Interface Design (IDD) Description\_Arrowhead\_Zwave\_System\_Demonstrator\_ThermostatServices

**Abstract**

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

Table of contents

[1. Interface Design Description Overview 2](#_Toc377455180)

[2. Interfaces 3](#_Toc377455181)

[3. Information Model 3](#_Toc377455182)

[4. References 3](#_Toc377455183)

[5. Revision history 4](#_Toc377455184)

[5.1. Amendments 4](#_Toc377455185)

[5.2. Quality Assurance 4](#_Toc377455186)

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-setpoint |  |
| set-setpoint |  |
| get-battery-level |  |

|  |  |
| --- | --- |
| **Communication Profile** | **Path** |
| REST-JSON-TLS |  |

1. Interfaces

**GetSetPoint**:

The base URL for the request is:

https://<host>:<port>/zwave/thermostats/get-setpoint/<deviceID>

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Function | URL subpath | Method | Input | Output | Description |
| GetSetPoint | “/thermostats/get-setpoint/< deviceID >  ” | GET | deviceID  (String) | deviceID  (String)  SetPoint (String) | Get the thermostat setpoint value for the given deviceID |

**SetSetPoint**:

The base URL for the request is:

https://<host>:<port>/zwave/thermostats/set-setpoint

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Function | URL subpath | Method | Input | Output | Description |
| SetSetPoint | “/thermostats/set-point” | PUT | deviceID  (String)  SetPoint (String) | UPDATED,  BAD\_REQUEST | Set the thermostat setpoint value for the given deviceID |

**GetBatteryLevel**:

The base URL for the request is:

https://<host>:<port>/zwave/thermostats/ get-battery-level /< deviceID >

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Function | URL subpath | Method | Input | Output | Description |
| GetBatteryLevel | “/thermostats/get-battery-level /< deviceID >  ” | GET | deviceID  (String) | deviceID  (String)  batteryLevel (String) | Get the thermostat batteryLevel value for the given deviceID |

1. Information Model

Example: **GetSetPoint**:

Request:

{

" deviceID" : "22"

}

Response:

{

" deviceID" : "22",

“setpoint” : “15”

}

1. Data Model

|  |  |  |
| --- | --- | --- |
| Object Field | Value Type | Description |
| ” deviceID” | [String](#_bookmark12) | Unique ID of the device from 2 to N assigned by the zwave Hat |
| ” setpoint” | String | SetPoint value of the thermostat in degree Celsius |
| ” batteryLevel” | String | Battery Level in percentage of the thermostat |

1. Revision history

# 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 |

# Quality Assurance

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