Document title	Document type
Interface Design (IDD) Description_Arrowhead_Zwave_System_Demonstrator_WallPlugServices	IDD
Date 2021-03-18	Version 0.2
Author Salman Javed	Status For Approval
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Interface Design (IDD) Description_Arrowhead_Zwave_System_Demonstrator_ WallPlugServices

Abstract

This document provides the Interface Design Description of Arrowhead compliant Interfaces of Zwave Wall Plug Services.

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1. Interface Design Description Overview

This document describes the services provided by Thermostat Valve with REST interface. This interface uses HTTPs.

Service description	Path
get-state	
set-state	
get-power	
get-energy-consumption	
set-energy-counter-reset	

Communication Profile	Path
REST-JSON-TLS	

2. Interfaces

GetState:

The base URL for the request is: https://<host>:<port>/zwave/plugs/get-state/{deviceID}

Function	URL subpath	Method	Input	Output	Description
GetState	/plugs/get-state/{deviceID}"	GET	deviceID (String)	deviceID (String) State (String)	Get the Plug state "0" for OFF and "255" for ON for the given deviceID

SetState:

The base URL for the request is: https://<host>:<port>/zwave/plugs/set-state/{deviceID}

Function	URL subpath	Method	Input	Output	Description
SetState	/plugs/set-state/{deviceID}"	PUT	deviceID (String) State (String)	UPDATED, BAD_REQUEST	Set the Plug state "0" for OFF and "255" for ON for the given deviceID

GetPower:

The base URL for the request is: https://<host>:<port>/zwave/plugs/get-power/{deviceID}

Function	URL subpath	Method	Input	Output	Description
GetPower	/plugs/get-power/{deviceID}"	GET	deviceID (String)	deviceID (String) power (String)	Get the Plug power (the power of the device connected to the plug) in KW for the given deviceID

GetEnergyConsumption:

The base URL for the request is: https://<host>:<port>/zwave/plugs/ get-energy-consumption /{deviceID}

Function	URL subpath	Method	Input	Output	Description
GetEnergyConsumption	/plugs/get-energy-consumption /{deviceID}"	GET	deviceID (String)	deviceID (String) energyConsumption (String)	Get the Plug energy consumption (the energy consumed by the device connected to the plug) in KWH for the given deviceID

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SetEnergyCounterReset:

The base URL for the request is: https://<host>:<port>/zwave/plugs/set-energy-counter-reset /{deviceID}

Function	URL subpath	Method	Input	Output	Description
SetEnergyCounterReset	/plugs/set-energy-counter-reset /{deviceID}"	PUT	deviceID (String)	UPDATED, BAD_REQUEST	Set the Plug energy counter reset for the given deviceID

3. Information Model

Example: SetState

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

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

4. 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

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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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