Sqills OSDM Demo

Short guide to registration, usage, and demo data design

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Document distribution

Name	Company	Role
OSDM project partners	<Various>	<Various>

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Introduction

This short guide describes the Sqills OSDM Demo that Sqills makes available to OSDM project partners for testing and usage. It allows stakeholders to test OSDM sales and distribution messages, which are the result of a working integration with the Sqills S3 Passenger API. An actual Sqills S3 Passenger environment has been set up for this purpose, which contains demonstrative data that is briefly described in this document.

This document is intended as a "living document" that will receive various updates over time as OSDM API support within S3 Passenger is extended. For this reason, detailed versioning information of this document will not be made available. In case of doubt, please contact Sqills to request a copy of the latest version.

No rights can be derived from this document, or the OSDM Demo environment in general. *Further, the "uptime" of the OSDM Demo environment is not guaranteed to be at production levels - Sqills may perform upgrades and maintenance on the involved platform as the OSDM interface itself evolves further (and may contain backwards compatibility breaking changes). The data configured might be subject to change.*

Registration and Getting Started

Agent Account registration

All API activity via the OSDM API takes place with a so-called "agent" account within S3 Passenger. Upon request, an agent account can be set up for OSDM project partners and a welcome email message will distribute a username and password combination which is required to obtain a OAuth2 JWT token with which the actual OSDM calls can be performed on the API.

To register an account, please send an email including your name, role, company and a brief explanation of your interest in OSDM to:

support-osdm@sqills.com

OSDM Endpoints of the demo environment

The actual OSDM adapter can be reached on the following (public) HTTPS endpoint:

```
https://sqills-osdm-test.osdm-s3-adapter.s3p.cloud
```

To be able to create a token it is also required to directly call the S3 API:

```
https://api.sqills-osdm-test.cloud.sqills.com
```

Token & retrieving a token

To be able to use the Sqills OSDM demo, a token is used. With a valid and active agent account an OAuth2 JWT token can be retrieved from the S3 Passenger API on the https://api.sqills-osdm-test.cloud.sqills.com/oauth/v2/token path as follows:

```
POST /oauth/v2/token HTTP/1.1

Host: api.sqills-osdm-test.cloud.sqills.com

Authorization: Basic <<key_secret>>

Content-Type: application/json

Content-Length: 125


{

    "grant_type":
"https://com.sqills.s3.oauth.agent",

    "username": "<<agent.username>>",

    "password": "<<agent.password>>"

}
```

Using a token in OSDM API calls

The retrieved OAuth2 JWT token needs to be included in the "Authorization" header in each outgoing OSDM call.

```
POST /offers HTTP/1.1

Host:
https://sqills-osdm-test.osdm-s3-adapter.s3p.clou
d

Authorization:  Bearer <<auth.token>>
```

Versioning in OSDM API calls

With the introduction of the OSDM 3 Specification, it has become required to add the version in the content-type header of each outgoing OSDM call.

```
POST /offers HTTP/1.1

Host:
https://sqills-osdm-test.osdm-s3-adapter.s3p.clo
ud

Authorization:  Bearer <<auth.token>>

Content-Type: application/json;version=3.0
```

Note that at time of writing the supported OSDM specification versions used on the demo environment are 2 and 3. If there is a desire to use version 2, please do note that we will deprecate using path versioning like "/v2/offers" and will require using the version in the content-type request header.

If an unsupported version is requested, an error message will be returned:

- requesting a higher minor version than implemented
- requesting a higher major version than implemented

The demo environment will always support one version per major version, e.g. when the demo environment is upgraded to 3.0.3, 3.0.2 or 3.0.1 will no longer be available. Requesting those

older versions results in a response that is processed by the latest version that is available on the demo environment.

Description of the demonstration data set

For the Sqills OSDM demo a demonstration data set has been created. Currently this is a basic data set which can be used to search for trains, create bookings, distribute tickets and perform some basic aftersales. The data set may be subject to change. Please note that the actual data set is larger than the set described here. The set described here should suffice for running the OSDM test scenarios.

Network setup and timetable

For the Sqills OSDM demo, a virtual network and timetable is configured consisting of 2 types of Service type (train types), 8 stations, 4 routes and per route several Services (timetables). See details of the demo data in the tables below.

Service types (train types)

Code	Name/description
OSDM_HS	OSDM Sqills High Speed train
OSDM_IC	OSDM Sqills Intercity train
OSDM_BUS	OSDM Sqills Bus

Stations

UIC code	Shortcode	Stations name
8011068	DEFRA	Frankfurt (Main) Hbf
8015458	DEKOH	Köln Hbf
8400058	NLAMC	Amsterdam Central
8400530	NLRTC	Rotterdam Central
8500010	CHBAS	Basel SBB
8727100	FRPNO	Paris Gare du Nord
8814001	BEBMI	Bruxelles-Midi
8821006	BEABC	Antwerpen-Central

Routes

Code	Name/description	Stations on the route (ordered)
AMS-PAR	Amsterdam-Paris	• Amsterdam Central • Rotterdam Central • Antwerpen-Central • Bruxelles-Midi • Paris Gare du Nord
AMS>BAS	Amsterdam-Basel	• Amsterdam Central • Köln Hbf • Frankfurt (Main) Hbf • Basel SBB
BAS>AMS	Basel-Amsterdam	• Basel SBB • Frankfurt (Main) Hbf • Köln Hbf • Amsterdam Central
PAR>AMS	Paris-Amsterdam	• Paris Gare du Nord • Bruxelles-Midi • Antwerpen-Central • Rotterdam Central • Amsterdam Central

Services (timetables)

Multiple Services (timetables) per Route are configured. See service name ranges and details below.

Service names	Service type	Route	Stops	Weekdays
OSDM-101 to OSDM 113 (uneven numbers)	OSDM_HS	AMS>PAR	• Amsterdam Central • Rotterdam Central • Antwerpen-Central • Bruxelles-Midi • Paris Gare du Nord	Mo-Fr
OSDM-803 to OSDM-807 (uneven numbers)	OSDM_HS	AMS>PAR	• Amsterdam Central • Rotterdam Central • Antwerpen-Central • Bruxelles-Midi • Paris Gare du Nord	Sa-Su
OSDM-100 to OSDM-112 (even numbers)	OSDM_HS	PAR>AMS	• Paris Gare du Nord • Bruxelles-Midi • Antwerpen-Central • Rotterdam Central • Amsterdam Central	Mo-Fr
OSDM-808 to 814 (even numbers)	OSDM_HS	PAR>AMS	• Paris Gare du Nord • Bruxelles-Midi • Antwerpen-Central • Rotterdam Central • Amsterdam Central	Sa-Su
OSDM-201 to 207 (uneven numbers	OSDM_IC	AMS>BAS	• Amsterdam Central • Köln Hbf • Frankfurt (Main) Hbf • Basel SBB	Mo-Su

OSDM-200 to 206 (even numbers)	OSDM_IC	BAS>AMS	• Basel SBB • Frankfurt (Main) Hbf • Köln Hbf • Amsterdam Central	Mo-Su

Product and tariff structure

For the Sqills OSDM demo a virtual product and tariff structure is configured with 6 Main products and 2 Additional products, 8 tariffs and 4 passenger types. See details of the demo data below.

Main products

The main products are admission and accommodation combined products. There are 6 main products configured:

- 3x 1st class products with flex levels High, Medium and Low
- 3x 2nd class products with flex levels High, Medium and Low

Additional products

Additional products are admission products. These products are not linked to a specific place on the train but are inventory controlled (limited number of products per train and OD offered)

There are 2 additional products configured:

- Bikes
- Luggage

Discounts

There are 2 discounts configured. The discounts can be applied to all configured products.

- Child discount of 50%
- Youth discount of 25%

Passenger types

4 passenger types are configured.

Code	Description	Age from/to
A	Adult	18-65
C	Child	0-12
Y	Youth	12-26
S	Senio	66-150

Equipment and train sets

For the Sqills OSDM demo, virtual equipment types (carriages) and equipment templates (train sets) are configured. This information is provided only as a reference to have some understanding of the underlying inventory setup for the demo.

Equipment types (carriages)

The following carriages are configured for the demo:

- 3x 1st class carriages with 48 seats
- 5x 2nd class carriages with 62 seats

Equipment templates (train sets)

The following equipment templates are configured for the demo:

- 1x three 1st class carriages at the front of the train and five 2nd class carriages after the 1st class carriages
- 1x five 2nd class carriages at the front of the train and three 1st class carriages after the 2nd class carriages

Fulfillment and ticket production / distribution

In the demo setup, two demonstrative single fulfillment methods are available:

- "Email print at home e-ticket" (code HP_E" for (HomePrint delivered by Email)
- "Ticketless" (code TL)

These methods are available in the PATCH / Booking OSDM endpoint, under the following predefined ENUM options:

- PDF_A4 for HP_E
- TICKETLESS for TL

The default method set on each automatically is HP_E.

Note that intentionally, the PDF_A4 == HP_E method will actually produce fulfilments (called TicketDocuments in S3 Passenger that contain a URL to download the PDF document or the PNG barcode image), method TICKETLESS / TL will not generate any fulfillment at all > in S3 Passenger the Ticket Number of the booked item serves as a ticket. Further evolutions of this mapping in the adapter are expected; Sqills considers to return the item's ticket number as a fulfillment in OSDM context.

List of supported / implemented OSDM API calls

The OSDM-S3 Adapter that Sqills has developed, currently provides support for a number of endpoints of the OSDM Online standard. A Postman collection for the demo can be found in the OSDM Github repository. The endpoints in this collection are the ones supported by our OSDM-S3 Adapter

Appendix: OSDM Demo registration email message

Subject: **Your Sqills OSDM demo access credentials**

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Dear OSDM Project Partner,

An account has been created for you that allows you to make use of the Sqills OSDM Demo environment that Sqills has made available for this purpose. With it, you can actually interact with the OSDM API's in their latest version, as Sqills is committed to keep this environment and the installed OSDM adapter up to date with the recent OSDM API design.

Note: A short guideline document on how to connect and how to get started will be shared with you separately as a PDF document.

To obtain an OAuth2 JWT token to connect to the OSDM APIs the following credentials can be used:

Username: **${agentUserName}**

Password: **${agentPassword}**

In case of any further questions, please contact support-osdm@sqills.com or simply reply to this email message.

Disclaimer:

The Sqills OSDM demo environment was created by Sqills to support further evolution and adoption of the Open Sales And Distribution model for the on-line part. The environment is not maintained under production standards, which means that up-time is not guaranteed and interruptions for maintenance / upgrades may occur, as the OSDM API standard is still evolving. No rights can be derived from having access to, or making use of this environment.