

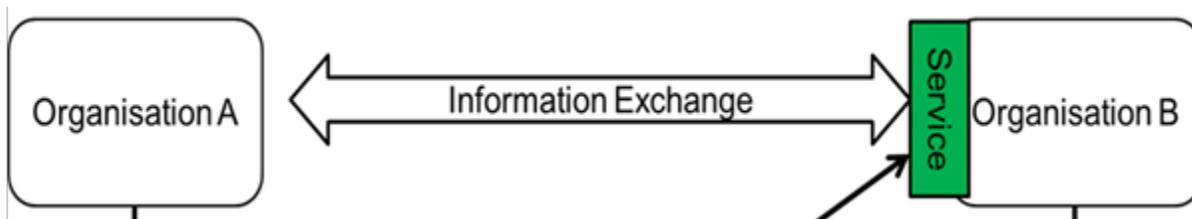
Introducing the specification

- Context of the specification
- Role of the specification
- Narrative
- Purpose and use of service descriptions

Context of the specification

System Wide Information Management (SWIM) concerns the development of services for information exchange.

The context of the specification is the System Wide Information Management (SWIM) where organisations exchange information using Services.

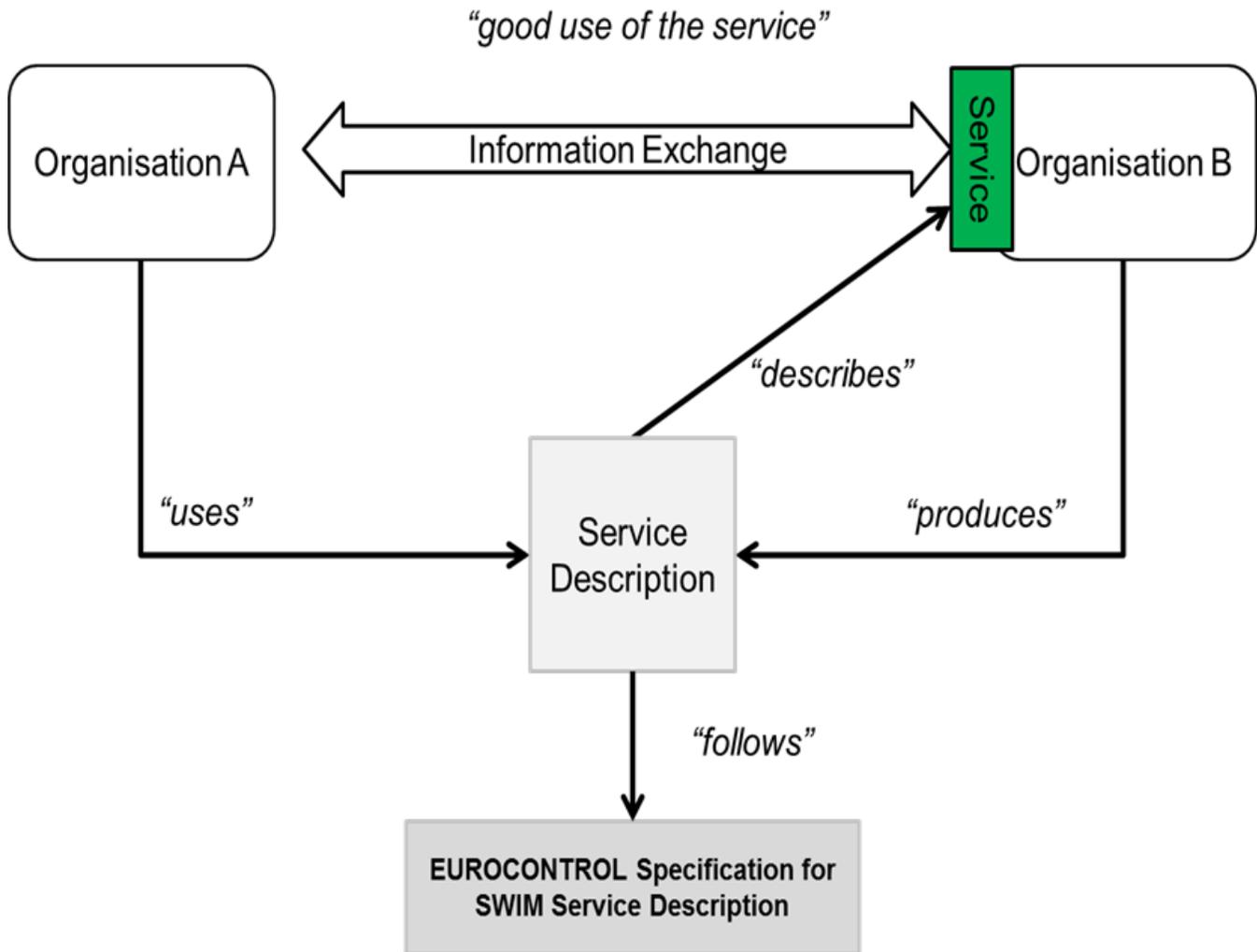


Description of the elements and the relationships appearing in the diagram:

- Organisation B makes a [Service](#) available for use by other organisations. Organisation B plays the role of [service provider](#) for that [Service](#).
- Organisation A uses the available [Service](#). Organisation A plays the role of [service consumer](#) for that [Service](#).
- The two organisations exchange information using that [Service](#) to achieve some business goal.

Role of the specification

The role of the specification is summarised with the following diagram.



Description of the elements and the relationships appearing in the diagram:

- Organisation B is [service provider](#) of a running [Service](#).
- The Service enables Information Exchange with [service consumers](#), such as Organisation A.
- Organisation B, the service provider, *produces* a [Service Description](#).
- The Service Description *describes* the running Service
- The Service Description *follows* the [EUROCONTROL Specification for SWIM Service Description](#)
- Organisation A, the service consumer, *uses* the Service Description.
- The Service Description enables Organisation A, the service consumer, to make good use of the Service.

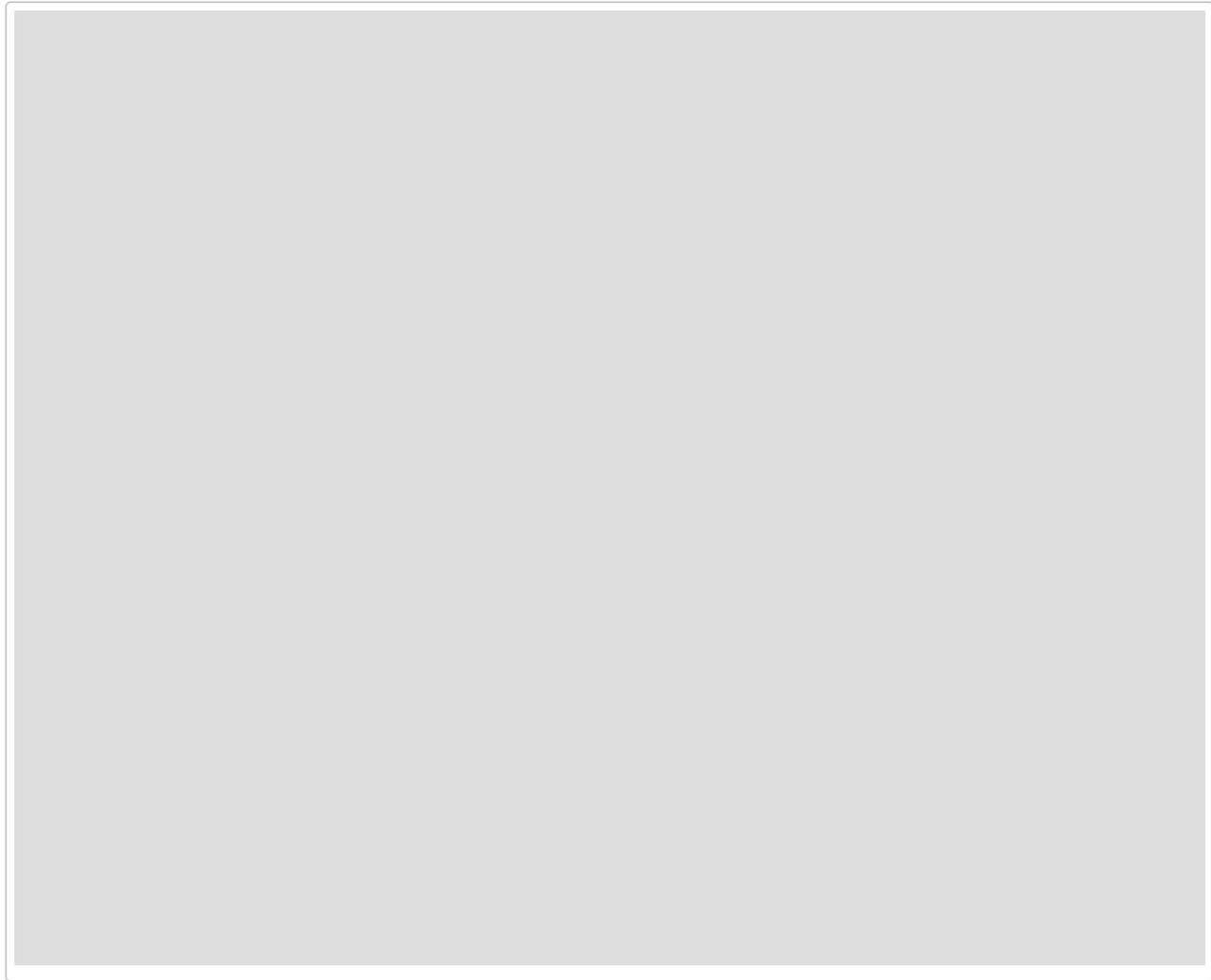
Summary:

- A Service Description following the SWIM Service Description specification enables service consumers (Organisation A) to make good use of a Service made available by a service provider (Organisation B).

The following section provides an illustrated narrative about the role of the specification.

Narrative

Nominal service description usage scenario involving a service provider and a service consumer



Purpose and use of service descriptions

The Annex A of the specification "ANNEX A – Service descriptions" introduces the purpose and use of service descriptions.

The text of the Annex is organised in such a way that there is a one-to-one mapping between the paragraphs of the text and elements in the narrative.

Below is a full excerpt of the Annex A mapped to the elements of the narrative.

element	reference	text
service description	A.1 §1-2	<p>A service description provides information about an implemented service. Providers and consumers of information services use a service description to exchange information about the capabilities of a specific implemented service.</p> <p>A well-formulated service description, built according to the present specifications, enables the unambiguous interpretation of the underlying information exchanges and service design, both inside and outside the European ATM Network context.</p>
service consumer	A.1 §3	<p>From the viewpoint of a service <i>consumer</i>, a service description is essential to obtain information about available services (e.g. in the context of iSWIM implementation). For each service, the consumer can find in the service description the information needed in order to use, or consider using, a service made available. This covers for example aspects such as the behaviour of the service, the information it provides, and any constraint attached to its use. Based on the information provided, a well-formulated service description enables a consumer to compare and assess services in terms of usefulness (e.g. fitness for purpose), usage (e.g. feasibility to implement) and quality.</p>

service provider	A.1 §4	From the viewpoint of a service <i>provider</i> , a shared service description enables a service to be discoverable within the SWIM environment. Typically, an organisation publishes the service description information through a common registry. This provides an organisation with a means to expose the services it offers. Additionally, a well-defined and standardised way of describing a service might improve efficiency when exploring and comparing new services.
use service description	A.2	<p>Depending on the context of the service consumer (e.g. business, operational or technical) the actual use of the service description may be different.</p> <p>Typically, the following usage contexts exist:</p> <ul style="list-style-type: none"> • Discover a SWIM Service; • Consider using a SWIM Service; <ul style="list-style-type: none"> • from business points of view (=assess fitness for business purpose); • from operational points of view (=assess fitness for operational purpose); • from technical points of view (=assess technical feasibility); • Implement a consuming client (technical by nature). <p>To meet the different expectations of service description information, the usage contexts listed above require different types of information about a service. They constitute the drivers for the requirements on the service description provided in this specification.</p> <p>The uses further described below are informative and are provided in order to highlight the main differences that could occur in terms of the information need of each type of expert using service description information. In reality, the differences explained may be distributed to the expert roles in different ways, depending on each organisation's internal mode of operations.</p>
• discover	A.2.1	<p>In support of business decision-making, experts need to:</p> <ul style="list-style-type: none"> • discover and compare services that would meet the business or operational objectives; • discover and compare services in relation to technical considerations; and • explore service description information to become aware of what the service delivers (e.g. through a SWIM registry); <p>To enable the above steps, service providers need to:</p> <ul style="list-style-type: none"> • provide business information about the service to document service usage conditions; and • provide information about the service to document what the service delivers;
• consider using	A.2.2	<p>Assess fitness for business purpose</p> <p>In support of operational decision-making, business experts need to:</p> <ul style="list-style-type: none"> • evaluate the service in relation to the business objective. <p>To enable the above steps, service providers need to:</p> <ul style="list-style-type: none"> • provide business information about the service. <p>Assess fitness for operational purpose</p> <p>In support of operational decision-making, operational experts need to:</p> <ul style="list-style-type: none"> • understand what the service delivers in relation to the operational context; • understand how the service works without being overloaded by technology details; and • evaluate the service in relation to the operational goals. <p>To enable the above steps, service providers need to:</p> <ul style="list-style-type: none"> • provide operational information about the service to document the intended operational usage; • provide information about the service to document what the service delivers in relation to the operational context; and • provide information about how the service works without technology details. <p>Assess technical feasibility</p> <p>In support of technical considerations and decision-making, technical experts need to:</p> <ul style="list-style-type: none"> • evaluate the service in relation to technical feasibility; and • understand how the service interfaces must be implemented in technical systems in order to use the service. <p>To enable the above steps, service providers need to:</p> <ul style="list-style-type: none"> • provide technical information about the service interfaces.

<ul style="list-style-type: none">• imple me nt cons umin g client	A.2.3	<p>In support of technical considerations and decision-making, technical experts need to:</p> <ul style="list-style-type: none">• understand how the service works at the technical level;• understand how to access the service; and• use machine-readable artefacts in support of prototyping and development. <p>To enable the above steps, service providers need to:</p> <ul style="list-style-type: none">• provide information which explains how the service works at the technical level;• provide information about how to access the service; and• provide machine-readable artefacts allowing the service consumer to use the service.
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