Service Discovery Register

Service Description

Service ID: *"register"*

Abstract
This document describes a variant of the Service Discovery Register service.

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1 Overview

This document describes the Service Discovery Register Eclipse Arrowhead service, which is enables autonomous service registration by systems. Examples of this interaction is a system that has the capability to provide some kind of service. To enable other systems to use, to consume it, this service needs to be offered in the Service Registry.

The rest of this document is organized as follows. In Section 2, we describe the abstract message functions provided by the service. In Section 3, we end the document by presenting the data types used by the mentioned functions.

2 Service Interfaces

This section lists the functions that must be exposed by Service Discovery Register service in alphabetical order. In particular, each subsection names an abstract interface, an input type and an output type, in that order. The input type is named inside parentheses, while the output type is preceded by a colon. Input and output types are only denoted when accepted or returned, respectively, by the interface in question.

All abstract data types named in this section are defined in Section 3.

2.1 function Register (ServiceRegistryRequest)

The Register function is used to register services. The services will contain various metadata as well as a physical endpoint. The various parameters are representing the endpoint information that should be registered.

3 Information Model

Here, all data objects that can be part of Service Discovery Register service calls are listed in alphabetic order. Note that each subsection, which describes one type of object, begins with the *struct* keyword, which is used to denote a collection of named fields, each with its own data type. As a complement to the explicitly defined types in this section, there is also a list of implicit primitive types in Section 3.2, which are used to represent things like hashes and identifiers.

An overview of the data object types is illustrated in Figure 1.

3.1 struct ServiceRegistryRequest

This structure is used to register a service offering into the Service Registry.

Field	Type	Description
endofValidity	DateTime	Service is available until this UTC timestamp.
interfaces	Array<Interface>	List of interfaces the service supports.
metadata	Metadata	Metadata
providerSystem	Name	Name of the provider system.
secure	SecureType	Type of security the service uses.
serviceDefinition	Name	Service Definition.
serviceUri	URI	URI of the service.
version	Version	Version of the service.

3.2 Primitives

Types and structures mentioned throughout this document that are assumed to be available to implementations of this service. The concrete interpretations of each of these types and structures must be provided by any IDD document claiming to implement this service.

Type	Description
Interface	Any suitable type chosen by the implementor of the service.
DateTime	Pinpoints a specific moment in time.
List<A>	An *array* of a known number of items, each having type A.
Name	A string identifier that is intended to be both human and machine-readable.

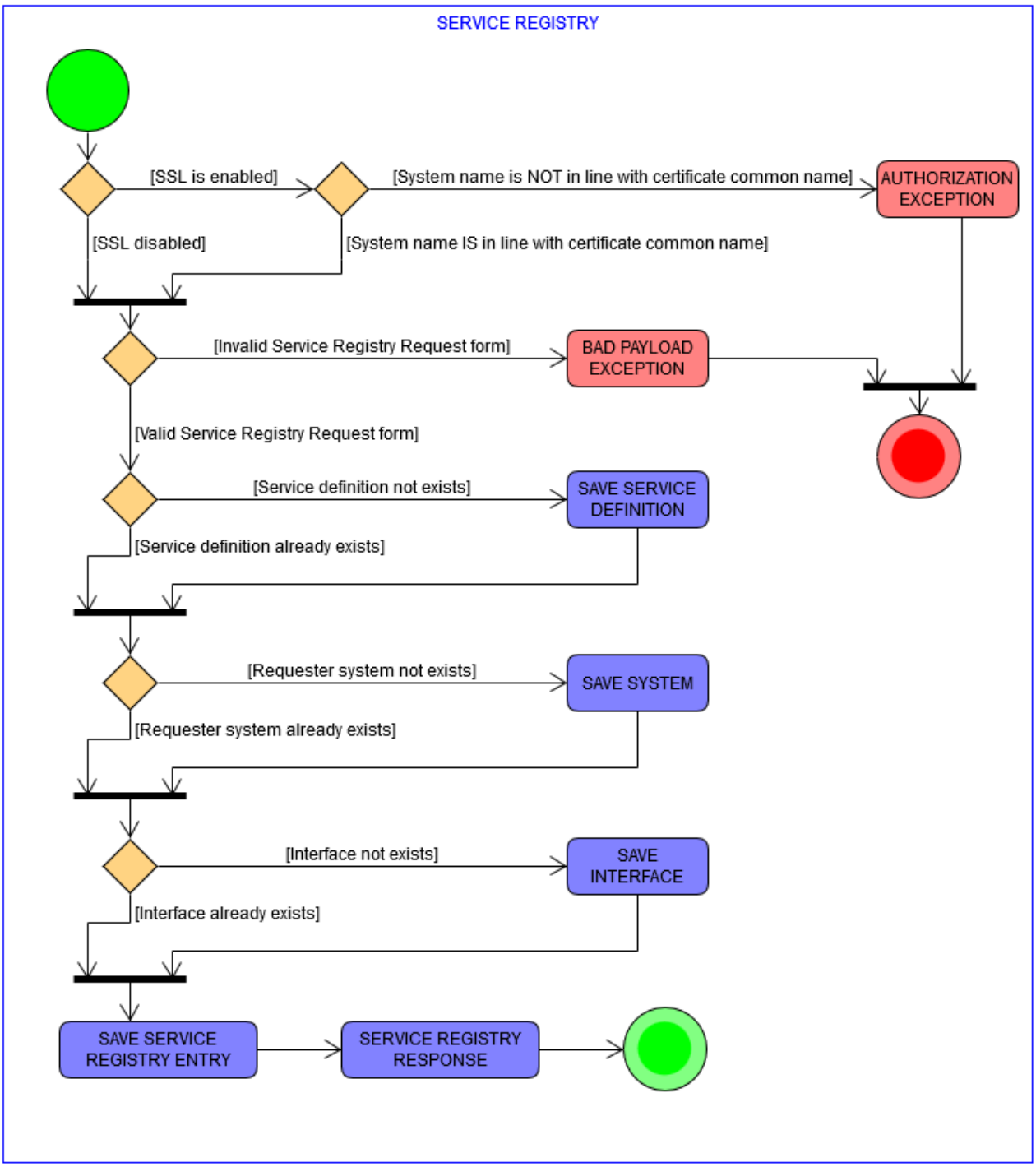

Figure 1: Information model as a UML activity diagram. Describes the process of service registration.

4 Revision History

4.1 Amendments

No.	Date	Version	Subject of Amendments	Author
1	2020-12-05	1.0.0		Tanyi Szvetlin

4.2 Quality Assurance

No.	Date	Version	Approved by
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