Webinar on the Catalogue of Services tools and technical support

February 03-02-2021
10:00-11:30 (GMT+1)

Organised by the Catalogue of Services Action of the ISA² programme
Webinar practicalities

🔊 Click on « connect audio » but please mute your microphones.

💬 You can share your questions and comments via the chat at any time during the webinar.

📸 The webinar will be recorded.
1. Welcome

Speaker: Miguel Alvarez Rodriguez
Key objectives

- Introduction to the ISA² Programme actions: Catalogue of Services (CoS) and Test Bed

- Tackle the supporting needs of the Member States related to the description and exchange of information related to public services by showcasing tangible use cases.
Agenda

1. Welcome 10’
2. Introduction to the Catalogue of Services tools and Test Bed services 15’
3. Use cases 40’
   - Creation of a national catalogue of services
   - Validation of your services in compliance with a common model
4. Q&A 25’
Join at

slido.com

#L784
Poll question

What do you know already about the Catalogue of Services tools?

[OPEN QUESTION]
Poll question

Check the tools of which you know what they can do (main functionality)

- CPSV-AP Description Editor
- CPSV-AP Harvester
- CPSV-AP Validator
Poll question

What would you like to have learnt at the end of this webinar about the tools?

[OPEN QUESTION]
2. Introduction to Catalogue of Services tools and Test Bed services

Speaker: Florian Barthélemy and Costas Simatos
The Catalogue of Services Action supports public administrations in building digital catalogues of public services allowing the exchange of information between citizens, businesses and public administrations across Europe.

Make your service descriptions fit for exchange
Help you create your catalogue of services
Exchange knowledge
Test and validate your solutions
Advise you in adopting standards and technologies
Catalogue of Services overview

- Data model
  - CPSV-AP, SDG data model, taxonomy of public services

- Controlled Vocabularies

- Tools
  - Harvester, Editor, pilot activities

- Pilots

- Raising awareness activities

- Studies & reports
  - Webinars, workshops, studies, Joinup, GitHub

New Joinup Collection!


Catalogue of Services handout

Introduction of the tools

STEP 0
Describing the public services

STEP 1
Harvesting

STEP 2
Validating

STEP 3
Manage and Publish

Flanders
Wallonia

Service 1
Service 2

Service a
Service b
The Interoperability Test Bed is an online, intuitive and self-service platform for **conformance testing** of IT systems against semantic and technical specifications.
Main services

- Validators
  - Standalone validation
  - Multiple input channels
  - Anonymous
  - Simple reporting

Complete Test Bed

- Scenario-based testing
- Extensible capabilities
- Account-based
- Monitoring & reporting

Flexible usage models

**Cloud-based**

- Hosting of public validator instances
- Shared (multi-tenant) Test Bed platform
- Configuration managed by users
- Operated by DIGIT

**On-premise**

- Components publicly shared (via Docker)
- Hosted and operated by users on-premise
- Allows access restrictions
- Allows internal resource usage
Rich documentation

Test Bed documentation hub in Joinup

- Introduction and details
- Releases and news
- User stories

Extensive guides

- User and developer guides
- Documentation and tutorials
The Catalogue of Services Action supports public administrations in building digital catalogues of public services allowing the exchange of information between citizens, businesses and public administrations across Europe.

The Interoperability Test Bed is an online, intuitive and self-service platform for conformance testing of IT systems against semantic and technical specifications.
3. Use cases

Speakers: Maxime Pittomvils, Florian Barthélemy and Costas Simatos
Use case 1

‘I am a national authority, creating a national catalogue of services.’
Creation of a federal/cross-border catalogue of public services

Example of Finland and Estonia, collecting data from two different countries into a single catalogue.

Which technologies were used to build this catalogue?
‘I am a national authority, creating a national catalogue of services.’
Demo
STEP 0: Describing the public services

STEP 0
Describing the public services

STEP 1
Validating

STEP 2
Harvesting

STEP 3
Manage and Publish

CPSV-AP validator

CPSV-AP Harvester

CPSV-AP Description Editor

Region A
PS1
PS2
PS3

Region B
PS4
PS5

Local/regional level

National level

‘I am a national authority, creating a national catalogue of services.’
STEP 0: Describing the public services
(local/regional/national level)

How do I describe my services?

- Domain expertise
  - Start from legal aspects.
  - Put yourself in the shoes of the users.

- Common model
  - Harmonise definitions and how information is structured.

What if I already have existing descriptions in different formats?

- Mapping
  - Test environment: ISA² CPSV-AP Editor
  - Production environment: custom-built tool (vendor or open source)

What tools can I use for describing my services?

- (Online) editor
STEP 1: Validating

STEP 0
Describing the public services

STEP 1
Validating

STEP 2
Harvesting

STEP 3
Manage and Publish

Region A
- PS1
- PS2
- PS3

Region B
- PS4
- PS5

CPSV-AP validator

CPSV-AP Harvester

CPSV-AP Description Editor

Local/regional level

National level

‘I am a national authority, creating a national catalogue of services.’
STEP 1: Validating

How do I make sure the public services are following commonly agreed rules and constraints?

How can I easily validate my public services data?
- Without managing anything?
- Based on my custom data model?
- Decentrally (within each region)?
- Centrally?

How do I set up my validation services?

Common model

Validating

(Online) validator

Guidelines/support

Validation distribution proposed by ISA²
Tailored distributions for your model

CPSV-AP tool

ISA² Test Bed & Catalogue of Services
STEP 1: Validating – EXAMPLE validation from regional to national level

1. I have public services described regarding the waste management at regional level.

2. I want to exchange these public services with the national level.

3. I make sure my public services are in machine readable format and described according to the national level validation rules.

4. I validate my data against the validator provided by the national level and solve any remaining issues.

5. I can successfully share my public services with the national level.

‘I am a national authority, creating a national catalogue of services.’
STEP 1: Validating – EXAMPLE on the rules

Public service: Waste management

Identifier: ID_Waste_Management

Name: Waste management

Description: The guidelines for managing waste

Sector: Agriculture

Is Grouped By: doing a business

Has A Competent Authority: Economic development

Identified as ‘Public service’.

A public service must have one identifier.

A public service must have one name.

A public service must have one description.

A public service can have one or multiple sectors.

A public service can be grouped by one or multiple business or life events.

A public service must have one competent authority.
STEP 2: Harvesting

STEP 0
Describing the public services

STEP 1
Validating

STEP 2
Harvesting

STEP 3
Manage and Publish

Region A
- PS1
- PS2
- PS3

Region B
- PS4
- PS5

CPSV-AP validator

CPSV-AP Harvester

CPSV-AP Description Editor

Local/regional level

National level

‘I am a national authority, creating a national catalogue of services.’
STEP 2: Harvesting

What if I already have existing descriptions in different formats?

How do I retrieve public services data from several sources automatically?

How can I set up the connectors between the sources and my central catalogue? (APIs)

Which data formats can I harvest?

Which exchange protocols do I need to use to retrieve the data? (REST/SOAP/..)

CPSV-AP tool

Common model

Transform, upload or connect

Harvesting

Use connectors

Exchange protocols integrated with the CPSV-AP Harvester
STEP 3: Manage and Publish

STEP 0: Describing the public services

STEP 1: Validating

STEP 2: Harvesting

STEP 3: Manage and Publish

Region A
- PS1
- PS2
- PS3

Region B
- PS4
- PS5

CPSV-AP validator

CPSV-AP Harvester

CPSV-AP Description Editor

Local/regional level

National level

‘I am a national authority, creating a national catalogue of services.’
STEP 3: Manage and Publish

Why do I need to use a content management system?

How do I set up my content management system?

Which tool can I use for describing my public services data?

How do I create/update/delete public service descriptions?
Overview

**STEP 0**
Describing the public services

**STEP 1**
Validating

**STEP 2**
Harvesting

**STEP 3**
Manage and Publish

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Region A
- PS1
- PS2
- PS3

Region B
- PS4
- PS5

CPSV-AP validator

CPSV-AP Harvester

CPSV-AP Description Editor

Local/regional level

National level

—I am a national authority, creating a national catalogue of services.'
**Access to the tools**

- **CPSV-AP Description Editor**

- **CPSV-AP Harvester**

- **CPSV-AP Validator**
Use case 2

‘I need validation of my public service data.’
Test Bed validator setup

**STEP 1**
Define configuration

- Validator configuration
  - Customisations
  - Validation rules

**STEP 2**
Create validator

- Base validator image
  - Validator configuration
  - Environment properties

**STEP 3**
Use validator APIs

- Via web interface for **users**
- Via web services for **integration**
- Via command-line tool for **scripting**

What are the options to operate your validator?

'I need validation of my public service data.'
Validator operation options

- **Option 1**
  - Shared validator
  - Test Bed hosting

- **Option 2**
  - National validator
  - Test Bed hosting

- **Option 3**
  - National validator
  - National hosting

Simplicity

Control and flexibility

‘I need validation of my public service data.’
Option 1  
Shared validator hosted on Test Bed resources

- Single, publicly accessible validator
- No operational, hosting or monitoring concerns
- Choice to validate against common or National rules
- Rule configuration managed by CoS team (e.g. via shared GitHub repository)
- National updates published following review process by CoS team
‘I need validation of my public service data.’

Option 2

National validator hosted on Test Bed resources

- Separate, publicly accessible validator
- No operational, hosting or monitoring concerns
- Validator configuration, theming, behaviour and rules managed fully by Member State
- Common rules can be reused as needed
- Automatic service updates for new changes
‘I need validation of my public service data.’

Option 3

National validator hosted on National resources

- Separate, public or private validator(s)
- Hosting and operation by Member State
- Validator configuration, theming, behaviour and rules managed fully by Member State
- Common rules can be reused as needed
- Flexibility to integrate in internal processes (e.g. automatic validation of ingested data, integration with internal triple stores)
Demo
Further conformance testing options

Additional validators

- Define National validators for any specification based on RDF, XML, JSON or CSV, using the Test Bed’s services
- Use as public tools, internal quality control services, ...

Complete conformance testing

- Use the shared Test Bed platform or a National instance
- Define your specifications’ conformance testing strategy
- Reuse your validators as building blocks in test cases
Poll question

Which approach would you prefer for your public service data validators?

- I want to only provide my rules without operational concerns
- I want to set up my own validators but delegate their hosting
- I want full control and prefer to operate my validators myself
Poll question

What kind of support would you be interested in?

- Harvesting
- Describing public services
- Validation services

You can directly email us in case you want to have a chat or have questions.
Poll question

Were the presented use cases in line with the support you expect from us?

- YES
- NO
Poll question

What other kind of use cases or services would you be interested in?

*e.g. automated tagging, chatbots, Natural language processing*

[OPEN QUESTION]
Next steps

1. **Direct support** to the Member States related to:
   - the use of the tools;
   - the use of CPSV-AP;
   - the compliance with CPSV-AP.

2. **Communication activities and learning materials**

3. **Maintenance or development of open specifications**, e.g. CPSV-AP
Poll question

What training materials would you be interested in?

- How to use the CPSV-AP tools
- How to validate my public services
- Understanding the CPSV-AP data model
- Mapping my data to the CPSV-AP data model
- other

Feel free to mention other training materials in the chat or email us.
4. Q&A
ISA² programme
You click, we link!

Stay in touch
ec.europa.eu/isa2

Run by the Interoperability Unit at DIGIT (European Commission) with 131€M budget, the ISA² programme provides public administrations, businesses and citizens with specifications and standards, software and services to reduce administrative burdens.
Shaping together the future policy on public sector interoperability

KNOW MORE
GET INVOLVED
Annex
Overview of the tools

- Easy to integrate with other solutions (API)
- Setup through the ISA² TestBed

- Content management system adaptable to any predefined data model
- Easy to integrate with other solutions (APIs, exports, etc.)

- Compatible with multiple data formats
- Custom implementation possible for any data format

CPSV-AP Harvester

- JSON
- RDF/XML
- Turtle
- Import from spreadsheet

CPSV-AP validator

- valid? yes/no

CPSV-AP Description Editor

- Easy to integrate with other solutions (API)
Catalogue of Services pilot examples

- Creation of a federal/cross-border catalogue of public services (pilot 1)
- Implementation of a description editor (pilot 2)
- Automated validation of compliance for CPSV-AP (pilot 3)
Pilot 1: Creating a cross-border catalogue of public services with Finland and Estonia
Pilot 1: Creating a cross-border catalogue of public services with Finland and Estonia

Tools used in pilot:
- Harvester
- Mapping tool

Documentation available online:
- Joinup
- GitHub
Pilot 2: Tailoring the public service description editor for the Netherlands

GOAL:
A Simple way of creating public service descriptions that follow the Dutch national data model for describing and exchanging public services.

APPROACH;
By adapting the CPSV-AP Description Editor, to the Dutch national data model format, it enabled the user to create descriptions following the Dutch data model, save these and edit them later in an user-friendly way.

Template in the Description editor for adding a ‘Product’ according to the Dutch data model.
Pilot 2: Tailoring the public service description editor for the Netherlands

Tools used:
- Description Editor
- APIs

Documentation available online:
- Joinup
- GitHub
Pilot 3: Adapting the CPSV-AP Validator for CPSV-AP Italy

Description
In this pilot, we tailored the CPSV-AP Validator to be able to validate the public service descriptions. This involved modifying the rules of the Validator according to the Italian specifications, namely CPSV-AP_IT.

Documentation available online:
- Joinup

Validation results