:taxonomycode&gt; &lt;/iata:servicecriteria&gt; &lt;/iata:shoppingcriteria&gt;</pre> |      |

## Bilateral Content

It is possible to use bilaterally agreed content, however the Airline Taxonomy can also be updated to include new items to better describe a product or service.

## Responding with Services within the Airline Taxonomy

### Responding with a Taxonomized Service

An Airline may return a Service which is described using the Airline Taxonomy. In this example, the Airline has returned Lounge as defined within the Airline Taxonomy. (Airport -> Lounge)

| Markup   | Copy |
|--|------|
| <pre>&lt;iata:servicetaxonomy&gt; &lt;iata:desctext&gt;Lounge Access&lt;/iata:desctext&gt; &lt;iata:taxonomycode&gt;1B58&lt;/iata:taxonomycode&gt; &lt;/iata:servicetaxonomy&gt;</pre> |      |

### Responding with multiple Taxonomies for a Service

An Airline can describe a service with multiple Taxonomies. Here, the Airline describes its Lounge as having a Shower and Internet access.

| Markup | Copy |
|--------|------|
|        |      |

```

<iata:servicetaxonomy>
<iata:taxonomycode>1BBC</iata:taxonomycode>
</iata:servicetaxonomy>
<iata:servicetaxonomy>
<iata:taxonomycode>1BBC</iata:taxonomycode>
</iata:servicetaxonomy>

```

## Responding with Bilaterally agreed Taxonomies

An Airline may not find an appropriate Taxonomy structure for its product and may choose to add its own definitions to the structure bilaterally. In this example, the Airline is offering a Pet Grooming Service onboard. They've used the Shared Taxonomy to describe Pet but used their own value to describe it's a Grooming Service.

This can be done by the airline assigning a value and detailing this within its developer guidance. The Airline or Seller may, if they choose, bring this to the Standard Settings Group to add this in to the Shared Taxonomy if desired.

| Markup  | Copy |
|---|------|
| <pre> &lt;iata:servicetaxonomy&gt; &lt;iata:taxonomycode&gt;ZZZA&lt;/iata:taxonomycode&gt; &lt;/iata:servicetaxonomy&gt; </pre> |      |

## Responding Airline Specific information around that Service

An Airline may also send additional information through a simply Key-value pair associated with a Taxonomy value. In this example, the Airline states that it has Internet (via WI-FI) and choose to further specify information around the Internet service Onboard. The Keys are values are not defined at an industry level; this is up to the Airline to use.

| Markup  | Copy |
|---|------|
| <pre> &lt;iata:airlinetaxonomy&gt; &lt;iata:desctext&gt;Onboard Wi-Fi Internet Service&lt;/iata:desctext&gt; &lt;iata:servicefeature&gt; &lt;iata:codesetcode&gt;speed&lt;/iata:codesetcode&gt; &lt;iata:codesetnamecode&gt;BILATERAL&lt;/iata:codesetnamecode&gt; &lt;iata:valuetext&gt;50&lt;/iata:valuetext&gt; &lt;/iata:servicefeature&gt; &lt;iata:servicefeature&gt; &lt;iata:codesetcode&gt;altitude&lt;/iata:codesetcode&gt; &lt;iata:codesetnamecode&gt;BILATERAL&lt;/iata:codesetnamecode&gt; &lt;iata:valuetext&gt;10000&lt;/iata:valuetext&gt; &lt;/iata:servicefeature&gt; &lt;iata:taxonomycode&gt;01F4&lt;/iata:taxonomycode&gt; &lt;/iata:airlinetaxonomy&gt; </pre> |      |

## Airlines Developer Guide

With a bilaterally agreed feature set, the airline should advise the integrators the expected Keys to be delivered within a Taxonomy, similar to the below example.

| <b>Taxonomy</b>      | <b>Codeset</b> | <b>Feature Key</b> | <b>Feature Value</b>              | <b>Description</b>  |
|----------------------|----------------|--------------------|-----------------------------------|---|
| Pet Grooming Service | BILATERAL      | MaxPetLength       | Double (expressed in centimeters) | The maximum length of the pet which can be groomed during a flight. |
| Pet Grooming Service | BILATERAL      | MaxPetHeight       | Double (expressed in centimeters) | The maximum height of the pet which can be groomed during a flight. |
| Pet Grooming Service | BILATERAL      | MaxPetWeight       | Double (expressed in grams)       | The maximum weight of the pet which can be groomed during a flight. |

## Airline Taxonomy Codeset

| Taxonomy ID | Parent ID | Name             | Description  | Status                            |
|-------------|-----------|------------------|--|-----------------------------------|
| 0000        |           | Airline Taxonomy |  | Endorsed<br>01<br>October<br>2019 |
| 0064        | 0000      | Flight           | Any Product or Service related to a Flight                                     | Endorsed<br>01<br>October<br>2019 |
| 00C8        | 0064      | Servicing        | Any Product or Service related to Servicing of that Flight                     | Endorsed<br>01<br>October<br>2019 |
| 012C        | 00C8      | Change           | Any Product or Service relating to Change Conditions                           | Endorsed<br>01<br>October<br>2019 |
| 0190        | 00C8      | Refund           | Any Product or Service relating to Refund Conditions                           | Endorsed<br>01<br>October<br>2019 |
| 01F4        | 0064      | Entertainment    | Any Product or Service related to Entertainment on board a Flight              | Endorsed<br>01<br>October<br>2019 |
| 0258        | 01F4      | WI-FI            | Any Product or Service which is transmitted through Wireless means             | Endorsed<br>01<br>October<br>2019 |
| 02BC        | 01F4      | Television       | Any Product or Service that plays Video related Content                        | Endorsed<br>01<br>October<br>2019 |
| 0320        | 01F4      | Games            | Any Product or Service that relates to an activity engaged in for fun          | Endorsed<br>01<br>October<br>2019 |
| 0384        | 01F4      | Internet         | Any Product or Service that provides access and content from the Word Wide Web | Endorsed<br>01<br>October<br>2019 |
| 03E8        | 01F4      | Power            | Any Product or Service that charges Passenger Personal Devices                 | Endorsed<br>01<br>October<br>2019 |

|      |      |                   |  |                                   |
|------|------|-------------------|--|-----------------------------------|
| 044C | 0064 | Meal              | Any Product or Service which contains Food   | Endorsed<br>01<br>October<br>2019 |
| 04B0 | 044C | Breakfast         | Any Product or Service which contains food and is generally eaten first thing in the day | Endorsed<br>01<br>October<br>2019 |
| 0514 | 044C | Lunch             | Any Product or Service which contains food and is generally eaten mid-day                | Endorsed<br>01<br>October<br>2019 |
| 0578 | 044C | Dinner            | Any Product or Service which contains food and is generally eaten at the end of the day  | Endorsed<br>01<br>October<br>2019 |
| 05DC | 044C | Snack             | Any Product or Service which contains a small amount of food eaten between meals         | Endorsed<br>01<br>October<br>2019 |
| 0640 | 0064 | Beverage          | Any Product or Service which is drinkable  | Endorsed<br>01<br>October<br>2019 |
| 06A4 | 0640 | Alcoholic         | Any Product or Service which is drinkable and contains Alcohol                           | Endorsed<br>01<br>October<br>2019 |
| 0708 | 0640 | Non-Alcoholic     | Any Product or Service which is drinkable without Alcohol                                | Endorsed<br>01<br>October<br>2019 |
| 076C | 0064 | Medical Equipment | Any Product or Service which aids the health of a Passenger                              | Endorsed<br>01<br>October<br>2019 |
| 07D0 | 076C | Oxygen            | Any Product or Service which aids the breathing of a Passenger                           | Endorsed<br>01<br>October<br>2019 |
| 0834 | 076C | Stretcher         | Any Product or Service which transports a Passenger Lying down                           | Endorsed<br>01<br>October<br>2019 |
| 0898 | 076C | Wheelchair        | Any Product or Service which transports a Passenger using a Wheelchair                   | Endorsed<br>01<br>October<br>2019 |

|      |      |                          |  |                                   |
|------|------|--------------------------|--|-----------------------------------|
| 08FC | 076C | Incubator                | Any Product or Service which transports a Passenger in a Controlled Environment                      | Endorsed<br>01<br>October<br>2019 |
| 0960 | 0064 | Escort                   | Any Product or Service which accompanies a Passenger   | Endorsed<br>01<br>October<br>2019 |
| 09C4 | 0960 | Minor                    | Any Product or Service which relates to accompanying a minor   | Endorsed<br>01<br>October<br>2019 |
| 0A28 | 0960 | Adults                   | Any Product or Service which relates to accompanying an individual                                   | Endorsed<br>01<br>October<br>2019 |
| 0A8C | 0960 | Secured                  | Any Product or Service which relates to accompanying a Prisoner or security restricted individual    | Endorsed<br>01<br>October<br>2019 |
| 0AF0 | 0960 | Senior                   | Any Product or Service which relates to accompanying a Senior  | Endorsed<br>01<br>October<br>2019 |
| 0B54 | 0960 | Medical                  | Any Product or Service which relates to accompanying an individual for medical purposes              | Endorsed<br>01<br>October<br>2019 |
| 0BB8 | 0960 | VIP                      | Any Product or Service which relates to accompanying a VIP passenger                                 | Endorsed<br>01<br>October<br>2019 |
| 0C1C | 0960 | Service Animal           | Any Product or Service which relates to a Service Animal which will accompany a passenger            | Endorsed<br>01<br>October<br>2019 |
| 0C80 | 0960 | Emotional Support Animal | Any Product or Service which relates to an Emotional Service Animal which will accompany a passenger | Endorsed<br>01<br>October<br>2019 |
| 0CE4 | 0064 | Loyalty                  | Any Product or Service relating to Passenger Loyalty   | Endorsed<br>01<br>October<br>2019 |

|      |      |               |  |                                   |
|------|------|---------------|--|-----------------------------------|
| 0D48 | 0064 | Upgrades      | Any Product or Service relating to the upgrade of a Passenger's selected Product | Endorsed<br>01<br>October<br>2019 |
| 0DAC | 0064 | Charity       | Any Product or Service which voluntarily gives help to people or things in need  | Endorsed<br>01<br>October<br>2019 |
| 0E10 | 0DAC | Environment   | Any Product or Service which voluntarily gives help to the Environment           | Endorsed<br>01<br>October<br>2019 |
| 0E74 | 0DAC | Humanitarian  | Any Product or Service which voluntarily gives help to People                    | Endorsed<br>01<br>October<br>2019 |
| 0ED8 | 0064 | Purchases     | Any Product or Service which can be purchased on board                           | Endorsed<br>01<br>October<br>2019 |
| 0F3C | 0ED8 | Duty Free     | Any Product or Service which can be purchased without duty                       | Endorsed<br>01<br>October<br>2019 |
| 0FA0 | 0064 | Cabin Baggage | Any Product or Service which allows for Standard Baggage in the Cabin            | Endorsed<br>01<br>October<br>2019 |
| 1004 | 0FA0 | Bag           | Any Product or Service which denotes the same of a standard bag                  | Endorsed<br>01<br>October<br>2019 |
| 1068 | 0FA0 | Car Seat      | Any Product or Service which allows for a Car Seat within the Cabin              | Endorsed<br>01<br>October<br>2019 |
| 10CC | 0FA0 | Stroller      | Any Product or Service which allows for a Stroller in the Cabin                  | Endorsed<br>01<br>October<br>2019 |
| 1130 | 0FA0 | Cot           | Any Product or Service which allows for a Cot in the Cabin                       | Endorsed<br>01<br>October<br>2019 |
| 1194 | 0FA0 | Pet           | Any Product or Service which allows a Pet in the Cabin                           | Endorsed<br>01<br>October<br>2019 |



|      |      |                  |   |                                   |
|------|------|------------------|---|-----------------------------------|
| 11F8 | 0FA0 | Excess           | Any Product or Service which allows Standard Excess Baggage in the Cabin  | Endorsed<br>01<br>October<br>2019 |
| 125C | 0FA0 | Human Remains    | Any Product or Service which allows Human Remains in the Cabin            | Endorsed<br>01<br>October<br>2019 |
| 12C0 | 0FA0 | Media Equipment  | Any Product or Service which allows for Media Equipment in the Cabin      | Endorsed<br>01<br>October<br>2019 |
| 1324 | 0FA0 | Music Equipment  | Any Product or Service which allows for Music Equipment to be transported | Endorsed<br>01<br>October<br>2019 |
| 1388 | 0FA0 | Sports Equipment | Any Product or Service which allows Sports Equipment in the Cabin         | Endorsed<br>01<br>October<br>2019 |
| 13EC | 0064 | Checked Baggage  | Any Product or Service which allows Standard Baggage to be Checked        | Endorsed<br>01<br>October<br>2019 |
| 1450 | 13EC | Bag              | Any Product or Service which denotes the same of a standard bag           | Endorsed<br>01<br>October<br>2019 |
| 14B4 | 13EC | Car Seat         | Any Product or Service which allows for a Car Seat to be Checked          | Endorsed<br>01<br>October<br>2019 |
| 1518 | 13EC | Stroller         | Any Product or Service which allows for a Stroller to be Checked          | Endorsed<br>01<br>October<br>2019 |
| 157C | 13EC | Cot              | Any Product or Service which allows for a Cot to be Checked               | Endorsed<br>01<br>October<br>2019 |
| 15E0 | 13EC | Pet              | Any Product or Service which allows a Pet to be Checked                   | Endorsed<br>01<br>October<br>2019 |
| 1644 | 13EC | Excess           | Any Product or Service which allows Standard Excess Baggage to be Checked | Endorsed<br>01<br>October<br>2019 |

|      |      |                  |   |                                   |
|------|------|------------------|---|-----------------------------------|
| 16A8 | 13EC | Human Remains    | Any Product or Service which allows Human Remains to be Checked                   | Endorsed<br>01<br>October<br>2019 |
| 170C | 13EC | Media Equipment  | Any Product or Service which allows for Media Equipment to be Checked             | Endorsed<br>01<br>October<br>2019 |
| 1770 | 13EC | Music Equipment  | Any Product or Service which allows for Music Equipment to be transported         | Endorsed<br>01<br>October<br>2019 |
| 17D4 | 13EC | Sports Equipment | Any Product or Service which allows Sports Equipment to be Checked                | Endorsed<br>01<br>October<br>2019 |
| 1838 | 0064 | Seat             | Any Product or Service associated to a Standard Seat                              | Endorsed<br>01<br>October<br>2019 |
| 189C | 1838 | Preferred        | Any Product or Service associated to a Preferred Seat                             | Endorsed<br>01<br>October<br>2019 |
| 1900 | 1838 | Bassinet         | Any Product or Service associated to a Bassinet                                   | Endorsed<br>01<br>October<br>2019 |
| 1964 | 0064 | Assistance       | Any Product or Service associated to general Assistance being offered             | Endorsed<br>01<br>October<br>2019 |
| 19C8 | 1964 | Minor            | Any Product or Service associated to general Assistance being offered for Minors  | Endorsed<br>01<br>October<br>2019 |
| 1A2C | 1964 | Adults           | Any Product or Service associated to general Assistance being offered for Adults  | Endorsed<br>01<br>October<br>2019 |
| 1A90 | 1964 | Senior           | Any Product or Service associated to general Assistance being offered for Seniors | Endorsed<br>01<br>October<br>2019 |

|      |      |           |   |                                   |
|------|------|-----------|---|-----------------------------------|
| 1AF4 | 0000 | Airport   | Any Product or Service related to an Airport  | Endorsed<br>01<br>October<br>2019 |
| 1B58 | 1AF4 | Lounge    | Any Product or Service related to a Lounge  | Endorsed<br>01<br>October<br>2019 |
| 1BBC | 1B58 | Amenities | Any Product or Service which is associated to a Lounge Amenity                                  | Endorsed<br>01<br>October<br>2019 |
| 1C20 | 1BBC | Seating   | Any Product or Service associated to Seating within a Lounge                                    | Endorsed<br>01<br>October<br>2019 |
| 1C84 | 1BBC | Restrooms | Any Product or Service associated to Restrooms within a Lounge                                  | Endorsed<br>01<br>October<br>2019 |
| 1CE8 | 1BBC | Shower    | Any Product or Service associated to Shower within a Lounge                                     | Endorsed<br>01<br>October<br>2019 |
| 1D4C | 1BBC | Meal      | Any Product or Service associated to Food within a Lounge                                       | Endorsed<br>01<br>October<br>2019 |
| 1DB0 | 1BBC | Beverage  | Any Product or Service associated to Beverages within a Lounge                                  | Endorsed<br>01<br>October<br>2019 |
| 1E14 | 1BBC | Office    | Any Product or Service associated to an Office Space within a Lounge                            | Endorsed<br>01<br>October<br>2019 |
| 1E78 | 1BBC | Internet  | Any Product or Service associated to Internet Connectivity within a Lounge                      | Endorsed<br>01<br>October<br>2019 |
| 1EDC | 1BBC | Sleeping  | Any Product or Service associated to Sleeping within a Lounge                                   | Endorsed<br>01<br>October<br>2019 |
| 1F40 | 1B58 | Location  | Any Taxonomy which defines the location of the Lounge (for example, prior to Security or after) | Endorsed<br>01<br>October<br>2019 |

|      |      |                   |  |                                   |
|------|------|-------------------|--|-----------------------------------|
| 1FA4 | 1F40 | Departure         | Taxonomy to define that the Lounge is available prior to Departure         | Endorsed<br>01<br>October<br>2019 |
| 2008 | 1F40 | Arrival           | Taxonomy to define that the Lounge is available after Arrival              | Endorsed<br>01<br>October<br>2019 |
| 206C | 1AF4 | Terminal          | Any Product or Service related to a Terminal                               | Endorsed<br>01<br>October<br>2019 |
| 20D0 | 206C | Amenities         | Any Product or Service related to a Terminal Amenity                       | Endorsed<br>01<br>October<br>2019 |
| 2134 | 20D0 | Shower            | Any Product or Service associated to Shower within the Terminal            | Endorsed<br>01<br>October<br>2019 |
| 2198 | 20D0 | Food and Beverage | Any Product or Service associated to Food and Beverage within the Terminal | Endorsed<br>01<br>October<br>2019 |
| 21FC | 20D0 | Sleeping          | Any Product or Service associated to Sleeping within the Terminal          | Endorsed<br>01<br>October<br>2019 |
| 2260 | 20D0 | Shops             | Any Product or Service associated to Shopping within the Terminal          | Endorsed<br>01<br>October<br>2019 |
| 22C4 | 20D0 | Internet          | Any Product or Service associated to granting access to the World Wide Web | Endorsed<br>01<br>October<br>2019 |
| 2328 | 1AF4 | Check In          | Any Product or Service associated to Check In                              | Endorsed<br>01<br>October<br>2019 |
| 238C | 2328 | Priority          | Any Product or Service associated to Priority Check In                     | Endorsed<br>01<br>October<br>2019 |

|      |      |                   |   |                                   |
|------|------|-------------------|---|-----------------------------------|
| 23F0 | 2328 | Manual            | Any Product or Service associated to a Check in Desk  | Endorsed<br>01<br>October<br>2019 |
| 2454 | 2328 | Internet          | Any Product or Service associated to the passenger checking in online (mobile, website etc) | Endorsed<br>01<br>October<br>2019 |
| 24B8 | 2328 | Automated         | Any Product or Service associated to Automated Check In                                     | Endorsed<br>01<br>October<br>2019 |
| 251C | 2328 | Kiosk             | Any Product or Service associated to Kiosk Check In   | Endorsed<br>01<br>October<br>2019 |
| 2580 | 1AF4 | Boarding          | Any Product or Service associated to Boarding   | Endorsed<br>01<br>October<br>2019 |
| 25E4 | 2580 | Priority          | Any Product or Service associated to Priority Boarding                                      | Endorsed<br>01<br>October<br>2019 |
| 2648 | 1AF4 | Security          | Any Product or Service associated to Security   | Endorsed<br>01<br>October<br>2019 |
| 26AC | 2648 | Priority          | Any Product or Service associated to Priority Security                                      | Endorsed<br>01<br>October<br>2019 |
| 2710 | 1AF4 | Medical Equipment | Any Product or Service which aids the health of a Passenger                                 | Endorsed<br>01<br>October<br>2019 |
| 2774 | 2710 | Oxygen            | Any Product or Service which aids the breathing of a Passenger                              | Endorsed<br>01<br>October<br>2019 |
| 27D8 | 2710 | Stretcher         | Any Product or Service which transports a Passenger lying down                              | Endorsed<br>01<br>October<br>2019 |
| 283C | 2710 | Wheelchair        | Any Product or Service which transports a Passenger using a Wheelchair                      | Endorsed<br>01<br>October<br>2019 |

|      |      |                          |  |                                   |
|------|------|--------------------------|--|-----------------------------------|
| 28A0 | 2710 | Incubator                | Any Product or Service which transports a Passenger in a Controlled Environment                      | Endorsed<br>01<br>October<br>2019 |
| 2904 | 1AF4 | Escort                   | Any Product or Service which accompanies a Passenger   | Endorsed<br>01<br>October<br>2019 |
| 2968 | 2904 | Minor                    | Any Product or Service which relates to accompanying a minor   | Endorsed<br>01<br>October<br>2019 |
| 29CC | 2904 | Adults                   | Any Product or Service which relates to accompanying an individual                                   | Endorsed<br>01<br>October<br>2019 |
| 2A30 | 2904 | Secured                  | Any Product or Service which relates to accompanying a Prisoner or security restricted individual    | Endorsed<br>01<br>October<br>2019 |
| 2A94 | 2904 | Senior                   | Any Product or Service which relates to accompanying a Senior  | Endorsed<br>01<br>October<br>2019 |
| 2AF8 | 2904 | Medical                  | Any Product or Service which relates to accompanying an individual for medical purposes              | Endorsed<br>01<br>October<br>2019 |
| 2B5C | 2904 | VIP                      | Any Product or Service which relates to accompanying a VIP passenger                                 | Endorsed<br>01<br>October<br>2019 |
| 2BC0 | 2904 | Service Animal           | Any Product or Service which relates to a Service Animal which will accompany a passenger            | Endorsed<br>01<br>October<br>2019 |
| 2C24 | 2904 | Emotional Support Animal | Any Product or Service which relates to an Emotional Service Animal which will accompany a passenger | Endorsed<br>01<br>October<br>2019 |
| 2C88 | 0000 | Ground                   | Any Product or Service relating to Ground Services outside the Airport                               | Endorsed<br>01<br>October<br>2019 |
| 2CEC | 2C88 | Transport                | Any Product or Service relating to Transport Services outside the Airport                            | Endorsed<br>01<br>October<br>2019 |

|      |      |               |   |                                   |
|------|------|---------------|---|-----------------------------------|
| 2D50 | 2CEC | Car Hire      | Any Product or Service relating to Car Hire                         | Endorsed<br>01<br>October<br>2019 |
| 2DB4 | 2CEC | Taxi          | Any Product or Service relating to renting a Taxi                   | Endorsed<br>01<br>October<br>2019 |
| 2E18 | 2CEC | Ride Share    | Any Product or Service relating to Ride Share Programs              | Endorsed<br>01<br>October<br>2019 |
| 2E7C | 2CEC | Train         | Any Product or Service relating to transport by Rail                | Endorsed<br>01<br>October<br>2019 |
| 2EE0 | 2CEC | Boat          | Any Product or Service relating to transport by Boat                | Endorsed<br>01<br>October<br>2019 |
| 2F44 | 2CEC | Cruise        | Any Product or Service relating to transport by Cruise Liner        | Endorsed<br>01<br>October<br>2019 |
| 2FA8 | 2CEC | Bus           | Any Product or Service relating to Bus or Coach                     | Endorsed<br>01<br>October<br>2019 |
| 300C | 2CEC | Tour          | Any Product or Service relating to transport via a Tour             | Endorsed<br>01<br>October<br>2019 |
| 3070 | 2CEC | Limo          | Any Product or Service relating to transport by Limousine           | Endorsed<br>01<br>October<br>2019 |
| 30D4 | 2C88 | Parking       | Any Product or Service relating to Parking offsite from the Airport | Endorsed<br>01<br>October<br>2019 |
| 3138 | 2C88 | Accommodation | Any Product or Service relating to Accommodation                    | Endorsed<br>01<br>October<br>2019 |

|      |      |               |   |                                   |
|------|------|---------------|---|-----------------------------------|
| 319C | 0000 | Journey       | Any Product or Service not relating specifically to a flight, ground or airport service. For example holiday insurance. | Endorsed<br>01<br>October<br>2019 |
| 3200 | 319C | Insurance     | Any Product or Service relating to Insurance outside the context of just a flight, airport or ground                    | Endorsed<br>01<br>October<br>2019 |
| 3264 | 319C | Visa Services | Any Product or Service relating to Visa Services  | Endorsed<br>01<br>October<br>2019 |
| 32C8 | 319C | Book and Hold | Any Product or Service relating to Book and Hold Services   | Endorsed<br>01<br>October<br>2019 |



# Order Concept

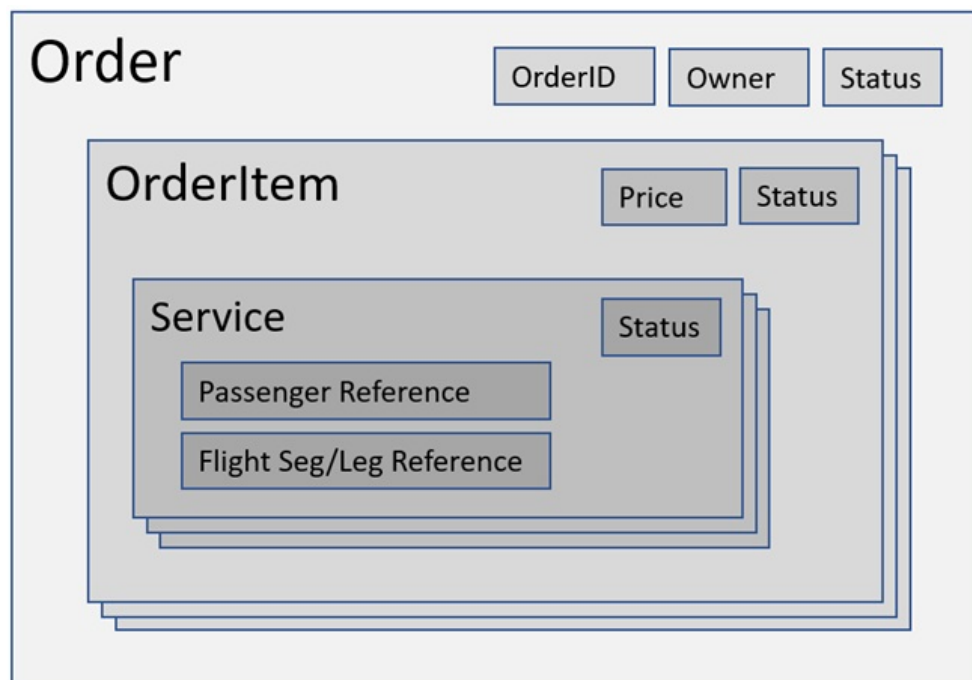
## Overview

This document describes the structure of Order, OrderItems, Services and relevant data directly associated with these items. This document will clarify the use of Status elements at these three levels and define what are the characteristics of an “open” item versus a “closed” item (that would no longer appear in OrderRetrieve requests).

## Order Types

### Order

An Order is a list of products/services that Customer(s) intend to buy or bought using the Customers[KG4] [DS5] [DS6] ' money. An Order is composed of two main element structures: one or more OrderItem elements and, within these, one or more Service elements. Below is a basic illustration of an Order structure, including some additional key data elements:



An Order has the below elements.

### Order Statuses

Order status could be:

**CLOSED:** When every Order Item (and Service) is in status cancelled and there is no value store/open document present in the Order

**OPEN:** Anything else

### OrderItem

An OrderItem represents the product that is bought by the Customer, or it can also represent the product the customer intends to buy. An OrderItem should have at least one service per passenger. An OrderItem has an associated identification number that is not standardized currently.

Each OrderItem is created from a corresponding OfferItem. As such an OrderItem is also a representation of the set of Service(s) collectively evaluated for pricing.

## **Order Item Statuses**

OrderItem statuses are described below, the status of the OrderItem is either:

**CANCELLED:** When all the contained services in the OrderItem have a service status of cancelled or transferred

**ACTIVE:** Anything else

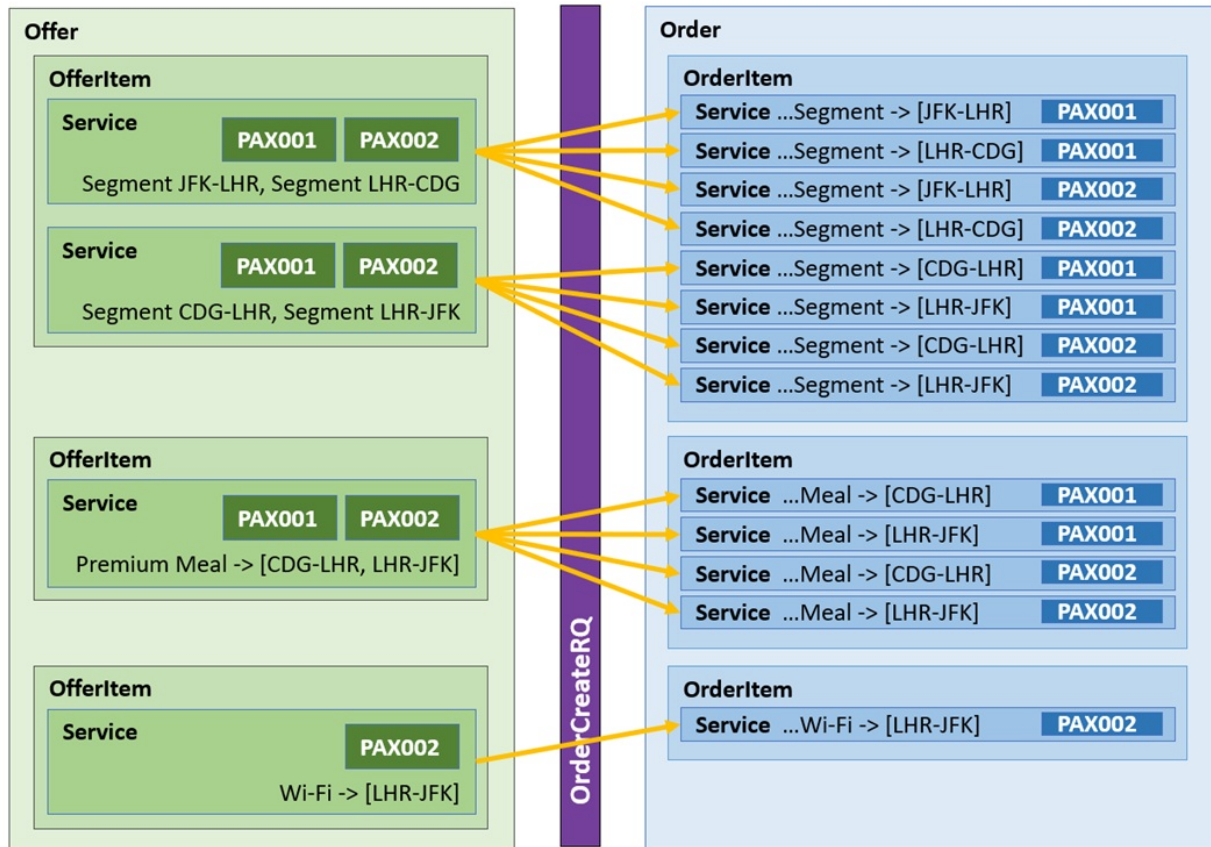
## **Ordered Services**

One or multiple deliverable services per passengers, associated to the product/ OrderItem. An Ordered Service should be the lowest level of granularity which can be delivered – thus by definition it should not be possible for an Ordered Service to be partially delivered.

In contrast with Offered Services (Services within an OfferItem), Ordered Services do not group references to Passengers and related flights together.

While a single Offer Service can reference multiple Passengers and flight Segments, Order Services multiply more granularly, as they can only reference one Passenger and one flight Segment. This precision is later needed for fulfilment tracking and revenue accounting.

Note that each OfferItem always becomes a single OrderItem, therefore the change in granularity only happens at the Service level. The diagram below illustrates the transition between an Offer and an Order at time of Order creation, using two Passengers travelling round-trip from JFK to CDG via LHR with ancillaries on only certain Segments:



Ordered Service has the following key elements:

## Service Status

**REQUESTED:** Airline is in the process of confirming or not the service to the customer

**WAITLISTED:** Airline acknowledges the waitlist request from the Seller and Airline will confirm if service becomes available later

**CONFIRMED:** Airline acknowledges and confirms that the service is allocated to the customer.

**CANCELLED:** Airline informs that the service is no longer allocated to the customer

**TRANSFERRED:** When an OrderItem is modified and some of its services must be retained, Original OrderItem will have OrderItem status cancelled and within this item the retained services will have a service status transferred. The new OrderItem will contain the transferred service with service status confirmed and potentially other services as explained in the Concept document: Change / Modification of an Order.

## Other References

- OrderVersion: Refer [Order version concept](#)
- OrderID : Refer to [OrderID Concept](#)
- OwnerCode: Refer to OwnerCode concept

# Order ID

## Overview

As per Resolution 777, Orders shall be referred to using the specified format including the Airline Designator, Accounting Code (if available) and an 8 alpha-numeric value which uniquely identifies the Order within that Airline.

Within E&SD, all Orders shall return a correctly formatted Order ID and all requests for Orders shall use the Order ID. An Order ID is composed of 3 elements and consists of a concatenation of Airline Designator (2 or 3 character alpha-numeric), Airline Accounting Code (3 character alpha-numeric) and an Airline Reference (8 character alpha-numeric). Airlines without an assigned accounting code shall use 'XXX' in place of an accounting code. Detailed technical specifications for an Order ID are defined in IATA Resolution 777. For the transition phase, OrderRetrieve can be used to request an Order using a Booking Reference, however from that point on, the Order shall be referred to using the Order ID. Additionally, for the transition phase, underlying Booking References may be advised within the context of an Order.

## Airline returning an Order without a Booking Reference.

Regardless of the underlying Order Management system, an Airline may return an Order ID when constructing an Order.

| Markup   | Copy |
|--|------|
| <pre>&lt;k:Order&gt;   &lt;k:OrderID&gt;XB12300HFUSBN&lt;/k:OrderID&gt;   &lt;k:OwnerCode&gt;XB&lt;/k:OwnerCode&gt; &lt;/k:Order&gt;</pre> |      |

Using an Order ID is considered best practice within the Enhanced and Simplified Distribution messages.

## Airline returning an Order which has an underlying PNR (for the transition phase)

An Airline may be mimicking a true Order Management System while still using PNR's in the background. The Airline may still return the Booking Reference in the context of the Order for downstream processes.

Note in the below, the booking reference may simply be: HFUSBN.

| Markup   | Copy |
|--|------|
| <pre>&lt;k:Order&gt;   &lt;k:OrderID&gt;XB12300HFUSBN&lt;/k:OrderID&gt;   &lt;k:OwnerCode&gt;XB&lt;/k:OwnerCode&gt; &lt;/k:Order&gt;</pre> |      |

For Airlines who have not migrated to an Order ID, and to allow for a consistent standard, the Airline may construct the Order ID using existing Booking References.



# Order Versioning

## Overview

This section describes the Order Versioning concept. It has close relations to:

- The Historical Information on Orders capability ([link](#))
- The Order History concept ([link](#))
- *OrderHistoryRQ/RS* and *OrderChangeNotifRQ* messages

Orders undergo changes during their lifetime, starting with order creation and up to their current (most recent) status. A version number allows reference to an order as it was at a given point in time. The airline decides when the order version is incremented, but typically this will happen whenever significant changes to the order are done, by any actor in the Order.

## Order Versioning principles

1. The order version is an integer, starting at 1 for the first version of the order (i.e. the version created by an *OrderCreateRQ* message) and increasing over time by 1.
2. The airline can decide that a set of changes leads to a single version increase. This is visible in *OrderChangeNotifRQ* message, where an order version number is attached to a *ChangeOperationGroup* (consisting of one or multiple *ChangeOperation* elements).
3. The airline may maintain an internal versioning of the order that will typically be more granular than the external one. Only the external versioning is visible in NDC messages.

## Usage of order versioning

1. In *OrderRetrieveRQ* message: the seller can request a specific version of the order to be returned: if no specific version is requested, the airline must return the most recent (current) version of the order. This feature (retrieve a specific version of an order) is optional.
2. In *OrderViewRS* message: whenever an order snapshot is returned by *OrderViewRS* (as reply to an *OrderCreateRQ*, *OrderRetrieveRQ* or *OrderChangeRQ*), it is a recommended practice for the airline to return the order version (if *OCN* and/or *OrderHistory* are supported, as in both, version number is mandatory).
3. In *OrderChangeNotifRQ* message: when an order change notification is sent by an airline, this must trigger at least one version increase. Each version increase is the consequence of one *ChangeOperationGroup*.
4. In *OrderHistoryRQ* message: the seller can request the history of the order between a specified version and the most recent version (current order). If no version is specified, the airline must return the entire history of the order.
5. In *OrderHistoryRS* message: *OrderHistoryRS* message contains the list of all the changes (or a subset of them, if a specific version number is requested in the *OrderHistoryRQ* message) of an order. Here the term “changes” is intended in the *OrderChangeNotifRQ* sense (i.e., a list of *ChangeOperationGroup* elements).
6. In *OrderChangeRQ* message: whenever changes are to be applied (or committed) to an order, the seller can specify the version of the order that he/she assumes as being the current (most recent) one. This allows an airline to verify that no change of version has happened without the seller being aware of it. The best practice is:

1. For the seller: to send the version number in any *OrderChangeRQ* message. The most

recent version of the order can be obtained by the seller with any prior *OrderViewRS* message from the airline (e.g., as a reply to a prior *OrderRetrieveRQ* message).

2. For the airline:
  1. If no version is passed in the *OrderChangeRQ* message, proceed assuming the seller is aware of the current version of the order.
  2. If a version is passed in the *OrderChangeRQ* message:
    1. If it matches the current order version, proceed as usual.
    2. If it doesn't, then the airline should return an error.

# Order History

## Overview

The history of an Order is managed and tracked by the Airline in their Order Management System from the time of Order creation. Tracked changes can be comprised of Seller- and Airline-initiated changes. These details can be retrieved at any time by the Seller.

Technically, the Order history attempts to capture all the information that differs between one version of an Order and the next, following a change requested by any actor in the Order. It returns an accumulation of all changes within the lifecycle of an Order in sequential/chronological order. The data involved in each tracked change follows a similar principle used when an Airline notifies a Seller of a change (OrderChangeNotifRQ). Therefore, the only information that is needed in each group of changes is the specific data elements that have actually changed, as well as the related IDs necessary to indicate where those elements are located within the Order. Data that has not changed should not be included in the ChangeOperation.

## Structure of History

The structure of historical details of an Order in OrderHistoryRS is composed primarily of two parts:

1. The original snapshot of the Order at the time of its creation, starting at version “1”.
2. Any changes made to the Order following its creation.

These changes may be grouped together, where each group of changes collectively increases the version of the Order by one. These groups are represented within a “ChangeOperationGroup”, which can in turn consist of one or multiple “ChangeOperation” elements. Below is a representation of the hierarchy of information in OrderHistoryRS:

- ChangeOperationGroup - [each ChangeOperationGroup can contain as many ChangeOperations needed to collectively increase the version of the Order. OrderVersion is defined at this level, i.e. the resulting version of the Order incurred after having applied the changes specified in this group of ChangeOperations]. Note – the interpretation of the order of each ChangeOperationGroup is defined by the OrderVersion, with each value incrementing by one integer value for each group of change operations.
  - ChangeOperation - [contains add/delete/replace type operations on any changes applied anywhere within an Order]
    - ChangeDateTime - [Timestamp for when this change is effective from in the OMS]
    - ChangeTypeCode - [The type of change being made to the Order – see ATSB Codeset Directory “CHT”]
    - ReasonCode - [The reason behind the change being made to the Order – see ATSB Codeset Directory “CHR”]
    - New - [data elements to be appended to Order structure or to replace elements defined in “Old”]
    - Old - [data elements to be physically removed from Order structure or replaced by elements defined in “New”]





## Order History at Time of Order Creation

The first version of the Order should be presented in the “New” structure in its entirety (with nothing in “Old”), be placed in a single ChangeOperation, and with “OrderVersionNumber” set to “1”.

Once an Order has been created, if a Seller requests the history of an Order before any Seller- or Airline-initiated changes have occurred, they should simply see the equivalent of an entire snapshot of the Order, as it would appear if retrieving it through OrderRetrieveRQ.

Subsequently, changes can be structured as defined in the sections above, depending on the type of change.

This allows the Seller system to interpret and reconstruct the state of an Order at any point in its lifecycle simply by using the initial Order (version 1) as a baseline, and applying subsequent incremental changes onto this baseline.

## How to Capture Changes

Three basic types of operations can affect the information of an Order: addition, removal, and replacement of information. To capture these, the “New” and “Old” structures need to be used in the following combinations:

1. Adding information to an Order:
  1. Include new data elements only in the “New” structure. “Old” should remain empty.
2. Removing information from an Order:
  1. Inversely to adding information above, the removal makes use of only the “Old” structure, which includes the data that should no longer appear in the Order.
3. Replacing information in an Order:
  1. Make use of both “New” and “Old” by defining the data in “Old” that is intended to be replaced by the data in “New”.

## Design Considerations

The decision of how and when to use New, Old or both depends on each Airline’s implementation, acknowledging that the schemas provide flexibility in this regard. For example, replacing data (i.e. making use of New and Old together) could also be achieved by two consecutive ChangeOperations of New followed by Old, or vice versa.

The important thing to consider is that all changes defined within one group of ChangeOperations (i.e. all occurrences of ChangeOperation within each ChangeOperationGroup) are to be interpreted atomically. This means that when the Seller parses through changes within the group, all changes are to be interpreted together and in their intended sequence. This similar design principle is also, and to a greater extent, important for the functioning of OrderChangeNotifRQ, which works very similarly to OrderHistoryRS in this regard.

## **Identification of Change source**

The Airline may optionally attach the identity information of the Seller to the Seller-initiated changes by using the "DistributionChain" structure. This is especially useful in case an Order could be serviced by more than one Seller (e.g. multiple Agency IDs involved).

Similarly, the Airline may wish to include their identity to change operations that were triggered by themselves, for increased clarity and transparency.

# Offer and Order Restrictions

## Overview

In Offer and Order Management, only the rules associated to the Offer should be sent to the Seller, not the internal information relating to the construction of the Offer.

The below table signifies the information (expressed as categories) that can be delivered to the Seller. This information is delivered in various places within the messages. Some of which is detailed in this section.

| Cat 5<br>Advance<br>Purchase                                     | Cat 15<br>Sales<br>Restrictions   | Cat 8<br>Stopovers   | Cat 31<br>Voluntary<br>Changes  | Cat 33<br>Voluntary<br>Cancels  | Cat 35<br>Negotiated<br>fares  |
|--|---|--|---|---|--|
| Previously supported feature which is catered using Time limits. | Previously supported feature which is catered for with Form of Payment, Currency etc. | To advise the Seller of the potential Stop over information along the selected itinerary | To advise the Seller of all the potential change rules (if its possible, the cost, and at what stage in your journey) | To advise the Seller of all the potential cancel rules (if its possible, the cost, and at what stage in your journey) | To advise the Seller if this Offer Item has been negotiated and what type of Offer is being presented. |

The following information is not supported in the transmission from the Airline to the Seller as it is not required.

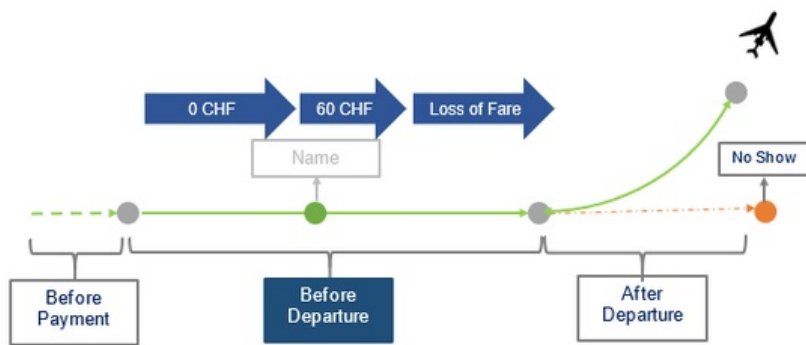
|                                  |                                 |                                    |  |                               |
|----------------------------------|---------------------------------|------------------------------------|--|-------------------------------|
| Cat 1<br>Eligibility             | Cat 2<br>Day/time application   | Cat 3<br>Seasonality               | Cat 4<br>Flight Application                | Cat 6<br>Minimum stay         |
| Cat 7<br>Minimum stay            | Cat 9<br>Transfers              | Cat 10<br>Combinability            | Cat 11<br>Blackout Dates                   | Cat 12<br>Surcharges          |
| Cat 13<br>Accompanied Travel     | Cat 14<br>Travel Restrictions   | Cat 16<br>Penalties                | Cat 17<br>Higher Intermediate Point (HIPS) | Cat 18<br>Ticket Endorsements |
| Cat 19<br>Child/infant discounts | Cat 20<br>Agent discounts       | Cat 21<br>Tour conductor discounts | Cat 22<br>Other discounts                  | Cat 25<br>Fare By Rule        |
| Cat 27<br>Tour conditions        | Cat 28<br>Visit Another Country | Cat 50<br>Application text         |  |                               |

## Stages of a Restriction

In many scenarios, there are multiple changes in conditions within a 'Stage', therefore Rules need to be governed by an effective date to limit them within the section of the stage.

Take the following example in an Economy Offer:

1. Change is 'free of charge' up to 30 days prior to Departure
2. Change is 1 CHF from 30 days prior to Departure
3. No changes are allowed within 7 days of Departure



This can be modelled within 3 Rules using the Effective Date. The Effective Date is the point at which the Rule starts. The Rule can end in two scenarios:

- When the Stage ends (i.e. in the above scenario, when the Flight Departs)
- When its overridden by another Rule with a later Effective Date.

Therefore the above would be modelled as below considering the flight scenario:

GVA -> SIN: Payment: 1st January 2019 and departing: 1st February 2019

| Scenario   | Rule  |
|--|---|
| 1. Change is 'free of charge' up to 30 days prior to Departure | <b>Rule 1</b><br>Effective: 1/1/2019<br>(Payment Date)<br>No penalty                  |
| 2. Change is 60 CHF from 30 days prior to Departure            | <b>Rule 2</b><br>Effective: 2/1/2019<br>(30 days from departure)<br>Penalty of 60 CHF |
| 3. No changes are allowed within 7 days of Departure           | <b>Rule 3</b><br>Effective: 24/1/2019<br>(7 days from departure)<br>Allowed is false. |

## Change Restrictions

### Advising Changes are not Possible

An Airline advises that changes are not possible for the Offer or an Offer Item.

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:ChangeRestrictions&gt;   &lt;iata:AllowedModificationInd&gt;false&lt;/iata:AllowedModificationInd&gt;   &lt;iata:ChangeTypeCode&gt;Flight&lt;/iata:ChangeTypeCode&gt;   &lt;iata:DescText&gt;Changes after Departure are not allowed.&lt;/iata:DescText&gt;   &lt;iata:JourneyStageCode&gt;After Departure&lt;/iata:JourneyStageCode&gt; &lt;/iata:ChangeRestrictions&gt;</pre> |      |

### Advising Changes are possible with Restrictions

An Airline advises that changes are possible for a specific period prior to departure, for fee.

| Markup  | Copy |
|---|------|
| <pre>&lt;iata:ChangeRestrictions&gt;   &lt;iata:AllowedModificationInd&gt;true&lt;/iata:AllowedModificationInd&gt;   &lt;iata:ChangeTypeCode&gt;Flight&lt;/iata:ChangeTypeCode&gt;   &lt;iata:DescText&gt;Change before departure will incur a change fee of 1 CHF.</pre> |      |

```

</iata:DescText>
  <iata:EffectiveDateTime>2020-12-17T09:30:47Z</iata:EffectiveDateTime>
  <iata:ExpirationDateTime>2020-12-19T09:30:47Z</iata:ExpirationDateTime>
  <iata:Fee>
    <iata:Amount CurCode="CHF">1.00</iata:Amount>
    <iata:ApproximateInd>>false</iata:ApproximateInd>
    <iata:DescText>Plus any additional fare difference</iata:DescText>
  </iata:Fee>
  <iata:JourneyStageCode>Before Departure</iata:JourneyStageCode>
</iata:ChangeRestrictions>

```

### Advising Changes are possible with Restrictions

An Airline advises that changes are possible for a specific period prior to departure, within a range for the fee.

| Markup   | Copy |
|--|------|
| <pre> &lt;iata:ChangeRestrictions&gt;   &lt;iata:AllowedModificationInd&gt;true&lt;/iata:AllowedModificationInd&gt;   &lt;iata:ChangeTypeCode&gt;Flight&lt;/iata:ChangeTypeCode&gt;   &lt;iata:DescText&gt;Change before departure will incur a change fee.&lt;/iata:DescText&gt;   &lt;iata:EffectiveDateTime TimeZoneCode="token"&gt;2020-12- 17T09:30:47Z&lt;/iata:EffectiveDateTime&gt;   &lt;iata:ExpirationDateTime TimeZoneCode="token"&gt;2020-12- 17T09:30:47Z&lt;/iata:ExpirationDateTime&gt;   &lt;iata:Fee&gt;     &lt;iata:Amount CurCode="CHF"&gt;1.00&lt;/iata:Amount&gt;     &lt;iata:ApproximateInd&gt;true&lt;/iata:ApproximateInd&gt;     &lt;iata:DescText&gt;from&lt;/iata:DescText&gt;   &lt;/iata:Fee&gt;   &lt;iata:JourneyStageCode&gt;Before Departure&lt;/iata:JourneyStageCode&gt; &lt;/iata:ChangeRestrictions&gt; </pre> |      |

### Airline advises Changes using Stage Code

An Airline advises that changes after departure (due to no show) are allowed, but comes with a 100% loss of fare.

| Markup   | Copy |
|--|------|
| <pre> &lt;iata:ChangeRestrictions&gt;   &lt;iata:AllowedModificationInd&gt;true&lt;/iata:AllowedModificationInd&gt;   &lt;iata:ChangeTypeCode&gt;Name&lt;/iata:ChangeTypeCode&gt;   &lt;iata:DescText&gt;Name Change Fee.&lt;/iata:DescText&gt;   &lt;iata:Fee&gt;     &lt;iata:Amount CurCode="CHF"&gt;1.00&lt;/iata:Amount&gt;   &lt;/iata:Fee&gt; &lt;/iata:ChangeRestrictions&gt; </pre> |      |

### Advising a Seller of Name Change Rules

Airline advises the Seller that name changes for this Offer (or Offer Item) is not allowed.

| Markup  | Copy |
|---|------|
| <pre> &lt;iata:ChangeRestrictions&gt;   &lt;iata:AllowedModificationInd&gt;false&lt;/iata:AllowedModificationInd&gt;   &lt;iata:ChangeTypeCode&gt;Name&lt;/iata:ChangeTypeCode&gt;   &lt;iata:DescText&gt;Name Changes are not allowed.&lt;/iata:DescText&gt; &lt;/iata:ChangeRestrictions&gt; </pre> |      |

## Advising Name Changes

Airline advises the Seller that names changes are allowed for a price.

| Markup   | Copy |
|--|------|
| <pre> &lt;iata:ChangeRestrictions&gt;   &lt;iata:AllowedModificationInd&gt;true&lt;/iata:AllowedModificationInd&gt;   &lt;iata:ChangeTypeCode&gt;Name&lt;/iata:ChangeTypeCode&gt;   &lt;iata:DescText&gt;Name Change Fee.&lt;/iata:DescText&gt;   &lt;iata:Fee&gt;     &lt;iata:Amount CurCode="CHF"&gt;1.00&lt;/iata:Amount&gt;   &lt;/iata:Fee&gt; &lt;/iata:ChangeRestrictions&gt; </pre> |      |

Airline advises the Seller that name changes are included in the Offer (free).

| Markup   | Copy |
|--|------|
| <pre> &lt;iata:ChangeRestrictions&gt;   &lt;iata:AllowedModificationInd&gt;true&lt;/iata:AllowedModificationInd&gt;   &lt;iata:ChangeTypeCode&gt;Name&lt;/iata:ChangeTypeCode&gt;   &lt;iata:DescText&gt;Name Change included.&lt;/iata:DescText&gt; &lt;/iata:ChangeRestrictions&gt; </pre> |      |

## Cancel Restrictions

### Advising a Seller of Cancel and Refundability Rules

A Seller advises that cancellations are not possible, and that the Customer will lose 100% of their fare.

| Markup  | Copy |
|---|------|
| <pre> &lt;iata:CancelRestrictions&gt;   &lt;iata:AllowedModificationInd&gt;false&lt;/iata:AllowedModificationInd&gt;   &lt;iata:DescText&gt;Cancellations after a no show are not permitted.&lt;/iata:DescText&gt;   &lt;iata:JourneyStageCode&gt;No Show&lt;/iata:JourneyStageCode&gt; &lt;/iata:CancelRestrictions&gt; </pre> |      |

### Advising the Seller that Cancellations after Departure are Possible

Advising the Seller that cancellations after departure are possible and fully refundable to the Original Form of Payment up until a certain date (expiration date).

| Markup  | Copy |
|---|------|
| <pre> &lt;iata:CancelRestrictions&gt;   &lt;iata:AllowedModificationInd&gt;true&lt;/iata:AllowedModificationInd&gt;   &lt;iata:DescText&gt;Cancellations after departure are permitted.&lt;/iata:DescText&gt;   &lt;iata:ExpirationDateTime&gt;2020-12-17T09:30:47Z&lt;/iata:ExpirationDateTime&gt;   &lt;iata:JourneyStageCode&gt;After Departure&lt;/iata:JourneyStageCode&gt;   &lt;iata:Refund&gt;     &lt;iata:FixedAmount CurCode="CHF"&gt;1.00&lt;/iata:FixedAmount&gt;     &lt;iata:LevelTypeCode&gt;Full&lt;/iata:LevelTypeCode&gt;     &lt;iata:PaymentTypeCode&gt;OFOP&lt;/iata:PaymentTypeCode&gt;   &lt;/iata:Refund&gt; &lt;/iata:CancelRestrictions&gt; </pre> |      |

## Stop Over Information

### Advising a Seller of Optional StopOver Information

The Offer Management System will evaluate the current itinerary (Offer) and determine if Stopovers are allowed for that itinerary. If Stopovers are allowed, the Airline may return the locations within the current itinerary and advise which ones have Stopovers.

The Seller can then request a new Offer including a Stopover if they wish.

### Linking Stopover Information to an Airport

PaxSegmentRefID relates to the inbound segment. For example, if the itinerary is GVA-SIN-BNE and the stopover is in SIN, the PaxSegmentRefID would link to the GVA-SIN segment.

### Advising the Seller that Stopovers are Available

The Airline wishes to advise the Seller that the itinerary could contain a stopover however is not descriptive as to what stopovers are allowed.

| Markup  | Copy |
|---|------|
| <pre> &lt;iata:StopOverRestrictions&gt;   &lt;iata:AvailInd&gt;true&lt;/iata:AvailInd&gt; &lt;/iata:StopOverRestrictions&gt; </pre> |      |

### Advising the Seller the Max Number of Stopovers Available

The airline wishes to advise that Seller that stopovers are allowed and there is a maximum of two stopovers available, which relate to both Passengers and will each cost 10 CHF.

| Markup   | Copy |
|--|------|
| <pre> &lt;iata:StopOverRestrictions&gt;   &lt;iata:AvailInd&gt;true&lt;/iata:AvailInd&gt;   &lt;iata:MaximumStopOversPermittedQty&gt;2&lt;/iata:MaximumStopOversPermittedQty&gt; &lt;/iata:StopOverRestrictions&gt; </pre> |      |

The Airline wishes to advise the Seller only one stopover is allowed, however there are 2 options to where this stopover can occur.

| Markup   | Copy |
|--|------|
| <pre> &lt;iata:StopOverRestrictions&gt;   &lt;iata:AvailInd&gt;true&lt;/iata:AvailInd&gt;   &lt;iata:MaximumStopOversPermittedQty&gt;2&lt;/iata:MaximumStopOversPermittedQty&gt; &lt;/iata:StopOverRestrictions&gt; &lt;iata:StopOverRestrictions&gt;   &lt;iata:AvailInd&gt;true&lt;/iata:AvailInd&gt;   &lt;iata:ChargeableInd&gt;true&lt;/iata:ChargeableInd&gt;   &lt;iata:MaximumStopOversPermittedQty&gt;1&lt;/iata:MaximumStopOversPermittedQty&gt;   &lt;iata:StopOverLocation&gt;     &lt;iata:DatedOperatingLegRefID&gt;token&lt;/iata:DatedOperatingLegRefID&gt;     &lt;iata:MaximumDuration&gt;P0Y0M0DT10H00M&lt;/iata:MaximumDuration&gt;     &lt;iata:PaxSegmentRefID&gt;PAXSEG-01&lt;/iata:PaxSegmentRefID&gt;   &lt;/iata:StopOverLocation&gt;   &lt;iata:StopOverLocation&gt;     &lt;iata:DatedOperatingLegRefID&gt;token&lt;/iata:DatedOperatingLegRefID&gt;     &lt;iata:MaximumDuration&gt;P0Y0M0DT10H00M&lt;/iata:MaximumDuration&gt;     &lt;iata:PaxSegmentRefID&gt;PAXSEG-03&lt;/iata:PaxSegmentRefID&gt;   &lt;/iata:StopOverLocation&gt; &lt;/iata:StopOverRestrictions&gt; </pre> |      |

## Unstructured Information

### Advising a Seller of Unstructured Information

Unstructured rules may also be communicated to the Seller at an Offer or Offer Item level using the description within the Rule, this description can be used to describe a structured rule, or independent, for example:



# Modification of an Order

## Overview

### Modification Types

A modification of an order is either:

- The replacement or cancellation of existing products and services within an order
- The addition of new products and services to an existing Order
- The replacement, removal, or addition of information relating to passengers or other items not related to products and services within an order

### Modification Modes

A modification may occur in three different modes:

- Modification initiated by the customer via an intermediary, such as a seller.
- Modification initiated by the airline
- Modification initiated by the customer directly with an airline

### Modification initiated by the customer via an intermediary

In this scenario, a customer's intent to modify an order is communicated via an intermediary such as a seller. The process consists of five main steps:

1. Validation that an order exists
2. Simulation of action to modify
3. Communication of modification offer(s)
4. Selection & Pricing of modification offer(s)
5. Confirmation of modification
6. Pricing of modification offer(s)

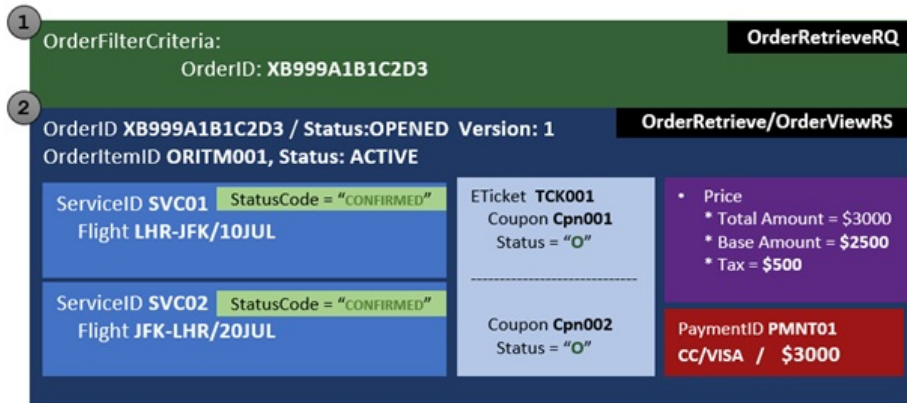
#### Note

The following illustration involves a specific type of order item structure that is associated with an accountable document. This illustration demonstrates the high-level concepts involved in modifying orders and does not imply that offers or orders should or should not be structured in a particular way.

### Validation that an order exists

#### Example:

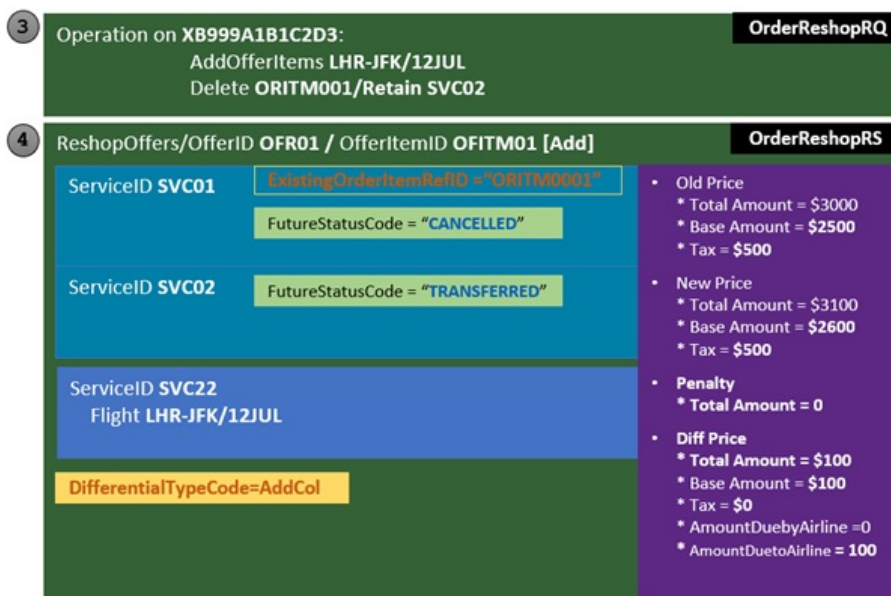
1. Seller requests details of a specific order XB999A1B1C2D3
2. Airline responds with the current state of order XB999A1B1C2D3



## Simulation of action to modify

### Example:

3. On behalf of the customer, the seller communicates:
  - a) An intent to retain a service
  - b) A request for modification offers for another service
4. The airline responds with modification offers that include:
  - a) Future status of affected items
  - b) A balance to be paid should the offer be accepted



### Note

In this step of the illustration, only a single offer is shown. A response may comprise of one or many or no modification offers depending on the original order, airline business rules and any conditions and restrictions associated with the original order items.

## Pricing of modification offers

### Example:

5. On behalf of the customer, the seller requests a price for a specific offer item OFITM01
6. The airline responds with a price for OFITM01 including
  - a) The price for the original item
  - b) The price of the new item
  - c) A balance to be paid for the new item

5

SelectedOffers:

OfferRefID: **OFR01**  
SelectedOfferItems: **OFITM01**

OrderQuoteRQ

6

QuotedOffer/OfferID **OFR01** / OfferItemID **OFITM01** [Add]

ServiceID **SVC01**  
ExistingOrderItemRefID = "OFITM0001"  
FutureStatusCode = "CANCELLED"

ServiceID **SVC02**  
FutureStatusCode = "TRANSFERRED"

ServiceID **SVC22**  
Flight **LHR-JFK/12JUL**

DifferentialTypeCode=AddCol

• Old Price  
\* Total Amount = \$3000  
\* Base Amount = \$2500  
\* Tax = \$500

• New Price  
\* Total Amount = \$3100  
\* Base Amount = \$2600  
\* Tax = \$500

• Penalty  
\* Total Amount = 0

• Diff Price  
\* Total Amount = \$100  
\* Base Amount = \$100  
\* Tax = \$0  
\* AmountDuebyAirline = 0  
\* AmountDuetoAirline = \$ 100

OrderReshopRS

## Acceptance of modification offer

### Example:

7. On behalf of the customer, the seller provides intent to accept the modification offer including
  - a) acceptance of the offer item OFITM01 payment towards the balance to be paid for the new item

#### Note

For this illustration, payment is provided alongside acceptance of the offer

7

SelectedOffers:

OfferRefID: **OFR01**  
SelectedOfferItems: **OFITM01**

OrderChangeRQ

PaymentMethod  
**CC/VISA / \$100**

## Confirmation of modification success

### Example:

8. The seller returns confirmation of the modification success including
  - a) The old order item and its status

b) The new order item and its status

c) Any payments relating to the order

8

OrderID XB999A1B1C2D3, Version: 2, Status: OPENED

OrderViewRS

OrderItemID ORITM001, Status: CANCELLED

ServiceID SVC01

StatusCode = "CANCELLED"

Flight LHR-JFK/10JUL

ServiceID SVC02

StatusCode = "TRANSFERRED"

Flight JFK-LHR/20JUL

ETicket TCK001

Coupon Cpn001

Status = "E"

Coupon Cpn002

Status = "E"

Price

\* Total Amount = \$3000

\* Base Amount = \$2500

\* Tax = \$500

OrderItemID ORITM002, Status: ACTIVE

ServiceID SVC23

StatusCode = "CONFIRMED"

Flight LHR-JFK/12JUL

ServiceID SVC02

StatusCode = "CONFIRMED"

Flight JFK-LHR/20JUL

ETicket TCK002

Coupon Cpn001

Status = "O"

Coupon Cpn002

Status = "O"

Price

\* Total Amount = \$3000

\* Base Amount = \$2500

\* Tax = \$500

Old Price

\* Total Amount = \$3000

\* Base Amount = \$2500

\* Tax = \$500

New Price

\* Total Amount = \$3100

\* Base Amount = \$2600

\* Tax = \$500

Penalty

\* Total Amount = 0

Diff Price

\* Total Amount = \$100

\* Base Amount = \$100

\* Tax = \$0

\* AmountDuebyAirline = 0

\* AmountDuetoAirline = \$ 100

ExistingOrderItemRefId= ORITM001

PaymentID PMNT01

PaymentID PMNT02

CC/VISA / \$3000

CC/VISA / \$100

DifferentialTypeCode -AddCol

## Confirmation of modification success

Example:

9. The seller returns confirmation of the modification success including

a) The old order item and its status

b) The new order item and its status

Any payments relating to the order

| Markup   | Copy |
|--|------|
| <pre>&lt;ChangeGroup&gt;   &lt;ChangeOperationGroup&gt;     &lt;ChangeOperation&gt;       &lt;ChangeDateTime&gt;2022-05-24T09:30:47Z&lt;/ChangeDateTime&gt;       &lt;ChangeTypeCode&gt;3&lt;/ChangeTypeCode&gt;       &lt;New&gt;         &lt;Order&gt;           &lt;OrderID&gt;ORD12345&lt;/OrderID&gt;           &lt;OrderItem&gt;             &lt;DiffPrice&gt;               &lt;DifferentialTypeCode&gt;Refund&lt;/DifferentialTypeCode&gt;               &lt;DiffPrice&gt;                 &lt;Price&gt;</pre> |      |

```

        <BaseAmount CurCode="USD">0</BaseAmount>
        <DueByAirlineAmount CurCode="XSD">100</DueByAirlineAmount>
        <TotalAmount CurCode="USD">0</TotalAmount>
    </Price>
</DiffPrice>
<NewPrice>
    <Price>
        <BaseAmount CurCode="USD">0</BaseAmount>
        <TotalAmount CurCode="USD">0</TotalAmount>
    </Price>
</NewPrice>
<OldPrice>
    <Price>
        <BaseAmount CurCode="USD">0</BaseAmount>
        <TotalAmount CurCode="USD">0</TotalAmount>
    </Price>
</OldPrice>
</DiffPrice>
<OrderItemID>OITM001</OrderItemID>
<SellerFollowUpAction>
    <ActionCode>Accept</ActionCode>
    <ActionInd>true</ActionInd>
</SellerFollowUpAction>
<Service>
    <ServiceID>SCV001</ServiceID>
    <StatusCode>CANCELLED</StatusCode>
</Service>
<Service>
    <ServiceID>SCV002</ServiceID>
    <StatusCode>CANCELLED</StatusCode>
</Service>
</OrderItem>
<OrderVersionNumber>2</OrderVersionNumber>
</Order>
</New>
<Old>
    <Order>
        <OrderID>ORD12345</OrderID>
        <OrderItem>
            <OrderItemID>OITM001</OrderItemID>
            <Service>
                <ServiceID>SCV001</ServiceID>
                <StatusCode>CONFIRMED</StatusCode>
            </Service>
            <Service>
                <ServiceID>SCV002</ServiceID>
                <StatusCode>CONFIRMED</StatusCode>
            </Service>
        </OrderItem>
        <OrderVersionNumber>1</OrderVersionNumber>
    </Order>
</Old>
    <ReasonCode>100</ReasonCode>
</ChangeOperation>
<OrderVersionNumber>2</OrderVersionNumber>
</ChangeOperationGroup>

```

</ChangeGroup>

## **Modification Initiated by the customer directly with an airline**

The interaction of an airline's direct channel is out of scope of this documentation but may follow similar steps to those defined above.

# Cancellation of Order Items

## Overview

Cancellation refers to cancel one or many services (OrderItem), including flights and ancillaries (OrderItem); also refers to cancel partial passenger(s) from Order.

It should be noted that the cancellation of service(s) under an OrderItem is not within cancellation scope, rather be a change of Order.

It could be initiated by Customer or by Airline (Retailer). This document focuses on the cancellation initiated by Customer.

## Cancellation initiated by Customer

Customer can request Seller to cancel full Order or partial Order.

When the cancellation involves with flight services, Airline may determine if any change restrictions and penalties applied to this cancellation.

## Full cancellation

Customer can request to cancel full Order.

If Order is paid, a cancellation offer which instructs the Airline to cancel Order is required (OrderReshopRQ):

| Markup  | Copy |
|---|------|
| <pre>&lt;UpdateOrder&gt;   &lt;CancelOrderRef&gt;     &lt;OrderRefID&gt;ABC123456CD&lt;/OrderRefID&gt;   &lt;/CancelOrderRef&gt; &lt;/UpdateOrder&gt;</pre> |      |

If Order is unpaid, entire Order can be cancelled directly (OrderChangeRQ):

| Markup  | Copy |
|---|------|
| <pre>&lt;ChangeOrderChoice&gt;   &lt;CancelUnpaidOrder&gt;     &lt;OrderRefID&gt;ABC123456CD&lt;/OrderRefID&gt;     &lt;OwnerCode&gt;XB&lt;/OwnerCode&gt;   &lt;/CancelUnpaidOrder&gt; &lt;/ChangeOrderChoice&gt;</pre> |      |

## Partial cancellation

Customer can request to do partial cancellation, including flight(s), passenger(s) and ancillary service(s).

If there is a residual value due to Customer, the following can be applied:

## Refund to Customer (OrderReshopRQ)

| Markup  | Copy |
|---|------|
| <pre>&lt;UpdateOrder&gt;   &lt;ReshopOrder&gt;     &lt;ReshopOrderChoice&gt;       &lt;ServiceOrder&gt;         &lt;DeleteOrderItem&gt;           &lt;OrderItemRefID&gt;ODR-1&lt;/OrderItemRefID&gt;           &lt;RespondInd&gt;false&lt;/RespondInd&gt;         &lt;/DeleteOrderItem&gt;       &lt;/ServiceOrder&gt;     &lt;/ReshopOrderChoice&gt;   &lt;/ReshopOrder&gt; &lt;/UpdateOrder&gt;</pre> |      |

If there is a penalty to be charged, the following can be applied:

- Residual value or refund applies to penalty (net):

| Markup   | Copy |
|--|------|
| <pre>&lt;Penalty&gt;   &lt;DescText&gt;Refund Penalty&lt;/DescText&gt;   &lt;NetInd&gt;true&lt;/NetInd&gt;   &lt;PenaltyID&gt;PEN-REFUND&lt;/PenaltyID&gt;   &lt;Price&gt;     &lt;TotalAmount CurCode="USD"&gt;100.00&lt;/TotalAmount&gt;   &lt;/Price&gt;   &lt;TypeCode&gt;Cancellation&lt;/TypeCode&gt; &lt;/Penalty&gt;  &lt;DiffPrice&gt;   &lt;Price&gt;     &lt;BaseAmount CurCode="USD"&gt;500.00&lt;/BaseAmount&gt;     &lt;DueByAirlineAmount CurCode="USD"&gt;525.00&lt;/DueByAirlineAmount&gt;     &lt;TaxSummary&gt;       &lt;Tax&gt;         &lt;Amount CurCode="USD"&gt;75.00&lt;/Amount&gt;         &lt;Country&gt;           &lt;CountryCode&gt;US&lt;/CountryCode&gt;         &lt;/Country&gt;         &lt;TaxCode&gt;US&lt;/TaxCode&gt;       &lt;/Tax&gt;       &lt;Tax&gt;         &lt;Amount CurCode="USD"&gt;50.00&lt;/Amount&gt;         &lt;Country&gt;           &lt;CountryCode&gt;GB&lt;/CountryCode&gt;         &lt;/Country&gt;         &lt;TaxCode&gt;GB&lt;/TaxCode&gt;       &lt;/Tax&gt;       &lt;TotalTaxAmount CurCode="USD"&gt;125.00&lt;/TotalTaxAmount&gt;     &lt;/TaxSummary&gt;</pre> |      |



```

    <TotalAmount CurCode="USD">625.00</TotalAmount>
  </Price>
</DiffPrice>

```

- Residual value or refund doesn't apply to penalty (penalty is paid separately):

| Markup  | Copy |
|---|------|
| <pre> &lt;Penalty&gt;   &lt;DescText&gt;Refund Penalty&lt;/DescText&gt;   &lt;NetInd&gt;false&lt;/NetInd&gt;   &lt;PenaltyID&gt;PEN-REFUND&lt;/PenaltyID&gt;   &lt;Price&gt;     &lt;TotalAmount CurCode="USD"&gt;100.00&lt;/TotalAmount&gt;   &lt;/Price&gt;   &lt;TypeCode&gt;Cancellation&lt;/TypeCode&gt; &lt;/Penalty&gt;  &lt;DiffPrice&gt;   &lt;Price&gt;     &lt;BaseAmount CurCode="USD"&gt;500.00&lt;/BaseAmount&gt;     &lt;DueByAirlineAmount CurCode="USD"&gt;625.00&lt;/DueByAirlineAmount&gt;     &lt;DueToAirlineAmount CurCode="USD"&gt;100.00&lt;/DueToAirlineAmount&gt;     &lt;TaxSummary&gt;       &lt;Tax&gt;         &lt;Amount CurCode="USD"&gt;75.00&lt;/Amount&gt;         &lt;Country&gt;           &lt;CountryCode&gt;US&lt;/CountryCode&gt;         &lt;/Country&gt;         &lt;TaxCode&gt;US&lt;/TaxCode&gt;       &lt;/Tax&gt;       &lt;Tax&gt;         &lt;Amount CurCode="USD"&gt;50.00&lt;/Amount&gt;         &lt;Country&gt;           &lt;CountryCode&gt;GB&lt;/CountryCode&gt;         &lt;/Country&gt;         &lt;TaxCode&gt;GB&lt;/TaxCode&gt;       &lt;/Tax&gt;       &lt;TotalTaxAmount CurCode="USD"&gt;125.00&lt;/TotalTaxAmount&gt;     &lt;/TaxSummary&gt;     &lt;TotalAmount CurCode="USD"&gt;625.00&lt;/TotalAmount&gt;   &lt;/Price&gt; &lt;/DiffPrice&gt; </pre> |      |

## Cancel partial flight(s) or ancillary(s)

| Markup  | Copy |
|---|------|
| <pre> &lt;UpdateOrder&gt;   &lt;ReshopOrder&gt;     &lt;ReshopOrderChoice&gt;       &lt;ServiceOrder&gt;         &lt;DeleteOrderItem&gt;           &lt;OrderItemRefID&gt;ODR-FLT-1&lt;/OrderItemRefID&gt;         &lt;/DeleteOrderItem&gt; </pre> |      |

```

    <DeleteOrderItem>
      <OrderItemRefID>ODR-ANC-1</OrderItemRefID>
    </DeleteOrderItem>
  </ServiceOrder>
</ReshopOrderChoice>
</ReshopOrder>
</UpdateOrder>

```

## Remove passenger(s) (OrderReshopRQ)

Example below operates against an Order with single OrderItem with two Services (one per pax per flight segment). Thus, removing a Passenger from an Order is performed by cancelling all Services associated to that Passenger while retained the rest. Note: This process would be simpler in a scenario where each passenger is separated into their own respective OrderItems (RetainServiceID would not be required and re-pricing of remaining items would be simplified).

| Markup   | Copy |
|--|------|
| <pre> &lt;UpdateOrder&gt;   &lt;ReshopOrder&gt;     &lt;ReshopOrderChoice&gt;       &lt;ServiceOrder&gt;         &lt;DeleteOrderItem&gt;           &lt;OrderItemRefID&gt;OITM001&lt;/OrderItemRefID&gt;           &lt;RetainServiceID&gt;SVC001&lt;/RetainServiceID&gt;         &lt;/DeleteOrderItem&gt;       &lt;/ServiceOrder&gt;     &lt;/ReshopOrderChoice&gt;   &lt;/ReshopOrder&gt; &lt;/UpdateOrder&gt; </pre> |      |

## Messages

- OrderReshopRQ/RS
- OrderChangeRQ/OrderViewRS

# Value Store

## Overview

A “Value Store” is a value held by the airline on behalf of a payer due to a previous transaction or transactions. A “Value Store” can be re-used within an existing order or reallocated when used in a new order. There are two key methods that hold value stores:

- A Value Store as OrderItem
- A Value on an Open Accountable Document

These “Value stores” are of two distinct types

- Fixed value, such as on a Value Store OrderItem.
- Variable value, such as a portion of a ticket or EMD that is “unused”.

## Value Store as OrderItem

1. While facilitating the modification of an order, an airline may additionally return “Value Store” offer items in addition to “replacement” offer items.
2. If accepted, the “Value Store” OfferItem(s) become OrderItem(s) with fixed values and restrictions.
3. When a customer wishes to use a “Value Store” as OrderItem, the OrderItemID should be specified in the OrderReshop request a seller uses to request new offers within the same order.

### Note:

**At present, a Value Store as OrderItem can only be used against a future modification of the same order unless a voucher is issued.**

## Value on an Open Accountable Document

1. While facilitating the modification of an order, an airline may offer to store a value as against the unused portion of an existing accountable document in addition to “replacement” offer items.
2. If accepted, the value of the accountable document is returned as “reusable”. The value may need to be recalculated upon reuse.
3. When a customer wishes to use a value on an Open Accountable Document, the document number should be either:
  1. Specified in an OrderCreate request. Any value remaining on the open document would be calculated and can be re-allocated to the newly created order
  2. Specified in an OrderQuote request. Any value remaining on the open document would be calculated and can be re-allocated within the modified order

# Seller Follow-up Actions

## Overview

When an airline informs seller about a particular change to the Order via OrderChangeNotifRQ, there may or may not be seller follow-up actions that the airline wants the seller to perform.

If there are no seller follow-up actions that the airline wants the seller to perform, then no seller follow up actions will be return in the OrderChangeNotifRQ.

If the airline expects the seller to perform at least one follow-up action, this is sent via the OrderChangeNotifRQ and may also include:

- the time limit by which it expects such action from the seller;
- the consequence of not performing such action;
- a weblink for more information regarding the follow up action and how to contact the airline.

If there are any pending follow-action(s) to be performed by the seller, these actions details will be return in the OrderViewRS.

Following are seller follow-up actions and their expectations from an airline point of view:

## Accept:

Airline expects the seller to send an acceptance to the change performed.

Seller will accept the change.

## Example

| Markup  | Copy |
|---|------|
| <pre>&lt;SellerFollowUpAction&gt;   &lt;ActionCode&gt;Accept&lt;/ActionCode&gt;   &lt;ActionInd&gt;true&lt;/ActionInd&gt;   &lt;ActionTimeLimitDateTime&gt;2022-12-17T23:59:59Z&lt;/ActionTimeLimitDateTime&gt;   &lt;AirlineContactURI&gt;https://www.example.com/disruptioninfo/&lt;/AirlineContactURI&gt;   &lt;ConsequenceOfInactionCode&gt;Auto-cancellation&lt;/ConsequenceOfInactionCode&gt; &lt;/SellerFollowUpAction&gt;</pre> |      |

## Reshop:

Airline provides an option to reshop if the change performed by the airline is not matching the customer's expectation.

If the seller chooses this option, seller will request modification of the order to perform these changes.

## Example

| Markup                                  | Copy |
|---|------|
| <pre>&lt;SellerFollowUpAction&gt;</pre> |      |

```

<ActionCode>Reshop</ActionCode>
<ActionInd>true</ActionInd>
<ActionTimeLimitDateTime>2022-12-17T23:59:59Z</ActionTimeLimitDateTime>
<ConsequenceOfInactionCode>Auto-acceptance</ConsequenceOfInactionCode>
</SellerFollowUpAction>

```

## Cancel:

Airline provides an option to cancel if the change performed by the airline is not matching the customer's expectation.

If the seller chooses this option, seller will request modification of an Order (cancellation) to perform these changes.

## Example

| Markup  | Copy |
|---|------|
| <pre> &lt;SellerFollowUpAction&gt;   &lt;ActionCode&gt;Cancel&lt;/ActionCode&gt;   &lt;ActionInd&gt;true&lt;/ActionInd&gt; &lt;/SellerFollowUpAction&gt; </pre> |      |

## Contact Airline

Airline is expecting the seller to contact it offline.

## Example

| Markup   | Copy |
|--|------|
| <pre> &lt;SellerFollowUpAction&gt;   &lt;ActionCode&gt;ContactAirline&lt;/ActionCode&gt;   &lt;ActionInd&gt;true&lt;/ActionInd&gt;   &lt;ActionTimeLimitDateTime&gt;2022-12-17T23:59:59Z&lt;/ActionTimeLimitDateTime&gt;   &lt;AirlineContactURI&gt;https://www.example.com/contactinfo/&lt;/AirlineContactURI&gt;   &lt;ConsequenceOfInactionCode&gt;Auto-cancellation&lt;/ConsequenceOfInactionCode&gt; &lt;/SellerFollowUpAction&gt; </pre> |      |

## Reprice and Accept

Following waitlist confirmation, Airline requests seller to reprice the order item for the confirmed services.

Seller will reprice orderitem.

## Example

| Markup                                    | Copy |
|---|------|
| <pre> &lt;SellerFollowUpAction&gt; </pre> |      |

```
<ActionCode>RepriceAndAccept</ActionCode>  
<ActionInd>true</ActionInd>  
<ActionTimeLimitDateTime>2022-12-17T23:59:59Z</ActionTimeLimitDateTime>  
<ConsequenceOfInactionCode>Auto-acceptance</ConsequenceOfInactionCode>  
</SellerFollowUpAction>
```

## Messages

- IATA\_OrderChangeNotifRQ
- IATA\_OrderViewRS

# Offer and Order Criteria

## Overview

Offer Criteria and Order Criteria package the filtering the Seller can perform at various stages within the flow. The Offer Criteria seen pre-Order stage (for example AirShoppingRQ and OfferPriceRQ) and the Order Criteria follows the same constructs but in the context of an Order (for example OrderReshopRQ).

Currently, both types contain the same Criteria options.

## Baggage Pricing Criteria

Used to request specific types of baggage when searching for Offers, for example CarryOn or Checked.

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:BaggagePricingCriteria&gt;   &lt;cns:BaggageOptionCode&gt;Checked&lt;/cns:BaggageOptionCode&gt; &lt;/cns:BaggagePricingCriteria&gt;</pre> |      |

## Fare Criteria

Used to specify underlying fares which the seller would like the airline to either include, exclude or preference in the return (PrefLevel). For example published or negotiated fares (FareTypeCode) and the seller and airline may also further classify these fare preferences further using the FareSubTypeCode as bilaterally agreed.

The seller may send in multiple instances of the Fare Criteria object to better qualify the search.

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:FareCriteria&gt;   &lt;cns:FareSubTypeCode&gt;Humanitarian&lt;/cns:FareSubTypeCode&gt;   &lt;cns:FareTypeCode&gt;758&lt;/cns:FareTypeCode&gt;   &lt;cns:PrefLevel&gt;     &lt;cns:PrefLevelCode&gt;Required&lt;/cns:PrefLevelCode&gt;   &lt;/cns:PrefLevel&gt; &lt;/cns:FareCriteria&gt;</pre> |      |

## Pricing Method Criteria

Used to request how the airline prices the Offer. For example, does the seller want the cheapest available in a cabin or on flight, regardless of cabin.

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:PricingMethodCriteria&gt;   &lt;cns:BestPricingOptionText&gt;Y&lt;/cns:BestPricingOptionText&gt; &lt;/cns:PricingMethodCriteria&gt;</pre> |      |

## Program Criteria

Mainly used to instruct the airline which negotiated fares to return based on bilaterally agreed corporate codes.

This structure can also be used to advise the airline which Vouchers, CLID, or pre-paid certificates may be used in the purchase.

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:ProgramCriteria&gt;   &lt;cns:ProgamContract&gt;     &lt;cns:ContractID&gt;ABC&lt;/cns:ContractID&gt;   &lt;/cns:ProgamContract&gt;   &lt;cns:ProgramOwner&gt;     &lt;cns:Carrier&gt;       &lt;cns:AirlineDesigCode&gt;XB&lt;/cns:AirlineDesigCode&gt;     &lt;/cns:Carrier&gt;   &lt;/cns:ProgramOwner&gt; &lt;/cns:ProgramCriteria&gt;</pre> |      |

## Promotion Criteria

Used for the Seller to advise of a promotional code or similar for the airline to take into consideration when computing the Offers.

Its considered good practice to identify the source of the Promotional code when sending this value to the airline; in the below example, the 'PROMO' Promo code has been previously issued by airline XB.

## Seat Criteria

Used to advise the airline the seat preferences, or specific seat that the passenger would like an Offer for.

In the most basic of cases the seller can advise the airline that the passenger would like a seat in 1A.

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:SeatCriteria&gt;   &lt;cns:ColumnID&gt;A&lt;/cns:ColumnID&gt;   &lt;cns:RowNumber&gt;1&lt;/cns:RowNumber&gt; &lt;/cns:SeatCriteria&gt;</pre> |      |

To request seats with specific criterion, the seller may use the ATSB Seat Characteristics Codeset to signify the passengers needs. In the below, the passenger would like either a Window or an Aisle seat.

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:SeatCriteria&gt;   &lt;cns:ColumnID&gt;Z&lt;/cns:ColumnID&gt;   &lt;cns:RowNumber&gt;0&lt;/cns:RowNumber&gt;   &lt;cns:SeatCharacteristicCode&gt;A&lt;/cns:SeatCharacteristicCode&gt;   &lt;cns:SeatCharacteristicCode&gt;W&lt;/cns:SeatCharacteristicCode&gt; &lt;/cns:SeatCriteria&gt;</pre> |      |



## Service Criteria

Used to further specify what additional services (such as ancillaries) the passenger would prefer, require or happy to exclude from the Offer. This can be done using the RFIC/RFISC Codes for optional services or the Airline Taxonomy which covers optional services and flight characteristics.

### Criteria using Airline Taxonomy

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:ServiceCriteria&gt;   &lt;cns:PrefLevel&gt;     &lt;cns:PrefLevelCode&gt;Preferred&lt;/cns:PrefLevelCode&gt;   &lt;/cns:PrefLevel&gt;   &lt;cns:TaxonomyCode&gt;0190&lt;/cns:TaxonomyCode&gt;   &lt;!-- Refundable --&gt; &lt;/cns:ServiceCriteria&gt;</pre> |      |

### Criteria using RFIC

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:ServiceCriteria&gt;   &lt;cns:PrefLevel&gt;     &lt;cns:PrefLevelCode&gt;Exclude&lt;/cns:PrefLevelCode&gt;   &lt;/cns:PrefLevel&gt;   &lt;cns:RFIC&gt;0NX&lt;/cns:RFIC&gt;   &lt;!-- Bicycle --&gt; &lt;/cns:ServiceCriteria&gt;</pre> |      |

## Special Needs Criteria

Used to further clarify any requirements for persons requiring special assistance or aid during their journey.

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:SpecialNeedsCriteria&gt;   &lt;cns:Qty&gt;1&lt;/cns:Qty&gt;   &lt;cns:SpecialServiceCode&gt;WHCR&lt;/cns:SpecialServiceCode&gt; &lt;/cns:SpecialNeedsCriteria&gt;</pre> |      |

## Trip Purpose Code

Additional information to advise the airline if the passenger is flying for business or leisure.

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:TripPurposeCode&gt;Business&lt;/cns:TripPurposeCode&gt;</pre> |      |

# Waitlist Criteria

A simple preference to advise the airline if the passenger is looking or happy to be waitlisted and see Waitlist Offers returned. By default, the airline may choose to exclude Waitlist Offers, but may return a collection of waitlist and standard offers if waitlist is preferred, or simply just Waitlist Offers if waitlist is Required.

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:WaitListCriteria&gt;<br/>  &lt;cns:PrefLevelCode&gt;Required&lt;/cns:PrefLevelCode&gt;<br/>&lt;/cns:WaitListCriteria&gt;</pre> |      |

# Flight Related Criteria

## Overview

The flight related Criteria object will be found in AirShoppingRQ and OrderReshopRQ and is used to advise the airline of passenger preferences which may change the offers being presented.

## Flight Related Criteria

### Alliance Criteria

Used to signify required, excluded, or preferred Alliances from which the seller would like Offers for.

- 

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:AllianceCriteria&gt;   &lt;cns:Alliance&gt;     &lt;cns:AllianceCode&gt;700&lt;/cns:AllianceCode&gt;   &lt;/cns:Alliance&gt;   &lt;cns:PrefLevel&gt;     &lt;cns:PrefLevelCode&gt;Required&lt;/cns:PrefLevelCode&gt;   &lt;/cns:PrefLevel&gt; &lt;/cns:AllianceCriteria&gt; &lt;cns:AllianceCriteria&gt;   &lt;cns:Alliance&gt;     &lt;cns:AllianceCode&gt;701&lt;/cns:AllianceCode&gt;   &lt;/cns:Alliance&gt;   &lt;cns:PrefLevel&gt;     &lt;cns:PrefLevelCode&gt;Preferred&lt;/cns:PrefLevelCode&gt;   &lt;/cns:PrefLevel&gt; &lt;/cns:AllianceCriteria&gt;</pre> |      |

### Carrier Criteria

Used to indicate preference to the airline of whether to include, prefer or exclude carriers in the returned Offers. Below example advises the airline that the Seller would like XB airlines evaluated for offers in the response.

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:CarrierCriteria&gt;   &lt;cns:Carrier&gt;     &lt;cns:AirlineDesigCode&gt;XB&lt;/cns:AirlineDesigCode&gt;   &lt;/cns:Carrier&gt;   &lt;cns:PrefLevel&gt;     &lt;cns:PrefLevelCode&gt;Required&lt;/cns:PrefLevelCode&gt;   &lt;/cns:PrefLevel&gt; &lt;/cns:CarrierCriteria&gt;</pre> |      |

## Connection Criteria

Used in a slightly different way to the normal criterion, this Criteria stores connection preferences which is created by the Seller and linked (via the ConnectionCriteriaID) to the current search query to advise the airline of preferred required or excluded connections in an Origin and Destination pair.

Note the seller can define multiple connection options criteria. For example, return offers that have a max of 2 stops through GVA with a MaxCT of 2 hours, or return me offers that have a max of 0 stops.

Note the Connection Criteria is linked through the OriginDestinationCriteriaType.

### Defining the Min and Max Connection time

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:ConnectionCriteria&gt;   &lt;cns:ConnectionCriteriaID&gt;1&lt;/cns:ConnectionCriteriaID&gt;   &lt;cns:MaximumConnectionDuration&gt;P1Y2M2DT10H30M&lt;/cns:MaximumConnectionDuration&gt;   &lt;cns:MinimumConnectionDuration&gt;P1Y2M2DT10H30M&lt;/cns:MinimumConnectionDuration&gt; &lt;/cns:ConnectionCriteria&gt;</pre> |      |

### Defining the maximum number of Stops during the Journey

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:ConnectionCriteria&gt;   &lt;cns:ConnectionCriteriaID&gt;2&lt;/cns:ConnectionCriteriaID&gt;   &lt;cns:MaximumConnectionQty&gt;3&lt;/cns:MaximumConnectionQty&gt; &lt;/cns:ConnectionCriteria&gt;</pre> |      |

### Defining which airports should be the Connecting Points

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:ConnectionCriteria&gt;   &lt;cns:ConnectionCriteriaID&gt;3&lt;/cns:ConnectionCriteriaID&gt;   &lt;cns:StationCriteria&gt;     &lt;cns:PrefLevel&gt;       &lt;cns:PrefLevelCode&gt;Preferred&lt;/cns:PrefLevelCode&gt;     &lt;/cns:PrefLevel&gt;     &lt;cns:Station&gt;       &lt;cns:IATA_LocationCode&gt;GVA&lt;/cns:IATA_LocationCode&gt;     &lt;/cns:Station&gt;   &lt;/cns:StationCriteria&gt; &lt;/cns:ConnectionCriteria&gt;</pre> |      |

## Flight Criteria

The Flight Criterion can further advise the airline which Flight Characteristics, Aircraft or RBD the passenger has a preference to see offers for.

### Defining the type of flight

| Markup | Copy |
|--------|------|
|--------|------|

```

<cns:FlightCriteria>
  <cns:FlightCharacteristicsCriteria>
    <cns:CharacteristicCode>AirportChange</cns:CharacteristicCode>
    <cns:PrefLevel>
      <cns:PrefLevelCode>Exclude</cns:PrefLevelCode>
    </cns:PrefLevel>
  </cns:FlightCharacteristicsCriteria>
</cns:FlightCriteria>

```

## Defining Aircraft Preferences

| Markup  | Copy |
|---|------|
| <pre> &lt;cns:FlightCriteria&gt;   &lt;cns:IATA_AircraftType&gt;     &lt;cns:IATA_AircraftTypeCode&gt;74&lt;/cns:IATA_AircraftTypeCode&gt;   &lt;/cns:IATA_AircraftType&gt;   &lt;cns:PrefLevel&gt;     &lt;cns:PrefLevelCode&gt;Required&lt;/cns:PrefLevelCode&gt;   &lt;/cns:PrefLevel&gt; &lt;/cns:FlightCriteria&gt; </pre> |      |

## Defining specific RBDs

| Markup  | Copy |
|---|------|
| <pre> &lt;cns:FlightCriteria&gt;   &lt;cns:RBD&gt;     &lt;cns:RBD_Code&gt;J&lt;/cns:RBD_Code&gt;   &lt;/cns:RBD&gt;   &lt;cns:RBD&gt;     &lt;cns:RBD_Code&gt;F&lt;/cns:RBD_Code&gt;   &lt;/cns:RBD&gt;   &lt;cns:PrefLevel&gt;     &lt;cns:PrefLevelCode&gt;Exclude&lt;/cns:PrefLevelCode&gt;   &lt;/cns:PrefLevel&gt; &lt;/cns:FlightCriteria&gt; </pre> |      |

## Offer Item Type Criteria

Used bilaterally as a way to filter certain categories of Offer return by the Airline. For example, if the airline has Retail, Wholesale and Corporate offers, which are 'tagged' as such, the Seller can advise the airline which of these they would like to be returned in the Offer Response.

See the OfferItemType element at the OfferItem level which corresponds to this element.

| Markup   | Copy |
|--|------|
| <pre> &lt;cns:OfferItemTypeCriteria&gt;   &lt;cns:OfferItemTypeCode&gt;Wholesale&lt;/cns:OfferItemTypeCode&gt; &lt;/cns:OfferItemTypeCriteria&gt; </pre> |      |

## Segment Duration Criteria

Used to describe the maximum time for each segment that passenger would like to fly. This would advise the airline to either return longer flights, or break the itinerary up into shorter flights (possibly with more connections).

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:SegmentDurationCriteria&gt;<br/>  &lt;cns:MaximumTimeMeasure UnitCode="H"&gt;4&lt;/cns:MaximumTimeMeasure&gt;<br/>  &lt;cns:PrefCode&gt;Exclude&lt;/cns:PrefCode&gt;<br/>&lt;/cns:SegmentDurationCriteria&gt;</pre> |      |

## Trip Purpose Code

Do not use this item in Flight Related Criteria, instead, use the TripPurposeCode in The Offer or Order Criteria.

# Payment Concepts

## Overview

Within EASD Payment, there are two distinct Payment Transaction types and two distinct Payment Process types. Different forms of payment can be supported by each, but for the purpose of this implementation guide, the following methods are assumed to be supported in the following matrix

|                     |          | Payment Process   |   |
|---------------------|----------|---|---|
|                     |          | Online  | Offline   |
| Payment Transaction | Direct   | - Customer Card<br>- Value Store (Ticket/EMD/OrderItem)<br>- Loyalty Points | - Other   |
|                     | Indirect | - Alternative Transfer Method (Agent card)<br>- EasyPay                     | - BSP [Cash]<br>- ARC [Cash]<br>- Bilateral [Other] |

## Payment Transaction

This concept is used to describe whether, from an airlines perspective, a payment is directly between them and the customer, or whether it is with a third party such as an agent. The two types of transactions can be illustrated in the following table:

|       |          | Payee    |          |          |
|-------|----------|----------|----------|----------|
|       |          | Airline  | Agent    | Customer |
| Payer | Customer | Direct   | Indirect |          |
|       | Agent    | Indirect |          | Indirect |
|       | Airline  |          | Indirect | Direct   |

**Direct:** In a “direct transaction”, there is “one step” in the payment flow: **Customer → Airline**

**Indirect:** In an “indirect transaction” there are “two steps” in the payment flow: **Customer → Agent** and **Agent → Airline**. These payment steps may be unrelated to each other in any way.

## Payment Process

This concept is use to describe whether an NDC message is used to transport a payment payload or not. There are two types.

**Online:** Uses NDC for payment instrument data exchange. For example, payment via card where all elements required in order to authorize the payment are contained in the Payment Function "Payment Processing Details"

**Offline:** Does not use NDC for payment data exchange. For examples, payment via redirect where payment authorization will take place using a separate data exchange.

# Payment Actors

## Payer

A **payer** is an entity that makes a **payment** to another entity. In the context of Enhanced and Simplified Distribution, this could be a **customer**, a **seller** or an **airline**. Among the most common interactions defined in this documentation, the payer will either be a customer or a seller.

## Payee

A **payee** is an entity that receives a **payment** from another entity. In the context of Enhanced and Simplified Distribution, this could be a **customer**, a **seller** or an **airline**. Among the most common interactions defined in this documentation, the payee will either be a **seller** or an **airline**.

## Intermediary

An **intermediary** is an entity that provides additional data required by a payee in order to complete payment. In the context of Enhanced and Simplified Distribution, this could be a **payment service** or a **technology provider**. Among the most common interactions defined in this documentation, the payment intermediary will be a **technology provider** working on behalf of a **seller** or an **airline** to **facilitate customer payment**.



# Payment Status

Payment statuses were simplified in a change request balloted for 21.3 release. The statuses support the following basic requirements

## Successful

Ensures that successful payments are communicated between parties involved in order payment, fulfilment and settlement processes across online and offline payment processes.

### Card Payment

- As an airline accepting payment via card, I need to communicate a successful payment transaction so that the payer is informed.
- As a payer, I need to know that my card payment was successful
- As a seller, I may need to inform the payer that a card payment was successful

### BSP Payment

- As an airline accepting payment via BSP, I need to communicate a successful payment transaction so that the payer is informed
- As a seller, I need to know that BSP payment was successful.

### EasyPay Payment

- As an airline accepting payment via EasyPay, I need to communicate a successful payment transaction so that the payer is informed.
- As a payer, I need to know that my EasyPay payment was successful

### Other Payment

- As an airline accepting other payments, I need to communicate a successful payment transaction so that the payer is informed
- As a seller, I need to know that other payments were successful.

## Failed

Ensures that unsuccessful payment transactions are communicated between parties involved in order payment, fulfilment and settlement processes across online and offline payment processes, optionally allowing a payment recovery processes to be triggered.

### Card Payment

- As an airline accepting payment via card, I need to communicate an unsuccessful card payment status when a payment transaction fails.
- As a payer, I need to know that my card payment was unsuccessful
- As a seller, I may need to inform the payer that a card payment was unsuccessful

### EasyPay Payment

- As an airline accepting payment via EasyPay, I need to communicate an unsuccessful payment transaction so that the payer is informed.
- As a payer, I need to know that my EasyPay payment was unsuccessful

## **Other Payment**

- As an airline accepting other payments, I need to communicate an unsuccessful payment transaction so that the payer is informed
- As a seller, I need to know that other payments were unsuccessful.

## **Pending**

Ensures that an offline payment transaction state can be communicated between parties involved in order payment, fulfilment and settlement processes.

## **Offline Payment**

- As an airline, I may need to communicate a pending payment status when a payment is processed outside NDC messages and the payment process is not complete.
- As a seller, I need to know that payment is pending so that I can inform a payer.
- As a payer, I need to know that payment is pending so that I can complete payment.

# Payment Errors

## Background

When an airline

- is merchant of record for payment OR
- takes payment on account via a settlement platform

And a seller

- is passing customer payment data to the airline OR
- is committing to pay an airline on account via a settlement platform

then a number of common error scenarios can occur. For each error scenario, if it is assumed that the following holds true:

- **An Airline**
  - needs to communicate payment errors so that a payer is aware of the status of a payment transaction
  - may wish to communicate to a payer information they could use to resolve payment errors
- **A Seller**
  - if not the payer, needs to know the status of a payment transaction so that it can inform the payer of the status of their purchase
  - needs to know when it must communicate to the payer that they could take remedial action to complete their transaction
- **Payer**
  - needs to know whether a payment has been successful
  - needs to know when to communicate new or modified information to ensure payment is successful

Given these general requirements, two types of error codes are defined to allow airlines to communicate the state of payment to a seller in a way understood by both parties. These two types will be:

- **Standard Payment Error Codes:** used to allow an airline to provide additional context to the seller using specific codes
- **Generic Payment Error Codes:** used to allow an airline to communicate payment errors to a seller using generic codes

### Note

Upstream payment errors are not explicitly defined here as they are out of scope. Mapping of specific errors and upstream flows will be at the discretion of each individual airline; however, generic codes are provided and could be used in some cases.

#### Note

Downstream payment error information to be provided by seller to payer is not defined and is out of scope. Mapping of specific scenarios should be covered in implementation guidance specific to the airline, seller/aggregator and their choice of technology partner.

## Standard Payment Error Code Examples

### 1.1 Payment Errors due to invalid payment

- As an airline, I need the capability to communicate when a given payment transaction is not valid.
- As a seller, I need to know when a payment method is not valid for a given payment transaction.

### 1.2 Payment Errors Requiring Different information

- As an airline, I may need to communicate that information about a payment instrument is incorrect so that a payer has the opportunity to remedy it and complete the payment transaction.
- As a seller, I may need to update information about a given payment method or instrument so that a payment transaction completes.
- As a seller, I may need to inform a customer to update information about a given payment instrument so that they can complete their payment transaction.

### 1.3 Payment Errors Requiring Additional Information

- As an airline, I may need to communicate that additional information about a payment instrument is required so that a seller has the opportunity to provide it and complete the transaction.
- As a Seller, I may need to provide additional information about a given payment method or instrument .
- As a Seller, I may need to request additional information about a payment method or instrument from a customer so that they can complete the order.
- As a Seller, I may need to request authentication from a payer so that they can complete their payment transaction.

### 1.4 Payment Errors Requiring New Payment Method or Instrument

- As an airline I may wish to communicate to a payer that I will not accept a given payment method for a given payment transaction but may accept another payment method in a new payment transaction.
- As a seller, I may need to provide a new payment method for a new payment transaction.
- As a seller, I may need to inform a payer that their payment transaction has not completed.

### 1.5 Payment Errors Requiring a “Hard Stop”

- As an airline, I may wish to communicate to a payer that I will not accept payment from them.
- As a seller, I may need to know that a payment transaction will not be allowed.
- As a seller, I may need to know that a payer has been flagged as fraudulent

## 1.6 Unknown Payment Failures

If an airline experiences an unexpected or unmapped payment error upstream and wishes to distinguish this type of error from a “standard” payment error, this additional code could be used.

## 2. Generic Payment Error Code Examples

### 2.1 Payment Failure

Generic payment error codes allow an airline to communicate unknown or undefined payment errors to a seller. Their purpose is to allow for a generic split in payment errors into two areas

If either:

1. An airline is unable to use standard error codes or
2. A payment error does not map to an standard error code

Then a “generic” payment failure code could be used.

### Standard Payment Error Code Table

| Code | Message  | Requirement |
|------|--|-------------|
| 00C8 | Payment Failure, Card Brand Mismatch between Offer and Order         | 1.1         |
| 012C | Payment Failure, Card Product Type Mismatch (Consumer or Commercial) | 1.1         |
| 0190 | Payment Failure, Card Scheme Mismatch                                | 1.1         |
| 01F4 | Payment Failure, Price Guarantee Expired                             | 1.1         |
| 0258 | Invalid Card Number, Retry   | 1.2         |
| 02BC | Card Security Code Failure, Retry                                    | 1.2         |
| 0320 | Invalid Expiry Date, Retry   | 1.2         |
| 0384 | Address Verification Check Failure, Retry                            | 1.2         |
| 03E8 | Declined, Authentication Required                                    | 1.3         |
| 044C | Payment Failure, Try with another Payment Instrument                 | 1.4         |
| 04B0 | Payment Failure, Contact the Issuer                                  | 1.4         |
| 0514 | Payment Failure, Insufficient Funds                                  | 1.4         |
| 0578 | Card Expired, Try with another Payment Instrument                    | 1.4         |
| 05DC | Card Not Active, Retry   | 1.4         |
| 0640 | Invalid Transaction Type, Try with another Payment Instrument        | 1.4         |
| 06A4 | Account Closed, Try with another Payment Instrument                  | 1.4         |
| 0708 | Payment Failure, Card Brand not Accepted                             | 1.4         |

|      |  |     |
|------|--|-----|
| 076C | Payment Failure, BSP Cash not Allowed            | 1.4 |
| 07D0 | Payment Failure, ARC Cash not Allowed            | 1.4 |
| 0834 | Payment Failure, Easy Pay not Allowed            | 1.4 |
| 0898 | Payment Failure, Payment by Card not allowed     | 1.4 |
| 08FC | Payment Failure, Payment Method not Allowed      | 1.4 |
| 0960 | Payment Failure, Not allowed to Finalize Payment | 1.4 |
| 09C4 | Payment Failure, No ticketing authority          | 1.4 |
| 0A28 | Payment Failure, Issuer Suspects Fraud           | 1.5 |
| 0A8C | Payment Failure, Do not proceed with order       | 1.5 |
| 0AF0 | Payment Failure, Unknown                         | 1.6 |

### Generic Payment Error Code Table

| Code | Message         | Requirement |
|------|-----------------|-------------|
| 0064 | Payment Failure | 2.1         |

# Payment Preference

## Overview

A seller is able to communicate a number of preferences within their request for offers, for pricing or when requesting to create or change an order. Payment Preference is expressed using the `PaymentMethodCriteria` structure under `PaymentFunctions`. The following are a series of examples outlining its use.

## Payment Preference at time of Shopping

### Seller

A Seller can express a payment preference at time of shopping by populating `PaymentMethodCriteria` under `Payment Functions`. In the following example, the preference is for payment type "CA" which is defined as "Settle on account" from the codeset PAYT.

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:PaymentFunctions&gt;   &lt;cns:PaymentMethodCriteria&gt;     &lt;cns:PaymentTypeCode&gt;CA&lt;/cns:PaymentTypeCode&gt;     &lt;cns:PrefLevel&gt;       &lt;cns:PrefLevelCode&gt;Preferred&lt;/cns:PrefLevelCode&gt;     &lt;/cns:PrefLevel&gt;   &lt;/cns:PaymentMethodCriteria&gt; &lt;/cns:PaymentFunctions&gt;</pre> |      |

### Airline

An Airline returns accepted payment methods - the Payment Catalogue - using the `PaymentSupportedMethod` function. If a preference was expressed by a seller and the payment method is accepted by the airline, the airline will:

1. Associate the preferred payment method to offers
2. Optionally return the other accepted methods unassociated

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:PaymentFunctions&gt;   &lt;cns:OfferAssociation&gt;     &lt;cns:OfferRefID&gt;OfferID&lt;/cns:OfferRefID&gt;     &lt;cns:OwnerCode&gt;XB&lt;/cns:OwnerCode&gt;   &lt;/cns:OfferAssociation&gt;   &lt;cns:PaymentSupportedMethod&gt;     &lt;cns:PaymentTypeCode&gt;CA&lt;/cns:PaymentTypeCode&gt;   &lt;/cns:PaymentSupportedMethod&gt; &lt;/cns:PaymentFunctions&gt;</pre> |      |

## Payment Preference at time of Pricing

## Seller

A Seller can express a payment preference at time of pricing by populating `PaymentMethodCriteria` under `Payment Functions`. In the following example, the preference is for payment type "CC" which is defined as "Customer Card" from the codeset PAYT. Additional information can be used to provide extra precision which is necessary for determining, for example, an actual fee to be charged for payment processing. In this example, the type of card product, the type of card and the card ownership are all used.

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:PaymentMethodCriteria&gt;   &lt;cns:PaymentBrandCode&gt;VI&lt;/cns:PaymentBrandCode&gt;   &lt;cns:PaymentTypeCode&gt;CC&lt;/cns:PaymentTypeCode&gt;   &lt;cns:PaymentCriteriaAddlInfo&gt;     &lt;cns:PaymentCardCriteriaAddlInfo&gt;       &lt;cns:CardProductTypeCode&gt;consumer&lt;/cns:CardProductTypeCode&gt;       &lt;cns:CardTypeText&gt;debit card&lt;/cns:CardTypeText&gt;     &lt;/cns:PaymentCardAddlInfo&gt;   &lt;/cns:PaymentMethodAddlInfo&gt;   &lt;cns:PrefLevel&gt;     &lt;cns:PrefLevelCode&gt;Preferred&lt;/cns:PrefLevelCode&gt;   &lt;/cns:PrefLevel&gt; &lt;/cns:PaymentMethodCriteria&gt;</pre> |      |

## Airline

An airline can return different levels of precision for a payment method depending on whether they are returning a catalogue or a detailed piece of information about a specific payment method. At time of pricing the airline can

1. Associate the preferred payment method to offers
2. Provide a precise value of a payment fee, if there is one
3. Provide additional instructions relating to payment processing (such as a requirement to enact 3DS authentication)
4. Optionally return the other accepted methods unassociated

In the following example, an airline has provided detailed requirements for processing a customer credit card as well as the exact fee to be charged for processing it.

| Markup   | Copy |
|--|------|
| <pre>&lt;cns:PaymentSupportedMethod&gt;   &lt;cns:PaymentBrandCode&gt;VI&lt;/cns:PaymentBrandCode&gt;   &lt;cns:PaymentMethodAddlInfo&gt;     &lt;cns:PaymentCardAddlInfo&gt;       &lt;cns:CardProductTypeCode&gt;consumer&lt;/cns:CardProductTypeCode&gt;       &lt;cns:CardTypeText&gt;debit card&lt;/cns:CardTypeText&gt;       &lt;cns:SecurePaymentAuthenticationVersion&gt;         &lt;cns:SupportedVersionText&gt;3DS2&lt;/cns:SupportedVersionText&gt;       &lt;/cns:SecurePaymentAuthenticationVersion&gt;       &lt;cns:VerificationInd&gt;true&lt;/cns:VerificationInd&gt;     &lt;/cns:PaymentCardAddlInfo&gt;   &lt;/cns:PaymentMethodAddlInfo&gt;</pre> |      |



```

<cns:PaymentSurcharge>
  <cns:PreciseAmount CurCode="GBP">50</cns:PreciseAmount>
</cns:PaymentSurcharge>
<cns:PaymentTypeCode>CC</cns:PaymentTypeCode>
</cns:PaymentSupportedMethod>

```

## Payment Preference at time of Ordering

### Seller

A Seller should express a payment intent at time of Order Creation by populating PaymentMethodCriteria under Payment Functions, setting the preference level as "Required" and associating it to the Offer ID or to the OfferItemID(s) depending on whether all offers are requested to be purchased or not.

| Markup  | Copy |
|---|------|
| <pre> &lt;cns:PaymentFunctions&gt;   &lt;cns:OfferAssociation&gt;     &lt;cns:OfferRefID&gt;OfferID&lt;/cns:OfferRefID&gt;     &lt;cns:OwnerCode&gt;XB&lt;/cns:OwnerCode&gt;   &lt;/cns:OfferAssociation&gt;   &lt;cns:PaymentMethodCriteria&gt;     &lt;cns:PaymentTypeCode&gt;CA&lt;/cns:PaymentTypeCode&gt;     &lt;cns:PrefLevel&gt;       &lt;cns:PrefLevelCode&gt;Required&lt;/cns:PrefLevelCode&gt;     &lt;/cns:PrefLevel&gt;   &lt;/cns:PaymentMethodCriteria&gt; &lt;/cns:PaymentFunctions&gt; </pre> |      |

### Airline

An airline should respond with an order containing associations to the "Required" payment method.

| Markup  | Copy |
|---|------|
| <pre> &lt;PaymentFunctions&gt;   &lt;cns:OrderAssociation&gt;     &lt;cns:OrderRefID&gt;Order1&lt;/cns:OrderRefID&gt;   &lt;/cns:OrderAssociation&gt;   &lt;cns:PaymentSupportedMethod&gt;     &lt;cns:PaymentTypeCode&gt;CA&lt;/cns:PaymentTypeCode&gt;   &lt;/cns:PaymentSupportedMethod&gt; &lt;/PaymentFunctions&gt; </pre> |      |

# Payment Catalogue

## Overview

The main purpose of the payment catalogue is for the airline to inform a seller

- Which methods are accepted as payment
  - At a high level
  - At a granular level
- Any additional information\* that may be required for processing
  - Card Type
  - Authentication need
  - Supported 3DS
  - Information regarding redirection expected or not
- How the payment method will be processed
  - Offline
  - Online
- Any processing fees at a precise level
  - expressed as a percentage
  - expressed as a range of values and/or percentages
- Information relating to clearance method

### \* Note Authentication need

This was relevant for 3DSv1 where the Airline was in control of initiating the authentication. With the deprecation of 3DSv1 from October 2022 we only have the flow left where the Seller autonomously initiates the authentication and forwards the results. In this flow, an Airline can indicate that for a payment method authentication is required (**VerificationInd** set to TRUE). If the airline does leave this decision to Seller then **VerificationInd** may not be provided. However at the payment time Airline can decide to demand Seller to authenticate.

## Accepted Payment Methods

The type of payment can be expressed at different levels of granularity using **PaymentTypeCode** and, optionally, **PaymentBrandCode**.

| Markup  | Copy |
|---|------|
| <pre>&lt;PaymentSupportedMethod&gt;   &lt;PaymentBrandCode&gt;VI&lt;/PaymentBrandCode&gt;   &lt;PaymentMethodAddlInfo&gt;     &lt;PaymentCardAddlInfo&gt;       &lt;CardProductTypeCode&gt;Consumer&lt;/CardProductTypeCode&gt;       &lt;CardTypeText&gt;debit card&lt;/CardTypeText&gt;     &lt;/PaymentCardAddlInfo&gt;   &lt;/PaymentMethodAddlInfo&gt;   &lt;PaymentTypeCode&gt;CC&lt;/PaymentTypeCode&gt;</pre> |      |

```
</PaymentSupportedMethod>
```

Additional information can be added depending on the payment type as illustrated below.

## Additional Payment Information

Some payment methods require different data and even different flows, such as 3D Secure for authentication. Additional precision relating to a payment method and any additional information that may be required in processing it, can be specified using elements within PaymentMethodAddlInfo.

### Card

Within PaymentCardAdditionalInfo, further precision relating to a payment method can be identified here:

| Markup  | Copy |
|---|------|
| <pre>&lt;PaymentSupportedMethod&gt;   &lt;PaymentMethodAddlInfo&gt;     &lt;PaymentCardAddlInfo&gt;       &lt;CardProductTypeCode&gt;Consumer&lt;/CardProductTypeCode&gt;       &lt;CardTypeText&gt;debit card&lt;/CardTypeText&gt;     &lt;/PaymentCardAddlInfo&gt;   &lt;/PaymentMethodAddlInfo&gt; &lt;/PaymentSupportedMethod&gt;</pre> |      |

Further requirements for processing can be identified too, such as the need to verify and the supported version of 3D secure:

| Markup   | Copy |
|--|------|
| <pre>&lt;PaymentSupportedMethod&gt;   &lt;PaymentMethodAddlInfo&gt;     &lt;PaymentCardAddlInfo&gt;       &lt;SecurePaymentAuthenticationVersion&gt;         &lt;SupportedVersionText&gt;3DS2&lt;/SupportedVersionText&gt;       &lt;/SecurePaymentAuthenticationVersion&gt;       &lt;VerificationInd&gt;true&lt;/VerificationInd&gt;     &lt;/PaymentCardAddlInfo&gt;   &lt;/PaymentMethodAddlInfo&gt; &lt;/PaymentSupportedMethod&gt;</pre> |      |

### Other

OtherPaymentAddlInfo is designed to allow further information relating to a payment method if necessary. A common use may be to identify additional characteristics needed for payment types marked "other". In the following example, Remarks are used to identify acceptance of a payment method called "New Payment Brand".

| Markup  | Copy |
|---|------|
| <pre>&lt;PaymentSupportedMethod&gt;   &lt;PaymentBrandCode&gt;OT&lt;/PaymentBrandCode&gt;   &lt;PaymentMethodAddlInfo&gt;</pre> |      |

```

    <PaymentOtherMethodAddlInfo>
      <Remark>
        <DisplayInd>true</DisplayInd>
        <RemarkText>Paypal</RemarkText>
      </Remark>
    </PaymentOtherMethodAddlInfo>
  </PaymentMethodAddlInfo>
  <PaymentRedirectionInd>true</PaymentRedirectionInd>
  <PaymentTypeCode>CF</PaymentTypeCode>
</PaymentSupportedMethod>

```

#### Note

This example is provided by way of illustration only.

## Payment Method Processing

Some payments happen "offline" to the NDC messages, some "online" within them. If an airline needs to explicitly tell a Seller that a payment instrument will be processed via redirection, which is an "offline" capability, the "PaymentRedirectionIndicator" element should be populated as "true":

| Markup  | Copy |
|---|------|
| <pre> &lt;PaymentSupportedMethod&gt;   &lt;PaymentRedirectionInd&gt;true&lt;/PaymentRedirectionInd&gt; &lt;/PaymentSupportedMethod&gt; </pre> |      |

Otherwise, the payment process is implicit in the PaymentType code used.

#### Note

General information relating to the relationship between payment process, payment transaction type and payment methods is provided [here](#).

## Payment Fees

Payment Fees can be communicated in PaymentCatalogue in different ways, either as

- Estimated values for information purposes
- Precise values
- Information that could be used by a seller to calculate a close estimate of the final fee

### Estimated values

Estimated ranges represent information a seller can use to indicate a maximum and minimum payment fee. They can be expressed as percentages or values

### Minimum and Maximum Percentage

| Markup   | Copy |
|--|------|
| <pre> &lt;PaymentFunctions&gt;   &lt;PaymentSurcharge&gt; </pre> |      |

```

    <PercentRangeMaximumPercent>5.00</PercentRangeMaximumPercent>
    <PercentRangeMinimumPercent>0.00</PercentRangeMinimumPercent>
  </PaymentSurcharge>
</PaymentFunctions>

```

## Minimum and Maximum Values

If only maximum and/or minimum amounts are provided, this information can be used to provide further estimation functionality by a Seller. In the following example, we see:

1. A maximum amount that would be charged for a given payment method
2. A minimum amount that would be charged for a given payment method

| Markup  | Copy |
|---|------|
| <pre> &lt;PaymentFunctions&gt;   &lt;PaymentSurcharge&gt;     &lt;AmountRangeMaximumAmount CurCode="GBP"&gt;50.00&lt;/AmountRangeMaximumAmount&gt;     &lt;AmountRangeMinimumAmount CurCode="GBP"&gt;5.00&lt;/AmountRangeMinimumAmount&gt;   &lt;/PaymentSurcharge&gt; &lt;/PaymentFunctions&gt; </pre> |      |

## Precision Values

Precision values can be used to specify a specific percentage or a specific amounts

### Precise Percentage

| Markup   | Copy |
|--|------|
| <pre> &lt;PaymentFunctions&gt;   &lt;PaymentSurcharge&gt;     &lt;PrecisePercent&gt;2.00&lt;/PrecisePercent&gt;   &lt;/PaymentSurcharge&gt; &lt;/PaymentFunctions&gt; </pre> |      |

### Precise Amount

| Markup   | Copy |
|--|------|
| <pre> &lt;PaymentFunctions&gt;   &lt;PaymentSurcharge&gt;     &lt;PreciseAmount CurCode="GBP"&gt;1.99&lt;/PreciseAmount&gt;   &lt;/PaymentSurcharge&gt; &lt;/PaymentFunctions&gt; </pre> |      |

## Information for calculations

If maximum and minimum amounts and precise percentages are used in combination, this information can be used to provide further estimation functionality by a seller. In the following example, we see:

1. A maximum amount that would be charged for a given payment method - i.e., a payment fee

cap

2. A minimum amount that would be charged for a given payment method - i.e., a payment fee floor
3. A percentage that would be charged for a given payment method - i.e., a variable to help estimate the fee in between the floor and the cap

| Markup  | Copy |
|---|------|
| <pre>&lt;PaymentFunctions&gt;   &lt;PaymentSurcharge&gt;     &lt;AmountRangeMaximumAmount CurCode="GBP"&gt;50.00&lt;/AmountRangeMaximumAmount&gt;     &lt;AmountRangeMinimumAmount CurCode="GBP"&gt;5.00&lt;/AmountRangeMinimumAmount&gt;     &lt;PrecisePercent&gt;2.00&lt;/PrecisePercent&gt;   &lt;/PaymentSurcharge&gt; &lt;/PaymentFunctions&gt;</pre> |      |

# Payment Codes

## Overview

Three specific payment related codesets are defined for use in EASD payments are defined in the ATSB codesets. For ATSB 21.3 release, these codes are listed below. the full codeset can be downloaded from the AIDM page [here](#).

## Payment Status (PAYS)

### Note

Three core statuses to be used across E&SD to express payment information required.

| Code       | Description  |
|------------|--|
| SUCCESSFUL | An airline is certain that it will collect the funds.  |
| FAILED     | An Airline has received information that it will not be able to collect funds.   |
| PENDING    | An Airline cannot yet collect the funds with the information provided or is awaiting response on an already submitted request for payment. |

## Payment Type (PAYT)

### Note

For ticketing, use ATA/IATA defined form of payment codes. (See IATA Reso. 728, Section 7 or SIPP Reso. 110.16, Section B). Additional payment type codes for use in Enhanced and Simplified Distribution Standards

| Code | Description  |
|------|--|
| CA   | Settlement Plan  |
| CC   | Customer Card  |
| CF   | Customer Payment via Electronic Funds Transfer                 |
| VA   | Virtual Account Number enrolled as Alternative Transfer Method |
| AF   | Agent Payment via Electronic Funds Transfer                    |
| AC   | Agent Card   |
| OT   | Other Payment Method   |

## Payment Brand (PAYB)

**Note**

For ticketing, use ATA/IATA defined form of payment codes. (See IATA Reso. 728, Section 7 or SIPP Reso. 110.16, Section B). Additional payment type codes for use in Enhanced and Simplified Distribution Standards

| Code | Description                      |
|------|----------------------------------|
| AX   | American Express                 |
| DS   | Discover Card                    |
| DC   | Diners Club                      |
| UP   | China UnionPay                   |
| JC   | Japan Credit Bureau              |
| CA   | Mastercard                       |
| TP   | Universal Air Travel Plan (UATP) |
| VI   | VISA International               |
| MR   | MIR                              |
| AM   | Credito Directo payment          |
| BC   | Cards issued by Bank Card        |
| CN   | Cards issued by KB               |
| EB   | Cards issued by KEB              |
| EL   | Elo                              |
| HD   | Cards issued by Hyundai Card     |
| HP   | Hipercard                        |
| KA   | Cards issued by Woori bank       |
| KB   | Reserved for future use          |
| LC   | Cards issued by Lotte            |
| NH   | Cards issued by Nonghyup         |
| NV   | Visa Naranja                     |
| OC   | OCA                              |
| OV   | Domestic payment voucher         |
| OY   | Domestic payment voucher         |
| PC   | Domestic payment voucher         |
| PR   | Reserved for future use          |
| PT   | Paga Todo payment                |
| RC   | Domestic payment voucher         |



|           |  |
|-----------|--|
| <b>SH</b> | Cards issued by Shinhan  |
| <b>SK</b> | Cards issued by Hana   |
| <b>SW</b> | Cards issued by Samsung  |
| <b>TF</b> | Tierra del Fuego   |
| <b>TN</b> | Tarjeta Naranja  |
| <b>NT</b> | Nativa   |
| <b>HC</b> | Reserved for future use  |
| <b>CL</b> | Cabal  |
| <b>EP</b> | IATA Easy Pay  |
| <b>VA</b> | Virtual Account Number enrolled as Alternative Transfer Method |
| <b>IB</b> | BSP  |
| <b>AR</b> | ARC  |
| <b>OT</b> | Other Payment Brand  |

# Payer Authentication

## Overview

Payer Authentication is the process to officially confirm the Payer is owner of the chosen payment instrument.

It is only linked to a card transaction and the standard is defined by the card schemes and referred to as 3D-Secure.

It starts with sending authentication request and results with a response returned to the Seller.

## Definition

### Seller

This concept allows the Seller to authenticate the payer for a card transaction by sending an authentication request to the card issuer authentication server, resulting with a response which it forwards to the airline for triggering an authorization request.

### Airline

This allows an Airline to receive authentication result for future use(s) in the subsequent authorization request.

# Fare Price

## Advising a Seller of a Masked Fare

The Offer management system can advise the Seller at the Offer time that an Order Price will be masked to the Customer should the Customer query the price directly with the Airline.

The Airline will return a Masked Indicator advising the Seller that the Base Amount will not be shown to the Customer.

| Markup  | Copy |
|---|------|
| <pre>&lt;k:FarePrice&gt;   &lt;k:FarePriceMasked&gt;true&lt;/k:FarePriceMasked&gt;   &lt;k:FarePriceType&gt;     &lt;k:Price&gt;       &lt;k:BaseAmount CurCode="CHF"&gt;10.00&lt;/k:BaseAmount&gt;       &lt;k:TaxSummary&gt;         &lt;k:Tax&gt;           &lt;k:Amount CurCode="CHF"&gt;0.10&lt;/k:Amount&gt;           &lt;k:Country&gt;             &lt;k:CountryCode&gt;CH&lt;/k:CountryCode&gt;           &lt;/k:Country&gt;           &lt;k:RefundInd&gt;true&lt;/k:RefundInd&gt;           &lt;k:TaxCode&gt;CH&lt;/k:TaxCode&gt;           &lt;k:TaxTypeCode&gt;Applied&lt;/k:TaxTypeCode&gt;         &lt;/k:Tax&gt;         &lt;k:TotalTaxAmount CurCode="CHF"&gt;0.10&lt;/k:TotalTaxAmount&gt;       &lt;/k:TaxSummary&gt;       &lt;k:TotalAmount CurCode="CHF"&gt;10.10&lt;/k:TotalAmount&gt;     &lt;/k:Price&gt;   &lt;/k:FarePriceType&gt; &lt;/k:FarePrice&gt;</pre> |      |



# Special Service Requests (SSRs)

## Overview

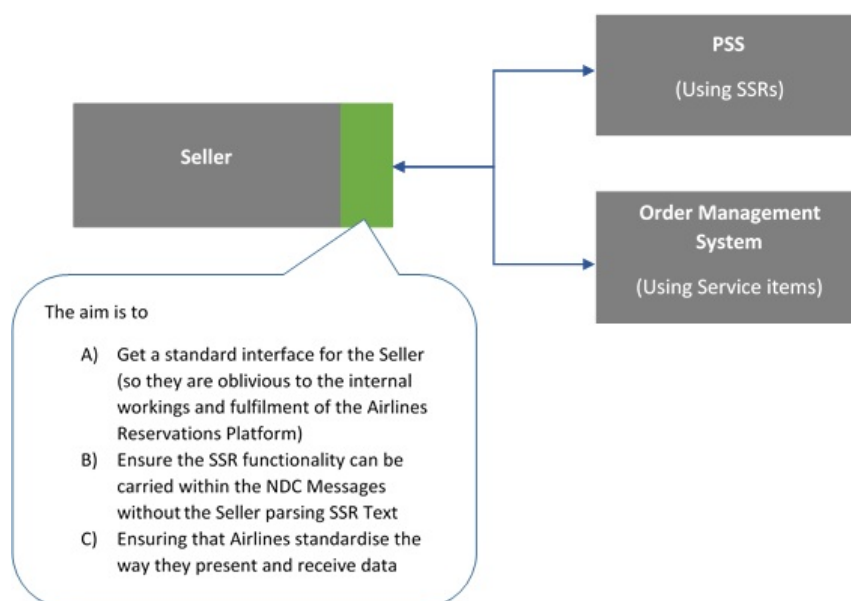
Special Service Requests (SSR) are best described as snippets or strings of information in an Airline Reservations System that are formatted for programmatic use and ingestion to describe a service or additional piece of information that is required about the passenger. Initially SSR's were used for special requests (such as a wheelchair request) at the Airport and are only sent to carriers participating in the Itinerary prior to travel. However, their flexibility has lead them to be used for a variety of purposes over the years and are used to store non service related items, such as email addresses, postal address, GST information, disabled information etc. In the move to distribution over XML using the standards set forth by the Offers and Orders Groups, the notion of a traditional 'SSR' as a formatted string does not conform to the transmission standards of today where XML, JSON or other is being used.

This section describes how the SSR information should be modelled and carried through new distribution messages.

The benefit of mapping the SSR information into the model allows for:

- A standardized way for Sellers to request and receive services
- A richer model for information to be broadcast and received
- The ability for a Seller to interact with a carrier using a PSS and SSRs and a Carrier using an Order Management system in the same manor
- Minimal impact for a Seller if an airline changes their internal service delivery fulfilment.

This section will detail how SSR's that are used today and how they should be mapped to an XML message for Sellers and interline parties to understand and use. The use of an SSR within the context of an XML message will enable the reconstruction of an SSR on either side. There is no loss of information, but a standardized way to communicate this information across parties.



## Categorisation

SSR's have been broken into multiple categories to best determine their mapping to an XML message. The following categories have been created and used to describe the function of the SSR within Enhanced Distribution.

## Service

An SSR will be defined as a Service if it:

- A SSR that delivers a 'service on demand' and which may follow through as a service item in an Order Management system.
- An SSR that does not require specific information over that of a ServiceDefinition as modelled in the AIDM.

All Service SSR's will be mapped to a Service Item using the format set forth in Service items Section.

### Note

Note that a Service may also require 'Information' and has been described so within the Services Section

## Information

- A SSR that does not deliver a specific service to the passenger.
- A SSR that has specific data requirements outside the scope of a ServiceDefinition.

All Information SSR's will be mapped depending on their attributes in existing elements or added to the Offers or Order Group queues to add missing information. Each implementation will be specific as they require specific information.

Information SSR's can be further Categorized into the following areas:

- Offer Related,
- Payment Related,
- Passenger Related (Info or Preference).

## Obsolete

A SSR that is no longer relevant within Enhanced Distribution (for example a some of the OTHS SSR's that are used today as a messaging vehicle to call for action from Airlines to Agents).

## Airline Own

Airline specific SSR's will not be mapped within, however the principle for mapping (service / Information etc) should be treated as the same.

## Other

SSR's that do not fit in the above categories.

# Service SSRs

## Overview

All Service categorized SSR's will be defined accordingly to the below mapping from the AIDM Model. Note that each SSR needs to be added to its own containing Offer Item Section, in order for the SSR/Service to be cancelled. The following are illustrations of different ways services can be defined in an SSR

## SSR Definitions

### By Service Definition

| Object            | Element     | SSR Element               | Example                           |
|-------------------|-------------|---------------------------|-----------------------------------|
| ServiceDefinition | OwnerCode   | Airline or CRS Designator | BB                                |
| ServiceDefinition | ServiceCode | SSR Element Code          | Airline Own Designated Identifier |

### By Service

| Object  | Element         | SSR Element                  | Example          |
|---------|-----------------|------------------------------|------------------|
| Service | PaxRefID        | Name Element                 | -1BLAKE/ANDREW   |
| Service | PaxSegmentRefID | Flight Segment or Flight Leg | BNESYDBB123Y6SEP |
| Service | Status Code     | Action/Status/Advice Code    | NN               |

### By Cardinality

| Object | Element | Description  | SSR Element        | Example |
|--------|---------|--|--------------------|---------|
| N/A    | N/A     | Service items are unique to each and every service so they can be delivered and accounted for. Therefore a new service will be created for each and every service. | Number of services | 1       |
| N/A    | N/A     | Service items are unique to each and every service so they can be delivered and accounted for. Therefore a new service will be created for each and every service. | Number of services | -1-     |

### By Freetext

| Object | Element | Description   | SSR Element | Example    |
|--------|---------|---|-------------|------------|
| TBC    | TBC     | Depending on the SSR, this could simply be a Name of a service, in which case it would be mapped to the Name Field in the AIDM, or a Description in which case it would be mapped to the Description field. | Free Text   | .FREE TEXT |

## SSRs to be Mapped as a Service

| SSR  | SSR Name  | Request Context      | Response Context | Service Categorization Structure |
|------|---|----------------------|------------------|----------------------------------|
| AOXY | Airline Supplied Oxygen   | Passenger Preference | Service          | Medical                          |
| AVIH | Animal in Hold  | Passenger Preference | Service          | Baggage                          |
| AVML | Vegetarian Hindu meal   | Passenger Preference | Service          | Meal                             |
| BBML | Baby meal   | Passenger Preference | Service          | Meal                             |
| BIKE | Bicycle   | Passenger Preference | Service          | Baggage                          |
| BLML | Bland meal  | Passenger Preference | Service          | Meal                             |
| BLND | Blind Passenger   | Passenger Info       | Service          | Passenger                        |
| BSCT | Bassinet/carrycot/baby basket   | Passenger Preference | Service          | Seat                             |
| BULK | Bulky Baggage   | Passenger Preference | Service          | Baggage                          |
| CBBG | Cabin Baggage   | Passenger Preference | Service          | Baggage                          |
| CHML | Child meal  | Passenger Preference | Service          | Meal                             |
| COUR | Courier   | Passenger Preference | Service          | Baggage                          |
| DBML | Diabetic meal   | Passenger Preference | Service          | Meal                             |
| DEAF | Deaf Passenger  | Passenger Info       | Service          | Passenger                        |
| DPNA | Disabled passenger with intellectual or developmental disability needing assistance | Passenger Info       | Service          | Passenger                        |
| ESAN | Passenger with Emotional Support/Psychiatric Assistance Animal in Cabin             | Passenger Preference | Service          | Baggage                          |
| EXST | Extra seat  | Passenger Preference | Service          | Seat                             |
| FPML | Fruit Platter meal  | Passenger Preference | Service          | Meal                             |



|      |   |                      |         |           |
|------|---|----------------------|---------|-----------|
| FRAG | Fragile Baggage   | Passenger Preference | Service | Baggage   |
| FQTU | Frequent traveler requesting redemption for upgrade at the same time as obtaining accrual | Passenger Preference | Offer   | Loyalty   |
| GFML | Gluten intolerant   | Passenger Preference | Service | Meal      |
| HNML | Hindu meal  | Passenger Preference | Service | Meal      |
| KSML | Kosher meal   | Passenger Preference | Service | Meal      |
| LCML | Low calorie meal  | Passenger Preference | Service | Meal      |
| LFML | Low fat meal  | Passenger Preference | Service | Meal      |
| LSML | Low salt meal   | Passenger Preference | Service | Meal      |
| MAAS | Meet and assist   | Passenger Preference | Service | Other     |
| MEQT | Medical Equipment   | Passenger Info       | Service | Medical   |
| MOML | Moslem meal   | Passenger Preference | Service | Meal      |
| NLML | Low lactose meal  | Passenger Preference | Service | Meal      |
| NOML | No meal   | Passenger Preference | Service | Meal      |
| PDBG | Prepaid baggage (chargeable)  | Passenger Preference | Service | Baggage   |
| PDCO | Carbon Offset (chargeable)  | Passenger Preference | Service | TBC       |
| PDFF | Frequent Flyer (chargeable)   | Passenger Preference | Service | Passenger |
| PDIE | In-Flight Entertainment (chargeable)  | Passenger Preference | Service | IFE       |
| PDLG | Lounge (chargeable)   | Passenger Preference | Service | Lounge    |
| PDML | Meal/beverage (chargeable)  | Passenger Preference | Service | Meal      |
| PDPT | Pets (chargeable)   | Passenger Preference | Service | Baggage   |

|      |  |                      |         |         |
|------|--|----------------------|---------|---------|
| PDRO | Rule override (chargeable)             | Passenger Preference | Service | TBC     |
| PDSB | Standby (chargeable)                   | Passenger Preference | Service | TBC     |
| PDST | Store (chargeable)                     | Passenger Preference | Service | TBC     |
| PDUG | Upgrades (chargeable)                  | Passenger Preference | Service | Loyalty |
| PDUM | Unaccompanied Minor (Chargeable)       | Passenger Info       | Offer   | PDUM    |
| PETC | Animal in Cabin                        | Passenger Preference | Service | Baggage |
| POXY | Passenger Own Oxygen                   | Passenger Preference | Service | Medical |
| PPOC | Personal Portable Oxygen Concentrator  | Passenger Preference | Service | Medical |
| RVML | Vegetarian raw meal                    | Passenger Preference | Service | Meal    |
| SFML | Seafood meal                           | Passenger Preference | Service | Meal    |
| SEAT | Seat Request                           | Passenger Preference | Service | Seat    |
| SPML | Special meal                           | Passenger Info       | Service | Meal    |
| STCR | Stretcher Passenger                    | Passenger Preference | Service | Medical |
| SVAN | Passenger with Service Animal in Cabin | Passenger Info       | Service | Baggage |
| UMNR | Unaccompanied minor                    | Passenger Info       | Service | Other   |
| VGML | Vegetarian vegan meal                  | Passenger Preference | Service | Meal    |
| VJML | Vegetarian Jain meal                   | Passenger Preference | Service | Meal    |
| VLML | Vegetarian lacto-ovo meal              | Passenger Preference | Service | Meal    |
| VOML | Vegetarian oriental meal               | Passenger Info       | Service | Meal    |
| WCBD | Wheelchair - Non-spillable battery     | Passenger Info       | Service | Medical |

|      |  |                      |         |         |
|------|--|----------------------|---------|---------|
| WCBW | Wheelchair - Wet cell battery  | Passenger Info       | Service | Medical |
| WCHC | Wheelchair - C for Cabin (Passenger totally immobile)  | Passenger Info       | Service | Medical |
| WCHR | Wheelchair - R for Ramp (Passenger can ascend/descend steps and make own way to/from cabin seat but requires wheelchair for distance to/from aircraft) | Passenger Info       | Service | Medical |
| WCHS | Wheelchair - S for Stairs (Passenger cannot ascend/descend steps, but is able to make own way to/from cabin seat)                                      | Passenger Info       | Service | Medical |
| WCLB | Wheelchair - Lithium ion battery   | Passenger Info       | Service | Medical |
| WCMP | Wheelchair - Manual power  | Passenger Info       | Service | Medical |
| WCOB | On-board Wheelchair (provided by airline)  | Passenger Preference | Service | Medical |
| WEAP | Weapon   | Passenger Preference | Service | Baggage |
| XBAG | Excess baggage   | Passenger Preference | Service | Baggage |

## SSR BIKE Example Mapping

To advise the airline of a passenger travelling with a bike. This will allow the airline to determine the pricing and the acceptance on the aircraft.

### Scope

- Seller <-> Airline
- Airline <-> Airline

### SSR Example

| Markup                                      | Copy |
|---|------|
| SSR BIKE PA NN2 JFKLGW0002 B15NOV-1GRI/LOGN |      |

### Mapping in Enhanced Distribution

| SSR  | SSR Element               | NDC XPath                     | Req |
|------|---------------------------|-------------------------------|-----|
| BIKE | SSR Element Code          | ServiceDefinition/ServiceCode | Y   |
| PA   | Airline or CRS Designator | ServiceDefinition/OwnerCode   | Y   |

|                   |                              |                         |   |
|-------------------|------------------------------|-------------------------|---|
| NN2               | Action/Status/Advice Code    | Service/StatusCode      | Y |
| JFKLGW0002B 15NOV | Flight Segment or Flight Leg | Service/PaxSegmentRefID | Y |
| -1GRI/LOGN        | Name Element                 | Service/PaxRefID        | Y |

**Notes:**

- Example shows NN2 for two bikes. This would be treated as 2 Services.
- BIKE should be considered baggage and fall under all rules that support baggage.
- OrderCreateRQ/Request/CreateOrder/CreateOrderItem/OfferItemType/BaggageItem

## SSR AOXY Example Mapping

Used to communicate to the Seller (ORA) that Oxygen is available for a specific flight

### SSR Example

SSR AOXY LH KK1 FRAKUL0782C10OCT-1HILTON/OLAMRS.LH MEDA RQST PENDING  
AUTHORIZATION

### Mapping in Enhance Distribution

Within enhanced distribution, this information will be represented by a Service for that specific flight segment. If the oxygen is not confirmed at time of order creation, the Service Item can be updated (confirmed) at a later stage which the Seller being advised via OrderViewRS or OrderChangeNotif. However there is no structure available in schema to request Oxygen, there is a need to create a secondary confirmation by the DP of oxygen for a specific flight

Not currently supported in Enhanced Distribution. If you have a requirement for this SSR, please email [standards@iata.org](mailto:standards@iata.org).

# Information SSRs

## Overview

This page contains the SSR's which have been identified as an information and will be documented within this section. Some SSRs are not currently supported by the Enhanced Distribution.

## SSRs to be mapped as Information

| SSR  | SSR Name  | Request Context     | Response Context |
|------|---|---------------------|------------------|
| ACKI | Automated Check-In                                | N/A Airline Process | Order Info       |
| CHLD | Child   | Passenger Info      | Offer            |
| CLID | Client Identification                             | Passenger Info      | Order Info       |
| CRUZ | Cruise Passenger                                  | Passenger Info      | Offer            |
| CTCE | Passenger contact information e-mail address      | Passenger Info      | Order Info       |
| CTCM | Passenger contact information mobile phone number | Passenger Info      | Order Info       |
| CTCR | Passenger contact information refused             | N/A                 | N/A              |
| DCRW | Crew Booking                                      | Passenger Info      | Offer            |
| DEPA | Deportee—accompanied by an escort                 | Passenger Info      | Offer            |
| DEPU | Deportee—unaccompanied                            | Passenger Info      | Offer            |
| DOCA | API—Passenger Address Information                 | Passenger Info      | Offer Info       |
| DOCO | API—Passenger Other Supplementary Information     | Passenger Info      | Offer Info       |
| DOCS | API—Passenger Travel Document                     | Passenger Info      | Offer Info       |
| EPAY | Electronic Payment Authorisation                  | Payment Info        | Payment Info     |
| FOID | Form of Identification                            | Passenger Info      | Order Info       |
| FQTR | Frequent traveller award redemption journey       | Passenger Info      | Offer            |

|      |  |                      |            |
|------|--|----------------------|------------|
| FQTS | Frequent traveller service benefit information   | Passenger Preference | Offer      |
| FQTV | Frequent traveller mileage program information   | Passenger Info       | Order Info |
| GPST | Group Seat Request   | Passenger Info       | Offer      |
| GRPS | Passenger travelling together over one or more segments utilising a common identity assigned by the booking Member | Passenger Info       | Offer      |
| GSTA | Goods and Services Tax Business Address  | Passenger Info       | Offer      |
| GSTE | Goods and Services Tax Business E-mail   | Passenger Info       | Offer      |
| GSTN | Goods and Services Tax Number  | Passenger Info       | Offer      |
| GSTP | Goods and Services Tax Business Phone Number(s)  | Passenger Info       | Offer      |
| HRIC | Human Remains in Cabin   | Passenger Info       | Advice     |
| INAD | Inadmissible Passenger   | Passenger Info       | Offer      |
| INFT | Infant   | Passenger Info       | Offer      |
| LANG | Specify language(s) spoken   | Passenger Info       | Offer      |
| NRSB | Non-Revenue Standby Passenger  | Passenger Preference | Offer      |
| PCTC | Passenger emergency contact information  | Passenger Info       | Order Info |
| RFTV | Reason for Travel  | Passenger Info       | Order Info |
| SEAT | Pre-reserved seat requested  | Passenger Preference | Offer      |
| SEMN | Ship's Crew—Seamen   | Passenger Info       | Offer      |
| SLPR | Berth/Bed in the cabin but excludes stretcher  | Passenger Preference | Offer      |
| TKTL | Ticketing Time Limit   | N/A                  | Advice     |
| TLAC | Time Limit Auto Cancel Exemption   | N/A                  | Advice     |
| TWOV | Transit/transfer without Visa  | Passenger Info       | Advice     |



# Obsolete SSR

## Overview

If you use this SSR within Enhanced and Simplified Distribution, please email [standards@iata.org](mailto:standards@iata.org)

## SSRs mapped as Obsolete

| SSR  | SSR Name   |
|------|--|
| ADMD | Advise Electronic Miscellaneous Document Number                  |
| ADPI | Advise Passenger Security Information                            |
| ADTK | Advise if ticketed   |
| ASVC | Additional Service   |
| ASVX | EMD document number in back-up message for EDIFACT System Cancel |
| AUTK | Authorise Ticketing of PNR                                       |
| CKIN | Other check-in advise for groups                                 |
| ETLP | Only used by DCS systems - RP1707b, RP1708, RP1719d              |
| FRAV | First Available  |
| GRPF | Group Fare data  |
| GRPK | Group space passive notification                                 |
| IROP | Irregular Operations   |
| MCOA | MCO Number   |
| MEDA | Medical Case   |
| NAME | Name change caused segment status change                         |
| NSSA | No Smoking Aisle Seat  |
| NSSB | No Smoking Bulkhead Seat   |
| NSSR | No Smoking Rear-Facing Seat                                      |
| NSST | No Smoking Seat  |
| NSSW | No Smoking Window Seat   |
| OTHS | Other actionable information                                     |
| PDGT | Ground Transportation and Non Air Services (Chargeable)          |
| PDTS | Travel Services (Chargeable)                                     |
| RLOC | Record Locator   |



|      |   |
|------|---|
| RQST | Seat Request—include specific number or preference                        |
| SMSA | Smoking Aisle Seat  |
| SMSB | Smoking Bulkhead Seat   |
| SMSR | Smoking Rear-Facing Seat  |
| SMST | Smoking Seat  |
| SMSW | Smoking Window Seat   |
| SPEQ | Sports Equipment  |
| TKNA | Ticket number - Automated   |
| TKNC | Ticket number - TCN   |
| TKNE | Ticket number - Electronic  |
| TKNM | Ticket number - Manual  |
| TKNR | Notification that an electronically ticketed reservation has been changed |
| TKNX | ET document number in back-up message for EDIFACT System Cancel           |

# Shop For Flight

## Definition

### Seller

This capability allows the Seller to request from an Airline a set of Offers based on Origins, Destinations, and defined dates. The Seller may provide additional qualifiers and context which the Airline may consider in the content of the resulting offer(s).

### Airline

This capability allows the Airline to give a set of offers based on Origins, Destinations, and defined dates. The airline will consider additional qualifiers and context in the process of calculating the resulting offers.

## Preconditions

- None

## Process

1. Seller sends a shopping request with the origin(s) and destination(s) and travel dates and, at a minimum, specifying the PTC for each passenger.
  1. Seller may optionally provide additional qualifiers and context for the airline to consider
    1. E.g., Corporate ID when shopping for corporate customers, passenger's loyalty program account
2. Airline responds with list of Offers according to the origin/destination, dates and PTC criteria
  1. Airline may include, where possible, in each offer which additional qualifiers and context it considered

## Post Condition

### Success

- Seller is in receipt of airline offers

### Failure

- No offers are returned, resulting in an Error message.
- Some of the requested offers are returned, resulting in a Warning within the response.

## Relevant Messages

- AirShoppingRQ
- AirShoppingRS

### **Relevant Worked Examples**

- 

### **Certification Link**

-

# Offer Conditions and Restrictions

## Definition

### Seller

This capability allows the Seller to display offer conditions/restrictions for a specified product (OfferItem). Conditions/restrictions to include at minimum details on changeability/refundability.

### Airline

This capability allows an Airline to deliver offer conditions/restrictions for a specified product (OfferItem). Conditions/restrictions to include at minimum details on changeability/refundability.

## Preconditions

Per process

- Shopping – none
- Pricing – There is an existing offer
- Reshopping – There is an existing order
- Order Quoting – There is an existing order, possible reshop offers

## Process

- Shopping
  - A Seller has made a request for an offer(s) and the Airline returns resulting OfferItems include Offer Conditions and Restrictions
- Pricing
  - A Seller has made a request for a priced offer and the Airline returns resulting OfferItems include Offer Conditions and Restrictions
- Reshopping
  - A Seller has made a request for reshopping an order(s) and the Airline returns resulting OfferItems include Offer Conditions and Restrictions
- Order Quoting
  - A Seller has made a request for priced order quote and the Airline returns resulting OfferItems include Offer Conditions and Restrictions

## Post Condition

### Success

- Offer Conditions and Restrictions received and displayed

### Failure

- Offer Conditions and Restrictions not received or not displayed

## Relevant Messages

- AirShoppingRS,
- OfferPriceRS,
- OrderReshopRS,
- ServiceListRS,
- SeatAvailabilityRS

## Relevant Worked Examples

- 

## Certification Link

-

# Shop for Ancillaries

## Definition

### Seller

This capability allows the Seller to request from an Airline a set of Services based on:

- OfferId
- OrderId
- Flight Details, passenger type and defined dates (PaxSegment)

The Seller may provide additional qualifiers and context which the Airline may consider in the content of the resulting offer(s).

### Airline

This capability allows the Airline to provide a list of available services based on Flight details and defined dates. The airline may consider additional qualifiers and context in the process of calculating the resulting offers.

## Preconditions

- If the services are flight related they would need to be purchased in conjunction with a Flight service

## Process

1. The Seller sends a shopping request with an OfferID, OrderID or PaxSegment information.
  1. The Seller may optionally provide additional qualifiers and context that the airline may consider.
    1. E.g., Corporate ID when shopping for corporate customers, Airline Taxonomy codes
2. The Airline responds with a list of Offers according to the OfferID, OrderID or PaxSegment information.
  1. The response may include which additional qualifiers and context, if included in the request, it considered or applied to each offer (or the offers)
    1. E.g., Corporate ID when shopping for corporate customers, Airline Taxonomy codes

## Post Condition

### Success

- Seller is in receipt of Offers for the available services.

### Failure

- No services are returned

## Relevant Messages

- AirShoppingRQ
- AirShoppingRS
- SeatAvailabilityRQ
- SeatAvailabilityRS
- ServiceListRQ
- ServiceListRS
- OfferPriceRQ
- OfferPriceRS
- OrderReshopRQ
- OrderQuoteRQ
- OrderReshopRS

## Relevant Worked Examples

- 

## Certification Link

# Use of Taxonomy

## Definition

### Seller

This capability allows the Seller to identify a set of products and services returned by the airline using the Airline Taxonomy. The Seller may provide airline taxonomy code(s) to the airline during shopping

### Airline

This capability allows the Airline to return a set of products and services with associated airline taxonomy codes. The airline may consider the additional offer criteria with requested airline taxonomy codes for its offer construction.

## Preconditions

- None

## Process

1. Seller performs the request for a set of products and services from an airline.
  - Seller could request said products and services based on airline taxonomy codes.
2. Airline returns set of products and services with associated airline taxonomy codes.
  - Airline may consider the requested airline taxonomy code preferences in offer construction.

## Post Condition

### Success

- The airline returns a set of products and services with associated airline taxonomy codes.

### Failure

- N/A; airline use of the taxonomy is not mandated at present

## Relevant Messages

- AirshoppingRQ
- AirshoppingRS
- OfferPriceRQ
- OfferPriceRS
- SeatAvailabilityRQ
- SeatAvailabilityRS
- ServicelistRQ
- ServicelistRS
- OrderQuoteRQ



- OrderReshopRQ
- OrderReshopRS
- OrderViewRS
- OrderChangeNotifRQ
- OrderHistoryRS

#### Note

Taxonomy can be used anywhere where a Service is referenced.

### Relevant Worked Examples

- 

### Certification Link

-

# Seat Map and Availability

## Definition

### Seller

This capability allows the Seller to request and receive seat map details, including seat availability

### Airline

This capability allows an Airline to return seat map details, including seat availability

## Preconditions

- An existing (one of)
  - Offer
  - Order
  - Flight

## Process

1. The Seller requests a seat map detail referencing
  1. Offer
  2. Order
  3. Flight Details
2. Airline returns seat map details including seat availability

## Post Condition

### Success

- Seat map details and seat availability are received

### Failure

- Seat map details and seat availability

## Relevant Messages

- SeatAvailabilityRQ
- SeatAvailabilityRS

## Relevant Worked Examples

- 

## Certification Link

•

# Seat Map and Price Points

## Definition

### Seller

This capability allows the Seller to request and display seat map details, including price points per seat or seat range.

### Airline

This capability allows an Airline to return seat map details, including price points per seat or seat range.

## Preconditions

An existing (one of)

- Offer
- Order
- Flight

## Process

1. Seller requests a seat-map detail referencing
  1. Offer
  2. Order
  3. Flight Details
2. Airline returns seat map details including price points per seat or seat range.

## Post Condition

### Success

Seat map details and price points per seat or seat range are received

### Failure

Seat map details and price points per seat or seat range are not received

## Relevant Messages

SeatAvailabilityRQ/RS

## Relevant Worked Examples

- [UC02 – Shop and Order a flight and a seat for a single passenger](#)
- [UC03 – Shop and Order a flight for multiple passengers with additional services](#)

## Certification Link

- [Shop: Seat map and price point \[SHPSTP\]](#)

# Upsell Using Pricing Response

## Definition

### Airline

This capability allows an Airline to return upsell offers, whether requested or not by a seller.

### Seller

This capability optionally allows the Seller to request and receive upsell offers in addition to a selected priced offer.

## Variant 1- Airline returns upsell offers

### Preconditions

- One or more existing Shopped Offers

### Process

1. The Seller requests a priced Offer using a previously shopped Offer or Offers
2. Airline returns the requested priced offer(s) plus upsell offers

### Post Condition

### Success

- The Priced Offer and Upsell Offers are received

### Failure

- No Priced Offer is returned, resulting in an Error message

## Variant 2 - Seller requests upsell offers

### Preconditions

- One or more existing Shopping Offers

### Process

1. The Seller requests a priced Offer using a previously shopped Offer or Offers indicating that they would also like upsell offers
2. Airline returns the requested priced offer(s) plus upsell offers

### Post Condition

## **Success**

- The Priced Offer and Upsell Offers are received
- The Priced Offer, no Upsell Offers with an optional warning are received

## **Failure**

- No Priced Offer is returned, resulting in an Error message

## **Relevant Messages**

- OfferPriceRQ
- OrderQuoteRQ
- OrderReshopRS
- OfferPriceRS

## **Relevant Worked Examples**

- 

## **Certification Link**

-

# Pricing Offers

## Definition

### Seller

This capability allows the Seller to request a single consolidated Offer with an associated total price from a set of previously shopped Offer(s)

### Airline

This capability allows an Airline to create a consolidated offer from a set of previously shopped Offer(s) and:

1. May return additional details about the Quoted offer
2. May return other offers (e.g., upsell offers)

## Preconditions

- Shopping step is already performed by the seller
- Seller is in possession of unexpired OfferID or OfferID(s) that they wish to be priced and/or consolidated

## Process

1. Seller sends the airline the OfferID(s) of the shopped offers to be priced and/or consolidated
2. Seller can optionally select additional offer criteria or payment criteria to be applied on the selected offer(s) during the pricing/consolidation process
3. Airline processes the request and may consider the additional criteria
4. Airline on successful completion of the process returns a consolidated quoted offer to the seller along with optional other offers (e.g., upsell offers)

## Post Condition

### Success

- A consolidated priced offer is returned to the seller

### Failure

- Error message is returned to the seller

## Relevant Messages

- OfferPriceRQ
- OfferPriceRS
- OrderQuoteRQ



**Relevant Worked Examples**

- 

**Certification Link**

# Create Order Without Payment

## Definition

### Seller

This capability allows the Seller to request that an Airline create an Order based on selection of Offer(s) and Offer Item(s).

### Airline

This capability allows an Airline to respond to a request from the Seller to create an Order based on selection of Offer(s) and Offer Item(s)

## Preconditions

- Shopping step is already performed by the seller
- Seller is in possession of an offer that they wish to convert into an order

## Process

1. Seller requests the creation of an order based on the given offer provided. Payment details not required.
2. Airline processes the request and validates the validity of the Offer
3. Airline creates an Order based on the given Offer
4. Airline creates payment details due to Airline
5. Airline notifies the Seller of the Order creation

## Post Condition

### Success

- Seller receives a view of the confirmed Order with payment time limits

### Failure

- In case the order creation fails, and the Order details are not created, the response will return an error.

## Relevant Messages

- OrderCreateRQ
- OrderViewRS

## Relevant Worked Examples

- [UC01 – Shop and Order a flight for a single passenger](#)
- [UC02 – Shop and Order a flight and a seat for a single passenger](#)

**Certification Link**

# Create Order With Instant Payment

## Definition

### Airline

Capability allows an Airline to collect payment immediately upon ordering.

### Seller

Allows the seller to request the creation and pay for an Order immediately upon ordering .

## Preconditions

- Shopping step is already performed by the seller
- Seller is in possession of an offer that they wish to convert into an order

## Process

1. The Seller requests the creation of an Order referencing
  1. The Offer
  2. The payment payload (payment processing details)
2. The Airline returns the order and payment confirmation

## Post Condition

### Success

- Seller receives a view of the confirmed Order with payment confirmation success and document details if applicable

### Failure

- In case the order creation fails, and the Order details are not created, the response will return an error.
- In case the order creation succeeds and the payment fails,
  - the Order details may be returned with a warning message indicating the failed payment
  - the response may return an error.

## Relevant Messages

- IATA\_OrderCreateRQ
- IATA\_OrderViewRS

## Relevant Worked Examples

- UC03 - Shop and Order a flight for multiple passengers with additional services

**Certification Link**

# Seller Initiated Change to an Order

## Definition

### Seller

The Seller has the ability to request a change to an Order

### Airline

The Airline has the ability to change an Order.

## Variant 1

Change to an Order based on an Offer

## Preconditions

- Quoted Offer, Cancel Offer or Reprice Offer exists in reference to the Order.

## Process

1. The Seller requests the change by sending reference to an offer (varying types above)
  1. Provide payment details as needed
2. The Airline reviews type of Offer:
  1. Makes changes:
    1. Order Version is changed
    2. Performs the change requested
      - Creates and/or delete products/items, as needed
3. Payment Result:
  1. Payment due, process payment
    1. Payment due to Airline: accept and process Payer payment
    2. Payment due by Airline: Airline processes either:
      - Refund
      - Value Store
  2. No payment due
4. Airline returns updated Order information to the Seller including as needed:
  1. Cancelled and/or new OrderItems from changes
  2. Payment Transaction Summary
  3. Price Differential
  4. Updated Order Version

## Post Condition

## Success

- Order is changed - updated Order Information is received by the Seller.

#### **Failure**

- Order is not changed and an error or warning is returned.

### **Variant 2**

Change to an Order not based on an Offer/Reshop

#### **Preconditions**

- An Order has been created

#### **Process**

1. The Seller requests the change by sending change details.
2. The Airline reviews changes requested and sends response to Sellers

#### **Post Condition**

#### **Success**

- Order is changed - updated Order Information is received by the Seller.

#### **Failure**

- Airline is unable to process the changes
- Order is not changed and an error or warning is returned.

#### **Relevant Messages**

- OrderChangeRQ
- OrderViewRS

#### **Relevant Worked Examples**

- 

#### **Certification Link**

# Retrieve an Order

## Definition

### Seller

This capability allows the Seller to request current version of a specific Order.

### Airline

This capability allows an Airline to provide the current version of the requested Order.

## Preconditions

An Order has been created.

## Process

The Seller requests to retrieve a specific Order.

The Airline returns the current version of the requested Order.

## Post Condition

### Success

Seller receives the current version of the requested Order.

### Failure

Seller receives an error message.

## Relevant Messages

- OrderRetrieveRQ
- OrderViewRS

## Relevant Worked Examples

- 

## Certification Link

- ORDRET



# Notification of Airline Initiated Change to an Order

## Definition

### Seller

The Seller is able to receive notification of the airline-initiated Order changes and acknowledge receipt of notification.

### Airline

The airline is able to notify the Seller of the airline-initiated Order changes and receive the acknowledgement of receipt of notification from the seller.

## Preconditions

- An Order has been created.
- An airline-initiated change to the Order has occurred.

## Process

1. The Airline notifies the Seller of the airline-initiated change to the Order and, if applicable, any follow-up actions for the Seller.
2. The Seller acknowledges receipt of the notification.

## Post Condition

### Success

Notification is received and acknowledged. Possible follow-up actions performed by Seller.

### Failure

- Notification is not received or not acknowledged.

## Relevant Messages

- OrderChangeNotificationRQ
- Acknowledgement

## Relevant Worked Examples

- 

## Certification Link

## Order changes initiated by the airlines with notifications



# Historical Information on Orders

## Definition

### Airline

Ability to provide detailed historical information on orders. This should include both changes initiated by the Seller and by the Airline.

### Seller

Ability to request detailed historical information on orders.

## Preconditions

- An Order has been created.

## Process

1. The Seller requests to retrieve the history for a specific Order.
2. The Airline returns the history information of the requested Order.

## Post Condition

## Success

- Seller receives history details of the requested Order. If the Order is in its initial state after just being created (version 1), Seller receives at least the snapshot of this Order.

## Failure

- Seller receives an error message.

## Relevant Messages

- OrderHistoryRQ, OrderHistoryRS

## Relevant Worked Examples

- 

## Certification Link

- [Order: History Information on Orders \[ORDHIS\]](#)

# Communicate Payment Catalogue

## Definition

### Airline

This capability allows an Airline to communicate supported payment methods and associated payment information.

### Seller

None

## Preconditions

- None

## Process

1. Seller sends a shopping, pricing request
  2. Airline responds with
    1. Offers or unpaid Order items
    2. A list of payment methods that they would accept along with
      1. Process for the payment transaction
- Redirect or not
    1. Fees and charges for processing, for example
  - Precise
  - Range
  - Calculator
    1. Other information that may be required to accept the payment, for example
  - Must Authenticate
  - 3DS version

## Post Condition

## Success

- Seller is in receipt of information regarding an airline's payment acceptance

## Failure

- None

## Relevant Messages

- AirShoppingRS
- ServiceListRS

- SeatAvailabilityRS
- OfferPriceRS
- OrderReshopRS
- OrderViewRS

## **Relevant Worked Examples**

- 

## **Certification Link**

-

# Pay for an Existing Order

## Definition

### Seller

This capability allows the Seller to provide payment information for an existing Order or Order Items. Payment may be for some or all Order Items.

### Airline

This capability allows an Airline to accept payment for an existing Order or order items

## Preconditions

- An order exists
- Unpaid Order Items exist within an order
- Unpaid Order Items are within their
  - Price Guarantee Time Limit (if used)
  - Payment Time Limit

## Process

1. A payer attempts to pay for the unpaid Order Item or Items
  1. Providing payment intent via
    1. Offline Payment Process (e.g., redirect / BSP) OR
    2. Online Payment Process (e.g., customer card)
2. A payee attempts to validate and accept the payment

## Post Condition

### Success

- Seller receives a view of the confirmed Order with payment confirmation success and document details if applicable

### Failure

- The Order details are returned with a warning message indicating the failed payment with reason for failure

## Relevant Messages

- OrderChangeRQ
- OrderViewRS

## Relevant Worked Examples

- 

**Certification Link**

-

# Pay Using Settlement Platform

## Definition

### Seller

This capability allows the Seller to inform an airline of an intention to pay via a settlement platform and to optionally provide details relating to where the settlement will occur

1. Pay for an existing unpaid Order or Order Items
2. Pay for a selected Offer towards the creation of an Order

### Airline

This capability allows an Airline to accept indirect payment from a seller via settlement platform

## Preconditions

- Airline supports settlement via the Settlement Plan
- Seller is accredited with the Settlement Plan

## Process

1. A seller attempts to pay for unpaid Order item or items providing payment settlement plan details
  1. Payment Type
  2. Payment Brand
  3. Optionally agency reference ID
2. An airline attempts to validate the seller (E.g., by checking the sellers risk profile)

## Post Condition

### Success

- Seller receives a view of the confirmed Order with payment confirmation success and document details if applicable

### Failure

- The Order details are returned with a warning message indicating the failed payment with reason for failure

## Relevant Messages

- OrderCreateRQ
- OrderChangeRQ
- OrderViewRS



**Relevant Worked Examples**

- 

**Certification Link**

-

# Pay Using Customer Card

## Definition

### Seller

This capability allows the Seller to:

1. Pay for an existing unpaid Order or Order Items using customer card
2. Pay for a selected Offer towards the creation of an Order

### Airline

This capability allows an Airline to receive payment card details to process payment for an existing unpaid Order or OrderItems

## Preconditions

- Seller has already implemented all the necessary processes to handle card data
- No Payment Preference was indicated, or it is the same as indicated earlier in the process.

## Process

1. A payer attempts to pay for the unpaid item or items
  1. providing payment intent via card details and
  2. passing authentication results as needed
  3. specifying the ownership of payment instrument (Customer or Seller)
2. A payee attempts to validate and accept the payment through an authorisation request with received card details

## Post Condition

### Success

- Seller receives a view of the confirmed Order with payment confirmation success and document details if applicable

### Failure

- The Order details are returned with a warning message indicating the failed payment with reason for failure

## Relevant Messages

- OrderChangeRQ
- OrderCreateRQ
- OrderViewRS

### **Relevant Worked Examples**

- 

### **Certification Link**

-

# Pay Offline Using Redirection

## Definition

### Airline

This capability allows an Airline to provide information that the payment will be facilitated via redirection of the Payer: to the Airline payment page or Airline's other information page containing instructions how payment can be finalized.

### Seller

This capability allows the Seller to inform an airline of intent to pay using a payment method identified as requiring redirection for either of the following situations:

1. Pay for an existing unpaid Order or Order Items
2. Pay for a selected Offer or Offer Items towards the creation of an Order or Order Items

## Preconditions

The airline supports payment via a process "offline" to their distribution platform e.g. payment gateway or other means like a page showing the details for a bank transfer.

The airline can be informed that a payment is processed.

The Seller wishes to pay for an Item be it an OfferItem or an OrderItem;

## Limitations

N/A

## Process

1. Seller is presented with instructions by the airline on how to execute the up-coming "offline" payment by the customer, providing the specific payment method, out of the airline's previously-presented list of supported payment methods (payment method catalogue). The information provided includes:
  1. PaymentMethod ('paymenttypecode' and other information)
  2. Payment Redirection Acceptance Indicator

And optionally

3. PaymentBrandCode
4. A return URI

2. An airline responds with details relating to the payment transaction
  1. A Payment ID
  2. A payment status of PENDING
  3. A redirection URI

And optionally

4. An updated payment time limit

3. The airline updates the order status when the payment is at a final state and informs the seller that the payment status is now:

1. SUCCESSFUL

OR

2. FAILED

E.g., in case of payment time limit exceeded or payment failed.

## **Post Condition**

### **Success**

Seller informed of payment success

Services statuses updated to "ready to proceed"

Payment time limits are removed

### **Failure**

Seller informed of payment failure

Services statuses unchanged

Payment time limits are retained

## **Relevant Messages**

OrderCreateRQ

OrderChangeRQ

OrderChangeNotificationRQ

OrderRetrieveRQ

OrderViewRS

# Netting

## Supported Capabilities

### 1. Netting to compensate any new collection of fare and/or taxes with residual amount

#### Description

For each change in fare and/or taxes values in a modification of an Order, the airline should inform the seller if fare and/or taxes are netted or not (i.e., residual amount from old OrderItem used to compensate amount of the new OfferItem/OrderItem).

#### Preconditions

- An Order exists in the Airline's Order Management System
- Seller communicates intent to service partially or fully the order
- Airline is applying netting process during servicing

#### Process

- Airline processes the reshop offers and identifies when netting of fare and/or taxes applies

#### Success

- OrderReshopRS explicitly describes at OfferItem level that fare and/or taxes are netted.
  - Net Indicator at offer item level set to true (NetInd in OfferItem)
  - The "DueByAirline" or "DueToAirline" amount is calculated and set correctly
- OrderViewRS explicitly describes at OrderItem level that fare and/or taxes are netted.
  - Net Indicator at order item level set to true (NetInd in OrderItem)
  - The "DueByAirline" or "DueToAirline" amount is calculated and set correctly

### 2. Applying netting to compensate collection of penalty with fare residual amount only

#### Description

If a change fee applies for modification of an Order, the airline should inform the seller if a residual fare amount can compensate the penalty, either fully or partially (i.e., residual amount of fare from old OrderItem was used to compensate a penalty amount before application to the new OfferItem/OrderItem).

#### Preconditions

- An Order exists in the Airline's Order Management System
- A Change Fee exists for the OrderItem being reshopped
- Seller communicates intent to service partially or fully the order

- Airline is applying netting process during servicing

## Process

- Airline processes the reshop offers and identifies when netting of fare against penalty applies

## Success

- OrderReshopRS explicitly describes at penalty level that it has been netted.
  - Net Indicator at penalty level set to true (NetInd in Penalty)
  - The “DueByAirline” or “DueToAirline” amount is calculated and set correctly
- OrderViewRS explicitly describes at penalty level that it has been netted.
  - Net Indicator at order item level set to true (NetInd in OrderItem)
  - The “DueByAirline” or “DueToAirline” amount is calculated and set correctly

## 3. Apply netting to compensate any new collection of fare and/or taxes and penalty with residual amount

### Description

For each change in fare and/or taxes values where a change fee may have applied for a modification of an Order, the airline should inform the seller if fare and/or taxes and/or penalty are netted or not (i.e., residual amount from old OrderItem used to compensate amount of the new OfferItem/OrderItem and penalty).

### Preconditions

- An Order exists in the Airline’s Order Management System
- A Change Fee exists for the OrderItem being reshopped
- Seller communicates intent to service partially or fully the order
- Airline is applying netting process during servicing

## Process

- Airline processes the reshop offers and identifies when netting of fare and/or taxes and/or penalty applies

## Success

- OrderReshopRS explicitly describes at penalty level that it has been netted and at OfferItem level that fare and/or taxes are netted.
  - Net Indicator at penalty level set to true (NetInd in Penalty)
  - Net Indicator at offer item level set to true (NetInd in OfferItem)
  - The “DueByAirline” or “DueToAirline” amount is calculated and set correctly
- OrderViewRS explicitly describes at penalty level that it has been netted and at OrderItem level that fare and/or taxes are netted.
  - Net Indicator at penalty level set to true (NetInd in Penalty)
  - Net Indicator at order item level set to true (NetInd in OrderItem)
  - The “DueByAirline” or “DueToAirline” amount is calculated and set correctly

## Unsupported Capabilities

- The netting process described above does not apply:
  1. when a modification of an Order relates to a non-flight service under an Order Item with an EMD issued against it.
  2. when a modification of an Order relates to a flight service under an Order Item without a ticket issued against it.
  3. Between different Order Items belonging to the same order.
  4. Between different Order Items belonging to different orders.



# UC02 - Shop and Order a flight and a seat for a single passenger

## Description

This use case illustrates the creation of an order for a single passenger with frequent flyer number booking for a flight and selecting an extra bag and seat. Payment is not made.

## Capabilities Demonstrated

- Use of Price Classes
- Describing offer conditions / restrictions
- Shop for ancillaries
- Use of Taxonomy
- Seat map availability and price points
- Price multiple offers
- Order creation without payment

## Preconditions / Assumptions

- No preconditions

## Descriptive Flow

| Step | Message            | State Diagram        | Description  |
|------|--------------------|----------------------|--|
| 1RQ  | AirShoppingRQ      | State 0 -> State 1   | Seller requests flight offers to airline, providing origins, destinations and dates.                             |
| 1RS  | AirShoppingRS      |                      | Airline responds with different flight offers  |
| 2RQ  | ServiceListRQ      | State 1 -> State 2   | Seller requests for additional ancillaries on a selected flight offer  |
| 2RS  | ServiceListRS      |                      | Airline responds with different a la carte Ancillary offers  |
| 2RQ  | SeatAvailabilityRQ | State 2 -> State 2   | Seller requests for Seats on a selected flight offer   |
| 2RS  | SeatAvailabilityRS |                      | Airline responds with seat map and a la carte seat offers  |
| 3RQ  | OfferPriceRQ       | State 2 -> State 3   | Seller requests the selection of Flight Offer, Extra bag and Seat ancillary services                             |
| 3RS  | OfferPriceRS       |                      | Airline responds with a unified priced offer with selected flight service, extra bag and seat ancillary services |
| 4RQ  | OrderCreateRQ      | State 3 -> State 6.1 | Seller requests creation of the order, with the selected priced offer  |
| 4RS  | OrderViewRS        |                      | Airline responds with the created order  |

## Post Condition

- An unpaid Order is created.

## Main Message Objects

### Shop

The table below is a non-exhaustive list of some of the functions used to illustrate this use case.

| Message            | Object                                  | Details   |
|--------------------|---|---|
| AirShoppingRQ      | FlightRequestOriginDestinationsCriteria | Send specific Origin and Destination information for intended dates           |
|                    | Pax                                     | Passenger Type code   |
| AirShoppingRS      | Offers                                  | A set of offers   |
| ServiceListRQ      | OfferRequest                            | Selected Offer on which ancillaries are calculated                            |
| ServiceListRS      | AlaCarteOffer                           | A la carte offers are returned by the airline to represent ancillary services |
| SeatAvailabilityRQ | SeatAvailOfferRequest                   | Request seat map on an offer  |
| SeatAvailabilityRS | AlaCarteOffer                           | AlaCarteOffers for available seats  |
|                    | SeatMap                                 | SeatMap detailing the position of the seat                                    |

### Price

| Message      | Object      | Details  |
|--------------|-------------|--|
| OfferPriceRQ | PricedOffer | Included selected Offers to get on consolidated priced offer |
| OfferPriceRS | PricedOffer | Return one single priced offer with selected Offeritems      |

### Order

| Message       | Object                        | Details   |
|---------------|-------------------------------|---|
| OrderCreateRQ | AcceptSelectedQuotedOfferList | Pass the PricedOffer with Flight OfferItems, selected ancillary offer item to be added to the Order |

|                    |       |   |
|--------------------|-------|---|
| <b>OrderViewRS</b> | Order | Order with Orderitems corresponding to selected priced Offeritems |
|--------------------|-------|---|

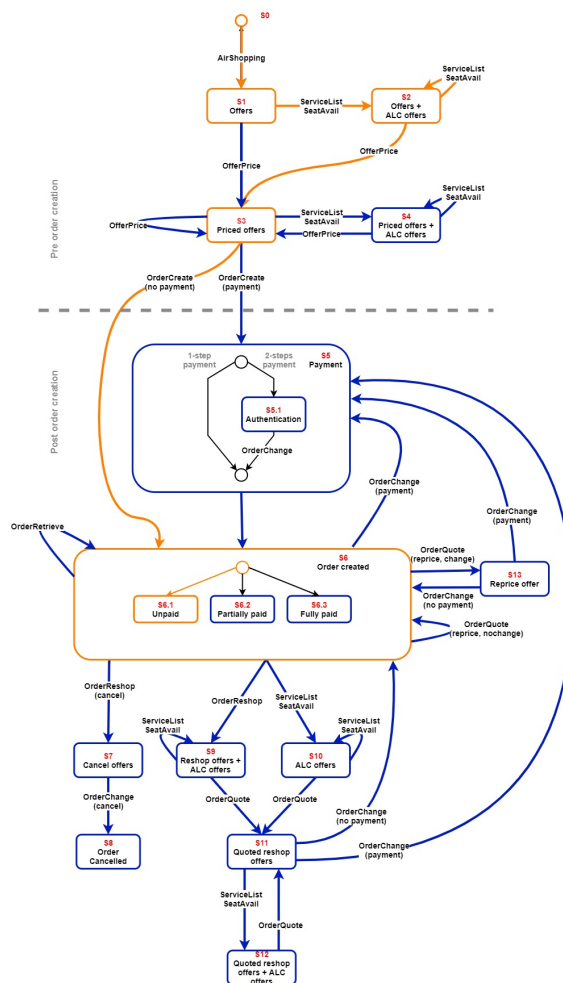
## XML Samples

| Sequence | Message            |
|----------|--------------------|
| 1RQ      | AirshoppingRQ      |
| 1RS      | AirShoppingRS      |
| 2RQ      | ServiceListRQ      |
| 2RQ      | ServiceListRS      |
| 3RQ      | SeatAvailabilityRQ |
| 3RS      | SeatAvailabilityRS |
| 4RQ      | OfferPriceRQ       |
| 4RS      | OfferPriceRS       |
| 5RQ      | OrderCreateRQ      |
| 5RS      | OrderViewRS        |

[Link to worked XMLs](#)

## State diagram

This is the full state diagram describing recommended transitions and flows. Transitions and stated involved in the current use case are highlighted in orange.



### States:

**S0:** initial state, no precondition.

**S1:** received flight offers

**S2:** received a la carte offers (seats, services) for a flight offer.

**S3:** received a priced offer.

**S4:** received a la carte offers (seats, services) for a priced flight offer.

**S5:** payment process state. Contains an actual intermediate state (S5.1) only in case of authentication needed (e.g., 3DS, AMOP, ...). No intermediate state else (S5 transitions immediately to S6 in that case).

**S6:** order created. Sub-states S6.1, S6.2 and S6.3 detail the overall order payment status.

**S7:** received a full order cancellation offer.

**S8:** accepted a full order cancellation offer, order is cancelled.

**S9:** received flight re-shop offers (with or without a la carte offers) for an order.

**S10:** received a la carte offers for an order.

**S11:** received quoted offers.

**S12:** received Quoted offers and Ala carte offers for Quoted Offer

**S13:** received repriced offer from the airline

### Transitions:

**S0 → S1:** shop for flights

**S1 → S2:** shop for seats/services on an offer

**S1 or S2 → S3:** price offer(s)

**S3 → S6:** order creation without payment

**S3 → S5 → S6:** order creation with payment

**S6 → S7:** request full order cancellation offer

**S7 → S8:** accept full order cancellation offer

**S6 → S9:** re-shop for flights

**S6 → S10:** shop for seats/services on an order

**S6 → S13:** reprice existing order resulting in a reprice offer

**S9 or S10 → S11:** quote re-shop offers and/or a la carte offers on an order

**S11 or S13 → S6:** accept a quoted offer on an order, without payment

**S11 or S13 → S5 → S6:** accept a quoted offer on an order with payment

**S11 → S12:** shop for seats/services on a quoted re-shop offer

**S12 → S11:** quote quoted offers and/or a la carte offers on an order

## UC03 - Shop and Order a flight for multiple passengers with additional services

### Description

This use case illustrates multiple passengers ( two adults, one Infant and one child) booking a round trip from London to New York with an additional bag and a seat selection.

### Capabilities Demonstrated

- Shop for flights
- Shop for ancillaries
- Use of new Taxonomy code sets
- Seat map and availability
- Seat map availability and price points
- Price a flight offer
- Order creation with payment

### Preconditions / Assumptions

- No preconditions

### Descriptive Flow

- Describing offer conditions / restrictions

| Step | Message       | State Diagram      | Description   |
|------|---------------|--------------------|---|
| 1RQ  | AirShoppingRQ | State 0 -> State 1 | <p>Seller requests flight offers to airline, providing origins, destinations and dates.</p> <p>Seller specifies the number of passengers, and their passenger type codes</p>  |
| 1RS  | AirShoppingRS |                    | <p>Airline responds with different flight offers.</p> <p>Where available, Airline may include per passenger pricing information to provide a breakdown of the total price.</p> <p>Where applicable, Airline may also provide additional services which the passenger(s) are entitled to as part of each Offer</p> |
| 2RQ  | ServiceListRQ | State 1 -> State 2 | <p>Seller requests for additional ancillaries on a selected flight offer</p> <p>Seller optionally specifies which passenger(s)/flight(s) the additional ancillaries should be for</p>   |
|      |               |                    |   |

|            |                    |                      |   |
|------------|--------------------|----------------------|---|
| <b>2RS</b> | ServiceListRS      |                      | Airline responds with different a la carte Ancillary offers<br><br>Where relevant, the Airline may also specify the passenger(s)/flight(s) which an a la carte Ancillary offer is relevant to |
| <b>2RQ</b> | SeatAvailabilityRQ | State 2 -> State 2   | Seller requests for Seats on a selected flight offer<br><br>Seller optionally specifies which passenger(s)/flight(s) the seat request should be for   |
| <b>2RS</b> | SeatAvailabilityRS |                      | Airline responds with seat map and a la carte seat offers<br><br>Where relevant, the Airline may also specify the passenger(s)/flight(s) which an a la carte Ancillary offer is relevant to   |
| <b>3RQ</b> | OfferPriceRQ       | State 2 -> State 3   | Seller requests the selection of Flight Offer, Extra bag and Seat ancillary services  |
| <b>3RS</b> | OfferPriceRS       |                      | Airline responds with a unified priced offer with selected flight service, extra bag and seat ancillary services  |
| <b>4RQ</b> | OrderCreateRQ      | State 3 -> State 6.1 | Seller requests creation of the order with the selected priced offer  |
| <b>4RS</b> | OrderViewRS        |                      | Airline responds with the created unpaid order  |

## Post Condition

An Order is created with OrderItem(s) containing the requested Flight Offer and ancillary services. The booking and payment statuses reflect that the requested items are confirmed and paid.

## Main message Objects

### Shop

The table below is a non-exhaustive list of some of the functions used to illustrate this use case.

| Message              | Object                                  | Details  |
|----------------------|---|--|
| <b>AirShoppingRQ</b> | FlightRequestOriginDestinationsCriteria | Send specific Origin and Desitination information for intended dates |
|                      | Pax                                     | Passenger Type code  |
| <b>AirShoppingRS</b> | Offers                                  | A set of offers  |

|                           |                          |  |
|---------------------------|--------------------------|--|
| <b>ServiceListRQ</b>      | OfferRequest             | Selected Offer on which ancillaries are calculated                                   |
| <b>ServiceListRS</b>      | AlaCarteOffer            | A la carte offers are returned by the airline to represent ancillary services        |
| <b>SeatAvailabilityRQ</b> | SeatAvailOfferRequest    | Request seatmap on an offer  |
| <b>SeatAvailabilityRS</b> | AlaCarteOffer<br>SeatMap | AlaCarteOffers for available seats<br><br>SeatMap detailing the position of the seat |

## Price

| Message             | Object      | Details   |
|---------------------|-------------|---|
| <b>OfferPriceRQ</b> | PricedOffer | Included selected Offers to get on consolidated pricedOffer |
| <b>OfferPriceRS</b> | PricedOffer | Return one single pricedOffer with selected offeritems      |

## Order

| Message              | Object                        | Details   |
|----------------------|-------------------------------|---|
| <b>OrderCreateRQ</b> | AcceptSelectedQuotedOfferList | Pass the pricedOffer with mandatoryOfferItems to be added to the Order                  |
|                      | PaymentProcessingDetails      | Pass method of payment with associated offeritems that should be considered for payment |
| <b>OrderViewRS</b>   | Order                         | Order with selected priced Orderitems   |
|                      | PaymentProcessingSummary      | Contains details of Payment transaction   |

## XML Samples

| Sequence   | Message       | Sample |
|------------|---------------|--------|
| <b>1RQ</b> | AirshoppingRQ |        |

|            |                    |  |
|------------|--------------------|--|
| <b>1RS</b> | AirShoppingRS      |  |
| <b>2RQ</b> | ServiceListRQ      |  |
| <b>2RQ</b> | ServiceListRS      |  |
| <b>3RQ</b> | SeatAvailabilityRQ |  |
| <b>3RS</b> | SeatAvailabilityRS |  |
| <b>4RQ</b> | OfferPriceRQ       |  |
| <b>4RS</b> | OfferPriceRS       |  |
| <b>5RQ</b> | OrderCreateRQ      |  |
| <b>5RS</b> | OrderViewRS        |  |

[Link to worked XMLs](#)

## State diagram

This is the full state diagram describing recommended transitions and flows. Transitions and states involved in the current use case are highlighted in orange.





## UC04 - Shop and Order service bundle using rich content

### Description

This use case illustrates a single passenger booking for a pack of services including a seat and excess baggage for a one-way trip from New York to London. In this use case the passenger selects an upsell offer proposed by the airline.

### Capabilities Demonstrated

- Shop for ancillaries
- Construct bundled offers
- Use of new Taxonomy code sets
- Upsell using pricing response

### Preconditions / Assumptions

- No pre-condition

### Descriptive Flow

| Step | Message       | State Diagram                     | Description   |
|------|---------------|-----------------------------------|---|
| 1RQ  | AirShoppingRQ | State 0 -> State 1                | Seller requests flight offers to airline, providing origins, destinations and dates.  |
| 1RS  | AirShoppingRS |                                   | Airline responds with different flight offers   |
| 2RQ  | ServiceListRQ | State 1 -> State 2                | Seller requests for additional ancillaries on a selected flight offer   |
| 2RS  | ServiceListRS |                                   | Airline responds with excess bag and a pack of extra baggage with seat selection  |
| 3RQ  | OfferPriceRQ  | State 2 -> State 3                | Seller requests the selection of Flight Offer, and pack of services   |
| 3RS  | OfferPriceRS  |                                   | Airline responds with a unified priced offer with selected flight service and the ancillary pack containing Seat and extra bag along with upsell offers |
| 4RQ  | OrderCreateRQ | State 3 -> State 6.1              | Seller requests creation of the order, with the selected upsell offer   |
| 4RS  | OrderViewRS   |                                   | Airline responds with the created unpaid order  |
| 5RQ  | OrderChangeRQ | State 6.1 -> State 5 -> State 6.3 | Select orderitems and the payment method associated to pay for the selected orderitems  |
| 5RS  | OrderViewRS   |                                   |   |

## Post Condition

- Paid Order is created.

## Main message Objects

### Shop

The table below is a non-exhaustive list of some of the functions used to illustrate this use case.

| Message       | Object                                  | Details  |
|---------------|---|--|
| AirShoppingRQ | FlightRequestOriginDestinationsCriteria | Send specific Origin and Desitination information for intended dates                                       |
|               | Pax                                     | Passenger Type code  |
| AirShoppingRS | Offers                                  | A set of offers  |
| ServiceListRQ | OfferRequest                            | Selected Offer on which ancillaries are calculated   |
| ServiceListRS | AlaCarteOffer                           | A la carte offers are returned by the airline to represent ancillary services ( Xbag and pack of services) |

### Price

| Message      | Object      | Details  |
|--------------|-------------|--|
| OfferPriceRQ | PricedOffer | Included selected Offers to get on consolidated pricedOffer              |
| OfferPriceRS | PricedOffer | Return one single pricedOffer with selected offeritems and Upsell offers |

### Order

| Message       | Object                        | Details  |
|---------------|-------------------------------|--|
| OrderCreateRQ | AcceptSelectedQuotedOfferList | Pass the pricedOffer with mandatoryOfferItems to be added to the Order |
| OrderViewRS   | Order                         | Order with selected priced Orderitems                                  |

|               |                          |   |
|---------------|--------------------------|---|
| OrderChangeRQ | PaymentProcessingDetails | Pass method of payment with associated offeritems that should be considered for payment |
|               | PaymentProcessingSummary | Contains details of Payment transaction   |

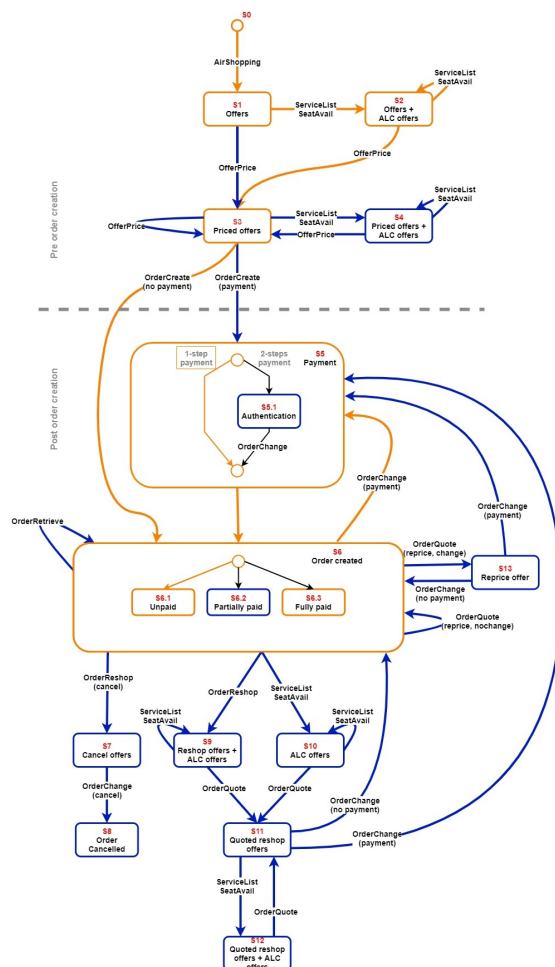
## XML Samples

| Sequence | Message       | Sample |
|----------|---------------|--------|
| 1RQ      | AirShoppingRQ |        |
| 1RS      | AirShoppingRS |        |
| 2RQ      | ServiceListRQ |        |
| 2RQ      | ServiceListRS |        |
| 3RQ      | OfferPriceRQ  |        |
| 3RS      | OfferPriceRS  |        |
| 4RQ      | OrderCreateRQ |        |
| 4RS      | OrderViewRS   |        |
| 5RQ      | OrderChangeRQ |        |
| 5RS      | OrderViewRS   |        |

[Link to worked XMLs](#)

## State diagram

This is the full state diagram describing recommended transitions and flows. Transitions and stated involved in the current use case are highlighted in orange.



### States:

**S0:** initial state, no precondition.

**S1:** received flight offers

**S2:** received a la carte offers (seats, services) for a flight offer.

**S3:** received a priced offer.

**S4:** received a la carte offers (seats, services) for a priced flight offer.

**S5:** payment process state. Contains an actual intermediate state (S5.1) only in case of authentication needed (e.g., 3DS, AMOP, ...). No intermediate state else (S5 transitions immediately to S6 in that case).

**S6:** order created. Sub-states S6.1, S6.2 and S6.3 detail the overall order payment status.

**S7:** received a full order cancellation offer.

**S8:** accepted a full order cancellation offer, order is cancelled.

**S9:** received flight re-shop offers (with or without a la carte offers) for an order.

**S10:** received a la carte offers for an order.

**S11:** received quoted offers.

**S12:** received Quoted offers and Ala carte offers for Quoted Offer

**S13:** received repriced offer from the airline

### Transitions:

**S0 → S1:** shop for flights

**S1 → S2:** shop for seats/services on an offer

**S1 or S2 → S3:** price offer(s)

**S3 → S6:** order creation without payment

**S3 → S5 → S6:** order creation with payment

**S6 → S7:** request full order cancellation offer

**S7 → S8:** accept full order cancellation offer

**S6 → S9:** re-shop for flights

**S6 → S10:** shop for seats/services on an order

**S6 → S13:** reprice existing order resulting in a reprice offer

**S9 or S10 → S11:** quote re-shop offers and/or a la carte offers on an order

**S11 or S13 → S6:** accept a quoted offer on an order, without payment

**S11 or S13 → S5 → S6:** accept a quoted offer on an order with payment

**S11 → S12:** shop for seats/services on a quoted re-shop offer

**S12 → S11:** quote quoted offers and/or a la carte offers on an order

## UC05 - Customer requests a change to an order prior to travel without any additional payment

### Description

This use case illustrates a passenger requesting a change of date for the outbound flight in an existing Order.

The change results in no additional payment from.

### Capabilities Demonstrated

- Order changes through the Seller requiring a re-shop

### Preconditions / Assumptions

- Existing paid order with a round trip flight services from London to New York

### Descriptive Flow

| Step | Message         | State Diagram                             | Description   |
|------|-----------------|---|---|
| 1RQ  | OrderRetrieveRQ | State 6.3 -> State 6.3                    | Seller requests retrieval of selected OrderID   |
| 1RQ  | OrderViewRS     |   | Airline provides the most recent version of the Order   |
| 2RQ  | OrderReshopRQ   | State 6.3 -> State 9                      | Seller requests flight offers to airline, providing outbound origins, destinations and new dates.   |
| 2RS  | OrderReshopRS   |   | Airline responds with different flight reshop offers  |
| 3RQ  | OrderQuoteRQ    | State 9 -> State 11                       | Seller Requests Quote for the selected Reshopped Offer  |
| 3RS  | OrderReshopRS   |   | Airline responds with Quoted Offer  |
| 4RQ  | OrderChangeRQ   | State 11 -> State 5<br>State 5->State 6.3 | Seller selects the Quoted offer   |
| 4RS  | OrderViewRS     |   | Airline responds with the creation of new orderitem and deletion of older orderitem, the unchanged service will be moved to the newly created orderitem |

### Post Condition

- Order is successfully changed with change of date for the outbound flight

## Main message Objects

### Shop

The table below is a non-exhaustive list of some of the functions used to illustrate this use case.

| Message       | Object       | Details  |
|---------------|--------------|--|
| OrderReshopRQ | ServiceOrder | Send specific outbound Origin and Destination information for intended new dates           |
| OrderReshopRS | ReshopOffers | One or more Reshopoffers with AddOfferitems containing the flights with the intended dates |

### Quote

| Message       | Object         | Details  |
|---------------|----------------|--|
| OrderQuoteRQ  | SelectedOffers | Pass selected reshopped offers   |
| OrderReshopRS | QuotedOffer    | Return one single Quoted Offer indicating the remaining/additional amount in the offer |

### Order

| Message         | Object                        | Details                                       |
|-----------------|-------------------------------|---|
| OrderChangeRQ   | AcceptSelectedQuotedOfferList | Pass the QuotedOffer to be added to the Order |
| OrderViewRS     | Order                         | Order with selected priced Orderitems         |
|                 | PaymentProcessingSummary      | Contains details of Payment transaction       |
| OrderRetrieveRQ | OrderFilterCriteria           | Pass the OrderID                              |
| OrderViewRS     | Order                         | Order with selected priced Orderitems         |
|                 | PaymentProcessingSummary      | Contains details of Payment transaction       |

## XML Samples

| Sequence | Message         | Sample |
|----------|-----------------|--------|
| 1RQ      | OrderRetrieveRQ |        |
| 1RS      | OrderViewRS     |        |
| 2RQ      | OrderReshopRQ   |        |
| 2RS      | OrderReshopRS   |        |
| 3RQ      | OrderQuoteRQ    |        |
| 3RQ      | OrderReshopRS   |        |
| 4RQ      | OrderChangeRQ   |        |
| 4RS      | OrderViewRS     |        |
| 5RQ      | OrderRetrieveRQ |        |
| 5RS      | OrderViewRS     |        |

## State diagram

This is the full state diagram describing recommended transitions and flows. Transitions and states involved in the current use case are highlighted in orange.





## UC06 - Order change to Flight services results in cancellation of Ancillaries dependent on Flight services

### Description

This use case illustrates a passenger requesting a change of date for the outbound flight in an existing Order. The order has two order items one order item representing flight service and another order item representing extra baggage services. The exchange process results in Rebooking of flight services and booking of associated excess baggage

### Capabilities Demonstrated

- Order changes through the Seller requiring a re-shop
- Customer agrees to value store instead of refund

### Preconditions / Assumptions

- Existing paid order with a round trip flight services from London to New York

### Descriptive Flow

| Step | Message         | State Diagram                | Description   |
|------|-----------------|------------------------------|---|
| 1RQ  | OrderRetrieveRQ | State 6.3 → State 6.3        | Seller requests retrieval of selected OrderID   |
| 1RQ  | OrderViewRS     |                              | Airline provides the most recent version of the Order   |
| 2RQ  | OrderReshopRQ   | State 6.3 → State 9          | Seller requests flight offers to airline, providing outbound origins, destinations and new dates.   |
| 2RS  | OrderReshopRS   |                              | Airline responds with different flight reshop offers and delete orderitems for impacted dependent services in different orderitems                      |
| 3RQ  | ServiceListRQ   | State9 → State9              | Seller requests shopping of Excess baggage on the newly reshopped flights   |
| 3RS  | ServiceListRS   |                              | Seller receives ala carte extra baggage offers on reshopped flight services   |
| 4RQ  | OrderQuoteRQ    | State 9 → State 11           | Seller Requests Quote for the selected Reshopped Offer  |
| 4RS  | OrderReshopRS   |                              | Airline responds with Quoted Offer  |
| 5RQ  | OrderChangeRQ   | State 11 → State 5 → State 6 | Seller selects the Quoted offer   |
| 5RS  | OrderViewRS     |                              | Airline responds with the creation of new orderitem and deletion of older orderitem, the unchanged service will be moved to the newly created orderitem |

## Post Condition

- Order is successfully changed with change of date for the outbound flight and extra baggage is ordered on the newly added flights

## Main message Objects

### Shop

The table below is a non-exhaustive list of some of the functions used to illustrate this use case.

| Message       | Object        | Details   |
|---------------|---------------|---|
| OrderReshopRQ | ServiceOrder  | Send specific outbound Origin and Destination information for intended new dates        |
| OrderReshopRS | ReshopOffers  | A set of Reshopoffers with AddOfferitems containing the flights with the intended dates |
| ServiceListRQ | OfferRequest  | Selected Offer on which ancillaries are calculated                                      |
| ServiceListRS | AlaCarteOffer | A la carte offers are returned by the airline to represent ancillary services           |

### Quote

| Message       | Object         | Details  |
|---------------|----------------|--|
| OrderQuoteRQ  | SelectedOffers | Pass selected reshopped offers and a la carte offers                                   |
| OrderReshopRS | QuotedOffer    | Return one single Quoted Offer indicating the remaining/additional amount in the offer |

### Order

| Message         | Object                        | Details                                       |
|-----------------|-------------------------------|---|
| OrderChangeRQ   | AcceptSelectedQuotedOfferList | Pass the QuotedOffer to be added to the Order |
| OrderViewRS     | Order                         | Order with selected priced Orderitems         |
|                 | PaymentProcessingSummary      | Contains details of Payment transaction       |
| OrderRetrieveRQ | OrderFilterCriteria           | Pass the QuotedOffer to be added to the Order |
| OrderViewRS     | Order                         | Order with selected priced Orderitems         |

|  |                          |   |
|--|--------------------------|---|
|  | PaymentProcessingSummary | Contains details of Payment transaction |
|--|--------------------------|---|

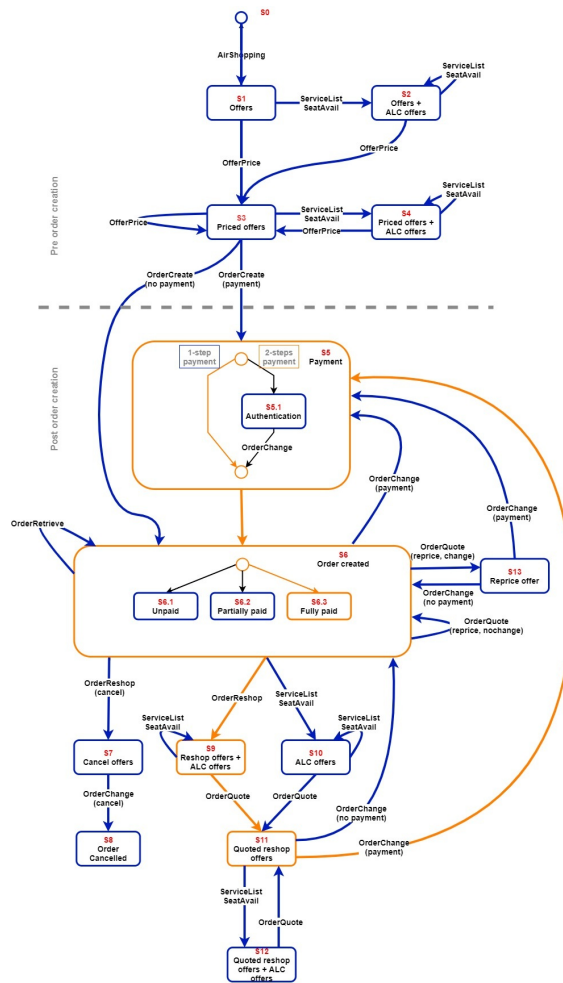
## XML Samples

| Sequence | Message         |
|----------|-----------------|
| 1RQ      | OrderRetrieveRQ |
| 1RS      | OrderViewRS     |
| 2RQ      | OrderReshopRQ   |
| 2RS      | OrderReshopRS   |
| 3RQ      | ServiceListRQ   |
| 3RS      | ServiceListRS   |
| 4RQ      | OrderQuoteRQ    |
| 4RS      | OrderReshopRS   |
| 5RQ      | OrderChangeRQ   |
| 5RS      | OrderViewRS     |
| 6RQ      | OrderRetrieveRQ |
| 6RS      | OrderViewRS     |

[Link to XML samples](#)

## State diagram

This is the full state diagram describing recommended transitions and flows. Transitions and states involved in the current use case are highlighted in orange.



### States:

**S0:** initial state, no precondition.

**S1:** received flight offers

**S2:** received a la carte offers (seats, services) for a flight offer.

**S3:** received a priced offer.

**S4:** received a la carte offers (seats, services) for a priced flight offer.

**S5:** payment process state. Contains an actual intermediate state (S5.1) only in case of authentication needed (e.g., 3DS, AMOP, ...). No intermediate state else (S5 transitions immediately to S6 in that case).

**S6:** order created. Sub-states S6.1, S6.2 and S6.3 detail the overall order payment status.

**S7:** received a full order cancellation offer.

**S8:** accepted a full order cancellation offer, order is cancelled.

**S9:** received flight re-shop offers (with or without a la carte offers) for an order.

**S10:** received a la carte offers for an order.

**S11:** received quoted offers.

**S12:** received Quoted offers and Ala carte offers for Quoted Offer

**S13:** received repriced offer from the airline

### Transitions:

**S0 → S1:** shop for flights

**S1 → S2:** shop for seats/services on an offer

**S1 or S2 → S3:** price offer(s)

**S3 → S6:** order creation without payment

**S3 → S5 → S6:** order creation with payment

**S6 → S7:** request full order cancellation offer

**S7 → S8:** accept full order cancellation offer

**S6 → S9:** re-shop for flights

**S6 → S10:** shop for seats/services on an order

**S6 → S13:** reprice existing order resulting in a reprice offer

**S9 or S10 → S11:** quote re-shop offers and/or a la carte offers on an order

**S11 or S13 → S6:** accept a quoted offer on an order, without payment

**S11 or S13 → S5 → S6:** accept a quoted offer on an order with payment

**S11 → S12:** shop for seats/services on a quoted re-shop offer

**S12 → S11:** quote quoted offers and/or a la carte offers on an order

## UC07 - Customer Requests a change to an order resulting in a value store

### Description

This use case illustrates a passenger requesting a change of date for the outbound flight in an existing Order. The change results in a amount due by airline. The customer selects to let the airline keep the amount due by airline in a value store via dedicated Orderitem representing the Amount due by airline.

### Capabilities Demonstrated

- Order changes through the Seller requiring a re-shop
- Customer agrees to value store instead of refund

### Preconditions / Assumptions

- Existing paid order with a round trip containing an order item with two flight services from London to New York representing a round trip

### Descriptive Flow

| Step | Message         | State Diagram               | Description  |
|------|-----------------|-----------------------------|--|
| 1RQ  | OrderRetrieveRQ | State 6.3 → State 6.3       | Seller requests retrieval of selected OrderID  |
| 1RQ  | OrderViewRS     |                             | Airline provides the most recent version of the Order  |
| 2RQ  | OrderReshopRQ   | State 6.3 → State 9         | Seller requests flight offers to airline, providing outbound origins, destinations and new dates.  |
| 2RS  | OrderReshopRS   |                             | Airline responds with different flight reshop offers   |
| 4RQ  | OrderQuoteRQ    | State 9 → State 11          | Seller Requests Quote for the selected Reshopped Offer   |
| 4RS  | OrderReshopRS   |                             | Airline responds with Quoted Offer   |
| 5RQ  | OrderChangeRQ   | State 11 → State 5->State 6 | Seller selects the Quoted offer  |
| 5RS  | OrderViewRS     |                             | Airline responds with the creation of new orderitem and deletion of older orderitem, the unchanged service will be moved to the newly created orderitem . Another new OrderItem corresponding to the value store is stored in the Orders |

### Post Condition

- Order is successfully changed with change of date for the outbound flight with the creation of

new orderitem and another new OrderItem representing the amount due by airline is created successfully in the order

## Main message Objects

### Shop

The table below is a non-exhaustive list of some of the functions used to illustrate this use case.

| Message       | Object       | Details   |
|---------------|--------------|---|
| OrderReshopRQ | ServiceOrder | Send specific outbound Origin and Destination information for intended new dates        |
| OrderReshopRS | ReshopOffers | A set of Reshopoffers with AddOfferitems containing the flights with the intended dates |

### Quote

| Message       | Object         | Details  |
|---------------|----------------|--|
| OrderQuoteRQ  | SelectedOffers | Pass selected reshopped offers and a la carte offers                                   |
| OrderReshopRS | QuotedOffer    | Return one single Quoted Offer indicating the remaining/additional amount in the offer |

### Order

| Message       | Object                        | Details                                       |
|---------------|-------------------------------|---|
| OrderChangeRQ | AcceptSelectedQuotedOfferList | Pass the QuotedOffer to be added to the Order |
| OrderViewRS   | Order                         | Order with selected priced Orderitems         |
|               | PaymentProcessingSummary      | Contains details of Payment transaction       |

## XML Samples

| Sequence | Message         |
|----------|-----------------|
| 1RQ      | OrderRetrieveRQ |
| 1RS      | OrderViewRS     |
| 2RQ      | OrderReshopRQ   |
| 2RS      | OrderReshopRS   |
| 3RQ      | OrderQuoteRQ    |
| 3RS      | OrderReshopRS   |







## UC12 - Customer Requests to revert a change within a cooling off period

### Description

This use case illustrates the voluntary cancellation of an Order within the cooling off period. As a result, the airline allows cancellation of the Order without a financial penalty.

### Capabilities Demonstrated

- Cancellation
- Cancel Full Order

### Preconditions / Assumptions

- Existing paid Order
- None of the Services have been consumed
- The process is done within the cooling off period

### Descriptive Flow

| Step | Message         | State Diagram          | Description   |
|------|-----------------|------------------------|---|
| 1RQ  | OrderRetrieveRQ | State 6.3 -> State 6.3 | Seller requests retrieval of selected OrderID                                   |
| 1RS  | OrderViewRS     |                        | Airline provides the most recent version of the Order                           |
| 2RQ  | OrderReshopRQ   | State 6.3 -> State 7   | Seller requests full Order cancellation   |
| 2RS  | OrderReshopRS   |                        | Airline responds with Cancellation Offer valid within the cooling off period    |
| 3RQ  | OrderChangeRQ   | State 7 -> State 8     | Seller accepts the Cancellation Offer   |
| 3RS  | OrderViewRS     |                        | Airline returns the updated Order showing cancelled Service(s) and OrderItem(s) |

### Post Condition

The Order is successfully cancelled without a financial penalty.

### Main message Objects

#### Shop

The table below is a non-exhaustive list of some of the functions used to illustrate this use case.

| Message       | Object         | Details  |
|---------------|----------------|--|
| OrderReshopRQ | CancelOrderRef | OrderID of the Order to be fully cancelled             |
| OrderReshopRS | ReshopOffers   | Cancellation Offer valid within the cooling off period |

## Order

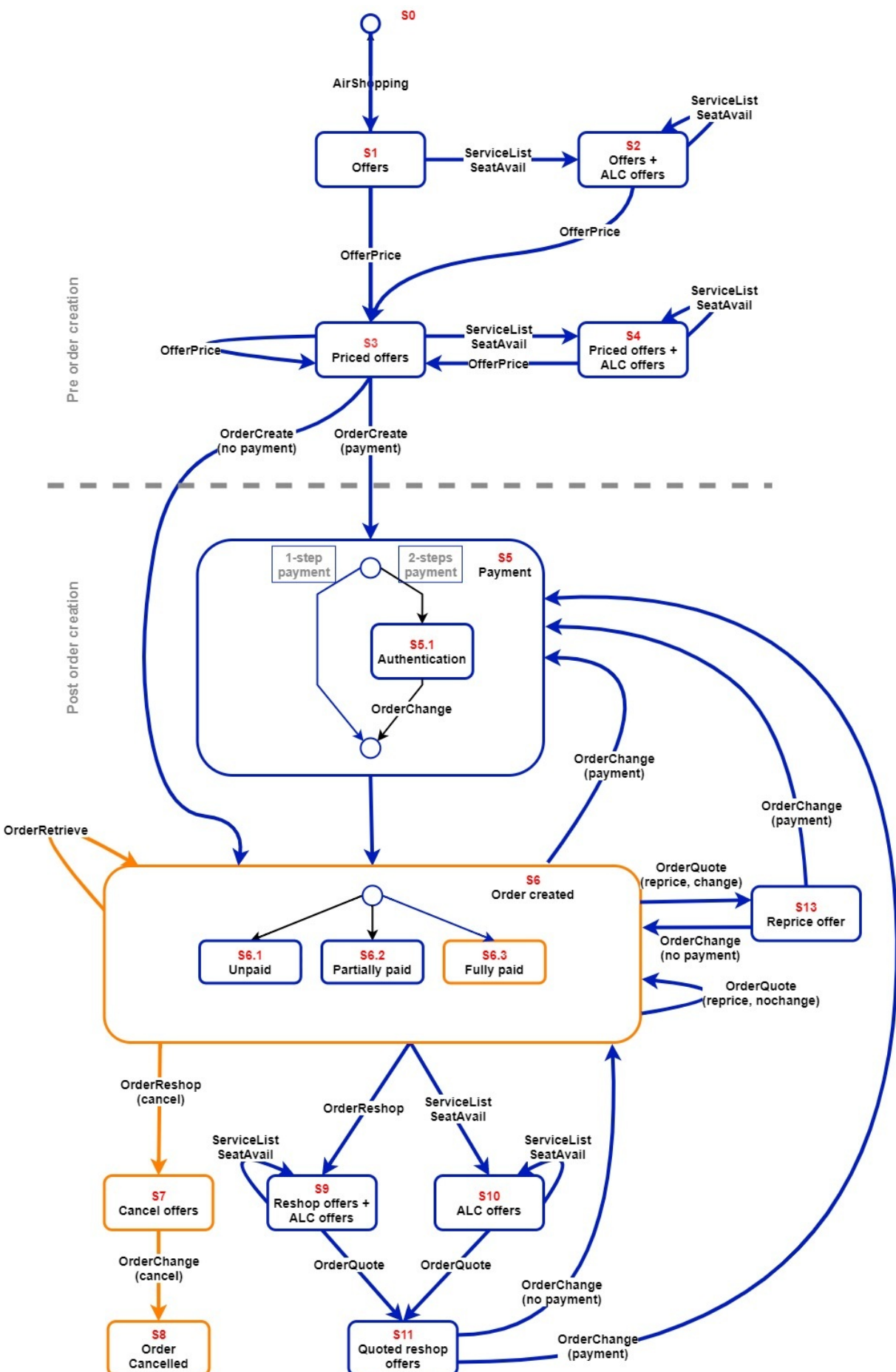
| Message         | Object                   | Details  |
|-----------------|--------------------------|--|
| OrderRetrieveRQ | OrderFilterCriteria      | OrderID of the Order to be retrieved                       |
| OrderViewRS     | Order                    | Latest version of the Order and its OrderItems             |
|                 | TicketDocInfo            | Contains details of the associated Documents               |
|                 | PaymentProcessingSummary | Contains details of the associated Payment transactions    |
| OrderChangeRQ   | AcceptCancelledOffer     | Cancellation OfferID that was accepted by the customer     |
| OrderViewRS     | Order                    | Latest version of the Order and its OrderItems (cancelled) |
|                 | TicketDocInfo            | Contains details of the associated Documents               |
|                 | PaymentProcessingSummary | Contains details of the associated Payment transactions    |

## XML Samples

| Sequence | Message         | Sample             |
|----------|-----------------|--------------------|
| 1RQ      | OrderRetrieveRQ | NO SAMPLE PROVIDED |
| 1RS      | OrderViewRS     | SAMPLE             |
| 2RQ      | OrderReshopRQ   | SAMPLE             |
| 2RS      | OrderReshopRS   | SAMPLE             |
| 3RQ      | OrderChangeRQ   | SAMPLE             |
| 3RS      | OrderViewRS     | SAMPLE             |

# State diagram

This is the full state diagram describing recommended transitions and flows. Transitions and stated involved in the current use case are highlighted in orange.





# UC01 - End to End Payment via Settlement Plan

## Description

This use case describes an end-to-end flow whereby a customer shops at a travel seller's website. During the shopping and pricing phases, the airline provides the seller with a series of payment options and the seller determines that payment for any subsequent orders will be by way of a pre-existing settlement plan. The seller proceeds to create and pay for an order using the settlement plan. The payment is accepted and the order is confirmed.

## Capabilities Demonstrated

- C01 - Communicate Payment Catalogue
- C02 - Pay for an existing order
- C03 - Pay using settlement platform

## Preconditions / Assumptions

- Airline supports settlement via BSP
- Seller is accredited with the Settlement Plan
- Seller has sufficient credit with the Settlement Plan

## Descriptive Flow

| Step | Message       | Description  |
|------|---------------|--|
| 1RQ  | AirShoppingRQ | Seller submits travel plan(s) on behalf of a customer.   |
| 1RS  | AirShoppingRS | Airline responds with flight options and includes a catalogue of supported methods.                                    |
| 2RQ  | ServiceListRQ | Seller submits request for additional services for a given flight plan   |
| 2RS  | ServiceListRS | Airline responds with a list of available services   |
| 3RQ  | OfferPriceRQ  | Seller requests price for a flight and non-flight service and expresses an intent to use a settlement plan as payment. |
| 3RS  | OfferPriceRS  | Airline responds with a qualified offer with a specific price for settlement plan                                      |
| 4RQ  | OrderCreateRQ | Seller commits to create the order with a commitment to pay using a settlement plan.                                   |
| 4RS  | OrderViewRS   | Airline notifies seller that the order is created and that payment is expected using settlement plan                   |
| 5RQ  | OrderChangeRQ | Seller updates the order with settlement plan details  |
| 5RS  | OrderViewRS   | Airline notifies seller that the payment is successful and the order is now paid                                       |

## Post Condition

- Airline is in receipt of a commitment to pay via settlement plan
- Seller is in receipt of an order

## Main Message Objects

### Shop

The table below is a non-exhaustive list of some of the functions used to illustrate this use case.

| Message       | Object          | Details   |
|---------------|-----------------|---|
| AirShoppingRQ | Device          | Optionally indicates the type of device being used and the owner. Useful for airline to determine how to handle subsequent steps such as authentication |
|               | Device Location | Optionally indicates the location of the device.  |
| AirShoppingRS | Payment Type    | Indicates a high-level type of payment method that the airline will accept as payment for an order  |
|               | Payment Brand   | Optionally indicates a specific brand of payment method that the airline will accept as payment for an order  |
| ServiceListRQ |                 |   |
| ServiceListRS |                 |   |

### Price

| Message      | Object           | Details  |
|--------------|------------------|--|
| OfferPriceRQ | Payment type     | Optionally indicates a payment method that the seller may provide at time of purchase                        |
|              | Preference Level | Optionally Indicates a preference level for the payment method a given                                       |
| OfferPriceRS | Payment Type     | Indicates a high-level type of payment method that the airline will accept as payment for an order           |
|              | Payment Brand    | Optionally indicates a specific brand of payment method that the airline will accept as payment for an order |

### Order

| Message | Object | Details |
|---------|--------|---------|
|---------|--------|---------|

|                      |                  |  |
|----------------------|------------------|--|
| <b>OrderCreateRQ</b> | Payment type     | Optionally indicates a payment method that the seller may provide at time of purchase                        |
|                      | Preference Level | Optionally Indicates a preference level for the payment method a given                                       |
| <b>OrderViewRS</b>   | Payment Type     | Indicates a high-level type of payment method that the airline will accept as payment for an order           |
|                      | Payment Brand    | Optionally indicates a specific brand of payment method that the airline will accept as payment for an order |

## Pay

| Message              | Object          | Details   |
|----------------------|-----------------|---|
| <b>OrderChangeRQ</b> | Settlement Plan | Indicates payment will be via Settlement plan               |
|                      | IATA Number     | Optionally indicates an IATA Number reference               |
| <b>OrderViewRS</b>   | Payment ID      | Provides a unique reference for a given payment transaction |
|                      | Payment Status  | Indicates the status of the payment transaction             |

## XML Samples

Indicates the status of the payment transaction

| Sequence   | Message       |
|------------|---------------|
| <b>1RQ</b> | AirshoppingRQ |
| <b>1RS</b> | AirShoppingRS |
| <b>2RQ</b> | ServiceListRQ |
| <b>2RS</b> | ServiceListRS |
| <b>3RQ</b> | OfferPriceRQ  |
| <b>3RS</b> | OfferPriceRS  |
| <b>4RQ</b> | OrderCreateRQ |
| <b>4RS</b> | OrderViewRS   |
| <b>5RQ</b> | OrderChangeRQ |
| <b>5RS</b> | OrderChangeRS |

[Link to Samples](#)



# UC02 - End to End Payment via Pre-Authenticated Card

## Description

This use case describes an end-to-end flow whereby a customer shops at a travel seller's website. During the shopping and pricing phases, the airline provides the seller with a series of payment options and the seller determines that they will pass through the customer's payment card. The seller proceeds to create and pay for an order using customer card, having authenticated the user and provided authentication data in the payment payload. The payment is accepted and the order is confirmed.

## Capabilities Demonstrated

- C01 - Communicate Payment Catalogue
- C02 - Pay for an existing order
- C04 - Pay using Customer Card
- C05 - Seller Authenticates Payer

## Preconditions / Assumptions

- Airline supports "online" card payment
- Seller will authenticate payer

## Descriptive Flow

| Step | Message       | Description  |
|------|---------------|--|
| 1RQ  | AirShoppingRQ | Seller submits travel plan(s) on behalf of a customer.   |
| 1RS  | AirShoppingRS | Airline responds with flight options and includes a catalogue of supported methods.                                  |
| 2RQ  | ServiceListRQ | Seller submits request for additional services for a given flight plan   |
| 2RS  | ServiceListRS | Airline responds with a list of available services   |
| 3RQ  | OfferPriceRQ  | Seller requests price for a flight and non-flight service and expresses an intent to use a customer card as payment. |
| 3RS  | OfferPriceRS  | Airline responds with a qualified offer with a specific price and additional instructions for card payment           |
| 4RQ  | OrderCreateRQ | Seller commits to create the order with a commitment to pay using a customer card.                                   |
| 4RS  | OrderViewRS   | Airline notifies seller that the order is created and that payment is expected using customer card                   |
| 5RQ  | OrderChangeRQ | Seller updates the order with card processing details, including authentication data                                 |
| 5RS  | OrderViewRS   | Airline notifies seller that the payment is successful and the order is now paid                                     |

## Post Condition

- Airline has successfully processed a payment on the customer's customer card
- Seller is in receipt of an order

## Shop

The table below is a non-exhaustive list of some of the functions used to illustrate this use case.

| Message       | Object          | Details   |
|---------------|-----------------|---|
| AirShoppingRQ | Device          | Optionally indicates the type of device being used and the owner. Useful for airline to determine how to handle subsequent steps such as authentication |
|               | Device Location | Optionally indicates the location of the device.  |
| AirShoppingRS | Payment Type    | Indicates a high-level type of payment method that the airline will accept as payment for an order  |
|               | Payment Brand   | Optionally indicates a specific brand of payment method that the airline will accept as payment for an order  |
| ServiceListRQ |                 |   |
| ServiceListRS |                 |   |

## Price

| Message      | Object           | Details  |
|--------------|------------------|--|
| OfferPriceRQ | Payment type     | Optionally indicates a payment method that the seller may provide at time of purchase                        |
|              | Preference Level | Optionally Indicates a preference level for the payment method a given                                       |
| OfferPriceRS | Payment Type     | Indicates a high-level type of payment method that the airline will accept as payment for an order           |
|              | Payment Brand    | Optionally indicates a specific brand of payment method that the airline will accept as payment for an order |

## Order

| Message       | Object           | Details   |
|---------------|------------------|---|
| OrderCreateRQ | Payment type     | Optionally indicates a payment method that the seller may provide at time of purchase |
|               | Preference Level | Optionally Indicates a preference level for the payment method a given                |

|                    |                      |  |
|--------------------|----------------------|--|
| <b>OrderViewRS</b> | <b>Payment Type</b>  | Indicates a high-level type of payment method that the airline will accept as payment for an order           |
|                    | <b>Payment Brand</b> | Optionally indicates a specific brand of payment method that the airline will accept as payment for an order |

## Pay

| Message              | Object                          | Details   |
|----------------------|---------------------------------|---|
| <b>OrderChangeRQ</b> | <b>Payment Card</b>             | Contains a payment payload including all data relating to the customer card |
|                      | <b>Secure Payment Version 2</b> | Contains additional information relating to customer authentication data    |
| <b>OrderViewRS</b>   | <b>Payment ID</b>               | Provides a unique reference for a given payment transaction                 |
|                      | <b>Payment Status</b>           | Indicates the status of the payment transaction                             |

## XML Samples

Indicates the status of the payment transaction

| Sequence   | Message       |
|------------|---------------|
| <b>1RQ</b> | AirshoppingRQ |
| <b>1RS</b> | AirShoppingRS |
| <b>2RQ</b> | ServiceListRQ |
| <b>2RS</b> | ServiceListRS |
| <b>3RQ</b> | OfferPriceRQ  |
| <b>3RS</b> | OfferPriceRS  |
| <b>4RQ</b> | OrderCreateRQ |
| <b>4RS</b> | OrderViewRS   |
| <b>5RQ</b> | OrderChangeRQ |
| <b>5RS</b> | OrderChangeRS |

[Link to Samples](#)

## 21.3 Release Notes

### Features

#### Waitlisting Support In Offers

EASD-038 | Implementation Guidance

The availability of seats is dynamic and at times, there are no seats available when a passenger makes a shopping request. As such the passenger is 'rejected' even if subsequently a seat becomes available. This is managed by the concept of Waitlisting where passengers can register their desire to travel on a particular flight even if at the point of request, no seats are available.

#### Netting Indicator for Voluntary Servicing

EASD-256 | Implementation Guidance

Netting aims at streamlining the exchange process in compensating amounts to be refunded with amounts to be collected. It is applicable to fare, taxes/fees and charges (TFCs) and/or reservation change fees or cancellation penalties.

#### Party Restructure

EASD-039 | Implementation Guidance

An item on the workplan for the past few years, the Offer & Order Group have created a new Party structure to better represent the various entities within the transaction. The structure is also extensible through the use of an ATSB Codeset giving more flexibility into the future.

#### Use Case Working Group Changes

EASD-197 | Implementation Guidance

This Change Request contains many smaller items (defect fixes and minor changes) that have been spotted during the Use Case Working Group changes put forward over this year.

This include items such as the decommission of OrderCancelRQ/RS and the addition of DueToAirline and DueByAirline payment fields to name a few.

#### New Offer and Order Status

EASD-227 | Implementation Guidance

An item which has aligned the Status of the Offer and Order, Items and Services into a complete set of status indicators that are attached to new ATSB Codesets that can be used and extended over time.

#### Airline Taxonomy

EASD-013 | Implementation Guidance

Small item to add the Airline Taxonomy structure to the 'flight' items, such as PaxSegment and DatedOperatingLeg.

## **Rich Media**

EAS-035 | Implementation Guidance

An older item from the work plan that has been approved to be implemented for 21.3 as a requirement with the Airline Taxonomy to allow the Airline to send rich media (via a resource path/URL) to the Seller for them to use if they wish.

## **OrderReshop and OrderQuote**

EASD-217 | Implementation Guidance

In the first release this year (20.1) the Offer & Order Group released a new request message OrderQuoteRQ. This message has the same response as OrderReshopRS.

Order Quote was created to give the airline the ability to reprice an Offer in the scenario whereby a Seller has chosen new flights and wanted to add ancillaries to it (seats, bags etc) and for the airline to reprice or consolidate the offers into one. Like that of OfferPriceRQ and the 'Shopping Basket' concept.

Since its launch, in the Use Case Working Group, there has been a drive to reduce the number of technical ways to achieve the same outcome, to reduce technical variation and improve standardization

## **Commission for Clearance for Shop-Order.**

As a carrier I shall be able to support the implementation of one's own payment policy using the Enhanced and Simplified Distribution Standard. Sales using the New Distribution Capabilities rely on intermediary to execute the sale. Thus, the intermediary's choice for payment and clearance methods have an impact on the carrier. Therefore, the carrier shall be able to support choices that are in line with its payment policy.

## **Baggage Cleanup**

EASD-197 | Implementation Guidance

The use case working group reviewed the baggage structures to ensure all supported baggage scenarios work efficiently. The Use case working group have also drafted documentation which will be used to demonstrate the use of the baggage structures.

## 21.1 Release Notes

### Features

#### New Order Quote Message

A new message has been introduced 'OrderQuoteRQ' to be used to quote changes post order creation. Previously it was challenging to change an existing flight and add any optional ancillaries on and get a full quotation from the Airline. This new message allows the Airline to return a fully priced Offer, taking into consideration all passenger changes.

#### Return of Common Types

The NDC messages have returned to using Common Types, from the Lean Schema approach we employed over the last few years due to implementer feedback. With the lean schema approach, we started seeing fragmentation of types which increased the complexity of integration for minimal additional functionality.

#### Structure of an Offer / Order

With the move to Common Types, the Offer and Order Structures are not contained within their various domains/integrations, such as:

- Distribution (Seller <-> Airline)
  - OrderedOrder / OrderedOrderItem / OrderedService
- Delivery (Airline <-> Supplier)
  - DeliveredOrder / DeliveredOrderItem / DeliveredService
- Accounting (Airline <-> Accounting)
  - AccountedOrder / AccountedOrderItem / AccountedService
- Interline (Airline <-> Airline)
  - InterlineOrder / InterlineOrderItem / InterlineService

#### Deprecation

The Offer and Order Group marked many items for Deprecation early 2020 for removal in 21.1. Out of the proposed list, approx. 80% of the items were removed, however some had to stay due to the re-introduction of common types and the additional complications with Type Coherence.

#### Known Defects

Baggage Association Class was wrongly connected to the

## 20.2 Release Notes

### Features

#### Offer Messages Document the Elements

CR147

The Offer Groups Document the Elements CR (CR147) was implemented where possible, and deprecation tags added for elements to be removed in the future.

#### Customer Payment Group Document the Elements

CR184

The Customer Payment Groups Document the Elements CR (CR184) was implemented where possible, and deprecation tags added for elements to be removed in the future.

#### Secure Customer Authentication

Support for Secure Customer Authentication using 3DS 2.x was implemented in 20.2.

### Deprecation

All deprecation candidates for 20.2 were removed from the messages as mentioned in the Deprecation log on the website. See 20.1 Release Notes for Deprecation Candidates.

### Fixed Defects

#### Removal of Orphaned Types

The messages had lots of Types that were simply unreferenced in the message which were removed. This has no impact on the message itself.

#### Device Type and Location

19.2 saw the introduction of Device and Device Location in all Request messages, however Device Location was missed in OrderRetrieveRQ in 19.2, so this was added back in.

#### Marketing and Operating Carrier Codes

In the /PaxJourney/PaxSegment there was a double up of a MarketingCarrierRBD\_Code and MarketingCarrierInfo which also had the RBD Code (same for OperatingCarrier). The Offer Group saw this as a bug and removed the MarketingCarrierRBD\_Code and OperatingCarrierRBD\_Code in favour of the Marketing and Operating Carrier Info elements.

#### Addition of Gender Code

Missed in 2018, the addition of 'U - Unknown' was added as a bug to the Gender Code Enumeration in messages.

## **Cardinality optionality updates**

The 'Choice' feature in our Airline Industry data Model (AIDM) had an issue within the scripting whereby it made the parent choice element mandatory when it was meant to be optional. We've corrected this scripting bug and changed back to 19.2 cardinalities for the below items:

- Cabin Or RBD
- Payer Name
- Promotion Issuer
- Service Definition Ref
- Flight Associations.

## **Incoherent Types**

We had a few reports of incoherent types which showed some missing elements in types between the messages or elements with incorrect cardinality. For example, within VisaType, the element 'EntityQty' was called different things in different messages.

## **Baggage Flight Associations**

There was an issue in the association of included baggage within the Offer structure which was clarified by the Offer Group and fixed.

## **Known Defects**

### **IATA\_ServiceDeliveryRQ is missing references**

To a Service, Passenger and Passenger Segment which has been fixed post Release 20.2 and will be available in the next release.



## 20.1 Release Notes

### Decommission

#### Decommission of Inventory Guarantee Message Pair

Recommendation by the Offer Group to remove duplication and strengthen the standard. This change request removes the stand alone message to support the Seller guaranteeing inventory. Airlines can still implement this change using an attribute within the Offer Price message.

### Deprecation

#### Deprecation Candidates across all message

| Message | XPath                            | Raised | Effective |
|---------|----------------------------------|--------|-----------|
| All     | /PayloadAttributes/EchoTokenText | 19.2   | 20.2      |
| All     | /MessageDoc                      | 19.2   | 20.2      |
| All     | /PayloadAttributes/SeqNumber     | 19.2   | 20.2      |
| All     | /PayloadAttributes/TrxStatusCode | 19.2   | 20.2      |

#### Deprecation Candidates for IATA\_OrderCancelRQ

| Message            | XPath                        | Raised | Effective |
|--------------------|------------------------------|--------|-----------|
| IATA_OrderCancelRQ | /Request/Order/WebAddressURI | 19.2   | 20.2      |
| IATA_OrderCancelRQ | /Request/Order/OwnerTypeCode | 19.2   | 20.2      |
| IATA_OrderCancelRQ | /Request/BookingRef          |        |           |

#### Deprecation Candidates for IATA\_OrderRetrieveRQ

| Message              | XPath  | Raised | Effective |
|----------------------|--|--------|-----------|
| IATA_OrderRetrieveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/Individual/IndividualID | 19.2   | 20.2      |
| IATA_OrderRetrieveRQ | /Request/OrderFilterCriteria/Order/WebAddressURI                       | 19.2   | 20.2      |
| IATA_OrderRetrieveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/ContactInfo/Employer    | 19.2   | 20.2      |
| IATA_OrderRetrieveRQ | /Request/OrderRetrieveParameters                                       | 19.2   | 20.2      |
| IATA_OrderRetrieveRQ | /POS   | 19.2   | 20.2      |

|                      |  |      |      |
|----------------------|--|------|------|
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/TicketDocFilterCriteria/IATA_LocationCode           | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/ContactInfo/ContactRefusedInd     | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxGroupFilterCriteria                              | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/ContactInfo/ContactID             | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/PaxID                             | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/FlightFilterCriteria                                | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/BookingRefFilterCriteria/TypeCode                   | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/ContactInfo/ContactTypeText       | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/IdentityDoc/Individual            | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/ContactInfo/IndividualRefID       | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/LoyaltyProgramAccount/Carrier     | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/LoyaltyProgramAccount/ProgramName | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/TicketDocFilterCriteria/CouponNumber                | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/ServiceFilterCriteria                               | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/Remark                            | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/BookingRefFilterCriteria/BookingEntity/Org/Name     | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/ContactInfo/Individual            | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/FOID/CreditCardIssuerCode         | 19.2 | 20.2 |
| IATA_OrderRetreiveRQ | /Request/OrderFilterCriteria/PaxFilterCriteria/ProfileID_Text                    | 19.2 | 20.2 |

## 19.2 Release Notes

### Features

#### Ticket Designator

CR 145b | [Implementation Guidance](#)

Simple addition of a Ticket Designator Code field to separate the fare Basis Code from the Ticket Designator. There is an additional action item for 201. To move this more into an “Offer item type” field once the requirements have been fully scoped.

#### Airline Taxonomy

CR 059a | [Implementation Guidance](#)

The Offer Taxonomy Group has designed a means to transmit an Offer Taxonomy via the Offer and Order messages which are associated to a Services, Offer and Order Items. This change is to provide support for the Industry Taxonomy which will be published to the Developer Portal. This will allow greater detail to be sent to the Seller around the Offer and Order and compliment the Offer and Order Rules capabilities.

#### Offer and Order Restrictions for Change, Cancel, Stopover

CR 145a | [Implementation Guidance](#)

The Offer and Order Rules Working Group designed a programmatic way to send rule information relating to the conditions of the Offer and the Order. This includes how to send Change and Cancel Fees and Stopover Information.

#### Commission

CR 139a | [Implementation Guidance](#)

The Offer and Order Rules Working Group reviewed and endorsed the change to move the Commission Structure to a more appropriate place within the Offer and the Order.

Additionally, the group reviewed the internal structure of the class and defined the usage of the Commission class.

#### Product Type and Negotiated Indicator

CR 163a

The Offer and Order Rules Working Group reviewed the need for the Airline to present a Product Type and Negotiated Codes at the relative levels (Order, Offer, Fare Component)

#### Seller Margin

CR 145d | [Implementation Guidance](#)

The defines how a Seller can add a margin onto an Offer using the E&SD messages. The process does not require any changes to the current schemata and has simply been documented as one use case for Sellers and Airlines.

## **Order Retrieve Documentation**

CR 147b | [Implementation Guidance](#)

The Document the Elements Working Group have reviewed and endorsed Implementation Guidance for the Order Retrieve RQ message in detail. With this, the group has also deprecated items which are not used within the message for clarity. These elements will be removed in 20.2.

## **Deprecation of Message Docs**

CR 147b

The Document the Elements Working Group have reviewed and endorsed the decision to deprecate the Message Docs element within all messages. These elements will be removed in 20.2.

## **Payload Attributes Documentation**

CR 147e | [Implementation Guidance](#)

The Document the Elements Working Group have reviewed and endorsed the use for the Payload Attributes within the messages and deprecated the elements which are not needed in the standards. These elements will be removed in 20.2.

## **Order Cancel Documentation and Clean Up**

CR 147g | [Implementation Guidance](#)

The Document the Elements Working Group have reviewed and endorsed Implementation Guidance for the Order Cancel RQ message in detail. With this, the group has also deprecated items which are not used within the message for clarity. These elements will be removed in 20.2.

## **Augmentation Points Documentation and Update**

CR 147h | [Implementation Guidance](#)

The Document the Elements Working Group have reviewed and endorsed Implementation Guidance for the Augmentation Points. This CR also requests a model for more structure in the Augmentation Points for legislative backwards porting of features if required. The technical solution will be drafted and refined during the modelling, but this CR is requesting business endorsement to ensure we can back-port things like 3d secure, India GST and important structures at an industry level (but also keep the same flexibility we have today).

## **Air Doc Notif Documentation**

CR 147n | [Implementation Guidance](#)

The Document the Elements Working Group have reviewed and endorsed Implementation Guidance for the Air Doc Notif Message.

The key point here was to document the capabilities for the message. The message itself still required clean up and review, however the group wanted to extract the capabilities for 19.2 first.

## **Acknowledgement Documentation**

CR 147o | Implementation Guidance

The Document the Elements Working Group have reviewed and endorsed Implementation Guidance for the Acknowledgement Message.

## **Offer and Order Rules Documentation**

CR 147m | Implementation Guidance

Adds the ability for a Seller to request Fare Information during the Offer Stage and documents the capability for this message, noting that this message will not be used for programmatic fare rule information.

## **Validating Carrier Change**

CR 160a

Today, the Validating Carrier cannot be associated to a flight service, only a non-flight service (e.g. Ancillary)

Prior to 17.1, the Validating Carrier element was found at the Service level, allowing it to be associated with any type of service (flight, bag, etc.).

During the 17.1 Offer/Order restructuring, the Validating Carrier element was moved into the new Service Definition structure which is used for the product description of non-flight services, preventing it from being associated to flight-related services.

## **Voluntary Servicing Supporting Order Changes and Cancellation**

CR 146

The change request is proposing several enhancements to support the following voluntary servicing scenarios: full cancellation, partial cancellation and order modification.

## **Informing a Seller of Changes to an Order and Servicing**

CR 133

The change request is proposing the following enhancements to support Schedule Change scenarios:

- supporting the Seller follow-up action
- supporting Fare Waiver to be passed from the Seller to the Airline (and back

## **Notification of Order Changes**

CR 067

The change request, for the OrderChangeNotificationRQ message, is to establish a standard structure and a set of best practices around data synchronization to handle notification of Order changes from an Airline to a Seller/Aggregator after an unsolicited, involuntary, voluntary, and/or schedule change type changes.

## **Accepted Payment Instruments and Associated Surcharges**

CR 136

The change request is proposing several enhancements to:

- communicate the airline accepted payment methods to the Seller
- communicate final prices to the Seller inclusive of any associated payment fees, during the shopping phase and before commitment to pay for an order.

## **Supporting EasyPay in the NDC and OO schemas**

CR 148

IATA EasyPay, allowing Agents to remit to airlines via the BSP, is currently is not supported in the list of payment methods in the Enhance

d and Simplified Distribution schemas.

IATA EasyPay is defined in IATA Resolution Passenger Agency Conference 812 as a specific remittance mechanism and as such it cannot fit into the existing payment methods found in the schemas, until they are upgraded to accommodate it.

## **Net Clearance Amount**

CR 156

The proposed change request – to clearly define the Net Clearance Amount – will provide clarity and will eliminate the possible confusion to each party's obligations.

## **Ability to handle multiple types of contacts**

CR 110

Proposing a solution to resolve several issues when collecting contact details (addresses at destination; emergency contact details; unaccompanied minor contact details...).

## **Details to Determine the Context of an Interaction**

CR 022

This change enables Airlines to know the detailed characteristics of the interaction between the buyer and the seller so the Airline can take action for the appropriate experience to the customer.

## **Redirection to a hosted payment page during payment**

CR 128

This change makes it possible for an Airline to instruct the Seller on how to redirect the Payer to a hosted payment page. With this change Payment Card details are entered directly onto the hosted Payment Page rather than the Seller's page and also enables to offer Payment methods not yet covered by the NDC schemas.

## Support 3DS 2.0 for Card Payment in the NDC schemas

CR 129

This change enables Airlines to implement 3DS 2.0 in the NDC schemas in order to be compliant with the new EU regulations regarding Strong Customer Authentication as per September 2019

## Send ticket information to Accounting during transition to ONE Order

CR 039

This change enables to create the OrderSalesInfoAccountingDocNotifRQ for transition purposes to ONE Order. This message enables to support hybrid scenarios when some services are still in the e-ticket and others are ONE Order.

## Known Defects

This section will report reported defects with the release of the standard and their corresponding action for the next release.

As these are unintentional changes to the standard, implementers are urged to adapt the current release to resolve these defects during implementation.

If you come across something that may be a defect, please email [standards@iata.org](mailto:standards@iata.org) or talk to an industry representative in the Offer, Order or Customer Payment Groups.

| ID     | Title  | Description  | How to Resolve this Defect   | Status                         |
|--------|--|--|--|--------------------------------|
| OG-187 | Tax, Fee and Charge Information not being returned | During the implementation of a new element within the PriceClass, the Class was replicated within the AIDM and the related entities (Such as Tax, Fee's and Charges) were dropped. This has caused the inability for Tax, Fee, Charge and other information to be represented in the messages such as AirShoppingRS and Offer PriceRS. | Change the referenced type from Price2Type to PriceType within the XSDs. | Affects 19.2, Fix Planned 20.1 |

## 19.1 Release Notes

### Features

#### Decommission of AirDocIssue

CR 021a

The decommissioning of the Air Doc Issue Message was decided by the Message Flows Working Group as its used to add payment to an on-hold Order, whereas the best practice approach is to use the Order Change message. See the message flow for creating an Order with deferred payment.

#### Timelimits

CR 007a 007c 007d

The Timelimits Working Group reviewed the time limit fields within the Enhanced and Simplified Distribution messages, updated the annotations and granularity of the time limits.

#### Baggage Associations

CR 038a

As Baggage Allowance structure is common for both Carry-on and Checked bags, this change request is to include the possibility to associate Baggage Allowance information at Dated Operating Leg level, and if we are in a single leg Pax Segment, we should have the possibility to associate it at Pax Segment level.

#### French Regulation for the Refundability of Taxes

CR 64a

The French authorities enforced a decree on the display of information on prices of certain public collective transportation services of passengers affecting specifically Refundable and Unforeseeable taxes, charges and fees.

In case a passenger does not fly, and the ticket is no longer valid, he/she may be entitled to a refund of certain taxes, charges and fees. The regulation requires that the total amount of the refundable taxes/charges, the tax name + the fact that they are refundable if the traveler does not fly be included on the last page before the purchase and visible next to the final price paid, including the invoice.

#### Supporting the Additional Collection of GST Information

CR 065a

The Offer Group added the capability for the collection of additional tax information by the Airline to generate a Tax Invoice for a Customer as some regimes (such as India GST) require the Airline to generate a Tax Invoice.

#### NDC Payment Card Encryption



## CR 058

In order to comply with PCI-DSS requirements, and in particular the Requirement 3 regarding Protection of Cardholder Data (cf. Appendix), it is required that sensitive payment card data transmitted in Order requests be encrypted by the Seller with a third party encryption key provided by the Airline in the Offer responses.

This Change Request enables the Airline to pass an encryption key to the Seller in the Offer Response messages, so the Seller can submit encrypted Payment Card Data to the Airline in the OrderCreateRQ and OrderChangeRQ messages.

## Shopping Response Ref ID

### CR 123

When integrating with Airlines who do not use the ShoppingResponseID, Seller are forced to pass a value in this field, as it is mandatory in the request messages.

This Change Request is about making the ShoppingResponseRefID optional in the request messages (OrderCreateRQ, OrderChangeRQ, OfferPriceRQ, OrderReshopRQ), adding the OfferRefID in the same data structure and correcting the naming inconsistencies.

## Phone Type Number

### CR 081

This Change Request is about setting the data type for the phone number field to text, so the leading "0" and the "+" sign do not get truncated. Also clarifying the usage of each field of the Phone Number data component.

## Order Creation Date

### CR 100

This Change Request introduces the ability for the airline to return the Order Creation Date.

## Order Modification Date

### CR 106

This Change Request introduces the ability for the airline to return the Order Latest Modification Date.

## Remove Terms and TermsList

### CR 118

This Change Request is to remove the Terms and TermsList data elements from the OrderSalesInformationNotifRQ message schema, as there is no need to pass this information to an accounting system.

## Remove Seat Profile from OSIN

### CR 125

This Change Request is to remove the SeatProfileRefID data element from the OrderSalesInformationNotifRQ message schema, as there is no need to pass this information to an accounting system.

## 18.2 Release Notes

### Features

#### Consolidation of FareRules and OrderRules Message

CR80

There are currently two sets of messages which can be used to return the rules of an Order. The FareRules message pair returns filed fare rules for a given routing, while the OrderRules message pair return the terms and conditions of a given Order. Proposal is to consolidate the functionality into a single message pair "RulesRQ/RS" which would be able to return either Filed Fare rules, or free text Offer/Order Rules (functionality as it is today). A vote was taken by the Offers Group which passed to consolidate these two messages into one.

#### Decommission of Baggage Charge and Allowance Messages

CR80

The NDC restructuring group had updated the AirShoppingRS message in 2017 with BaggageAllowance/Charges information at the Offer level in order to integrate the functionality from these messages into the Offer management messages. This proposal intends to take this work a step further by removing duplicate functionality and encouraging implementers to use the shopping messages as a way to satisfy the baggage requirements. Offers group voted to decommission BaggageAllowanceRQ/RS and BaggageChargesRQ/RS Messages.

#### Decommission of Baggage List Message

CR80

During Baggage restructuring discussions in 2017, it was suggested that BaggageListRQ/RS be merged with ServiceListRQ/RS as the messages serve similar functions and maintain similar structures. Offer Group voted to decommission the BaggageListRQ/RS messages while ensuring the RQ functionality from BaggageListRQ exists in ServiceListRQ.

#### Decommission of File Retrieve and Customer Input Messages

CR80

The Customer Input and File Retrieve messages have limited usage in implementations today. Offers Group voted to decommission CustomerInputRQ/RS and FileRetrieveRQ/RS NDC Messages.

#### Decommission of Ticketing Messages

CR80

Ticketing information exists in both the Order messages as well as separate ticketing messages in NDC. Over the last three years, we have seen limited use of several of the ticketing messages, mostly due to the fact that the functionality already exists in the NDC Order messages (e.g. ability to retrieve ticket history, display ticket information, etc.). Orders Group voted to decommission AirDocDisplayRQ/RS and AirDocHistoryRQ/RS NDC Messages

## **Currency Code Alignment**

CR87

Schemas are not consistently using the correct acronym to symbolize currency. To change CurCode to "Cur" as per the standard vocabulary.

## **Removal of Description ID**

CR87

The description ID in the ServiceDefinition should not be mandatory as there is no corresponding link and therefore it should be removed as it is not needed.

## **Removal of Media ID**

CR87

The Media ID field in the Service Definition is not linked to anything and therefore should be removed. It has no reason to exist.

## **Unused ticket as a form of payment**

CR027

Agents today, especially those in the United States or Canada, can in some cases pass the number of an unused ticket from a cancelled Order as a form of payment towards a new booking.

## **Payment Card Data Transmission in Distribution cleanup**

CR052

Amend data field names and descriptions by using the wording commonly employed in the card industry, in order to avoid creating confusion for the schema user. Remove data fields that are not relevant at Order level because they refer to the response the airline has received on a card authorization request.

## **Support of 3D Secure authentication flow**

CR063

Additional authentication may be required for some credit cards in internet transactions. If the credit card provided at payment time is enrolled for the 3D-Secure (3DS) process, a redirection to a bank's Access Control Server (ACS) is required to perform the user authentication and validate the payment. This step will capture additional security data that need to be transmitted to the merchant. This is 3DS 1.0

## **Enhancement of schemas following the ONE Order Pilot Review Feedback**

CR088

This CR is to cover the enhancements on the ONE Order Messages Schemas, proposed during the 2017 OOPRT review under the ONE Order task force

## Overview

The new interline framework comprises a new standard interline agreement, the Standard Retailer and Supplier Interline Agreement (SRSIA) and functional standards that support the implementation and adoption of these new concepts and processes.

This framework entails Retailer-Supplier interactions relying on the usage of the Offers and Orders concepts and capabilities.

A new key component part of this framework is the Product Catalogue. The aim of the Product Catalogue is to support the exchanges between the Retailer and Supplier(s) on the Products and Services that Supplier has chosen to make available for sale by the Retailer, once the commercial agreement is in place. Consequently, the shopping interactions between the Retailer and Supplier(s) will be simplified and much more targeted and more refined.

The shopping requests are received by the Retailer, and it is the Retailer who is responsible for responding with suitable Offers. Where the Retailer cannot fully meet the shopping request (unable to respond with a complete Offer), or it wishes to expand the range of products included in the final combined Offer, it may choose to query one or more Supplier(s) using the dedicated interline Retailer-Supplier set of messages.

The Retailer is responsible of computing and presenting the Offer(s) to the customer and is holding the main Order record including all the Products and services that have been selected and ordered by the Customer.

Any other airline or transport operator participating in the itinerary is known as a Supplier. It is the Retailer responsibility to initiate the communication with each Supplier.

The interline Retailer- Supplier messages also support a new key concept – “Settlement Value”. This aims to streamline the interline settlement process, by allowing the Supplier to explicitly state a “settlement value” at time of shopping, corresponding to the amount it wishes to receive for any services it provides (including relevant taxes, fees and charges).

The settlement values are not a Customer facing price and it should be only visible between the Retailer and the Supplier, on a bilateral basis.

The concept of Settlement Value not only aims to simplify the settlement process, but will also provide both the Retailer and Supplier with much greater visibility of the value of the service they are providing.

# Glossary of Terms

As per the Retailer and Supplier Interline Agreement the following terms and definition should apply:

**“Customer”** means a person who purchases, or seeks to purchase, Products and Services from the Retailer, regardless of whether they do so directly or through an agent and includes a passenger. Therefore, the **\*\*Passenger \*\***means the individual who will actually travel and consumes these Product and Services

**“Products and Services”** means air and/or surface transportation segments and other flight-related or surface transport-related services and amenities related to a Customer journey. These will be delivered to passenger(s) and consumed as part of their end-to-end travel experience.

**Retailer** means an enterprise that sells Products and Services directly to customers or through agreed agents. These Products and Services may be obtained from the Supplier and sold to the Customer, either individually or as part of a bundle, at a price determined by the Retailer.

**Supplier** means an enterprise that provides/contributes Products and Services in exchange for settlement values to a Retailer and is responsible for the delivery of those Products and Services.

**Product Catalogue** means an electronic record of the Products and Services that the Supplier has chosen to make available for sale by the Retailer, including information about where these product and services are available (such as location, market, schedules) and any specified general conditions of these.

# General Principles and Assumptions

## Principles:

- Once the interline agreement is in place, the Retailer and the Supplier will exchange information about their Products and Services via the Product Catalogue.
- It is assumed that this initial exchange will occur before the actual shopping transaction and that, the Product Catalogue will contain information about the Products and Services that it is not included afterwards in the shopping request.
- The Product Catalogue concept and requirements will be further developed by the Interline Group and hence have not been included and detailed in this release.
- The services proposed by a Supplier to the Retailer (or Retailer to Seller) that are part of an Offer Item must be purchased and ordered together (as a whole). These services, provided by the Supplier, can be integrated by the Retailer in the Retailer Offer/Order Item proposed to the customer.
- From an Order perspective the Service should be linked and correspond to one passenger.
- The Service ID must be unique within the overall Order (not just Order Item, but the entire Order).
- The Settlement value is at Service level.

## Assumptions:

- It is assumed that the Supplier is able to provide the taxes for the provided Products and Services and the Retailer has the capability to compute the overall taxes for the entire journey. This will be further investigated by the Interline Group and IBSOPS.

The aim is to further increase this scope and include flight related services.

### Note

The processing of the interline settlement is out of scope of this document and this release.



# Shopping

## Shopping overview

The shopping interactions between a Retailer and a Supplier can be summarised as per the below illustration:



Each party that is responsible for generating and sending shall be identified accordingly and this includes:

- Identifying the Retailer using the Retailer identifier. When the Retailer is an airline it shall include the airline designator, accounting code and the commercial name.
- Identifying the Supplier using the Supplier identifier. When the Supplier is an airline it shall include the airline designator, accounting code and the commercial name.

## Shopping principles and assumptions:

- Shopping is initiated by the Customer querying the Retailer
- Shopping messages are initiated by the Retailer to the Supplier.
- A Retailer may be required to send shopping messages to multiple Suppliers to complete the journey requested.
- In an interline scenario, a Retailer will combine a Supplier Offer within its own. In doing so, it must follow the principles and combinability rules presented in the Offer as described in the Section 2.1.4. The Retailer cannot break a Supplier Offer Item and use only individual Services from this within the final Offer it will return to the Customer.
- It is assumed that when a Supplier Offer is selected and further combine by the Retailer with its own Product and Services, the Retailer accepts implicitly the Settlement Value, Settlement

conditions and the Acceptance Rules (i.e. sales conditions) included in this Offer.

The following shopping considerations are recommended for the Supplier(s) participating in an interline itinerary:

- Take into account any applicable regulations that could apply to the itinerary. For example, ensure where the case that the correct baggage allowance & charges are applied to the itinerary. Another example is that by participating in the Offer, the Supplier will not be in breach of any laws or regulations.
- Decision as to what Settlement Value should be applied and returned to the Retailer for the proposed offered Services.

For this release it is assumed that the Supplier will specify to the Retailer how much it requires at settlement for the service(s) it delivers.

# Request Offers

## Shopping Request Overview

It is the Retailer decision to determine and select which Supplier(s) to query and for which types of Product and Services in order to respond to a Customer shopping request.

Once this decision is done the Retailer sends a shopping request(s) to the relevant Supplier(s).

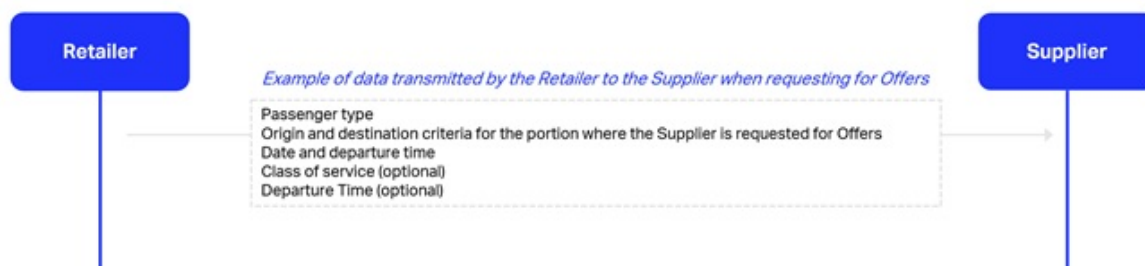
At the minimum the Retailer will include the following data in the shopping request sent to the Supplier:

- Retailer identifier
- Passenger type
- Origin and destination criteria for the requested portion
- Departure Date

One of the following options could be used by the Retailer when sending the shopping to the Supplier:

### Option 1: Include minimum information in the shopping request:

- The request shall only include the portion(s) of the itinerary where the Supplier is expected to provide Offer(s)
- The request might also include the type of service as referenced in the Product Catalogue such as flight, date(s) and any other type of information that the Supplier will need to generate the Offer (e.g. class of service, Departure Time)



### Option 2: Include additional contextual information in the shopping request:

- The request shall include the full details of the itinerary and the portion(s) of the itinerary where the Supplier is expected to provide Offer(s).
- The request might also include the type of service as referenced in the Product Catalogue such as flight, date(s) and any other type of information that the Supplier will need to generate the Offer (e.g. class of service, leisure trip etc.)



The contextual information might include:

- Full customer shopping request (itinerary, optional services, ...)
- Additional details either received or determined by the Retailer
- For example, this could also include the search criteria that have been passed by the Seller to the Retailer and which the Retailer can further share with the Supplier.

This will be driven by the type of interline partnership and commercial agreement between the two parties.

# Return Offers

Once the shopping request is received, the Supplier will process and generate one or several Offers that meet the criteria included in the request as fully as possible.

Each of the Offer returned by the Supplier will include a set of acceptance rules that specify the combinability and retailing conditions of the Offer and each service part of the Offer will have a dedicated Settlement Value.

Each Offer returned by the Supplier includes:

- A Unique identifier for the Offer (OfferID)
  - Additional IDs such as the OfferItemID(s) and ServiceID(s)
- Service details such as flight details including timings, classes of service, baggage allowances and charges, and any other service information that the Supplier wishes to be provided to the Customer
- Settlement values: including applicable currency, fare, surcharges, carrier-imposed fees (e.g. YQ/YR)
- Settlement Conditions e.g. Immediate settlement or settlement performed after the delivery completion
- Acceptance rules including:
  - Offer construction conditions on how the Offer should be used, processed, considered and integrated in the overall Offer proposed to the Customer. These conditions can include:
    - Combinability rules: describing how this offer should be further processed and combined with the Retailer Offer

## Example

Through check-in conditions (IATCI) (optional)

- Offer Retailing conditions on how the Offer should be retailed to the customer. These can include:
  - Price condition on how the offer is retailed

## Example

price disclosure, price range, price tag

- Other Offer attributes, which can include the connection conditions, such as the minimum connection time (MCTs)
- Disclosure requirements such as:
  - Operating carrier (if different from marketing)
  - Surcharges
  - Taxes
  - Carrier-imposed fees
  - Any other government-mandated or relevant disclosures

## Confirm Offer

The Retailer receives the response(s) to its shopping queries and determines which Offers it wishes to present to the Customer in combination with its own Products and Services.

Consequently, the Retailer creates a consolidated response and sends it to the Customer.

Once the Customer selects one of the Offers presented by the Retailer, the Retailer sends a confirmation of the selected Offer to the Supplier.

The Supplier returns to the Retailer for the confirmed Offer the availability and refined price including as well:

- A Unique identifier for the Offer (OfferID)
  - Additional IDs such as the OfferItemID(s) and ServiceID(s)
- Service details such as flight details including timings, classes of service, baggage allowances and charges, and any other service information that the Supplier wishes to be provided to the Customer
- Settlement values: including applicable currency, fare, surcharges, carrier-imposed fees (e.g. YQ/YR)
- Settlement Conditions e.g. Immediate settlement or settlement performed after the delivery completion
- Acceptance rules including:
  - Offer construction conditions on how the Offer should be used and processed. These conditions can include:
    - Combinability rules: describing how this offer should be further processed and combined with the Retailer Offer
    - Through check-in conditions (IATCI) (optional)
  - Offer Retailing conditions on how the Offer could be retailed to the customer. These can include:
    - Price condition on how the offer is retailed

### Example

prices disclosure, price tag, etc.

- Other Offer attributes, which can include the connection conditions, such as the minimum connection time (MCTs)
- Disclosure requirements such as:
  - Operating carrier (if different from marketing)
  - Surcharges
  - Taxes
  - Carrier-imposed fees
  - Any other government-mandated or relevant disclosure

The returned confirmed Offer from the Supplier can include as well new flight related services to be proposed as upsell to the Customer.

The Retailer returns the Offer confirmation to the Customer.

# Construct Offer

## Supplier Offer creation

The Supplier will construct Offer(s) based on the received shopping request and each Offer can contain one or more Offer Items, where each Offer Item can include one or more Services.

The Supplier can return in the shopping response a set of rules and conditions specifying how the Offer should be used, processed, and combined by the Retailer as well as how the Offer could be retailed to the Customer. These conditions can be included in the Acceptance Rules for each OfferItem.

The Supplier will return for each Service a settlement value and settlement conditions.

## Retailer Offer creation

When the Retailer receives the Supplier Offer(s), it will combine these with its own Products and Services and return final Offer(s) to the Customer.

The Retailer must respect the integrity of the Supplier Offer(s) as follows:

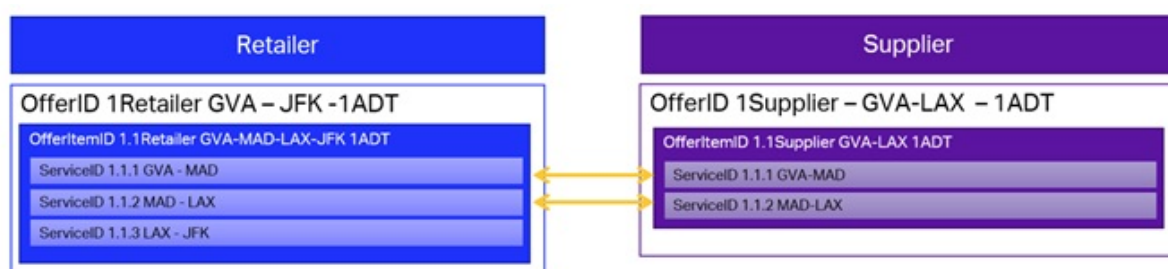
- The Retailer cannot select partially an OfferItem and choose only individual Services from this Supplier Offer Item to include these in the final Offer to be presented to the Customer.
- The Retailer must comply with other requirements shared by the Supplier as part of the Offer. For example, if the Supplier specify that the OfferItems are mandatory and needs to be selected together the Retailer must include each of these within the final Offer(s). (See example 2)

How the Offers are selected, processed, and combined by the Retailer in order to be further proposed to the Customer, is a proprietary decision and will be based on the Retailer's Offer Management System capabilities and business decisions.

The Retailer may choose to include the Supplier services and its own within one Offer Item.

## Examples

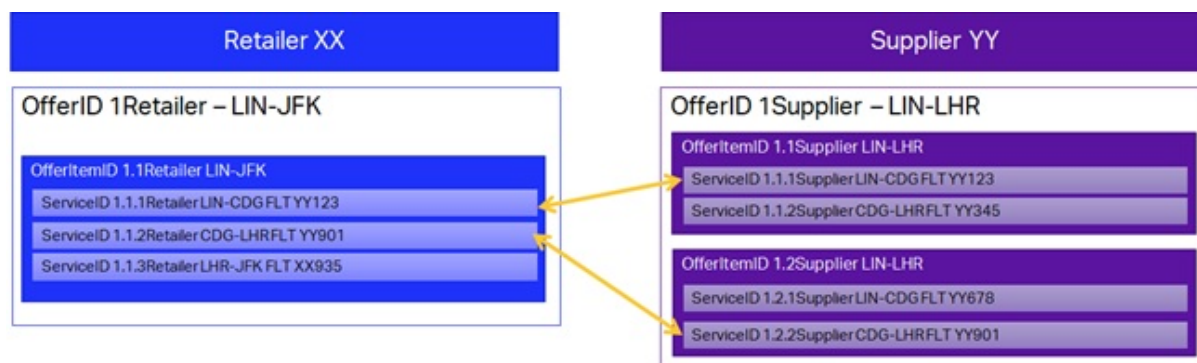
### Example 1



### Example 2



**Example 3: Not allowed to combine service items from different OfferItemID's**

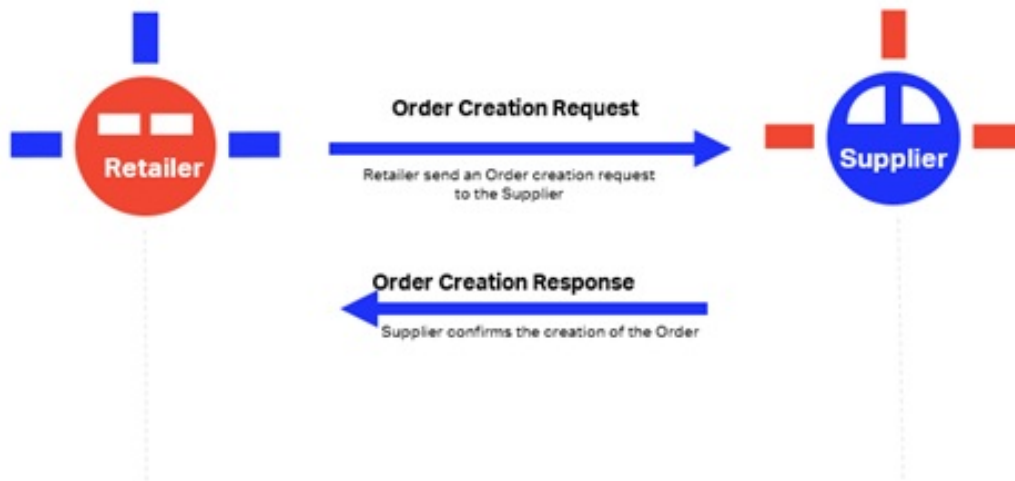




# Ordering

## Overview

The overall ordering interactions between a Retailer and a Supplier, resulting in creating interline Order, are illustrated below:



## Preconditions & Assumptions

- It is assumed that the Order creation and instant payment are done at the same step
- An Order is created once the shopping flow is successfully done and the status of the flight Service is captured and managed in the Order.

## Post Conditions

At the end of the ordering step the Customer is in possession of a confirmed and paid Order for flights including interline segments. The Customer has a unique Order ID (which is the Retailer Order ID) that will be used during the journey and delivery phase (e.g. at Check In).

The Retailer is holding the master Order and has received payment. A financial liability exists from the Retailer to the Supplier. The Supplier is holding its own Order for its Services to be delivered to the Passenger.

# Create Order

When a Customer has selected one of the Retailer's Offers, the Retailer will proceed with the creation of the master Order.

The Retailer creates the Order reference and assigns a unique identifier (OrderID).

The Retailer sends an Order creation request to the Supplier that formed part of the final accepted Offer. This request includes:

- The Supplier's OfferID and OfferItemIDs that was accepted
- The Retailer's OrderID
  - Other IDs that are relevant may need to be passed
- Passenger Information
  - Name
  - Contact Information
  - Other information as required by law and/or the agreement between the two airlines such as passport numbers
- Depending on the commercial agreement, the Retailer can also include additional information such as the entire sold itinerary

## Note

It is recommended that the Retailer and the Supplier address and agree bilaterally on the list of considerations on when and what additional information is needed to be shared between the two parties to further support the delivery processes.

This list is planned to be further detailed in the future releases of this Implementation Guide.

Following this request, the Supplier will verify and validate against any other conditions and then create an Order in its own Order Management System, referencing the Retailer's OrderID.

Generally, the Supplier should not refuse to create an Order based on an Offer previously sent to a Retailer unless: availability no longer exists against this Offer which was made with a "time limit" rule and specified time limits have been exceeded, or when any of the components of the Order are in contradiction with regulatory restrictions.

The Supplier generates and sends an Order Creation confirmation message, including

- The Retailer's OrderID
- The Supplier's OrderID and other IDs including OrderItemID and ServiceIDs
- Flight details including timings, classes of service, baggage allowances and charges, meals and any other service information that the Supplier wishes to be provided to the Customer
- Settlement value details: applicable currency, fare, surcharges, carrier-imposed fees for each Service
- Settlement conditions
- Disclosure requirements such as:
  - Operating carrier (if different from marketing)
  - Surcharges
  - Taxes
  - Carrier-imposed fees

- Any other government-mandated or relevant disclosure

When the Order creation confirmation response is received from the Supplier, the Retailer will finalise the Order and send the Order confirmation together with the Order details (e.g. Order ID, recap of the passenger data, itinerary information, date, etc.) to the Customer.

The Retailer will also store the Supplier information, including the Supplier Order IDs, in its Order Management in the master Order.

# Baggage Considerations

In order to process and determine the free baggage allowances for the interline itinerary the following aspects and considerations are recommended:

## 1. Identify the Baggage Determining Carrier (BDC)

The Retailer is responsible for applying relevant governmental regulations (e.g. US DOT, CTA) or industry resolutions (e.g. IATA Tariff Composite Resolution 302) in determining the carrier whose baggage rules apply and resulting applicable disclosure requirements when constructing an Offer. This carrier is also known as the Baggage Determining Carrier (BDC).

Based on the relevant regulation/resolution that would apply to the itinerary, if the Retailer is the BDC it will then apply its own baggage allowance and charges to the Offer.

Alternatively, if the Retailer is not the BDC, it will identify which Supplier is the BDC, and apply the correct baggage allowances and charges.

## 2. Determine the free baggage allowance

The correct allowances are determined by either:

- Using the information already known to the Retailer (e.g. an internal database)
- Querying a published baggage information source, which may or may not be a central data repository of baggage data.
- Exchanging this information in the shopping request and response messages

### Note

If an itinerary has more than one BDC (e.g. if a Resolution 302 based itinerary features a stopover), for each possible Supplier that may be the BDC the Retailer will need to query its source of baggage information and apply each of the correct baggage allowances and charges for the relevant portion of the Offer (e.g. the first Supplier allowance and charges to the first sector, and second Supplier to the second sector).

## 3. Communicate the free baggage allowance to the Customer and Supplier(s) part of the itinerary

It is assumed that the Baggage Determining Carrier's checked baggage allowance and charges are applied and communicated to the Customer by the Retailer as part of the Offer, and that this information is also communicated to any carrier participating in the interline itinerary as part of the order creation request

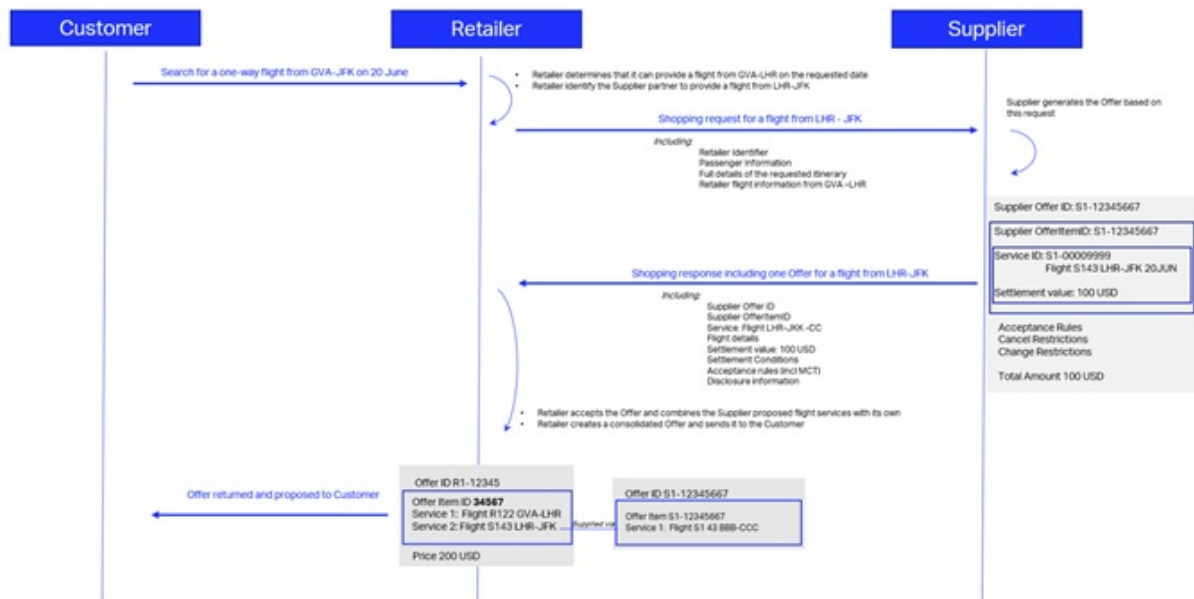
Each carrier participating in an Offer, including the Retailer, must provide carry-on allowance and embargo data for all Operating Carriers involved in the Offer, and this information needs to be returned to the Customer in the shopping response per carrier.

### Note

The aspects around the processing and handling of baggage additional charges are not part of this Implementation Guide and these will be included in the future releases.

# Shop and Book a flight via a Retailer

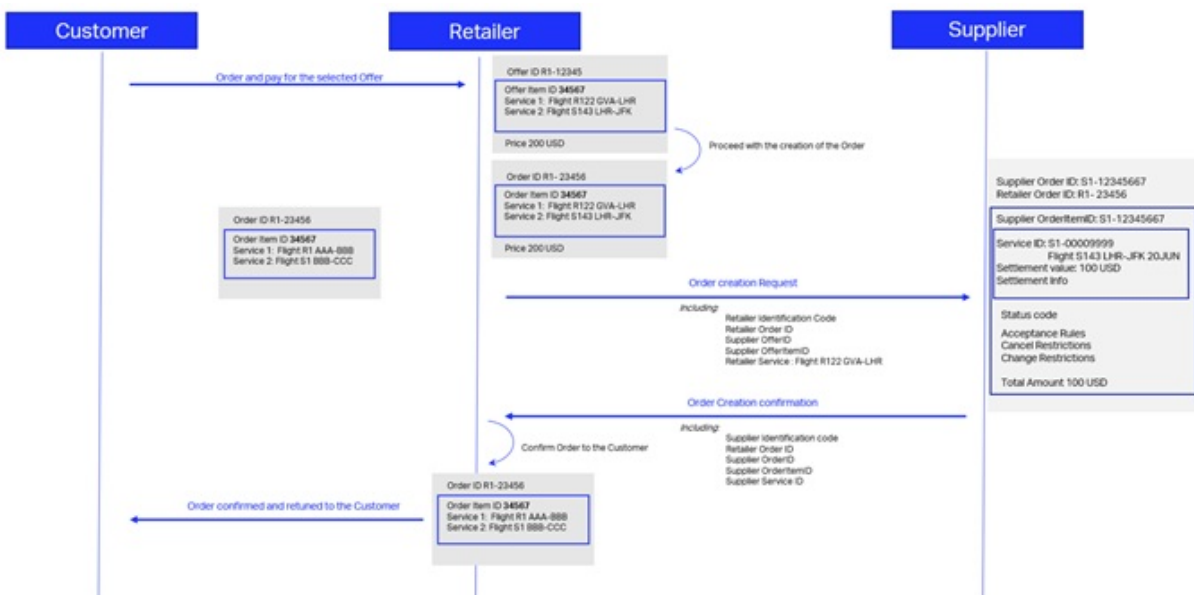
## Step 1: Request Offers from the Supplier



## Step 2: Confirm Offer



## Step 3: Create Order





# Overview

Clearance process for the Order based airline industry business model. Process supported by data communication standard that will facilitate the future clearing and accounting requirements. The Settlement with Orders process and messaging standards are defined within a legal framework that includes:

- The agreed Order.
- The resolutions that govern the remittance and settlement process and its participants.
- Privately arranged bilateral agreement.

The goal for the Settlement with Orders process and its supporting standard is to deliver benefits to Order based airline industry that will include:

- Transparent and straightforward process.
- Higher degree of automation using latest technology.
- Process focused on the clearance of funds only.
- Simplicity.
- Scalability.

In summary, the Settlement with Orders process and standard are compulsory capabilities to fulfil the clearance of funds service in the future Order model for the airline industry.

## Scope

Settlement with Orders, as its name suggests, is the processes of paying back money that has been agreed – in an Order – to be owed, and according to the chosen clearance method.

Therefore, it can be inferred from the definition that the basic functionalities of the Settlement with Orders process and messaging standard are:

- Communication of clearance related information between the retailing partners while seeking or delivering an offer
- Preparation and agreement on clearance data that includes all that is necessary for a clearance of funds to take place when using the SwO Standard for clearance reporting
- Request for clearance of funds as per the agreement between the parties.
- Summary of the funds to be received or the funds to be paid.
- Performing the clearance of funds by the Clearance Manager

In Order world, the Order has all the data necessary to execute and record the customer journey. Therefore, the order manifests the commitment for delivery of products and services on one hand, and for remuneration on the other hand. As such the request for clearance is simply a message that asks for the clearance of funds as per an existing commitment – the agreed Order.

It is important to note here that the Settlement with Order is not about invoicing but only about the flow of money from payer to payee. Therefore, none of the messages, related to the Settlement with Order process, should under any circumstances be used, treated or considered as legal invoice. Thus any reporting related to invoicing data is not part of the Settlement with Order process or standard.

Naturally, such reporting can only be performed by the parties pertinent to the Order since those are the parties that have the necessary data.

The focus of the Settlement with Orders Standard continues to be the clearance between carriers and agents within the established governance of the Billing and Settlement Plan as managed by IATA.



## New for release 21.3

Clearance information is communicated between the retailing partners of an order using three data structures:

- Clearance Criteria – while seeking an offer for services, it is used to communicate preference for using the SwO Standard for clearance reporting with or without a specific remittance date.
- Clearance Methods – when using the SwO Standard for clearance reporting these are the clearance options with their supporting information given in the offer by the supplier of services.
- Clearance Data – is an agreed upon set of data that delivers all that is necessary for a clearance of funds to take place when using the SwO Standard for clearance reporting. It can be digitally signed to provide irrefutable prove of what has been agreed with respect to the clearance of funds when using the SwO Standard and Process.

In order to be transparent to all relevant parties of the order, optional information about the clearing of funds is available as part of the payment data, whenever the payment requires clearance of funds between the retailing partners of the transaction using the SwO Standard and Process. Thus providing certainty and clarity about what has been agreed with regards to the clearance of funds and delivering irrefutable proof to the “Clearance Manager” about what has to be done to clear the funds of the clearance.

Moreover, the SwO process flow for clearance of funds where the payment method is EasyPay has been adjusted to be the same as the process for clearance of funds where the payment method is Settlement Plan. This means that:

- ClearanceNoif is sent to the seller/retailer for the Clearances accepted by the Clearance Manager, after validating the data in the ClearanceRQ message sent by the airline.
- Remittance and Settlement dates are assigned to Clearances with payment method EasyPay using the data from the Clearance Schedule.
- Clearances with payment method EasyPay are included in the ClearingNotif to Remittance Payer where the Clearing Date is the same as the date when the funds have been paid by the EasyPay vendor to the operational account of the Clearance Manager. However, the “Net Clearance Amount” of such Clearances is not added to the “Total Amount” of the ClearingNotif.

In summary with release 21.3 of the SwO Standard and Process:

- Clearance preferences, including preference for remittance date can be communicated during shopping
- Clearance options, including incentives by the supplier to support choices that are in line with its payment policy, can be communicated with the offers
- Clearance Data can be agreed upon and digitally signed at the time of payment commitment
- One clearance processes is used for payment methods EasyPay and Settlement Plan
- When retrieving data from the Clearance Manager the Clearing Identifier is included with the rest of the data provided per Clearance.
- Payment Brand Code is used to identify the type of payment method used for the Clearance. As before there are two payment method supported – Settlement Plan and EasyPay.

# Roles

## **1. Carrier in the role of Offer Responsible Airline (ORA) or supplier**

The organization which carries the passenger, baggage, or goods, and/or commits to delivering the carriage as well as any related services such as issuance of traffic documents, creation of Order, etc. In the clearance process this can be the Offer Responsible Airline (ORA) in charge of creating the Order. ORA receives the payment information, confirms the payment method and terms and receives the payment commitment from the Seller. As of release 21.3 the supplier could receive the optional clearance related data based on the payment commitment. Then the Carrier in its role as Offer Responsible Airline initiates the Clearance by sending the request for clearance to the Clearance Manager with or without the clearance data received during the payment commitment.

## **2. Seller (Agent) or Retailer**

Interacts with the customer and after customer confirmation requests from ORA to create the Order. It collects payment information and payments and makes payment commitment to ORA and agrees with ORA on payment method and terms. As of release 21.3 the retailer, in addition to the payment information, has the option to provide the related to the payment information clearance data.

## **3. Clearance Manager**

Manages the Clearance Service and works with the banks of the Remittance Payer and the Settlement Payee to complete the remittance and settlement activities – collecting the funds from the remitting party and instructing payments from its operational account to the bank of the payee. The clearance manager delivers reconciliation information to the Settlement Payee and pursues payment discrepancies by the Remittance Payer. The Clearance Manager receives Clearance instructions and processes them accordingly. The Clearance Manager will collect the funds from the remitting party and then will instruct payments from its operational account to the bank of the payee in order to settle the amounts as per the Clearance instructions.

## **4. Clearance Payer or Remittance Payer**

The party in the clearance process who makes the payment of funds equivalent to the agreed amount.

## **5. Clearance Payee or Settlement Payee**

The party in the clearance process who receives the funds equivalent to the agreed amount.

## Definitions

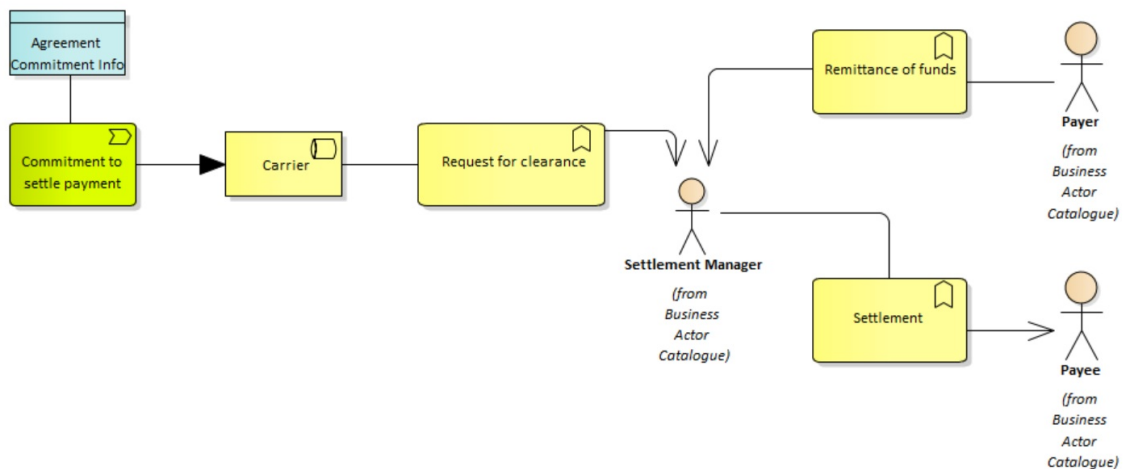
| Term Name                         | Description   |
|-----------------------------------|---|
| Actor                             | <i>Role played by a user or any other system that interacts with the subject. Actor models a type of role played by an entity that interacts with the subject (e.g., by exchanging signals and data), but which is external to the subject.</i>   |
| Account Number                    | <i>Unique string of characters that identifies the account ownership.</i>   |
| Agreement                         | <i>This is the agreement that is the foundation for the settlement being processed. In One Order and NDC this is the “Order”.</i>   |
| Carrier                           | <i>The organization which carries the passenger, baggage, or goods, and/or commits to delivering the carriage as well as any related services such as issuance of ticket, creation of Order, etc.</i>   |
| Cash                              | <i>Any payment that is collected by the agent and settled between the airline and the agent. Refer to IATA Resolution 728 Attachment A for full details.</i>  |
| Clearance                         | <i>The delivery of funds from one party – the payer- to another party - the payee - to fulfil contractual obligations, i.e. commitment between the two parties.</i>   |
| Clearance Count                   | <i>Count of the individual clearance transactions identified by unique Clearance ID that are part of the settlement or remittance money transfer, or transmitted in a batch.</i>  |
| Clearance ID                      | <i>This is an identifier generated by the party requesting the clearance that uniquely identifies the clearance transaction. It provides the necessary link for financial audit connecting the sale to the financial records. This field is required because no other existing data elements could be used by the financial systems or could provide unique identification. The identifier is globally unique for the settlement by design.</i> |
| Clearance Payee Reconciliation ID | <i>Identifier provided by the Clearance Payee to support internal reconciliation processes. Once provided this identifier is used in all communications thereafter.</i>   |
| Clearance Payer Reconciliation ID | <i>Identifier provided by the Clearance Payer to support internal reconciliation processes. Once provided this identifier is used in all communications thereafter.</i>   |
| Clearance Process Rule            | <i>It is a set of codes that defines how the Clearance Manager processes the Clearance.</i>   |
| Clearance Status                  | <i>Defines the progress of the individual transaction within the clearance process - has it been accepted, rejected, is it processed, settled or could have status “clawback”, “partially settled”, “final” or “cancelled”.</i>   |
| Commercial Document               | <i>Written record of certain aspects of a commercial transaction, such as an order, commercial invoice, shipping or transport document, certificate of origin.</i>  |
| Commitment to settle payment      | <i>The delivery of payment information to the party delivering the services (the carrier). It triggers the preparation and delivery of the clearance request based on the payment information from the Agreement (the Order). It is identified with the CommitmentID.</i>   |
| Digital Signature                 | <i>Digital code (generated and authenticated by public key encryption) which is attached to an electronically transmitted document to verify its contents and the sender's identity.</i>  |
| Error                             | <i>Deviation from the intended performance or behaviour, from accuracy or correctness.</i>  |

|   |   |
|---|---|
| <i>eWallet</i>                          | <i>Payment that is facilitated through virtual wallet, where the paying party has deposited funds and the payee is receiving the payment from the wallet rather than the party committing to the payment.</i>   |
| <i>Failure Reason</i>                   | <i>Describes the reason why a request for clearance cannot be performed and effectively the clearance is rejected or the requested action, such as cancelling the clearance, failed.</i>  |
| <i>Fund Transfer</i>                    | <i>Money moved from one financial account to another.</i>   |
| <i>Funds Transfer Account</i>           | <i>Predefined account where the funds are being transferred to or taken out from.</i>   |
| <i>Funds Transfer Method</i>            | <i>Defines how the funds were paid to the payee or paid by the payer.</i>   |
| <i>Funds Transfer Type</i>              | <i>Characterizes how the selected method was executed.</i>  |
| <i>Net Clearance Amount</i>             | <i>Amount agreed to be cleared in the Agreement between the two parties to the Agreement. It is obtained from the Commitment in the Agreement.</i>  |
| <i>Non-Settled Amount</i>               | <i>Amount of the Net Clearance Amount in the individual clearance that remains to be cleared.</i>   |
| <i>Order</i>                            | <i>A uniquely identified record of the agreement of one party with another to receive products and services under specified terms and conditions. Order supports the sale of a flexible range of airline products and services that are not necessarily journey based (e.g. subscription services).</i>     |
| <i>Organization</i>                     | <i>An organized structure set up for a particular purpose, such as a business, government body, department, charity, or financial institution.</i>  |
| <i>Clearance Payee</i>                  | <i>An entity (person or organisation) that money is paid to or should be paid to. This is the party receiving funds as a result of the clearance process. The Clearance Manager transfers money to this party's bank account.</i>   |
| <i>Clearance Payer</i>                  | <i>An entity (person or organization) that gives someone money that is due for work done, goods received, or a debt incurred. The party paying funds as a result of the settlement process. This party pays money to the operational account of the settlement platform to clear claims against itself.</i> |
| <i>Payment Approval</i>                 | <i>Authorization delivered by the provider of EasyPay services confirming that the required funds have been secured from the payer. It is the authorization given by IATA supported vendor like EasyPay, where the settlement is process by IATA.</i>   |
| <i>Payment Brand</i>                    | <i>Indicates the procedure for the payment of goods or services. It shows the Clearance Manager how the funds will be remitted and currently there are two options either BSP or EasyPay.</i>   |
| <i>Payment Commitment Date and Time</i> | <i>Indicates when payment is considered successful and the sale confirmed by ORA.</i>   |
| <i>Payment Information</i>              | <i>Information related to the settlement of a transaction through monetary or other compensations. In distribution standard Orders, the presence of Payment Information implies a commitment to pay.</i>  |
| <i>Process</i>                          | <i>A series of actions or steps taken in order to achieve a particular end.</i>   |
| <i>Processing Instructions</i>          | <i>Information related to the processing options.</i>   |
| <i>Reconciliation information</i>       | <i>Information provided for the purpose of reconciling funds received with accounting entries.</i>  |
| <i>Clearing Process</i>                 | <i>Freeing from debt, i.e. turning the promise of payment (for example, in the form of electronic clearance request) into the actual movement of money from one account to another.</i>   |

|                           |  |
|---------------------------|--|
| <i>Clearing Date</i>      | <i>Date, as per Clearance Schedule, when payment must be made by Remittance Payer (aka Remittance Date) or to Settlement Payee (aka Settlement Date).</i>  |
| <i>Clearing ID</i>        | <i>Identifier provided by the Clearance Manager to identify the movement of money.</i>   |
| <i>Remittance Date</i>    | <i>Means the Clearing Bank's close of business on the latest date by which the Agent's (Seller's) remittance must reach the Clearing Bank or, in cases where authorised by the Passenger Sales Agency Rules, the value date on which the Clearing Bank draws cheques on or debits the Agent's (Seller's) bank account.</i> |
| <i>Remittance Payer</i>   | <i>The party paying funds to perform remittance.</i>   |
| <i>Settlement Date</i>    | <i>Means the date on which BSP Airlines are credited with money due. This is the bank value date of the funds transfer performed by the Clearance Manager to the Settlement Payee.</i>   |
| <i>Settlement Payee</i>   | <i>The party receiving funds from settlement.</i>  |
| <i>Clearance Manager</i>  | <i>Manages the Clearance Platform and works with the banks of the Clearance Payer and the Clearance Payee to complete the remittance and settlement activities. The clearance manager delivers reconciliation information to the Clearance Payee and pursues payment discrepancies by the Clearance Payer.</i>             |
| <i>Clearance Schedule</i> | <i>Defines the time for the activities related to the payment and transfer of funds.</i>   |
| <i>Total Amount</i>       | <i>The sum of the amounts of the next lower hierarchical level items that are being aggregated.</i>  |
| <i>Travel Agency</i>      | <i>A private retailer or public service individual that provides travel and tourism related services to the public on behalf of suppliers such as activities, airlines, car rentals, cruise lines, hotels, railways, travel insurance, and package tours.</i>  |
| <i>Value Date</i>         | <i>The date on which funds are available for use.</i>  |

# Overview

BPL2 Process Diagram Level 2



The Settlement with Orders process starts with the Requests for Clearance triggered always by the Offer Responsible Airline (ORA). ORA will most likely be the recipient of funds known as the Clearance Payee, but in some cases, such as payment of commissions on credit card transaction or refunds, ORA would be the Clearance Payer and will perform the remittance step of the process. Due to the dual role that ORA can play the requests is named “Clearance” to accommodate its diverse functionality. The Seller can be either a Clearance Payer or Clearance Payee, too. Therefore, in the model the settlement and remittance business services and related information are always associated with the Payee and the Payer, and not with the Seller and ORA.

It is important to note that the request for clearance triggered by ORA is based on a payment commitment that has been agreed upon earlier by both ORA and the Seller. More importantly this payment commitment is part of an agreement between ORA and the Seller. As part of the payment commitment the retailing partners (Supplier and Retailer) can also agree on the Clearance Data that will be communicated to the Clearance Manager later on. Therefore, there will be two options with regards to the request for clearance triggered by ORA:

- Deliver signed Clearance Data that has been agreed at the time of payment commitment. In this case there is no need to provide reference to the underlying agreement and commitment. The Clearance Data with its unique identifier is known to the Clearance Payer and the Clearance Payee at the time of payment commitment.
- Deliver Clearance Data that is derived from the underlying agreement and relevant payment commitment that has not been signed. Therefore, reference to the Agreement and the Payment Commitment must be provided.

Because this is purely remittance and settlement process, only the information required to complete the clearance with the optional information to perform the reconciliation is delivered to the Clearance Manager. ORA and the Seller, who own the agreement and its data, can provide, upon request, legal and regulatory information to interested parties.

# Clearance information during shopping

With release 21.3 of the Enhanced and Simplified Distribution Standard it is possible to exchange clearance information during shopping and to agree upon and digitally sign the Clearance Data at the time of payment commitment.

## 1. Clearance Criteria

This common type is used by the retailer to communicate preference for using the SwO Standard for clearance reporting with or without a specific remittance date. "Clearance Criteria" supplies information about preference for given clearance process and reporting standard at the time of requesting an offer or additional information about an offer, an item, or an order. It is part of the "Payment Method Criteria", and it is relevant whenever the method of payment will require clearance of funds between the partners of the sale.

## 2. Clearance Methods

This common type provides the clearance options with their supporting information proposed by the supplier for a given offer when using the SwO Standard for clearance reporting. "Clearance Methods" supplies the methods available to clear a payment. It is part of the "Payment Supported Method", and it is relevant whenever the method of payment will require clearance of funds between the partners of the sale. Includes the Commission data to allow the supplier to support choices that are in line with its payment policy. Optionally, the supplier could provide the Net Clearance Amount based on the available data in the offer and the given clearance process as per the Process Rule Code. It shall be noted that the Net Clearance Amount would be more relevant at the time of selecting an offer to be priced or at the time when the order is created.

## 3. Clearance Data

This is an agreed upon set of data that delivers all that is necessary for a clearance of funds to take place when using the SwO Standard for clearance reporting.

While "Clearance Criteria" and "Clearance Methods" supply information of choices or options to clear funds using the SwO Standard and Process, "Clearance Data" supplies the data needed, as agreed by the Clearance Payer and the Clearance Payee of the clearance, to execute the clearance using the SwO Standard and Process.

The Clearance Identifier 'ClearanceID' is created at the time of confirming the "Clearance Data" and at that time it is communicated to the Clearance Payer and the Clearance Payee of the Clearance. As a result, the Clearance Identifier becomes globally unique identifier that is indelible part of the Order.

It is the core data required by the Clearance Manager to process a Clearance. Optionally, it can be signed by the Clearance Payer and the Clearance Payee of the clearance.

It is important to note that Clearance Data is jointly created by the retailer and the supplier of the order. The retailer, at the time of committing the payment, defines its role either as Clearance Payer or Clearance Payee and provides the Net Clearance Amount, the reporting standard for processing the clearance and an optional remittance date. Then the supplier, if in agreement with the data provided by the retailer, adds the unique clearance identifier and the payment commitment date and time. Both parties have the option to digitally sign the data they provide to deliver certainty and clarity about what has been agreed with regards to the clearance of funds and offer irrefutable proof to the Clearance Manager that the "Clearance Data" has been seen and agreed by both parties to the "Clearance" – the Clearance Payer and the Clearance Payee.



# Request for Clearance

While clearance information can be exchanged during shopping and Clearance Data can be agreed upon at the time of payment commitment the Settlement with Orders process is still initiated with the request for clearance send to the Clearance Manager by the supplier, i.e. the carrier. The request uses the payment information from the payment commitment in the underlining agreement or the agreed upon Clearance Data. Either way, the following has been agreed:

- The payment method (for example EasyPay or BSP)
- The amount with its corresponding currency to be cleared, which is the NetClearanceAmount of the “Clearance Data” associated with the selected Payment Method in the Payment Processing Summary.
- Agreement and Commitment identifiers and other relevant information.

All applicable charges, commissions, fees and taxes including VAT are available in detail in the Order when it is created but are not needed for the Settlement process – the Request for Clearance is only interested in the Net Clearance Amount that has to be cleared between two parties. It is important to note that at payment commitment time there is full agreement on Net Clearance Amount and payment method.

Following are possible cases:

## **1. Request for Clearance with method of payment Settlement Plan without commission and according to the Clearance Schedule.**

Customer is seeking return flight from Geneva to London in economy cabin and no ancillary services. Using the “Clearance Criteria” in the shopping request Agent AGT indicates that funds could be cleared by means of the SwO Standard and Process. Airline AIR is capable to clear funds by means of the SwO Standard and Process and confirms that using the “Clearance Method” in the offer response.

Agent AGT asks carrier AIR to create the order and provides payment details including information about the clearance of funds – indicates that it is the Payer in the clearance process and provides the ‘Net Clearance Amount’, which equals the payment amount because payment method is Settlement Plan and there is no commission.

Carrier AIR validates the clearance related information provided by agent AGT adds the Clearance Identifier and delivers the full information of the clearance back to agent AGT. Now airline AIR can send the “Clearance” to the Clearance Manager, who will validate it and will execute this request for clearance.

## **2. Request for Clearance with method of payment IATA EasyPay without commission.**

Customer is seeking return flight from Geneva to London in economy cabin and no ancillary services. Agent AGT is accredited with no Cash Facility and therefore only payment method “EasyPay” can be used. Agent AGT would like to create the order, to defer the payment and to clear the funds using the SwO Standard and Process. Airline AIR is capable to clear funds suing the SwO Standard and Process and confirms that for the offer it has made it can be paid using payment method “EasyPay” and the funds for this payment can be cleared using the SwO Standard and Process.

Agent AGT asks carrier AIR to create the order but defers the payment. However, agent AGT suggests that the payment, when made, will be done using the payment method “EasyPay” and funds will be cleared using the SwO Standard and Process. With this information carrier AIR can return the expected ‘Net Clearance Amount’ for the order it has created given that at the time of payment, or any time before the payment, agent AGT does not change the order. Agent AGT can use this ‘Net Clearance Amount’ when paying for the order provided nothing has changed in the order.

Agent AGT pays the order that has been created including information about the clearance of funds – indicating that it is the Payer in the clearance process and provides the ‘Net Clearance Amount’ that was given by the airline.

Carrier AIR validates the payment information provided including the clearance related information. Once the EasyPay vendor confirms that funds have been blocked carrier AIR adds ‘Clearance ID’ and the payment commitment time to the clearance information. Now carrier can forward the clearance information to the Clearance Manager, who will validate it and will execute this request for clearance. Carrier AIR will add the IATA EasyPay account number provided by agent AGT and the approval code received from the EasyPay vendor to the request for clearance that will be sent to the Clearance Manager.

### **3. Payment completed on secure payment page hosted by payment service provider with commission cleared using SwO Standard and Process.**

Customer is seeking return flight from Geneva to London in economy cabin and no ancillary services. Customer would like to pay with credit card and agent AGT indicates this to the carrier. Moreover, agent AGT indicates that the SwO Standard and Process is to be used to clear the payment of the commission. Airline AIR is capable to clear funds using the SwO Standard and Process but would have to redirect the credit card payment processing to the secure payment page hosted by its payment service provider.

Carrier AIR confirms that for the offer it has made it can accept payment with credit card but only by redirecting the payment process to the secure payment page hosted by its payment service provider. In addition, carrier AIR confirms that for that supported payment it can clear funds related to commission using the SwO Standard and Process.

Agent AGT requests carrier AIR to create the order and provides payment amount to initiate the payment. Customer has to make the payment within 24 hours. Current date is 12th of January 2021 and time is 13:15. Agent AGT, also, provides clearance related information about the clearance of the commission. Agent AGT in its role of the ‘Payee’ of the Clearance prepares the clearance related information including the Net Clearance Amount, which is equal to the commission.

Carrier AIR confirms that order has been created and provides the URI where customer can make the payment. Customer has to complete the payment until 13:15 on the 13th of January 2021.

Customer completes the payment on the 13th of January 2021 at 11:25 and carrier AIR informs agent AGT payment has been successful and the ‘Payment Commitment Date is 13-Jan-2021|11h25m’, which is also the ‘Payment Commitment Date’ used in the clearance information. Carrier AIR adds the ‘Clearing ID’ and returns the complete clearance information to agent AGT. Carrier AIR is in the role of the ‘Payer’ with regards to the clearance information. Now the clearance information is ready to be sent to the Clearance Manager, who will execute the requested clearing of funds.

#### **4. Request for Clearance with method of payment Settlement Plan with Remittance Date not according to the Clearance Schedule.**

Agent CORPORATE works with large corporate clients and has secured special deals with few airlines to remit on dates that are outside of the “Clearing Schedule”. One such deal has been signed with airline BUSINESS, where for large corporate clients the agent CORPORATE can remit 45 days after the sale. Usually, the Clearance Manager requires that agent CORPORATE remits no later than 7 days after the payment commitment date.

Business traveller asks agent CORPORATE to arrange flight for her from Geneva to Moscow. Following the corporate policy, the agent requests that offers are with service in economy class only. Airline BUSINESS has the best offer and agent CORPORATE requests that order is created. The order has been completed and payment has been committed.

Timeline: Shopping takes place on 3rd of December 2020. Payment Commitment Date is 7th of December 2020. Traveller flies outbound on 10th of December 2020 and inbound on 11th of December 2020.

Steps:

1. When shopping for flights agent CORPORATE indicates Remittance Date for the clearance of funds with airline BUSINESS and the date is 15th of January \* This is for payment method Settlement Plan.
2. Airline BUSINESS verifies that the requested remittance date complies with the agreement in place with agent CORPORATE. The date complies and the airline returns information about payment and clearance that it can support:
  - a) airline BUSINESS can support payment method Settlement Plan and for clearance of the funds within the usual 7 days using the SwO Standard and Process it offers additional commission for the sale
  - b) airline BUSINESS can support payment method Settlement Plan and for clearance of the funds on the preferred by the agent CORPORATE Remittance Date 15-Jan-2021 it does not offer additional commission for the sale
3. Agent CORPORATE requests airline BUSINESS to create an order with confirmed payment and clearance information where Remittance Date is the preferred 15-Jan-2021 and agent AGT is the Payer.
4. Airline BUSINESS verifies the “Clearance Data” and adds to it the ‘Clearance Identifier’ and the ‘Payment Commitment Date and Time’. The airline BUSINESS confirms the clearance information in its role as Payee.
5. Airline AIR sends a clearance request to the Clearance Manager

**In all of the above cases** the customer has purchased a service and the retailer (the Agent) has confirmed the Order. Furthermore, the Retailer has committed payment, by providing payment information including an Amount and Payment Method to the supplier (the Airline). The Agent and the Airline have completed and signed the Clearance Data at the time of payment commitment. Therefore the supplier (the airline) will use the “Clearance Data” that was agreed upon with the retailer (the agent) in the request for clearance send to the Clearance Manager to initiate the clearance of funds.

The SwO Process for all of the above cases will be:

- Airline sends ClearanceRQ message to the Clearance Manager including the Clearance Data with its unique ClearanceID
- After successful sanity check and validation, the Clearance Manager acknowledges the receipt

of the ClearanceRQ message with ClearanceRS message. The ClearanceRS message includes the Remittance Date "RD" and the Settlement Date "SD" as per Clearance Schedule, and the Clearance Status Code "Accepted".

- Clearance Manager sends ClearanceNotif message to the Agent. The ClearanceNotif message includes the Remittance Date "RD" and the Settlement Date "SD" as per Clearance Schedule, and the Clearance Status Code "Accepted".
- Following the Clearance Schedule on Clearing Notification Delivery Deadline Date the Clearance Manager sends the ClearingNotif message to the Remittance Payer. The ClearingNotif message is identified with its ClearingID and includes the Total Amount that must be remitted by the Remittance Payer and the list of Clearances that have been aggregated for this ClearingNotif message.
- On Remittance Date the Remittance Payer orders payment to the Clearance Manager's bank account for funds equivalent to the Total Amount in the ClearingNotif message identified with its ClearingID. The ClearingID is included in the remarks of the bank transfer order.
- On Settlement Date "SD" the Settlement Manager sends ClearingNotif message, that is identified with its ClearingID. The ClearingNotif message includes the Total Amount being settled to the Airline (or Settlement Payee) and the list of Clearances that have been aggregated for this ClearingNotif. The Clearance Manager also orders bank transfer to the ORA bank account for the Total Amount in the ClearingNotif message and includes in the remarks the ClearingID.

## **5. Request for Clearance with method of payment EasyPay with commission but Clearance Data has not been agreed and signed during payment commitment.**

Agent has completed a sale and uses IATA EasyPay as Payment Method. The agent receives 10% commission for the sale. The Agent has committed the payment to ORA with payment information provided in the Order Create Request but Clearance Data has not been agreed upon and signed desiring the payment commitment.

### **a) Preconditions**

Airline has received ApprovalCode for the EasyPay payment. The authorization is for the NetClearanceAmount that is net of commission. Airline has received the EasyPay AccountNumber from the agent as well.

### **b) SwO Process**

- Airline sends one Clearance to the Clearance Manager where the NetClearanceAmount for example is CHF369 – EasyPay payment minus applicable commissions (CHF410-CHF41=CHF369)
- After successful sanity check and validation, the Clearance Manager acknowledges the receipt of the ClearanceRQ message with ClearanceRS message. The ClearanceRS message includes the Remittance Date "RD" and the Settlement Date "SD" as per Clearance Schedule, and the Clearance Status Code "Accepted".
- Clearance Manager sends ClearanceNotif message to the Agent. The ClearanceNotif message includes the Remittance Date "RD" and the Settlement Date "SD" as per Clearance Schedule, and the Clearance Status Code "Accepted".
- The Clearance Manager requests transfer of funds from the EasyPay vendor providing the EasyPay AccountNumber and the Approval Code.

- Within 24 hours the Clearance Manager receives the funds from the EasyPay vendor.
- Once the Clearance Manager receives the funds from the EasyPay vendor and following the Clearance Schedule on Clearing Notification Delivery Deadline Date the Clearance Manager sends the ClearingNotif message to the Remittance Payer. The ClearingNotif message is identified with its ClearingID and includes the Clearance with payment method EasyPay for information only. The Net Clearance Amount of the clearance with payment method EasyPay is not included in the Total Amount that must be remitted by the Remittance Payer.
- On Settlement Date "SD" the Clearance Manager sends ClearingNotif message, that is identified with its ClearingID. The ClearingNotif message includes the Total Amount being settled to ORA (or Settlement Payee) and the list of Clearances that have been aggregated for this ClearingNotif. The Clearance Manager also orders bank transfer to the ORA bank account for the Total Amount in the ClearingNotif message and includes in the remarks the ClearingID.

# Samples

## Samples of Clearance Criteria

### 1. Request for Clearance with method of payment Settlement Plan without commission and according to the Clearance Schedule.

| Markup   | Copy |
|--|------|
| <pre>&lt;PaymentFunctions&gt;   &lt;PaymentMethodCriteria&gt;     &lt;ClearanceCriteria&gt;       &lt;ProcessRuleCode&gt;IATAC00&lt;/ProcessRuleCode&gt;     &lt;/ClearanceCriteria&gt;     &lt;PaymentBrandCode&gt;IB&lt;/PaymentBrandCode&gt;     &lt;PaymentTypeCode&gt;CA&lt;/PaymentTypeCode&gt;   &lt;/PaymentMethodCriteria&gt; &lt;/PaymentFunctions&gt;</pre> |      |

### 4. Request for Clearance with method of payment Settlement Plan with Remittance Date not according to the Clearance Schedule.

| Markup   | Copy |
|--|------|
| <pre>&lt;PaymentFunctions&gt;   &lt;PaymentMethodCriteria&gt;     &lt;ClearanceCriteria&gt;       &lt;ProcessRuleCode&gt;IATAC00&lt;/ProcessRuleCode&gt;       &lt;RemittanceDate&gt;2021-01-15&lt;/RemittanceDate&gt;     &lt;/ClearanceCriteria&gt;     &lt;PaymentBrandCode&gt;IB&lt;/PaymentBrandCode&gt;     &lt;PaymentTypeCode&gt;CA&lt;/PaymentTypeCode&gt;   &lt;/PaymentMethodCriteria&gt; &lt;/PaymentFunctions&gt;</pre> |      |

## Samples of Clearance Methods

### 3. Payment completed on secure payment page hosted by payment service provider with commission cleared using SwO Standard and Process.

| Markup  | Copy |
|---|------|
| <pre>&lt;cns:PaymentFunctions&gt; &lt;cns:OfferAssociation&gt;   &lt;cns:OfferRefID&gt;1&lt;/cns:OfferRefID&gt;   &lt;cns:OwnerCode&gt;XB&lt;/cns:OwnerCode&gt; &lt;/cns:OfferAssociation&gt; &lt;cns:PaymentSupportedMethod&gt;   &lt;cns:ClearanceMethods&gt;     &lt;cns:Commission&gt;       &lt;cns:CommissionCode&gt;SWOCM&lt;/cns:CommissionCode&gt;     &lt;/cns:Commission&gt;   &lt;/cns:ClearanceMethods&gt; &lt;/cns:PaymentSupportedMethod&gt; &lt;/cns:PaymentFunctions&gt;</pre> |      |

```

        <cns:Percentage>2</cns:Percentage>
    </cns:Commission>
    <cns:ProcessRuleCode>IATAC00</cns:ProcessRuleCode>
</cns:ClearanceMethods>
    <cns:PaymentBrandCode>IB</cns:PaymentBrandCode>
    <cns:PaymentTypeCode>CA</cns:PaymentTypeCode>
</cns:PaymentSupportedMethod>
</cns:PaymentFunctions>
<cns:PaymentFunctions>
<cns:OfferAssociation>
    <cns:OfferRefID>1</cns:OfferRefID>
    <cns:OwnerCode>XB</cns:OwnerCode>
</cns:OfferAssociation>
<cns:PaymentSupportedMethod>
    <cns:ClearanceMethods>
        <cns:ProcessRuleCode>IATAC00</cns:ProcessRuleCode>
    </cns:ClearanceMethods>
    <cns:PaymentTypeCode>CC</cns:PaymentTypeCode>
</cns:PaymentSupportedMethod>
</cns:PaymentFunctions>

```

## Samples of Payment Processing Clearance Data

### 5. Request for Clearance with method of payment EasyPay with commission

| Markup   | Copy |
|--|------|
| <pre> &lt;PaymentFunctions&gt; &lt;PaymentProcessingDetails&gt;     &lt;Amount CurCode="EUR"&gt;500&lt;/Amount&gt;     &lt;PaymentMethod&gt;         &lt;IATA_EasyPay&gt;             &lt;AccountNumber&gt;1234567887654321&lt;/AccountNumber&gt;             &lt;IATA_Number&gt;88888888&lt;/IATA_Number&gt;         &lt;/IATA_EasyPay&gt;     &lt;/PaymentMethod&gt;     &lt;PaymentProcessingClearanceData&gt;         &lt;ClearanceRoleChoice&gt;             &lt;ClearancePayerData&gt;                 &lt;ClearancePayer&gt;                     &lt;TravelAgency&gt;                         &lt;IATA_Number&gt;88888888&lt;/IATA_Number&gt;                     &lt;/TravelAgency&gt;                 &lt;/ClearancePayer&gt;             &lt;/ClearancePayerData&gt;         &lt;/ClearanceRoleChoice&gt;         &lt;ClearancePayerReconciliationID&gt;HTT56443mKK&lt;/ClearancePayerReconciliationID&gt;         &lt;/ClearancePayerData&gt;         &lt;/ClearanceRoleChoice&gt;         &lt;NetClearanceAmount CurCode="EUR"&gt;480&lt;/NetClearanceAmount&gt;         &lt;ProcessRuleCode&gt;IATAC00&lt;/ProcessRuleCode&gt;     &lt;/PaymentProcessingClearanceData&gt; &lt;/PaymentProcessingDetails&gt; </pre> |      |

```
</PaymentFunctions>
```

## Samples of Clearance Data

### Clearance Data with method of payment EasyPay with commission

| Markup   | Copy |
|--|------|
| <pre>&lt;PaymentFunctions&gt; &lt;cns:PaymentProcessingSummary&gt;   &lt;cns:Amount CurCode="EUR"&gt;500.00&lt;/cns:Amount&gt;   &lt;cns:ClearanceData&gt;     &lt;cns:ClearanceID&gt;2021954A78hh974&lt;/cns:ClearanceID&gt;     &lt;cns:ClearancePayeeData&gt;       &lt;cns:ClearancePayee&gt;         &lt;cns:Carrier&gt;           &lt;cns:AirlineAccountingCode&gt;954&lt;/cns:AirlineAccountingCode&gt;           &lt;cns:AirlineDesigCode&gt;XB&lt;/cns:AirlineDesigCode&gt;         &lt;/cns:Carrier&gt;       &lt;/cns:ClearancePayee&gt;      &lt;cns:ClearancePayeeReconciliationID&gt;CbFuQq4s0&lt;/cns:ClearancePayeeReconciliationID&gt;     &lt;/cns:ClearancePayeeData&gt;     &lt;cns:ClearancePayerData&gt;       &lt;cns:ClearancePayer&gt;         &lt;cns:TravelAgency&gt;           &lt;cns:IATA_Number&gt;88888888&lt;/cns:IATA_Number&gt;         &lt;/cns:TravelAgency&gt;       &lt;/cns:ClearancePayer&gt;      &lt;cns:ClearancePayerReconciliationID&gt;hTT56443mKK&lt;/cns:ClearancePayerReconciliationID&gt;     &lt;/cns:ClearancePayerData&gt;     &lt;cns:NetClearanceAmount CurCode="EUR"&gt;480.00&lt;/cns:NetClearanceAmount&gt;     &lt;cns:PaymentCommitmentDateTime&gt;2021-03- 16T08:30:45&lt;/cns:PaymentCommitmentDateTime&gt;     &lt;cns:ProcessRuleCode&gt;IATAC00&lt;/cns:ProcessRuleCode&gt;   &lt;/cns:ClearanceData&gt;   &lt;cns:PaymentCommitmentDateTime&gt;2021-03-16T08:30:45&lt;/cns:PaymentCommitmentDateTime&gt;   &lt;cns:PaymentID&gt;1&lt;/cns:PaymentID&gt;   &lt;cns:PaymentProcessingSummaryPaymentMethod&gt;     &lt;cns:IATA_EasyPay&gt;       &lt;cns:ApprovalCode&gt;123456&lt;/cns:ApprovalCode&gt;     &lt;/cns:IATA_EasyPay&gt;   &lt;/cns:PaymentProcessingSummaryPaymentMethod&gt;   &lt;cns:PaymentStatusCode&gt;Successful&lt;/cns:PaymentStatusCode&gt; &lt;/cns:PaymentProcessingSummary&gt; &lt;/PaymentFunctions&gt;</pre> |      |

**Note:** Please note that currency code is mandatory for Net Clearance Amount



# Remittance of Funds

The Remittance Payer remits funds to the operational bank account of the Clearance Manager, i.e. funds have been transferred out of the Remittance Payer's account to the clearance manager's operational account.

When the method of payment is EasyPay the funds are not remitted by the Remittance Payer but by the EasyPay Provider. Therefore, when the Clearing Notification is for Remittance Payer the Total Amount does not include the Net Clearance Amounts of the Clearances where Payment Brand Code is "EP" (EasyPay). However, the agent is informed that the clearances have been paid by the EasyPay vendor.

## 1. Requests for Clearance where payment is split between two payment methods

Customer has purchased a service and paid the full amount to the Seller. The Seller is unable to request creation of the order with Settlement Plan as the only payment method. For example, the Seller has exhausted the limit of its Remittance Holding Capacity. ORA has agreed that the Seller remits the funds to ORA using payment methods Settlement Plan and EasyPay.

### a) Preconditions

Seller has operational EasyPay Wallet. ORA has received ApprovalCode for the EasyPay payment. Airline has received the EasyPay AccountNumber from the agent as well. There are no commissions associated with the sale. Transactional and clearance currencies are the same. Clearance Manager operates daily Clearance in this market. The Seller has requested to receive ClearanceNotif message with one Clearance per ClearanceNotif message. Clearance Data has not been agreed upon and signed during the payment commitment.

### b) SwO Process

- Because payment is completed with two methods of payment there are two PaymentID and therefore two CommitmentID for the same Agreement ID, which is the Order ID in this case. Consequently, ORA sends two Clearances in the ClearanceRQ message to the Clearance Manager that are associated with this payment.
- The Clearance Manager acknowledges the receipt of the ClearanceRQ message with a ClearanceRS message. The ClearanceRS message is structured as the ClearanceRQ message, has no errors and the Clearance Status Code for the two Clearances related to this payment have value "Accepted". Both Clearances include the Settlement Date "SD" and Remittance Date "RD" as per the Clearance Schedule.
- Clearance Manager sends ClearanceNotif messages to the Seller for both Clearances – one for the Clearance with payment method Settlement Plan and one for the Clearance with payment method EasyPay – both include the Remittance Date "RD" and the Settlement Date "SD" as per Clearance Schedule.
- The Clearance Manager requests transfer of funds from the EasyPay vendor providing identification for the Payer and the ApprovalCode for the EasyPay payment.
- Following the Clearance Schedule on Clearing Notification Delivery Deadline Date the Clearance Manager sends the ClearingNotif message to the Remittance Payer. The ClearingNotif message is identified with its ClearingID and includes the Total Amount that must

be remitted by the Remittance Payer (or the Seller) and the list of Clearances that have been aggregated for this Clearing Notification. The Net Clearance Amount for the Clearance with method of payment Settlement Plan is included in the TotalAmount of this ClearingNotif message but the Net Clearance Amount for the Clearance with method of payment EasyPay is not.

- The Clearance Manager receives the funds from the EasyPay vendor.
- On Remittance Date the Remittance Payer orders payment to the Clearance Manager's bank account for funds equivalent to the Total Amount in the ClearingNotif message identified with its ClearingID. The ClearingID is included in the remarks of the bank transfer order. Funds are received by the Clearance Manager on the same day.
- On Settlement Date the Clearance Manager sends ClearingNotif message that is identified with its ClearingID. The ClearingNotif message includes the Total Amount being settled to ORA (or Settlement Payee) and the list of Clearances that have been aggregated for this ClearingNotif. The Clearances with payment method EasyPay and Settlement Plan are both included in the ClearingNotif message, each one identified with its own ClearanceID. The Clearance Manager also orders bank transfer to the ORA bank account for the Total Amount in the ClearingNotif message and includes in the remarks the ClearingID.

## **2. Remittance not full**

On Remittance Date "RD" the Seller remits only 75% of the "Total Amount" value for the respective ClearingNotif message, which is identified with its ClearingID.

### **a) Preconditions**

Clearance Manager's operational bank account does not have credit line. The Clearance Manager applies the available funds from the Remittance Payer proportionally to each Settlement Payee expecting funds from the Remittance Payer. For each Settlement Payee the Clearance Manager processes its transactions on "first in first out" (FIFO) basis. This example is for sales from Orders only.

### **b) SwO Process**

- The Clearance Manager receives payment identified with ClearingID 7531. The payment is only for 75% of the "Total Amount" value in the ClearingNotif with the same ClearingID.
- Clearance Manager identifies that Payees: ABC, XYZ and LMN have been affected by the short payment from Payer TRVL.
- The Clearance Manager identifies that there are 537 Clearance between ABC and TRVL. 75% of their value represents enough funds to pay the oldest 477 individual transaction and partially transaction 478. The remaining transactions are not settled.
- The Clearance Manager sends ClearingNotif message with ClearingID 98765 to ABC. The last 59 transactions that were supposed to be settled with this Clearing Notification but could not due to short payment are included in the ClearingNotif message with Clearance Status Code equal to "Not Settled". The transaction immediately after the last settled transaction is included in the ClearingNotif message with Clearance Status Code equal to "1-Partially Settled" indicating the amount being settled in the data element "Net Clearance Amount" and the amount not yet settled in the data element "Remaining Amount". The value of the data element "Total Amount" in the ClearingNotif is the sum of the values of the data element "Net Clearance Amount" for all transactions with Clearance Status Code equal to "Fully Settled" and "Partially Settled".

- The Clearance Manager processes the Clearances between TRVL and XYZ and TRVL and LMN in the same manner as described for ABC above.
- Seller is given 24 hours to pay the missing funds.
- The next day Seller pays the remaining 25% in full.
- The Clearance Manager includes the paid Clearances identified by their ClearanceID in the next ClearingNotif message with ClearingID 98767. The value of the data element "Total Amount" of ClearingNotif message with ClearingID 98767 includes the 25% of the not settled amount from ClearingNotif message with ClearingID 98765. The 59 transactions that were not included in ClearingNotif message with ClearingID 98765 have been added to the ClearingNotif message with ClearingID 98767 with Clearance Status Code equal to "Final Settlement".

### **3. Remittance not full with clawback following the settlement.**

On Remittance Date "RD" the Remittance Payer remits funds that are 90% of the expected "Total Amount" value for the respective ClearingNotif message identified by its ClearingID. Regardless of the short payment by the Remittance Payer, the Clearance Manager sends ClearingNotif messages to the concerned Settlement Payees that show all Clearances as 100% settled. The Clearance Manager transfers 100% of the funds that the Settlement Payees expect to receive as indicated in the corresponding ClearingNotif messages.

#### **a) Preconditions**

Clearance Manager's operational bank account has credit line. The Clearance Manager pays Settlement Payees 100% of Total Amounts to be settled on the settlement day. The Clearance Manager retrieves money from Settlement Payees in the next available settlement period, after the seller's status becomes "defaulted". For each Settlement Payee the Clearance Manager "claws back" the full amount that has been paid since the first period of default of the Seller. The value of the data element "Total Amount" in the following ClearingNotif message is higher than the total amount of the funds with Settlement Code "Claw Back", otherwise ClearingNotif messages must be sent to the original Settlement Payee. This example is for sales from Orders only.

#### **b) SwO Process**

- The Clearance Manager receives payment identified with ID 91287. The payment is only for 90% of the "Total Amount" value in the ClearingNotif with the same ClearingID.
- Regardless of the short payment on Settlement Date "SD" the Settlement Manger sends ClearingNotif where the value of the data element "Total Amount" is 100% of what is expected. The Clearance Manager also orders bank transfer to the Settlement Payee's bank account for an amount equal to the value of the data element "Total Amount" in the ClearingNotif.
- The Clearance Manager cannot collect the 10% and therefore must recover the funds that have been previously paid to the Settlement Payee.
- The Clearance Manager identifies that Settlement Payees: ABC, XYZ and LMN have been affected by the short payment from Payer TRVL. The Clearance Manager must recover 100% of the funds paid to each one of the Settlement Payees.
- The Clearance Manager adds all impacted Clearances identified by their ClearanceID to the next ClearingNotif message. The Clearance Status Code for each is set to "Claw Back". The ClearingNotif message with its ClearingID (ClearingID 87675) is sent to ABC. The Clearance Manager also orders bank transfer to ABC's bank account for funds equivalent to the value of the data element "Total Amount" in the ClearingNotif message with ClearingID 87675 and

includes the ClearingID in the remarks of the bank transfer order. When calculating the value of the data element "Total Amount" in ClearingNotif with ClearingID 87675 is calculated the Clearances with Clearance Status Code equal to "Claw Back" are added after being multiplied by -1.

- Settlement Manage repeats the same steps for Payees XYZ and LMN. The number of individual transactions from the original Clearance for each Settlement Payee will be different.

**Note:** When the Clearance Manager collects the unpaid amount form Seller TRVL then the Clearance Manager would retrieve Clearances with Clearance Status Code equal to "Claw Back" to include them in the following available ClearingNotif message.

# Settlement

The Clearance Manager performs the settlement, i.e. funds have been transferred out of the Clearance Manager's operational bank account to the Settlement Payee's account. The Clearance Manager provides information to the Settlement Payee that is used to automate reconciliation of the payment.

## 1. Settlement of commission when method of payment is "Credit Card".

Customer decides to purchase lounge access in addition to the flight service it has purchased already. The available payment method for this additional purchase is Payment Card. The commission for this additional sale is paid to the Seller using the Billing and Settlement Plan. As such Clearance Data for the commission is agreed at the time payment is committed for the lounge service.

### a) Preconditions

Carrier (ORA) has successfully executed the payment for the lounge access with the credit card details provided by the Seller in the Payment Processing Details of the Order Change Request.

### b) SwO Process

- When submitting the Payment Processing Details the agent submits the Payment Processing Clearance Data where:
  - o The agent selects the Clearance Payee Data in the Clearance Role Choice Type because the agent will be receiving the payment for the commission.
  - o Sets the Net Clearance Amount to be equal to the commission amount.
  - o For the Process Rule Code uses the code corresponding to the standard processing of Clearances following the SwO Standard and Process.
  - o Uses the signature provided in the order change request to sign the Payment Processing Clearance Data.
- When confirming the order to the agent the carrier uses the signed Payment Processing Clearance Data and:
  - o Adds the Clearance Identifier to the Clearance Data
  - o Provides the payment commitment date and time
  - o Identifies itself as the Clearance Payer and signs the complete Clearance Data
- Carrier uses the Clearance Data signed by the Clearance Payer (the airline) and Clearance Payee (the agent) for the clearance request to the Clearance Manager
- Carrier sends ClearanceRQ message to the Clearance Manager including in it the signed Clearance Data and the Payment Brand Code, which in this case equals "IB" for BSP.
- After successful sanity check and validation, the Clearance Manager acknowledges the receipt of the ClearanceRQ message with ClearanceRS message. The ClearanceRS message includes the Clearance for the payment of the commission with Remittance Date "RD" and the Settlement Date "SD" as per Clearance Schedule, and the Clearance Status Code "Accepted".
- Clearance Manager sends ClearanceNotif message to the agent. The ClearanceNotif message includes the Remittance Date "RD" and the Settlement Date "SD" as per Clearance Schedule, and the Clearance Status Code "Accepted". In this ClearanceNotif message the agent is the Clearance Payee and the airline is the Clearance Payer.
- Following the Clearance Schedule on Clearing Notification Delivery Deadline Date the

Clearance Manager sends the ClearingNotif message to the Remittance Payer, who in this case is the Carrier (ORA). The ClearingNotif message is identified with its ClearingID and includes the Total Amount that must be remitted by the Remittance Payer (ORA).

- On Remittance Date the Remittance Payer or ORA orders payment to the Clearance Manager's bank account for funds equivalent to the Total Amount in the ClearingNotif message identified with its ClearingID. The ClearingID is included in the remarks of the bank transfer order.
- On Settlement Date "SD" the Clearance Manager sends ClearingNotif message, that is identified with its ClearingID. The ClearingNotif message includes the Total Amount being settled to the Seller (or Settlement Payee) and the list of Clearances that have been aggregated for this ClearingNotif. The Clearance Manager also orders bank transfer to the Seller's bank account for the Total Amount in the ClearingNotif message and includes in the remarks the ClearingID.

## **2. Settlement for a refund.**

Seller has sold multiple services. Purchase has been paid and settled in full at time of order confirmation and Seller has received 10% commission, which has been cleared as well. Customer decides to cancel one of the services and according to order rules is entitled to CHF75 refund. Customer requests refund in cash to the Seller and the Seller then to ORA.

### **a) Preconditions**

Remittance and settlement are in the same currency. Initial purchase has been paid and cleared in full. The market where the Carrier and Seller operate and concluded this transaction allows for refund of commission.

### **b) SwO Process**

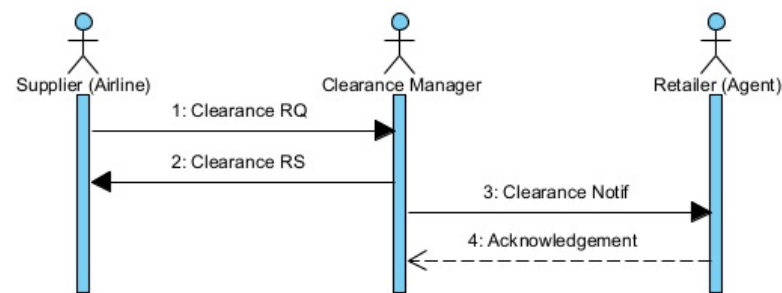
- ORA and Seller have completed the re-shopping for the voluntary servicing request and the Seller confirms the refund with an Order Change Request where
  - \*\* o The payment method is Settlement Plan which is the original payment method.
  - \*\* o Payment Processing Clearance Data is completed by the Seller:
  - \*\*\* In its role as Clearance Payee because the agent will be receiving the payment for the refund.
  - \*\*\* Including the Net Clearance Amount to be equal to the refund amount net of initially paid commission. The Net Settlement Amount equals to CHF67.5 (CHF75 for the refund related to the cancelled item net of the CHF7.5 for the commission paid to the seller at the time of sale [CHF7.5-CHF75=-CHF67.5]).
  - \*\*\* Using for the Process Rule Code the code corresponding to the standard processing of Clearances following the SwO Standard and Process.
  - \*\*\* Signing the Payment Processing Clearance Data with the signature provided in the order change request.
- ORA commits the refund to the Seller using the signed Payment Processing Clearance Data and:
  - \*\* o Adds the Clearance Identifier to the Clearance Data
  - \*\* o Provides the payment commitment date and time
  - \*\* o Identifies itself as the Clearance Payer and signs the complete Clearance Data.
- ORA sends ClearanceRQ message to the Clearance Manager where ORA has included the signed Clearance Data and adds the Payment Brand Code, which in this case equals "IB" for

BSP.

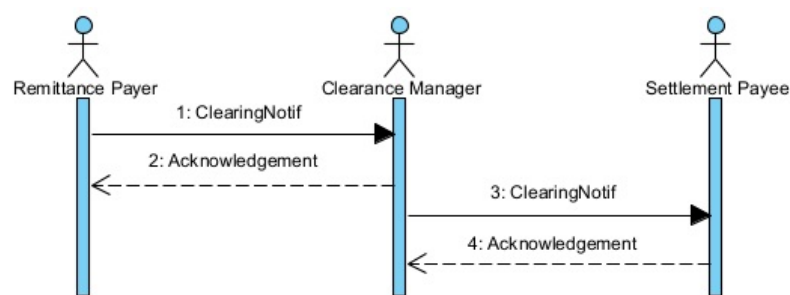
- After successful sanity check and validation, the Clearance Manager acknowledges the receipt of the ClearanceRQ message with ClearanceRS message. The ClearanceRS message includes the Remittance Date “RD” and the Settlement Date “SD” as per Clearance Schedule, and the Clearance Status Code “Accepted”.
- Clearance Manager sends ClearanceNotif message to the Seller. The ClearanceNotif message includes the Remittance Date “RD” and the Settlement Date “SD” as per Clearance Schedule, and the Clearance Status Code “Accepted”. The Seller here is the Clearance Payee and the Carrier is the Clearance Payer.
- Following the Clearance Schedule on Clearing Notification Delivery Deadline Date the Clearance Manager sends the ClearingNotif message to the Remittance Payer. The ClearingNotif message is identified with its ClearingID and includes the Total Amount that must be remitted by the Remittance Payer (or the Carrier) and the list of Clearances that have been aggregated for this Clearing Notification.
- On Remittance Date the Remittance Payer orders payment to the Clearance Manager’s bank account for funds equivalent to the Total Amount in the ClearingNotif message identified with its ClearingID. The ClearingID is included in the remarks of the bank transfer order.
- On Settlement Date “SD” the Clearance Manager sends ClearingNotif message that is identified with its ClearingID. The ClearingNotif message includes the Total Amount being settled to the Seller (or Settlement Payee) and the list of Clearances that have been aggregated for this ClearingNotif. The Clearance Manager also orders bank transfer to the Seller’s bank account for the Total Amount in the ClearingNotif message and includes in the remarks the ClearingID.

# Sequence Flow for SwO Messages

## 1. Request for Clearance



## 2. Notification of Remittance and Settlement





# Overview

## 1. Clearance Request /ClearanceRQ/

the request to start the clearance for the amount agreed during the ordering process. This message is always sent by the Supplier to the Clearance Manager. The ClearanceRQ message allows for sending 'N' number of clearances at once, where 'N' can be bigger than or equal to one ( $N \geq 1$ ). Each Clearance in the ClearanceRQ message is uniquely identified with its "ClearanceID". The "ClearanceID" has maximum 15 characters that are defined as follows:

- First seven (7) positions are numeric only, where the first four digits represent the year (such as 2019) and the next 3 digits represent the accounting code of the carrier (such as 954)
- Last 8 positions are alphanumeric and represent unique identifier generated by the carrier.

With release 21.3 both Clearance Payer and Clearance Payee can optionally include one identifier each that is of significance only to carrier's or agent's own operations. These identifiers are the "Clearance Payee Reconciliation ID" and the "Clearance Payer Reconciliation ID" and are alphanumeric with maximum 15 characters.

With release 21.3 the Clearance Manager validates each Clearance in the ClearanceRQ and accepts the Clearances that pass validation and reject the ones that do not.

In addition, ORA must identify the governance for each Clearance and to communicate it to the Clearance Manager using the Clearance Process Rule. The Clearance Manager defines the rules their respective codes and their meaning. The codes are listed in Annex B under code list identifier "CPRC – Clearance Process Rule Code".

The ClearanceRQ message must be sent not later than the next day after the payment for the sale has been confirmed. For transactions paid using payment method Settlement Plan this is when ORA receives payment information with an amount. For transactions paid using EasyPay this is when the Approval Code from the EasyPay vendor has been received. The Payment Commitment Date Time indicates when payment is considered successful and the sale confirmed by ORA.

In case of discrepancies between the definitions given in the xsd released as part of the standard and the definitions in this implementation guide for the same concept or data element it is the definition in the xsd that is valid. XML messages must be validated with the corresponding xsd.

### a) Sample ClearanceRQ XML

Please see IATA\_PaymentClearanceRQ.xml

## 2. Clearance Response /ClearanceRS/

this is the response sent by the Clearance Manager back to ORA as an acknowledgement of the Clearance Request. It delivers either the errors that prevented message processing and response to be generated, or a response. This response provides information of the settlement process status and the settlement and remittance dates. The "ClearanceRS" is sent in response to the "ClearanceRQ" message providing these additional data for each Clearance:

- Remittance Date – irrespective if it was or wasn't provided in the received "ClearanceRQ" message.

- Settlement Date – based on the date the Clearance is received by the Clearance Manager and in correspondence to the settlement date from the “SwO Schedule”.
- Clearance Status Code – defines the status of the Clearance and can be one of the codes listed in Annex B under code list identifier “CSTC – Clearance Status Code”.
- Clearance Failure Reason Code – provides the reason why a Clearance was rejected during validation and can be one of the codes listed in Annex B under code list identifier “CFRC – Clearance Failure Reason Code”.

The ClearanceRS message can include ‘N’ number of clearances at once. ‘N’ must equal to the number of clearances sent in the ClearanceRQ message to which this ClearanceRS message is the response. The Clearances in the ClearanceRS message must be the same Clearances, identified by their unique identifiers, sent in the corresponding ClearanceRQ. The ClearanceRS message will have the exact same structure as the ClearanceRQ message. Each individual Clearance in the ClearanceRS message will have value for the Clearance Status Code data element of either “Accepted” or “Rejected” and the validation failures clearly identified in the Clearance Failure Reason Code.

In case of discrepancies between the definitions given in the xsd released as part of the standard and the definitions in this implementation guide for the same concept or data element it is the definition in the xsd that is valid. XML messages must be validated with the corresponding xsd.

#### **a) Sample ClearanceRS XML**

Please see IATA\_PaymentClearanceRS.xml

### **3. Clearance Notification /ClearanceNotif/**

this is unsolicited notification that provides information about upcoming remittance (date of remittance, amount, form of payment, currency etc) or upcoming settlement (date of settlement, amount, currency, etc). The party receiving this message can use it to confirm that clearance for already agreed payment has been initiated. The ClearanceNotif message can include ‘N’ number of clearances at once. The party receiving the ClearanceNotif message can choose, in its initial set up when joining the SwO Platform, if N should equal to 1 (N=1) or be bigger than one 1(N > 1). If the Seller chooses to receive ClearanceNotif message with more than one Clearance then the same ClearanceNotif could include Clearances from multiple carriers. The Clearance Manager will send all ClearanceNotif messages respecting the receiving party set up in the Settlement Platform.

In case of discrepancies between the definitions given in the xsd released as part of the standard and the definitions in this implementation guide for the same concept or data element it is the definition in the xsd that is valid. XML messages must be validated with the corresponding xsd.

#### **a) Sample ClearanceNotif XML**

(the party receiving this message has chosen to receive multiple clearances in one ClearanceNotif message. If the party receiving the ClearanceNotif had chosen to receive one Clearance per ClearanceNotif message, then the Settlement manager would have created two ClearanceNotif messages – one for each Clearance). Please see IATA\_PaymentClearanceNotif.xml

# Sample Messages

## 1. PaymentClearanceRequest /ClearanceRQ/

| None   | Copy |
|--|------|
| <pre>&lt;msg:IATA_PaymentClearanceRQ xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes" xmlns:msg="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceRQ" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;msg:Clearance&gt;     &lt;ClearanceData&gt;       &lt;ClearanceID&gt;2020954fY3TTsPZ&lt;/ClearanceID&gt;       &lt;ClearancePayeeData&gt;         &lt;ClearancePayee&gt;           &lt;TravelAgency&gt;             &lt;IATA_Number&gt;88888888&lt;/IATA_Number&gt;             &lt;Name&gt;TRAVEL&lt;/Name&gt;           &lt;/TravelAgency&gt;         &lt;/ClearancePayee&gt;          &lt;ClearancePayeeReconciliationID&gt;HTZvpIEu8&lt;/ClearancePayeeReconciliationID&gt;       &lt;/ClearancePayeeData&gt;       &lt;ClearancePayeeSignature&gt;&lt;/ClearancePayeeSignature&gt;       &lt;ClearancePayerData&gt;         &lt;ClearancePayer&gt;           &lt;Carrier&gt;             &lt;AirlineAccountingCode&gt;954&lt;/AirlineAccountingCode&gt;             &lt;AirlineDesigCode&gt;XB&lt;/AirlineDesigCode&gt;             &lt;Name&gt;AIRWAYS&lt;/Name&gt;           &lt;/Carrier&gt;         &lt;/ClearancePayer&gt;          &lt;ClearancePayerReconciliationID&gt;IEuHTZvp7&lt;/ClearancePayerReconciliationID&gt;       &lt;/ClearancePayerData&gt;       &lt;ClearancePayerSignature&gt;&lt;/ClearancePayerSignature&gt;       &lt;NetClearanceAmount CurCode="EUR"&gt;100.11&lt;/NetClearanceAmount&gt;       &lt;PaymentCommitmentDateTime&gt;2020-03-16T08:30:45&lt;/PaymentCommitmentDateTime&gt;       &lt;ProcessRuleCode&gt;IATAC00&lt;/ProcessRuleCode&gt;     &lt;/ClearanceData&gt;     &lt;PaymentBrandCode&gt;IB&lt;/PaymentBrandCode&gt;   &lt;/msg:Clearance&gt;   &lt;msg:Clearance&gt;     &lt;ClearanceData&gt;       &lt;ClearanceID&gt;2020954LrZ01NBR&lt;/ClearanceID&gt;       &lt;ClearancePayeeData&gt;         &lt;ClearancePayee&gt;           &lt;Carrier&gt;             &lt;AirlineAccountingCode&gt;954&lt;/AirlineAccountingCode&gt;             &lt;AirlineDesigCode&gt;XB&lt;/AirlineDesigCode&gt;             &lt;Name&gt;AIRWAYS&lt;/Name&gt;           &lt;/Carrier&gt;         &lt;/ClearancePayee&gt;</pre> |      |

```

<ClearancePayeeReconciliationID>CbFuQq4s0</ClearancePayeeReconciliationID>
  </ClearancePayeeData>
  <ClearancePayeeSignature></ClearancePayeeSignature>
  <ClearancePayerData>
    <ClearancePayer>
      <TravelAgency>
        <IATA_Number>88888888</IATA_Number>
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      </TravelAgency>
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  <ClearancePayerReconciliationID>q4s0CbFuQ</ClearancePayerReconciliationID>
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    <ClearancePayerSignature></ClearancePayerSignature>
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    <PaymentCommitmentDateTime>2020-03-16T08:30:45</PaymentCommitmentDateTime>
    <ProcessRuleCode>IATAC00</ProcessRuleCode>
  </ClearanceData>
  <PaymentBrandCode>IB</PaymentBrandCode>
</msg:Clearance>
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  <AgreementID>ZU1AF4</AgreementID>
  <ClearanceData>
    <ClearanceID>2020954fY3TTsPZ</ClearanceID>
    <ClearancePayeeData>
      <ClearancePayee>
        <Carrier>
          <AirlineAccountingCode>954</AirlineAccountingCode>
          <AirlineDesigCode>XB</AirlineDesigCode>
          <Name>AIRWAYS</Name>
        </Carrier>
      </ClearancePayee>

    <ClearancePayeeReconciliationID>TnGX7I5eJ</ClearancePayeeReconciliationID>
      </ClearancePayeeData>
      <ClearancePayerData>
        <ClearancePayer>
          <TravelAgency>
            <IATA_Number>88888888</IATA_Number>
            <Name>TRAVEL</Name>
          </TravelAgency>
        </ClearancePayer>

        <ClearancePayerReconciliationID>7I5eJTnGX</ClearancePayerReconciliationID>
          </ClearancePayerData>
          <NetClearanceAmount CurCode="EUR">197.75</NetClearanceAmount>
          <PaymentCommitmentDateTime>2021-09-25T08:30:45</PaymentCommitmentDateTime>
          <ProcessRuleCode>IATAC00</ProcessRuleCode>
        </ClearanceData>
        <CommitmentID>35110523</CommitmentID>
        <IATA_EasyPay>
          <AccountNumber>5678987623455412</AccountNumber>
          <ApprovalCode>98765432</ApprovalCode>
        </IATA_EasyPay>
        <PaymentBrandCode>EP</PaymentBrandCode>
      </ClearancePayerReconciliationID>
    </ClearanceData>
  </msg:Clearance>

```

```

</msg:Clearance>
<msg:ClearanceCount>3</msg:ClearanceCount>
</msg:IATA_PaymentClearanceRQ>

```

## 2. PaymentClearanceResponse /ClearanceRS/

None

Copy

```

<msg:IATA_PaymentClearanceRS
xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes"
xmlns:msg="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceRS"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<msg:Response>
<Clearance>
<ClearanceID>2020954fY3TTsPZ</ClearanceID>
<ClearancePayeeData>
<ClearancePayee>
<TravelAgency>
<IATA_Number>88888888</IATA_Number>
<Name>TRAVEL</Name>
</TravelAgency>
</ClearancePayee>
<ClearancePayeeReconciliationID>HTZvpIEu8</ClearancePayeeReconciliationID>
</ClearancePayeeData>
<ClearancePayerData>
<ClearancePayer>
<Carrier>
<AirlineAccountingCode>954</AirlineAccountingCode>
<AirlineDesigCode>XB</AirlineDesigCode>
<Name>AIRWAYS</Name>
</Carrier>
</ClearancePayer>
<ClearancePayerReconciliationID>IEuHTZvp7</ClearancePayerReconciliationID>
</ClearancePayerData>
<NetClearanceAmount CurCode="EUR">100.11</NetClearanceAmount>
<PaymentBrandCode>IB</PaymentBrandCode>
<PaymentCommitmentDateTime>2020-03-16T08:30:45</PaymentCommitmentDateTime>
<ProcessRuleCode>IATAC00</ProcessRuleCode>
<RemittanceDate>2020-03-23</RemittanceDate>
<SettlementDate>2020-03-30</SettlementDate>
<StatusCode>ACCPT</StatusCode>
</Clearance>
<Clearance>
<ClearanceID>2020954LrZ01NBR</ClearanceID>
<ClearancePayeeData>
<ClearancePayee>
<Carrier>
<AirlineAccountingCode>954</AirlineAccountingCode>
<AirlineDesigCode>XB</AirlineDesigCode>
<Name>AIRWAYS</Name>
</Carrier>
</ClearancePayee>
<ClearancePayeeReconciliationID>CbfuQq4s0</ClearancePayeeReconciliationID>
</ClearancePayeeData>
<ClearancePayerData>

```

```

<ClearancePayer>
  <TravelAgency>
    <IATA_Number>88888888</IATA_Number>
    <Name>TRAVEL</Name>
  </TravelAgency>
</ClearancePayer>
<ClearancePayerReconciliationID>q4s0CbFuQ</ClearancePayerReconciliationID>
</ClearancePayerData>
<NetClearanceAmount CurCode="EUR">200.00</NetClearanceAmount>
<PaymentBrandCode>IB</PaymentBrandCode>
<PaymentCommitmentDateTime>2020-03-16T08:30:45</PaymentCommitmentDateTime>
<ProcessRuleCode>IATAC00</ProcessRuleCode>
<RemittanceDate>2020-03-23</RemittanceDate>
<SettlementDate>2020-03-30</SettlementDate>
<StatusCode>ACCPT</StatusCode>
</Clearance>
<Clearance>
  <AgreementID>ZU1AF4</AgreementID>
  <ClearanceID>2020954fY3TTsPZ</ClearanceID>
  <ClearancePayeeData>
    <ClearancePayee>
      <Carrier>
        <AirlineAccountingCode>954</AirlineAccountingCode>
        <AirlineDesigCode>XB</AirlineDesigCode>
        <Name>AIRWAYS</Name>
      </Carrier>
    </ClearancePayee>
    <ClearancePayeeReconciliationID>TnGX7I5eJ</ClearancePayeeReconciliationID>
  </ClearancePayeeData>
  <ClearancePayerData>
    <ClearancePayer>
      <TravelAgency>
        <IATA_Number>88888888</IATA_Number>
        <Name>TRAVEL</Name>
      </TravelAgency>
    </ClearancePayer>
    <ClearancePayerReconciliationID>7I5eJTnGX</ClearancePayerReconciliationID>
  </ClearancePayerData>
  <CommitmentID>35110523</CommitmentID>
  <IATA_EasyPay>
    <AccountNumber>5678987623455412</AccountNumber>
    <ApprovalCode>98765432</ApprovalCode>
  </IATA_EasyPay>
  <NetClearanceAmount CurCode="EUR">197.75</NetClearanceAmount>
  <PaymentBrandCode>EP</PaymentBrandCode>
  <PaymentCommitmentDateTime>2021-09-25T08:30:45</PaymentCommitmentDateTime>
  <ProcessRuleCode>IATAC00</ProcessRuleCode>
  <RemittanceDate>2020-03-10</RemittanceDate>
  <SettlementDate>2020-03-11</SettlementDate>
  <StatusCode>ACCPT</StatusCode>
</Clearance>
<ClearanceCount>3</ClearanceCount>
</msg:Response>
</msg:IATA_PaymentClearanceRS>

```

### 3. PaymentClearanceNotification /ClearanceNotif/

None

Copy

```
<msg:IATA_PaymentClearanceNotif
xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes"
xmlns:msg="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceNotif"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <msg:Clearance>
    <ClearanceID>2020954fY3TTsPZ</ClearanceID>
    <ClearancePayeeData>
      <ClearancePayee>
        <TravelAgency>
          <IATA_Number>88888888</IATA_Number>
          <Name>TRAVEL</Name>
        </TravelAgency>
      </ClearancePayee>
      <ClearancePayeeReconciliationID>HTZvpIEu8</ClearancePayeeReconciliationID>
    </ClearancePayeeData>
    <ClearancePayerData>
      <ClearancePayer>
        <Carrier>
          <AirlineAccountingCode>954</AirlineAccountingCode>
          <AirlineDesigCode>XB</AirlineDesigCode>
          <Name>AIRWAYS</Name>
        </Carrier>
      </ClearancePayer>
      <ClearancePayerReconciliationID>IEuHTZvp7</ClearancePayerReconciliationID>
    </ClearancePayerData>
    <NetClearanceAmount CurCode="EUR">100.11</NetClearanceAmount>
    <PaymentBrandCode>IB</PaymentBrandCode>
    <PaymentCommitmentDateTime>2020-03-16T08:30:45</PaymentCommitmentDateTime>
    <ProcessRuleCode>IATAC00</ProcessRuleCode>
    <RemittanceDate>2020-03-23</RemittanceDate>
    <SettlementDate>2020-03-30</SettlementDate>
    <StatusCode>ACCPT</StatusCode>
  </msg:Clearance>
  <msg:Clearance>
    <AgreementID>ZU1AF4</AgreementID>
    <ClearanceID>2020954fY3TTsPZ</ClearanceID>
    <ClearancePayeeData>
      <ClearancePayee>
        <Carrier>
          <AirlineAccountingCode>954</AirlineAccountingCode>
          <AirlineDesigCode>XB</AirlineDesigCode>
          <Name>AIRWAYS</Name>
        </Carrier>
      </ClearancePayee>
      <ClearancePayeeReconciliationID>TnGX7I5eJ</ClearancePayeeReconciliationID>
    </ClearancePayeeData>
    <ClearancePayerData>
      <ClearancePayer>
        <TravelAgency>
          <IATA_Number>88888888</IATA_Number>
          <Name>TRAVEL</Name>
```

```

    </TravelAgency>
  </ClearancePayer>
  <ClearancePayerReconciliationID>7I5eJTnGX</ClearancePayerReconciliationID>
</ClearancePayerData>
<CommitmentID>35110523</CommitmentID>
<IATA_EasyPay>
  <AccountNumber>5678987623455412</AccountNumber>
  <ApprovalCode>98765432</ApprovalCode>
</IATA_EasyPay>
<NetClearanceAmount CurCode="EUR">197.75</NetClearanceAmount>
<PaymentBrandCode>EP</PaymentBrandCode>
<PaymentCommitmentDateTime>2021-09-25T08:30:45</PaymentCommitmentDateTime>
<ProcessRuleCode>IATAC00</ProcessRuleCode>
<RemittanceDate>2020-03-10</RemittanceDate>
<SettlementDate>2020-03-11</SettlementDate>
<StatusCode>ACCPT</StatusCode>
</msg:Clearance>
<msg:ClearanceCount>2</msg:ClearanceCount>
</msg:IATA_PaymentClearanceNotif>

```

## 4. PaymentClearanceRSError

| None   | Copy |
|--|------|
| <pre> &lt;msg:IATA_PaymentClearanceRS xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes" xmlns:msg="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceRS" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;msg:Error&gt;     &lt;Code&gt;MSGNCMP&lt;/Code&gt;     &lt;DescText&gt;Message could not validate against XSD&lt;/DescText&gt;   &lt;/msg:Error&gt; &lt;/msg:IATA_PaymentClearanceRS&gt; </pre> |      |

## 5 . PaymentClearanceRSrejection

| None   | Copy |
|--|------|
| <pre> &lt;msg:IATA_PaymentClearanceRS xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes" xmlns:msg="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceRS" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;msg:Response&gt;     &lt;Clearance&gt;       &lt;ClearanceID&gt;2020954fY3TTsPZ&lt;/ClearanceID&gt;       &lt;FailureReasonCode&gt;PAYENST&lt;/FailureReasonCode&gt;       &lt;StatusCode&gt;RJCTD&lt;/StatusCode&gt;     &lt;/Clearance&gt;     &lt;ClearanceCount&gt;1&lt;/ClearanceCount&gt;   &lt;/msg:Response&gt; &lt;/msg:IATA_PaymentClearanceRS&gt; </pre> |      |



# Overview

Clearance Manager sends Clearing Notification to each actor who has to remit funds and each actor with who the Clearance Manager will be settling funds. Thus the Clearance Manager can complete the clearing process and transfer funds accordingly. Each Clearing Notification is destined to either Remittance Payer or Settlement Payee, who in turn have to either pay money to the operational account of the Clearance Manager or receive money from the operational account of the Clearance Manager.

## 1. Clearing Notification with Remittance Payer

notification sent to the Remittance Payer providing information about the total amount that has to be remitted and the date it has to be remitted. It includes list of all relevant clearance transactions. The Remittance Payer will then have to make the payment to the Clearance Manager operational account including in the bank transfer order the “Clearing ID” provided in the Clearing Notification.

## 2. Clearing Notification with Settlement Payee

notification sent to the Settlement Payee about payments made to the payee’s bank account and the date the funds had to be settled. Where possible the “Clearing ID” from the Clearing Notification is included in the bank order of the Clearance Manager to help the Settlement Payee identify the payment received in its bank account and to do accounting reconciliation.

The information in the Clearing Notification includes detailed data at transaction level and aggregate level data. The message includes all clearances that were supposed to be cleared at that date using the Clearance Status Code to define each transaction’s status. The value in the “Non-Settled Amount” represents either the remaining amount to be settled or the amount to be written off, depending on the status code of the Clearance.

Clearing ID is ten characters long, where if the first three characters are “BIL” it means that the payment is bilaterally arranged payment outside of the operational account of the Clearance Manager. The remaining seven characters are random alphanumeric string.

Information about the transfer of funds in relation to the settlement is provided in the “Funds Transfer” complex data element. This includes:

- the method of transfer – for example transfer to a bank account or transfer to other clearance account.
- the type of transfer execution – for example direct credit.
- the value date
- the account that was credited

In case of discrepancies between the definitions given in the xsd released as part of the standard and the definitions in this implementation guide for the same concept or data element it is the definition in the xsd that is valid. XML messages must be validated with the corresponding xsd.

### a) Sample ClearingNotif XML

(in this sample the Cash and EasyPay payment methods have the same settlement date and are included in the same ClearingNotif. This is only possible if EasyPay is not considered separate settlement process with its own bank transfer.)

Please see IATA\_PaymentRemittanceTransferNotif.xml

# Sample Messages

## 1. PaymentClearingNotif

| None  | Copy |
|---|------|
| <pre>&lt;msg:IATA_PaymentClearingNotif xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes" xmlns:msg="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearingNotif" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;msg:ClearingProcess xmlns:cns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes"&gt;     &lt;ClearanceClearingNotif&gt;       &lt;ClearanceID&gt;2020954LrZ01NBR&lt;/ClearanceID&gt;       &lt;ClearancePayerData&gt;         &lt;ClearancePayer&gt;           &lt;TravelAgency&gt;             &lt;IATA_Number&gt;88888888&lt;/IATA_Number&gt;           &lt;/TravelAgency&gt;         &lt;/ClearancePayer&gt;       &lt;/ClearancePayerData&gt;       &lt;NetClearanceAmount CurCode="EUR"&gt;200.00&lt;/NetClearanceAmount&gt;       &lt;PaymentBrandCode&gt;IB&lt;/PaymentBrandCode&gt;       &lt;PaymentCommitmentDateTime&gt;2020-08-16T08:30:45&lt;/PaymentCommitmentDateTime&gt;       &lt;ProcessRuleCode&gt;IATAC00&lt;/ProcessRuleCode&gt;       &lt;StatusCode&gt;FLSTL&lt;/StatusCode&gt;     &lt;/ClearanceClearingNotif&gt;     &lt;ClearanceClearingNotif&gt;       &lt;ClearanceID&gt;2020954l22prS6C&lt;/ClearanceID&gt;       &lt;ClearancePayerData&gt;         &lt;ClearancePayer&gt;           &lt;TravelAgency&gt;             &lt;IATA_Number&gt;88888888&lt;/IATA_Number&gt;           &lt;/TravelAgency&gt;         &lt;/ClearancePayer&gt;       &lt;/ClearancePayerData&gt;       &lt;NetClearanceAmount CurCode="EUR"&gt;250.00&lt;/NetClearanceAmount&gt;       &lt;NonSettledAmount CurCode="EUR"&gt;50.00&lt;/NonSettledAmount&gt;       &lt;PaymentBrandCode&gt;IB&lt;/PaymentBrandCode&gt;       &lt;PaymentCommitmentDateTime&gt;2020-08-18T09:35:50&lt;/PaymentCommitmentDateTime&gt;       &lt;ProcessRuleCode&gt;IATAC00&lt;/ProcessRuleCode&gt;       &lt;StatusCode&gt;1PSTL&lt;/StatusCode&gt;     &lt;/ClearanceClearingNotif&gt;     &lt;ClearingDate&gt;2020-09-10&lt;/ClearingDate&gt;     &lt;ClearingID&gt;SWS1234567&lt;/ClearingID&gt;     &lt;ClearingParty&gt;       &lt;SettlementPayee&gt;         &lt;Carrier&gt;           &lt;AirlineAccountingCode&gt;954&lt;/AirlineAccountingCode&gt;           &lt;AirlineDesigCode&gt;XB&lt;/AirlineDesigCode&gt;         &lt;/Carrier&gt;       &lt;/SettlementPayee&gt;     &lt;/ClearingParty&gt;   &lt;/msg:ClearingProcess&gt; &lt;/msg:IATA_PaymentClearingNotif&gt;</pre> |      |

```
<FundsTransfer>  
  <AccountCode>CH11</AccountCode>  
  <MethodCode>SWOBANK</MethodCode>  
  <TypeCode>DCR</TypeCode>  
  <ValueDate>2020-09-10</ValueDate>  
</FundsTransfer>  
  <TotalAmount CurCode="EUR">450.00</TotalAmount>  
</msg:ClearingProcess>  
</msg:IATA_PaymentClearingNotif>
```

## Overview

Recipients of notification type messages such as: ClearanceNotif and ClearingNotif shall respond with the Acknowledgement message that is part of the Enhanced and Simplified Standard. This message can provide more information than a simple system response and hence the requirement for its use. For example, the message has a “Notification” data element where codified response can be provided for downstream automation together with additional text for added clarity.

# Sample Messages

## 1. Acknowledgement

|  |      |
|--|------|
| None   | Copy |
| <pre>&lt;IATA_Acknowledgement xmlns="http://www.iata.org/IATA/2015/EASD/00/IATA_OffersAndOrdersMessage" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;Notification&gt;     &lt;StatusCode&gt;OK&lt;/StatusCode&gt;     &lt;StatusMessageText&gt;Clearing Notification successfully processed.   &lt;/StatusMessageText&gt;   &lt;/Notification&gt; &lt;/IATA_Acknowledgement&gt;</pre> |      |

## 2. AcknowledgementRejection

|  |      |
|--|------|
| None   | Copy |
| <pre>&lt;IATA_Acknowledgement xmlns="http://www.iata.org/IATA/2015/EASD/00/IATA_OffersAndOrdersMessage" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;Notification&gt;     &lt;StatusCode&gt;MSGNCMP&lt;/StatusCode&gt;     &lt;StatusMessageText&gt;Message could not validate against XSD.&lt;/StatusMessageText&gt;   &lt;/Notification&gt; &lt;/IATA_Acknowledgement&gt;</pre> |      |

# Overview

## 1. Cancellation Request / ClearanceCancellationRQ

request to cancel Clearances that have already been accepted by the Clearance Manager. Clearance can only be cancelled by ORA since ORA is the only party that can initiate a Clearance Request with the ClearanceRQ message. If ORA decides to cancel a Clearance, then ORA must send a ClearanceCancellationRQ message to the Clearance Manager.

Please see IATA\_PaymentClearanceCancellationRQ.xml.

## 2. Cancellation Response / ClearanceCancellationRS

this is the response sent by the Clearance Manager back to ORA as an acknowledgement of the Cancellation Request. It delivers either the errors that prevented message processing and response to be generated, or a response. The response provides information if the cancellation request was successful or not and why given cancellation request could not be fulfilled. Clearances that have been successfully cancelled will be identified with their Clearance ID and will have status "Cancelled". Clearances that could not be cancelled will be identified with their Clearance ID and will show their current status code and the reason why the cancellation request could not be fulfilled. "Clearance Failure Reason Code" provides the reason why a Clearance could not be cancelled and can be one of the codes listed in Annex B under code list identifier "CFRC – Clearance Failure Reason Code"

The Clearance Manager establishes and communicates the rule on how a Clearance can be cancelled. After changing the Clearance Status Code to "Cancelled" the Clearance Manager must send ClearanceNotif message for the same Clearance, identified with its ClearanceID, to the Seller where the Clearance Status Code is "Cancelled" too. Thus, the Clearance Manager informs the Seller about the change of status of the Clearance, which in this case is cancellation.

Please see IATA\_PaymentClearanceCancellationRS.xml.

# Sample Messages

## 1. PaymentClearanceCancellationRQ

|  |      |
|--|------|
| None   | Copy |
| <pre>&lt;IATA_PaymentClearanceCancellationRQ xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCancellationRQ" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;ClearanceID&gt;2020954fY3TTsPZ&lt;/ClearanceID&gt;   &lt;ClearanceID&gt;2020954LrZ01NBR&lt;/ClearanceID&gt;   &lt;ClearanceID&gt;2020954l22prS6C&lt;/ClearanceID&gt; &lt;/IATA_PaymentClearanceCancellationRQ&gt;</pre> |      |

## 2. PaymentClearanceCancellationRS

|  |      |
|--|------|
| None   | Copy |
| <pre>&lt;msg:IATA_PaymentClearanceCancellationRS xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes" xmlns:msg="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCancellationRS"   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;msg:Clearance&gt;     &lt;ClearanceID&gt;2020954l22prS6C&lt;/ClearanceID&gt;     &lt;StatusCode&gt;CNCLD&lt;/StatusCode&gt;   &lt;/msg:Clearance&gt;   &lt;msg:Clearance&gt;     &lt;ClearanceID&gt;2020954LrZ01NBR&lt;/ClearanceID&gt;     &lt;StatusCode&gt;CNCLD&lt;/StatusCode&gt;   &lt;/msg:Clearance&gt;   &lt;msg:Clearance&gt;     &lt;ClearanceID&gt;2020954fY3TTsPZ&lt;/ClearanceID&gt;     &lt;FailureReasonCode&gt;CNTPCNL&lt;/FailureReasonCode&gt;     &lt;StatusCode&gt;ACCPT&lt;/StatusCode&gt;   &lt;/msg:Clearance&gt; &lt;/msg:IATA_PaymentClearanceCancellationRS&gt;</pre> |      |



# Overview

The SwO Standard should provide the possibility for information to be retrieved at any time using search criteria. For example, a carrier shall be able to retrieve information from the Clearance Manager in order to recover lost data or to obtain data that was not received.

## 1. Request for list of Clearances /ClearanceListRQ/

this is request for retrieval of Clearances based on provided identifiers or other attributes of the clearance such as Payer, Payee, Status Code, Settlement Date etc. The request can be based on only one attribute or combinations of attributes.

Please see IATA\_PaymentClearanceListRQ.xml.

## 2. List of Clearances Response /ClearanceListRS/

this is the response to the Clearance List request for data retrieval. It delivers either the errors that prevented message processing or response to be generated, or a response. The response is the list of Clearances that match the filter criteria.

Please see IATA\_PaymentClearanceListRS.xml.

## 3. Request for Clearing List / ClearingListRQ/

this is request for retrieval of Clearing Notifications based either on clearing identifiers or clearing dates.

Please see IATA\_PaymentClearingListRQ.xml.

## 4. List of Clearing Response /ClearingListRS/

this is the response to the Clearing List request for data retrieval. It delivers either the errors that prevented message processing and response to be generated, or a response. The response is the list of Clearings that match the filter criteria.

Please see IATA\_PaymentClearingListRS.xml.

# Sample Messages

## 1. PaymentClearanceListRQ

|  |      |
|--|------|
| None   | Copy |
| <pre>&lt;msg:IATA_PaymentClearanceListRQ xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes" xmlns:msg="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceListRQ" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;msg:ClearanceFilterCriteria&gt;     &lt;PaymentBrandCode&gt;IB&lt;/PaymentBrandCode&gt;     &lt;StatusCode&gt;1PSTL&lt;/StatusCode&gt;   &lt;/msg:ClearanceFilterCriteria&gt; &lt;/msg:IATA_PaymentClearanceListRQ&gt;</pre> |      |

## 2. PaymentClearanceListRS

|   |      |
|---|------|
| None  | Copy |
| <pre>&lt;msg:IATA_PaymentClearanceListRS xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes" xmlns:msg="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceListRS" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;msg:Clearance&gt;     &lt;ClearanceID&gt;2020954fY3TTsPZ&lt;/ClearanceID&gt;     &lt;ClearancePayeeData&gt;       &lt;ClearancePayee&gt;         &lt;Carrier&gt;           &lt;AirlineAccountingCode&gt;954&lt;/AirlineAccountingCode&gt;           &lt;AirlineDesigCode&gt;XB&lt;/AirlineDesigCode&gt;         &lt;/Carrier&gt;       &lt;/ClearancePayee&gt;       &lt;ClearancePayeeReconciliationID&gt;IEuHTZvp7&lt;/ClearancePayeeReconciliationID&gt;     &lt;/ClearancePayeeData&gt;     &lt;ClearancePayerData&gt;       &lt;ClearancePayer&gt;         &lt;TravelAgency&gt;           &lt;IATA_Number&gt;88888888&lt;/IATA_Number&gt;         &lt;/TravelAgency&gt;       &lt;/ClearancePayer&gt;     &lt;/ClearancePayerData&gt;     &lt;ClearingID&gt;SWS1234567&lt;/ClearingID&gt;     &lt;NetClearanceAmount CurCode="EUR"&gt;100.11&lt;/NetClearanceAmount&gt;     &lt;PaymentBrandCode&gt;IB&lt;/PaymentBrandCode&gt;     &lt;PaymentCommitmentDateTime&gt;2020-03-16T08:30:45&lt;/PaymentCommitmentDateTime&gt;     &lt;ProcessRuleCode&gt;IATAC00&lt;/ProcessRuleCode&gt;     &lt;RemittanceDate&gt;2020-03-23&lt;/RemittanceDate&gt;     &lt;SettlementDate&gt;2020-03-30&lt;/SettlementDate&gt;     &lt;StatusCode&gt;ACCPT&lt;/StatusCode&gt;   &lt;/msg:Clearance&gt; &lt;/msg:IATA_PaymentClearanceListRS&gt;</pre> |      |

### 3. PaymentClearanceListRSNoResults

| None  | Copy |
|---|------|
| <pre>&lt;msg:IATA_PaymentClearanceListRS xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes" xmlns:msg="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceListRS" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;msg:Error&gt;     &lt;Code&gt;QRYNORS&lt;/Code&gt;     &lt;DescText&gt;Query does not return results&lt;/DescText&gt;   &lt;/msg:Error&gt; &lt;/msg:IATA_PaymentClearanceListRS&gt;</pre> |      |

### 4. PaymentClearingListRQ

| None   | Copy |
|--|------|
| <pre>&lt;msg:IATA_PaymentClearingListRQ xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes" xmlns:msg="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearingListRQ" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;msg:ClearingDate&gt;     &lt;FromDate&gt;2020-09-01&lt;/FromDate&gt;     &lt;ToDate&gt;2020-09-15&lt;/ToDate&gt;   &lt;/msg:ClearingDate&gt; &lt;/msg:IATA_PaymentClearingListRQ&gt;</pre> |      |

### 5. PaymentClearingListRS

| None  | Copy |
|---|------|
| <pre>&lt;msg:IATA_PaymentClearingListRS xmlns="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearanceCommonTypes" xmlns:msg="http://www.iata.org/IATA/2015/00/2021.3/IATA_PaymentClearingListRS" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"&gt;   &lt;msg:ClearingProcess&gt;     &lt;ClearanceClearingNotif&gt;       &lt;ClearanceID&gt;2020954LrZ01NBR&lt;/ClearanceID&gt;       &lt;ClearancePayerData&gt;         &lt;ClearancePayer&gt;           &lt;TravelAgency&gt;             &lt;IATA_Number&gt;88888888&lt;/IATA_Number&gt;           &lt;/TravelAgency&gt;         &lt;/ClearancePayer&gt;       &lt;/ClearancePayerData&gt;       &lt;NetClearanceAmount CurCode="EUR"&gt;200.00&lt;/NetClearanceAmount&gt;       &lt;PaymentBrandCode&gt;IB&lt;/PaymentBrandCode&gt;       &lt;PaymentCommitmentDateTime&gt;2020-08-16T08:30:45&lt;/PaymentCommitmentDateTime&gt;       &lt;ProcessRuleCode&gt;IATAC00&lt;/ProcessRuleCode&gt;       &lt;StatusCode&gt;FLSTL&lt;/StatusCode&gt;     &lt;/ClearanceClearingNotif&gt;</pre> |      |

```
<ClearanceClearingNotif>
  <ClearanceID>2020954122prS6C</ClearanceID>
  <ClearancePayerData>
    <ClearancePayer>
      <TravelAgency>
        <IATA_Number>88888888</IATA_Number>
      </TravelAgency>
    </ClearancePayer>
  </ClearancePayerData>
  <NetClearanceAmount CurCode="EUR">250.00</NetClearanceAmount>
  <NonSettledAmount CurCode="EUR">50.00</NonSettledAmount>
  <PaymentBrandCode>IB</PaymentBrandCode>
  <PaymentCommitmentDateTime>2020-08-18T09:35:50</PaymentCommitmentDateTime>
  <ProcessRuleCode>IATAC00</ProcessRuleCode>
  <StatusCode>1PSTL</StatusCode>
</ClearanceClearingNotif>
<ClearingDate>2020-09-10</ClearingDate>
<ClearingID>SWS1234567</ClearingID>
<ClearingParty>
  <SettlementPayee>
    <Carrier>
      <AirlineAccountingCode>954</AirlineAccountingCode>
      <AirlineDesigCode>XB</AirlineDesigCode>
    </Carrier>
  </SettlementPayee>
</ClearingParty>
<FundsTransfer>
  <AccountCode>CH11</AccountCode>
  <MethodCode>SWOBANK</MethodCode>
  <TypeCode>DCR</TypeCode>
  <ValueDate>2020-09-10</ValueDate>
</FundsTransfer>
  <TotalAmount CurCode="EUR">450.00</TotalAmount>
</msg:ClearingProcess>
</msg:IATA_PaymentClearingListRS>
```

# Clearance Manager

## 1. Validations and sanity checks

Upon receipt of the request for clearance in the form of ClearanceRQ message the Clearance Manager would perform sanity checks of the message structure and data and will have to validate the data against defined business rules. The sanity checks verify that the XML was formed in compliance with the XSD schema and that data is in the expected format. Any errors at this point will lead to ClearanceRS message with Error complex data element only. It is recommended that all such errors shall be identified at once and XPath should be used to navigate through the ClearanceRQ to locate all nodes with errors.

Only when the sanity checks have been passed the Clearance Manager can continue the validations. The validations verify that certain business rules have been followed when the request has been generated:

- Clearance ID is not blank
- Does the clearance request originate from carrier who is recognized as Settlement with Orders capable carrier?
- Is the Payer or the Payee in the Clearance the party that originated this clearance. The originator of the Clearance creates the Clearance ID, which includes identifier for the originator. This identifier must match the identifier of either the Payer or the Payee.
- Is the clearance request for seller who is certified to work with Settlement with Order standard
- Are the carrier and the seller in agreement to process Settlement with Order transactions
- Is the payment method (described in the Payment Brand Code) acceptable for the Settlement with Order process?
- Has request for clearance with the same Clearance ID been successfully processed already
- If the Clearance Data is not signed by the Clearance Payee and the Clearance Payer then the Clearance Manager checks if a request for clearance with the same Agreement ID and Commitment ID been successfully processed already
- Is the currency code valid for the Clearance Manager's operational bank account in the market where the payer and payee are clearing?

The very first validation the Clearance Manager will do is to verify that the total count of ClearanceIDs, in the ClearanceRQ message, equals to the number in the data element "Clearance Count".

If the two do not equal, then the Clearance Manager will respond with ClearanceRS message with "Error" complex data element only using the codes listed in Annex B under the code list identifier "CEC – Clearance Error Codes" without doing any other validations per Clearance.

If the two equal, then the Clearance Manager must validate each Clearance, as identified by its own ClearanceID in the ClearanceRQ message, until all have been checked. Thus, the Clearance Manager will show all possible validation failures. In any case, when doing validations, the Clearance Manager must validate all Clearances in a ClearanceRQ before sending back a ClearanceRS (Clearance Response) message.

Clearance Manager will assign the valid "Remittance Date" and "Settlement Date" according to the SwO Schedule.

## 2. Clearance Schedule

this is the schedule that specifies the money transfer dates and the data delivery dates related to the operations of the Clearance Manager. It is provided by the Clearance Manager to the users of the Clearance Manager Service and matches the BSP calendar. The key dates and periods in the SwO Schedule are:

- ClearanceRQ Submission Deadline Date – CRQSDD – this is the date when the ClearanceRQ from ORA must be submitted. If ClearanceRQ is submitted by this date, then the corresponding Remittance Date (RD) and Settlement Date (SD) can be fulfilled.
- Processing time for the Settlement Manager – P – this is the time the Clearance Manager needs to process the clearance request submitted by the CRQSDD. This could vary by market depending on market size and market operations.
- Clearing Notification delivery to Remittance Payer Deadline Date – CNDDD – this is the date when the Clearing Notification must be delivered to the payer.
- Remittance processing time – R – this is the time necessary for the payer to execute the remittance. It is pre-agreed time period for each market.
- Remittance Date – RD – the date the remittance is executed
- Clearance Manager Settlement Process – S – this is the time necessary to execute the settlement.
- Settlement Date – SD – the date of the settlement

CRQSDD->(P)->CNDDD->(R)->RD->(S)->SD

#### Sample SwO Schedule

| Operation                   | Form of payment | Codes for Frequency of payments | ClearanceRQ Submission Deadline Date | Clearing Notification Delivery to Remittance Payer deadline date | Remittance Date | Settlement Date & Clearing Notification Delivery to Settlement Payee deadline date |
|-----------------------------|-----------------|---------------------------------|--------------------------------------|--|-----------------|--|
| XX_BSP_Y_CUR_I <sup>1</sup> | Cash            | M <sup>2</sup>                  | 1 August 2021                        | 3 August 2021  | 15 August 2021  | 15 August 2021   |
| XX_BSP_Y_CUR_I              | Cash            | F                               | 1 August 2021                        | 3 August 2021  | 15 August 2021  | 15 August 2021   |
| XX_BSP_Y_CUR_I              | Cash            | W                               | 24 July 2021                         | 26 July 2021   | 7 August 2021   | 15 August 2021   |
| XX_BSP_Y_CUR_I              | Cash            | V                               |                                      |  |                 |  |
| XX_BSP_Y_CUR_I              | Cash            | R                               |                                      |  |                 |  |
| XX_BSP_Y_CUR_I              | Cash            | S                               |                                      |  |                 |  |
| XX_BSP_Y_CUR_I              | Cash            | T                               |                                      |  |                 |  |
| XX_BSP_Y_CUR_I              | Cash            | D                               |                                      |  |                 |  |
| XX_BSP_Y_CUR_I              | Cash            | L                               |                                      |  |                 |  |
| XX_BSP_Y_CUR_I              | EasyPay         | E                               | 24 July 2021                         | 25 July 2021   | 26 July 2021    | 26 July 2021   |

The Operation Code is defined by the Clearance Manager where XX denotes ISO country code such as CH for Switzerland. CUR denotes ISO three letter currency code such as CHF for Swiss Franc. The Payment Frequency Codes are defined by the Clearance Manager in relation to its operations.

### 3. Net reconciliation

For any given entity the Clearance Manager will receive multiple clearances where the entity will be either the Clearance Payer or the Clearance Payee. Therefore, if the Clearance Manager was performing clearance on daily basis, the settlement manger will add the Net Clearance Amounts of the Clearance where the entity is a Payee and deduct the Net Clearance Amount from the Clearances where the entity is the Payer.

However, if clearance is not performed daily then the Clearance Manager will combine all Clearances with the same Remittance Dates. Then the Clearance Manager will add the Net Clearance Amount for the Clearances where the entity is a Payee and deduct the Net Clearance Amount for the Clearances where the entity is a Payer. Thus the Clearance Manager will determine the Settlement Payees and the Remittance Payer and avoid sending unnecessary Transfer Notifications.

# Transfer of Funds

## 1. Settlement Payees

The Settlement Payee is the party receiving the funds as per the ClearingNotif message. The funds that will be transferred by the Clearance Manager to the Settlement Payee's bank account will equal the "Total Amount" in the ClearingNotif message. Where possible the Clearance Manager will include in the details of the bank transfer the ClearingID of the ClearingNotif message.

The Settlement Payee will have the following options when choosing how to receive the funds related to the SwO clearance:

### a) As part of one settlement payment

that includes funds cleared using the SwO Process with funds cleared using other processes. The "Total Amount" of the Clearing is included in the bank amount deposited in the Settlement Payee's bank account. If possible, the Clearing ID of the Clearing Notification would be included in the bank transfer order details.

### b) As a separate payment

including the Clearing ID wherever possible, in the same bank account where funds cleared using other processes are deposited.

Overall, the Total Amount in the ClearingNotif message shall correspond to the deposit into the Settlement Payee's bank account in the case of separate payment and will be different from the deposit into the Settlement Payee's bank account in the case when it is part of one settlement payment that includes SwO clearance.

## 2. Remittance Payers

The Remittance Payer is the party paying funds as requested by the Settlement Manager with the ClearingNotif. Remittance Payer must include the ClearingID in the details of the bank transfer order for the remitted funds so that the Clearance Manager is able to identify the payment. However, the Clearance Manager will apply any payment received from the Remittance Payer to the total outstanding obligations of the Remittance Payer. The Clearance Manager will use the funds received from the Remittance Payer to fulfil outstanding obligation of that Remittance Payer in the order the obligations were recorded and irrespective if the reporting was according to DISH Standard or SwO Standard.



## Error Codes

Error codes that are common to the “Enhanced and Simplified Distribution Standard” (NDC and ONE Order standards) will be used when depicting errors in the SwO Standard. Such error codes are provided in “Codeset “9321 Application error, coded”” of the “IATA XML CODESET”. They are used in the “Error” complex data element to the root element of the ClearanceRS message and in the “Notification” complex data element of the Acknowledgement message.

In addition, error codes specific to the SwO Standard are listed in Annex B under the code list identifier “CEC – Clearance Error Codes”. The long description text, together with additional explanations can be used in the “DescText” data element included in the “Error” complex data element of the response and in “StatusMessageText” data element of the acknowledgement.

# Enhanced and Simplified Distribution

## 1. Prerequisite Complex and simple data elements

The SwO Standard is agnostic in nature and can fulfil various clearance requirements. Therefore, the SwO Standard can be used to perform clearance of sales enabled by the Enhanced and Simplified Distribution Standard. Here are data elements from the Enhanced and Simplified Distribution Standard and how can they relate to the data elements in the SwO Standard:

### a) Agreement ID

in the Enhanced and Simplified Distribution Standard this is the OrderID

### b) Commitment ID

in the Enhanced and Simplified Distribution Standard this is the PaymentID

### c) Payment Commitment Date

this is the same data element in the Enhanced and Simplified Distribution Standard. This is the date when for a given payment the payment status changes to successful.

### d) Net Clearance Amount

this is the same data element in the Enhanced and Simplified Distribution Standard.

In the Enhanced and Simplified Distribution Standard Net Clearance Amount is defined as the amount agreed to be cleared in the Order between the two parties to the Order.

- Net Clearance Amount – amount to be cleared between ORA and the respective counterparty, i.e. the Seller.

It is required that all Clearances originate from valid payment commitment that can be identified by both parties to the Order. Since Payment Identifier is defined as of release 19.2 of the Enhanced and Simplified Distribution Standard it is the earliest recommended release when implementing with the SwO Standard and Process. However, the SwO Standard and Process release 21.3 is backward compatible with all releases of the Enhanced and Simplified Distribution Standard starting with release 17.2. For the SwO Standard and Process to work requests for creation or change of an order must be done with messages that result in OrderViewRS message that has valid payment related node and payment commitment.

# Financial and Accounting Systems

## 1. Reconciliation information with regards to payments

One of the benefits the Settlement with Order Standard and Process must deliver for the involved parties is the ability to automate reconciliation of payments with financial accounting entries. There are two messages that are designed to facilitate such improvement.

### a) ClearingNotif message for Settlement Payee

is sent when the payment is made to the Settlement Payee's bank account. The "Clearing ID" that identifies the message is also used to identify the bank transfer that equals the "Total Amount" value in the ClearingNotif message. The "ClearingID" is included in the bank order of the Clearance Manager. The message will include all transactions that were supposed to be settled at that day using the "Clearance Status Code" to define each transaction's status. For example, if transaction has been settled the "Clearance Status Code" for that transaction will have value "Fully Settled". When transaction is only partially settled the "Clearance Status Code" will have value "1-Partially Settled" if it is the first partial settlement or "N-Partially Settled" for all partial settlements after the first. In this case the field "Remaining Amount" will be populated with the amount not yet settled. When the last amount of partially settled transaction is settled the "Clearance Status Code" will have value of "Final Settlement". In the cases when already settled transaction has to be reversed the "Clearance Status Code" will have value "Claw Back". Finally, when the Clearance Manager has exhausted all possible options to collect money for not-settled, partially settled or reversed transactions, the Clearance Manager will set the "Clearance Status Code" of such transactions to "Write off". The value of the data element "Total Amount" in the ClearingNotif message is the sum of all Clearance transactions with "Clearance Status Code" equal to "Fully Settled", "Partially Settled" and "Final Settlement" and Clearance transactions with status "Claw Back" subtracted. Only the values in the data element "Net Clearance Amount" are used to calculate the "Total Amount" in the ClearingNotif message. The Settlement Payee will have to reverse any entries that have not been settled or have been settled partially. Thus the funds received in the bank will match the accounting records.

### b) ClearingNotif message for Remittance Payer

is sent to inform the Remittance Payer of the amount due and the Clearing Date when it is due. The message includes all relevant Clearances where the Remittance Payer is either the Payer or the Payee. The value of the data element "Total Amount" in the ClearingNotif message is the amount that the Remittance Payer must pay into the Clearance Manager's operational account. The Remittance Payer must include in the bank transfer order the "ClearingID" from the ClearingNotif message relevant to the payment.

## 2. Cash Management

Thanks to the ClearanceRS and ClearanceNotif messages both parties to a Clearance now know when to expect to pay or receive funds. Because the "Remittance Date" and the "Settlement Date" are included in both message the two parties to the Clearance can record either Accounts Payable with expected Remittance Date or Accounts Receivable with expected Settlement Date.

## 3. Timing of Accounting records

Carrier (ORA) will process accounting entries as per internal financial and accounting policies. One possibility is that at the time when the ClearanceRQ message is created accounting entries are prepared but not yet recorded. Only when the ClearanceRS is received with values for Settlement and Remittance Dates carrier adds the respective date and records the previously prepared accounting entry. Alternatively, ORA can prepare and record the accounting entry only when the ClearanceRS has been received indicating that the ClearanceRQ has been received and processed successfully.

Seller will receive the same information at once with the ClearanceNotif message and will decide what and when to record in its financial system as per internal rules.

Examples of accounting postings are provided in Annex A to this document

#### **4. Internal reconciliation reference**

This is an optional identifier provided by the Clearance Payer or the Clearance Payee ORA that is used in their own processes (for example accounting posting references). If these identifiers (called Clearance Payee Reconciliation ID and Clearance Payer Reconciliation ID) are provided by the carrier then it is mandatory to include them in all messages.

# Known Issues

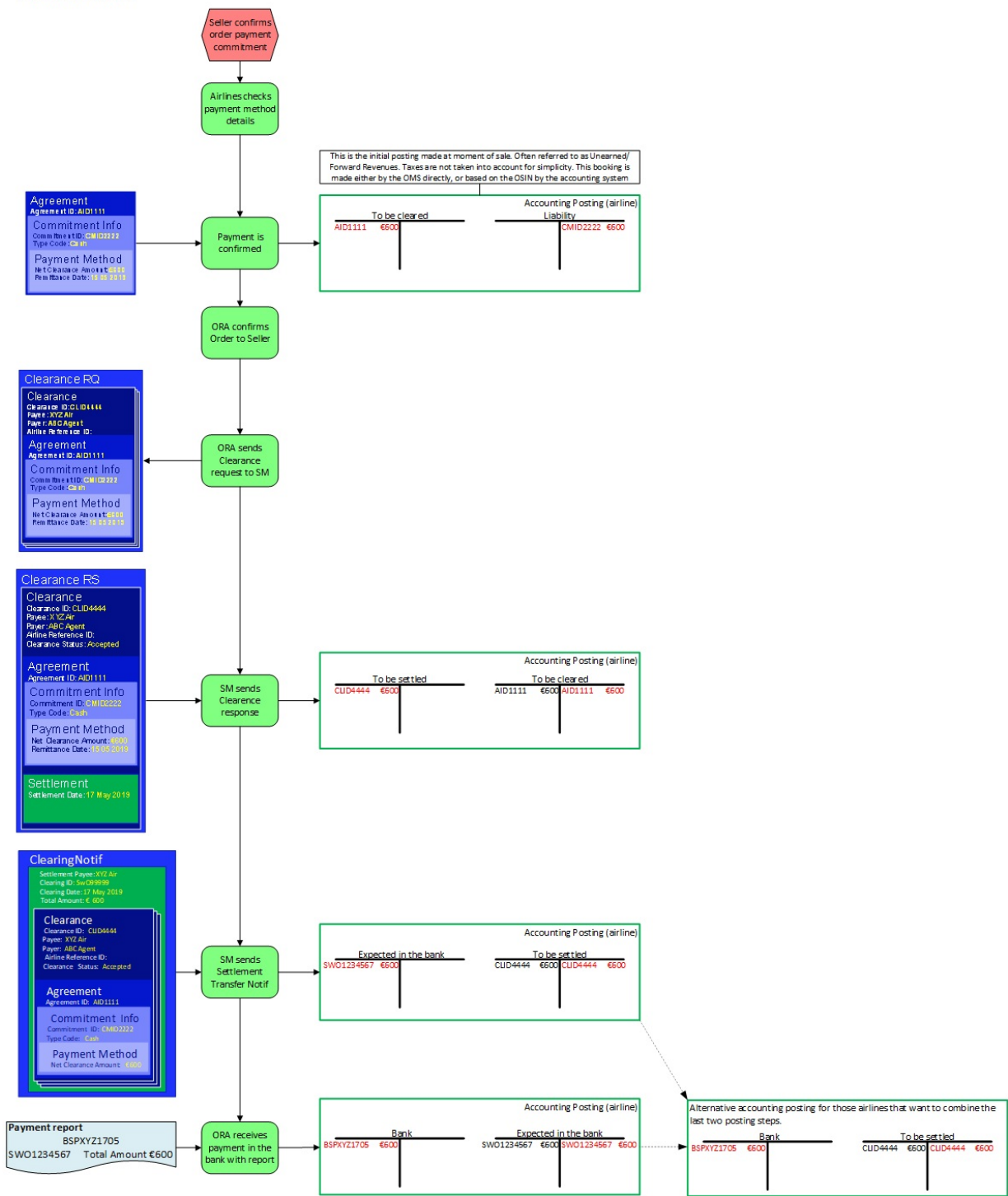
Currently there are no known issues.

# Accounting Postings

## 1. Single booking

### SwO ORA Accounting Posting

Use Case: Seller orders a service of €600  
- only one service sold  
- no other transactions



## 2. Use of AirlineRefID to combine daily accounting postings

#### Order Confirmation (or OSIN)

| Date   | AID     | CMID     | AirlineRef | Amount |
|--------|---------|----------|------------|--------|
| 15-Oct | AID1111 | CMID1111 | ALR1510    | €600   |
| 15-Oct | AID2222 | CMID2222 | ALR1510    | €700   |
| 16-Oct | AID3333 | CMID3333 | ALR1610    | €300   |
| 16-Oct | AID4444 | CMID4444 | ALR1610    | €900   |

| To be cleared |       | Liability |      |
|---------------|-------|-----------|------|
| ALR1510       | €1300 | CMID1111  | €600 |
| ALR1610       | €1200 | CMID2222  | €700 |
|               |       | CMID3333  | €300 |
|               |       | CMID4444  | €900 |

#### ClearanceRS

| Date   | CLID     | AID     | CMID     | AirlineRef | Amount |
|--------|----------|---------|----------|------------|--------|
| 15-Oct | CLID4444 | AID1111 | CMID1111 | ALR1510    | €600   |
| 15-Oct | CLID5555 | AID2222 | CMID2222 | ALR1510    | €700   |
| 16-Oct | CLID6666 | AID3333 | CMID3333 | ALR1610    | €300   |
| 16-Oct | CLID7777 | AID4444 | CMID4444 | ALR1610    | €900   |

| To be settled |       | To be cleared |       |
|---------------|-------|---------------|-------|
| ALR1510       | €1300 | ALR1510       | €1300 |
| ALR1610       | €1200 | ALR1610       | €1200 |

#### ClearingNotif

ClearingID: SWO1234567

Date: 20-Oct

| Date   | CLID     | AID     | CMID     | AirlineRef | Amount |
|--------|----------|---------|----------|------------|--------|
| 15-Oct | CLID4444 | AID1111 | CMID1111 | ALR1510    | €600   |
| 15-Oct | CLID5555 | AID2222 | CMID2222 | ALR1510    | €700   |
| 16-Oct | CLID6666 | AID3333 | CMID3333 | ALR1610    | €300   |
| 16-Oct | CLID7777 | AID4444 | CMID4444 | ALR1610    | €900   |

| Expected in the bank |       | To be settled |       |
|----------------------|-------|---------------|-------|
| SWO1234567           | €2500 | ALR1510       | €1300 |
|                      |       | ALR1610       | €1200 |
|                      |       | ALR1510       | €1300 |
|                      |       | ALR1610       | €1200 |

#### Payment Report

| ClearingID | Original Currency | Settle Currency |
|------------|-------------------|-----------------|
| SWO1234567 | €2,500.00         | €2,500.00       |
| BSPXYZ2005 | Total             | €2,500.00       |

| Bank       |       | Expected in the bank |       |
|------------|-------|----------------------|-------|
| BSPXYZ2005 | €2500 | SWO1234567           | €2500 |
|            |       | SWO1234567           | €2500 |

### 3. Settlement total amount fully transferred to ICCS

The carrier set up requires that the full settlement amount is transferred to its ICCS account and then the funds are paid 60% in EUR and 40% in GBP

#### Order Confirmation (or OSIN)

| Date   | AID     | CMID     | Amount |
|--------|---------|----------|--------|
| 15-Oct | AID1111 | CMID1111 | €600   |
| 15-Oct | AID2222 | CMID2222 | €700   |
| 15-Oct | AID3333 | CMID3333 | €300   |
| 15-Oct | AID4444 | CMID4444 | €900   |

| To be cleared |      | Liability |      |
|---------------|------|-----------|------|
| AID1111       | €600 | CMID1111  | €600 |
| AID2222       | €700 | CMID2222  | €700 |
| AID3333       | €300 | CMID3333  | €300 |
| AID4444       | €900 | CMID4444  | €900 |

#### ClearanceRS

| Date   | CLID     | AID     | CMID     | Amount |
|--------|----------|---------|----------|--------|
| 15-Oct | CLID4444 | AID1111 | CMID1111 | €600   |
| 15-Oct | CLID5555 | AID2222 | CMID2222 | €700   |
| 15-Oct | CLID6666 | AID3333 | CMID3333 | €300   |
| 15-Oct | CLID7777 | AID4444 | CMID4444 | €900   |

| To be settled |      | To be cleared |      |
|---------------|------|---------------|------|
| CLID4444      | €600 | AID1111       | €600 |
| CLID5555      | €700 | AID2222       | €700 |
| CLID6666      | €300 | AID3333       | €300 |
| CLID7777      | €900 | AID4444       | €900 |

#### ClearingNotif

ClearingID: ICS1234567

Date: 20-Oct

| Date   | CLID     | AID     | CMID     | Amount |
|--------|----------|---------|----------|--------|
| 15-Oct | CLID4444 | AID1111 | CMID1111 | €600   |
| 15-Oct | CLID5555 | AID2222 | CMID2222 | €700   |
| 15-Oct | CLID6666 | AID3333 | CMID3333 | €300   |
| 15-Oct | CLID7777 | AID4444 | CMID4444 | €900   |

| Expected in the bank |       | To be settled |      |
|----------------------|-------|---------------|------|
| ICS1234567           | €2500 | CLID4444      | €600 |
|                      |       | CLID5555      | €700 |
|                      |       | CLID6666      | €300 |
|                      |       | CLID7777      | €900 |

#### Payment Report ICCS

| ClearingID | Original Currency | FX rate | Settle Currency |             |
|------------|-------------------|---------|-----------------|-------------|
| ICS1234567 | €1,500.00         | 1.00    | €1,500.00       | ICCS1234567 |
| ICS1234567 | €1,000.00         | 0.90    | €900.00         | ICCSGBP2005 |

| Bank (EUR)  |        | Expected in the bank |       |
|-------------|--------|----------------------|-------|
| ICCS1234567 | €1,500 | ICS1234567           | €2500 |
| ICCSGBP2005 | €900   |                      |       |

|            |       |           |
|------------|-------|-----------|
| BSPXYZ2005 | Total | €2,500.00 |
|------------|-------|-----------|

| Exchange rate interim account |        |             |               |
|-------------------------------|--------|-------------|---------------|
| ICS1234567                    | €2,500 | ICCS1234567 | €1,500        |
|                               |        | ICCSGBP2005 | €900 (€1,500) |

Exchange rate difference will be automatically posted by the system

### 4. Settlement total amount partially paid to bank account and partially transferred to ICCS

The carrier set up requires that no more than 60% of the settlement amount remains in the BSP local EUR denominated account. The remaining must be transferred to ICCS and then converted into GBP. In the example the first two transactions have been selected for the transfer to the BSP local EUR denominated account. The required division of the settlement amount is not the focus of this example and could be discussed further. It has no impact on the accounting entries that are the reason for this example.

**Order Confirmation (or OSIN)**

| Date   | AID     | CMID     | Amount |
|--------|---------|----------|--------|
| 15-Oct | AID1111 | CMID1111 | €600   |
| 15-Oct | AID2222 | CMID2222 | €700   |
| 15-Oct | AID3333 | CMID3333 | €300   |
| 15-Oct | AID4444 | CMID4444 | €900   |

**To be cleared**

|         |      |
|---------|------|
| AID1111 | €600 |
| AID2222 | €700 |
| AID3333 | €300 |
| AID4444 | €900 |

**Liability**

|          |      |
|----------|------|
| CMID1111 | €600 |
| CMID2222 | €700 |
| CMID3333 | €300 |
| CMID4444 | €900 |

**ClearanceRS**

| Date   | CLID     | AID     | CMID     | Amount |
|--------|----------|---------|----------|--------|
| 15-Oct | CLID4444 | AID1111 | CMID1111 | €600   |
| 15-Oct | CLID5555 | AID2222 | CMID2222 | €700   |
| 15-Oct | CLID6666 | AID3333 | CMID3333 | €300   |
| 15-Oct | CLID7777 | AID4444 | CMID4444 | €900   |

**To be settled**

|          |      |
|----------|------|
| CLID4444 | €600 |
| CLID5555 | €700 |
| CLID6666 | €300 |
| CLID7777 | €900 |

**To be cleared**

|         |      |         |      |
|---------|------|---------|------|
| AID1111 | €600 | AID1111 | €600 |
| AID2222 | €700 | AID2222 | €700 |
| AID3333 | €300 | AID3333 | €300 |
| AID4444 | €900 | AID4444 | €900 |

**ClearingNotif**

**ClearingID: ICS1234567** **Date: 20-Oct**

| Date   | CLID     | AID     | CMID     | Amount |
|--------|----------|---------|----------|--------|
| 15-Oct | CLID4444 | AID1111 | CMID1111 | €600   |
| 15-Oct | CLID5555 | AID2222 | CMID2222 | €700   |

**ClearingID: SWO1234567** **Date: 20-Oct**

| Date   | CLID     | AID     | CMID     | Amount |
|--------|----------|---------|----------|--------|
| 15-Oct | CLID6666 | AID3333 | CMID3333 | €300   |
| 15-Oct | CLID7777 | AID4444 | CMID4444 | €900   |

**Expected in the bank**

|            |        |
|------------|--------|
| ICS1234567 | €1,300 |
|------------|--------|

**To be settled**

|          |      |          |      |
|----------|------|----------|------|
| CLID4444 | €600 | CLID4444 | €600 |
| CLID5555 | €700 | CLID5555 | €700 |

|            |        |
|------------|--------|
| SWO1234567 | €1,200 |
|------------|--------|

|          |      |          |      |
|----------|------|----------|------|
| CLID6666 | €300 | CLID6666 | €300 |
| CLID7777 | €900 | CLID7777 | €900 |

**Payment Report**

| ClearingID | Original Currency | Settle Currency |            |
|------------|-------------------|-----------------|------------|
| SWO1234567 | €1,200.00         | €1,200.00       | BSPXYZ2005 |

**Bank (EUR)**

|            |        |
|------------|--------|
| BSPXYZ2005 | €1,200 |
|------------|--------|

**Expected in the bank**

|            |        |            |        |
|------------|--------|------------|--------|
| SWO1234567 | €1,200 | SWO1234567 | €1,200 |
|------------|--------|------------|--------|

**Payment Report ICCS**

| ClearingID | Original Currency | FX rate | Settle Currency |             |
|------------|-------------------|---------|-----------------|-------------|
| ICS1234567 | €1,300.00         | 0.90    | £1,170.00       | ICCSGBP2005 |

**Bank (GBP)**

|             |        |
|-------------|--------|
| ICCSGBP2005 | £1,170 |
|-------------|--------|

**Expected in the bank**

|            |        |            |        |
|------------|--------|------------|--------|
| ICS1234567 | €1,300 | ICS1234567 | €1,300 |
|------------|--------|------------|--------|

**Exchange rate interim account**

|             |        |             |        |
|-------------|--------|-------------|--------|
| ICCSGBP2005 | €1,300 | ICCSGBP2005 | £1,170 |
|-------------|--------|-------------|--------|

Exchange rate difference will be automatically posted by the system



# Codeset List

## CFRC Clearance Failure Reason Code

- CLIDDUP – ClearanceID already processed by Clearance Manager
- SNDNVLD – The Payer or the Payee in the Clearance did not originate this clearance
- PAYRNST – Payer not certified for SwO Transactions
- PAYENST – Payee not certified for SwO Transactions
- TRNNOUN – AgreementID and CommitmentID combination already processed by Clearance Manager. This validation is only for clearances where Clearance Data is not digitally signed by both entities.
- TCNOVLD – PaymentBrandCode value not valid. Only “IB” and “EP” are accepted
- CURNVLD – The currency code is not valid for the clearance manager’s operational bank account in the market where the payer and payee are settling
- CNTPCNL – Request for cancelation of Clearance cannot be performed.
- EPACMIS – Clearance cannot be accepted because Payment Brand Code equals “EP” but approval code from authorisation approval is either missing or blank.
- EPACNVA – Clearance cannot be accepted because Payment Brand Code equals “EP” but approval code is not valid.
- EPCLATE – Clearance cannot be accepted because Payment Brand Code equals “EP” and Payment Commitment Date Time value is older than 48 hours from the time the request has been submitted to the Clearance Manager.

## CSTC Clearance Status Code

- ACCPT – Accepted – status used when the Clearance in the ClearanceRQ is accepted for processing by the Clearance Manager.
- RJCTD – Rejected – status used when the Clearance in the ClearanceRQ is rejected by the Clearance Manager and it will not be processed any further. The Clearance Manager does not record in its systems any Clearance that has been rejected.
- CNCLD – Cancelled – status used when Clearance has been cancelled by ORA. Only ORA can request cancelation of a Clearance.
- FLSTL – Fully Settled – status used when the settlement was completed at once in the first possible instance.
- 1PSTL – 1-Partially Settled – status used when the first time “Partial Settlement” is applied.
- NPSTL – N-Partially Settled – status used for any “Partial Settlement” after the first.
- FNSTL – Final Settlement – status used for the end settlement amount when the settlement was not completed at once in the first possible instance.
- NOSTL – Not Settled – status used when no amount was settled in the first possible instance.
- CLBCK – Claw Back – status used when the Clearance Manager claims back funds that have been previously settled.
- WRTOF – Write off – status used when the Clearance Manager has exhausted all possible options to collect the outstanding amount for given Clearance.
- FTCLD – Funds Collected – status used for transactions where the payment method EasyPay is used to indicate to the EasyPay account owner that the funds have been collected and therefore the Net Clearance Amount is not included in the total amount of the Clearing Notification.
- FPCLD – Funds Partially Collected – status used for transactions where the payment method EasyPay is used to indicate to the EasyPay account owner that the funds have been partially

collected and therefore the Net Clearance Amount is not included in the total amount of the Clearing Notification.

#### **CPRC Clearance Process Rule Code**

- IATAC00 – for processing a clearance under the IATA Billing and Settlement Plan or IATA Clearance House governance for clearance of funds using the SwO Standard and Process.
- BLTRL00 – for processing a clearance outside the established IATA governance using the SwO Standard and Process.
- NDCLNK0 – for processing a clearance under the IATA Billing and Settlement Plan governance for clearance of funds using the Data Interchange Settlement Handbook (DISH) standard.

#### **FTMC Funds Transfer Method Code**

- SWOBANK – indicating that the funds will be transferred to or from a bank account.
- SWOICCS – indicating that the funds will be transferred to ICCS account.
- SWOBLTR – indicating that the funds will be transfers between two parties based on their bilateral agreement.

#### **FTTC Funds Transfer Type Code**

- DCR – for direct payment to the bank account of the payee.
- DDR – for preauthorized direct debit from the account of the payer.
- BWT – by means of bank wire transfer defined and ordered by the payer.

#### **CEC Clearance Error Codes**

- MSGNCMP – Message could not validate against XSD.
- CLRNCNT – Message is rejected due to incorrect ClearanceCount value.
- QRYNORS – Query does not return results.

#### **CCC Clearance Commission Codes**

- SWOCM – used in the Clearance Method data structure for the commission to be applied when using the SwO Clearance Process and it is in addition to the standard applicable commission.

# Scope

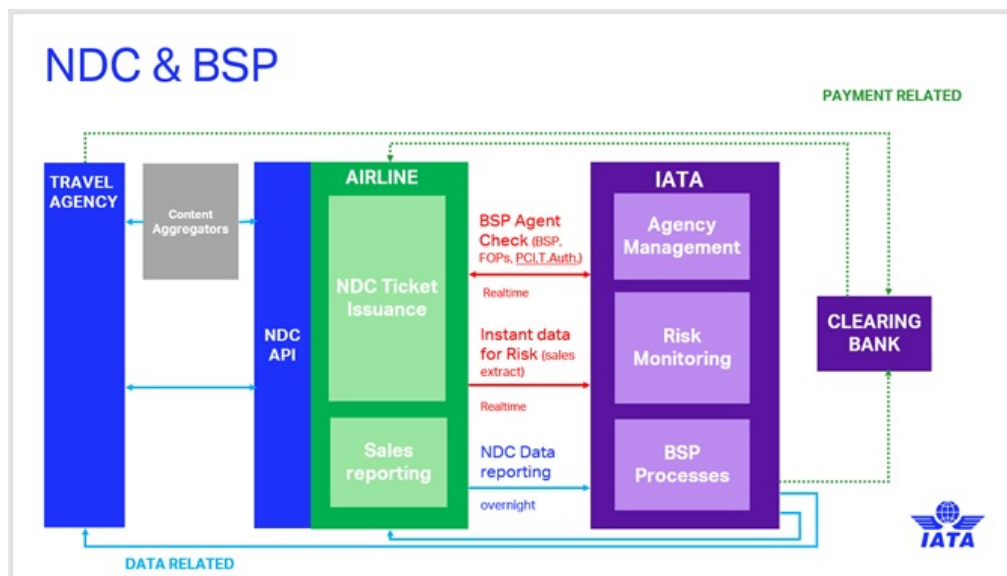
## Scope

### Availability

IATA's BSP NDC Risk Management APIs are only accessible to airlines participating in the BSP and only covers Agents accredited to IATA.

IATA's BSP NDC Risk Management APIs provides an Airline the ability to get an Agent's **Risk Status** and to post an Agent's **NDC Order sales data** in real time.

These capabilities allow an Airline to leverage the same IATA risk monitoring features available for agency sales made through the GDS and reported via the BSP.



The documentation:

1. Outlines processes and interactions between a Seller and an Airline where an Airline should utilise these.
2. Provides descriptions of how these capabilities work.
3. Provides guidance for implementing these capabilities.
4. Provides guidance on testing and validating these capabilities prior to deployment

# Introduction

## Introduction

When a sale is made via NDC, an Airline is in control of the offer management, the order management and any financial document issued to fulfill the order.

Airlines have outsourced to IATA the responsibility to manage the IATA Agency programme in order to rely on a professional network of Agents in more than 180 countries and territories.

Airlines have also mandated that IATA manage the Billing and Settlement Plan (BSP) in order to facilitate and simplify the selling, reporting and remitting procedures of IATA Accredited Passenger Sales Agents.

In order to protect its sales with IATA Accredited Agents and avoid any unpaid amount on BSP sales, IATA have provided a suite of functionalities - **BSP NDC Risk Management APIs** - to Member Airlines.

This documentation explains:

1. **Why** the APIs are needed.
2. **What** the APIs are for.
3. **When** to use the APIs.
4. **How** to use the APIs.

# Overview

## Overview

The two key capabilities explained in this document are:

1. **Agency Profile** - An API allowing an Airline to get real-time information about an Agent.
2. **Agency Sales Transactions** - An API allowing an Airline to post information about a NDC sale.

## Agency Profile

In the "traditional" model, the GDS/TSP collects from IATA in an automated way ticketing authority file (Agent's BSP status and by Forms of payments) on an hourly basis. It gathers data from the IATA Agency Management Systems and ticketing authority data granted by Airlines in BSPLink.

In the "NDC" model the Airline is in direct control of the offer and order management process. In order to leverage the same risk management capabilities, IATA has created capabilities so that the NDC Airlines collect real-time latest Airline agency profile information directly from IATA's source of data.

The Agency profile API allows an Airline to get latest agency risk information available from IATA's source of data prior to any transaction processing at the offer create and/or order create stage of the NDC process.

An airline can get agency risk information (in a given BSP) including:

- BSP Agent Status.
- Allowed BSP Payment Methods for that Agent.
- It's Airline Ticketing authority status vis a vis the Agent.

An airline can use this information to determine whether to:

1. Return Offers to a given seller.
2. Accept Orders from a given seller.

## Agency Sales Transactions

In the traditional model, financial documents are issued via the GDS/TSP. For risk monitoring purpose, some sales data are reported into IATA's risk management engine near real time, allowing early detection of abnormal sales increase as well as any behavior or pattern of form of payment usage.

In the "NDC" model an Airline creates the order and issues financial documents relating to it (such as a ticket or an EMD). In order to leverage the same risk management capabilities, the Airline will need to post sales to IATA's risk management engine directly in real time.

The Agency Sales Transactions API allows an Airline to post sales information to the IATA Risk monitoring Engine after the order create and transaction processing stage of the NDC process.

An airline will post 11 elements of an NDC agency sale information, including in particular:

- Transaction Type
- Ticketing Number
- Agent code

- Airline code
- Issue date
- Amount
- Currency
- Form of payment used

This information keeps the IATA Risk Monitoring Engine updated, enabling IATA to monitor real-time all outstanding sales issued by an Agent, regardless if they are operated through GDS/TSP or through NDC.

This will also ensure that subsequent Agency Profile calls will be up to date vis a vis payment methods allowed to be used for a given Agent.

# Functional Specification

## Business Functions

The BSP NDC Risk Management APIs are made available to airlines to support risk management across the following business functions

| Business Process  | Description   | Airline Risk Requirement   |
|-------------------|---|--|
| Shopping          | The process of creating offers and distributing them to a seller via an NDC connection      | As an Airline, I may need to check an agency's risk profile before returning offers to them  |
| Ordering          | The process of accepting a NDC offer and creating or modifying an Order                     | As an Airline, I need to check an agency's risk profile before accepting orders from them  |
| Transact Document | The process of creating or modifying a financial document related to an Order or Order item | As an Airline, I need to report document transactions relating to an NDC sale to the BSP so that the agency risk profile is up to date |

## Functional Requirements

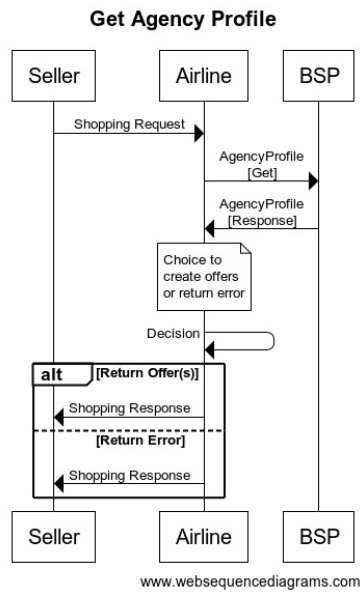
The BSP NDC Risk Management APIs provide the following capabilities to meet these business requirements

|   | Functional Requirement   | API Capability                 |
|---|--|--------------------------------|
| 1 | Check an agency's risk profile before returning offers to them   | Get Agency Profile             |
| 2 | Check an agency's risk profile before accepting orders from them | Get Agency Profile             |
| 3 | Report transactions data relating to an NDC sale to the BSP      | Post Agency Sales Transactions |

## Process Flows

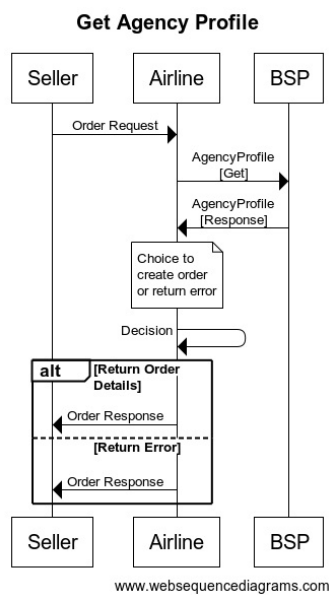
### Shopping

The following flow demonstrates a call to the Agency Profile API at time of shopping.



## Ordering

The following flow demonstrates a call to the Agency Profile API at time of Ordering.



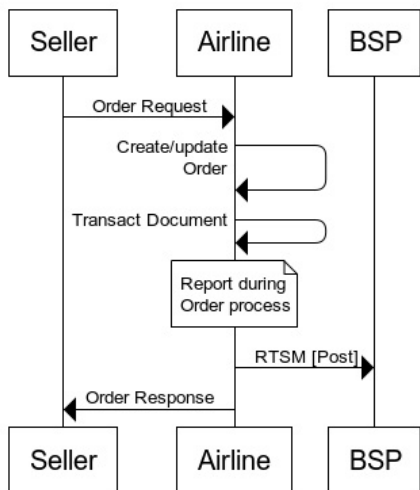
## Transact Document

### Synchronous Order Call



Report sale during Order processing

### Post Agency Sales Transactions

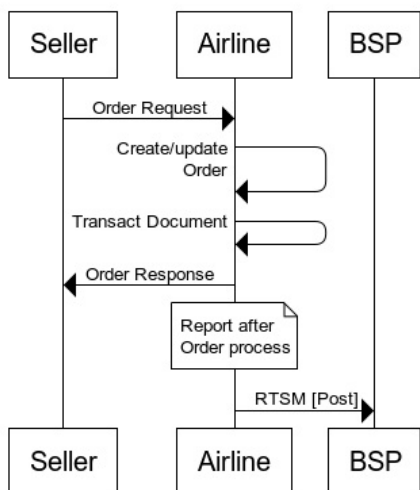


www.websequencediagrams.com

### Post Order Call

Report sale after Order response (synchronous document transaction)

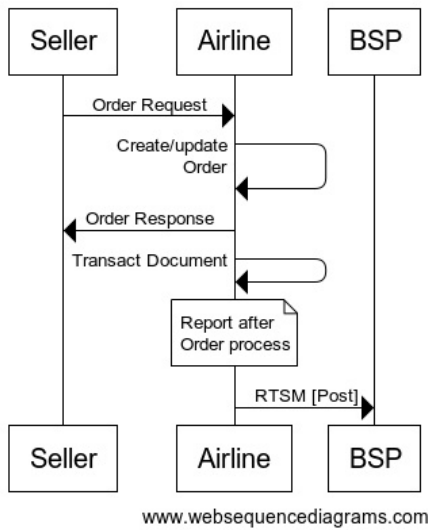
### Post Agency Sales Transactions



www.websequencediagrams.com

Report sale after Order response (asynchronous document transaction)

### Post Agency Sales Transactions



### NDC Message Categories

| Business Process  | Messages                                  |
|-------------------|---|
| Shopping          | AirShopping<br>OfferPrice<br>OrderReshop  |
| Ordering          | OrderCreate<br>OrderChange<br>OrderCancel |
| Transact Document | N/A                                       |

# Technical Documentation

## BSP Agency Profile API

[API Documentation Hub](#)

## BSP Sales Transactions API

[API Documentation Hub](#)