Arrowhead Historian Service IDD

**Abstract**

This document defines interface design of the Historian Service based on REST within Arrowhead generation 4.0.

1. Overview

This document describes the Historian service of G4.0 with the REST interface.

This interface uses HTTP, HTTPS, CoAP or CoAPS, therefore the related CP is valid.

1. Interfaces

As per the SD of this Service, there are three methods implemented. Table 1 describe these.

Table 1 Function description

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Function** | **URL subpath** | **Method** | **Input** | **Output** |
| Store | “/storage/{systemName}” | PUT | **SensorData GenericFile** | HTTP CODE: CREATED, NO\_CONTENT  BAD\_REQUEST |
| Retrieve | “/storage/{systemName}” | GET | **SensorData GenericFile** | HTTP CODE: OK, NO\_CONTENT  BAD\_REQUEST |

1. Information Model

The SensorData request payload contains generic sensor data. SensorData normally contains information about the unit, source system, timestamp and metadata. The default payload type is JSON-encoded SenML. The response to a Store/ Retrieve request is a simple HTTP/CoAP status code (Created/Ok – request was success, No Content – request had no effect).

# 

# 3.1. SensorData

[

{"bn":"urn:sys:name:Temp-sensor-3624-2342",  
 "bt":1.276020076001e+09,

"bu":"A","bver":5,

"n":"voltage","u":"V","v":120.1},

{"n":"current","t":-5,"v":1.2},

{"n":"current","t":-4,"v":1.3},

{"n":"current","t":-3,"v":1.4},

{"n":"current","t":-2,"v":1.5},

{"n":"current","t":-1,"v":1.6},

{"n":"current","v":1.7}

]

# 3.2. GenericFile

The GenericFile can be any type of file. The extension and mime type defines the content.

# Revision history

# Amendments

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Date | Version | Subject of Amendments | Author |
| 1 | 2018-09-19 | G4.0 | Initial | Jens Eliasson |
|  |  |  |  |  |

# Quality Assurance

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