[](https://www.google.com.tw/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwiH1d-1jsPMAhVIjpQKHU0SCyQQjRwIBw&url=https://commons.wikimedia.org/wiki/File:Microsoft_logo_(2012).svg&psig=AFQjCNHRnEkT8TC0Xt9Ec4RloISjtEx9Pg&ust=1462543812349703)

Intel IoT Project - Sunny Point

Design Document

2016/10/03

Version 1.2

Document Particulars

|  |  |  |  |
| --- | --- | --- | --- |
| Revision | Author | Date | Notes |
| 1 | Kevin Kao | 2016/08/23 | Document created |
| 1.1 | Kevin Kao | 2016/09/29 | Add Parameter: "AccelerationAxis": "X", |
| 1.2 | Kevin Kao | 2016/10/03 | Add logfile Controllor |

Document Circulation

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[1.1 Get Device 1](#_Toc463277480)

[1.2 Add Device 2](#_Toc463277481)

[1.3 Remove Device 3](#_Toc463277482)

[1.4 POST Log File 4](#_Toc463277483)

# OBD Dongle Provisioning and Activation

## Get Device

|  |
| --- |
| GET /device/getDevice/{id} |

**Description**

Returns a device data by giving device ID, or return a http status: 404 (not found) when nothing matches.

**HTTP Headers**

|  |  |  |  |
| --- | --- | --- | --- |
| name | value | required | example |
|  |  |  |  |

**Parameters**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| name | type | required | default | example |
|  |  |  |  |  |

**Example Code**

|  |
| --- |
| GET /device/getDevice/MS001 HTTP/1.1  Host: spdongleservice.azurewebsites.net  Cache-Control: no-cache |

**Successful Response**

|  |
| --- |
| HTTP Status : 200 |
| {  "id": "Dev12345",  "key": "orrSLv5ImNajsLWAAxLEAsV1VH8eoeEZRs3IM2ockbM=",  "IoTHostName": "Michaeldriving61112.azure-devices.net",  "IoTHubProtocol": "TransportType.Mqtt",  "AccelerationAxis": "X",  "HardBreakValue": -9,  "HardAccelerationValue": 9,  "HeartBeatInterval": 15,  "SendMessageInterval": 180  } |

\* The value of IoTHubProtocol: *TransportType.Mqtt / TransportType.Amqp / TransportType.Http1*

**Not Found Response**

|  |
| --- |
| HTTP Status : 404 |
|  |

**Fail Response**

|  |
| --- |
| HTTP Status : 500 |
| {  "message": "Internal Server Error"  } |

## Add Device

|  |
| --- |
| POST /device/addDevice/{id} |

**Description**

Add a new OBD Dongle device into IoT Hub.

To add a new OBD Dongle device will get 404 (Not Found) response till the new device be provisioning at backend Admin system.

For adding an existed device, the API will return same data of the device.

**HTTP Headers**

|  |  |  |  |
| --- | --- | --- | --- |
| name | value | required | example |
|  |  |  |  |

**Parameters**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| name | type | required | default | example |
| id | string | true |  | Dev12345 |
| lat | string | true |  | 39.6034810 |
| lng | string | true |  | -119.6822510 |

**Example Code**

|  |
| --- |
| POST /device/addDevice/MS0036 HTTP/1.1  Host: spdongleservice.azurewebsites.net  Cache-Control: no-cache  Content-Type: application/x-www-form-urlencoded  id=MS0036&lat=25.034730&lng=121.568857 |

**Successful Response**

|  |
| --- |
| HTTP Status : 200 |
| {  "id": "MS0036",  "key": "orrSLv5ImNajsLWAAxLEAsV1VH8eoeEZRs3IM2ockbM=",  "IoTHostName": "Michaeldriving61112.azure-devices.net",  "IoTHubProtocol": "TransportType.Mqtt",  "AccelerationAxis": "X",  "HardBreakValue": -9,  "HardAccelerationValue": 9,  "HeartBeatInterval": 15,  "SendMessageInterval": 180  } |

\* The value of IoTHubProtocol: *TransportType.Mqtt / TransportType.Amqp / TransportType.Http1*

**Not Found Response**

|  |
| --- |
| HTTP Status : 404 |
|  |

**Fail Response**

|  |
| --- |
| HTTP Status : 500 |
| {  "message": "Internal Server Error"  } |

## Remove Device

|  |
| --- |
| DELETE /device/removeDevice/{id} |

**Description**

Remove device from IoT Hub by input device ID, or return a http status: 404 (not found) when nothing matches.

**HTTP Headers**

|  |  |  |  |
| --- | --- | --- | --- |
| name | value | required | example |
|  |  |  |  |

**Parameters**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| name | type | required | default | example |
| id | string | true |  | Dev12345 |

**Example Code**

|  |
| --- |
| DELETE /device/removeDevice/myDevice123 HTTP/1.1  Host: spdongleservice.azurewebsites.net  Cache-Control: no-cache  Content-Type: application/x-www-form-urlencoded  id= myDevice123 |

**Successful Response**

|  |
| --- |
| HTTP Status : 200 |
| {  "message": "OK"  } |

**Not Found Response**

|  |
| --- |
| HTTP Status : 404 |
|  |

**Fail Response**

|  |
| --- |
| HTTP Status : 500 |
| {  "message": "Internal Server Error"  } |

## POST Log File

|  |
| --- |
| POST /device/logFile/{id} |

**Description**

Post a log file of dongle application to Azure storage blob.

Using HTTP POST Multipart on upload fields and file.

Only support 1 file.

**HTTP Headers**

|  |  |  |  |
| --- | --- | --- | --- |
| name | value | required | example |
| Content-Type | multipart/form-data; boundary=--- | Yes | multipart/form-data; boundary=---------------------------7e02a330180e7c |
|  |  |  |  |

**Parameters**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| name | type | required | default | example |
| id | string | true |  | Dev12345 |
| startTS | string | true |  | 1475478137000 (To milli-seconds) |
| logFile | string | true |  |  |

**Example Code**

|  |
| --- |
| POST [http://spdongleservice.azurewebsites.net/device/logFile/sp20160914001 HTTP/1.1](http://spdongleservice.azurewebsites.net/device/logFile/sp20160914001)  Accept: text/html, application/xhtml+xml, image/jxr, \*/\*  Accept-Language: zh-Hant-TW,zh-Hant;q=0.5  Content-Type: multipart/form-data; boundary=---------------------------7e02a330180e7c  User-Agent: Mozilla/5.0 (Windows NT 10.0; WOW64; Trident/7.0; Touch; rv:11.0) like Gecko  Accept-Encoding: gzip, deflate  Content-Length: 270509  Host: spdongleservice.azurewebsites.net  Connection: Keep-Alive  Pragma: no-cache  Cookie: ARRAffinity=cec6b94ebfa166fd924bab5fbc8fa59019f10689b5711cd7947bf2c0e7301563  -----------------------------7e02a330180e7c  Content-Disposition: form-data; name="id"  sp20160914001  -----------------------------7e02a330180e7c  Content-Disposition: form-data; name="startTS"  1475478138000  -----------------------------7e02a330180e7c  Content-Disposition: form-data; name="logFile"; filename="power\_app1\_0930\_0830\_logcat.txt"  Content-Type: text/plain  30-09-2016 08:30:16:693000  Application     \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*App Started\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  30-09-2016 08:30:16:694000  ItaServiceApplication     Software version 1.1  30-09-2016 08:30:16:753000  spazure  initialize the power management services...  30-09-2016 08:30:17:069000  spazure VehicleIdNumber=LFV3B28R8A3025310,DeviceId=sp20160914001,LatitudeAtRegistraion=5.3270741,LongitudeAtRegistraion=100.2981632  30-09-2016 08:30:17:071000  spazure     IoTHubName=spIoTHub.azure-devices.net,DevicePrimaryKey=ikd8UtKAQ+zCd9wc5FgW7ZqKv5tiM32kJFk8OJlMM24=,IoTHubProtocol=TransportType.Mqtt  30-09-2016 08:30:17:073000  spazure    AccelerationAxis=X,AccelLimit=2.0,DeaccelLimit=-2.0,HeartBeat=15000,SendMesgInterval=180  30-09-2016 08:30:17:135000  spazure  GPS Enabled successfully  <Skip>  30-09-2016 18:37:33:064000     SendMessageToAzureIntentService     checkIoTHubBusy wait 10  30-09-2016 18:37:34:065000     SendMessageToAzureIntentService     checkIoTHubBusy wait 9  30-09-2016 18:37:34:522000  spazure     saveEventToSQLite TripId=sp201609140011475230939053,MsgType=idling\_start - 18:37:34 09-30-2016  -----------------------------7e02a330180e7c-- |

**Successful Response**

|  |
| --- |
| HTTP Status : 200 |
| {  "message":"OK"  } |

**Not Found Response**

|  |
| --- |
| HTTP Status : 404 |
|  |

**Fail Response**

|  |
| --- |
| HTTP Status : 500 |
| {  "message": "Internal Server Error"  } |