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| Date<br>2021-03-18 | | Version<br>0.2 |
| Author<br>Salman Javed | | Status<br>For Approval |
| Contact<br>Salman.javed@ltu.se | | Page<br>1 (5) |

# 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.

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

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

# 2. 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)<br><br>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)<br><br>SetPoint (String) | UPDATED, BAD_REQUEST | Set the thermostat setpoint value for the given deviceID |

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**GetBatteryLevel**:
The base URL for the request is:
https://<host>:<port>/zwave/thermostats/ get-battery-level /{deviceID}

| Function | URL subpath | Method | Input | Output | Description |
| --- | --- | --- | --- | --- | --- |
| GetBattery Level | "/thermostats /get-battery-level /{deviceID}" | GET | deviceID (String) | deviceID (String)<br><br>batteryLevel (String) | Get the thermostat batteryLevel value for the given deviceID |

# 3. Information Model

Example: **GetSetPoint**:

Request:
```
  {
" deviceID" : "22"
  }
```

Response:
```
  {
" deviceID" : "22",

"setpoint" : "15"
}
```

# 4. Data Model

| Object Field | Value Type | Description |
| --- | --- | --- |
| " deviceID" | String | 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 |

# 5. Revision history

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## 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 |
|---|---|---|---|
| 1 | | | |