

# Authorization Token Generation

## Service Description

Service ID: *"token-generation"*

### Abstract

This document describes a variant of the Authorization Token Generation service.



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## Contents

<b>1 Overview</b>	<b>3</b>
<b>2 Service Interfaces</b>	<b>4</b>
2.1 function <code>TokenGeneration</code> . . . . .	4
<b>3 Information Model</b>	<b>4</b>
3.1 struct <code>TokenRule</code> . . . . .	4
3.2 Primitives . . . . .	4
<b>4 Revision History</b>	<b>5</b>
4.1 Amendments . . . . .	5
4.2 Quality Assurance . . . . .	5

## 1 Overview

This document describes the Authorization Token Generation Eclipse Arrowhead service, which generated JSON Web Tokens (JWT) for authentication. Examples of this interaction is the Orchestrator during the orchestration process needs an authorization token for the consumer to be able to use the requested service.

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 the Token Generation 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 **TokenGeneration** (**TokenGeneration**)

The Token Generation function returns the JWT for the Orchestrator.

## 3 Information Model

Here, all data objects that can be part of TokenGeneration 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

### 3.1 struct **TokenRule**

This structure is used to define who can use the token.

Object Field	Value Type	Description
"consumer"	Consumer	Consumer.
"consumerCloud"	Cloud	Neighboring Cloud.
"duration"	Number	Validity of the token in seconds.
"providers"	Array< <b>Provider</b> >	List of Providers and interfaces.
"service"	Name	Service Definition

3.2, which are used to represent things like hashes and identifiers.

### 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
String	Simple text



ARROWHEAD

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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	2021-01-26	4.3.0	Jerker Delsing