Object Configuration (Draft)

Object Configuration illustrates how the engineering objects are used for supporting the functionalities commonly shared among more than one RI such as Identification and Citation, Curation, **Cataloguing Configurations**, Processing, and Provenance.

Cataloguing Configurations

There are seven cataloguing processes (D8.3) which need to be supported using EV objects. These basic EV configurations are mapped to these processes in **Table 01**. As shown in the table, the combination of these basic configurations allows supporting different cataloguing processes.

Table 1. Basic Cataloguing Processes

Processes (User Stories/Requirements) (Stage 1 Description)	Configuration Name
1. Store an asset (e.g. dataset) with metadata sufficient for cataloging purposes;	**Store Asset Configuration**
2. Discover an asset using the metadata – the richer the metadata and the more elaborate the query the greater the precision in discovering the required asset(s);	**Discover Asset Configuration**
3. Download an asset based on metadata	**Download Asset Configuration**
4. Select/project an asset in situ location accessed via metadata	**Select Asset Configuration**
5. Move (selected parts of) asset to location accessed via metadata	**Move Asset Configuration**
6. Compose (selected parts of) asset into workflow accessed via metadata	**Compose Asset Configuration**
7. Update an asset and/or metadata	**Update Asset Configuration**

This section define set of seven independent cataloguing services that support each process on **Table 01**. This clearly separates the functionalities vertically and shows how the BEOs interact with each other. The structure of the following configurations is based on the **Container Structure**.

In addtion to the EV BEOs all the configurations require a management component object and a catalogue system object.These engineering objects together with the collection of configurations conform the complete catalogue service.

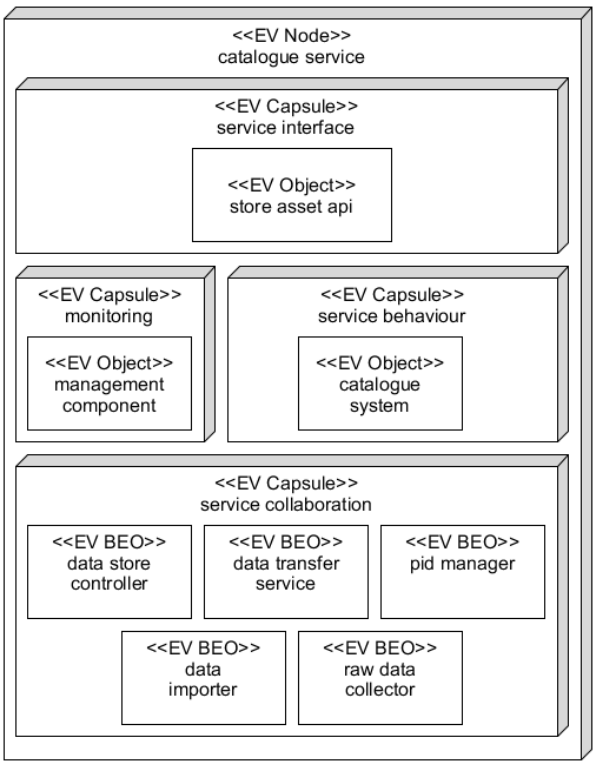
Store Asset Configuration

The configuration for storing a new asset depends on six BEOs: **catalogue service**, **data transfer service**, **raw data collector**, **data importer**, **pid manager**, and **data store controller**.

The figures on the right shows the configuration of the service using the recommended **Container Structure**.

This configuration shows a self contained service which already contains the required objects for three possible service variations: collect from sensor, import from another repository, and assign global unique pid.

Name:	Store Asset
Process:	Store an asset (e.g. dataset) with metadata sufficient for cataloging purposes
Resources	• asset • metadata
Outputs	• asset [registered] • metadata [registered] • asset pid [registered]
Options	• collect data from sensors • import data from external source • assign global unique pid



Discover Asset Configuration

The configuration for discovering an asset depends on three BEOs: **catalogue service**, **pid manager**, and **data store controller**.

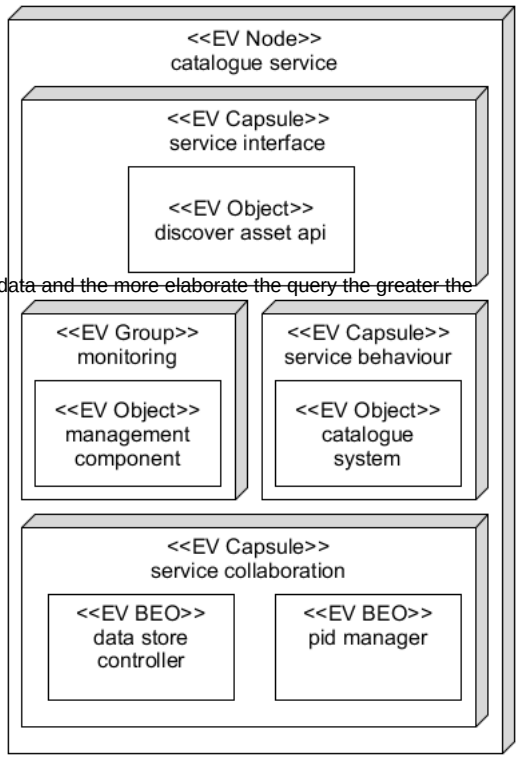
The figures on the right shows the configuration of the service using the recommended **Container Structure**.

This configuration shows a self contained service which already contains the required objects for supporting the discovery process.

Name:	Discover Asset
Process:	Discover an asset using the metadata – the richer the metadata and the more elaborate the query the greater the precision in discovering the required asset(s)
Resources:	• query parameters (metadata)

Outputs:	• metadata
	  • asset pid
	  • asset reference (publishable)
	  • asset description

Options:	• faceted discovery (filtering of results)
Correspondences	Technology Viewpoint: **Catalogue Discovery Object**



Download Asset Configuration

The configuration for storing a new asset depends on five BEOs: **catalogue service**, **data transfer service**, **data exporter**, **pid manager**, and **data store controller**

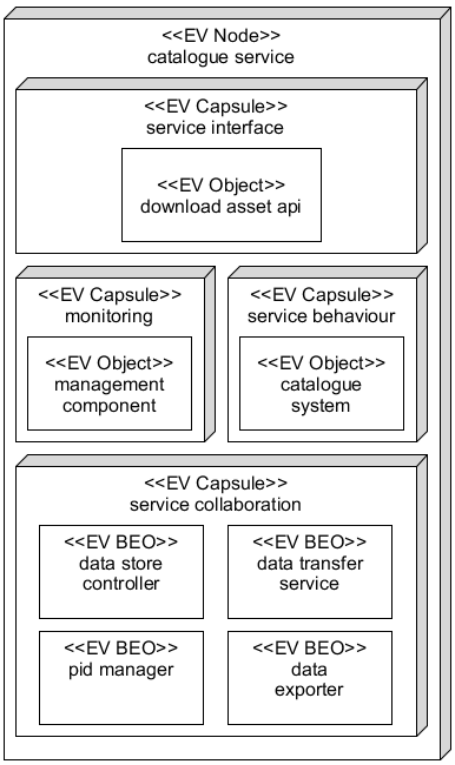
The figures on the right shows the configuration of the service using the recommended **Container Structure**.

This configuration shows a self contained service which already contains the required objects for supporting the discovery process.

Name:	Download Asset
Process:	Download an asset based on metadata
Resources	• asset pid (precondition: discovery) • filtering parameters (metadata, optional)

Outputs	• asset (copy)
	• metadata
	  • asset pid
	  • asset reference (publishable)
	  • asset description

Options	• download complete • download partial

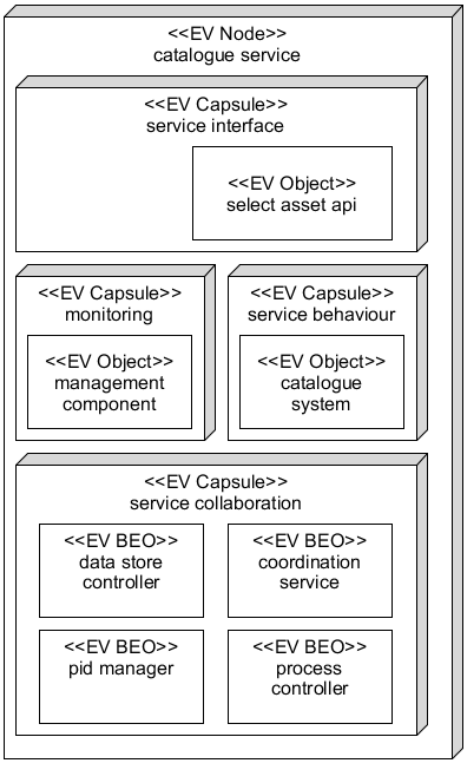


Select Asset Configuration

The configuration for selecting an asset depends on five BEOs: **catalogue service**, **coordination service** , **process controller**, **pid manager**, and **data store controller**

The figures on the right shows the configuration of the service using the recommended **Container Structure**.

This configuration shows a self contained service which already contains the required objects for supporting the discovery process.



Name:	Select Asset
Process:	Select/project an asset in situ location accessed via metadata
Resources	• asset pid (precondition: discovery) • filtering parameters (metadata, optional)

Outputs	• asset (processed view)
	• metadata
	  • asset pid
	  • asset reference (publishable)
	  • asset description
	  • asset view details

Options	• select • project

Move Asset Configuration

The configuration for moving an asset depends on seven BEOs: **catalogue service**, **data transfer service** , **data exporter**, **pid manager**, **data store controller**, **coordination service**, and **process controller**,

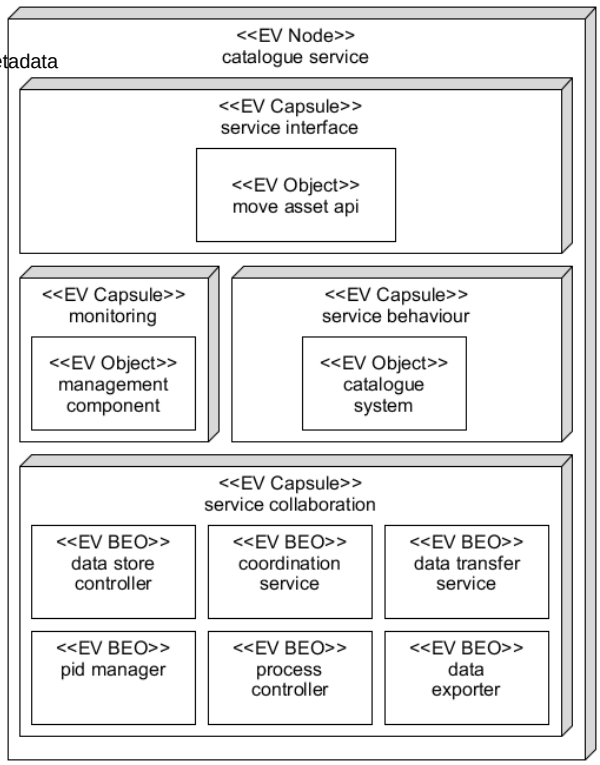
The figures on the right shows the configuration of the service using the recommended **Container Structure**.

This configuration shows a self contained service which already contains the required objects for supporting the move asset process.

Name:	Move Asset
Process:	Move (selected parts of) asset to location accessed via metadata
Resources	• asset pid (precondition: discovery) • filtering parameters (metadata, optional)

Outputs	• asset (partial or completely relocated)
	• metadata
	  • asset pid
	  • asset reference (publishable)
	  • asset description

Options	• move complete (delete original) • move partial (delete partial)

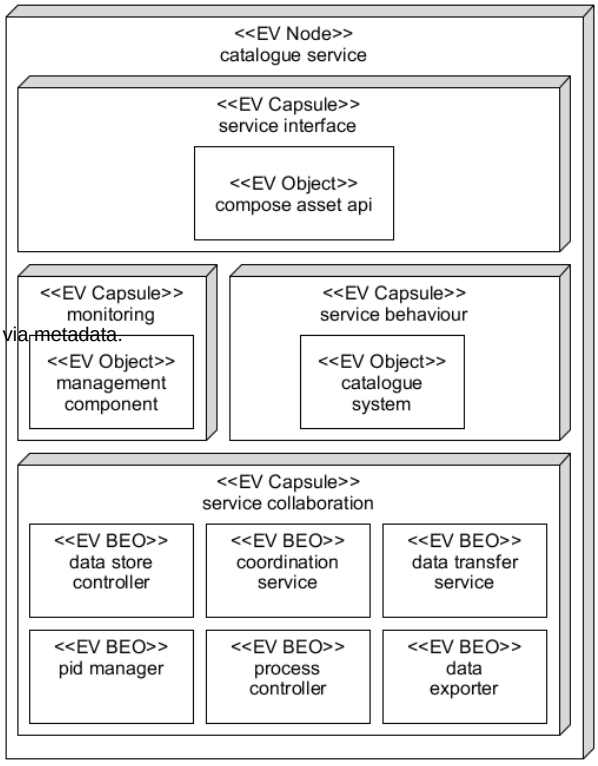


Compose Asset Configuration

The configuration for composing existing assets depends on seven BEOs: **catalogue service**, **data transfer service**, **data exporter**, **pid manager**, **data store controller**, **coordination service**, and **process controller**,

The figures on the right shows the configuration of the service using the recommended **Container Structure**.

This configuration shows a self contained service which already contains the required objects for supporting the compose asset process.



Name:	Compose Asset
Process:	Compose (selected parts of) asset into workflow accessed via metadata.
Resources	• asset pid (precondition: discovery) • filtering parameters (metadata, optional) • destination parameters • scheduling parameters

Outputs	• asset (copy, partial or complete)
	• metadata
	  • asset pid
	  • asset reference (publishable)
	  • asset description

Options	• compose complete • compose partial

Update Asset Configuration

The configuration for discovering an asset depends on four BEOs: **catalogue service**, **annotation service**, **pid manager**, and **data store controller**.

The figures on the right shows the configuration of the service using the recommended **Container Structure**.

This configuration shows a self contained service which already contains the required objects for supporting the discovery process.

Name:	Discover Asset
Process:	Update an asset and/or metadata
Resources	• asset pid • update parameters (metadata) • asset (complement or replacement)

Outputs	• metadata
	  • asset pid
	  • asset reference (publishable)
	  • asset description

Optionsup	• update metadata only • annotate asset • annotate metadata • update global pid