Service Description (SD) – Desktop Demonstrator- Temperature Service

**Abstract**

This document defines the template for the Service Description of Arrowhead compliant Services.

A Service Description provides an an abstract description of what is needed for systems/devices/units/software to provide and/or consume a specific service.

SD’s for Application Services are created (specified) by the Pilots WP’s and by the common Arrowhead framework. The SD shall make it possible for an engineer with technical programming knowledge to achieve an Arrowhead compliant realization of a provider and/or consumer of description of how the service is implemented/realized by using the Communication Profile and the chosen technologies.

A Service Description (SD) is the Service in a specific technology. All systems/devices/units/software implementing an Interface Design Description which complies with this SD will be able to exchange information with each other.

All Arrowhead Service Description should be specified using this template and stored on a common repository (available on the SVN server), in order to document and formalize the pilot demonstrators and the common Arrowhead framework.

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1. Service Description Overview

This service provides the indoor temperature read from one of the temperature sensors which is connected to a Raspberry pi system.

The encrypted JSON object contains the following fields:

{

“Location”: <indoor>

“ServiceType”: <temperature>

“Value”: <temperature in degree Celsius>

}

Where:

“Location” indicates whether to read temperature from indoor or outdoor environment.

“ServiceType” indicates which kind of service the consumer is requesting for (eg: Temperature, wind speed, humidity etc)

“Value” indicates the temperature value read from the sensor every time the consumer sends a POST request to the provider.

1. Abstract Interfaces

This Service provides one functionality.

# Generate:

This is used to generate the temperature value read from the temperature sensor.

1. Abstract Information Model

The output of the service is a “double” value.

Table 1 Temperature Service Request

|  |  |
| --- | --- |
| **Field** | **Description** |
| Location | Indoor or Outdoor |
| ServiceType | Temperature/humidity/wind |

Table 2 Temperature Service Response

|  |  |
| --- | --- |
| **Field** | **Description** |
| Value | Temperature read from sensor in degree Celsius which is a “double” value. |

1. Non-functional Requirements

The service has none non-functional requirements.

1. Revision history

# Amendments

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Date | Version | Subject of Amendments | Author |
| 1 | 2020-01-31 | 0.1 | First draft | Aparajita Tripathy |

# Quality Assurance

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