Service Description (SD) Certificate Provider

**Abstract**

This document is made to define in an abstract way the Certificate Provider, if implemented by an application system this service shall be able to receive JSON certificate requests and provide authentication information for an external device.

## Service Description Overview

The certificate provider system is used to respond to a CoPx certificate request and trigger an event. This allows the systems and devices to have their authorization information updated via code rather than manually by the provider or consumer.

The certificate request and response is shown in figure 1.

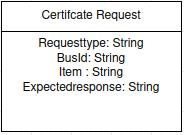


Figure 1: Certificate Request basic structure.

## Abstract Interfaces

## Certificate Provider

## Function

This service ONLY receives requests and sends responses, it does not update the auth information itself, rather it uses event handler to trigger events to be used by the Certificate Authority.

This serves the purpose of automating the creation and writing on certificates to databases by a simple CoPx request.

## Sequence Diagrams

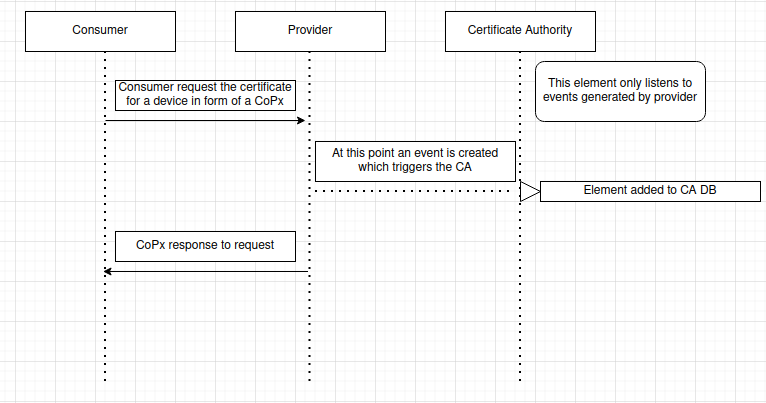


Figure 2: Certificate Provider sequence diagram, shows the function of the system, what it receives and the services it consumes.

## 2.1.3. Abstract Information Model

**Table 1 Data type description**

|  |  |  |
| --- | --- | --- |
| **Field** | **Description** | **Type** |
| Requesttype | What type of request is being made | String |
| BusId | Who request the certificate and who is going to use such device | String |
| ItemId | Carries the information of the device that will be registered | String |
| Expectedresponse | What response is expected in most cases will be null | String |

BusId and ItemId are carried to the database and serve as Id for every item in the CA. The Expectedresponse field is used when the system needs a token to be inputted by the user on his side, in this application, that is not the case.