

## SWIM service descriptions

### Why are there service descriptions?

Organisations make information available to consumers and exchange information with each other using **information services**.

Knowing the details of a particular information service is essential to allow potential service consumers to understand what the service does and how it does it. **Service descriptions** provide the means to share these details.



### What is a service description?

A service description contains the details needed in order for a service consumer to use or consider using the service. It provides details about an information service instance, that is a service that is deployed and running. It details, for example, the behaviour of the service, the information it provides, and any legal and security constraints attached to its use.

The PANS-IM being drafted by ICAO introduces service overviews. The content expected in a service overview is similar to but smaller than that in a full service description.

### Who uses the service description?

Service consumers use service descriptions. A consumer can compare different service offerings and assess each service in terms of usefulness (e.g. fitness for purpose), usage (e.g. feasibility to implement) and quality of service.

### What can a consumer use the service description for?

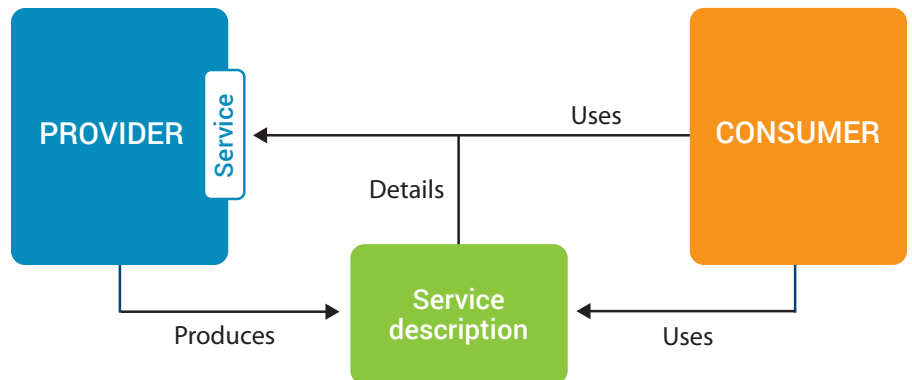
A service consumer uses a service description to

- assess whether the information offered by the service meets the operational needs of the organisation;
- assess the technical feasibility of using the service e.g. by understanding what needs to be implemented in order to access and use the service; and
- implement the ways to use the service.

### What is the role of a service description?

A service description allows for the sharing of details on a particular information service. This, in turn, allows for the good use of information services within the interoperable ATM Network by matching consumer needs with provider capabilities.

In the figure, the provider is running the information service and produces the service description that details the service. The consumer is one of many service consumers using the service after analysing the content of the service description to ensure the service does what is required.



## How are service description developed?

Service providers produce a service description for each service instance.

## How are service descriptions shared?

Typically, an organisation publishes a service description through a SWIM service registry. The registry can be on a local, national or regional basis.

Uploading a service description to a SWIM service registry provides an organisation with a means to expose the services it offers.

In Europe, the European SWIM Registry acts as the service registry.

The registry enables a service to be discoverable within the SWIM environment. Potential service consumers can query a SWIM service registry to find a list of suitable services.

In Europe, a service description should be in accordance with the EUROCONTROL Specification for SWIM Service Description. It sets out the minimum requirements for the content of a service description, ensuring that a service description covers the details needed by potential service consumers.

The service description handbook gives guidance to help service providers satisfy the requirements. The guidance promotes the creation of better service descriptions and greater harmonisation in the implementation of the specification.

## What does the service description look like?

The European SWIM Registry exposes a service description in a set of tables. It also allows for upload and download in JSON format. Other formats such as XML and text tables are, of course, acceptable. The content is more important than the format.

The screenshot displays a service description interface with the following sections:

- Service Type:** DEFINITION
- Lifecycle Stage:** PROSPECTIVE
- Business Activity Type:** SERVICE\_DELIVERY\_MANAGEMENT
- Intended Consumer:** AIR\_TRAFFIC\_SERVICE\_PROVIDER
- Information Exchange Category:** FLIGHT\_INFORMATION\_EXCHANGE
- Application Message Exchange Pattern:** PUBLISH\_SUBSCRIBE\_WITH\_PUSH\_MECHANISM
- Aerodrome ICAO Location Indicator:** No Information Provided
- FIR ICAO Location Indicator:** No Information Provided
- State ICAO Nationality Letters:** No Information Provided
- In-Operation Date:** No Information Provided
- Provider:** EUROCONTROL\_&\_SLOVENIA\_CONTROL  
This is a partnership between Slovenia Control and EUROCONTROL
- Provider Type:** CIVIL\_AIR\_NAVIGATION\_SERVICE\_PROVIDER
- Support:** No Information Provided

The interface also includes a navigation menu with tabs for General, Information, Technical, Interfaces, and References. The 'Information' tab is active, showing:

- Operational Needs:** Functionality, Access and Use, Quality of Service
- Service Definition:** Operational Need  
In order to facilitate an accelerated development and deployment of the ADaaS concept, MUAC offers the OpenATM service definition describing an open service interface that can be implemented in various multi-vendor scenarios. The current operational MUAC FDPs-CWP interface has been used as a starting point; based on good engineering practices its implementation already

## What do I do if I have further questions?

You can email [swim@eurocontrol.int](mailto:swim@eurocontrol.int).