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Service Description (SD) Arrowhead Z-wave System Demonstrator – Wall Plug service

Abstract

This document provides the Service Description of Arrowhead compliant Interfaces of Zwave Wall Plug Services that includes **GetState, SetState, GetPower, GetEnergyConsumption, SetEnergyCounterReset.**

1. Service Description Overview

This service provides the interfaces to get plug state, set the plug state, get the KW power of the device connected with the plug, get KWH energy consumption of the device connected to the plug and also reset the energyconsumption counter of the wall plug with requested deviceID.

The encrypted JSON object contains the following fields:

Example: SetState

Request:
```
   {
" deviceID" : "24",
 " State" : "0",
   }
```

Response:
The Plug is switched OFF with resource successfully updated with response of 200=OK

2. Abstract Interfaces

This Service provides the following five functionalities.

2.1.   GetState:

This is used to Get the Plug state "0" for OFF and "255" for ON for the given deviceID using GET API.

2.2.   SetState:

Set the Plug state "0" for OFF and "255" for ON for the given deviceID using PUT API.

2.3.   GetPower:

Get the Plug power (the power of the device connected to the plug) in KW for the given deviceID GET API.

2.4. GetEnergyConsumption:

Get the Plug energy consumption (the energy consumed by the device connected to the plug) in KWH for the given deviceID GET API.

2.5. SetEnergyCounterReset:

Set the Plug energy counter reset for the given deviceID using PUT API.

3. Data Model

Object Field	Value Type	Description
" deviceID"	String	Unique ID of the device from 2 to N assigned by the zwave Hat
" state"	String	Plug state "0" for OFF and "255" for ON
" power"	String	Plug power (the power of the device connected to the plug) in KW
"energyConsumption"	String	Plug energy consumption (the energy consumed by the device connected to the plug) in KWH

4. Non-functional Requirements

The service has none non-functional requirements.

5. Revision history

5.1. Amendments

No.	Date	Version	Subject of Amendments	Author
1	2021-01-6	0.1	First draft	Salman Javed
2	2021-03-18	0.2	Second draft	Salman Javed

5.2. Quality Assurance

No.	Date	Version	Approved by
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