

AuthorizationControl

Service Description

Service ID: *"authorization-control"*

Abstract

This document describes a variant of the AuthorizationControl service.



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1 Overview

This document describes the Authorization Control Eclipse Arrowhead service, which enables enforcing intracloud and intercloud authorization rules. Examples of this interaction is to check if the requested consumer system is allowed to consume the given service by the specified provider in a local or a neighboring cloud.

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 the Authorization Control 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 **Check an Intercloud rule** (**InterCloudRule**)

This function is used to check whether the consumer system can use an intercloud service from a list of provider systems. This service can only be used by other core services, therefore is not part of the public API.

2.2 function **Check an Intracloud rule** (**IntraCloudRule**)

This function is used to check whether the consumer system can use an intracloud service from a list of provider systems. This service can only be used by other core services, therefore is not part of the public API.

3 Information Model

Here, all data objects that can be part of the AuthorizationControl 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 3.3, which are used to represent things like hashes and identifiers.

3.1 struct **InterCloudRule**

This structure is used to check whether the consumer system can use a service from a list of provider systems.

Object Field	Value Type	Description
"cloud"	Cloud	Neighboring Cloud.
"providerIdsWithInterfaceIds"	Array< ProviderInterfaces >	Provider IDs with Interface IDs.
"serviceDefinitionId"	Number	Service Definition ID.

3.2 struct **IntraCloudRule**

This structure is used to check whether the consumer system can use a service from a list of provider systems.

Object Field	Value Type	Description
"consumer"	Consumer	A consumer.
"providerIdsWithInterfaceIds"	Array< ProviderInterfaces >	Provider IDs with Interface IDs.
"serviceDefinitionId"	Number	Service Definition ID.

3.3 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
Cloud	A Cloud Object
Consumer	A consumer Object.
List<A>	An <i>array</i> of a known number of items, each having type A.
ProviderInterfaces	An Object that contains a provider and interfaces
String	A string identifier that is intended to be both human and machine-readable.



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4 Revision History

4.1 Amendments

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1	2020-12-05	1.0.0		Tanyi Szvetlin

4.2 Quality Assurance

No.	Date	Version	Approved by
1	2021-01-26	4.3.0	Jerker Delsing