Interface Design Description (IDD) Certificate Provider

**Abstract**

This document defines de JSON of the Certificate Provider service interface which is used for the user to create a request for the provider to provide certificates for AHF initialization, the communication occurs in a local cloud but with each party simulated as distinct stakeholders-

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## Interface Design Description Overview

**Table 1 Pointers to SD documents**

|  |  |
| --- | --- |
| **Realised Service Description** | **Location** |
| CoPx request | SD\_CertProd.pdf |

## Service Interfaces

In this section, the interface used in this project is shown, this interface is used by the consumer of the service when a certificate is needed, security measures and protocols are described as well.

## Interface 1

This interface allows the service consumer to create a “Certificate” POST request using the HTTP protocol and JSON encoding, the provider then read the request and provides a CoPx response.

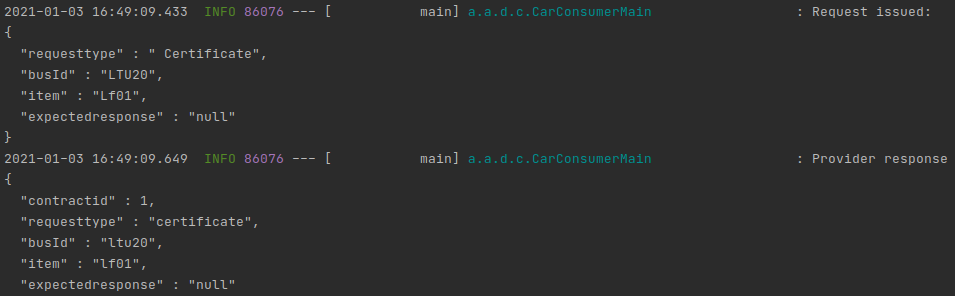
For the scope of this project no additional security was needed, as both systems were located in the same local cloud.

**Table 4 INTERFACE description**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Interface name** | **Relative URL path** | **Method** | **Input** | **Output** |
| Certificate provider | CoPx request | POST | JSON | JSON |

The data model required for this interface is defined in **Table 5**, an example on how this system can be used and what response is received can be found in Figure 1.

Figure 1: System interaction example.



## Data Model

**Table 5 Data Object description**

|  |  |  |  |
| --- | --- | --- | --- |
| **Object Field** | **Description** | **Format/limitations** | **Required** |
| Requesttype | What is requested | String | Yes |
| BusId | Id of who is requesting | String | Yes |
| ItemId | Id of the item to register | String | Yes |
| Expectedresponse | If response is expected | String | No |

## Security

The system creates the event for the Ongoing certificates to be created, without those the desired devices will not be able to start on the arrowhead systems.

## Certificate

* + The application certificate is authorized by the core systems upon each and every https request.

For testing purposes sysop.testcloud certificate was used.

The certificate used for the dummy CA (certificate authority) was not encrypted due to simplicity for this application.