**Implementation Guideline
ACRIS Seamless Travel**

Document Status: Draft

Version: V0.9

1 Revision History

The change log describes the modifications in each version of the document. .

Version	Date	Name	Description of Change
0.9	01/09/2017	M. Rogal/S. Stiffel	Implementation Guideline issued for review

Document References

The document references contain the references to documents

Key	Document	Version	Description
Semantic Model	ACI ACRIS Semantic Model		
BRD	Seamless Travel Business Requirements Document	0.9	

2 Table of Contents

3 Introduction

3.1 Purpose and Scope of the Document

This document is the implementation guideline for the ACI ACRIS Seamless Travel data model and the RESTful Web service standard definition. It has been developed by ACI ACRIS Seamless Travel project members and has been reviewed and agreed upon by the ACI ACRIS Working Group.

It is designed to help airports, airlines and other aviation related companies to implement the defined data model and RESTful Web services according to the standardized definition.

This guide will help to understand the relations between the different parts of the data model and the meaning of the defined interfaces and their parameters.

3.2 Out of Scope

This document does not describe the following items:

- The programming language and environment for implementing the Web services
- Legal relationships between partners for the data exchange
- A common central provider for data hosting or transmission
- Definition of specific services

3.3 About this Document

The document is structured into 10 sections:

- Section 3: Introduction
  This section introduces the guideline document and describes its purpose, the scope, the environment and the condition

- Section 4: The Business Requirements
  A short introduction to the project's business requirements containing references to the BR

- Section 5: Infrastructure Layout
  This Section describes feasible as well as proven infrastructure layouts to establish connections between partners

- Section 6 & 7: Data Model and Web service definitions
  This section describes the RESTful interfaces and underlying data models in detail

- Section 8: Management and further development
  This section describes the change management for the standard definition

- Section 9: Points of Contact
  Points of contact for further information or change requests

- Section 10: Glossary of Terms

3.4　The ACI ACRIS Working Group

ACRIS is the acronym for "Aviation Community Recommended Information Services", and is one of the working groups under ACI World. Members of the working group are airports, airlines and vendors.

The purpose of this working group is to define standard data models and web interfaces for exchanging operational and passenger related data between the partners in a standardized way.

For more information on ACI World visit http://www.aci.aero/.

For more information on ACI ACRIS Working Group visit: http://groups.aci.aero/home.

3.5　Project participants

The following airports, airlines and vendors participated in developing this standard definition:

- Changi Airport
- Fraport
- London Heathrow
- Munich Airport
- Schiphol Group
- Swedavia
- Orlando Airport
- Lufthansa
- ACI World
- Amadeus
- APD
- Barich Inc.
- IATA
- Rockport Software
- Rockwell Collins
- SITA
- T-Systems

3.6　IATA and ACI collaboration

As many players in the aviation industry are interested in efficient and high quality services for their customers, it make sense to define common standards for information exchange and data models. There are well known organizations for the different areas within the aviation industry representing their members but it is also important to think outside the box. IATA has started the "Simplify the Business" (STB) initiative which shares under the roof of the "Travel Communication" project a lot of the goals with ACRIS Seamless Travel. IATA participated in the ACRIS Seamless Travel project from the beginning and the aim is to create an industry wide common standard that is approved and actively used by airport as well as airline representatives.

3.7　Intended Audience

This implementation guideline is intended to be used by airports, airlines, vendors and aviation related companies who are interested to share information in the scope of ACRIS Seamless Travel with the defined data model and Web service interfaces.

Depending on your company, the way of using the defined data model and interfaces can be different. Airports and Airlines could be interested in implementing a Seamless Travel Platform where all partner interfaces are connected and all data is stored.

The question to be raised is: Who should implement the ACI ACRIS Seamless Travel standard and how?

In case of accessing data via the standardized interface all businesses at all sizes are recommended to refer to the standard. When it comes to providing your information to others, here is our recommendation:

Type of business	Small	Medium	Large
Airport	Community	Community or Own Instance	Own Instance
Airline	Community	Community or Own Instance	Own Instance
Ground Travel Providers	Community	Community	Community
Service Providers (e.g. Shops, Restaurants)	Community	Community	Community

The term Community in this table refers to the possible infrastructure layouts "centralized infrastructure" or "central platform operator" (see Chapter 3).

3.8   Why Implement ACRIS Seamless Travel

You should use and implement the ACI ACRIS Seamless Travel Web services for the following reasons:

- No bilateral negotiation with partners to define data model and interfaces
- Fast implementation by reusing implementation files (i.e. JSON definition files)
- High quality of pre-existing and proven interfaces
- Data exchange with many different partners via one common interface

4 The Business Requirements

All business requirements are described in the Business Requirements Document (BRD). It consists of the following chapters.

1. Introduction and general information
2. Project Background, Scope and Context of ACRIS Seamless Travel
3. Use cases
4. Logical data model description
5. High level interface description
6. Terms and definitions

It is designed to help business people and decision makers from airports and airlines to understand how communication with other airports, airlines and partners via the Seamless Travel interface can improve their own business and the various possibilities for new and innovative ideas.

For detailed information on business requirements please refer to the BRD.

5   Infrastructure Layout

The main purpose of the project is to define the data model and the interfaces. However, to use the interfaces with partners for data exchange, of course there has to be a technical connection between these partners.

The infrastructure layout, more precisely the way to establish a connection, was discussed in the project and defined for prototype implementations, but it is not included in the standard. The following chapters show several possibilities to connect with partners, but currently this connectivity has to be negotiated in every single case, e.g. for each linking of two partners.

All three concepts shown below can be realized with the current version of this standard.

5.1   De-Centralized Infrastructure
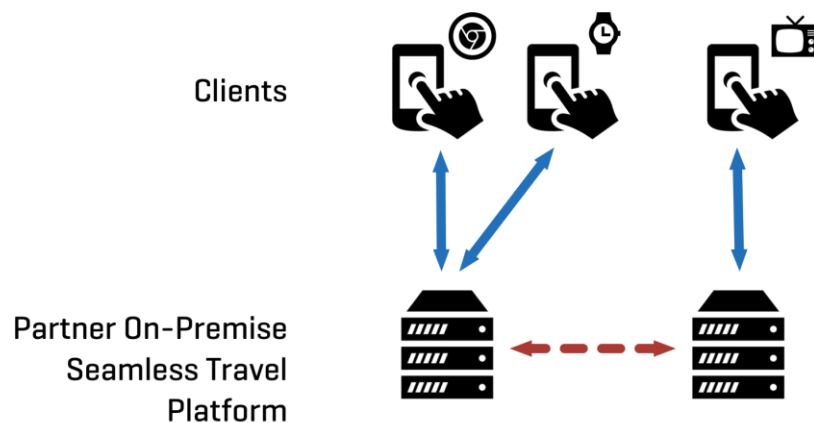
Figure 1: De-Centralized Infrastructure

The De-Centralized infrastructure shown in figure 1 describes a possible scenario where every platform operator has one or more proprietary clients that connect to the operator's server directly. The partners exchange data ad-hoc between their servers to deliver information the other holds.

5.2   Centralized Infrastructure
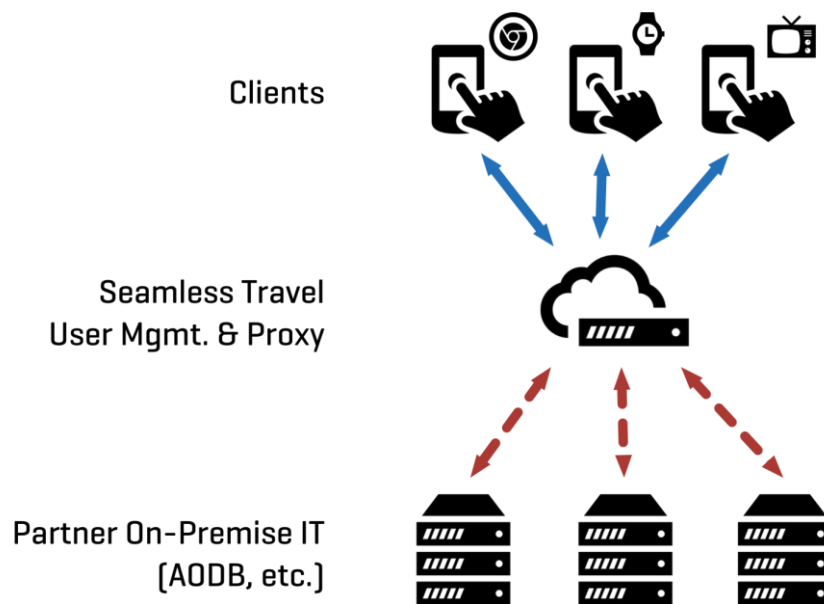
Figure 2: Centralized Infrastructure

Figure 2 shows the concept of a Centralized Infrastructure. In this case one central instance is the connecting point for all clients. Depending on the requested information the call if forwarded (proxied) to the best available source. The central instance can play an additional role: Managing users and contractual details (e.g. permissions, payments, rate limits) between the other participants.

5.3   Central Platform Operator(s)
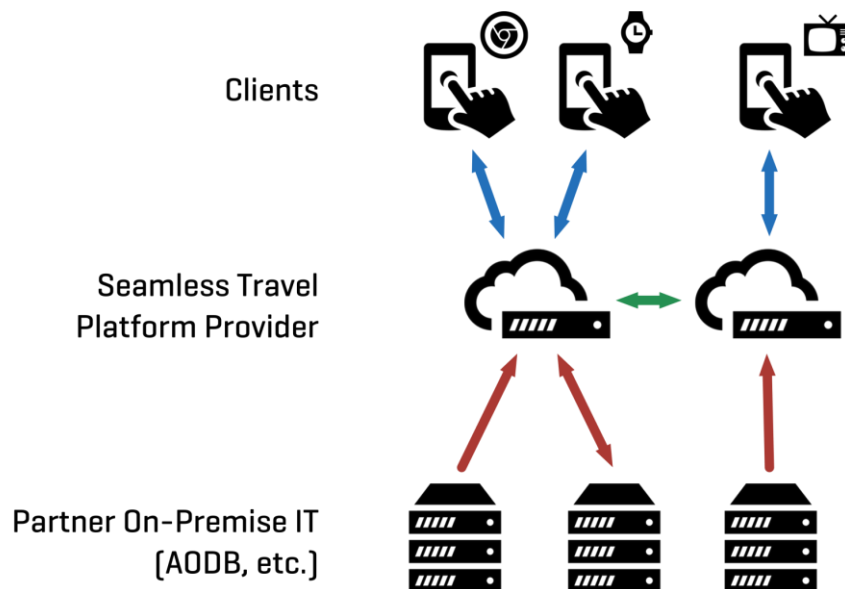
Figure 3: Central Platform Operator(s)

The Central Platform Operator(s) concept shown in figure 3 is a variant of the Centralized Infrastructure. It features more than one connection point for the clients but still handles connections between the platform operators at the bottom.

6 Domain Model

The data model forms the basis for all interaction with the Seamless Travel platform. A common understanding of the data model and the exact meaning of every field and term therefore is essential for establishing robust communications. Within this ACRIS standard some data models where defined to be used via the Web service interfaces. The authors are aware that other standards or systems have already defined models that wholly or partially pursue the same aim. Wherever possible the intention was to build upon existing pieces of work, for example AIDX or the SITA queuing API, instead of reinventing the wheel. However, it may still be necessary to translate between already existing systems and the ACRIS by implementing this standard. Nevertheless, the working group is convinced that this is the only way to ensure that partners are have the same understanding of terms and avoid different interpretations of data which can lead to misinformation and confusion of the passengers.

The following data models are currently defined:
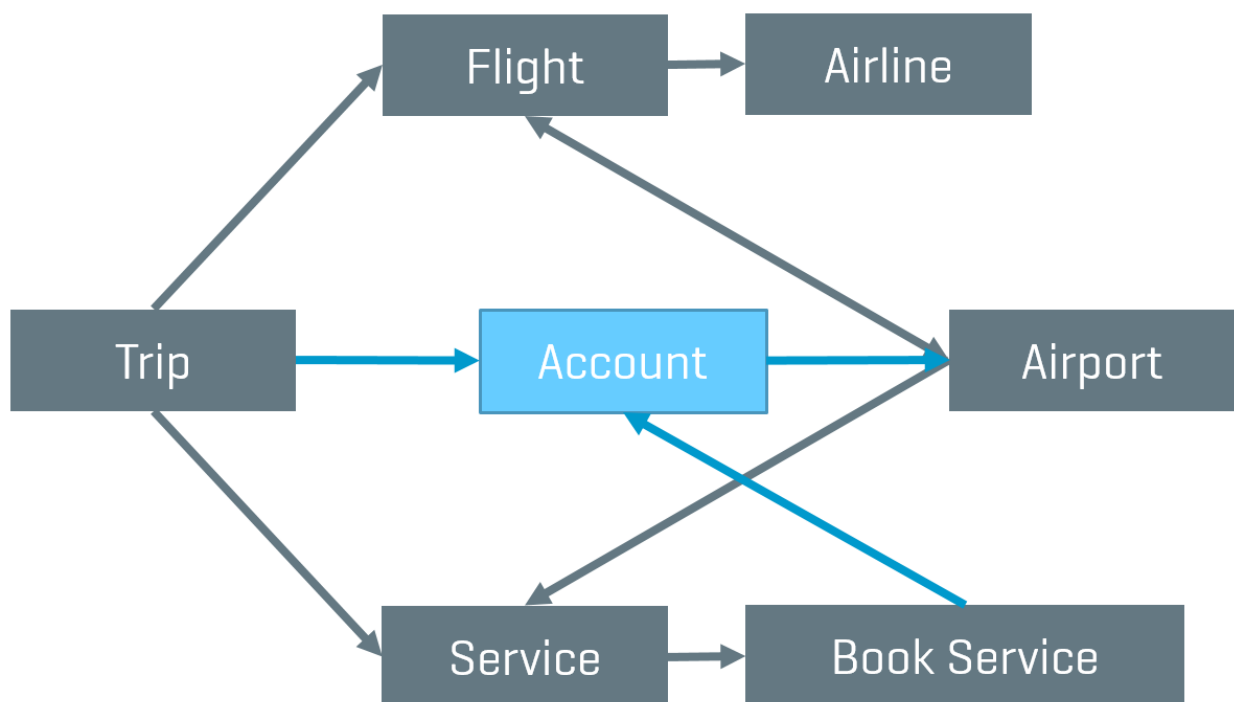
Within this data model many entities are defined and represent the whole Seamless Travel domain model. The figure shows the whole domain model, the following subchapters are describeing the whole data model with all attributes in detail. As the data model is stored and managed in Enterprise Architect, these subchapters are showing the Enterprise Architect export.

Provider Contact
- + country-name: string
- + country-tag: string
- + extended-address: string
- + locality: string
- + post-office-box: string
- + postal-code: string
- + region: string
- + street-address: string

ACRIS Flight
- + aircraftType: Aircraft Type
- + arrival: Arrival
- + arrivalAirport: string
- + codeShares: Code Shares
- + departure: Departure
- + departureAirport: string
- + flightNumber: Flight Number
- + flightStatus: Flight Status
- + operatingAirline: Operating Airline
- + originDate: date-time
- + via: Via

Aircraft Type
- + icaoCode: string
- + modelName: string
- + registration: string

Airline
- + AirlineID: object
- + airlineName
- + checkIn: string
- + checkInTime: string
- + contact: Airline Contact
- + email: string
- + faxNumber: string
- + flightNumberCode: string
- + handlingAgent: string
- + iataCode: string
- + icaoCode: string
- + info: string
- + lateNightArea: string
- + lateNightTimes: string
- + onlineCheckInURL: uri
- + serviceTime: string
- + telephoneNumber: string
- + terminal: string

Flight Number
- + airlineCode: string
- + suffix: string
- + trackNumber: string

Logo
- + Logo High: url
- + Logo Low: url
- + Logo Medium: url
- + Logo Native: url

Operating Airline
- + iataCode: string
- + icaoCode: string
- + name: string

Provider
- + contact: Provider Contact
- + email: string
- + fax: string
- + id: object
- + logo
- + name: string
- + phone: string
- + website: uri

Airline Contact
- + country-name: string
- + country-tag: string
- + extended-address: string
- + locality: string
- + post-office-box: string
- + postal-code: string
- + region: string
- + street-address: string

Airport
- + airportID: object
- + airportImageURL: Airport Image URL
- + airportName: string
- + cityName: string
- + coordinate: Airport Coordinate
- + country: Airport Country
- + currentQueueTimes: Airport Current Queue Times
- + forecastQueueTimes: Airport Forecast Queue Times
- + geofenceRadius: number
- + iataCode: string
- + icaoCode: string
- + postalAddress: Airport Postal Address
- + timezone: string
- + visitorsAddress: Airport Visitors Address

Airport Coordinate
- + elevation: integer
- + latitude
- + longitude

Airport Country
- + countryName: string

Service
- + airportId: object
- + serviceDownloads: array uri
- + serviceId: object
- + serviceProvider: provider.full.schema.json
- + specials: Specials

Service Elements
- + value: string

Service Header
- + bookingID: object
- + description: string
- + extBookingID: string
- + serviceID: object

Service Item
- + description: string
- + isBookable: boolean
- + shortDescription: string
- + subTitle: string
- + title: string

Airport Current Queue Times
- + currentProjectedMaxWaitTime: number
- + currentProjectedMinWaitTime: number
- + currentProjectedWaitTime: number
- + currentQueueId: string
- + currentQueueName: string
- + currentTime: string

Airport Forecast Queue Times
- + forecastConfidence: number
- + forecastProjectedWaitTime: number
- + forecastQueueId: string
- + forecastQueueName: string
- + forecastTime: string

Airport Image URL
- + high: url
- + low: url
- + medium: url
- + native: url

Airport Postal Address
- + country-name: string
- + country-tag: string
- + extended-address: string
- + locality: string
- + post-office-box: string
- + postal-code: string
- + region: string
- + street-address: string

Service Locations
- + area: string
- + description: string
- + externalId: string
- + humanReadable: string
- + locationId: object
- + map image high: url
- + map image low: url
- + map image medium: url
- + map image native: url
- + mapImage: image.schema.json
- + openingHours: array object
- + x: number
- + y: number
- + z: number

Specials
- + begin: date
- + coupon: string
- + description: string
- + end: date
- + id: object
- + image: image.schema.json
- + Image High: url
- + Image low: url
- + Image Medium: url
- + Image Native: url
- + name: string
- + numberOfAvailable: number

Trip
- + endDate: date-time
- + flights: string
- + name: string
- + role: enum self pickup serviceProvider
- + services: Trip Services
- + startDate: date-time
- + tripID: object

Trip Services
- + bookingID: object
- + serviceID: object
- + source: object

Airport Visitors Address
- + country-name: string
- + country-tag: string
- + extended-address: string
- + locality: string
- + post-office-box: string
- + postal-code: string
- + region: string
- + street-address: string

Arrival
- + actual: date-time
- + baggageClaim
- + estimated: date-time
- + gate: string
- + scheduled: date-time
- + terminal: string
- + transferInformation: string

Baggage Claim
- + carousel: string
- + expectedTimeOnCarousel: date-time

Boarding Time
- + bookingClass: string
- + time: date-time

Via
- + arrival: Via Arrival
- + departure: Via Departure
- + viaAirport: string

Via Arrival
- + actual: date-time
- + baggageClaim
- + estimated: date-time
- + gate: string
- + scheduled: date-time
- + terminal: string
- + transferInformation: string

Via Baggage Claim
- + carousel: string
- + expectedTimeOnCarousel: date-time

Via Boarding Time
- + bookingClass: string
- + time: date-time

Via Check-In Info
- + additionalInfo: string
- + checkInBeginTime: date-time
- + checkInEndTime: date-time
- + checkInLocation: string

Via Departure
- + actual: date-time
- + boardingTime: Via Boarding Time
- + checkInfo: Via Check-In Info
- + estimated: date-time
- + gate: string
- + scheduled: date-time
- + terminal: string

Book Service
- + serviceHeader: Service Header

Check-In Info
- + additionalInfo: string
- + checkInBeginTime: date-time
- + checkInEndTime: date-time
- + checkInLocation: string

Code Shares
- + airlineCode: string
- + suffix: string
- + trackNumber: string

Departure
- + actual: date-time
- + boardingTime: Boarding Time
- + checkInfo: Check-In Info
- + estimated: date-time
- + gate: string
- + scheduled: date-time
- + terminal: string

7 Domain Models and Interfaces

7.1 Flight

7.1.1 Interfaces

7.1.1.1 API for Flight API documentation version v1

https://{serverName}/{appName}-{version}

7.1.1.1.1 GetFlightDetails

/flightDetails/{airlineCode}/{flightNumber}/{origin_flight_date}/{dep_airport_code}/{arr_airport_code}
- **get** *(secured)*: Returns the details for a single flight with the given ID. The path parameters follows the AIDX unique flight id format.

7.1.1.1.2 /flight/{airport}/arrival

The default resource type for all flight requests

/flight/{airport}/arrival
- **get** *(secured)*: Returns a list of arriving flights ordered by scheduled arrival time

7.1.1.1.3 /flight/{airport}/departure

The default resource type for all flight requests

/flight/{airport}/departure
- **get** *(secured)*: Returns a list of departing flights ordered by scheduled arrival time

7.1.2 Models

7.1.2.1 ACRISFlight

The flight in stp app services

Properties

	Type	Description	Required
operatingAirline	`object`	The airline operating the flight. Either IATA or ICAO must be present	Yes
aircraftType	`object`	The aircraft-type information	No
flightNumber	`object`	The status representation of a flight	No
codeShares	`object[]`	The code-shares associated with the flight	No
departureAirport	`string`	The departure airport as IATA format	No
arrivalAirport	`string`	The arrival airport as IATA format	No

originDate	`string`	Date expressed in UTC. Time element is not used. This date MUST not change once initialized. For a flight SFO-DEN-LHR both flight legs SFO-DEN and DEN-LHR will have the origin date of the SFO departing date (example 2015-10-15).	No
departure	`object`	The departure information for the flight	No
arrival	`object`	The arrival information for the flight.	No
flightStatus	`string`	The status of the flight	Yes
via	`object[]`	A list of airports and the corresponding arrival and departure information for stops during the flight. The order in the array represents the flight order.	No

Additional properties are allowed.

7.1.2.1.1 ACRISFlight.operatingAirline

The airline operating the flight. Either IATA or ICAO must be present

- **Type**: `object`
- **Required**: Yes

7.1.2.1.2 ACRISFlight.aircraftType

The aircraft-type information

- **Type**: `object`
- **Required**: No

7.1.2.1.3 ACRISFlight.flightNumber

The status representation of a flight

- **Type**: `object`
- **Required**: No

7.1.2.1.4 ACRISFlight.codeShares

The code-shares associated with the flight

- **Type**: `object[]`
- **Required**: No

7.1.2.1.5 ACRISFlight.departureAirport

The departure airport as IATA format

- **Type**: `string`
- **Required**: No

7.1.2.1.6 ACRISFlight.arrivalAirport

The arrival airport as IATA format

- **Type**: `string`
- **Required**: No

7.1.2.1.7   ACRISFlight.originDate

Date expressed in UTC. Time element is not used. This date MUST not change once initialized. For a flight SFO-DEN-LHR both flight legs SFO-DEN and DEN-LHR will have the origin date of the SFO departing date (example 2015-10-15).

- **Type**: `string`
- **Required**: No
- **Format**: date-time

7.1.2.1.8   ACRISFlight.departure

The departure information for the flight

- **Type**: `object`
- **Required**: No

7.1.2.1.9   ACRISFlight.arrival

The arrival information for the flight.

- **Type**: `object`
- **Required**: No

7.1.2.1.10   ACRISFlight.flightStatus

The status of the flight

- **Type**: `string`
- **Required**: Yes
- **Allowed values**: `"Canceled"`, `"Diverted"`, `"Scheduled"`, `"Boarding"`, `"GateClosed"`, `"Departed"`, `"InApproach"`, `"Landed"`, `"BagClaimStarted"`, `"FlightFinished"`

7.1.2.1.11   ACRISFlight.via

A list of airports and the corresponding arrival and departure information for stops during the flight. The order in the array represents the flight order.

- **Type**: `object[]`
- **Required**: No

7.1.2.2 ACRISFlightList

A list of flights

7.1.2.3 FlightArrivalInformation

The arrival information for the flight.

Properties

	Type	Description	Required
scheduled	string	Scheduled time of arrival including time zone. Format ISO-8601 is used.	Yes
estimated	string	Estimated time of arrival including time zone. Format ISO-8601 is used. Every airport should provide the best information he has, corresponding to the FIDS.	No
actual	string	Actual time of arrival including time zone. Format ISO-8601 is used. Every airport should provide the best information he has, corresponding to the FIDS.	No
terminal	string	The terminal for the flight	No
gate	string	The arrival gate for the flight. Depending on the buildings of every airport this could be an gate or area the passenger enters the terminal the first time.	No
transferInformation	string	Provide information for your passengers where the nearest transfer desks for this flight can be found.	No
baggageClaim	object		No

Additional properties are allowed.

7.1.2.3.1   FlightArrivalInformation.scheduled

Scheduled time of arrival including time zone. Format ISO-8601 is used.

- **Type**: **string**
- **Required**: Yes
- **Format**: date-time

7.1.2.3.2   FlightArrivalInformation.estimated

Estimated time of arrival including time zone. Format ISO-8601 is used. Every airport should provide the best information he has, corresponding to the FIDS.

- **Type**: **string**
- **Required**: No
- **Format**: date-time

7.1.2.3.3   FlightArrivalInformation.actual

Actual time of arrival including time zone. Format ISO-8601 is used. Every airport should provide the best information he has, corresponding to the FIDS.

- **Type**: **string**
- **Required**: No
- **Format**: date-time

7.1.2.3.4   FlightArrivalInformation.terminal

The terminal for the flight

- **Type**: `string`
- **Required**: No

7.1.2.3.5   FlightArrivalInformation.gate

The arrival gate for the flight. Depending on the buildings of every airport this could be an gate or area the passenger enters the terminal the first time.

- **Type**: `string`
- **Required**: No

7.1.2.3.6   FlightArrivalInformation.transferInformation

Provide information for your passengers where the nearest transfer desks for this flight can be found.

- **Type**: `string`
- **Required**: No

7.1.2.3.7   FlightArrivalInformation.baggageClaim
- **Type**: `object`
- **Required**: No

7.1.2.4 FlightDepartureInformation

The departure information for the flight

Properties

	Type	Description	Required
scheduled	`string`	Scheduled time of departure including time zone. Format ISO-8601 is used.	Yes
estimated	`string`	Estimated time of departure including time zone. Format ISO-8601 is used. Every airport should provide the best information he has, corresponding to the FIDS.	No
actual	`string`	Actual time of departure including time zone. Format ISO-8601 is used. Every airport should provide the best information he has, corresponding to the FIDS.	No
terminal	`string`	The terminal for the flight	No
gate	`string`	The gate for the flight	No
checkinInfo	`object`	The check-in information for the passenger	No
boardingTime	`object[]`	A list of airports and the corresponding arrival and departure information for stops during the flight. The order in the array represents the flight order.	No

Additional properties are allowed.

7.1.2.4.1   FlightDepartureInformation.scheduled

Scheduled time of departure including time zone. Format ISO-8601 is used.

- **Type**: `string`
- **Required**: Yes
- **Format**: date-time

7.1.2.4.2   FlightDepartureInformation.estimated

Estimated time of departure including time zone. Format ISO-8601 is used. Every airport should provide the best information he has, corresponding to the FIDS.

- **Type**: `string`
- **Required**: No
- **Format**: date-time

7.1.2.4.3   FlightDepartureInformation.actual

Actual time of departure including time zone. Format ISO-8601 is used. Every airport should provide the best information he has, corresponding to the FIDS.

- **Type**: `string`
- **Required**: No
- **Format**: date-time

7.1.2.4.4   FlightDepartureInformation.terminal

The terminal for the flight

- **Type**: `string`
- **Required**: No

7.1.2.4.5   FlightDepartureInformation.gate

The gate for the flight

- **Type**: `string`
- **Required**: No

7.1.2.4.6   FlightDepartureInformation.checkinInfo

The check-in information for the passenger

- **Type**: `object`
- **Required**: No

7.1.2.4.7   FlightDepartureInformation.boardingTime

A list of airports and the corresponding arrival and departure information for stops during the flight. The order in the array represents the flight order.

- **Type**: `object[]`

- **Required**: No

7.1.2.5 1.2.5. FlightNumber

The status representation of a flight

Properties

	Type	Description	Required
airlineCode	`string`	The airlineCode-part of the flight-number (e.g. EI)	Yes
trackNumber	`string`	The tracknumber-part of the flight-number (e.g. 123)	Yes
suffix	`string`	The optional last character of the flight-number.	No

Additional properties are allowed.

7.1.2.5.1   FlightNumber.airlineCode

The airlineCode-part of the flight-number (e.g. EI)

- **Type**: `string`
- **Required**: Yes

7.1.2.5.2   FlightNumber.trackNumber

The tracknumber-part of the flight-number (e.g. 123)

- **Type**: `string`
- **Required**: Yes

7.1.2.5.3   FlightNumber.suffix

The optional last character of the flight-number.

- **Type**: `string`
- **Required**: No

7.2   **Airline**

7.2.1   Interfaces

7.2.1.1 API for Airlines API documentation version v1

https://{serverName}/{appName}-{version}

7.2.1.1.1   /detail/{airline_id}

/detail/{airline_id}
- **get** *(secured)*: Returns detailed information for a specific airline

/airlines

- **get** *(secured)*: Returns a list of all available airlines for an specific airport. This usually is a list of all the airlines that offer services (operating flights as well as code shares) at the requested source.

7.2.2   Models

7.2.2.1 AirlineFull

The airline's full information object

Properties

	Type	Description	Required
checkIn	`string`	The check-in area of the airline	No
icaoCode	`string`	The ICAO Code of the airline	Yes
terminal	`string`	The airlines main terminal as comma seperated list	No
airlineName	`string`		Yes
logo	`object`	Image file - in different resolutions to address different devices and device types	No
checkInTime	`string`	The check-in times of the airline	No
lateNightArea	`string`	The late night check-in areas of the airline	No
lateNightTimes	`string`	The late night check-in times of the airline	No
serviceTime	`string`	The service center opening times of the airline	No
handlingAgent	`string`	The handling agent of the airline	No
info	`string`	Some further information.	No
websites	`string[]`	The internet addresses of the airline	No
telephoneNumber	`string`	The important telephone number of the airline	No
faxNumber	`string`	The fax number of the airline	No
email	`string`	The e-mail address of the airline	No
onlineCheckInURL	`string`	The URL of the online checkin platform	No
contact	`object`	An address following the convention of http://microformats.org/wiki/hcard	Yes
airlineID	`object`	The ID of the airline	Yes
iataCode	`string`	The IATA Code of the airline	Yes
flightNumberCode	`string`	The flight number code (code used towards the passenger, could be IATA or ICAO format) of the airline	Yes

Additional properties are allowed.

7.2.2.1.1 AirlineFull.checkIn

The check-in area of the airline

- **Type**: `string`
- **Required**: No

7.2.2.1.2 AirlineFull.icaoCode

The ICAO Code of the airline

- **Type**: `string`
- **Required**: Yes

7.2.2.1.3 AirlineFull.terminal

The airlines main terminal as comma seperated list

- **Type**: `string`
- **Required**: No

7.2.2.1.4 AirlineFull.airlineName

- **Type**: `string`
- **Required**: Yes

7.2.2.1.5 AirlineFull.logo

Image file - in different resolutions to address different devices and device types

- **Type**: `object`
- **Required**: No

7.2.2.1.6 AirlineFull.checkInTime

The check-in times of the airline

- **Type**: `string`
- **Required**: No

7.2.2.1.7 AirlineFull.lateNightArea

The late night check-in areas of the airline

- **Type**: `string`
- **Required**: No

7.2.2.1.8 AirlineFull.lateNightTimes

The late night check-in times of the airline

- **Type**: `string`
- **Required**: No

7.2.2.1.9 AirlineFull.serviceTime

The service center opening times of the airline

- **Type**: `string`
- **Required**: No

7.2.2.1.10   AirlineFull.handlingAgent

The handling agent of the airline

- **Type**: `string`
- **Required**: No

7.2.2.1.11   AirlineFull.info

Some further information.

- **Type**: `string`
- **Required**: No

7.2.2.1.12   AirlineFull.websites

The internet addresses of the airline

- **Type**: `string[]`
- **Required**: No

7.2.2.1.13   AirlineFull.telephoneNumber

The important telephone number of the airline

- **Type**: `string`
- **Required**: No

7.2.2.1.14   AirlineFull.faxNumber

The fax number of the airline

- **Type**: `string`
- **Required**: No

7.2.2.1.15   AirlineFull.email

The e-mail address of the airline

- **Type**: `string`
- **Required**: No

7.2.2.1.16   AirlineFull.onlineCheckInURL

The URL of the online checkin platform

- **Type**: `string`
- **Required**: No
- **Format**: uri

7.2.2.1.17   AirlineFull.contact

An address following the convention of http://microformats.org/wiki/hcard

- **Type**: `object`
- **Required**: Yes

7.2.2.1.18   AirlineFull.airlineID

The ID of the airline

- **Type**: `object`
- **Required**: Yes

7.2.2.1.19   AirlineFull.iataCode

The IATA Code of the airline

- **Type**: `string`
- **Required**: Yes

7.2.2.1.20   AirlineFull.flightNumberCode

The flight number code (code used towards the passenger, could be IATA or ICAO format) of the airline

- **Type**: `string`
- **Required**: Yes

7.2.2.2   AirlineShort

The short airline Object

Properties

	Type	Description	Required
airlineID	`object`	The ID of the airline	Yes
iataCode	`string`	The IATA Code of the airline	Yes
flightNumberCode	`string`	The flight number code (code used towards the passenger, could be IATA or ICAO format) of the airline	Yes

Additional properties are allowed.

7.2.2.2.1   AirlineShort.airlineID

The ID of the airline

- **Type**: `object`
- **Required**: Yes

7.2.2.2.2   AirlineShort.iataCode

The IATA Code of the airline

- **Type**: `string`
- **Required**: Yes

7.2.2.2.3   AirlineShort.flightNumberCode

The flight number code (code used towards the passenger, could be IATA or ICAO format) of the airline

- **Type**: `string`
- **Required**: Yes

7.2.2.3 AirlineList

The list of all airlines

Properties

	Type	Description	Required
airlines	`object[]`	The airline items	No

Additional properties are allowed.

7.2.2.3.1   AirlineList.airlines

The airline items

- **Type**: `object[]`
- **Required**: No

7.3   **Airport**

7.3.1   Interfaces

7.3.1.1 API for Airport API documentation version v1

https://{serverName}/{appName}-{version}

7.3.1.1.1   /detail/{airportID}/

GET returns detailed information about a specific airport

/detail/{airportID}/
- **get** *(secured)*: Returns detailed information about a specific airport

7.3.1.1.2   /detail/iata/{iataCode}/

GET returns detailed information of an active airport for the specified IATA code

/detail/iata/{iataCode}/
- **get** *(secured)*: Returns detailed information of an active airport for the specified IATA code

7.3.1.1.3   /detail/icao/{icaoCode}/

GET returns detailed information of an active airport for the specified ICAO code

/detail/icao/{icaoCode}/

- **get** *(secured)*: Returns detailed information of an active airport for the specified ICAO code

7.3.1.1.4   /airports

GET returns all active airports

/airports

- **get** *(secured)*: Returns all active airports

7.3.1.1.5   airportInfo

GET returns specified airport's information

/airportInfo/{airportInfoId}

- **get** *(secured)*: Returns specified airport's information

7.3.1.1.6   airportInfos

GET returns all information about the specified airport

/airportInfos/{airportId}

- **get** *(secured)*: Returns all information about the specified airport

7.3.2   Models

7.3.2.1   AirportFull

The airport object in the app

Properties

	Type	Description	Required
icaoCode	`string`	The ICAO Code of the airport	Yes
coordinate	`object`	The coordinates of the airport (WGS84)	No
geofenceRadius	`number`	The radius around the coordinate in which the airport lies in meters.	No
visitorsAddress	`object`	An address following the convention of http://microformats.org/wiki/hcard	Yes
postalAddress	`object`	An address following the convention of http://microformats.org/wiki/hcard	Yes
airportImageURL	`object`	Image file - in different resolutions to address different devices and device types	No
timezone	`string`	Time zone of the current airport, according to tz database, see https://en.wikipedia.org/ wiki/List_of_tz_database_time_zones	No
websites	`string[]`	Internet addresses of the airport	No

telephoneNumber	string	The most important telephone number of the airport	No
email	string	The e-mail address of the airport	No
queueTimes	object	The waiting queue object	No
airportID	object	The airport's ID	Yes
iataCode	string	The airport's iata code	Yes
cityName	string	The airport's city name (same as visitor-city-name) in the selected language	No
country	object	The counry the airport belongs to.	No
airportName	string	The airports name	No

Additional properties are allowed.

7.3.2.1.1 AirportFull.icaoCode

The ICAO Code of the airport

- **Type**: string
- **Required**: Yes

7.3.2.1.2 AirportFull.coordinate

The coordinates of the airport (WGS84)

- **Type**: object
- **Required**: No

7.3.2.1.3 AirportFull.geofenceRadius

The radius around the coordinate in which the airport lies in meters.

- **Type**: number
- **Required**: No

7.3.2.1.4 AirportFull.visitorsAddress

An address following the convention of http://microformats.org/wiki/hcard

- **Type**: object
- **Required**: Yes

7.3.2.1.5 AirportFull.postalAddress

An address following the convention of http://microformats.org/wiki/hcard

- **Type**: object
- **Required**: Yes

7.3.2.1.6 AirportFull.airportImageURL

Image file - in different resolutions to address different devices and device types

- **Type**: object

- **Required**: No

7.3.2.1.7   AirportFull.timezone

Time zone of the current airport, according to tz database, see
https://en.wikipedia.org/wiki/List_of_tz_database_time_zones

- **Type**: **string**
- **Required**: No

7.3.2.1.8   AirportFull.websites

Internet addresses of the airport

- **Type**: **string[]**
- **Required**: No

7.3.2.1.9   AirportFull.telephoneNumber

The most important telephone number of the airport

- **Type**: **string**
- **Required**: No

7.3.2.1.10   AirportFull.email

The e-mail address of the airport

- **Type**: **string**
- **Required**: No

7.3.2.1.11   AirportFull.queueTimes

The waiting queue object

- **Type**: **object**
- **Required**: No

7.3.2.1.12   AirportFull.airportID

The airport's ID

- **Type**: **object**
- **Required**: Yes

7.3.2.1.13   AirportFull.iataCode

The airport's iata code

- **Type**: **string**
- **Required**: Yes

7.3.2.1.14   AirportFull.cityName

The airport's city name (same as visitor-city-name) in the selected language

- **Type**: **string**

- **Required**: No

7.3.2.1.15 AirportFull.country

The counry the airport belongs to.

- **Type**: `object`
- **Required**: No

7.3.2.1.16 AirportFull.airportName

The airports name

- **Type**: `string`
- **Required**: No

7.3.2.2 AirportShort

The airport Object represents the short representation of the airport in STP app-service

Properties

	Type	Description	Required
airportID	`object`	The airport's ID	Yes
iataCode	`string`	The airport's iata code	Yes
cityName	`string`	The airport's city name (same as visitor-city-name) in the selected language	No
country	`object`	The counry the airport belongs to.	No
airportName	`string`	The airports name	No

Additional properties are allowed.

7.3.2.2.1 AirportShort.airportID

The airport's ID

- **Type**: `object`
- **Required**: Yes

7.3.2.2.2 AirportShort.iataCode

The airport's iata code

- **Type**: `string`
- **Required**: Yes

7.3.2.2.3 AirportShort.cityName

The airport's city name (same as visitor-city-name) in the selected language

- **Type**: `string`
- **Required**: No

7.3.2.2.4　AirportShort.country

The counry the airport belongs to.

- **Type**: **object**
- **Required**: No

7.3.2.2.5　AirportShort.airportName

The airports name

- **Type**: **string**
- **Required**: No

7.3.2.3　AirportInfo

The airport information object

Properties

	Type	Description	Required
infoId	**object**	The ID of the info	Yes
valid_from	**string**	The begin date of the validity of the security infos	No
valid_to	**string**	The end date of the validity of the security infos	No
created	**string**	The creation timestamp of the security infos	No
title	**string**	The title of one security info	No
infoType	**string**	The level of the security info	No
message	**string**	The text of one security info	No
urls	**string[]**	Array of links to external information	No

Additional properties are allowed.

7.3.2.3.1　AirportInfo.infoId

The ID of the info

- **Type**: **object**
- **Required**: Yes

7.3.2.3.2　AirportInfo.valid_from

The begin date of the validity of the security infos

- **Type**: **string**
- **Required**: No
- **Format**: date-time

7.3.2.3.3　AirportInfo.valid_to

The end date of the validity of the security infos

- **Type**: **string**

- **Required**: No
- **Format**: date-time

7.3.2.3.4 AirportInfo.created

The creation timestamp of the security infos

- **Type**: **string**
- **Required**: No
- **Format**: date-time

7.3.2.3.5 AirportInfo.title

The title of one security info

- **Type**: **string**
- **Required**: No

7.3.2.3.6 AirportInfo.infoType

The level of the security info

- **Type**: **string**
- **Required**: No
- **Allowed values**: **"MESSAGE", "INFO", "WARNING", "EMERGENCY"**

7.3.2.3.7 AirportInfo.message

The text of one security info

- **Type**: **string**
- **Required**: No

7.3.2.3.8 AirportInfo.urls

Array of links to external information

- **Type**: **string[]**
- **Required**: No

7.3.2.4 AirportInfoList

The list of airports

Properties

	Type	Description	Required
airports	**object[]**	The list of all airport infos	No

Additional properties are allowed.

7.3.2.4.1 AirportInfoList.airports

The list of all airport infos

- **Type**: `object[]`
- **Required**: No

7.3.2.5 AirportList

The list of airports

Properties

	Type	Description	Required
airports	`object[]`	The list of all active airports	No

Additional properties are allowed.

7.3.2.5.1 AirportList.airports

The list of all active airports

- **Type**: `object[]`
- **Required**: No

7.3.2.6 AirportQueue

The waiting queue object

Properties

	Type	Description	Required
current	`object[]`	This array describes the current situation at airport queues	No
forecast	`object[]`	This array gives an estimation / forecast for the waiting time at airport queues at specific times (e.g. every 15 min for the next 4 hours, every 1 hr for the next day)	No

Additional properties are allowed.

7.3.2.6.1 AirportQueue.current

This array describes the current situation at airport queues

- **Type**: `object[]`
- **Required**: No

7.3.2.6.2 AirportQueue.forecast

This array gives an estimation / forecast for the waiting time at airport queues at specific times (e.g. every 15 min for the next 4 hours, every 1 hr for the next day)

- **Type**: `object[]`
- **Required**: No

7.4 BookService

7.4.1 Interfaces

7.4.1.1 Booking a Service API documentation version v1

https://{serverName}/{appName}-{version}

7.4.1.1.1 /bookingElements

/bookingElements
- **post** *(secured)*: Fetches the next booking data by posting the previous elements (if available)

7.4.1.1.2 /serviceBooking/{bookingid}

/serviceBooking/{bookingid}
- **put** *(secured)*: Register a certain booking request (i.e. complete the booking process)
- **delete** *(secured)*: Cancel a certain booking request
- **post** *(secured)*: make a change to a certain booking request
- **get** *(secured)*: Get the booking status

7.4.2 Models

7.4.2.1 BookingDataRequest

Booking request data

Properties

	Type	Description	Required
serviceHeader	object	Meta data for the booking process	No
serviceFormPage	object	One page of the booking data	No

Additional properties are allowed.

7.4.2.1.1 BookingDataRequest.serviceHeader

Meta data for the booking process

- **Type**: object
- **Required**: No

7.4.2.1.2 BookingDataRequest.serviceFormPage

One page of the booking data

- **Type**: object
- **Required**: No

7.4.2.2 BookingDataResponse

Booking response data

Properties

	Type	Description	Required
serviceHeader	`object`	Meta data for the booking process	No
serviceFormPage	`object`	One page of the booking data	No
validationError	`string`	Error message from the service provider	No
bookingFee	`object`	Booking fee data, including tax information	No
termConditionURL	`string`	The URL to the terms and conditions of the service provider	No

Additional properties are allowed.

7.4.2.2.1   BookingDataResponse.serviceHeader

Meta data for the booking process

- **Type**: `object`
- **Required**: No

7.4.2.2.2   BookingDataResponse.serviceFormPage

One page of the booking data

- **Type**: `object`
- **Required**: No

7.4.2.2.3   BookingDataResponse.validationError

Error message from the service provider

- **Type**: `string`
- **Required**: No

7.4.2.2.4   BookingDataResponse.bookingFee

Booking fee data, including tax information

- **Type**: `object`
- **Required**: No

7.4.2.2.5   BookingDataResponse.termConditionURL

The URL to the terms and conditions of the service provider

- **Type**: `string`
- **Required**: No
- **Format**: URI

7.4.2.3 BookingFee

Booking fee data, including tax information

Properties

	Type	Description	Required
preTaxFee	`number`	Pre-tax fee	Yes
taxRate	`number`	Tax rate	Yes
currency	`string`	Currency of transaction (ISO-4217 three-letter format, e.g. USD, EUR, CNY)	Yes

Additional properties are allowed.

7.4.2.3.1   BookingFee.preTaxFee

Pre-tax fee

- **Type**: `number`
- **Required**: Yes

7.4.2.3.2   BookingFee.taxRate

Tax rate

- **Type**: `number`
- **Required**: Yes

7.4.2.3.3   BookingFee.currency

Currency of transaction (ISO-4217 three-letter format, e.g. USD, EUR, CNY)

- **Type**: `string`
- **Required**: Yes

7.4.2.4 BookingOverview

booking overview data

Properties

	Type	Description	Required
serviceHeader	`object`	Meta data for the booking process	No
serviceForm	`object`	Complete booking data	No
bookingFee	`object`	Booking fee data, including tax information	No
bookingStatus	`object`	Booking status	No

Additional properties are allowed.

7.4.2.4.1   BookingOverview.serviceHeader

Meta data for the booking process

- **Type**: `object`
- **Required**: No

7.4.2.4.2   BookingOverview.serviceForm

Complete booking data

- **Type**: `object`
- **Required**: No

7.4.2.4.3   BookingOverview.bookingFee

Booking fee data, including tax information

- **Type**: `object`
- **Required**: No

7.4.2.4.4   BookingOverview.bookingStatus

Booking status

- **Type**: `object`
- **Required**: No

7.4.2.5   BookingStatus

Booking status

Properties

	Type	Description	Required
bookingStatus	`integer`	Number representing the booking status (100: booking does not exist, 101: no reservation made yet, 102: reserved, 200: all booking steps completed, 999: registered, 899: canceled)	Yes

Additional properties are allowed.

7.4.2.5.1   BookingStatus.bookingStatus

Number representing the booking status (100: booking does not exist, 101: no reservation made yet, 102: reserved, 200: all booking steps completed, 999: registered, 899: canceled)

- **Type**: `integer`
- **Required**: Yes
- **Allowed values**: `100`, `101`, `102`, `200`, `999`, `899`

7.4.2.6   ServiceBookingDataRequest

The service booking request data, with data in key-value form defined by and received from your selected payment provider

Properties

	Type	Description	Required
dataPayment	`array[]`		No
serviceHeader	`object`	Meta data for the booking process	No
serviceFormPage	`object`	One page of the booking data	No

Additional properties are allowed.

7.4.2.6.1 ServiceBookingDataRequest.dataPayment

- **Type**: `array[]`
- **Required**: No

7.4.2.6.2 ServiceBookingDataRequest.serviceHeader

Meta data for the booking process

- **Type**: `object`
- **Required**: No

7.4.2.6.3 ServiceBookingDataRequest.serviceFormPage

One page of the booking data

- **Type**: `object`
- **Required**: No

7.4.2.7 ServiceElement

Booking data for a booking element

Properties

	Type	Description	Required
id	`object`	Unique id of the element	Yes
elementType	`string`	Type of the element	No
valueDefinition	`string`	Definition of the element. Format: [Description; Supplement] Supplement is only used for the selectList and contains a comma separated list of list entries	No
value	`string`	Field input from the customer	No
descriptionText	`string`	Description text which explains the expected input to the customer	No
editable	`boolean`	Defines whether the field is editable or not	No
contentCategory	`string`	Category for the enrichment with user/session specific values (e.g. firstName, FamilyName, fullName, street, ...)	No
contentKey	`string`	Modification key for the content category (e.g. departure: the departure time of a flight is used as enrichment value	No

contentValue	`string`	Modifier for the content key (e.g. for departure, a value of -60 means 60 minutes prior to departure time, for Term and Condition a uri to them	No
mandatory	`boolean`	Defines whether the element is mandatory or not	No
errorText	`string`	Contains an error message	No

Additional properties are allowed.

7.4.2.7.1   ServiceElement.id

Unique id of the element

- **Type**: **object**
- **Required**: Yes

7.4.2.7.2   ServiceElement.elementType

Type of the element

- **Type**: **string**
- **Required**: No
- **Allowed values**: **"text"**, **"textbox"**, **"number"**, **"date"**, **"time"**, **"selectList"**, **"checkbox"**, **"image"**, **"telephone"**

7.4.2.7.3   ServiceElement.valueDefinition

Definition of the element. Format: [Description; Supplement] Supplement is only used for the selectList and contains a comma separated list of list entries

- **Type**: **string**
- **Required**: No

7.4.2.7.4   ServiceElement.value

Field input from the customer

- **Type**: **string**
- **Required**: No

7.4.2.7.5   ServiceElement.descriptionText

Description text which explains the expected input to the customer

- **Type**: **string**
- **Required**: No

7.4.2.7.6   ServiceElement.editable

Defines whether the field is editable or not

- **Type**: **boolean**
- **Required**: No

7.4.2.7.7 ServiceElement.contentCategory

Category for the enrichment with user/session specific values (e.g. firstName, FamilyName, fullName, street, ...)

- **Type**: `string`
- **Required**: No
- **Allowed values**: `"gender"`, `"firstName"`, `"familyName"`, `"fullName"`, `"street"`, `"zip"`, `"city"`, `"country"`, `"birthday"`, `"email"`, `"tel"`, `"date"`, `"time"`, `"airline"`, `"flightNr"`

7.4.2.7.8 ServiceElement.contentKey

Modification key for the content category (e.g. departure: the departure time of a flight is used as enrichment value

- **Type**: `string`
- **Required**: No
- **Allowed values**: `"departure"`, `"arrival"`, `"TermCondition"`

7.4.2.7.9 ServiceElement.contentValue

Modifier for the content key (e.g. for departure, a value of -60 means 60 minutes prior to departure time, for Term and Condition a uri to them

- **Type**: `string`
- **Required**: No

7.4.2.7.10 ServiceElement.mandatory

Defines whether the element is mandatory or not

- **Type**: `boolean`
- **Required**: No

7.4.2.7.11 ServiceElement.errorText

Contains an error message

- **Type**: `string`
- **Required**: No

7.4.2.8 ServiceForm

Complete booking data

Properties

	Type	Description	Required
id	`object`	Unique id of the element	Yes
serviceFormPages	`array[]`		Yes

Additional properties are allowed.

Unique id of the element

- **Type**: **object**
- **Required**: Yes

- **Type**: **array[]**
- **Required**: Yes

7.4.2.9 ServiceFormElement

Element within a service form page

Properties

	Type	Description	Required
id	**object**	Unique ID of the element	Yes
title	**string**	The title of the element	Yes
subtitle	**string**	The subtitle of the element	No
footerText	**string**	The footer text of the element	No
serviceElements	**object[]**		No

Additional properties are allowed.

7.4.2.9.1   ServiceFormElement.id

Unique ID of the element

- **Type**: **object**
- **Required**: Yes

7.4.2.9.2   ServiceFormElement.title

The title of the element

- **Type**: **string**
- **Required**: Yes

7.4.2.9.3   ServiceFormElement.subtitle

The subtitle of the element

- **Type**: **string**
- **Required**: No

7.4.2.9.4   ServiceFormElement.footerText

The footer text of the element

- **Type**: **string**
- **Required**: No

- **Type**: `object[]`
- **Required**: No

7.4.2.10   ServiceFormPage

One page of the booking data

Properties

	Type	Description	Required
id	`object`	Unique id of the element	Yes
title	`string`	The title of the booking page	Yes
wizardStep	`integer`	Current wizard step (i.e. page number)	Yes
serviceFormElements	`object[]`		Yes

Additional properties are allowed.

7.4.2.10.1   ServiceFormPage.id

Unique id of the element

- **Type**: `object`
- **Required**: Yes

7.4.2.10.2   ServiceFormPage.title

The title of the booking page

- **Type**: `string`
- **Required**: Yes

7.4.2.10.3   ServiceFormPage.wizardStep

Current wizard step (i.e. page number)

- **Type**: `integer`
- **Required**: Yes

7.4.2.10.4   ServiceFormPage.serviceFormElements

- **Type**: `object[]`
- **Required**: Yes

7.4.2.11   ServiceHeader

Meta data for the booking process

Properties

	Type	Description	Required
serviceID	`object`	Sequential number of the service	Yes
description	`string`	Description of the service	No

bookingID	object	Unique ID of the booking action	No
extBookingID	string	Booking ID of the Service Provider (external reference)	No
bookingStatus	object	Booking status	No
currentWizardStep	integer	Current step in the booking process	No
paymentURL	string	The URL to the payment provider, only available when bookingStatus is ready for payment	No

Additional properties are allowed.

7.4.2.11.1   ServiceHeader.serviceID

Sequential number of the service

- **Type**: **object**
- **Required**: Yes

7.4.2.11.2   ServiceHeader.description

Description of the service

- **Type**: **string**
- **Required**: No

7.4.2.11.3   ServiceHeader.bookingID

Unique ID of the booking action

- **Type**: **object**
- **Required**: No

7.4.2.11.4   ServiceHeader.extBookingID

Booking ID of the Service Provider (external reference)

- **Type**: **string**
- **Required**: No

7.4.2.11.5   ServiceHeader.bookingStatus

Booking status

- **Type**: **object**
- **Required**: No

7.4.2.11.6   ServiceHeader.currentWizardStep

Current step in the booking process

- **Type**: **integer**
- **Required**: No

7.4.2.11.7 ServiceHeader.paymentURL

The URL to the payment provider, only available when bookingStatus is ready for payment

- **Type**: `string`
- **Required**: No
- **Format**: uri

7.5　**Image**

7.5.1 Models

7.5.1.1 Image

Image file - in different resolutions to address different devices and device types

Properties

	Type	Description	Required
low	`string`	Image in low resolution	No
medium	`string`	Image in medium resolution	No
high	`string`	Image in high resolution	No
native	`string`	Native resoution of image	No

Additional properties are allowed.

7.5.1.1.1　Image.low

Image in low resolution

- **Type**: `string`
- **Required**: No
- **Format**: url

7.5.1.1.2　Image.medium

Image in medium resolution

- **Type**: `string`
- **Required**: No
- **Format**: url

7.5.1.1.3　Image.high

Image in high resolution

- **Type**: `string`
- **Required**: No
- **Format**: url

7.5.1.1.4　Image.native

Native resoution of image

- **Type**: `string`
- **Required**: No
- **Format**: url

7.6   RestBase

7.6.1   Models

7.6.1.1 Address

An address following the convention of http://microformats.org/wiki/hcard

Properties

	Type	Description	Required
post-office-box	`string`	The post office box	No
extended-address	`string`	The extended address (Suite 207)	No
street-address	`string`	The street address (665 3rd St.)	No
locality	`string`	The locality (San Francisco)	No
region	`string`	The region (CA)	No
postal-code	`string`	The postal code (94107)	No
country-name	`string`	The country's name (U.S.A.)	No
country-tag	`string`	The country's 2 letter code (US)	No

Additional properties are allowed.

7.6.1.1.1   Address.post-office-box

The post office box

- **Type**: `string`
- **Required**: No

7.6.1.1.2   Address.extended-address

The extended address (Suite 207)

- **Type**: `string`
- **Required**: No

7.6.1.1.3   Address.street-address

The street address (665 3rd St.)

- **Type**: `string`
- **Required**: No

7.6.1.1.4   Address.locality

The locality (San Francisco)

- **Type**: `string`

- **Required**: No

7.6.1.1.5   Address.region

The region (CA)

- **Type**: `string`
- **Required**: No

7.6.1.1.6   Address.postal-code

The postal code (94107)

- **Type**: `string`
- **Required**: No

7.6.1.1.7   Address.country-name

The country's name (U.S.A.)

- **Type**: `string`
- **Required**: No

7.6.1.1.8   Address.country-tag

The country's 2 letter code (US)

- **Type**: `string`
- **Required**: No

7.6.1.2 Barcode

Definition of barcodes to be shown to the user

Properties

	Type	Description	Required
type	`string`		No
payload	`string`	The content to be converted into a barcode	No

Additional properties are allowed.

7.6.1.2.1   Barcode.type
- **Type**: `string`
- **Required**: No
- **Allowed values**: **"EAN13", "PDF417", "AZTEK", "QR"**

7.6.1.2.2   Barcode.payload

The content to be converted into a barcode

- **Type**: `string`
- **Required**: No

7.6.1.3 ResponseMsg

Properties

	Type	Description	Required
msg	**string**		Yes

Additional properties are allowed.

7.6.1.3.1 ResponseMsg.msg

- **Type**: **string**
- **Required**: Yes

7.7 Service

7.7.1 Interfaces

7.7.1.1 API for Services API documentation version v1

https://{serverName}/{appName}-{version}

7.7.1.1.1 /detail/{serviceID}

/detail/{serviceID}
- **get**: Returns detailed information for a specific service. The language has to be given as parameter for the selection in the data base.

/detail/{serviceID}/{locationId}
- **get**: Returns detailed information for a specific service. The language has to be given as parameter for the selection in the data base.

7.7.1.1.2 /search/{airportID}

/search/{airportID}
- **get**: Returns detailed information as a list for the search. The language has to be given as parameter for the selection in the data base.

7.7.1.1.3 /topServices/{airportID}

/topServices/{airportID}
- **get**: Returns a list of available top services for the given airport and user identified by oauth-token. The top services can differ for different users and is context based. The list items have to be ordered. There should be only maximum 4 top services. The language has to be given as parameter for the selection in the database.

/serviceCategories/{airportID}

- **get**: Returns a list of available service categories for a specific airport. The language has to be given as parameter for the selection in the data base.

/category/{categoryId}

- **get**: Returns a list of available service categories for a specific airport. The language has to be given as parameter for the selection in the data base.

7.7.2   Models

7.7.2.1 LocationFull

Properties

	Type	Description	Required
x	`number`	The x coordinate of the location	Yes
locationId	`object`	The location ID	Yes
y	`number`	The y coordinate of the location	Yes
z	`number`	The z coordinate of the location	Yes
humanReadable	`string`	Human readable location name like terminal 2 or terminal 1	Yes
area	`string`	Area identification like room numbers or the name of corridors	Yes
externalId	`string`	External location ID	No
description	`string`	The description of the location	No
mapImage	`object`	Image file - in different resolutions to address different devices and device types	No
openingHours	`object[]`	The opening of the services at this dedicated location	No

Additional properties are allowed.

7.7.2.1.1   LocationFull.x

The x coordinate of the location

- **Type**: `number`
- **Required**: Yes

7.7.2.1.2   LocationFull.locationId

The location ID

- **Type**: `object`

- **Required**: Yes

7.7.2.1.3 LocationFull.y

The y coordinate of the location

- **Type**: `number`
- **Required**: Yes

7.7.2.1.4 LocationFull.z

The z coordinate of the location

- **Type**: `number`
- **Required**: Yes

7.7.2.1.5 LocationFull.humanReadable

Human readable location name like terminal 2 or terminal 1

- **Type**: `string`
- **Required**: Yes

7.7.2.1.6 LocationFull.area

Area identification like room numbers or the name of corridors

- **Type**: `string`
- **Required**: Yes

7.7.2.1.7 LocationFull.externalId

External location ID

- **Type**: `string`
- **Required**: No

7.7.2.1.8 LocationFull.description

The description of the location

- **Type**: `string`
- **Required**: No

7.7.2.1.9 LocationFull.mapImage

Image file - in different resolutions to address different devices and device types

- **Type**: `object`
- **Required**: No

7.7.2.1.10 LocationFull.openingHours

The opening of the services at this dedicated location

- **Type**: `object[]`

* **Required**: No

7.7.2.2 ProviderFull

Properties

	Type	Description	Required
id	`object`	The unique identifier of the provider	Yes
name	`string`	The name of the provider	Yes
email	`string`	The e-mail address of the provider	No
website	`string`	The website of the provider	No
phone	`string`	The phone number of the provider	No
fax	`string`	The fax number of the provider	No
logo	`object`	Image file - in different resolutions to address different devices and device types	No
contact	`object`	An address following the convention of http://microformats.org/wiki/hcard	Yes

Additional properties are allowed.

7.7.2.2.1   ProviderFull.id

The unique identifier of the provider

* **Type**: `object`
* **Required**: Yes

7.7.2.2.2   ProviderFull.name

The name of the provider

* **Type**: `string`
* **Required**: Yes

7.7.2.2.3   ProviderFull.email

The e-mail address of the provider

* **Type**: `string`
* **Required**: No

7.7.2.2.4   ProviderFull.website

The website of the provider

* **Type**: `string`
* **Required**: No
* **Format**: uri

7.7.2.2.5   ProviderFull.phone

The phone number of the provider

- **Type**: `string`
- **Required**: No

7.7.2.2.6   ProviderFull.fax

The fax number of the provider

- **Type**: `string`
- **Required**: No

7.7.2.2.7   ProviderFull.logo

Image file - in different resolutions to address different devices and device types

- **Type**: `object`
- **Required**: No

7.7.2.2.8   ProviderFull.contact

An address following the convention of http://microformats.org/wiki/hcard

- **Type**: `object`
- **Required**: Yes

7.7.2.3 7.2.3. ServiceFull

Service with full details

Properties

	Type	Description	Required
title	`string`	The title of the service item. The title will be shown in the list of services and is the header of the service detail. This text is required otherwise the service will not be shown in the list.	Yes
subTitle	`string`	The sub title of the service item. This text will be shown below the service title.	No
icon	`object`	Image file - in different resolutions to address different devices and device types	No
shortDescription	`string`	The short description of the service item. This text will be shown in the first pageview of the service item after the title and the subTitle.	No
description	`string`	The long description of the service item. This text will be shown in the details of the service item.	No
isBookable	`boolean`	True if the service can be booked	No

serviceBulletpoints	`object[]`	The services (key features) here bulletpoints of the service item. The order of each elment is defined over all key features.	No
serviceTables	`object[]`	The services (key features) here table of the service item. The order of each elment is defined over all key features.	No
serviceTexts	`object[]`	The services (key features) here bulletpoints of the service item. The order of each elment is defined over all key features.	No
titleImage	`object`	Image file - in different resolutions to address different devices and device types	No
titleImage_small	`object`	Image file - in different resolutions to address different devices and device types	No
desciptionImage_vertical	`object`	Image file - in different resolutions to address different devices and device types	No
descriptionImage_horizontal	`object`	Image file - in different resolutions to address different devices and device types	No
downloads	`string[]`	The downloads area of the service.	No
specials	`object[]`	The different specials for the service. The title of the special will be shown in the service details. The details of the special can be loaded by the unique identifier of the special. If the list is empty the whole section will disappear in the service details.	No
provider	`object`		No
serviceId	`object`	The unique identifier of the service	Yes
airportId	`object`	The unique identifier of the airport the service belongs to	Yes
locations	`object[]`	The different points of interest of the service.	No

Additional properties are allowed.

7.7.2.3.1   ServiceFull.title

The title of the service item. The title will be shown in the list of services and is the header of the service detail. This text is required otherwise the service will not be shown in the list.

- **Type**: `string`
- **Required**: Yes

7.7.2.3.2 ServiceFull.subTitle

The sub title of the service item. This text will be shown below the service title.

- **Type**: `string`
- **Required**: No

7.7.2.3.3 ServiceFull.icon

Image file - in different resolutions to address different devices and device types

- **Type**: `object`
- **Required**: No

7.7.2.3.4 ServiceFull.shortDescription

The short description of the service item. This text will be shown in the first pageview of the service item after the title and the subTitle.

- **Type**: `string`
- **Required**: No

7.7.2.3.5 ServiceFull.description

The long description of the service item. This text will be shown in the details of the service item.

- **Type**: `string`
- **Required**: No

7.7.2.3.6 ServiceFull.isBookable

True if the service can be booked

- **Type**: `boolean`
- **Required**: No

7.7.2.3.7 ServiceFull.serviceBulletpoints

The services (key features) here bulletpoints of the service item. The order of each elment is defined over all key features.

- **Type**: `object[]`
- **Required**: No

7.7.2.3.8 ServiceFull.serviceTables

The services (key features) here table of the service item. The order of each elment is defined over all key features.

- **Type**: `object[]`
- **Required**: No

7.7.2.3.9 ServiceFull.serviceTexts

The services (key features) here bulletpoints of the service item. The order of each elment is defined over all key features.

- **Type**: `object[]`
- **Required**: No

7.7.2.3.10 ServiceFull.titleImage

Image file - in different resolutions to address different devices and device types

- **Type**: `object`
- **Required**: No

7.7.2.3.11 ServiceFull.titleImage_small

Image file - in different resolutions to address different devices and device types

- **Type**: `object`
- **Required**: No

7.7.2.3.12 ServiceFull.desciptionImage_vertical

Image file - in different resolutions to address different devices and device types

- **Type**: `object`
- **Required**: No

7.7.2.3.13 ServiceFull.descriptionImage_horizontal

Image file - in different resolutions to address different devices and device types

- **Type**: `object`
- **Required**: No

7.7.2.3.14 ServiceFull.downloads

The downloads area of the service.

- **Type**: `string[]`
- **Required**: No

7.7.2.3.15 ServiceFull.specials

The different specials for the service. The title of the special will be shown in the service details. The details of the special can be loaded by the unique identifier of the special. If the list is empty the whole section will disappear in the service details.

- **Type**: `object[]`
- **Required**: No

7.7.2.3.16 ServiceFull.provider

- **Type**: `object`
- **Required**: No

7.7.2.3.17 ServiceFull.serviceId

The unique identifier of the service

- **Type**: **object**
- **Required**: Yes

7.7.2.3.18 ServiceFull.airportId

The unique identifier of the airport the service belongs to

- **Type**: **object**
- **Required**: Yes

7.7.2.3.19 ServiceFull.locations

The different points of interest of the service.

- **Type**: **object[]**
- **Required**: No

7.7.2.4 ServiceShort

Properties

	Type	Description	Required
serviceId	object	The unique identifier of the service	Yes
airportId	object	The unique identifier of the airport the service belongs to	Yes
locations	object[]	The different points of interest of the service.	No

Additional properties are allowed.

7.7.2.4.1 ServiceShort.serviceId

The unique identifier of the service

- **Type**: **object**
- **Required**: Yes

7.7.2.4.2 ServiceShort.airportId

The unique identifier of the airport the service belongs to

- **Type**: **object**
- **Required**: Yes

7.7.2.4.3 ServiceShort.locations

The different points of interest of the service.

- **Type**: **object[]**
- **Required**: No

7.7.2.5 ServiceBulletpoint

Properties

	Type	Description	Required
title	`string`	The title of the bulletpoints. This is the first header element in the pageview.	Yes
order	`integer`	The order number in the complete list of key features.	Yes
headerText	`string`	The sub title of the bulletpoints. This text is shown after the title.	No
footerText	`string`	The footer text of the bulletpoints. This text is shown after the enumeration of the bulletpoints.	No
elements	`string[]`	The bulletpoint. Each element of the list has to be specified as one bulletpoint (element).	Yes

Additional properties are allowed.

7.7.2.5.1   ServiceBulletpoint.title

The title of the bulletpoints. This is the first header element in the pageview.

- **Type**: `string`
- **Required**: Yes

7.7.2.5.2   ServiceBulletpoint.order

The order number in the complete list of key features.

- **Type**: `integer`
- **Required**: Yes

7.7.2.5.3   ServiceBulletpoint.headerText

The sub title of the bulletpoints. This text is shown after the title.

- **Type**: `string`
- **Required**: No

7.7.2.5.4   ServiceBulletpoint.footerText

The footer text of the bulletpoints. This text is shown after the enumeration of the bulletpoints.

- **Type**: `string`
- **Required**: No

7.7.2.5.5   ServiceBulletpoint.elements

The bulletpoint. Each element of the list has to be specified as one bulletpoint (element).

- **Type**: `string[]`
- **Required**: Yes

7.7.2.6 ServiceCategoryFull

Properties

	Type	Description	Required
categoryType	`string`	Type of the category (BASECATEGORY: root, SUBCATEGORY: level below root, SERVICELIST: list of services, SERVICEPAGEVIEW: page of services)	No
serviceList	`object`	The list of elements in the category	Yes
categoryList	`object`	The list of elements in the category	No
id	`object`	The unique identifier of the service category	Yes
parentCategoryID	`object`	The ID of the parent category	Yes
title	`string`	The title of the service category. The title is shown in the category list.	Yes

Additional properties are allowed.

7.7.2.6.1   ServiceCategoryFull.categoryType

Type of the category (BASECATEGORY: root, SUBCATEGORY: level below root, SERVICELIST: list of services, SERVICEPAGEVIEW: page of services)

- **Type**: `string`
- **Required**: No
- **Allowed values**: `"BASECATEGORY"`, `"SUBCATEGORY"`, `"SERVICELIST"`, `"SERVICEPAGEVIEW"`

7.7.2.6.2   ServiceCategoryFull.serviceList

The list of elements in the category

- **Type**: `object`
- **Required**: Yes

7.7.2.6.3   ServiceCategoryFull.categoryList

The list of elements in the category

- **Type**: `object`
- **Required**: No

7.7.2.6.4   ServiceCategoryFull.id

The unique identifier of the service category

- **Type**: `object`
- **Required**: Yes

7.7.2.6.5   ServiceCategoryFull.parentCategoryID

The ID of the parent category

- **Type**: `object`
- **Required**: Yes

The title of the service category. The title is shown in the category list.

- **Type**: `string`
- **Required**: Yes

7.7.2.7 ServiceCategoryShort

Properties

	Type	Description	Required
id	`object`	The unique identifier of the service category	Yes
parentCategoryID	`object`	The ID of the parent category	Yes
title	`string`	The title of the service category. The title is shown in the category list.	Yes

Additional properties are allowed.

7.7.2.7.1   ServiceCategoryShort.id

The unique identifier of the service category

- **Type**: `object`
- **Required**: Yes

7.7.2.7.2   ServiceCategoryShort.parentCategoryID

The ID of the parent category

- **Type**: `object`
- **Required**: Yes

7.7.2.7.3   ServiceCategoryShort.title

The title of the service category. The title is shown in the category list.

- **Type**: `string`
- **Required**: Yes

7.7.2.8 ServiceCategoryList

The list of elements in the category

Properties

	Type	Description	Required
serviceCategoryParents	`object[]`	The list of all service categories.	No

Additional properties are allowed.

The list of all service categories.

- **Type**: `object[]`
- **Required**: No

7.7.2.9 ServiceList

The list of elements in the category

Properties

	Type	Description	Required
services	`object[]`		No

Additional properties are allowed.

7.7.2.9.1 ServiceList.services

- **Type**: `object[]`
- **Required**: No

7.7.2.10 ServiceTable

Properties

	Type	Description	Required
title	`string`	The title of the table for the service features. This is the first header element of this con.	Yes
order	`integer`	The order number in the complete list of key features.	Yes
headerText	`string`	The sub title of the table for the service features. This text is shown after the title.	No
footerText	`string`	The footer text of the table for the service features. This text is shown after the table view.	No
position	`string`	The position of the table in the page view. This can be used for the design of the page view. If no postion is specified the order conforms the returned list order.	No
rows	`object[]`	The rows of the table. The table supports only 2 column values. The rows will be in the order of the list.	Yes

Additional properties are allowed.

7.7.2.10.1 ServiceTable.title

The title of the table for the service features. This is the first header element of this con.

- **Type**: `string`
- **Required**: Yes

7.7.2.10.2 ServiceTable.order

The order number in the complete list of key features.

- **Type**: `integer`
- **Required**: Yes

7.7.2.10.3 ServiceTable.headerText

The sub title of the table for the service features. This text is shown after the title.

- **Type**: `string`
- **Required**: No

7.7.2.10.4 ServiceTable.footerText

The footer text of the table for the service features. This text is shown after the table view.

- **Type**: `string`
- **Required**: No

7.7.2.10.5 ServiceTable.position

The position of the table in the page view. This can be used for the design of the page view. If no postion is specified the order conforms the returned list order.

- **Type**: `string`
- **Required**: No

7.7.2.10.6 ServiceTable.rows

The rows of the table. The table supports only 2 column values. The rows will be in the order of the list.

- **Type**: `object[]`
- **Required**: Yes

7.7.2.11 ServiceText

Properties

	Type	Description	Required
title	string	The title of the free text element. This is the first header element of the container.	Yes
order	integer	The order number in the complete list of key features.	Yes
text	string	The text of the free text element. This text is shown after the title and is not formated.	No

Additional properties are allowed.

7.7.2.11.1 ServiceText.title

The title of the free text element. This is the first header element of the container.

- **Type**: `string`
- **Required**: Yes

7.7.2.11.2 ServiceText.order

The order number in the complete list of key features.

- **Type**: `integer`
- **Required**: Yes

7.7.2.11.3 ServiceText.text

The text of the free text element. This text is shown after the title and is not formated.

- **Type**: `string`
- **Required**: No

7.7.2.12   SpecialShort

Properties

	Type	Description	Required
id	`object`	The unique identifier of the special	Yes
name	`string`	The title of the special	Yes
description	`string`	The description of the special	No
numberOfAvailable	`number`	The number of available coupons for the offer	No
image	`object`	Image file - in different resolutions to address different devices and device types	No
begin	`date`	The begin date for the special	No
end	`date`	The end date for the special	No
coupon	`string`	The coupon of the spcial	No

Additional properties are allowed.

7.7.2.12.1 SpecialShort.id

The unique identifier of the special

- **Type**: `object`
- **Required**: Yes

7.7.2.12.2 SpecialShort.name

The title of the special

- **Type**: `string`
- **Required**: Yes

7.7.2.12.3 SpecialShort.description

The description of the special

- **Type**: `string`
- **Required**: No

7.7.2.12.4   SpecialShort.numberOfAvailable

The number of available coupons for the offer

- **Type**: `number`
- **Required**: No

7.7.2.12.5   SpecialShort.image

Image file - in different resolutions to address different devices and device types

- **Type**: `object`
- **Required**: No

7.7.2.12.6   SpecialShort.begin

The begin date for the special

- **Type**: `date`
- **Required**: No

7.7.2.12.7   SpecialShort.end

The end date for the special

- **Type**: `date`
- **Required**: No

7.7.2.12.8   SpecialShort.coupon

The coupon of the spcial

- **Type**: `string`
- **Required**: No

7.8   Trip

7.8.1   Interfaces

7.8.1.1 API for Trip API documentation version v1

https://{serverName}/{appName}-{version}

7.8.1.1.1   /all

/all
- **get** *(secured)*: get a all informations (flights, marked service, last visited services, booked service) which are stored for the user

/flight/{tripID}/{flightID}
- **put** *(secured)*: Add the flight to the list of the trip
- **delete** *(secured)*: remove a flight from the list of the tip

/flightPNR/{tripID}/{flightID}
- **put** *(secured)*: Add the flight to the list of the trip
- **delete** *(secured)*: Remove a flight from the list of the tip

/service/{tripID}/{source}/{serviceID}
- **put** *(secured)*: Add the service to the service list of the trip
- **delete** *(secured)*: Delete the service to the service list of the trip

/createTrip
- **put** *(secured)*: Create a trip

/trip
- **put** *(secured)*: Update a trip

/trip/{tripId}
- **delete** *(secured)*: Delete the trip

7.8.2   Models

7.8.2.1 CreateTripInfo

The object to create a new trip

Properties

	Type	Description	Required
startDate	`string`	The beginning of a trip.	Yes
endDate	`string`	The end of a trip.	Yes
name	`string`	The name (e.g. self-descriptive) of a trip.	Yes
role	`string`	User role that owns this set of trip data	Yes

Additional properties are allowed.

7.8.2.1.1 CreateTripInfo.startDate

The beginning of a trip.

- **Type**: `string`
- **Required**: Yes
- **Format**: date-time

7.8.2.1.2 CreateTripInfo.endDate

The end of a trip.

- **Type**: `string`
- **Required**: Yes
- **Format**: date-time

7.8.2.1.3 CreateTripInfo.name

The name (e.g. self-descriptive) of a trip.

- **Type**: `string`
- **Required**: Yes

7.8.2.1.4 CreateTripInfo.role

User role that owns this set of trip data

- **Type**: `string`
- **Required**: Yes
- **Allowed values**: `"self"`, `"pickup"`, `"serviceProvider"`

7.8.2.2 PNR

Properties

	Type	Description	Required
pnr	`string`	The Passenger Name Record string	Yes

Additional properties are allowed.

7.8.2.2.1 PNR.pnr

The Passenger Name Record string

- **Type**: `string`
- **Required**: Yes

7.8.2.3 Trip

The Trip Object

Properties

	Type	Description	Required
flights	`object[]`	The list of all flights contained in a trip.	No
services	`object[]`	The list of all services contained in a trip.	No
tripID	`object`	The ID of the trip.	Yes
startDate	`string`	The beginning of a trip.	Yes
endDate	`string`	The end of a trip.	Yes
name	`string`	The name (e.g. self-descriptive) of a trip.	Yes
role	`string`	User role that owns this set of trip data	Yes

Additional properties are allowed.

7.8.2.3.1   Trip.flights

The list of all flights contained in a trip.

- **Type**: `object[]`
- **Required**: No

7.8.2.3.2   Trip.services

The list of all services contained in a trip.

- **Type**: `object[]`
- **Required**: No

7.8.2.3.3   Trip.tripID

The ID of the trip.

- **Type**: `object`
- **Required**: Yes

7.8.2.3.4   Trip.startDate

The beginning of a trip.

- **Type**: `string`
- **Required**: Yes
- **Format**: date-time

7.8.2.3.5   Trip.endDate

The end of a trip.

- **Type**: `string`
- **Required**: Yes
- **Format**: date-time

7.8.2.3.6   Trip.name

The name (e.g. self-descriptive) of a trip.

- **Type**: `string`

- **Required**: Yes

7.8.2.3.7   Trip.role

User role that owns this set of trip data

- **Type**: **string**
- **Required**: Yes
- **Allowed values**: **"self"**, **"pickup"**, **"serviceProvider"**

7.8.2.4 TripInfo

The object to update a trip

Properties

	Type	Description	Required
tripID	**object**	The ID of the trip.	Yes
startDate	**string**	The beginning of a trip.	Yes
endDate	**string**	The end of a trip.	Yes
name	**string**	The name (e.g. self-descriptive) of a trip.	Yes
role	**string**	User role that owns this set of trip data	Yes

Additional properties are allowed.

7.8.2.4.1   TripInfo.tripID

The ID of the trip.

- **Type**: **object**
- **Required**: Yes

7.8.2.4.2   TripInfo.startDate

The beginning of a trip.

- **Type**: **string**
- **Required**: Yes
- **Format**: date-time

7.8.2.4.3   TripInfo.endDate

The end of a trip.

- **Type**: **string**
- **Required**: Yes
- **Format**: date-time

7.8.2.4.4   TripInfo.name

The name (e.g. self-descriptive) of a trip.

- **Type**: **string**

- **Required**: Yes

User role that owns this set of trip data

- **Type**: **string**
- **Required**: Yes
- **Allowed values**: **"self"**, **"pickup"**, **"serviceProvider"**

7.8.2.5 TripList

A list of trips

8   Management and Further Development of the Standard

The ACI ACRIS Seamless Travel standard consists of three components:

1. The Business Requirement Document
2. The Implementation Guideline
3. Supporting files that contain implementation details for the interfaces and data models (RAML, JSON Schema)

As these three files build on one another, they are not to be updated without reflecting these changes in the others. Any change in the implementation guidelines for example would need to be reflected in the supporting files as well.

Version 1.0 was approved by the ACI World Airport IT Standing Committee (WAITSC).

For the further development of Seamless Travel a transparent a fast approach towards changes is intended:

Minor Changes

If show-stopping bugs, discrepancies, misspellings, etc. are found the most recent WAITSC-approved version of this standard, there is a fast track that allows rapid troubleshooting. These changes need to be brought up to the ACRIS technical subgroup for approval. If the subgroup agrees to adopt these changes, a new minor release can be created that keeps its draft status, but is released for implementation.

Naming convention: 1.0, 1.1, …

Major Changes

New features, major renaming or other changes that affect the standard and its implementers are supposed to be developed within a working group and to be submitted to the WAITSC for approval. Unapproved changes from prior minor changes should be merged into these versions.

Naming convention: 1.x, 2.x, …

9 Points of Contact

Organizational Inquiries

This standard was developed within the ACI ACRIS Seamless Travel Working Group. For all organizational inquiries please get in contact with:

Airport Council International (ACI) World

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Technical Inquiries

Regarding technical questions there currently is no formal support of any kind. Since Munich Airport was heavily involved in the development of this standard and has a running instance of Seamless Travel in production, feel free to send your inquiries to the Munich team – however there is no guarantee to receive quick response (as in commercial support).

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10 Glossary Of Terms

Seamless Travel Working Group:

Which terms should be clarified here (that are not in the Semantic Model)?