Interface Design Description (IDD)
DeviceDiscovery

September 25, 2019

1 Interface Design Description Overview

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

- Presentation tier
  - implements the RegistryResource interface named DeviceRegistryResource.java
  - transforms the view into domain specific objects and vice versa
- Application tier
  - implements the RegistryService interface named DeviceRegistryService.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(...), DeviceDiscovery service has three functions implemented as shown in the table below.

Table 1: DeviceDiscovery Functions

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

3 Information Model

3.1 DeviceRegistryEntry

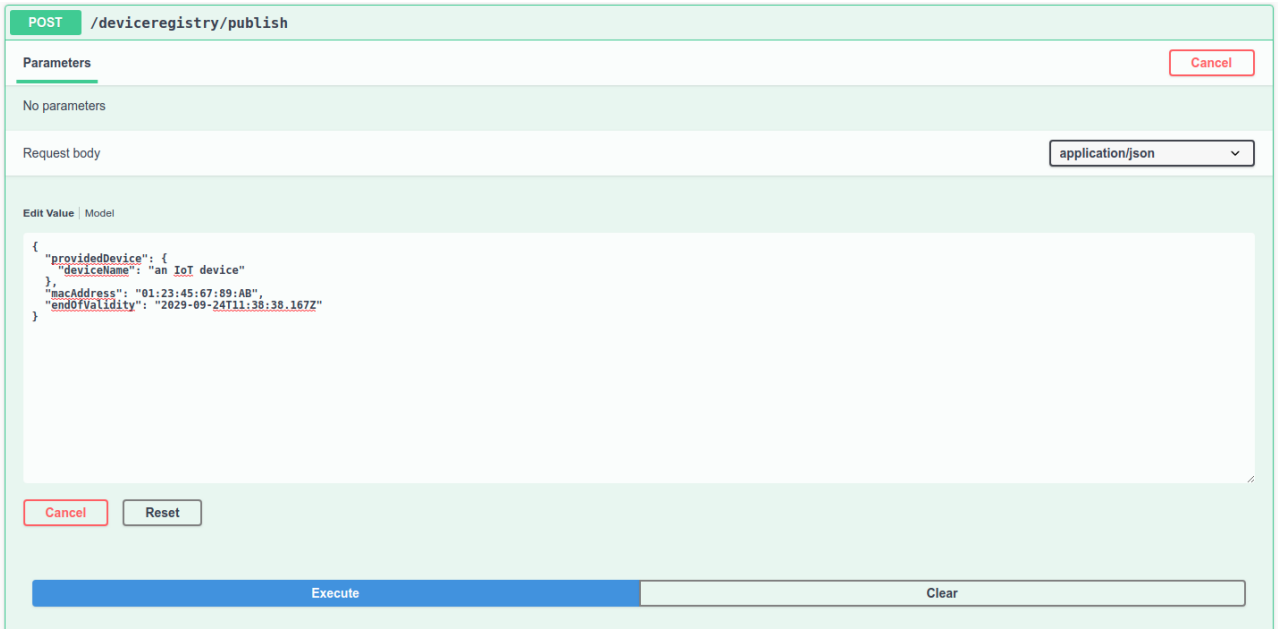

Figure 1: DeviceRegistryEntry

3.2 DeviceQueryForm

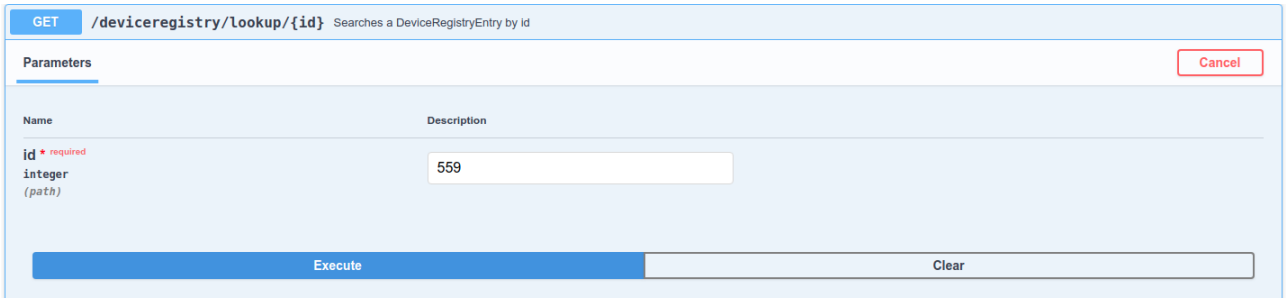

Figure 2: DeviceQueryForm

3.3 DeviceQueryResponse

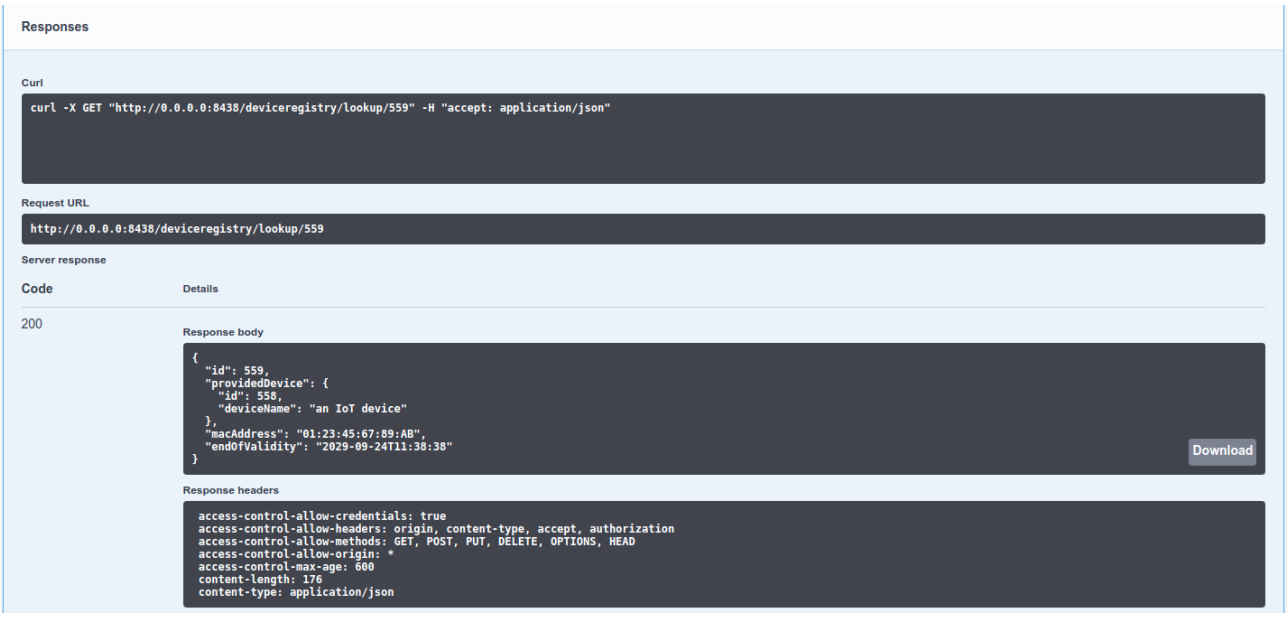

Figure 3: DeviceQueryResponse

4 Revision history

4.1 Amendments

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