| | Document title | Document type |
|---|---|---|
| | **Service Discovery Query** | **SD** |
| | Date | Version |
| | **2021-01-15** | **4.3.0** |
| | Author | Status |
| | **Szvetlin Tanyi** | **RELEASE** |
| | Contact | Page |
| | **szvetlin@aitia.ai** | **1 (6)** |

# Service Discovery Query
## Service Description

Service ID: *"query"*

## Abstract

This document describes a variant of the Service Discovery Query service.

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# 1   Overview

This document describes the Service Discovery Query Eclipse Arrowhead service, which enables clients to query other Core System services. Examples of this interaction is a system that wants to check how can it call the orchestration service offered by the Orchestration core system.

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.

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# 2 Service Interfaces

This section lists the functions that must be exposed by Service Discovery Query 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 Query (ServiceQueryForm)

The Query function is used to query services. The services will contain various metadata as well as a physical endpoint. The various parameters are representing the endpoint information.

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ARROWHEAD

# 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.

## 3.1 struct ServiceQueryForm

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

| Object Field | Value Type | Description |
|---|---|---|
| "interfaceRequirements" | Array<Interface> | List of the required interfaces. |
| "maxVersionRequirement" | Version | Maximum version. |
| "minVersionRequirement" | Version | Minimum version. |
| "metadataRequirements" | Metadata | Metadata. |
| "pingProviders". | Boolean | Checks the availability of the providers if true |
| "securityRequirements" | Name | Type of security. |
| "serviceDefinitionRequirement" | Name | Service Definition. |
| "versionRequirement" | 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 |
|---|---|
| Boolean | One out of `true` or `false`. |
| Interface | Any suitable type chosen by the implementor of the service. |
| Version | Specifies a service version. |
| 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. |

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# 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 |
|-----|------|---------|-------------|
| 1 | | | |