Self Description Interface

CX Core ART

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1 Interface / API / Service Summary

The SD Hub is the self description hub with which services and applications can get registered in a open catalogue to provide service users a access point to find services and there data privacy rules when it comes to service location. (e.g. data space connector which is located in the US)

The SD Hub is an essential service offering when Gaia-X compliance is validated.

Currently its under validation how the SD Hub can get connected / integrated with the CX Portal.

There are mainly 3 possible solutions to be think of

1. Onboarding / Registration of a company
2. Registration of the Connector
3. Registration / Release of a new app

Details of each of those possible connections are added below

Flow 1 - Onboarding

Onboarding is only used for company registration => no SD needed

Flow 2 – Registration of connectors

Option 1 (if SD is NOT a must have)
As part of the connector registration, the user can trigger by himself the SD

Option 2 (if SD is a MUST have)
As part of the connector registration, SD Hub is triggered

Flow 3 – Registration of applications

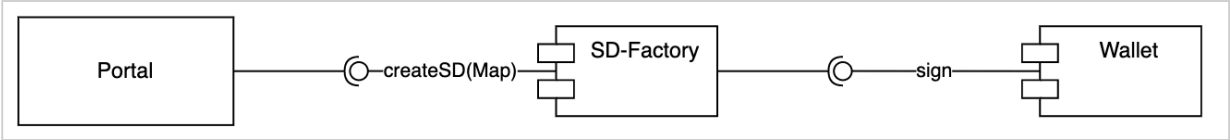
Option 1 (if SD is NOT a must have)
As part of the app release request, the user can triger by himself the SD

Option 2 (if SD is a MUST have)
App Release process is triggering the SD Hub as part of the app release by CX

Self Description Hub

Arc 42 Self Description Factory

2 Architecture Overview



* details fill follow - just a basic picture for now

3 Description of the functional interface (WHAT)

The Portal - SD Factory Interface is used to generate signed self descriptions which are stored in json ld files.

The json ld file is supposed to get stored - for now normal db document storage linked to the self description owner (usually a company).

4 Description of the physical interfaces (HOW)

Portal is pushing the self description via an REST API "POST" developed under the portal context.

Factory will receive the information and create the self-description with signature (with help of the wallet).

A response is getting send to the portal with an "content" section. The content section is getting stored as json file in the portal db.

5 1. Self Description Creation

For self descriptions, 2 different kinds of self descriptions are currently in scope.

Participants and services. In the section below both are explained.

5.1 1.1 Participant (Type of SD is "LegalPerson")

The participant self description is getting auto triggered with the CX member approval.

Following data are getting submitted to the factory to create the participant self description.

JSON Body

"type": "LegalPerson",

"registration_number": "application id of the company, in future unique identifier",

“headquarter_country”: "use the alpha2code of the company identity",

”legal_country”: "use the alpha2code of the company identity",

“bpn”: "company bpn",

“issuer”: "Catena-X bpn",

“holder”: "Company bpn"

Endpoint: no specific endpoint, part of the portal internal logic, which will call the /selfdescription factory endpoint

5.2 1.2 Service (Type of SD is "ServiceOffering")

The service self description is currently only triggered for edcs with a limited content scope.

Following you can find the self description json. Same as for participant, there is no self-description endpoint available, the self description is triggered as part of an internal portal logic when registering the connector.

enter link to connector registration

"type": "ServiceOffering",

"providedBy": "participant sd document url",

“aggregationOf”: "",

”termsAndConditions”: "link to AGB of Catena-X"; → to be clarified with Felix Gerbig (Werner Jost will request this),

“policies”: "the policies declared in the EDC instance to be registered/onboarded" → to be clarified with Stefan Ettl (Werner Jost will request this),

“issuer”: "Catena-X bpn",

“holder”: "Company bpn"

Result: self description of the connector connected to the participant SD via the "provided_by" link.

The self description is stored inside the document table

6 2. Self Description Deletion

currently not in scope

7 3. Self Description Discovery

currently not in scope

8 Implementation Levels

Release 2 - enable self descriptions via portal for connectors and participants

Release 3 - tbd

Release 4 ff - implementation of the federated catalogue. As soon as the catalogue is getting implemented, we need to newly validate the architecture and service ownership.

8.1 Task:

- [x] SD Factory "EDC" input attributes to be reconfirmed Mehran Roshandel => see above
- [x] SD Factory "EDC" signed json-ld file example as well as current available POST API to be shared Mehran Roshandel => see above
- [x] any json-ld file storage requirements are available - to be confirmed by Werner Jost => no requirements
- [x] to be decided: is a message queue targeted in future? Werner Jost