

Document title
query-all
Date
2023-03-03
Author
Tamás Bordi
Contact
tbordi@aitia.ai

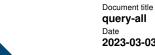
Document type SD
Version 4.6.0
Status
RELEASE
Page 1 (9)

query-all

Service Description

Abstract

This document provides service description for the query-all service.





Version **4.6.0** Status **RELEASE** Page **2 (9)**

Contents

ARROWHEAD

1	Ove	rview	3
	1.1	How This Service Is Meant to Be Used	3
	1.2	Important Delimitations	3
	1.3	Access policy	3
2	Serv	vice Interface	4
	2.1	interface HTTP/TLS/JSON	4
3	Info	rmation Model	5
	3.1	struct ServiceRegistryList	5
	3.2	struct ServiceRegistryResponse	5
	3.3	struct Metadata	5
	3.4	struct InterfaceRecord	6
	3.5	struct SystemRecord	6
	3.6	struct ServiceDefinitionRecord	6
	3.7	Primitives	7
4	Refe	erences	8
5	Rev	ision History	9
	5.1	Amendments	9
	52	Quality Assurance	q



Version 4.6.0 Status RELEASE Page 3 (9)

1 Overview

This document describes the **query-all** service, which enables dedicated core systems to get data about all service registry instance by one request, therefore it is an integral part of the implementation of service discovery requirements in Service Registry Mandatory Core System. Example of this interaction is a core system that needs the available information about every service instance from 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.

1.1 How This Service Is Meant to Be Used

The given core system can consume this without any input data.

1.2 Important Delimitations

No delimitations.

1.3 Access policy

Available only for the following core systems: Gatekeeper, QoS-Monitor

ARROWHEAD

Document title query-all Date 2023-03-03

Version 4.6.0 Status RELEASE Page 4 (9)

2 Service Interface

This section describes the interfaces to the service. The **query-all** service is used to get every service instance data. In the following, each subsection names an 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.

The following interfaces are available.

2.1 interface HTTP/TLS/JSON (): ServiceRegistryList

Profile type	Type	Version
Transfer protocol	HTTP	1.1
Data encryption	TLS	1.3
Encoding	JSON	RFC 8259 [1]
Compression	N/A	-

Table 1: HTTP/TLS/JSON communication details.



Version 4.6.0 Status RELEASE Page 5 (9)

3 Information Model

Here, all data objects that can be part of the **query-all** service provides to the hosting System 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 3.7, which are used to represent things like hashes and identifiers.

3.1 struct ServiceRegistryList

Field	Туре	Description
data	List <serviceregistryresponse></serviceregistryresponse>	List of service instances.
count	Number	Size of the result list.

3.2 struct ServiceRegistryResponse

Field	Туре	Description
		Service instance record was created at this UTC timestamp.
endOfValidity	DateTime	Service is available until this UTC timestamp.
id	Number	Identifier of the service instance.
interfaces	List <interfacerecord></interfacerecord>	List of interfaces the service supports.
provider	SystemRecord	Descriptor of the provider system record.
secure	SecureType	Type of security the service uses.
serviceDefinitionResponse	ServiceDefinitionRecord	Descriptor of the serviceDefinition record.
serviceUri	String	Path of the service on the provider.
metadata	Metadata	Service metadata.
updatedAt	DateTime	Service instance record was modified at this UTC timestamp.
version	Version	Version of the service.

3.3 struct Metadata

An Object which maps String key-value pairs.



Version 4.6.0 Status RELEASE Page 6 (9)

3.4 struct InterfaceRecord

Field	Туре	Description
createdAt	DateTime	Interface instance record was created at this UTC timestamp.
id	Number	Identifier of the interface instance.
interfaceName	Interface	Specified name of the interface.
updatedAt	DateTime	Interface instance record was modified at this UTC timestamp.

3.5 struct SystemRecord

Field	Туре	Description	
address	Address	Network address of the system.	
authenticationInfo	String	X.509 public key of the system.	
createdAt DateTime		System instance record was created at this UTC timestamp.	
id	Number	Identifier of the system instance.	
metadata	Metadata	Additional information about the system.	
port	PortNumber	Port of the system.	
systemName	Name	Name of the system.	
updatedAt	DateTime	System instance record was modified at this UTC timestamp.	

3.6 struct ServiceDefinitionRecord

Field	Туре	Description
createdAt	DateTime	Service definition instance record was created at this UTC timestamp.
id	Number	Identifier of the service definition instance.
serviceDefinition	Name	Name of the service definition.
updatedAt	DateTime	Service definition instance record was modified at this UTC timestamp.



Version 4.6.0 Status RELEASE Page 7 (9)

3.7 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.

Туре	Description		
Address A string representation of the address.			
Boolean	One out of true or false.		
DateTime	Pinpoints a specific moment in time.		
Interface	Any suitable type chosen by the implementor of service		
List <a> An array of a known number of items, each having type A.			
Object	Set of primitives and possible further objects.		
PortNumber	A Number between 0 and 65535.		
Name A string identifier that is intended to be both human and machine-reada			
Number	Decimal number		
SecureType	Any suitable type chosen by the implementor of service		
String A chain of characters.			
Version Specifies a service version.			



Version 4.6.0 Status RELEASE Page 8 (9)

4 References

[1] T. Bray, "The JavaScript Object Notation (JSON) Data Interchange Format," RFC 8259, Dec. 2017. [Online]. Available: https://rfc-editor.org/rfc/rfc8259.txt



Version 4.6.0 Status RELEASE Page 9 (9)

5 Revision History

5.1 Amendments

No.	Date	Version	Subject of Amendments	Author
1	YYYY-MM-DD	4.6.0		Xxx Yyy

5.2 Quality Assurance

No.	Date	Version	Approved by
1	YYYY-MM-DD	4.6.0	