

Unpacking Simpl: Installation Workshop

01 July 2025

Housekeeping Rules

 Participants' audio and video will be disabled.



Questions? Please use the Q&A function.

Want to say hi or report an issue? Let us know in the chat.



This workshop will be recorded.

Goals of this Workshop

- 1 Showcase where to find the relevant installation documentation.
- 2 Perform a walkthrough of the deployment of the Simpl agents and the setup of a minimum viable data space using Simpl-Open.
- 3 Provide answers to any technical questions.

Agenda

14:00 – 14:05

Welcome and Housekeeping

14:05 – 14:15

Introduction to the Workshop and June Release

14:15 – 14:25

Overview of the Agents in Scope

14:25 – 15:10

Deployment of Three Simpl-Open Agents Using Helm Charts

15:10 – 15:25

1st Q&A Session



10' BREAK

15:35 – 16:35

Configuration of a Minimal Data Space

16:35 – 16:55

2nd Q&A Session

16:55 – 17:00

Wrap Up & Closing

Welcome

Introducing the speakers



Nicolas Auricchio

Lead Architect Simpl-Open,
Sovereign-X



Lukasz Kolasa

Simpl-Open Integration Engineer,
Sovereign-X



Richard Mrasek

Senior Cloud Solutions Engineer,
Sovereign-X

The background is a dark blue field filled with a complex pattern of thin, colorful lines. These lines are primarily vertical but feature numerous U-shaped curves and loops. The colors used include light blue, teal, orange, and magenta. Some of the lines have small dots at their ends or at the points where they curve.

Introduction

Introduction




Why are we here today ?

To deploy and use Simpl-Open, are available on code.europa.eu:

1. Installation Guide
2. User Manual






While we strive to make this documentation self-sufficient for anyone who wants to install and use Simpl-Open, we understand that the complexity of the middleware creates the need for a hands-on demo/execution of the procedure.





























Simpl / Simpl-Open

S Simpl-Open   [New project](#) 

Recent activity **Last 30 days** Merge requests created **544** Issues created **3** Members added **4**

Subgroups and projects Shared projects Shared groups Inactive

  Search (3 character minimum)  Name  

- >  **D** Development   8  0  1
- ▼  **D** Documentation   0  2  4
 -  **I** Installation Guide  ★ 1 46 minutes ago
 -  **U** User Manual  ★ 2 46 minutes ago
- >  **O** Operations   1  12  2
- >  **T** Testing   1  6  11
-  **A** About Simpl-Open  ★ 0 7 months ago
-  **A** Architecture  ★ 7 2 hours ago

Introduction

What is the impact of the latest releases ?

Today's demo will be based on Release 1.3.2 which was the latest at the time the demo got prepared.

Since then, Release 2.0.0 has been made available on 11th of June and Release 2.1.0 should be available in the course of July.

The new releases are primarily a stabilisation of Release 1.3.2, with the addition of a few functional and technical improvements (e.g. onboarding extension, credentials renewal/revocation, infrastructure decommissioning).

More details can be found on the [Simpl-Open Programme website](#).



Scan the **QR Code** to find details on the next Simpl-Open releases



NB: *These changes do not impact the installation process of the agents.*

The background is a dark blue field filled with a complex pattern of thin, colorful lines in shades of teal, purple, orange, and light blue. These lines form various shapes, including vertical strokes, loops, and U-turns. Small dots of the same colors are scattered throughout the pattern.

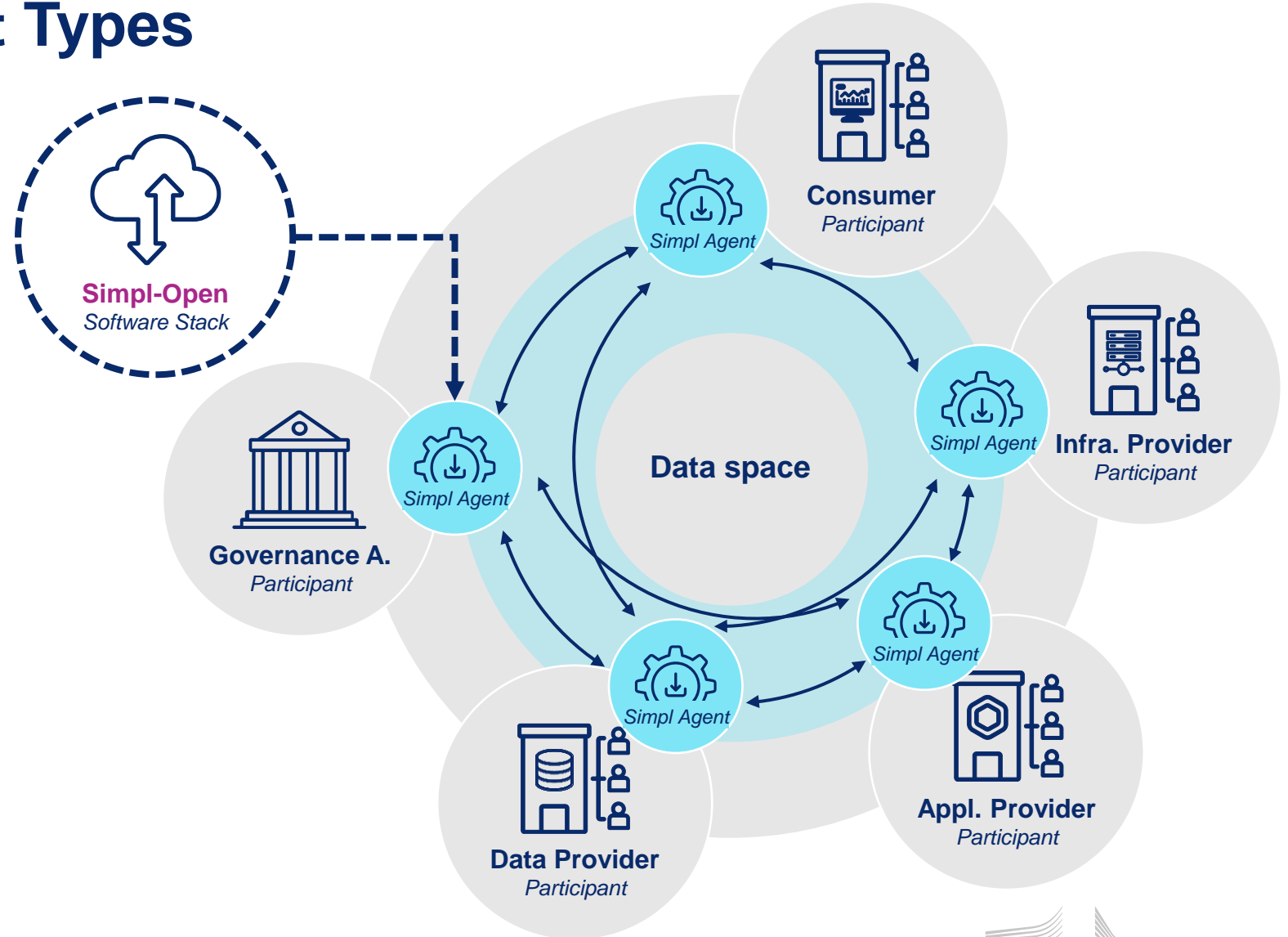
Overview of the Agents in Scope

Simpl-Open Participant Types

Overview of Types

Simpl-Open will support five different types of Participants:

1. **Governance Authority**
2. **Consumer**
3. **Data Provider**
4. **Infra. Provider**
5. **Appl. Provider**



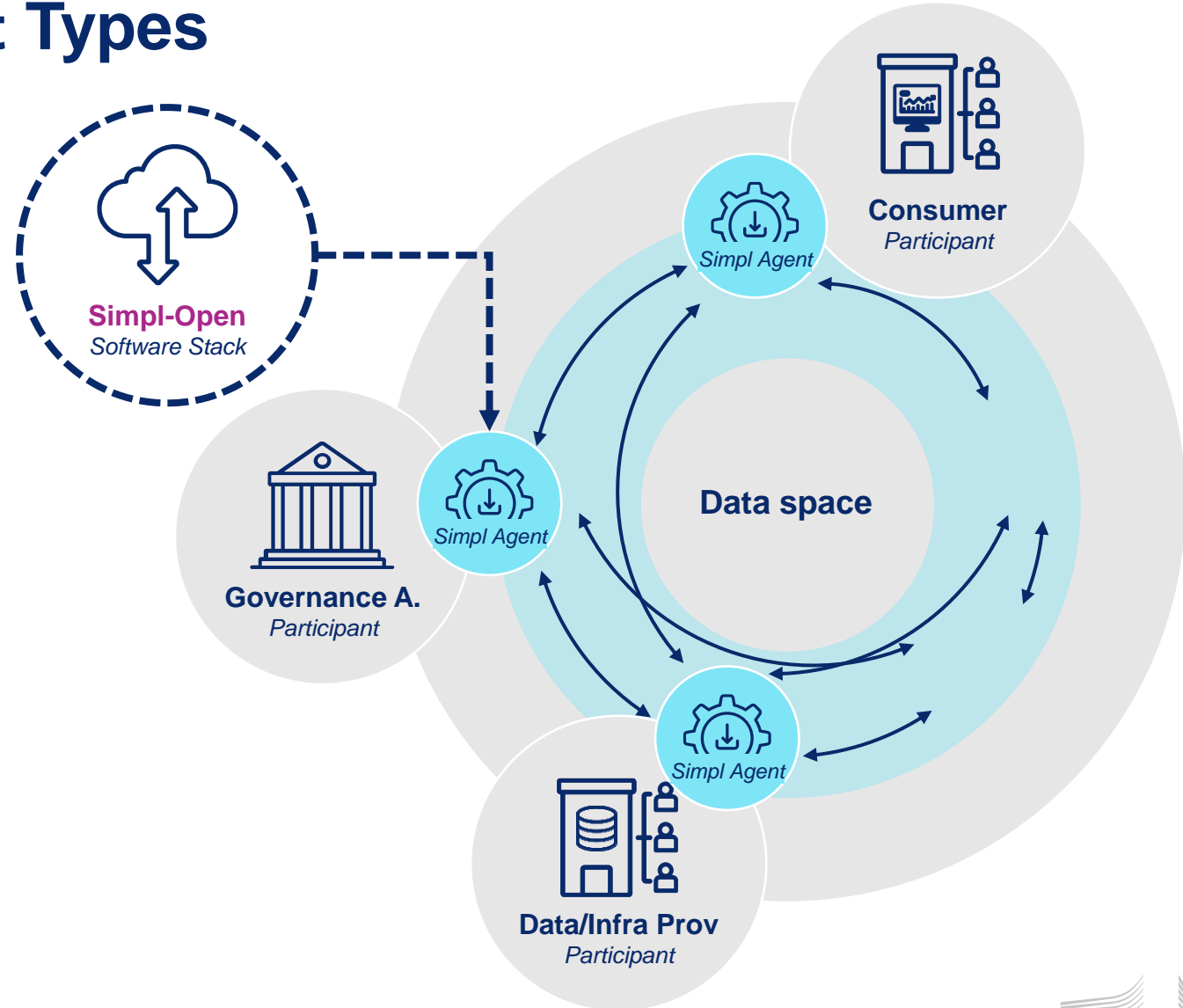
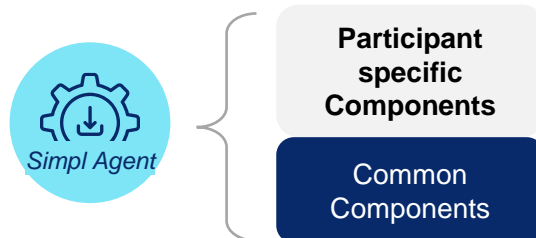
Simpl-Open Participant Types

Current Support

In the current release we have three different types of participants

1. **Governance Authority**
2. **Consumer**
3. **A combined data and Infra Provider**

Each agent consists of two parts, the components specific for the participant and the common components (e.g. message bus, logging) that are part of every agent.



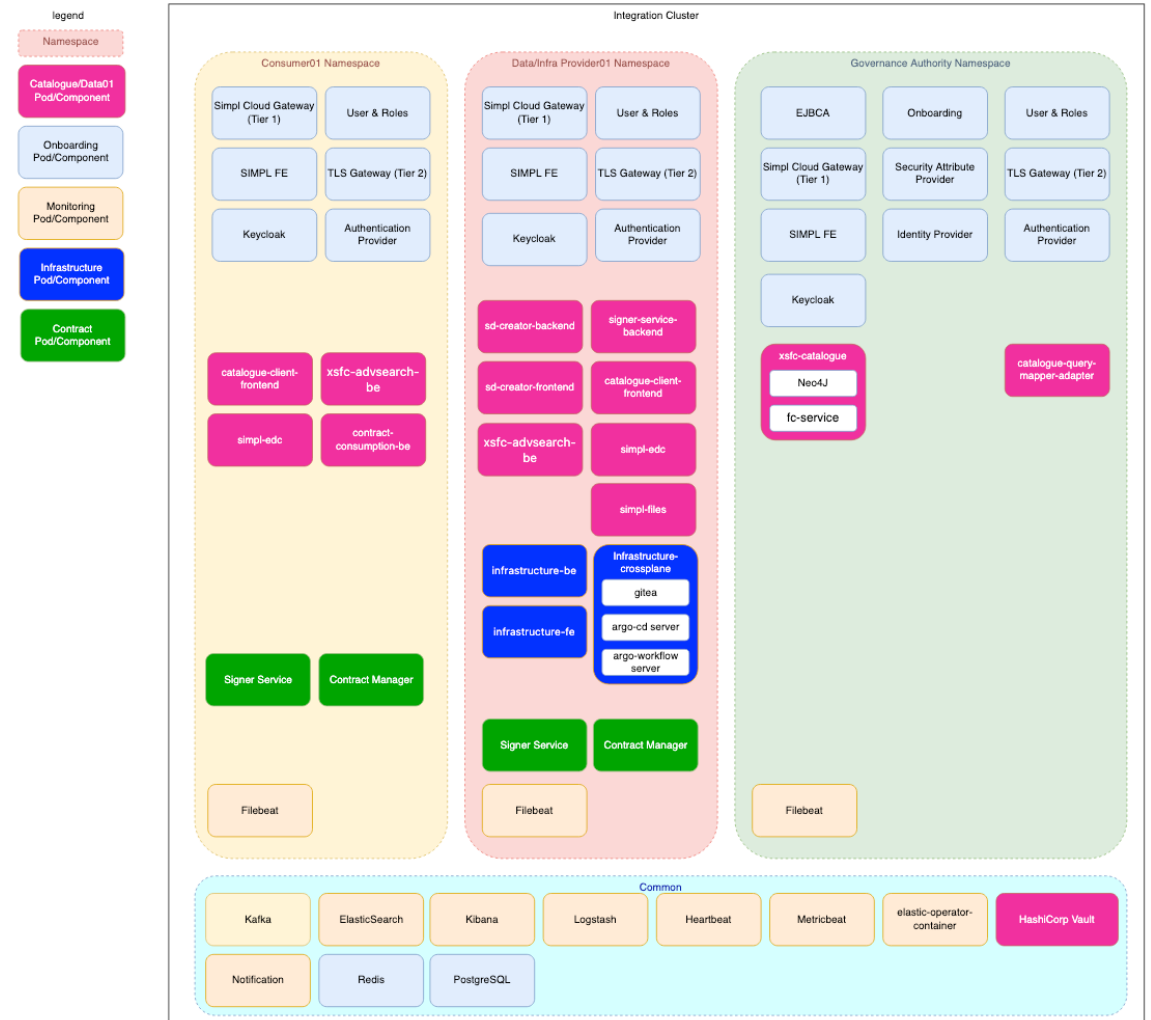
Simpl-Open Participant Types

Deployment View

If you want to install multiple agents in the same cluster (for instance to get a sandbox deployment or for testing purpose) it is enough to install the common components once per cluster.

The different agents are separated by namespace, as well as the common area in its own.

You can find the Integration Cluster visual [here](#).

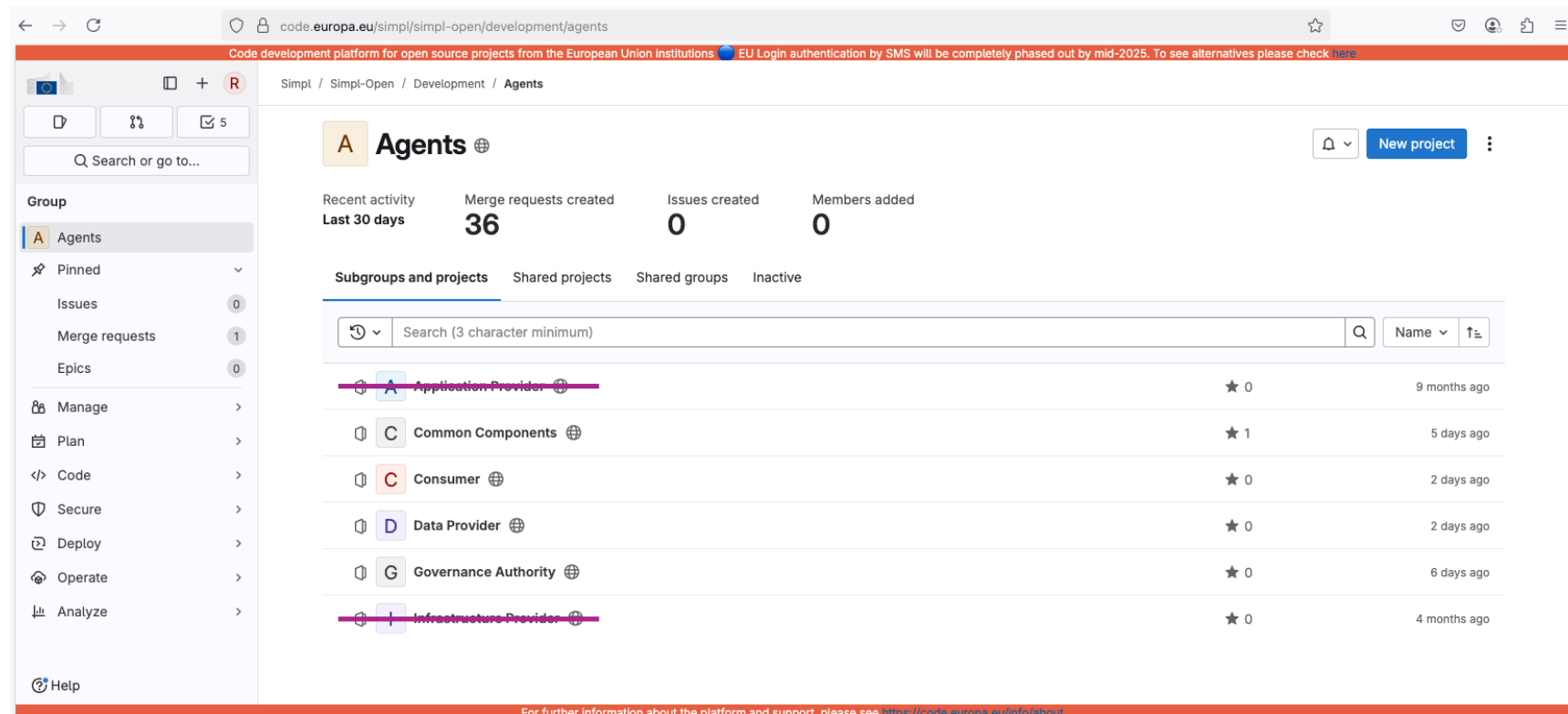


Simpl-Open Participant Types

Repository View

The helm charts for each namespace can be found on GitLab.

They also contain charts for the Application and Infrastructure Provider but these should not be installed for this release.





Installation of Agents

Demo

Agent Deployment Overview

Find below the step-by-step plan to set up Simpl-Open Agents

HOW do I set up the agents?

- ✓ **Step 1:** Set-Up Common Components
- ✓ **Step 2:** Set-Up the Data space Governance Authority
- ✓ **Step 3:** Set-Up a Provider Participant
- ✓ **Step 4:** Set-up a Data Consumer

WHAT do I need to set up the agents?

1. **Hardware Requirements**
2. **Software Pre-requisites**



Scan the QR Code to
consult the **Installation
Guide**



Scan the QR Code to
consult the full
Requirements Guide



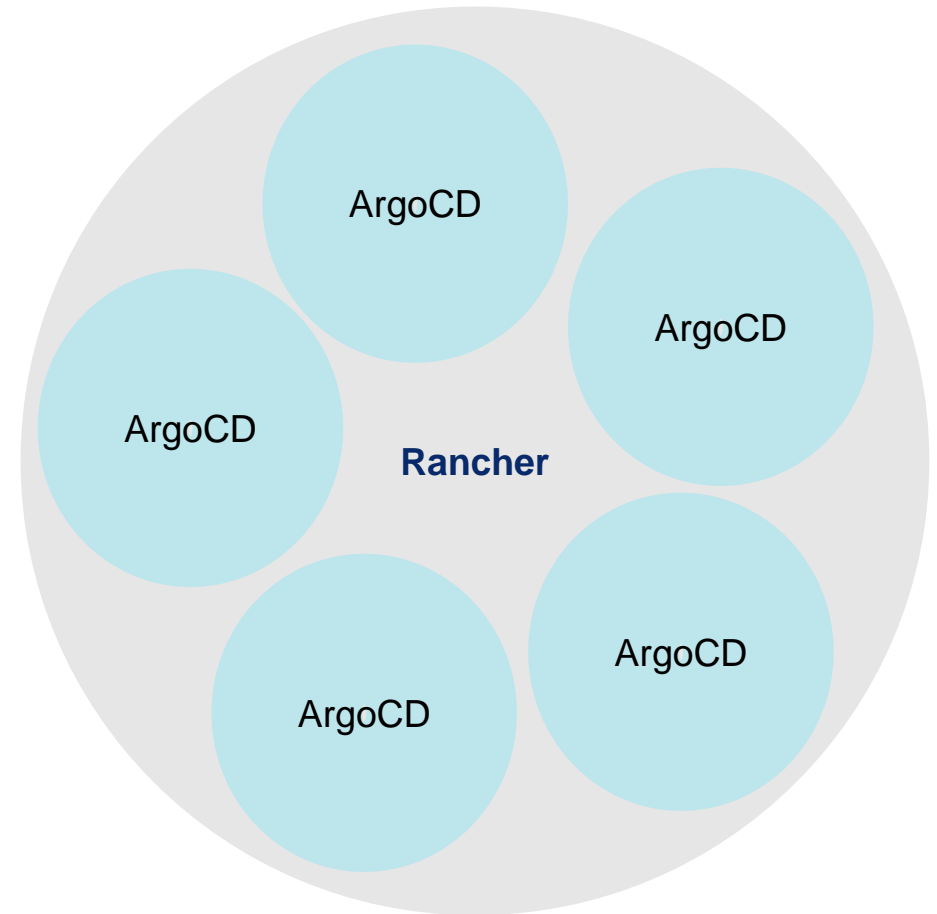
Installation of Agents

Rancher manages Kubernetes clusters and user access

1. Manage multiple Kubernetes clusters
2. Handle user access, security policies, and infrastructure
3. Provide a platform for DevOps teams to deploy workloads

Argo CD runs inside those clusters to manage application deployments

1. Automate application deployments using Git as the source of truth
2. Implement GitOps workflows with version control and rollback
3. Continuously sync app state between Git and Kubernetes



Installation of Agents

Rancher

Resources and configuration items

OVHcloud Managed Rancher Service

testint-agents

Only User Namespaces

Cluster

Workloads

Apps

Service Discovery

HorizontalPodAutoscalers

Ingresses

Services

Storage

Policy

Monitoring

More Resources

DVS

DST

DSS

DTS

DST

PDS

TTS

UAT

Ingresses

Actions

Filter

State	Name	Target
Namespace: argocd		
Active	argocd-ingress	https://argocd.testint.simpl-europe.eu/ > argo-cd-argocd-server
Namespace: authority01		
Active	adapter-ingress	https://adapter.authority01.testint.simpl-europe.eu/ > adapter-service

Rancher

OVHcloud Managed Rancher Service

testint-agents

Only User Namespaces

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⋮

+

Cluster

Workloads

CronJobs

DaemonSets

Deployments

Jobs

StatefulSets

Pods

Apps

Service Discovery

Storage

Policy

Monitoring

More Resources

0

13

234

100

40

367

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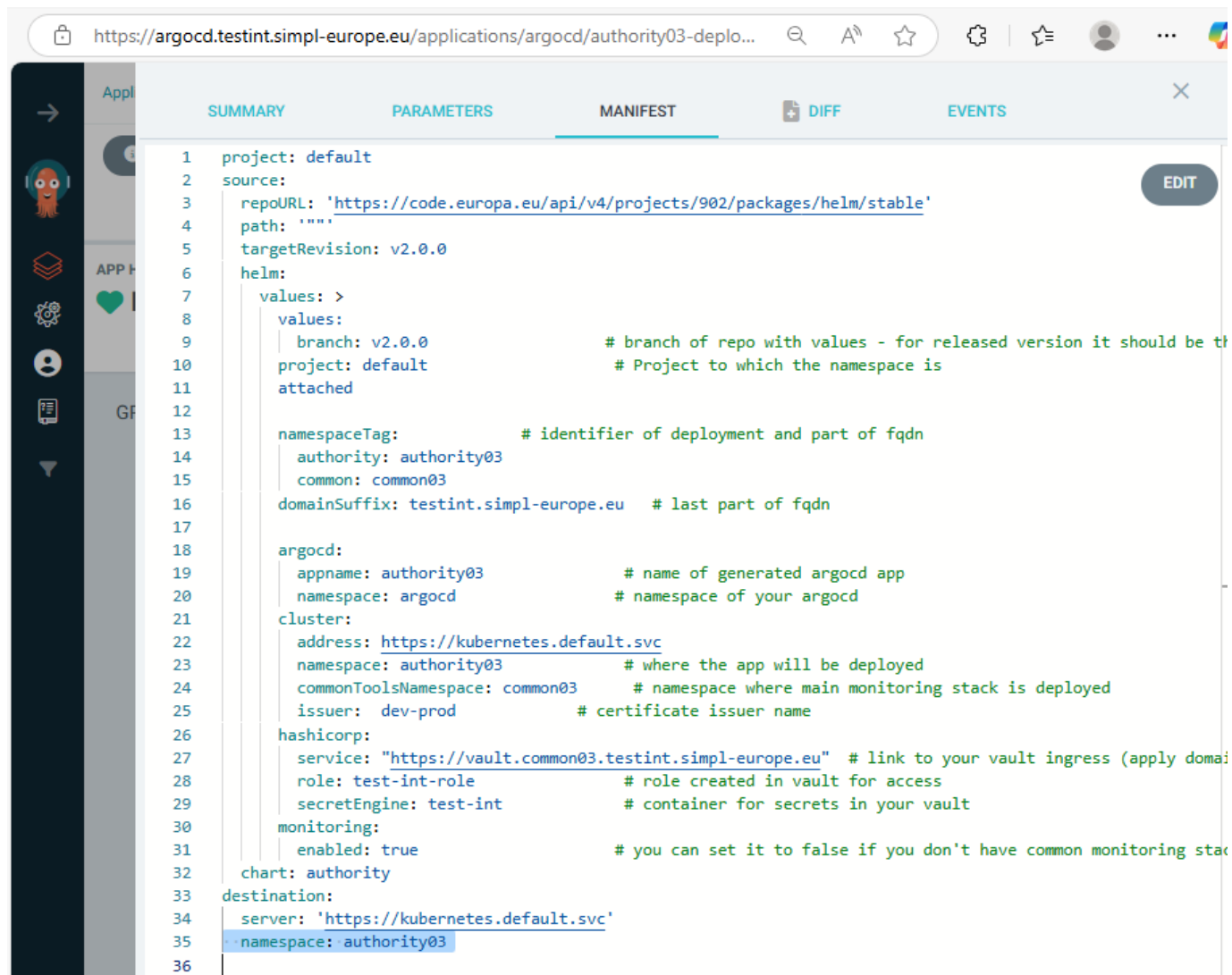
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<input type="checkbox"/>	Active	heartbeat-beat-heartbeat	Deployment	0	3.1 days	<div></div>	▼
<input type="checkbox"/>	Active	init-participant-job	Job	0	3.1 days	<div></div>	▼
<input type="checkbox"/>	Active	keycloak	StatefulSet	0	3.1 days	<div></div>	▼
<input type="checkbox"/>	Active	simpl-edc-deployment	Deployment	5	3.1 days	<div></div>	▼
<input type="checkbox"/>	Active	simpl-fe-participant	Deployment	0	3.1 days	<div></div>	▼
<input type="checkbox"/>	Active	simpl-fe-usersroles	Deployment	0	3.1 days	<div></div>	▼
<input type="checkbox"/>	Active	simpl-stubs	Deployment	0	3.1 days	<div></div>	▼
<input type="checkbox"/>	Active	tier1-gateway	Deployment	0	3.1 days	<div></div>	▼
<input type="checkbox"/>	Active	tier2-gateway	Deployment	3	3.1 days	<div></div>	▼
<input type="checkbox"/>	Active	users-roles	Deployment	2	3.1 days	<div></div>	▼
<input type="checkbox"/>	Active	xfsc-advsearch-be	Deployment	0	3.1 days	<div></div>	▼

Installation of Agents

ArgoCD

Argo CD uses both manifest-based values and Helm values with defined parameterised templates for Kubernetes resources.

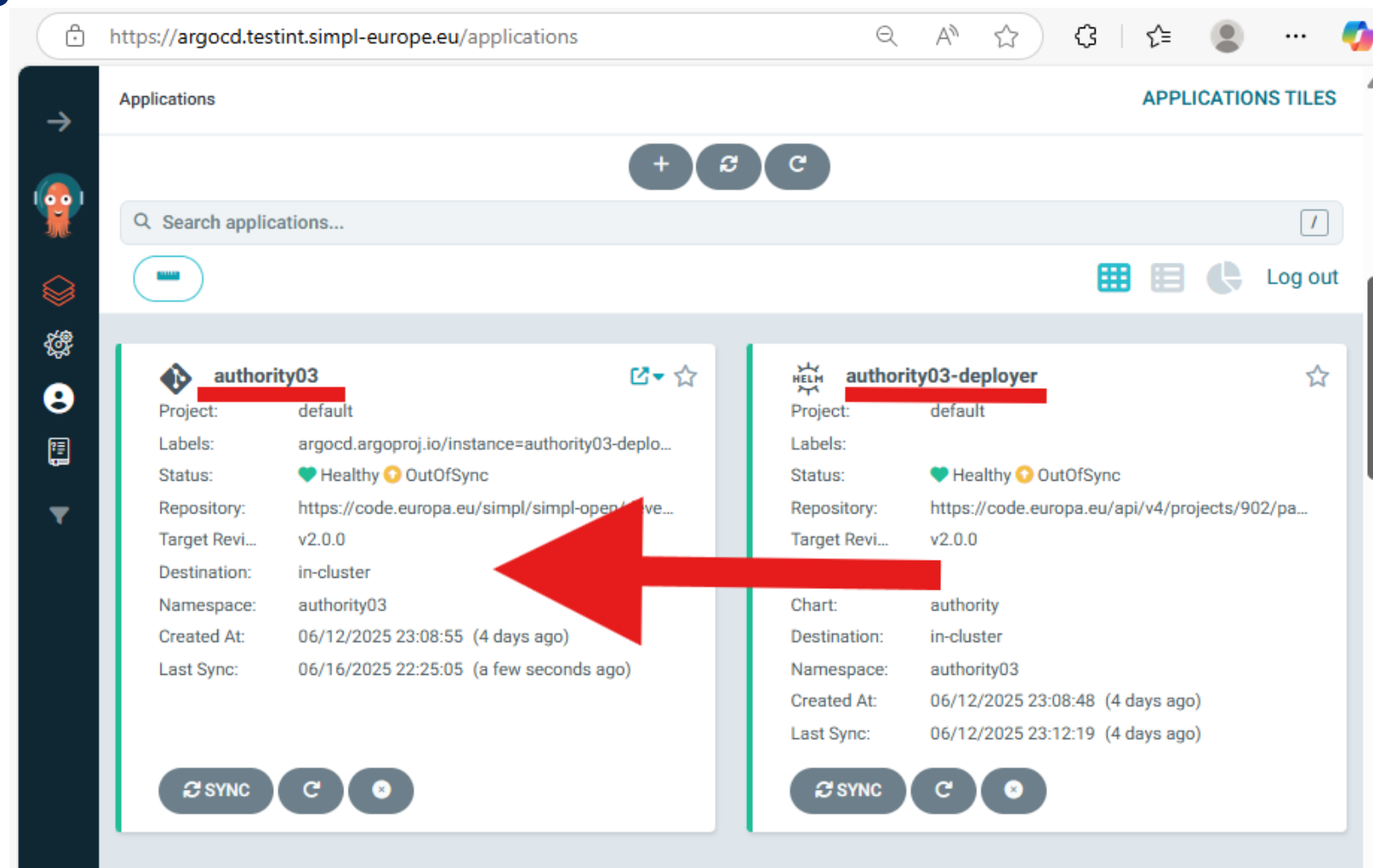


```
1 project: default
2 source:
3   repoURL: 'https://code.europa.eu/api/v4/projects/902/packages/helm/stable'
4   path: ''
5   targetRevision: v2.0.0
6 helm:
7   values: >
8     values:
9       branch: v2.0.0 # branch of repo with values - for released version it should be the
10      project: default # Project to which the namespace is
11      attached
12
13     namespaceTag: # identifier of deployment and part of fqdn
14       authority: authority03
15       common: common03
16     domainSuffix: testint.simpl-europe.eu # last part of fqdn
17
18     argocd:
19       appname: authority03 # name of generated argocd app
20       namespace: argocd # namespace of your argocd
21
22     cluster:
23       address: https://kubernetes.default.svc
24       namespace: authority03 # where the app will be deployed
25       commonToolsNamespace: common03 # namespace where main monitoring stack is deployed
26       issuer: dev-prod # certificate issuer name
27
28     hashicorp:
29       service: "https://vault.common03.testint.simpl-europe.eu" # link to your vault ingress (apply domain)
30       role: test-int-role # role created in vault for access
31       secretEngine: test-int # container for secrets in your vault
32
33     monitoring:
34       enabled: true # you can set it to false if you don't have common monitoring stack
35
36   chart: authority
37 destination:
38   server: 'https://kubernetes.default.svc'
39   namespace: authority03
```

Installation of Agents

ArgoCD

Automatic namespace deployment



The background is a dark blue field filled with a complex pattern of thin, colorful lines. These lines are primarily vertical, with many featuring U-shaped or hook-like curves at the top or bottom. The colors of the lines include light blue, teal, magenta, orange, and dark blue. Some lines have small white dots at their ends or at points where they curve. The overall effect is a dense, rhythmic, and modern abstract design.

Time for a demo!

The background is a dark blue field filled with a complex pattern of thin, colorful lines. These lines are primarily vertical but feature a variety of shapes, including U-turns, loops, and small dots at their ends. The colors used for the lines include light blue, teal, magenta, orange, and dark blue. The overall effect is a dense, rhythmic, and modern abstract design.

Q&A



Time for a break

See you back at 15:36!



Setup of Agents

Demo

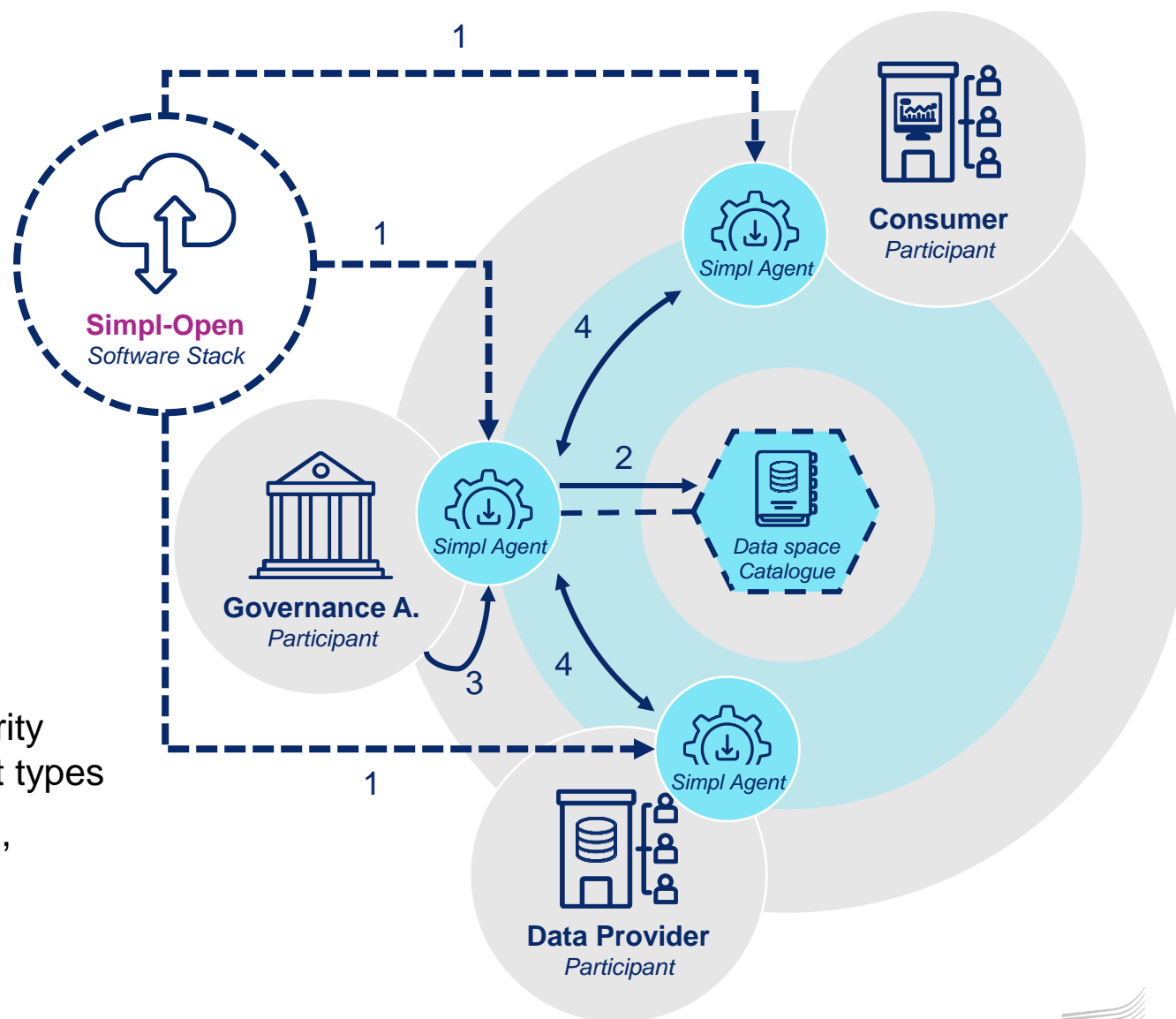
1. Setup of the demo

Next Steps

1. The previous installation will give you an empty Data Space. To actual use it you need to do several setup steps. Those cannot be done during the deployment because they are specific to the data space

Set Up Steps

2. Governance Authority configure the catalogue by loading the schema and vocabulary.
3. Governance Authority defines the security attributes and associates them to agent types
4. Consumer and Provider are onboarded, received their security credentials and configured their agent with it.



2. Import of Schema and Vocabulary

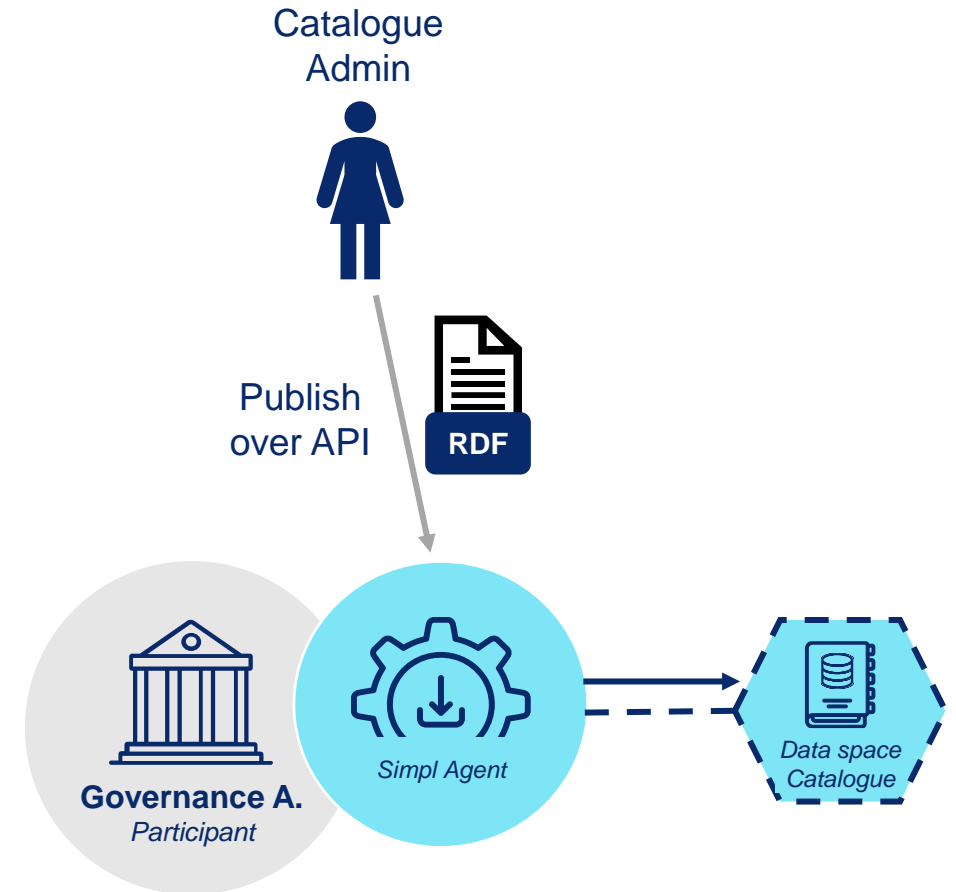
Defining and Association

The schema and vocabulary defines the content of the self-description metadata used by the provider to describe their offering.

Which properties are required depend on the data space as well as if those properties are mandatory or recommended.

These are described using semantic RDF documents and need to be published to the catalogue for verification purpose.

Currently this is done over API but we are currently in the phase of designing an UI frontend for the publication and management in the next releases.



3. Security Attributes

Defining and Association

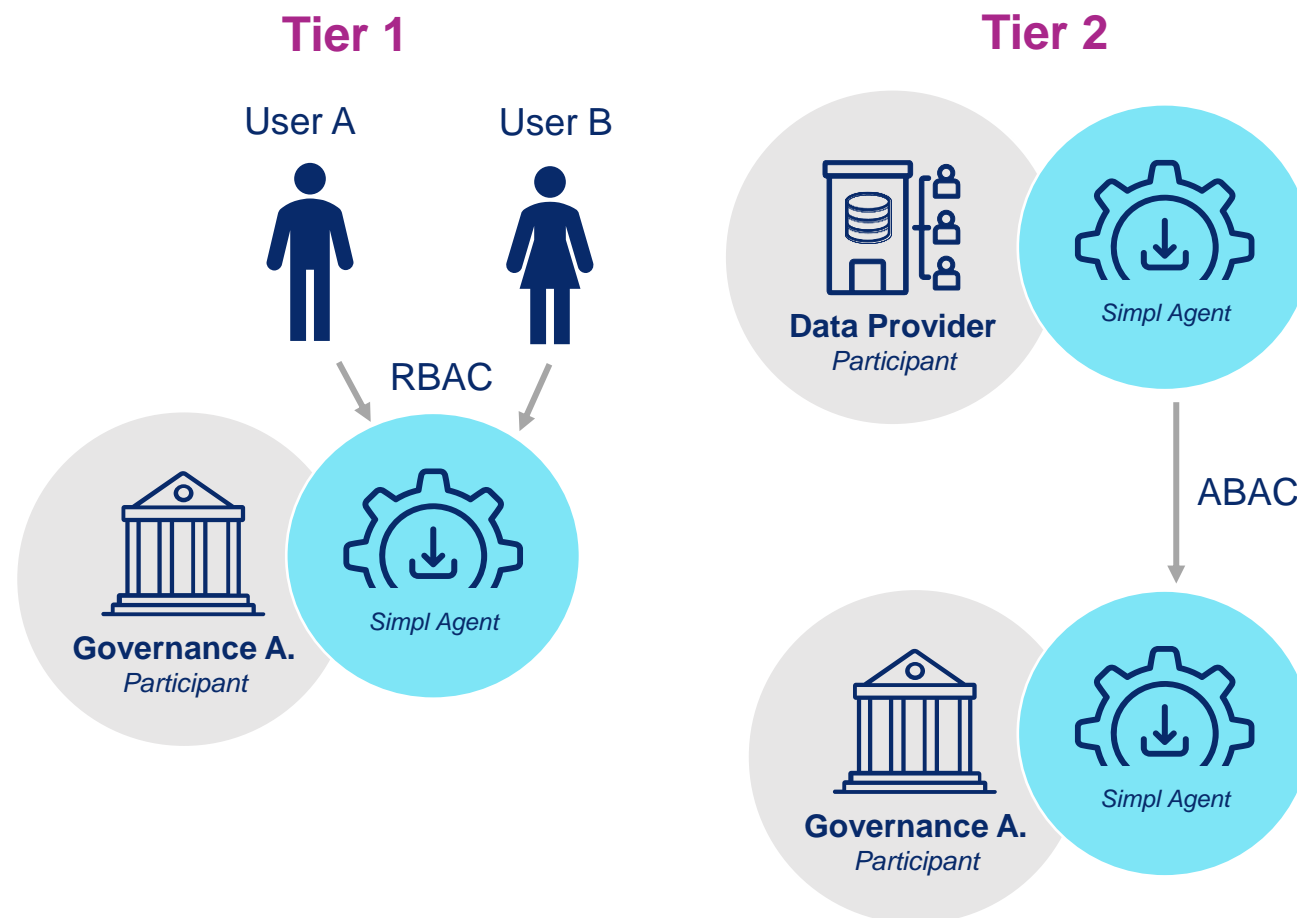
Simpl-Open uses a two-tier authentication approach

Tier 1: For the end user communicating with the agent Simpl-Open uses a role-based access control (RBAC). So, each user has a set of roles that allow him to do different activities inside the Agent.

Tier 2: For communication of an agent to another agent we use attribute-based access control (ABAC).

The roles of Tier1 are only valid inside the context of one agent thus local. For the communication in the data space itself only the attributes are used.

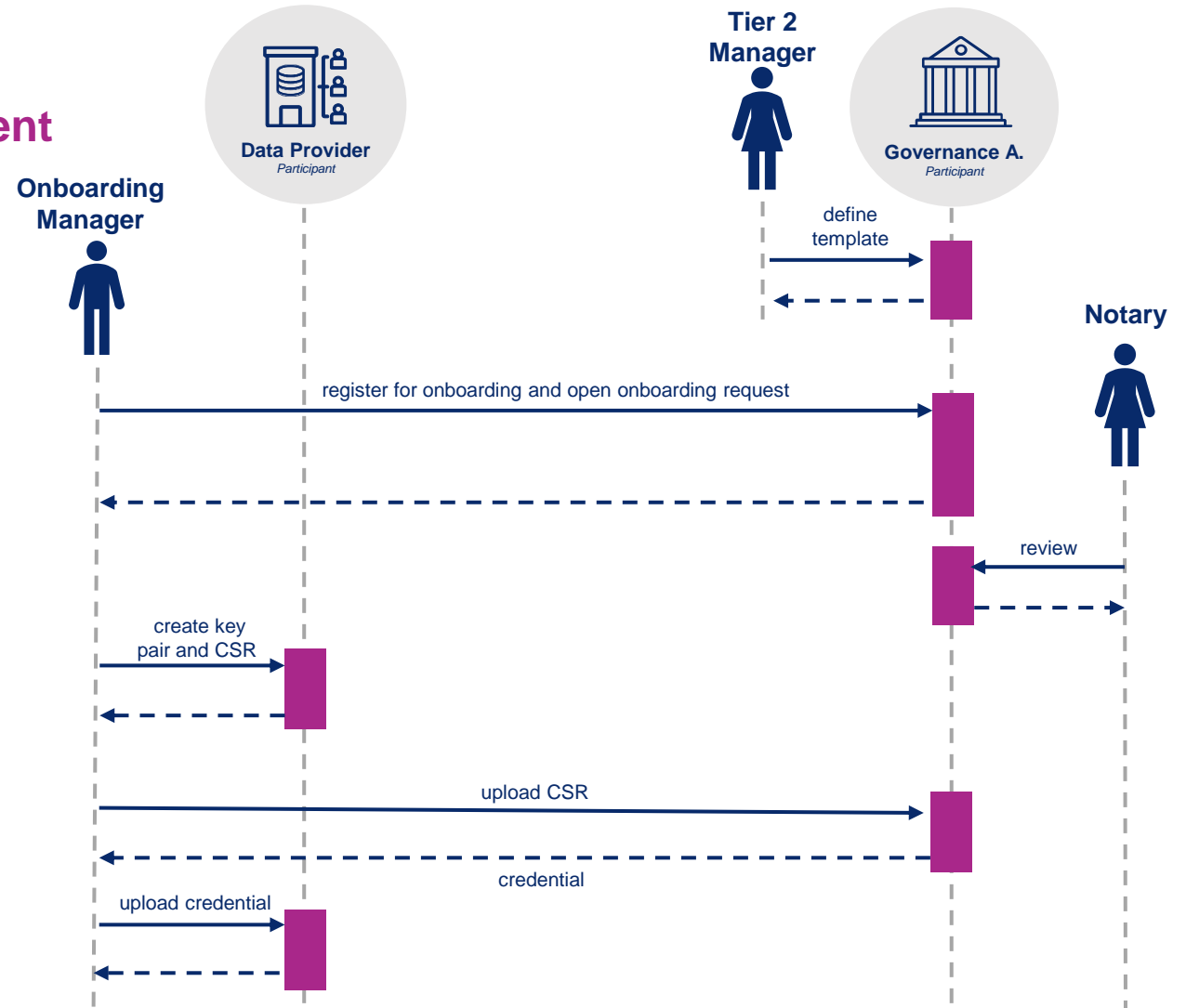
The Governance Authority defines which attributes exists and associates them to the other agents like Consumer or Provider



4. Onboarding of Participants

Onboarding Request and Credential Management

- ✓ We have installed all the agents, but this does not mean that they are ready to be used in the data space.
- ✓ Each Consumer and Provider needs to be onboarded to the data space before he can use the services.
- ✓ This involves a manual review process of a Notary of the Governance Authority thus it cannot be automated.



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Q&A

Get involved and participate!



Website

Visit our website for
Simpl documentation,
requirements and
latest news.



Social Media

Join and engage with our
growing community!



Forum

Join Simpl's forum to
contribute to discussions!



Webinars & Workshops

Join technical and business
sessions, online and in
person.



Surveys

Help us improve!



Code Repository

Check out and review
the code!

DOCUMENTATION UPDATES

- Architecture
- Installation Guide
- User Manual



Scan me for
more information
about Simpl





We appreciate your feedback!



*Scan the QR code to
provide your input on the
on the workshop*





Thank you!