# Interface Design Description (IDD) SystemDiscovery

# september 2019

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silia.maksuti@fh-burgenland.at	2(5)

### 1 Interface Design Description Overview

This document describes the SystemDiscovery service with the REST interface, which uses a basic three-tier architecture:

- Presentation tier
  - implements the RegistryResource interface named SystemRegistryResource.java
  - transforms the view into domain specific objects and vice versa
- Application tier
  - implements the RegistryService interface named SystemRegistryService.java
  - is responsible for any business logic and extensive validation
- Data tier
  - taken from the arrowhead common project (DatabaseManager.java), which is a generic and hibernate specific implementation to deal with any entity in the arrowhead code

#### 2 Interfaces

According to SD document(https://forge.soa4d.org/docman/view.php/58/178/Arrowhead\_SD\_SystemDiscovery.pdf), ServiceDiscovery service has three functions implemented as shown in the table below.

Table 1: SystemDiscovery Functions

Function	URL Path	Method	Input	Output
Publish	"/publish"	POST	SystemRegistryEntry	SystemRegistryEntry
Unpublish	"/unpublish"	POST	SystemRegistryEntry	SystemRegistryEntry
Lookup	"/lookup"	GET	Integer	SystemRegistryEntry





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# 3 Information Model

# 3.1 SystemRegistryEntry

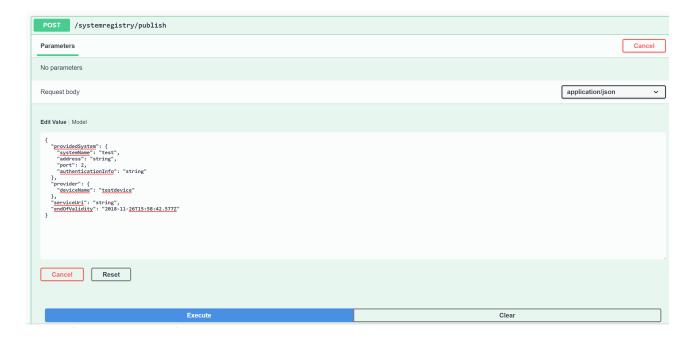


Figure 1: SystemRegistryEntry





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#### 3.2 SystemQueryForm

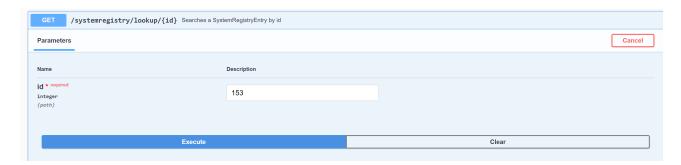
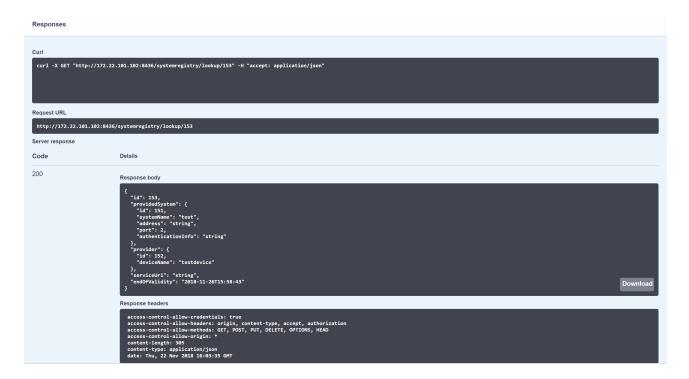


Figure 2: SystemQueryForm

#### 3.3 SystemQueryResponse



 ${\bf Figure~3:~SystemQueryResponse}$ 





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# 4 Revision history

#### 4.1 Amendments

No.	Date	Version	Subject of Amendments	Author
1	2017-09-10	7-09-10 1.0 Initial Version		Silia Maksuti
2	2017-11-15	1.1	Updated Version	Silia Maksuti
3	2019-09-23	1.2	Updated Version	Silia Maksuti, Mario Zsilak

# 4.2 Quality Assurance

No.	Date	Version	Approved by
1			
2			

