Arrowhead Python Library IDD

**Abstract**

This document defines interface design of the Arrowhead Python Library within Arrowhead generation 4.0.

1. Overview

This document describes the Arrowhead Python Library of G4.0 with the REST interface.

This interface uses HTTP.

1. Interfaces

As per the SD of this Service, there is one method implemented. Table 1 describes this method.

Table 1 Function description

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Function** | **URL subpath** | **Method** | **Input** | **Output** |
| Create Provider | - | - | **TokenGenerataionRequest** | **TokenGenerationResponse**  HTTP OK, BAD\_REQUEST,  DATA\_NOT\_FOUND,  INTERNAL\_SERVER\_ERROR |

1. Information Model

The TokenGenerationRequest payload has a response payload called TokenGenerationResponse. Examples for these payloads are given here for the REST-JSON-TLS implementation. If the TokenGenerationRequest does not define the consumerCloud field, then it is assumed the consumer is in the Local Cloud. Duration “0” means the token is valid without a time limitation.

# 3.1. TokenGenerationRequest

{

"consumer" : {

"systemName" : "client1",

"address" : "localhost",

},

"providers" : [ {

"systemName" : "SecureTemperatureSensor",

"address" : "0.0.0.0",

"port" : 8461,

"authenticationInfo" : "MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAyzDRU+P6h8Jwp9eiGYqqlgoAmPLo6M/PTZX+pkKr2MIg7VLdnjUeXzKFljwJKjYGG3nus53F4RFnymT7VoIQT+SmkuLy90Ir6O3XRWiD74XlOIkthT8/fq5FP9sJIusaRc9jkx3Y8jC3yCz1BPJDa+0A+heWarN+K7W7985aBFiJ1ycsB7yJFYAt7wVRc2fkgGpmp4l34Ta4J7QVwzYBOx5w5hIE29EzXOhl0GB6c/licclhisOnN31OWizoWJWAdexmjR9ugHgFSv4eUbjQ3/Qc0tM3ljmbnMMmj54fKZHtpesLXrCi44aQ88e7UOd/xplAbntEPvz168oie4IzFQIDAQAB"

} ],

"service" : {

"serviceDefinition" : "IndoorTemperature",

"interfaces" : [ "JSON", "XML" ],

"serviceMetadata" : {

"unit" : "celsius",

"security" : "token"

}

},

"duration" : 0

}

# 3.2. TokenGenerationResponse

{

"tokenData" : [ {

"system" : {

"systemName" : "SecureTemperatureSensor",

"address" : "0.0.0.0",

"port" : 8461,

"authenticationInfo" : "MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEAyzDRU+P6h8Jwp9eiGYqqlgoAmPLo6M/PTZX+pkKr2MIg7VLdnjUeXzKFljwJKjYGG3nus53F4RFnymT7VoIQT+SmkuLy90Ir6O3XRWiD74XlOIkthT8/fq5FP9sJIusaRc9jkx3Y8jC3yCz1BPJDa+0A+heWarN+K7W7985aBFiJ1ycsB7yJFYAt7wVRc2fkgGpmp4l34Ta4J7QVwzYBOx5w5hIE29EzXOhl0GB6c/licclhisOnN31OWizoWJWAdexmjR9ugHgFSv4eUbjQ3/Qc0tM3ljmbnMMmj54fKZHtpesLXrCi44aQ88e7UOd/xplAbntEPvz168oie4IzFQIDAQAB"

},

"service" : {

"serviceDefinition" : "IndoorTemperature",

"interfaces" : [ "JSON", "XML" ],

"serviceMetadata" : {

"unit" : "celsius",

"security" : "token"

}

},

"token" : "SLRGo0Yo2myflAAo8uxPBxyQF5/4q/2YAHlErs5IbrNqkeJdOm8ssX9UrzrzHgt3qZVhKprpvkcF5X/9sY5lf7kGf804+vQMAqsN5OdZYEP+vUg6YxE018MTdXwB6qWYytghEXiwvoqpydIeT+TOw4FdRrfqpJnrTHkNOhNBjdqNIkmUYj/CCbUeH005Y5RkqexG35z1U6o5ni/NyBAqk/mb0kHL0sD1+ETDgi6TG/mP23gMsthOP3Y/cabyDNAnTkOLOML3Ix0Qs15suTUI38o8Nlxaw/WgUdccXHotyp+cJb0R7vnAbJPwGFmejxEjR2VpZeZ5QDSQ7/URCnp71g==",

"signature" : "qj8E1zhStpQ3PGnONUOb1GVUOIBxhzMGBIiHTRD5fCzaNj98sjJKb05VqW6cIfEkgSUmFFFTey2KwUkNAvrM+SDW1IPVOYeqQiYNaGghCgZuxGYbWq6xZDi2I2OkSa+fyjSqwq2p95VK4XlfJArTWh/QxGPoMo71KgNaDrSlBNDyOCfELXSzrpgKMIfU4fd4Izd+QzlwmEybMpu9ga1p1hG0CJa8iAVJh19zo6Ctde6U707F1sL3r2a/9Y1NDD3fTeFfr7wLPxa0K5+2aCQgEP6jTfTt5pTo3YdXm7YBKgdu+iUkUGEttP89vVD6Vip1tehHboAuvrXMDgxg/4ObFA=="

} ]

}

1. Revision history

# Amendments

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Date | Version | Subject of Amendments | Author |
| 1 | 2017-10-02 | M2 | Initial | Csaba Hegedűs |
| 2 | 2018-02-14 | M3 | Updating document to M3 | Csaba Hegedűs |
| 3 | 2018-05-22 | G4.0 | Updated document to G4.0 | Zoltán Umlauf |

# Quality Assurance

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Date | Version | Approved by |
| 1 |  |  |  |
| 2 |  |  |  |