

# Table of Contents

[Overview](#)

[Authorization Flow](#)

[Swagger](#)

[Techniques](#)

[Overview](#)

[Postman](#)

[CURL Samples](#)

[C# Samples](#)

[PowerShell Samples](#)

[Platform APIs](#)

[Identity Gateway](#)

[Overview](#)

[Authorize](#)

[Configuration](#)

[SystemAdmin](#)

[UserSettings](#)

[UserTenant](#)

[Status](#)

[Config](#)

[Overview](#)

[Config Types](#)

[Device Group](#)

[Packages](#)

[Seed](#)

[Solution Settings](#)

[Status](#)

[User Settings](#)

[Object Model](#)

[Device Telemetry](#)

[Overview](#)

[Alarms](#)

[Alarms By Rule](#)

[Device Files](#)

Messages

Rules

Status

Object Model

Diagnostics

Overview

Events

Status

Object Model

IoT Hub Manager

Overview

Deployments

DeviceProperties

Devices

Jobs

Modules

Status

Object Model

Tenant Manager

Overview

Tenant

Tenant Ready

Alerting

Status

Object Model

Application APIs

ASA Manager

Overview

DeviceGroups

Rules

Status

Storage Adapter

Overview

Values

Status

Object Model

Azure APIs

IoT Hub

IoT Hub Device Provisioning

Data Lake Storage

Cosmos DB

Key Vault

Stream Analytics

Azure Time Series

Identity Management (B2C)

Blob Storage

Table Storage



# Serenity Services and APIs: Overview

There are many services that expose [APIs](#) across the Serenity IoT Platform. This section describes the services, APIs, and how to use them.

## Platform Services

This section provides reference information for the Serenity APIs. They conform to the [OpenAPI Specification](#). These services are exposed and can be used for system integration.

<a href="#">Identity Gateway</a>	Authorization gateway service
<a href="#">IoTHub Manager</a>	
<a href="#">Tenant Manager</a>	
<a href="#">Device Telemetry</a>	
<a href="#">Config</a>	
<a href="#">Diagnostics</a>	

To learn how to use the [Swagger UI](#) to interact with these services. [click here](#). To learn how to work with these services using other techniques, [click here](#).

## Application Services

These services are are only accessible from within the platform. It's possible to contribute to directly to the platform and use these services from within. But these services are not available for external consumption and don't have swagger references.

<a href="#">ASA Manager</a>	Data formatting service
<a href="#">Storage Adapter</a>	Storage service

## Azure Services

API DOCUMENTATION	MICROSOFT DOCUMENTATION
<a href="#">IoT Hub API</a>	<a href="#">IoT Hub Docs</a>
<a href="#">IoT Hub Device Provisioning</a>	<a href="#">DPS Docs</a>
<a href="#">Data Lake Storage API</a>	<a href="#">Data Lake Docs</a>
<a href="#">Cosmos DB API</a>	<a href="#">Cosmos DB Docs</a>

API DOCUMENTATION	MICROSOFT DOCUMENTATION
<a href="#">Key Vault API</a>	<a href="#">Key Vault API</a>
<a href="#">Stream Analytics API</a>	<a href="#">Stream Analytics Docs</a>
<a href="#">Time Series Insights API</a>	<a href="#">Time Series Insights Docs</a>
<a href="#">Identity Management (B2C) API</a>	<a href="#">B2C Docs</a>
<a href="#">Blob Storage API</a>	<a href="#">Blob Storage Docs</a>
<a href="#">Table Storage API</a>	<a href="#">Table Storage Docs</a>



# Serenity Authorization Flow

TODO:

- Describe Serenity's Authorization Model
- Describe Azure B2C and it's configuration for OpenId
  - <https://docs.microsoft.com/en-us/azure/active-directory-b2c/openid-connect>
- Explain how some systems have replaced this for alternative auth providers, like PSD and potentially EMD
- Describe the Authorization Flow, pulling information from and linking to: <https://docs.microsoft.com/en-us/azure/active-directory/develop/msal-authentication-flows>
- Incorporate details from the following into their appropriate locations:
  - <https://docs.microsoft.com/en-us/azure/active-directory-b2c/tokens-overview>
  -

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



# Serenity and Swagger UI

Each Serenity web service has a Swagger UI that allows you to visualize and interact with the Serenity APIs.

## Swagger Paths

Each Serenity web service has a specific path that exposes an interactive Swagger UI to the APIs as follows:

SERVICE	PATH
Identity Gateway	/auth/index.html
Config	/config/index.html
Device Telemetry	/telemetry/index.html
Diagnostics	/diagnostics/index.html
IoTHub Manager	/iothubmanager/index.html
Tenant Manager	/tenantmanager/index.html

## Using Swagger UI

To access the Swagger UI, append it to the root URL using the following syntax:

```
{root URL}/{Swagger Path}
```

For example, the following will take you to the Identity Gateway in CRSL's Development environment:

```
https://crslot-aks-dev.centralus.cloudapp.azure.com/iothubmanager/index.html
```

## Additional Details

For additional information on Swagger UI, check out the [Swagger UI Documentation](#)



## Prerequisites for working with APIs





How to call Serenity REST with Postman

Check out: <https://docs.microsoft.com/en-us/rest/api/azure/#how-to-call-azure-rest-apis-with-postman>



# Identity Gateway Service REST API

The Identity Gateway service is used to authenticate and manage users.

Within each Serenity Instance an interactive Swagger UI is available at the following path

`https://{platform-url}/auth/index.html` For more information, [click here](#).

## REST operation groups

The Identity Gateway service REST API provides operations for working with the following:

OPERATION GROUP	DESCRIPTION
<a href="#">Authorize</a>	Log in or out and context operations.
<a href="#">Configuration</a>	
<a href="#">SystemAdmin</a>	
<a href="#">UserSettings</a>	
<a href="#">UserTenant</a>	
<a href="#">Status</a>	



# Authorize

Service: Identity Gateway

## Operations

<a href="#">Authorize</a>	Authorizes user and redirects to callback
<a href="#">Logout</a>	Returns to the redirect url passed on successful logout
<a href="#">Token</a>	Returns JWT token matching claim
<a href="#">Tenant</a>	Used to switch tenants
<a href="#">Callback</a>	Called by B2C to redirect



# Authorize - Authorize

Service: Identity Gateway

Authorizes user through configured Authorization Provider.

GET https://{platform-url}/connect/authorize

## URI Parameters

NAME	REQUIRED	TYPE	DESCRIPTION
<b>redirect_uri</b>	?	string	?
<b>state</b>	?	string	?
<b>client_id</b>	?	string	?
<b>nonce</b>	?	string	?
<b>tenant</b>	?	string	?
<b>invite</b>	?	string	?

## Responses

NAME	TYPE	DESCRIPTION
200 OK		



# Authorize - Token

Service: Identity Gateway

Returns JWT token matching claim. Used by user registration to convert and invited user to a enrolled user.

```
POST https://{platform-url}/connect/token
```

## Request headers

HEADER	VALUE
Content-Type	application/json

## Request Body

In the request body, supply a JSON representation of ClientCredentialInput object:

NAME	REQUIRED	TYPE	DESCRIPTION
client_id	true	string	Name of the user
client_secret	true	string	Current status of the user: Invited or Member
scope	true	string	Role of the user i.e., admin, readonly, contributor

## Responses

NAME	TYPE	DESCRIPTION
200 OK		

## Examples

{Description of example}

### Sample Request

```
POST https://{platform-url}/connect/token
```

### Sample Body

```
{"client_id":"95d3c562-23eb-4e2d-8d3d-ea2448706934","client_secret":"SH90ZgTR-MTObGLb0/u[7qIc-MP0vtAs"]}
```

### Sample Response

[illegible]



# Authorize - Logout

Service: Identity Gateway

Returns to the redirect url passed on successful logout.

## Http Request

```
GET https://{platform-url}/connect/logout?post_logout_redirect_uri={redirectUrl}
```

## Request headers

HEADER	VALUE
Content-Type	application/json

## Request Body

In the request body, supply a JSON representation of ClientCredentialInput object:

NAME	REQUIRED	TYPE	DESCRIPTION
post_logout_redirect_uri	true	string	URI to redirect to on logout.

## Responses

NAME	TYPE	DESCRIPTION
200 OK	TODO: Response Object	

## Definitions

TODO: Add Response Objects from above

## Examples

Log out of CRSL Dev

```
GET https://{platform-url}/connect/logout?post_logout_redirect_uri=https://crsliot-aks-dev.centralus.cloudapp.azure.com/
```



# Authorize - Tenant

Service: Identity Gateway

Used to switch tenants

```
POST https://{platform-url}/connect/switch/{tenantId}
```

## Request headers

HEADER	VALUE
Content-Type	application/json

## Responses

NAME	TYPE	DESCRIPTION
200 OK		

Examples

## Tenant Switch Example

```
POST https://{platform-url}/connect/switch/233a1ca2-6855-43c5-8b9c-c7f85a1dd520
```





# POST Connect Callback

This Method executes the callback method

## Http Request

POST https://{platform-url}/connect/callback

## Request headers

HEADER	VALUE
Content-Type	application/json

## Responses

NAME	TYPE	DESCRIPTION
200 OK	TODO: Response Object	

## Sample Request

## Request Body

Below are the details to be sent as part of form body.

```
state
id_token
error
error_description
```

## Response

200 Response



# Configuration

Service: Identity Gateway

## Operations

<a href="#">openid configuration</a>	Get Open Id Configuration
<a href="#">openid configuration jwks</a>	Get JSON web keys



# Configuration - OpenID Configuration

Service: Identity Gateway

This Method returns the open ID Provider Configuration.

```
GET https://{platform-url}/.well-known/openid-configuration
```

## Permissions

**ReadAll** permission is required to call this api.

## Request headers

HEADER	VALUE
Content-Type	application/json

## Responses

NAME	TYPE	DESCRIPTION
200 OK	TODO: Response Object	

## Definitions

Response Object 1

```
{
  "issuer": "https://{platform-url}/auth",
  "jwks_uri": "https://{platform-url}/auth/.well-known/openid-configuration/jwks",
  "authorization_endpoint": "{platform-url}/auth/connect/authorize",
  "end_session_endpoint": "https://{platform-url}/auth/connect/logout",
  "scopes_supported": [
    "openid",
    "profile"
  ],
  "claims_supported": [
    "sub",
    "name",
    "tenant",
    "role"
  ],
  "grant_types_supported": [
    "implicit"
  ],
  "response_types_supported": [
    "token",
    "id_token"
  ],
  "response_modes_supported": [
    "query"
  ]
}
```

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# System Admin

Service: Identity Gateway API Version: 2020-11-03

## Operations



# User Settings

Service: Identity Gateway API Version: 2020-11-03

## Operations



# User Tenant

Service: Identity Gateway API Version: 2020-11-03

## Operations



## Status

Service: Identity Gateway API Version: 2020-11-03

## Operations



# Config

Config service is used to deal with Packages, Device groups, Configuration types, Solution Settings and User Settings

Within each Serenity Instance an interactive Swagger UI is available at the following path `/auth/index.html` For more information, [click here](#).

## REST operation groups

The Config service REST API provides operations for working with the following:

OPERATION GROUP	DESCRIPTION
<a href="#">Config Types</a>	Operations to manage Config types
<a href="#">Devicegroup</a>	Manage Device groups
<a href="#">Packages</a>	Manage Packages
<a href="#">Seed</a>	Deals with device simulation and templates
<a href="#">Solution Settings</a>	Manages Solution settings like Logo, theme etc.,
<a href="#">Status</a>	Health Status operations of the service
<a href="#">User Settings</a>	Manage User Settings





# Config Types

Service: Config

## Operations

OPERATION	DESCRIPTION
<a href="#">Get All Config Types</a>	Fetches all Config types



## Get All Config Types

API that fetches all the config types.

### Permissions

- ReadAll

### Http Request

GET /config/v1/configtypes

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response Schema

```
{
  "configTypes": [
    "string"
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

### Sample Response

```
{
  "Items": [
    "Firmware",
    "Custom - 1"
  ],
  "$metadata": {
    "$type": "DevicePropertyList;1",
    "$url": "/v1/deviceproperties"
  }
}
```

### Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



# Device Group

Service: Config

## Operations

OPERATION	DESCRIPTION
<a href="#">Get All Device Groups</a>	Fetches all Device groups
<a href="#">Get Device Group</a>	Fetches Device group by ID
<a href="#">Create Device Group</a>	Creates Device group
<a href="#">Update Device Group</a>	Updates Device group
<a href="#">Delete Device Group</a>	Deletes Device group



## Get All Device Groups

API that fetches all the Device groups.

### Permissions

- ReadAll

### Http Request

GET /config/v1/devicegroups

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response Schema

```

{
  "items": [
    {
      "id": "string",
      "displayName": "string",
      "conditions": [
        {
          "key": "string",
          "operator": 0,
          "value": {}
        }
      ],
      "supportedMethods": [
        {
          "method": "string"
        }
      ],
      "telemetryFormat": [
        {
          "key": "string",
          "displayName": {}
        }
      ],
      "isPinned": true,
      "sortOrder": 0,
      "eTag": "string",
      "metadata": {
        "additionalProp1": "string",
        "additionalProp2": "string",
        "additionalProp3": "string"
      }
    }
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}

```

## Sample Response

```

{
  "items": [
    {
      "Id": "34b35ac5-837d-4fa4-9ab7-3cdf036a5145",
      "DisplayName": "Default",
      "Conditions": [],
      "SupportedMethods": [],
      "TelemetryFormat": [],
      "IsPinned": false,
      "SortOrder": 0,
      "ETag": "\"3f01ad78-0000-0300-0000-5f902b010000\"",
      "$metadata": {
        "$type": "DeviceGroup;1",
        "$url": "/v1/devicegroups/34b35ac5-837d-4fa4-9ab7-3cdf036a5145"
      }
    },
    {
      "Id": "2f411a20-7632-45f0-bf43-5ae449b8727a",
      "DisplayName": "TestDeviceGroup",
      "Conditions": [
        {
          "Key": "Tags.TestDevice",
          "Operator": "EQ",

```

```

        "Value": "Yes"
    }
},
"SupportedMethods": [],
"TelemetryFormat": [],
"IsPinned": false,
"SortOrder": 0,
"ETag": "\"3f01ae78-0000-0300-0000-5f902b010000\"",
"$metadata": {
    "$type": "DeviceGroup;1",
    "$url": "/v1/devicegroups/2f411a20-7632-45f0-bf43-5ae449b8727a"
}
},
{
    "Id": "2ceeeccf-f775-4ea3-b84e-5ea26b125ab6",
    "DisplayName": "EdgeDeviceGroup",
    "Conditions": [
        {
            "Key": "Tags.EdgeDevice",
            "Operator": "EQ",
            "Value": "Yes"
        }
    ],
    "SupportedMethods": [],
    "TelemetryFormat": [],
    "IsPinned": false,
    "SortOrder": 0,
    "ETag": "\"3f01c078-0000-0300-0000-5f902b010000\"",
    "$metadata": {
        "$type": "DeviceGroup;1",
        "$url": "/v1/devicegroups/2ceeeccf-f775-4ea3-b84e-5ea26b125ab6"
    }
},
{
    "Id": "85402f9f-3de2-4b55-bfd4-f7f3ce229270",
    "DisplayName": "SimulationGroup",
    "Conditions": [
        {
            "Key": "Tags.Org",
            "Operator": "EQ",
            "Value": "GGK"
        }
    ],
    "SupportedMethods": [],
    "TelemetryFormat": [],
    "IsPinned": false,
    "SortOrder": 0,
    "ETag": "\"3f01bd78-0000-0300-0000-5f902b010000\"",
    "$metadata": {
        "$type": "DeviceGroup;1",
        "$url": "/v1/devicegroups/85402f9f-3de2-4b55-bfd4-f7f3ce229270"
    }
}
],
"$metadata": {
    "$type": "DeviceGroupList;1",
    "$url": "/v1/devicegroups"
}
}

```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/csltestab2c.onmicrosoft.com>



## Get Device Group

API that fetches a Device group by ID.

### Permissions

- ReadAll

### Http Request

GET /config/v1/devicegroups/{id}

### Query Params

HEADER	VALUE
id	Device Group ID

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response Schema



```
{
  "id": "string",
  "displayName": "string",
  "conditions": [
    {
      "key": "string",
      "operator": 0,
      "value": {}
    }
  ],
  "supportedMethods": [
    {
      "method": "string"
    }
  ],
  "telemetryFormat": [
    {
      "key": "string",
      "displayName": {}
    }
  ],
  "isPinned": true,
  "sortOrder": 0,
  "eTag": "string",
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

## Sample Response

```
{
  "Id": "2f411a20-7632-45f0-bf43-5ae449b8727a",
  "DisplayName": "TestDeviceGroup",
  "Conditions": [
    {
      "Key": "Tags.TestDevice",
      "Operator": "EQ",
      "Value": "Yes"
    }
  ],
  "SupportedMethods": [],
  "TelemetryFormat": [],
  "IsPinned": false,
  "SortOrder": 0,
  "ETag": "\"3f01ae78-0000-0300-0000-5f902b010000\"",
  "$metadata": {
    "$type": "DeviceGroup;1",
    "$url": "/v1/devicegroups/2f411a20-7632-45f0-bf43-5ae449b8727a"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



## Create Device Group

API that creates a Device Group.

### Permissions

- CreateDeviceGroups

### Http Request

POST /config/v1/devicegroups

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Schema

```
{
  "id": "string",
  "displayName": "string",
  "conditions": [
    {
      "key": "string",
      "operator": 0,
      "value": {}
    }
  ],
  "supportedMethods": [
    {
      "method": "string"
    }
  ],
  "telemetryFormat": [
    {
      "key": "string",
      "displayName": {}
    }
  ],
  "isPinned": true,
  "sortOrder": 0,
  "eTag": "string",
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

### Sample Request Body

```

{
  "DisplayName": "New Device Group",
  "Conditions": [
    {
      "key": "Tags.Org",
      "operator": "EQ",
      "value": "Test"
    }
  ],
  "TelemetryFormat": [
    {
      "key": "min-temp",
      "displayName": "Min Temperature"
    }
  ],
  "IsPinned": false,
  "SortOrder": 0,
  "SupportedMethods": [
    {
      "method": "Test Method"
    }
  ]
}

```

## Response Schema

```

{
  "id": "string",
  "displayName": "string",
  "conditions": [
    {
      "key": "string",
      "operator": 0,
      "value": {}
    }
  ],
  "supportedMethods": [
    {
      "method": "string"
    }
  ],
  "telemetryFormat": [
    {
      "key": "string",
      "displayName": {}
    }
  ],
  "isPinned": true,
  "sortOrder": 0,
  "eTag": "string",
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}

```

## Sample Response

```
{
  "Id": "b50858b6-58a9-44df-a1d1-999f02368999",
  "DisplayName": "New Device Group",
  "Conditions": [
    {
      "Key": "Tags.Org",
      "Operator": "EQ",
      "Value": "Test"
    }
  ],
  "SupportedMethods": [
    {
      "Method": "Test Method"
    }
  ],
  "TelemetryFormat": [
    {
      "Key": "min-temp",
      "DisplayName": "Min Temperature"
    }
  ],
  "IsPinned": false,
  "SortOrder": 0,
  "ETag": "\"12006005-0000-0300-0000-5f9bcc640000\"",
  "$metadata": {
    "$type": "DeviceGroup;1",
    "$url": "/v1/devicegroups/b50858b6-58a9-44df-a1d1-999f02368999"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



## Update Device Group

API that updates a Device Group.

### Permissions

- UpdateDeviceGroups

### Http Request

PUT /config/v1/devicegroups/{id}

### Query Params

HEADER	VALUE
id	Device Group ID

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Schema

```

{
  "id": "string",
  "displayName": "string",
  "conditions": [
    {
      "key": "string",
      "operator": 0,
      "value": {}
    }
  ],
  "supportedMethods": [
    {
      "method": "string"
    }
  ],
  "telemetryFormat": [
    {
      "key": "string",
      "displayName": {}
    }
  ],
  "isPinned": true,
  "sortOrder": 0,
  "eTag": "string",
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}

```

### Sample Request Body

```

{
  "Id": "b50858b6-58a9-44df-a1d1-999f02368999",
  "ETag": "\"12006005-0000-0300-0000-5f9bcc640000\"",
  "DisplayName": "New Device Group",
  "Conditions": [
    {
      "key": "Tags.Org",
      "operator": "EQ",
      "value": "Test MMM"
    }
  ],
  "TelemetryFormat": [
    {
      "key": "min-temp",
      "displayName": "Min Temperature"
    }
  ],
  "IsPinned": false,
  "SortOrder": 0,
  "SupportedMethods": [
    {
      "method": "Test Method"
    }
  ]
}

```

### Response Schema

```
{
  "id": "string",
  "displayName": "string",
  "conditions": [
    {
      "key": "string",
      "operator": 0,
      "value": {}
    }
  ],
  "supportedMethods": [
    {
      "method": "string"
    }
  ],
  "telemetryFormat": [
    {
      "key": "string",
      "displayName": {}
    }
  ],
  "isPinned": true,
  "sortOrder": 0,
  "eTag": "string",
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

## Sample Response

```
{
  "Id": "b50858b6-58a9-44df-a1d1-999f02368999",
  "DisplayName": "New Device Group",
  "Conditions": [
    {
      "Key": "Tags.Org",
      "Operator": "EQ",
      "Value": "Test MMM"
    }
  ],
  "SupportedMethods": [
    {
      "Method": "Test Method"
    }
  ],
  "TelemetryFormat": [
    {
      "Key": "min-temp",
      "DisplayName": "Min Temperature"
    }
  ],
  "IsPinned": false,
  "SortOrder": 0,
  "ETag": "\"1200ba11-0000-0300-0000-5f9bcef80000\"",
  "$metadata": {
    "$type": "DeviceGroup;1",
    "$url": "/v1/devicegroups/b50858b6-58a9-44df-a1d1-999f02368999"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>





## Delete Device Group

API that deletes a Device Group.

### Permissions

- DeleteDeviceGroups

### Http Request

DELETE /config/v1/devicegroups/{id}

### Query Params

HEADER	VALUE
id	Device Group ID

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response

Responds 200 Status code

### Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



# Seed

Service: Config

## Operations

OPERATION	DESCRIPTION
<a href="#">Seed</a>	Seeds single template for Device Simulation solution or Remote Monitoring solution



## Seed

API that seeds single template for Device Simulation solution or Remote Monitoring solution

### Permissions

ReallAll

### Http Request

POST /config/v1/seed

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response

Responds 200 Status code

### Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsctestab2c.onmicrosoft.com>



# Solution Settings

Service: Config

## Operations

OPERATION	DESCRIPTION
<a href="#">Get Theme</a>	Fetches the theme of the solution
<a href="#">Set Theme</a>	Sets the theme of the solution
<a href="#">Get Logo</a>	Fetches the logo of the solution
<a href="#">Set Logo</a>	Sets the logo of the solution
<a href="#">Get Actions Settings</a>	Fetches the action settings
<a href="#">Get Default Firmware Setting</a>	Fetches the default firmware
<a href="#">Set Default Firmware Setting</a>	Updates the default firmware



## Get Theme

API that fetches the theme of the solution.

### Permissions

- ReadAll

### Http Request

GET /config/v1/solution-settings/theme

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response Schema

```
{
  "name": "string",
  "description": "string",
  "azureMapsKey": "string"
}
```

### Sample Response

```
{
  "name": "My Solution",
  "description": "My Solution Description",
  "azureMapsKey": "qgZ70Qi8XryD6py8L-ZId8DNuaWtCbdrQ996mY3aQ18"
}
```

### Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



# Set Theme

API that sets the theme of the solution.

## Permissions

- ReadAll
-----------

## Http Request

PUT /config/v1/solution-settings/theme
--

## Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

## Request Schema

<pre>{   "name": "string",   "description": "string",   "azureMapsKey": "string" }</pre>
--

## Sample Request Body

<pre>{   "name": "My Solution",   "description": "My Solution Description",   "azureMapsKey": "qgZ70Qi8XryD6py8L-ZId8DNuaWtCbdrQ996mY3aQ18" }</pre>
---

## Response Schema

<pre>{   "name": "string",   "description": "string",   "azureMapsKey": "string" }</pre>
--

## Sample Response

<pre>{   "name": "My Solution",   "description": "My Solution Description",   "azureMapsKey": "qgZ70Qi8XryD6py8L-ZId8DNuaWtCbdrQ996mY3aQ18" }</pre>
---

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsItestab2c.onmicrosoft.com>



## Get Logo

API that fetches the logo of the solution.

### Permissions

- ReadAll

### Http Request

GET /config/v1/solution-settings/logo

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	image/svg+xml or image/png or image/jpeg

### Request Body

N/A

### Response Headers

HEADER	VALUE
Content-Type	image/svg+xml or image/png or image/jpeg
Name	{Name}
IsDefault	true/false
Access-Control-Expose-Headers	Name,IsDefault

### Sample Response Body

```

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<svg
  xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:cc="http://creativecommons.org/ns#"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:svg="http://www.w3.org/2000/svg"
  xmlns="http://www.w3.org/2000/svg"
  version="1.1"
  id="svg3400"
  viewBox="0 0 300 157.69046"
  height="157.69046"
  width="300">
  <defs
    id="defs3402">
    <clipPath
      id="clipPath3350"
      clipPathUnits="userSpaceOnUse">
      <path
        id="path3352"
        d="M 0,0 603,0 603,783 0,783 0,0 Z" />
      </clipPath>
    </defs>
    <metadata
      id="metadata3405">
      <rdf:RDF>
        <cc:Work
          rdf:about="">
          <dc:format>image/svg+xml</dc:format>
          <dc:type
            rdf:resource="http://purl.org/dc/dcmitype/StillImage" />
          <dc:title></dc:title>
        </cc:Work>
      </rdf:RDF>
    </metadata>
    <g
      transform="translate(-322.94143,-762.82546)"
      id="layer1">
      <g
        id="g3346"
        transform="matrix(7.5619164,0,0,-7.5619164,48.401073,1766.4504)">
        <g
          clip-path="url(#clipPath3350)"
          id="g3348">
          <g
            transform="translate(67.5289,132.1326)"
            id="g3354">
            <path
              id="path3356"
              style="fill:#ee1b2d;fill-opacity:1;fill-rule:nonzero;stroke:none"
              d="M 0,0 -2.83,-11.512 -5.668,0 1 -8.197,0 0,-4.251 c -0.996,3.72 -4.65,4.653 -
7.915,4.706 -3.981,0.052 -8.392,-1.673 -8.545,-6.937 1 5.506,0 c 0,1.589 1.455,2.499 2.829,2.476 1.687,0.014
2.463,-0.706 2.502,-1.827 -0.058,-0.973 -0.632,-1.65 -2.488,-1.65 1 -1.852,0 0,-3.82 1.681,0 c 0.955,0
2.284,-0.52 2.336,-1.88 0.064,-1.621 -1.063,-2.333 -2.45,-2.347 -2.476,0.092 -3.115,1.994 -3.115,3.63 1 -
5.715,0 c 0.024,-1.102 -0.012,-8.285 8.945,-8.232 4.291,-0.039 7.414,1.765 8.295,4.252 1 0,-3.812 5.512,0
0,12.42 3.048,-12.42 4.925,0 3.059,12.406 0,-12.417 5.624,0 8.317,0 0,0 Z m -13.847,-11.485 c -0.702,1.452
-1.69,2.087 -2.246,2.288 1.167,0.519 1.778,1.223 2.246,2.626 1 0,-4.914 z" />
            </g>
          </g>
        </g>
      </g>
    </svg>

```

Security

Type: OpenID Connect



Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



## Set Logo

API that sets the logo and name of the solution.

### Permissions

- ReadAll

### Http Request

PUT /config/v1/solution-settings/logo

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	image/svg+xml or image/png or image/jpeg
Name	{Name}

### Request Body

Binary: SVG/PNG/JPEG/JPG

### Response Headers

HEADER	VALUE
Content-Type	image/svg+xml or image/png or image/jpeg
Name	{Name}
IsDefault	true/false
Access-Control-Expose-Headers	Name,IsDefault

### Sample Response

```

<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<svg
  xmlns:dc="http://purl.org/dc/elements/1.1/"
  xmlns:cc="http://creativecommons.org/ns#"
  xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
  xmlns:svg="http://www.w3.org/2000/svg"
  xmlns="http://www.w3.org/2000/svg"
  version="1.1"
  id="svg3400"
  viewBox="0 0 300 157.69046"
  height="157.69046"
  width="300">
  <defs
    id="defs3402">
    <clipPath
      id="clipPath3350"
      clipPathUnits="userSpaceOnUse">
      <path
        id="path3352"
        d="M 0,0 603,0 603,783 0,783 0,0 Z" />
      </clipPath>
    </defs>
    <metadata
      id="metadata3405">
      <rdf:RDF>
        <cc:Work
          rdf:about="">
          <dc:format>image/svg+xml</dc:format>
          <dc:type
            rdf:resource="http://purl.org/dc/dcmitype/StillImage" />
          <dc:title></dc:title>
        </cc:Work>
      </rdf:RDF>
    </metadata>
    <g
      transform="translate(-322.94143,-762.82546)"
      id="layer1">
      <g
        id="g3346"
        transform="matrix(7.5619164,0,0,-7.5619164,48.401073,1766.4504)">
        <g
          clip-path="url(#clipPath3350)"
          id="g3348">
          <g
            transform="translate(67.5289,132.1326)"
            id="g3354">
            <path
              id="path3356"
              style="fill:#ee1b2d;fill-opacity:1;fill-rule:nonzero;stroke:none"
              d="M 0,0 -2.83,-11.512 -5.668,0 1 -8.197,0 0,-4.251 c -0.996,3.72 -4.65,4.653 -
7.915,4.706 -3.981,0.052 -8.392,-1.673 -8.545,-6.937 1 5.506,0 c 0,1.589 1.455,2.499 2.829,2.476 1.687,0.014
2.463,-0.706 2.502,-1.827 -0.058,-0.973 -0.632,-1.65 -2.488,-1.65 1 -1.852,0 0,-3.82 1.681,0 c 0.955,0
2.284,-0.52 2.336,-1.88 0.064,-1.621 -1.063,-2.333 -2.45,-2.347 -2.476,0.092 -3.115,1.994 -3.115,3.63 1 -
5.715,0 c 0.024,-1.102 -0.012,-8.285 8.945,-8.232 4.291,-0.039 7.414,1.765 8.295,4.252 1 0,-3.812 5.512,0
0,12.42 3.048,-12.42 4.925,0 3.059,12.406 0,-12.417 5.624,0 L 8.317,0 0,0 Z m -13.847,-11.485 c -0.702,1.452
-1.69,2.087 -2.246,2.288 1.167,0.519 1.778,1.223 2.246,2.626 1 0,-4.914 z" />
            </g>
          </g>
        </g>
      </g>
    </svg>

```

Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>

A



## Get Action Settings

API that fetches the action settings.

### Http Request

```
GET /config/v1/solution-settings/actions
```

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response Schema

```
{
  "items": [
    {
      "type": "string",
      "settings": {
        "additionalProp1": {},
        "additionalProp2": {},
        "additionalProp3": {}
      }
    }
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

### Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



## Get Default Firmware Setting

API that fetches the default firmware settings.

### Permissions

- ReadAll

### Http Request

GET /config/v1/solution-settings/defaultFirmware

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response Schema

```
{
  "jsObject": {},
  "metadata": {
    "version": "string"
  }
}
```

### Sample Response

```

{
  "jsObject": {
    "content": {
      "deviceContent": {
        "properties.desired.softwareConfig": {
          "softwareName": "Firmware",
          "version": "${version}",
          "softwareURL": "${blobData.FileUri}",
          "fileName": "${packageFile.name}",
          "serialNumber": "",
          "checksum": "${blobData.CheckSum}"
        }
      }
    },
    "metrics": {
      "queries": {
        "current": "SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied'
AND properties.reported.softwareConfig.version = properties.desired.softwareConfig.version AND
properties.reported.softwareConfig.status='Success'",
        "applying": "SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status =
'Applied' AND ( properties.reported.softwareConfig.status='Downloading' OR
properties.reported.softwareConfig.status='Verifying' OR
properties.reported.softwareConfig.status='Applying')",
        "rebooting": "SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status =
'Applied' AND properties.reported.softwareConfig.version = properties.desired.softwareConfig.version AND
properties.reported.softwareConfig.status='Rebooting'",
        "error": "SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied'
AND properties.reported.softwareConfig.status='Error'",
        "rolledback": "SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status =
'Applied' AND properties.reported.softwareConfig.status='RolledBack'"
      }
    },
    "targetCondition": "",
    "priority": 20
  },
  "metadata": {
    "version": "content//deviceContent//properties.desired.softwareConfig//version"
  }
}

```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Set Default Firmware Setting

API that updates the default firmware settings.

### Permissions

- CreatePackages

### Http Request

POST /config/v1/solution-settings/defaultFirmware

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Schema

```
{
  "jsObject": {},
  "metadata": {
    "version": "string"
  }
}
```

### Sample Request Body



```

{
  "jsObject": {
    "content": {
      "deviceContent": {
        "properties.desired.softwareConfig": {
          "softwareName": "Firmware",
          "version": "${version}",
          "softwareURL": "${blobData.FileUri}",
          "fileName": "${packageFile.name}",
          "serialNumber": "",
          "checksum": "${blobData.CheckSum}"
        }
      }
    },
    "metrics": {
      "queries": {
        "current": "SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied'
AND properties.reported.softwareConfig.version = properties.desired.softwareConfig.version AND
properties.reported.softwareConfig.status='Success'",
        "applying": "SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status =
'Applied' AND ( properties.reported.softwareConfig.status='Downloading' OR
properties.reported.softwareConfig.status='Verifying' OR
properties.reported.softwareConfig.status='Applying')",
        "rebooting": "SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status =
'Applied' AND properties.reported.softwareConfig.version = properties.desired.softwareConfig.version AND
properties.reported.softwareConfig.status='Rebooting'",
        "error": "SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied'
AND properties.reported.softwareConfig.status='Error'",
        "rolledback": "SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status =
'Applied' AND properties.reported.softwareConfig.status='RolledBack'"
      }
    },
    "targetCondition": "",
    "priority": 20
  },
  "metadata": {
    "version": "content//deviceContent//properties.desired.softwareConfig//version"
  }
}

```

## Response Schema

```

{
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "key": "string",
  "data": "string",
  "eTag": "string"
}

```

## Sample Response

```
{
  "$metadata": {
    "$modified": "11/02/2020 14:07:39 +00:00",
    "$uri": "/v1/collections/solution-settings/values/defaultFirmware"
  },
  "Key": "defaultFirmware",
  "Data": "{\n\"JsonObject\":{\n\"content\":{\n\"deviceContent\":{\n\"properties.desired.softwareConfig\":{\n\"softwareName\":\n\"Firmware\", \n\"version\":\n\"${version}\", \n\"softwareURL\":\n\"${blobData.FileUri}\", \n\"fileName\":\n\"${packageFile.name}\", \n\"serialNumber\":\n\"\", \n\"checksum\":\n\"${blobData.CheckSum}\", \n\"metrics\":{\n\"queries\":{\n\"current\":\n\"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version = properties.desired.softwareConfig.version AND properties.reported.softwareConfig.status='Success'\", \n\"applying\":\n\"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND ( properties.reported.softwareConfig.status='Downloading' OR properties.reported.softwareConfig.status='Verifying' OR properties.reported.softwareConfig.status='Applying')\", \n\"rebooting\":\n\"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version = properties.desired.softwareConfig.version AND properties.reported.softwareConfig.status='Rebooting'\", \n\"error\":\n\"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.status='Error'\", \n\"rolledback\":\n\"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.status='RolledBack'\", \n\"targetCondition\":\n\"\", \n\"priority\":20}, \n\"Metadata\":{\n\"Version\":\n\"content//deviceContent//properties.desired.softwareConfig//version\"}}}, \n\"ETag\": \n\"010050d8-0000-0300-0000-5fa012ab0000\""}\n}"
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



# Status

Service: Config

## Operations

OPERATION	DESCRIPTION
<a href="#">Get Status</a>	Gets status of the Service and its dependencies
<a href="#">Ping Status</a>	Provides the health status of the service.



## Get Status

API that fetches the status of Config Service.

### Permissions

N/A

### Http Request

GET /config/v1/status

### Request headers

HEADER	VALUE
Content-Type	application/json

### Request Body

N/A

### Response Schema

```
{
  "name": "string",
  "status": {
    "isHealthy": true,
    "message": "string"
  },
  "currentTime": "string",
  "startTime": "string",
  "upTime": 0,
  "uid": "string",
  "properties": {
    "authRequired": true,
    "endpoint": "string"
  },
  "dependencies": {
    "additionalProp1": {
      "isHealthy": true,
      "message": "string"
    },
    "additionalProp2": {
      "isHealthy": true,
      "message": "string"
    },
    "additionalProp3": {
      "isHealthy": true,
      "message": "string"
    }
  },
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

## Sample Response

```
{
  "Name": "Config",
  "Status": {
    "IsHealthy": true,
    "Message": "Alive and well!"
  },
  "CurrentTime": "2020-10-29T10:00:57+00:00",
  "StartTime": "2020-10-27T16:19:42+00:00",
  "UpTime": 150075,
  "UID": "WebService.d1d03c23-0548-42b8-9b58-cfe2ba2843e2",
  "Properties": {
    "authRequired": true,
    "endpoint": "http://+:80"
  },
  "Dependencies": {
    "Storage Adapter": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    },
    "Device Telemetry": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    },
    "Asa Manager": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    }
  },
  "$metadata": {
    "$type": "Status;0",
    "$uri": "/status"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsctestab2c.onmicrosoft.com>



## Ping Status

API that pings the Config Service and responds with status code.

### Permissions

N/A

### Http Request

GET /config/v1/status/ping

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response

Responds 200 Status code

### Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



# User Settings

Service: Config

## Operations

OPERATION	DESCRIPTION
<a href="#">Get User Settings</a>	Fetches user settings
<a href="#">Set User Settings</a>	Sets/Updates user settings



## Get User Settings

API that fetches the settings of a user.

### Permissions

- ReadAll

### Http Request

GET /config/v1/user-settings/{id}

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response

Object

### Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsctestab2c.onmicrosoft.com>





## Set User Settings

API that sets the settings of a user.

### Permissions

- ReadAll

### Http Request

PUT /config/v1/user-settings/{id}

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

Object

### Response

Object

### Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



# Namespace Mmm.Iot.Config.WebService.Controllers

## Classes

[ConfigTypesController](#)

[DeviceGroupController](#)

[PackagesController](#)

[SeedController](#)

[SolutionSettingsController](#)

[StatusController](#)

[UserSettingsController](#)



# Class ConfigTypesController

## Inheritance

System.Object

ConfigTypesController

## Inherited Members

System.Object.ToString()

System.Object.Equals(System.Object)

System.Object.Equals(System.Object, System.Object)

System.Object.ReferenceEquals(System.Object, System.Object)

System.Object.GetHashCode()

System.Object.GetType()

System.Object.MemberwiseClone()

Namespace: [Mmm.Iot.Config.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

## Syntax

```
public class ConfigTypesController
```

## Constructors

ConfigTypesController(IStorage)

## Declaration

```
public ConfigTypesController(IStorage storage)
```

## Parameters

TYPE	NAME	DESCRIPTION
IStorage	storage	

## Methods

GetAllConfigTypesAsync()

## Declaration

```
public Task<ConfigTypeListApiModel> GetAllConfigTypesAsync()
```

## Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<ConfigTypeListApiModel>	



# Class DeviceGroupController

## Inheritance

System.Object

DeviceGroupController

Namespace: [Mmm.Iot.Config.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

## Syntax

```
public class DeviceGroupController : Controller
```

## Constructors

### DeviceGroupController(IStorage)

#### Declaration

```
public DeviceGroupController(IStorage storage)
```

#### Parameters

TYPE	NAME	DESCRIPTION
IStorage	storage	

## Methods

### CreateAsync(DeviceGroupApiModel)

#### Declaration

```
public Task<DeviceGroupApiModel> CreateAsync(DeviceGroupApiModel input)
```

#### Parameters

TYPE	NAME	DESCRIPTION
DeviceGroupApiModel	input	

#### Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<DeviceGroupApiModel>	

### DeleteAsync(String)

#### Declaration

```
public Task DeleteAsync(string id)
```

#### Parameters

TYPE	NAME	DESCRIPTION
System.String	id	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

GetAllAsync()

Declaration

```
public Task<DeviceGroupListApiModel> GetAllAsync()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<DeviceGroupListApiModel>	

GetAsync(String)

Declaration

```
public Task<DeviceGroupApiModel> GetAsync(string id)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<DeviceGroupApiModel>	

UpdateAsync(String, DeviceGroupApiModel)

Declaration

```
public Task<DeviceGroupApiModel> UpdateAsync(string id, DeviceGroupApiModel input)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	
DeviceGroupApiModel	input	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<DeviceGroupApiModel>	



# Class PackagesController

Inheritance

System.Object

PackagesController

Namespace: [Mmm.Iot.Config.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class PackagesController : Controller
```

Constructors

PackagesController(IStorage)

Declaration

```
public PackagesController(IStorage storage)
```

Parameters

TYPE	NAME	DESCRIPTION
IStorage	storage	

Fields

InactivePackageTag

Declaration

```
public const string InactivePackageTag = "reserved.inactive"
```

Field Value

TYPE	DESCRIPTION
System.String	

Methods

ActivatePackageAsync(String)

Declaration

```
public Task<ActionResult<PackageApiModel>> ActivatePackageAsync(string id)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<ActionResult<PackageApiModel>>	

AddTagAsync(String, String)

Declaration

```
public Task<ActionResult<PackageApiModel>> AddTagAsync(string id, string tag)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	
System.String	tag	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<ActionResult<PackageApiModel>>	

DeactivatePackageAsync(String)

Declaration

```
public Task<ActionResult<PackageApiModel>> DeactivatePackageAsync(string id)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<ActionResult<PackageApiModel>>	

DeleteAsync(String)

Declaration

```
public Task DeleteAsync(string id)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

GetAsync(String)

Declaration

```
public Task<PackageApiModel> GetAsync(string id)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<PackageApiModel>	

GetFilteredAsync(String, String, List<String>, String)

Declaration

```
public Task<PackageListApiModel> GetFilteredAsync(string packageType, string configType, List<string> tags, string tagOperator = "AND")
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	packageType	
System.String	configType	
List<System.String>	tags	
System.String	tagOperator	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<PackageListApiModel>	

PostAsync(String, String, String, String, List<String>, IFormFile)

Declaration

```
public Task<PackageApiModel> PostAsync(string packageName, string packageType, string configType, string version, List<string> tags, IFormFile package)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	packageName	
System.String	packageType	
System.String	configType	



TYPE	NAME	DESCRIPTION
System.String	version	
List<System.String>	tags	
IFormFile	package	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<PackageApiModel>	

### RemoveTagAsync(String, String)

Declaration

```
public Task<ActionResult<PackageApiModel>> RemoveTagAsync(string id, string tag)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	
System.String	tag	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<ActionResult<PackageApiModel>>	

### RemoveTagsAsync(String)

Declaration

```
public Task<ActionResult<PackageApiModel>> RemoveTagsAsync(string id)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<ActionResult<PackageApiModel>>	

### UploadFileAsync(IFormFile)

Declaration

```
public Task<UploadFileServiceModel> UploadFileAsync(IFormFile uploadedFile)
```

Parameters

TYPE	NAME	DESCRIPTION
IFormFile	uploadedFile	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<UploadFileServiceModel>	



# Class SeedController

Inheritance

System.Object

SeedController

Namespace: [Mmm.Iot.Config.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class SeedController : Controller
```

Constructors

SeedController(ISeed)

Declaration

```
public SeedController(ISeed seed)
```

Parameters

TYPE	NAME	DESCRIPTION
ISeed	seed	

Methods

PostAsync()

Declaration

```
public Task PostAsync()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	



# Class SolutionSettingsController

Inheritance

System.Object

SolutionSettingsController

Namespace: [Mmm.Iot.Config.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class SolutionSettingsController : Controller
```

## Constructors

### SolutionSettingsController(IStorage, IActions)

Declaration

```
public SolutionSettingsController(IStorage storage, IActions actions)
```

Parameters

TYPE	NAME	DESCRIPTION
IStorage	storage	
IActions	actions	

## Methods

### GetActionsSettingsAsync()

Declaration

```
public Task<ActionSettingsListApiModel> GetActionsSettingsAsync()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<ActionSettingsListApiModel>	

### GetDefaultFirmwareSettingAsync()

Declaration

```
public Task<DefaultFirmwareSettingApiModel> GetDefaultFirmwareSettingAsync()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<DefaultFirmwareSettingApiModel>	

### GetLogoAsync()

Declaration

```
public Task GetLogoAsync()
```

--

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

GetThemeAsync()

Declaration

public Task<Theme> GetThemeAsync()
------------------------------------

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Theme>	

SetDefaultFirmwareSettingAsync(DefaultFirmwareSettingApiModel)

Declaration

public Task<ValueApiModel> SetDefaultFirmwareSettingAsync(DefaultFirmwareSettingApiModel settingModel)
--

Parameters

TYPE	NAME	DESCRIPTION
DefaultFirmwareSettingApiModel	settingModel	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<ValueApiModel>	

SetLogoAsync()

Declaration

public Task SetLogoAsync()
----------------------------

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

SetThemeAsync(Theme)

Declaration

public Task<Theme> SetThemeAsync(Theme theme)
---

Parameters

TYPE	NAME	DESCRIPTION
Theme	theme	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<Theme>	



# Class StatusController

Inheritance

System.Object  
StatusController

Namespace: [Mmm.Iot.Config.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public sealed class StatusController : ControllerBase
```

## Constructors

### StatusController(IStatusService)

Declaration

```
public StatusController(IStatusService statusService)
```

Parameters

TYPE	NAME	DESCRIPTION
IStatusService	statusService	

## Methods

### GetAsync()

Declaration

```
public Task<StatusApiModel> GetAsync()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<StatusApiModel>	

### Ping()

Declaration

```
public IActionResult Ping()
```

Returns

TYPE	DESCRIPTION
IActionResult	



# Class UserSettingsController

## Inheritance

System.Object

UserSettingsController

Namespace: [Mmm.Iot.Config.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

## Syntax

```
public class UserSettingsController : Controller
```

## Constructors

### UserSettingsController(IStorage)

#### Declaration

```
public UserSettingsController(IStorage storage)
```

#### Parameters

TYPE	NAME	DESCRIPTION
IStorage	storage	

## Methods

### GetUserSettingAsync(String)

#### Declaration

```
public Task<object> GetUserSettingAsync(string id)
```

#### Parameters

TYPE	NAME	DESCRIPTION
System.String	id	

#### Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.Object>	

### SetUserSettingAsync(String, Object)

#### Declaration

```
public Task<object> SetUserSettingAsync(string id, object setting)
```

#### Parameters

TYPE	NAME	DESCRIPTION
System.String	id	



TYPE	NAME	DESCRIPTION
System.Object	setting	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<System.Object>	



# Device Telemetry

Device Telemetry service is used to manage Alarms, Rules, AlarmsByRules, Message and Device Files.

Within each Serenity instance an interactive Swagger UI is available at the following path `/auth/index.html` for more information, [click here](#)

## Rest Operation Groups

The Device Telemetry REST API provides operations for working with the following:

OPERATION GROUP	DESCRIPTION
<a href="#">Alarms</a>	Manage Alarms
<a href="#">AlarmsByRule</a>	Fetch paginate details of Rules with Alarms count and Alarms for specific rule
<a href="#">DeviceFiles</a>	Fetch device files detail and download device file
<a href="#">Messages</a>	Manage Messages
<a href="#">Rules</a>	Manage Rules
<a href="#">Status</a>	Health status operations for the Service



# Alarms

Service: Device Telemetry

## Operations

OPERATION	DESCRIPTION
<a href="#">Get list of alarms</a>	Fetches list of alarms
<a href="#">Get list of alarms-Alternative</a>	Fetches list of alarms-Alternate way
<a href="#">Get alarm by alarmId</a>	Fetches a alarm
<a href="#">Update alarm status</a>	Updates alarm status
<a href="#">Delete alarm</a>	Deletes a alarm
<a href="#">Delete one or more alarms</a>	Deletes multiple alarms



## Get list of alarms

API that fetches list of alarms.

### Permissions

ReadAll

### Http Request

GET /telemetry /v1 /Alarms

### Query parameters

QUERY PARAMETER	TYPE	EXAMPLE	DESCRIPTION
from	string	NOW-PT24H	The start of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
to	string	NOW	The end of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
order	string	desc	Whether to sort the result from the oldest (asc) or the most recent (desc)
skip	int	0	How many records to skip, used to paginate through the global list of alarms
limit	int	50	How many records to return, used to paginate through the global list of alarms
devices	string	id1,id6,xyz	A filter used to request alarms for specific devices

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response Schema

```
{
  "items": [
    {
      "metadata": {
        "additionalProp1": "string",
        "additionalProp2": "string",
        "additionalProp3": "string"
      },
      "eTag": "string",
      "id": "string",
      "dateCreated": "string",
      "dateModified": "string",
      "description": "string",
      "groupId": "string",
      "deviceId": "string",
      "status": "string",
      "rule": {
        "metadata": {
          "additionalProp1": "string",
          "additionalProp2": "string",
          "additionalProp3": "string"
        },
        "id": "string",
        "severity": "string",
        "description": "string"
      }
    }
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

## Response

- Status Code 200:

```

{
  "Items": [
    {
      "ETag": "\"0100e67a-0000-0300-0000-5f8833120000\"",
      "Id": "84cd95cd-c5ee-2095-495a-3f47a9d3476f",
      "DateCreated": "2020-10-15T11:31:00+00:00",
      "DateModified": "2020-10-15T11:31:00+00:00",
      "Description": null,
      "GroupId": null,
      "DeviceId": "sah_test_device",
      "Status": "open",
      "Rule": {
        "Id": "40550ad4-d830-4e69-8ba3-cd0b9ef7eec8",
        "Severity": "Critical",
        "Description": "TestDesc",
        "$metadata": {
          "$type": "Rule;1",
          "$uri": "/v1/rules/ 40550ad4-d830-4e69-8ba3-cd0b9ef7eec8"
        }
      },
      "$metadata": {
        "$type": "Alarm;1",
        "$uri": "/v1/alarms/ 84cd95cd-c5ee-2095-495a-3f47a9d3476f"
      }
    }
  ],
  "$metadata": {
    "$type": "Alarms;1",
    "$uri": "/v1/alarms"
  }
}

```

Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Get list of alarms - Alternate way

API that fetches list of alarms.

### Permissions

ReadAll

### Http Request

POST /telemetry /v1 /Alarms

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

```
{
  "from": "NOW-PT24H",
  "to": "NOW",
  "order": "desc",
  "skip": 0,
  "limit": 50,
  "devices": [
    "xyx"
  ]
}
```

QUERY PARAMETER	TYPE	EXAMPLE	DESCRIPTION
from	string	NOW-PT24H	The start of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
to	string	NOW	The end of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
order	string	desc	Whether to sort the result from the oldest (asc) or the most recent (desc)
skip	int	0	How many records to skip, used to paginate through the global list of alarms
limit	int	50	How many records to return, used to paginate through the global list of alarms
devices	list	[ "id1","id6", "xyz" ]	A filter used to request alarms for specific devices

### Response Schema

```
{
  "items": [
    {
      "metadata": {
        "additionalProp1": "string",
        "additionalProp2": "string",
        "additionalProp3": "string"
      },
      "eTag": "string",
      "id": "string",
      "dateCreated": "string",
      "dateModified": "string",
      "description": "string",
      "groupId": "string",
      "deviceId": "string",
      "status": "string",
      "rule": {
        "metadata": {
          "additionalProp1": "string",
          "additionalProp2": "string",
          "additionalProp3": "string"
        },
        "id": "string",
        "severity": "string",
        "description": "string"
      }
    }
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

## Response

- Status Code 200



```

{
  "Items": [
    {
      "ETag": "\"0100e67a-0000-0300-0000-5f8833120000\"",
      "Id": "84cd95cd-c5ee-2095-495a-3f47a9d3476f",
      "DateCreated": "2020-10-15T11:31:00+00:00",
      "DateModified": "2020-10-15T11:31:00+00:00",
      "Description": null,
      "GroupId": null,
      "DeviceId": "sah_test_device",
      "Status": "open",
      "Rule": {
        "Id": "40550ad4-d830-4e69-8ba3-cd0b9ef7eec8",
        "Severity": "Critical",
        "Description": "TestDesc",
        "$metadata": {
          "$type": "Rule;1",
          "$uri": "/v1/rules/ 40550ad4-d830-4e69-8ba3-cd0b9ef7eec8"
        }
      },
      "$metadata": {
        "$type": "Alarm;1",
        "$uri": "/v1/alarms/ 84cd95cd-c5ee-2095-495a-3f47a9d3476f"
      }
    }
  ],
  "$metadata": {
    "$type": "Alarms;1",
    "$uri": "/v1/alarms"
  }
}

```

Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Get alarm by alarmId

API that fetches a alarm details by alarmId.

### Permissions

ReadAll

### Http Request

GET /telemetry /v1/Alarms/{id}

### Query parameters

QUERY PARAMETER	TYPE	DESCRIPTION
id	guid	Alarms' unique id

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response Schema

```
{
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "eTag": "string",
  "id": "string",
  "dateCreated": "string",
  "dateModified": "string",
  "description": "string",
  "groupId": "string",
  "deviceId": "string",
  "status": "string",
  "rule": {
    "metadata": {
      "additionalProp1": "string",
      "additionalProp2": "string",
      "additionalProp3": "string"
    },
    "id": "string",
    "severity": "string",
    "description": "string"
  }
}
```

## Response

- Status Code 200

```
{
  "ETag": "\"0100e67a-0000-0300-0000-5f8833120000\"",
  "Id": "84cd95cd-c5ee-2095-495a-3f47a9d3476f",
  "DateCreated": "2020-10-15T11:31:00+00:00",
  "DateModified": "2020-10-15T11:31:00+00:00",
  "Description": null,
  "GroupId": null,
  "DeviceId": "sah_test_device",
  "Status": "open",
  "Rule": {
    "Id": "40550ad4-d830-4e69-8ba3-cd0b9ef7eec8",
    "Severity": "Critical",
    "Description": "TestDesc",
    "$metadata": {
      "$type": "Rule;1",
      "$uri": "/v1/rules/ 40550ad4-d830-4e69-8ba3-cd0b9ef7eec8"
    }
  },
  "$metadata": {
    "$type": "Alarm;1",
    "$uri": "/v1/alarms/ 84cd95cd-c5ee-2095-495a-3f47a9d3476f"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Update alarm status

API that updates the status of a alarm.

### Permissions

UpdateAlarms

### Http Request

PATCH /telemetry /v1/Alarms/{id}

### Query parameters

QUERY PARAMETER	TYPE	DESCRIPTION
id	guid	Alarms' unique id

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Schema

```
{
  "status": "string"
}
```

NAME	TYPE	VALUES	DESCRIPTION
status	string	open, closed, acknowledged	It represents alarm status

### Request Body

```
{
  "status": "open"
}
```

### Response Schema

```
{
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "eTag": "string",
  "id": "string",
  "dateCreated": "string",
  "dateModified": "string",
  "description": "string",
  "groupId": "string",
  "deviceId": "string",
  "status": "string",
  "rule": {
    "metadata": {
      "additionalProp1": "string",
      "additionalProp2": "string",
      "additionalProp3": "string"
    },
    "id": "string",
    "severity": "string",
    "description": "string"
  }
}
```

## Response

- Status Code 200

```
{
  "ETag": "\"0100e67a-0000-0300-0000-5f8833120000\"",
  "Id": "84cd95cd-c5ee-2095-495a-3f47a9d3476f",
  "DateCreated": "2020-10-15T11:31:00+00:00",
  "DateModified": "2020-10-15T11:31:00+00:00",
  "Description": null,
  "GroupId": null,
  "DeviceId": "sah_test_device",
  "Status": "open",
  "Rule": {
    "Id": "40550ad4-d830-4e69-8ba3-cd0b9ef7eec8",
    "Severity": "Critical",
    "Description": "TestDesc",
    "$metadata": {
      "$type": "Rule;1",
      "$uri": "/v1/rules/40550ad4-d830-4e69-8ba3-cd0b9ef7eec8"
    }
  },
  "$metadata": {
    "$type": "Alarm;1",
    "$uri": "/v1/alarms/84cd95cd-c5ee-2095-495a-3f47a9d3476f"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



# Delete alarm

API that remove alarm.

## Permissions

DeleteAlarms
--------------

## Http Request

DELETE /telemetry /v1/Alarms/{id}
-----------------------------------

## Query parameters

QUERY PARAMETER	TYPE	DESCRIPTION
id	guid	Alarms' unique id

## Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

## Request Body

N/A
-----

## Response

- Status Code 200.

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: `https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com`



# Delete one or more alarms

API that remove one or more alarms.

## Permissions

DeleteAlarms
--------------

## Http Request

POST /telemetry /v1/Alarms!delete
-----------------------------------

## Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

## Request Schema

{ "items": [ "string" ] }
---------------------------------------

## Request Sample

{ "items": [ "40550ad4-d830-4e69-8ba3-cd0b9ef7eec8" ] }
---

## Response

- Status Code 200.

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



# Alarms By Rule

Service: Device Telemetry

## Operations

OPERATION	DESCRIPTION
<a href="#">Get rules with alarms count</a>	Fetches the list of rules with recorded alarms count
<a href="#">Get rules with alarms count - Alternative</a>	Fetches the list of rules with recorded alarms count-Alternate way
<a href="#">Get alarms for rule</a>	Fetches the alarms for a rule
<a href="#">Get alarms for rule-Alternative</a>	Fetches the alarms for a rule-Alternate way





## Get rules with alarms count

API that fetches the rules details with a count of recorded alarms.

### Permissions

ReadAll

### Http Request

GET /telemetry/v1/AlarmsByRule

### Query parameters

QUERY PARAMETER	TYPE	EXAMPLE	DESCRIPTION
from	string	NOW-PT24H	The start of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
to	string	NOW	The end of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
order	string	desc	Whether to sort the result from the oldest (asc) or the most recent (desc)
skip	int	0	How many records to skip, used to paginate through the global list of rules
limit	int	50	How many records to return, used to paginate through the global list of rules
devices	string	id1,id6,xyz	A filter used to request rules for specific devices

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response

- Status Code 200:

```
{
  "Items": [
    {
      "Count": 17,
      "Status": "open",
      "Created": "2020-10-15T12:12:00+00:00",
      "Rule": {
        "Id": "54d0f242-c7e0-402d-9e39-f8d1e01a28a4",
        "Severity": "Critical",
        "Description": "TestDesc",
        "$metadata": {
          "$type": "Rule;1",
          "$uri": "/v1/rules/ 54d0f242-c7e0-402d-9e39-f8d1e01a28a4"
        }
      },
      "$metadata": {
        "$type": "AlarmByRule;1",
        "$uri": "/v1/alarmsbyrule/ 54d0f242-c7e0-402d-9e39-f8d1e01a28a4"
      }
    },
    "$metadata": {
      "$type": "AlarmByRuleList;1",
      "$uri": "/v1/alarmsbyrule"
    }
  ]
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Get rules with alarms count - Alternate way

API that fetches the rules details with a count of recorded alarms that are related to rules.

### Permissions

ReadAll

### Http Request

POST /telemetry/v1/AlarmsByRule

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

```
{
  "from": "NOW-PT24H",
  "to": "NOW",
  "order": "desc",
  "skip": 0,
  "limit": 50,
  "devices": [
    "xyx"
  ]
}
```

NAME	TYPE	EXAMPLE	DESCRIPTION
from	string	NOW-PT24H	The start of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
to	string	NOW	The end of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
order	string	desc	Whether to sort the result from the oldest (asc) or the most recent (desc)
skip	int	0	How many records to skip, used to paginate through the global list of rules
limit	int	50	How many records to return, used to paginate through the global list of rules
devices	list	[ "id1","id6", "xyz" ]	A filter used to request rules for specific devices

### Response

- Status Code 200:

```
{
  "Items": [
    {
      "Count": 17,
      "Status": "open",
      "Created": "2020-10-15T12:12:00+00:00",
      "Rule": {
        "Id": "54d0f242-c7e0-402d-9e39-f8d1e01a28a4",
        "Severity": "Critical",
        "Description": "TestDesc",
        "$metadata": {
          "$type": "Rule;1",
          "$uri": "/v1/rules/ 54d0f242-c7e0-402d-9e39-f8d1e01a28a4"
        }
      },
      "$metadata": {
        "$type": "AlarmByRule;1",
        "$uri": "/v1/alarmsbyrule/ 54d0f242-c7e0-402d-9e39-f8d1e01a28a4"
      }
    },
    "$metadata": {
      "$type": "AlarmByRuleList;1",
      "$uri": "/v1/alarmsbyrule"
    }
  ]
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Get alarms for rule

API that fetches the alarms details for specified rule.

### Permissions

ReadAll

### Http Request

GET /telemetry/v1/AlarmsByRule/{id}

### Parameters

PARAMETER	TYPE	DESCRIPTION
Id	guid	It represents RuleId

### Query parameters

QUERY PARAMETER	TYPE	EXAMPLE	DESCRIPTION
from	string	NOW-PT24H	The start of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
to	string	NOW	The end of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
order	string	desc	Whether to sort the result from the oldest (asc) or the most recent (desc)
skip	int	0	How many records to skip, used to paginate through the global list of alarms
limit	int	50	How many records to return, used to paginate through the global list of alarms
devices	string	id1,id6,xyz	A filter used to request alarms for specific devices

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response

- Status Code 200:

```
{
  "Items": [
    {
      "ETag": "\"0100ab90-0000-0300-0000-5f883c960000\"",
      "Id": "c0b8c7e9-cf10-a270-e318-94e625bdacc2",
      "DateCreated": "2020-10-15T12:12:00+00:00",
      "DateModified": "2020-10-15T12:12:00+00:00",
      "Description": null,
      "GroupId": null,
      "DeviceId": "test-telemetry",
      "Status": "open",
      "Rule": {
        "Id": "54d0f242-c7e0-402d-9e39-f8d1e01a28a4",
        "Severity": "Critical",
        "Description": "TestDesc",
        "$metadata": {
          "$type": "Rule;1",
          "$uri": "/v1/rules/ 54d0f242-c7e0-402d-9e39-f8d1e01a28a4"
        }
      },
      "$metadata": {
        "$type": "Alarm;1",
        "$uri": "/v1/alarms/ c0b8c7e9-cf10-a270-e318-94e625bdacc2"
      }
    },
    {
      "$metadata": {
        "$type": "AlarmsByRule;1",
        "$uri": "/v1/alarmsbyrule"
      }
    }
  ],
  "$metadata": {
    "$type": "AlarmsByRule;1",
    "$uri": "/v1/alarmsbyrule"
  }
}
```

Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Get alarms for rule - Alternate way

API that fetches the alarms details for specified rule.

### Permissions

ReadAll

### Http Request

POST /telemetry/v1/AlarmsByRule/{id}

### Parameters

PARAMETER	TYPE	DESCRIPTION
Id	guid	It represents RuleId

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

```
{
  "from": "NOW-PT24H",
  "to": "NOW",
  "order": "desc",
  "skip": 0,
  "limit": 50,
  "devices": [
    "xyx"
  ]
}
```

NAME	TYPE	EXAMPLE	DESCRIPTION
from	string	NOW-PT24H	The start of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
to	string	NOW	The end of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
order	string	desc	Whether to sort the result from the oldest (asc) or the most recent (desc)
skip	int	0	How many records to skip, used to paginate through the global list of alarms
limit	int	50	How many records to return, used to paginate through the global list of alarms
devices	list	[ "id1","id6", "xyz" ]	A filter used to request alarms for specific devices

## Response

- Status Code 200:

```
{
  "Items": [
    {
      "ETag": "\"0100ab90-0000-0300-0000-5f883c960000\"",
      "Id": "c0b8c7e9-cf10-a270-e318-94e625bdacc2",
      "DateCreated": "2020-10-15T12:12:00+00:00",
      "DateModified": "2020-10-15T12:12:00+00:00",
      "Description": null,
      "GroupId": null,
      "DeviceId": "test-telemetry",
      "Status": "open",
      "Rule": {
        "Id": "54d0f242-c7e0-402d-9e39-f8d1e01a28a4",
        "Severity": "Critical",
        "Description": "TestDesc",
        "$metadata": {
          "$type": "Rule;1",
          "$uri": "/v1/rules/ 54d0f242-c7e0-402d-9e39-f8d1e01a28a4"
        }
      },
      "$metadata": {
        "$type": "Alarm;1",
        "$uri": "/v1/alarms/ c0b8c7e9-cf10-a270-e318-94e625bdacc2"
      }
    },
    {
      "$metadata": {
        "$type": "AlarmsByRule;1",
        "$uri": "/v1/alarmsbyrule"
      }
    }
  ]
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>





# Device Files

Service: Device Telemetry

## Operations

OPERATION	DESCRIPTION
<a href="#">Get files uploaded by device</a>	Fetches details of files uploaded by a device
<a href="#">Download a device file</a>	Download a device file



## Get files uploaded by device

API that fetches device uploaded files details for a specific device.

### Permissions

ReadAll

### Http Request

GET /telemetry/v1/DeviceFiles/{deviceId}

### Parameters

QUERY PARAMETER	TYPE	DESCRIPTION
deviceId	guid	Device Id

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response Schema

```
{
  "items": [
    {
      "name": "string",
      "blobName": "string",
      "uploadedBy": "string",
      "uploadedOn": "string",
      "size": 0
    }
  ]
}
```

### Response

- Status Code 200

```
{
  "items": [
    {
      "name": "sample",
      "blobName": "sample",
      "uploadedBy": "sampleDevice",
      "uploadedOn": "date",
      "size": 0
    }
  ]
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



## Download a device file

API that downloads a device file for given blob name.

### Permissions

ReadAll

### Http Request

POST /v1/DeviceFiles/Download

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

```
{
  "blobName": "string"
}
```

### Response

Status Code 200.

### Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



# Messages

Service: Device Telemetry

## Operations

OPERATION	DESCRIPTION
<a href="#">Get messages</a>	Fetches list of messages
<a href="#">Get messages - Alternate way</a>	Fetches list of messages - Alternate way
<a href="#">Get recent messages for device</a>	Fetches most recent list of messages of device



## Get messages

API that fetches list of messages.

### Permissions

ReadAll
---------

### Http Request

GET /telemetry/v1/Messages
----------------------------

### Query parameters

QUERY PARAMETER	TYPE	EXAMPLE	DESCRIPTION
from	string	NOW-PT24H	The start of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
to	string	NOW	The end of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
order	string	desc	Whether to sort the result from the oldest (asc) or the most recent (desc)
skip	int	0	How many records to skip, used to paginate through the global list of messages
limit	int	50	How many records to return, used to paginate through the global list of messages
devices	string	id1,id6,xyz	A filter used to request messages for specific devices

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A
-----

### Response Schema

```
{
  "items": [
    {
      "deviceId": "string",
      "time": "string",
      "data": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      }
    }
  ],
  "properties": [
    "string"
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

## Response

- Status Code 200

```
{
  "Items": [
    {
      "DeviceId": "Elevator1",
      "Time": "2017-01-14T05:39:45+00:00",
      "Data": {
        "current_floor": 7
      }
    }
  ],
  "Properties": [
    "current_floor",
    "temperature",
    "t_unit",
    "humidity",
    "latitude",
    "longitude"
  ],
  "$metadata": {
    "$type": "MessageList;v1",
    "$uri": "/v1/messages"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Get messages - Alternate way

API that fetches list of messages.

### Permissions

ReadAll

### Http Request

POST /telemetry/v1/Messages

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

```
{
  "from": "string",
  "to": "string",
  "order": "string",
  "skip": 0,
  "limit": 0,
  "devices": [
    "string"
  ]
}
```

NAME	TYPE	EXAMPLE	DESCRIPTION
from	string	NOW-PT24H	The start of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
to	string	NOW	The end of the time window for the query. ISO8601 format or "NOW-{ISO 8601 duration}"
order	string	desc	Whether to sort the result from the oldest (asc) or the most recent (desc)
skip	int	0	How many records to skip, used to paginate through the global list of messages
limit	int	50	How many records to return, used to paginate through the global list of messages
devices	list	[ "id1","id6", "xyz" ]	A filter used to request messages for specific devices

### Response Schema



```
{
  "items": [
    {
      "deviceId": "string",
      "time": "string",
      "data": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      }
    }
  ],
  "properties": [
    "string"
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

## Response

- Status Code 200

```
{
  "Items": [
    {
      "DeviceId": "Elevator1",
      "Time": "2017-01-14T05:39:45+00:00",
      "Data": {
        "current_floor": 7
      }
    }
  ],
  "Properties": [
    "current_floor",
    "temperature",
    "t_unit",
    "humidity",
    "latitude",
    "longitude"
  ],
  "$metadata": {
    "$type": "MessageList;v1",
    "$uri": "/v1/messages"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Get recent messages for device

API that fetches recent list of messages for specific device.

### Permissions

ReadAll

### Http Request

GET /telemetry/v1/Messages/RecentMessages

### Query parameters

QUERY PARAMETER	TYPE	EXAMPLE	DESCRIPTION
limit	Int	50	How many records to return.
deviceId	string	xyz	A filter used to request message for specific device

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response Schema

```
{
  "items": [
    {
      "deviceId": "string",
      "time": "string",
      "data": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      }
    }
  ],
  "properties": [
    "string"
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

## Response

- Status Code 200

```
{
  "Items": [
    {
      "DeviceId": "Elevator1",
      "Time": "2017-01-14T05:39:45+00:00",
      "Data": {
        "current_floor": 7
      }
    }
  ],
  "Properties": [
    "current_floor",
    "temperature",
    "t_unit",
    "humidity",
    "latitude",
    "longitude"
  ],
  "$metadata": {
    "$type": "MessageList;v1",
    "$uri": "/v1/messages"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



# Rules

Service: Device Telemetry

## Operations

OPERATION	DESCRIPTION
<a href="#">Get Rule</a>	Fetches a Rule
<a href="#">Update Rule</a>	Updates a Rule
<a href="#">Delete Rule</a>	Deletes a Rule
<a href="#">Get list of Rules</a>	Fetches list of Rules
<a href="#">Create Rule</a>	Creates a Rule



## Get Rule

API that fetches specific rule details.

### Permissions

ReadAll

### Http Request

GET /telemetry/v1/Rules/{id}

### parameters

QUERY PARAMETER	TYPE	DESCRIPTION
id	string	Rule Id

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response Schema

```
{
  "eTag": "string",
  "id": "string",
  "name": "string",
  "dateCreated": "string",
  "dateModified": "string",
  "enabled": true,
  "description": "string",
  "groupId": "string",
  "severity": "string",
  "conditions": [
    {
      "field": "string",
      "operator": "string",
      "value": "string"
    }
  ],
  "calculation": "string",
  "timePeriod": "string",
  "actions": [
    {
      "type": "string",
      "parameters": {
        "additionalProp1": {},
        "additionalProp2": {},
        "additionalProp3": {}
      }
    }
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "deleted": true,
  "lastTrigger": "string"
}
```

## Response

- Status Code 200

```
{
  "ETag": "\"0100bd80-0000-0300-0000-5fa15d400000\"",
  "Id": "2b32322d-8414-469b-9724-b873577b61b4",
  "Name": "New rule",
  "DateCreated": "2020-09-24T11:17:06+00:00",
  "DateModified": "2020-11-03T13:38:08+00:00",
  "Enabled": true,
  "Description": "Sample rule to test",
  "GroupId": "67c56894-b4c9-4ad1-8dd6-1373177060dd",
  "Severity": "Info",
  "Conditions": [
    {
      "Field": "temperature",
      "Operator": "GreaterThan",
      "Value": "0"
    }
  ],
  "Calculation": "Average",
  "TimePeriod": "600000",
  "$metadata": {
    "$type": "Rule;1",
    "$uri": "/v1/rules/2b32322d-8414-469b-9724-b873577b61b4"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Update Rule

API that updates rule.

### Permissions

UpdateRules

### Http Request

PUT /telemetry/v1/Rules/{id}

### parameters

QUERY PARAMETER	TYPE	DESCRIPTION
id	string	Rule Id

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

```
{
  "eTag": "string",
  "id": "string",
  "name": "string",
  "dateCreated": "string",
  "dateModified": "string",
  "enabled": true,
  "description": "string",
  "groupId": "string",
  "severity": "string",
  "conditions": [
    {
      "field": "string",
      "operator": "string",
      "value": "string"
    }
  ],
  "calculation": "string",
  "timePeriod": "string",
  "actions": [
    {}
  ],
  "deleted": true,
  "lastTrigger": "string"
}
```

### Response Schema



```
{
  "eTag": "string",
  "id": "string",
  "name": "string",
  "dateCreated": "string",
  "dateModified": "string",
  "enabled": true,
  "description": "string",
  "groupId": "string",
  "severity": "string",
  "conditions": [
    {
      "field": "string",
      "operator": "string",
      "value": "string"
    }
  ],
  "calculation": "string",
  "timePeriod": "string",
  "actions": [
    {
      "type": "string",
      "parameters": {
        "additionalProp1": {},
        "additionalProp2": {},
        "additionalProp3": {}
      }
    }
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "deleted": true,
  "lastTrigger": "string"
}
```

## Response

- Status Code 200

```
{
  "ETag": "\"0100bd80-0000-0300-0000-5fa15d400000\"",
  "Id": "2b32322d-8414-469b-9724-b873577b61b4",
  "Name": "New rule",
  "DateCreated": "2020-09-24T11:17:06+00:00",
  "DateModified": "2020-11-03T13:38:08+00:00",
  "Enabled": true,
  "Description": "Sample rule to test",
  "GroupId": "67c56894-b4c9-4ad1-8dd6-1373177060dd",
  "Severity": "Info",
  "Conditions": [
    {
      "Field": "temperature",
      "Operator": "GreaterThan",
      "Value": "0"
    }
  ],
  "Calculation": "Average",
  "TimePeriod": "600000",
  "$metadata": {
    "$type": "Rule;1",
    "$uri": "/v1/rules/2b32322d-8414-469b-9724-b873577b61b4"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Delete Rule

API that deletes a rule.

### Permissions

DeleteRules

### Http Request

DELETE /telemetry/v1/Rules/{id}

### parameters

QUERY PARAMETER	TYPE	DESCRIPTION
id	string	Rule Id

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response

Status Code 200

### Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Get Rules

API that fetches list of rules.

### Permissions

ReadAll

### Http Request

Get /telemetry/v1/Rules

### Query parameters

QUERY PARAMETER	TYPE	EXAMPLE	DESCRIPTION
order	string	desc	Whether to sort the result from the oldest (asc) or the most recent (desc)
skip	int	0	How many records to skip, used to paginate through the global list of rules
limit	int	50	How many records to return, used to paginate through the global list of rules
groupId	string	"cd9bba84-274a-4d69-8e49-81f4933d3a36"	groupId for a specific group of devices the rule applies to
includeDeleted	bool	true	A filter used to request rules along with deleted rules

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

N/A

### Response Schema

```

{
  "items": [
    {
      "eTag": "string",
      "id": "string",
      "name": "string",
      "dateCreated": "string",
      "dateModified": "string",
      "enabled": true,
      "description": "string",
      "groupId": "string",
      "severity": "string",
      "conditions": [
        {
          "field": "string",
          "operator": "string",
          "value": "string"
        }
      ],
      "calculation": "string",
      "timePeriod": "string",
      "actions": [
        {
          "type": "string",
          "parameters": {
            "additionalProp1": {},
            "additionalProp2": {},
            "additionalProp3": {}
          }
        }
      ],
      "metadata": {
        "additionalProp1": "string",
        "additionalProp2": "string",
        "additionalProp3": "string"
      },
      "deleted": true,
      "lastTrigger": "string"
    }
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}

```

## Response

- Status Code 200:

```

{
  "Items": [
    {
      "ETag": "\"0100bd80-0000-0300-0000-5fa15d400000\"",
      "Id": "2b32322d-8414-469b-9724-b873577b61b4",
      "Name": "New rule",
      "DateCreated": "2020-09-24T11:17:06+00:00",
      "DateModified": "2020-11-03T13:38:08+00:00",
      "Enabled": true,
      "Description": "Sample rule to test",
      "GroupId": "67c56894-b4c9-4ad1-8dd6-1373177060dd",
      "Severity": "Info",
      "Conditions": [
        {
          "Field": "temperature",
          "Operator": "GreaterThan",
          "Value": "0"
        }
      ],
      "Calculation": "Average",
      "TimePeriod": "600000",
      "$metadata": {
        "$type": "Rule;1",
        "$uri": "/v1/rules/2b32322d-8414-469b-9724-b873577b61b4"
      }
    }
  ],
  "$metadata": {
    "$type": "RuleList;1",
    "$uri": "/v1/rules"
  }
}

```

Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Create Rule

API that Create rule.

### Permissions

CreateRules

### Http Request

POST /telemetry/v1/Rules

### Query parameters

QUERY PARAMETER	TYPE	EXAMPLE	DESCRIPTION
template	string	N/A	N/A

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Request Body

```
{
  "eTag": "string",
  "id": "string",
  "name": "string",
  "dateCreated": "string",
  "dateModified": "string",
  "enabled": true,
  "description": "string",
  "groupId": "string",
  "severity": "string",
  "conditions": [
    {
      "field": "string",
      "operator": "string",
      "value": "string"
    }
  ],
  "calculation": "string",
  "timePeriod": "string",
  "actions": [
    {}
  ],
  "deleted": true,
  "lastTrigger": "string"
}
```

### Response Schema

```
{
  "eTag": "string",
  "id": "string",
  "name": "string",
  "dateCreated": "string",
  "dateModified": "string",
  "enabled": true,
  "description": "string",
  "groupId": "string",
  "severity": "string",
  "conditions": [
    {
      "field": "string",
      "operator": "string",
      "value": "string"
    }
  ],
  "calculation": "string",
  "timePeriod": "string",
  "actions": [
    {
      "type": "string",
      "parameters": {
        "additionalProp1": {},
        "additionalProp2": {},
        "additionalProp3": {}
      }
    }
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "deleted": true,
  "lastTrigger": "string"
}
```

## Response

- Status Code 200:



```
{
  "ETag": "\"0100bd80-0000-0300-0000-5fa15d400000\"",
  "Id": "2b32322d-8414-469b-9724-b873577b61b4",
  "Name": "New rule",
  "DateCreated": "2020-09-24T11:17:06+00:00",
  "DateModified": "2020-11-03T13:38:08+00:00",
  "Enabled": true,
  "Description": "Sample rule to test",
  "GroupId": "67c56894-b4c9-4ad1-8dd6-1373177060dd",
  "Severity": "Info",
  "Conditions": [
    {
      "Field": "temperature",
      "Operator": "GreaterThan",
      "Value": "0"
    }
  ],
  "Calculation": "Average",
  "TimePeriod": "600000",
  "$metadata": {
    "$type": "Rule;1",
    "$uri": "/v1/rules/2b32322d-8414-469b-9724-b873577b61b4"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



# Status

Service: Device Telemetry

## Operations

OPERATION	DESCRIPTION
<a href="#">Get Status</a>	Gets status of the Service and its dependencies
<a href="#">Ping Status</a>	Provides the health status of the service.



## Get Status

API that fetches the status of the Device Telemetry Service.

### Permissions

N/A

### Http Request

GET /telemetry/v1/status

### Request headers

HEADER	VALUE
Content-Type	application/json

### Request Body

N/A

### Response

- Responds 200 Status code

```
{
  "Name": "Device Telemetry",
  "Status": {
    "IsHealthy": true,
    "Message": "Alive and well!"
  },
  "CurrentTime": "2020-11-02T10:33:29+00:00",
  "StartTime": "2020-10-26T22:59:53+00:00",
  "UpTime": 560015,
  "UID": "WebService.6d23f2fb-a074-481b-b7e4-1ac24880d7dd",
  "Properties": {
    "authRequired": true,
    "endpoint": "http://+:80"
  },
  "Dependencies": {
    "Storage Adapter": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    },
    "Storage": {
      "IsHealthy": true,
      "Message": "Alive and Well!"
    },
    "Asa Manager": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    },
    "Time Series": {
      "IsHealthy": true,
      "Message": "Service disabled not in use"
    },
    "App Config": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    }
  },
  "$metadata": {
    "$type": "Status;0",
    "$uri": "/status"
  }
}
```



## Ping Status

API that pings the Device Telemetry Service and responds to the status code.

### Permissions

N/A

### Http Request

GET /telemetry/v1/status/ping

### Request headers

HEADER	VALUE
Content-Type	application/json

### Request Body

N/A

### Response

Responds 200 Status code



# Namespace Mmm.Iot.DeviceTelemetry.WebService.Controllers

## Classes

[AlarmsByRuleController](#)

[AlarmsController](#)

[DeviceFilesController](#)

[MessagesController](#)

[RulesController](#)

[StatusController](#)



# Class AlarmsByRuleController

## Inheritance

System.Object

AlarmsByRuleController

Namespace: [Mmm.Iot.DeviceTelemetry.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

## Syntax

```
public class AlarmsByRuleController : Controller
```

## Constructors

AlarmsByRuleController(IAlarms, IRules, ILogger<AlarmsByRuleController>)

## Declaration

```
public AlarmsByRuleController(IAlarms alarmService, IRules ruleService, ILogger<AlarmsByRuleController> logger)
```

## Parameters

TYPE	NAME	DESCRIPTION
IAlarms	alarmService	
IRules	ruleService	
ILogger< <a href="#">AlarmsByRuleController</a> >	logger	

## Methods

GetAsync(String, String, String, Nullable<Int32>, Nullable<Int32>, String)

## Declaration

```
public Task<AlarmByRuleListApiModel> GetAsync(string from, string to, string order, int? skip, int? limit, string devices)
```

## Parameters

TYPE	NAME	DESCRIPTION
System.String	from	
System.String	to	
System.String	order	
System.Nullable<System.Int32>	skip	
System.Nullable<System.Int32>	limit	
System.String	devices	

#### Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<AlarmByRuleListModel>	

**GetAsync(String, String, String, String, Nullable<Int32>, Nullable<Int32>, String)**

#### Declaration

```
public Task<AlarmListByRuleApiModel> GetAsync(string id, string from, string to, string order, int? skip, int? limit, string devices)
```

#### Parameters

TYPE	NAME	DESCRIPTION
System.String	id	
System.String	from	
System.String	to	
System.String	order	
System.Nullable<System.Int32>	skip	
System.Nullable<System.Int32>	limit	
System.String	devices	

#### Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<AlarmListByRuleApiModel>	

**PostAsync(QueryApiModel)**

#### Declaration

```
public Task<AlarmByRuleListModel> PostAsync(QueryApiModel body)
```

#### Parameters

TYPE	NAME	DESCRIPTION
QueryApiModel	body	

#### Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<AlarmByRuleListModel>	

**PostAsync(String, QueryApiModel)**

#### Declaration



```
public Task<AlarmListByRuleApiModel> PostAsync(string id, QueryApiModel body)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	
QueryApiModel	body	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<AlarmListByRuleApiModel>	



# Class AlarmsController

Inheritance

System.Object  
AlarmsController

Namespace: [Mmm.Iot.DeviceTelemetry.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class AlarmsController : Controller
```

## Constructors

AlarmsController(IAlarms, ILogger<AlarmsController>)

Declaration

```
public AlarmsController(IAlarms alarmService, ILogger<AlarmsController> logger)
```

Parameters

TYPE	NAME	DESCRIPTION
IAlarms	alarmService	
ILogger< <a href="#">AlarmsController</a> >	logger	

## Methods

Delete(AlarmIdListApiModel)

Declaration

```
public void Delete(AlarmIdListApiModel alarmList)
```

Parameters

TYPE	NAME	DESCRIPTION
AlarmIdListApiModel	alarmList	

DeleteAsync(String)

Declaration

```
public Task DeleteAsync(string id)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

GetAsync(String)

Declaration

```
public Task<AlarmApiModel> GetAsync(string id)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<AlarmApiModel>	

ListAsync(String, String, String, Nullable<Int32>, Nullable<Int32>, String)

Declaration

```
public Task<AlarmListApiModel> ListAsync(string from, string to, string order, int? skip, int? limit, string devices)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	from	
System.String	to	
System.String	order	
System.Nullable<System.Int32>	skip	
System.Nullable<System.Int32>	limit	
System.String	devices	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<AlarmListApiModel>	

PatchAsync(String, AlarmStatusApiModel)

Declaration

```
public Task<AlarmApiModel> PatchAsync(string id, AlarmStatusApiModel body)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	
AlarmStatusApiModel	body	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<AlarmApiModel>	

PostAsync(QueryApiModel)

Declaration

```
public Task<AlarmListApiModel> PostAsync(QueryApiModel body)
```

Parameters

TYPE	NAME	DESCRIPTION
QueryApiModel	body	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<AlarmListApiModel>	



# Class DeviceFilesController

Inheritance

System.Object

DeviceFilesController

Namespace: [Mmm.Iot.DeviceTelemetry.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class DeviceFilesController : Controller
```

## Constructors

### DeviceFilesController(IDeviceFileUploads)

Declaration

```
public DeviceFilesController(IDeviceFileUploads deviceFileUploads)
```

Parameters

TYPE	NAME	DESCRIPTION
IDeviceFileUploads	deviceFileUploads	

## Methods

### GetDeviceUploads(String)

Declaration

```
public Task<DeviceFileListApiModel> GetDeviceUploads(string deviceId)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	deviceId	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<DeviceFileListApiModel>	

### GetFileContents(DownloadRequest)

Declaration

```
public Task<IActionResult> GetFileContents(DownloadRequest downloadRequest)
```

Parameters

TYPE	NAME	DESCRIPTION
DownloadRequest	downloadRequest	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<ActionResult>	



# Class MessagesController

## Inheritance

System.Object  
MessagesController

Namespace: [Mmm.Iot.DeviceTelemetry.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

## Syntax

```
public sealed class MessagesController : Controller
```

## Constructors

MessagesController(IMessages, ILogger<MessagesController>, AppConfig)

## Declaration

```
public MessagesController(IMessages messageService, ILogger<MessagesController> logger, AppConfig config)
```

## Parameters

TYPE	NAME	DESCRIPTION
IMessages	messageService	
ILogger< <a href="#">MessagesController</a> >	logger	
AppConfig	config	

## Methods

GetAsync(String, String, String, Nullable<Int32>, Nullable<Int32>, String)

## Declaration

```
public Task<MessageListApiModel> GetAsync(string from, string to, string order, int? skip, int? limit, string devices)
```

## Parameters

TYPE	NAME	DESCRIPTION
System.String	from	
System.String	to	
System.String	order	
System.Nullable<System.Int32>	skip	
System.Nullable<System.Int32>	limit	
System.String	devices	

## Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<MessageListApiModel>	

GetTopDeviceMessagesAsync(Nullable<Int32>, String)

Declaration

```
public Task<MessageListApiModel> GetTopDeviceMessagesAsync(int? limit, string deviceId)
```

Parameters

TYPE	NAME	DESCRIPTION
System.Nullable<System.Int32>	limit	
System.String	deviceId	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<MessageListApiModel>	

PostAsync(QueryApiModel)

Declaration

```
public Task<MessageListApiModel> PostAsync(QueryApiModel body)
```

Parameters

TYPE	NAME	DESCRIPTION
QueryApiModel	body	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<MessageListApiModel>	





# Class RulesController

Inheritance

System.Object

RulesController

Namespace: [Mmm.Iot.DeviceTelemetry.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public sealed class RulesController : Controller
```

## Constructors

### RulesController(IRules)

Declaration

```
public RulesController(IRules ruleService)
```

Parameters

TYPE	NAME	DESCRIPTION
IRules	ruleService	

## Methods

### DeleteAsync(String)

Declaration

```
public Task DeleteAsync(string id)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task	

### GetAsync(String)

Declaration

```
public Task<RuleApiModel> GetAsync(string id)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<RuleApiModel>	

ListAsync(String, Nullable<Int32>, Nullable<Int32>, String, Nullable<Boolean>)

Declaration

```
public Task<RuleListApiModel> ListAsync(string order, int? skip, int? limit, string groupId, bool? includeDeleted)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	order	
System.Nullable<System.Int32>	skip	
System.Nullable<System.Int32>	limit	
System.String	groupId	
System.Nullable<System.Boolean>	includeDeleted	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<RuleListApiModel>	

PostAsync(String, RuleApiModel)

Declaration

```
public Task<RuleApiModel> PostAsync(string template, RuleApiModel rule)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	template	
RuleApiModel	rule	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<RuleApiModel>	

PutAsync(String, RuleApiModel)

Declaration

```
public Task<RuleApiModel> PutAsync(string id, RuleApiModel rule)
```

Parameters

TYPE	NAME	DESCRIPTION
System.String	id	
RuleApiModel	rule	

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<RuleApiModel>	



# Class StatusController

Inheritance

System.Object

StatusController

Namespace: [Mmm.Iot.DeviceTelemetry.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public sealed class StatusController : ControllerBase
```

## Constructors

### StatusController(IStatusService)

Declaration

```
public StatusController(IStatusService statusService)
```

Parameters

TYPE	NAME	DESCRIPTION
IStatusService	statusService	

## Methods

### GetAsync()

Declaration

```
public Task<StatusApiModel> GetAsync()
```

Returns

TYPE	DESCRIPTION
System.Threading.Tasks.Task<StatusApiModel>	

### Ping()

Declaration

```
public IActionResult Ping()
```

Returns

TYPE	DESCRIPTION
IActionResult	



# Diagnostic Service

This document gives the overview of diagnostic service which will log the info.

Within each Serenity instance an interactive Swagger UI is available at following path

```
/diagnostics/index.html
```

## Rest Operation Groups

The Diagnostics Service REST API provides operations for working with the following:

OPERATION GROUP	DESCRIPTION
<a href="#">Diagnostics Events</a>	Logs the events info passed.
<a href="#">Status</a>	Health Status operations of the Service.



# Diagnostics Events Controller

Service: Diagnostics

## Operations

OPERATION	DESCRIPTION
<a href="#">Post Log Diagnostics</a>	Save the logs with respective event type



# Post Log Diagnostics

This Method is used to save the logs with respective event type.

## Permissions

**ReadAll** permission is required to call this api.

## Http Request

POST /diagnostics/v1/diagnosticsevents

## Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

## Request Body

In the request body, supply a JSON representation of DiagnosticsEventModel object.

Following are the fields which are required for the user to be created successfully.

PROPERTY	VALUE	REQUIRED
EventType	Name of the user	Required
SessionId	Current status of the user ie., Invited or Member	Not Required
EventProperties	Role of the user i.e., admin, readonly, contributor	Not Required

## Sample Request

/diagnostics/v1/diagnosticsevents

## Sample Request Body

{  
 "EventType": "TestEventDiagnosticLog",  
 "SessionId": "TestSession"  
}

## Response

201 Created

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# Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>





# Status

Service: Diagnostics

Status Controller provides Health status of the Service and its dependencies.

## Operations

OPERATION	DESCRIPTION
<a href="#">Get Status</a>	Gets status of the Service and its dependencies
<a href="#">Ping Status</a>	Provides the health status of the service.



# Get Status

API that fetches the status of Diagnostic Service.

## Permissions

N/A

## Http Request

GET /diagnostics/v1/Status

## Request headers

HEADER	VALUE
Content-Type	application/json

## Request Body

N/A

## Response

```
{
  "Name": "Diagnostics",
  "Status": {
    "IsHealthy": true,
    "Message": "Alive and well!"
  },
  "CurrentTime": "2020-11-02T09:35:38+00:00",
  "StartTime": "2020-10-26T22:59:44+00:00",
  "UpTime": 556554,
  "UID": "WebService.28f7b6d9-21dc-4ad0-b850-d82839f907d0",
  "Properties": {
    "authRequired": true,
    "endpoint": "http://+:80"
  },
  "Dependencies": {},
  "$metadata": {
    "$type": "Status;0",
    "$uri": "/status"
  }
}
```



# Ping Status

API that pings the Diagnostic Service and responds the status code.

## Permissions

N/A

## Http Request

GET /diagnostics/v1/status/ping

## Request headers

HEADER	VALUE
Content-Type	application/json

## Request Body

N/A

## Response

Responds 200 Status code



# Namespace Mmm.Iot.Diagnostics.WebService.Controllers

## Classes

[DiagnosticsEventsController](#)

[StatusController](#)



# Class DiagnosticsEventsController

Inheritance

System.Object

DiagnosticsEventsController

Namespace: [Mmm.Iot.Diagnostics.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class DiagnosticsEventsController : Controller
```

## Constructors

DiagnosticsEventsController(IDiagnosticsClient)

Declaration

```
public DiagnosticsEventsController(IDiagnosticsClient diagnosticsClient)
```

Parameters

TYPE	NAME	DESCRIPTION
IDiagnosticsClient	diagnosticsClient	

## Methods

Post(DiagnosticsEventModel)

Declaration

```
public StatusCodeResult Post(DiagnosticsEventModel diagnosticsEvent)
```

Parameters

TYPE	NAME	DESCRIPTION
DiagnosticsEventModel	diagnosticsEvent	

Returns

TYPE	DESCRIPTION
StatusCodeResult	



# Class StatusController

Inheritance

System.Object  
StatusController

Namespace: [Mmm.Iot.Diagnostics.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public sealed class StatusController : ControllerBase
```

## Constructors

### StatusController(IStatusService)

Declaration

```
public StatusController(IStatusService statusService)
```

Parameters

TYPE	NAME	DESCRIPTION
IStatusService	statusService	

## Methods

### GetAsync()

Declaration

```
public Task<StatusApiModel> GetAsync()
```

Returns

TYPE	DESCRIPTION
Task<StatusApiModel>	

### Ping()

Declaration

```
public IActionResult Ping()
```

Returns

TYPE	DESCRIPTION
IActionResult	



# IoTHub Manager Service REST API

The IoTHub Manager service is used to work with IoTHub Management such as Device Management, Device Configurations, Jobs, Updates to Devices.

Within each Serenity Instance an interactive Swagger UI is available at the following path `/iothubmanager/index.html` For more information, [click here](#).

## REST operation groups

The IoTHub Manager service REST API provides operations for working with the following:

OPERATION GROUP	DESCRIPTION
<a href="#">Deployments</a>	Device Configuration operations to manage the Device Firmware.
<a href="#">DeviceProperties</a>	Device Properties operation to get the Properties data from Devices.
<a href="#">Devices</a>	CRUD operations, Invoke method operations for Devices.
<a href="#">Jobs</a>	Create, Details for IoT Hub jobs to manage the tags, properties of devices.
<a href="#">Modules</a>	Details operations of the Edge Modules.
<a href="#">Status</a>	Health status operations for the Service.



# Deployments

Service: IoT Hub Manager

## Operations

OPERATION	DESCRIPTION
Create Deployment	Creates a Device Configuration for Firmware or custom updates.
Get Deployments	Lists the deployments from the storage.
Get Deployment	Gets the details of specifed deployment from the storage or from IoT Hub based on the state.
Inactivate/Delete Deployment	Removes the Device Configuration from IoT Hub and marks the deployment as either inactivated or deleted.
Reactivate Deployment	Creates a Device Configuration using the data from the Inactivated deployment targetting the same conditions.
Get Deployment Impacted Devices	Lists the devices which are affected by the Deployment.
Get Deployment Impacted Modules	Lists the modules which are affected by the Deployment.
Get Deployment Report	rovides the report of the devices which are impacted by deployment in byte format.





# Create Deployment

Creates a new IoT Hub Configurations for IoT Devices or Edge Devices.

## Permissions

**CreateDeployments** permission is required to call this api.

## Http Request

POST /iothub-manager/v1/deployments

## Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

## Request Body

In the request body, supply a JSON representation of DeploymentApiModel object.

Following are the fields which are required for the deployment to create successfully.

PROPERTY	VALUE	REQUIRED
DeviceGroupId	Device Group Id that is being targetted by Configuration	Yes
DeviceGroupName	DeviceGroupName	Yes
DeviceGroupQuery	JSON Serialized string of Conditions of DeviceGroup	No, If DeviceGroupId is provided, DeviceGroupQuery will be populated by fetching details of DeviceGroup using DeviceGroupId
Name	Deployment Name	Yes
PackageId	PackageId that is used for content to be used for configuration	Yes, If PackageContent is not provided.
PackageName	Name of the Package with Version Number	No
PackageContent	Configuration Content	Yes. If PackageContent is not provided but PackageId is provided, package content will be filled using package details.
Priority	Priority for Configuration	Yes, Should be a postive number
PackageType	Type which specifies the type of devices targetted	Yes

PROPERTY	VALUE	REQUIRED
ConfigType	Type which specifies the type of configuration	Yes, If PackageType is DeviceConfiguration
DeviceIds	List of DeviceIds to be targetted by Configuration	No, Can be provided if configuration needs to target specific deviceids

Request Schema

```
{
  "deploymentId": "string",
  "name": "string",
  "createdDateTimeUtc": "2020-10-29T15:57:07.671Z",
  "deviceGroupId": "string",
  "deviceGroupName": "string",
  "deviceGroupQuery": "string",
  "packageContent": "string",
  "packageName": "string",
  "packageId": "string",
  "priority": 0,
  "packageType": 0,
  "configType": "string",
  "metrics": {
    "systemMetrics": {
      "additionalProp1": 0,
      "additionalProp2": 0,
      "additionalProp3": 0
    },
    "customMetrics": {
      "additionalProp1": 0,
      "additionalProp2": 0,
      "additionalProp3": 0
    },
    "deviceStatuses": {
      "additionalProp1": 0,
      "additionalProp2": 0,
      "additionalProp3": 0
    }
  },
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "deviceIds": [
    "string"
  ],
  "isActive": true,
  "isLatest": true,
  "createdDate": "string",
  "modifiedDate": "string",
  "createdBy": "string",
  "modifiedBy": "string"
}
```

Sample Request

```
{
  "DeviceGroupId": "2f411a20-7632-45f0-bf43-5ae449b8727a",
  "DeviceGroupName": "TestDeviceGroup",
  "DeviceGroupQuery": "[{\"key\": \"Tags.TestDevice\", \"operator\": \"EQ\", \"value\": \"Yes\"}]",
  "Name": "TestDeviceGroupDeployment",
  "PackageId": "c5e6e9ab-1567-4f99-a026-b558f473afd1",
  "PackageName": "Package1 (1.0.0)",
  "PackageContent": "{\"content\": {\"deviceContent\": {\"properties.desired.softwareConfig\": {\"softwareName\": \"Firmware\", \"version\": \"1.0.0\", \"softwareURL\": \"https://TestPackageUrl\", \"fileName\": \"SW1Package.json\", \"serialNumber\": \"\", \"checksum\": \"16b557cb7b4828cefe71b9a9fdadb534bdce6089\"}}}, \"metrics\": {\"queries\": {\"current\": \"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version = properties.desired.softwareConfig.version AND properties.reported.softwareConfig.status='Success'\", \"applying\": \"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND (properties.reported.softwareConfig.status='Downloading' OR properties.reported.softwareConfig.status='Verifying' OR properties.reported.softwareConfig.status='Applying')\", \"rebooting\": \"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version = properties.desired.softwareConfig.version AND properties.reported.softwareConfig.status='Rebooting'\", \"error\": \"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.status='Error'\", \"rolledback\": \"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.status='RolledBack'\"}}, \"targetCondition\": \"\", \"priority\": 20, \"id\": \"sw1package_json-e406e3ff-3d21-4e37-b45c-d1d40ca5e7fa\"}}\",
    \"Priority\": \"4\",
    \"PackageType\": \"DeviceConfiguration\",
    \"ConfigType\": \"Firmware\"
}
```

## Response

If successful, this method returns 200 Created response code and DeploymentApiModel object in the response body.

## Response Schema

```

{
  "deploymentId": "string",
  "name": "string",
  "createdDateTimeUtc": "2020-10-29T15:57:07.672Z",
  "deviceGroupId": "string",
  "deviceGroupName": "string",
  "deviceGroupQuery": "string",
  "packageContent": "string",
  "packageName": "string",
  "packageId": "string",
  "priority": 0,
  "packageType": 0,
  "configType": "string",
  "metrics": {
    "systemMetrics": {
      "additionalProp1": 0,
      "additionalProp2": 0,
      "additionalProp3": 0
    },
    "customMetrics": {
      "additionalProp1": 0,
      "additionalProp2": 0,
      "additionalProp3": 0
    },
    "deviceStatuses": {
      "additionalProp1": 0,
      "additionalProp2": 0,
      "additionalProp3": 0
    }
  },
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "deviceIds": [
    "string"
  ],
  "isActive": true,
  "isLatest": true,
  "createdDate": "string",
  "modifiedDate": "string",
  "createdBy": "string",
  "modifiedBy": "string"
}

```

## Sample Response

```
{
  "Id": "cb5a32d0-57dd-4ec2-ab64-1c20efbd8b02",
  "Name": "TestDeviceGroupDeployment",
  "CreatedDateTimeUtc": "2020-10-29T09:11:57.8832701Z",
  "DeviceGroupId": "2f411a20-7632-45f0-bf43-5ae449b8727a",
  "DeviceGroupName": "TestDeviceGroup",
  "DeviceGroupQuery": "[{\"key\":\"Tags.TestDevice\", \"operator\":\"EQ\", \"value\":\"Yes\"}]",
  "PackageContent": "{\"content\":{\"deviceContent\":{\"properties.desired.softwareConfig\":
  {\"softwareName\":\"Firmware\", \"version\":\"1.0.0\", \"softwareURL\":\"https://TestPackageUrl\", \"fileName\":
  \"SW1Package.json\", \"serialNumber\":\"\", \"checksum\":\"16b557cb7b4828cefe71b9a9fdadb534bdce6089\"}}, \"metr
  ics\":{\"queries\":{\"current\":\"SELECT deviceId FROM devices WHERE configurations.
  [[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version =
  properties.desired.softwareConfig.version AND
  properties.reported.softwareConfig.status='Success'\", \"applying\":\"SELECT deviceId FROM devices WHERE
  configurations. [[${deployment.id}]].status = 'Applied' AND (
  properties.reported.softwareConfig.status='Downloading' OR
  properties.reported.softwareConfig.status='Verifying' OR
  properties.reported.softwareConfig.status='Applying')\", \"rebooting\":\"SELECT deviceId FROM devices WHERE
  configurations. [[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version =
  properties.desired.softwareConfig.version AND
  properties.reported.softwareConfig.status='Rebooting'\", \"error\":\"SELECT deviceId FROM devices WHERE
  configurations. [[${deployment.id}]].status = 'Applied' AND
  properties.reported.softwareConfig.status='Error'\", \"rolledback\":\"SELECT deviceId FROM devices WHERE
  configurations. [[${deployment.id}]].status = 'Applied' AND
  properties.reported.softwareConfig.status='RolledBack'\"}}, \"targetCondition\":\"\", \"priority\":20, \"id\":\"
  sw1package_json-e406e3ff-3d21-4e37-b45c-d1d40ca5e7fa\"}\",
  "PackageName": "Package1 (1.0.0)",
  "PackageId": "c5e6e9ab-1567-4f99-a026-b558f473afd1",
  "Priority": 4,
  "PackageType": "DeviceConfiguration",
  "ConfigType": "Firmware",
  "Metrics": {
    "SystemMetrics": {
      "appliedCount": 0,
      "targetedCount": 0
    },
    "CustomMetrics": null,
    "DeviceStatuses": null
  },
  "$metadata": {
    "$type": "DevicePropertyList;1",
    "$url": "/v1/deviceproperties"
  },
  "DeviceIds": null,
  "IsActive": true,
  "IsLatest": true,
  "CreatedDate": "2020-10-29T09:11:57+00:00",
  "ModifiedDate": null,
  "CreatedBy": "TestUser",
  "ModifiedBy": null
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>

## Examples

1. Request for Creating Deployment for Devices using DeviceGroup.

```

{
  "DeviceGroupId": "2f411a20-7632-45f0-bf43-5ae449b8727a",
  "DeviceGroupName": "TestDeviceGroup",
  "DeviceGroupQuery": "[{\"key\": \"Tags.TestDevice\", \"operator\": \"EQ\", \"value\": \"Yes\"}]",
  "Name": "TestDeviceGroupDeployment",
  "PackageId": "c5e6e9ab-1567-4f99-a026-b558f473afd1",
  "PackageName": "Package1 (1.0.0)",
  "PackageContent": "{\"content\": {\"deviceContent\": {\"properties.desired.softwareConfig\": {\"softwareName\": \"Firmware\", \"version\": \"1.0.0\", \"softwareURL\": \"https://TestPackageUrl\", \"fileName\": \"SW1Package.json\", \"serialNumber\": \"\", \"checksum\": \"16b557cb7b4828cefe71b9a9fdadb534bdce6089\"}}}, \"metrics\": {\"queries\": {\"current\": \"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version = properties.desired.softwareConfig.version AND properties.reported.softwareConfig.status='Success'\", \"applying\": \"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND (properties.reported.softwareConfig.status='Downloading' OR properties.reported.softwareConfig.status='Verifying' OR properties.reported.softwareConfig.status='Applying')\", \"rebooting\": \"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version = properties.desired.softwareConfig.version AND properties.reported.softwareConfig.status='Rebooting'\", \"error\": \"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.status='Error'\", \"rolledback\": \"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.status='RolledBack'\"}}, \"targetCondition\": \"\", \"priority\": 20, \"id\": \"sw1package_json-e406e3ff-3d21-4e37-b45c-d1d40ca5e7fa\"}}\",
    \"Priority\": \"4\",
    \"PackageType\": \"DeviceConfiguration\",
    \"ConfigType\": \"Firmware\"
}

```

1. Request for Creating Deployment for Devices using Devicelds.

```
{
  "DeviceGroupId": "34b35ac5-837d-4fa4-9ab7-3cdf036a5145",
  "DeviceGroupName": "Default",
  "DeviceGroupQuery": "[]",
  "Name": "TestDeployment",
  "PackageId": "c5e6e9ab-1567-4f99-a026-b558f473afd1",
  "PackageName": "Package1 (1.0.0)",
  "PackageContent": "{\n\"content\":{\n\"deviceContent\":{\n\"properties.desired.softwareConfig\":\n{\n\"softwareName\":\n\"Firmware\", \n\"version\":\n\"1.0.0\", \n\"softwareURL\":\n\"https://TestPackageUrl\", \n\"fileName\":\n\"SW1Package.json\", \n\"serialNumber\":\n\"\", \n\"checksum\":\n\"16b557cb7b4828cefe71b9a9fdadb534bdce6089\" \n}}}, \n\"metrics\":{\n\"queries\":{\n\"current\":\n\"SELECT deviceId FROM devices WHERE configurations.\n[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version =\nproperties.desired.softwareConfig.version AND\nproperties.reported.softwareConfig.status='Success'\", \n\"applying\":\n\"SELECT deviceId FROM devices WHERE\nconfigurations.[[${deployment.id}]].status = 'Applied' AND (\nproperties.reported.softwareConfig.status='Downloading' OR\nproperties.reported.softwareConfig.status='Verifying' OR\nproperties.reported.softwareConfig.status='Applying')\", \n\"rebooting\":\n\"SELECT deviceId FROM devices WHERE\nconfigurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version =\nproperties.desired.softwareConfig.version AND\nproperties.reported.softwareConfig.status='Rebooting'\", \n\"error\":\n\"SELECT deviceId FROM devices WHERE\nconfigurations.[[${deployment.id}]].status = 'Applied' AND\nproperties.reported.softwareConfig.status='Error'\", \n\"rolledback\":\n\"SELECT deviceId FROM devices WHERE\nconfigurations.[[${deployment.id}]].status = 'Applied' AND\nproperties.reported.softwareConfig.status='RolledBack'\", \n}}}, \n\"targetCondition\":\n\"\", \n\"priority\":20, \n\"id\":\n\"sw1package_json-e406e3ff-3d21-4e37-b45c-d1d40ca5e7fa\" \n}}",
    "Priority": "4",
    "PackageType": "DeviceConfiguration",
    "ConfigType": "Firmware",
    "DeviceIds":["TestDevice"]
}
```

#### 1. Request for Creating Deployment for Devices using DeviceIds and no packageContent

```
{
  "DeviceGroupId": "34b35ac5-837d-4fa4-9ab7-3cdf036a5145",
  "DeviceGroupName": "Default",
  "DeviceGroupQuery": "[]",
  "Name": "TestDeployment",
  "PackageId": "c5e6e9ab-1567-4f99-a026-b558f473afd1",
  "Priority": "4",
  "PackageType": "DeviceConfiguration",
  "ConfigType": "Firmware",
  "DeviceIds":["TestDevice"]
}
```



# Get Deployments

Lists the deployments from the storage.

## Permissions

**ReadAll** permission is required to call this api.

## Http Request

GET /iothub-manager/v1/deployments

## Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

## Request Body

NA

## Response

If successful, this method returns DeploymentListApiModel object in the response body.

```
{
  "Items": [
    {
      "Id": "cb5a32d0-57dd-4ec2-ab64-1c20efbd8b02",
      "Name": "TestDeviceGroupDeployment",
      "CreatedDateTimeUtc": "2020-10-29T09:11:57.8832701Z",
      "DeviceGroupId": "2f411a20-7632-45f0-bf43-5ae449b8727a",
      "DeviceGroupName": "TestDeviceGroup",
      "DeviceGroupQuery": "[{\"key\":\"Tags.TestDevice\",\"operator\":\"EQ\",\"value\":\"Yes\"}]",
      "PackageContent": "{\"content\":{\"deviceContent\":{\"properties.desired.softwareConfig\":{\"softwareName\":\"Firmware\",\"version\":\"1.0.0\",\"softwareURL\":\"https://TestPackageUrl\",\"fileName\":\"SW1Package.json\",\"serialNumber\":\"\",\"checksum\":\"16b557cb7b4828cefe71b9a9fdadb534bdce6089\"}},\"metrics\":{\"queries\":{\"current\":\"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version = properties.desired.softwareConfig.version AND properties.reported.softwareConfig.status='Success'\",\"applying\":\"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND ( properties.reported.softwareConfig.status='Downloading' OR properties.reported.softwareConfig.status='Verifying' OR properties.reported.softwareConfig.status='Applying')\",\"rebooting\":\"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version = properties.desired.softwareConfig.version AND properties.reported.softwareConfig.status='Rebooting'\",\"error\":\"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.status='Error'\",\"rolledback\":\"SELECT deviceId FROM devices WHERE configurations.[[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.status='RolledBack'\"}},\"targetCondition\":\"\",\"priority\":20,\"id\":\"sw1package_json-e406e3ff-3d21-4e37-b45c-d1d40ca5e7fa\"}\",
      "PackageName": "Package1 (1.0.0)",
      "PackageId": "c5e6e9ab-1567-4f99-a026-b558f473afd1",
      "Priority": 4,
      "PackageType": "DeviceConfiguration"
```



```

    "PackageType": "DeviceConfiguration",
    "ConfigType": "Firmware",
    "Metrics": {
      "SystemMetrics": {
        "targetedCount": 1,
        "appliedCount": 1
      },
      "CustomMetrics": {},
      "DeviceStatuses": null
    },
    "$metadata": {
      "$type": "DevicePropertyList;1",
      "$url": "/v1/deviceproperties"
    },
    "DeviceIds": null,
    "IsActive": true,
    "IsLatest": true,
    "CreatedDate": "2020-10-29T09:11:57+00:00",
    "ModifiedDate": null,
    "CreatedBy": "TestUser",
    "ModifiedBy": null
  },
  {
    "Id": "5819a276-372c-4b15-a9a9-2d9c8c1053c4",
    "Name": "DeploymentSimulation",
    "CreatedDateTimeUtc": "2020-10-16T09:00:26.2705406Z",
    "DeviceGroupId": "85402f9f-3de2-4b55-bfd4-f7f3ce229270",
    "DeviceGroupName": "SimulationGroup",
    "DeviceGroupQuery": "[{\"key\":\"Tags.Org\",\"operator\":\"EQ\",\"value\":\"3M\"}]",
    "PackageContent": "{\"content\":{\"deviceContent\":{\"properties.desired.softwareConfig\":
    {\"softwareName\":\"Firmware\",\"version\":\"1.0.0\",\"softwareURL\":\"https://TestPackageUrl\",\"fileName\":
    \"SW1Package.json\",\"serialNumber\":\"\",\"checksum\":\"16b557cb7b4828cefe71b9a9fdadb534bdce6089\"}}},\"metr
    ics\":{\"queries\":{\"current\":\"SELECT deviceId FROM devices WHERE configurations.
    [[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version =
    properties.desired.softwareConfig.version AND
    properties.reported.softwareConfig.status='Success'\",\"applying\":\"SELECT deviceId FROM devices WHERE
    configurations. [[${deployment.id}]].status = 'Applied' AND (
    properties.reported.softwareConfig.status='Downloading' OR
    properties.reported.softwareConfig.status='Verifying' OR
    properties.reported.softwareConfig.status='Applying')\"},\"rebooting\":\"SELECT deviceId FROM devices WHERE
    configurations. [[${deployment.id}]].status = 'Applied' AND properties.reported.softwareConfig.version =
    properties.desired.softwareConfig.version AND
    properties.reported.softwareConfig.status='Rebooting'\",\"error\":\"SELECT deviceId FROM devices WHERE
    configurations. [[${deployment.id}]].status = 'Applied' AND
    properties.reported.softwareConfig.status='Error'\",\"rolledback\":\"SELECT deviceId FROM devices WHERE
    configurations. [[${deployment.id}]].status = 'Applied' AND
    properties.reported.softwareConfig.status='RolledBack'\"}}},\"targetCondition\":\"\",\"priority\":20,\"id\":\"
    sw1package_json-e406e3ff-3d21-4e37-b45c-d1d40ca5e7fa\"}\",
    "PackageName": "Package1 (1.0.0)",
    "PackageId": "c5e6e9ab-1567-4f99-a026-b558f473afd1",
    "Priority": 4,
    "PackageType": "DeviceConfiguration",
    "ConfigType": "Firmware",
    "Metrics": {
      "SystemMetrics": {
        "targetedCount": 1,
        "appliedCount": 1,
        "reportedSuccessfulCount": 1,
        "reportedFailedCount": 0,
        "pendingCount": 0
      },
      "CustomMetrics": {
        "current": 1
      },
      "DeviceStatuses": {
        "SimulatedDevice": "Succeeded"
      }
    }
  }
}

```

```
    }  
  },  
  "$metadata": {  
    "$type": "DevicePropertyList;1",  
    "$url": "/v1/deviceproperties"  
  },  
  "DeviceIds": null,  
  "IsActive": false,  
  "IsLatest": false,  
  "CreatedDate": "2020-10-16T08:49:03+00:00",  
  "ModifiedDate": "2020-10-16T11:14:03+00:00",  
  "CreatedBy": "TestUser",  
  "ModifiedBy": "TestUser"  
}  
],  
"$metadata": {  
  "$type": "DevicePropertyList;1",  
  "$url": "/v1/deviceproperties"  
}  
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



## Inactivate Deployment

Removes the Device Configuration from IoT Hub and marks the deployment as either inactivated or deleted.

Note:

Inactivated Deployments are available for **Reactivating** Deleted Deployments are stored for audit.

### Permissions

**DeleteDeployments** permission is required to call this api.

### Http Request

```
DELETE /iothub-manager/v1/deployments/{id}?isDelete={isDelete}
```

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

### Query Params

NAME	VALUE
id	Deployment Id
isDelete	Default value is <b>true</b> , which will delete the deployment. If value id <b>false</b> , which will result in Inactivating a deployment.

### Request Body

NA

### Response

If successful, this method returns HTTP response code 200.

### Examples

1. Inactivating a Deployment.

```
DELETE /iothub-manager/v1/deployments/a603893d-3ffd-46c4-ab8c-5d8147d1cfa4?isDelete=false
```

1. Deleting a Deployment. `HTTP DELETE /iothub-manager/v1/deployments/a603893d-3ffd-46c4-ab8c-5d8147d1cfa4 ###`  
Security Type: OpenID Connect  
Flow: implicit  
Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



# Reactivate Deployment

Creates a Device Configuration using the data from the Inactivated deployment targetting the same device group.

Note:

Inactivated Deployments are available for **Reactivating**

## Permissions

**CreateDeployments** permission is required to call this api.

## Http Request

```
PUT /iothub-manager/v1/deployments/{id}
```

## Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

## Query Params

NAME	VALUE
id	Inactivated Deployment Id

## Request Body

NA

## Response

If successful, this method returns HTTP response code 200.

## Security

Type: OpenID Connect  
Flow: implicit  
Authorization URL: <https://login.microsoftonline.com/crsctestab2c.onmicrosoft.com>

## Examples

- 1. Reactivating a Deployment.

```
PUT /iothub-manager/v1/deployments/a603893d-3ffd-46c4-ab8c-5d8147d1cfa4
```



# Get Deployment Impacted Devices

Lists the devices which are affected by the Deployment.

## Permissions

**ReadAll** permission is required to call this api.

## Http Request

```
POST /iothub-manager/v1/deployments/{id}?isLatest={isLatest}
```

## Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

## Query Params

NAME	VALUE
id	Deployment Id
isLatest	<b>true</b> will retrieve the data of Devices using the query from request body <b>false</b> will retrieve the data from devices from storage, since the deployment is not currently impacting the device group.

## Request Body

string representing the query to fetch the devices.

## Response

If successful, this method returns DeviceListApiModel in response body

## Response Schema

```
{
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "continuationToken": "string",
  "items": [
    {
      "eTag": "string",
      "id": "string",
      "c2DMessageCount": 0,
      "lastActivity": "2020-10-30T02:56:45.592Z",
      "connected": true,
      "enabled": true,
      "lastStatusUpdated": "2020-10-30T02:56:45.592Z",
      "ioTHubHostName": "string",
      "metadata": {
        "additionalProp1": "string",
```

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```

    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "properties": {
    "reported": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "desired": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "deviceId": "string",
    "moduleId": "string"
  },
  "tags": {
    "additionalProp1": [
      null
    ],
    "additionalProp2": [
      null
    ],
    "additionalProp3": [
      null
    ]
  },
  "isEdgeDevice": true,
  "isSimulated": true,
  "authentication": {
    "primaryKey": "string",
    "secondaryKey": "string",
    "primaryThumbprint": "string",
    "secondaryThumbprint": "string",
    "authenticationType": 0
  }
}
]
}

```

Sample Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "ETag": "AAAAAAAAAAc=|AAAAAAAAAAc=",
      "Id": "TestDevice",
      "C2DMessageCount": 0,
      "LastActivity": "0001-01-01T00:00:00Z",
      "Connected": false,
      "Enabled": true,
      "LastStatusUpdated": "0001-01-01T00:00:00Z",
      "IoTHubHostName": "iothub-209d7f79.azure-devices.net",
      "$metadata": {
        "$type": "Device;1",
        "$uri": "/v1/devices/TestDevice",
        "$twin_uri": "/v1/devices/TestDevice/twin"
      },
      "Properties": {
        "Reported": {},
        "Desired": {
          "softwareConfig": {
            "softwareName": "Firmware",
            "version": "1.0.0",
            "softwareURL": "https://TestPackageUrl",
            "fileName": "SW1Package.json",
            "serialNumber": "",
            "checksum": "16b557cb7b4828cefe71b9a9fdadb534bdce6089"
          }
        },
        "DeviceId": "",
        "ModuleId": ""
      },
      "Tags": {
        "TestDevice": "Yes"
      },
      "IsEdgeDevice": true,
      "IsSimulated": false,
      "Authentication": {
        "AuthenticationType": 0
      }
    }
  ]
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>

## Examples

1. Get Impacted devices for the current active deployment.

```
POST iothubmanager/v1/deployments/devices/cb5a32d0-57dd-4ec2-ab64-1c20efbd8b02?isLatest=true
```

## Request Body

```
"deviceId IN ['TestDevice']"
```

## Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "ETag": "AAAAAAAAAAc=|\\"0000b5a5-0000-0300-0000-5f9a875d0000\\"",
      "Id": "TestDevice",
      "C2DMessageCount": 0,
      "LastActivity": "0001-01-01T00:00:00Z",
      "Connected": false,
      "Enabled": true,
      "LastStatusUpdated": "0001-01-01T00:00:00Z",
      "IoTHubHostName": "iothub-209d7f79.azure-devices.net",
      "$metadata": {
        "$type": "Device;1",
        "$uri": "/v1/devices/TestDevice",
        "$twin_uri": "/v1/devices/TestDevice/twin"
      },
      "Properties": {
        "Reported": {},
        "Desired": {
          "softwareConfig": {
            "softwareName": "Firmware",
            "version": "1.0.0",
            "softwareURL": "https://TestPackageUrl",
            "fileName": "SW1Package.json",
            "serialNumber": "",
            "checksum": "16b557cb7b4828cefe71b9a9fdadb534bdce6089"
          }
        },
        "DeviceId": "",
        "ModuleId": ""
      },
      "Tags": {
        "TestDevice": "Yes"
      },
      "IsEdgeDevice": true,
      "IsSimulated": false,
      "Authentication": {
        "AuthenticationType": 0
      }
    }
  ]
}
```

1. Get Impacted devices for the previously active deployment.

```
iothubmanager/v1/deployments/devices/a603893d-3ffd-46c4-ab8c-5d8147d1cfa4?isLatest=false
```

## Request Body

```
"deviceId IN ['TestDevice']"
```

## Response



```

{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "ETag": "AAAAAAAAAAc=|\\"0000b5a5-0000-0300-0000-5f9a875d0000\\"",
      "Id": "TestDevice",
      "C2DMessageCount": 0,
      "LastActivity": "0001-01-01T00:00:00Z",
      "Connected": false,
      "Enabled": true,
      "LastStatusUpdated": "0001-01-01T00:00:00Z",
      "IoTHubHostName": "iothub-209d7f79.azure-devices.net",
      "$metadata": {
        "$type": "Device;1",
        "$uri": "/v1/devices/TestDevice",
        "$twin_uri": "/v1/devices/TestDevice/twin"
      },
      "Properties": {
        "Reported": {},
        "Desired": {
          "softwareConfig": {
            "softwareName": "Firmware",
            "version": "1.0.0",
            "softwareURL": "https://TestPackageUrl",
            "fileName": "SW1Package.json",
            "serialNumber": "",
            "checksum": "16b557cb7b4828cefe71b9a9fdadb534bdce6089"
          }
        },
        "DeviceId": "",
        "ModuleId": ""
      },
      "Tags": {
        "TestDevice": "Yes"
      },
      "IsEdgeDevice": true,
      "IsSimulated": false,
      "Authentication": {
        "AuthenticationType": 0
      }
    }
  ]
}

```



# Get Deployment Impacted Modules

Lists the Modules which are affected by the Deployment.

## Permissions

**ReadAll** permission is required to call this api.

## Http Request

```
POST /iothub-manager/v1/deployments/Modules/{id}?isLatest={isLatest}
```

## Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

## Query Params

NAME	VALUE
id	Deployment Id
isLatest	<b>true</b> will retrieve the data of Modules using the query from request body <b>false</b> will retrieve the data from Modules from storage, since the deployment is not currently impacting the device group.

## Request Body

string representing the query to fetch the devices.

## Response

If successful, this method returns TwinPropertiesListApiModel in response body

## Response Schema

```
{
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "continuationToken": "string",
  "items": [
    {
      "reported": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      },
      "desired": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      },
      "deviceId": "string",
      "moduleId": "string"
    }
  ]
}
```

Sample Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "Reported": {},
      "Desired": {
        "schemaVersion": "2.0",
        "runtime": {
          "type": "docker",
          "settings": {
            "loggingOptions": "",
            "minDockerVersion": "v1.25"
          }
        },
        "systemModules": {
          "edgeAgent": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-agent:1.0",
              "createOptions": "{}"
            }
          },
          "edgeHub": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-hub:1.0",
              "createOptions": "{}"
            },
            "status": "running",
            "restartPolicy": "always"
          }
        },
        "modules": {}
      },
      "DeviceId": "Test0903",
      "ModuleId": "$edgeAgent"
    }
  ]
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>

## Examples

1. Get Impacted Modules for the current active deployment.

```
POST iothubmanager/v1/deployments/modules/5253c096-b56b-49d2-b230-61b7fcd0f0aa?isLatest=true
```

## Request Body

```
"deviceId IN ['TestDevice'] AND moduleId = '$edgeAgent'"
```

## Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "Reported": {},
      "Desired": {
        "schemaVersion": "2.0",
        "runtime": {
          "type": "docker",
          "settings": {
            "loggingOptions": "",
            "minDockerVersion": "v1.25"
          }
        },
        "systemModules": {
          "edgeAgent": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-agent:1.0",
              "createOptions": "{}"
            }
          },
          "edgeHub": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-hub:1.0",
              "createOptions": "{}"
            },
            "status": "running",
            "restartPolicy": "always"
          }
        },
        "modules": {}
      },
      "DeviceId": "TestDevice",
      "ModuleId": "$edgeAgent"
    }
  ]
}
```

1. Get Impacted devices for the previously active deployment.

```
POST /iothubmanager/v1/deployments/modules/5253c096-b56b-49d2-b230-61b7fcd0f0aa?isLatest=false
```

### Request Body

```
"deviceId IN ['TestDevice'] AND moduleId = '$edgeAgent'"
```

### Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "Reported": {},
      "Desired": {
        "schemaVersion": "2.0",
        "runtime": {
          "type": "docker",
          "settings": {
            "loggingOptions": "",
            "minDockerVersion": "v1.25"
          }
        },
        "systemModules": {
          "edgeAgent": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-agent:1.0",
              "createOptions": "{}"
            }
          },
          "edgeHub": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-hub:1.0",
              "createOptions": "{}"
            },
            "status": "running",
            "restartPolicy": "always"
          }
        },
        "modules": {}
      },
      "DeviceId": "TestDevice",
      "ModuleId": "$edgeAgent"
    }
  ]
}
```



# Get Deployment Report

Provides the report of the devices which are impacted by deployment in byte array.

## Permissions

**ReadAll** permission is required to call this api.

## Http Request

```
POST /iothub-manager/v1/deployments/Report/{id}?isLatest={isLatest}
```

## Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json

## Query Params

NAME	VALUE
id	Deployment Id
isLatest	<b>true</b> will retrieve the deployment data from IoTHub <b>false</b> will retrieve the data from storage, since the deployment is not currently impacting the device group.

## Request Body

NA

## Response

If successful, this method returns byte array data.

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsctestab2c.onmicrosoft.com>



# Device Properties

Service: IoT Hub Manager

## Operations

OPERATION	DESCRIPTION
<a href="#">Get Device Properties</a>	lists the device properties from DeviceProperties Cache which contains the data from Tags and Reported Properties of the Devices.





## Get Device Properties

API Method that lists the device properties from DeviceProperties Cache which contains the data from Tags and Reported Properties of the Devices.

### Permissions

ReadAll

### Http Request

GET /iothubmanager/v1/status

### Request headers

HEADER	VALUE
Content-Type	application/json

### Request Body

N/A

### Response

If successful, this method returns **DevicePropertiesApiModel** object in the response body.

### Response Schema

```
{
  "items": [
    "string"
  ],
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

### Sample Response

```
{
  "Items": [
    "Tags.TestDevice",
    "Tags.Org",
    "Properties.Reported.Protocol",
    "Properties.Reported.SupportedMethods",
    "Properties.Reported.DeviceMethodStatus",
    "Properties.Reported.FirmwareUpdateStatus",
    "Properties.Reported.firmware.currentFwVersion",
    "Properties.Reported.firmware.status",
    "Properties.Reported.firmware.lastFwUpdateStartTime",
    "Properties.Reported.firmware.lastFwUpdateEndTime",
    "Properties.Reported.softwareConfig.version",
    "Properties.Reported.softwareConfig.status"
  ],
  "$metadata": {
    "$type": "DevicePropertyList;1",
    "$url": "/v1/deviceproperties"
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsctestab2c.onmicrosoft.com>



# Devices

Service: IoT Hub Manager

## Operations

OPERATION	DESCRIPTION
<a href="#">Get Devices.</a>	Lists the Devices based on the query conditions.
<a href="#">Query Devices.</a>	Lists the Devices based on the query conditions from request body.
<a href="#">Get Device.</a>	Retrives the Device data based on the DeviceId.
<a href="#">Get Device Deployment History.</a>	Retrieves the DeviceTwins properties from the Deployment Impacted Devices collection for the device.
<a href="#">Create Device.</a>	Creates an IoT or Edge Device in IoT Hub.
<a href="#">Update Device.</a>	Updates the device data.
<a href="#">Delete Device</a>	Deletes the device.
<a href="#">Invoke Device Method.</a>	Invokes a direct method on Device using a payload
<a href="#">Send CloudToDevice Message.</a>	Sends messages to Device from IoT Hub to trigger actions.
<a href="#">Get Device Files.</a>	Lists the file urls uploaded by the Device.



## Get Devices

Lists the Devices based on the query conditions.

### Permissions

**ReadAll** permission is required to call this api.

### Http Request

```
GET /iothub-manager/v1/devices?query={query}
```

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json
x-ms-continuation	Continuation Token from response of previous request,if request is called to get next dataset.

### Query Params

NAME	VALUE
query	URL encoded string from Conditions to query devices.

### Request Body

NA

### Response

If successful, this method returns DeviceListApiModel object in the response body.

### Response Schema

```

{
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "continuationToken": "string",
  "items": [
    {
      "eTag": "string",
      "id": "string",
      "c2DMessageCount": 0,
      "lastActivity": "2020-10-30T04:20:41.681Z",
      "connected": true,
      "enabled": true,
      "lastStatusUpdated": "2020-10-30T04:20:41.681Z",
      "ioTHubHostName": "string",
      "metadata": {
        "additionalProp1": "string",
        "additionalProp2": "string",
        "additionalProp3": "string"
      },
      "properties": {
        "reported": {
          "additionalProp1": [
            null
          ],
          "additionalProp2": [
            null
          ],
          "additionalProp3": [
            null
          ]
        },
        "desired": {
          "additionalProp1": [
            null
          ],
          "additionalProp2": [
            null
          ],
          "additionalProp3": [
            null
          ]
        },
        "deviceId": "string",
        "moduleId": "string"
      },
      "tags": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      },
      "isEdgeDevice": true,
      "isSimulated": true,
      "authentication": {
        "primaryKey": "string",
        "secondaryKey": "string",
        "primaryThumbprint": "string",
        "secondaryThumbprint": "string",
        "authenticationType": 0
      }
    }
  ]
}

```

Sample Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "ETag": "AAAAAAAAAAc=|AAAAAAAAAAc=",
      "Id": "TestDevice",
      "C2DMessageCount": 1,
      "LastActivity": "0001-01-01T00:00:00Z",
      "Connected": false,
      "Enabled": true,
      "LastStatusUpdated": "0001-01-01T00:00:00Z",
      "IoTHubHostName": "iothub-209d7f79.azure-devices.net",
      "$metadata": {
        "$type": "Device;1",
        "$uri": "/v1/devices/TestDevice",
        "$twin_uri": "/v1/devices/TestDevice/twin"
      },
      "Properties": {
        "Reported": {},
        "Desired": {
          "softwareConfig": {
            "softwareName": "Firmware",
            "version": "1.0.0",
            "softwareURL": "https://TestPackageUrl",
            "fileName": "SW1Package.json",
            "serialNumber": "",
            "checksum": "16b557cb7b4828cefe71b9a9fdadb534bdce6089"
          }
        },
        "DeviceId": "",
        "ModuleId": ""
      },
      "Tags": {
        "TestDevice": "Yes"
      },
      "IsEdgeDevice": true,
      "IsSimulated": false,
      "Authentication": {
        "AuthenticationType": 0
      }
    }
  ]
}
```

Security

Type: OpenID Connect  
Flow: implicit  
Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>

Examples

- 1. Get Devices for a Device Group

GET /iothubmanager/v1/devices?query=%5B%7B%22key%22%3A%22Tags.TestDevice%22%2C%22operator%22%3A%22EQ%22%2C%22value%22%3A%22Yes%22%7D%5D

Query String Data

CONDITIONS	ENCODED STRING
[{"key":"Tags.TestDevice","operator":"EQ","value":"Yes"}]	%5B%7B%22key%22%3A%22Tags.TestDevice%22%2C%22operator%22%3A%22EQ%22%2C%22value%22%3A%22Yes%22%7D%5D

Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "ETag": "AAAAAAAAAAc=|AAAAAAAAAAc=",
      "Id": "TestDevice",
      "C2DMessageCount": 1,
      "LastActivity": "0001-01-01T00:00:00Z",
      "Connected": false,
      "Enabled": true,
      "LastStatusUpdated": "0001-01-01T00:00:00Z",
      "IoTHubHostName": "iothub-209d7f79.azure-devices.net",
      "$metadata": {
        "$type": "Device;1",
        "$uri": "/v1/devices/TestDevice",
        "$twin_uri": "/v1/devices/TestDevice/twin"
      },
      "Properties": {
        "Reported": {},
        "Desired": {
          "softwareConfig": {
            "softwareName": "Firmware",
            "version": "1.0.0",
            "softwareURL": "https://TestPackageUrl",
            "fileName": "SW1Package.json",
            "serialNumber": "",
            "checksum": "16b557cb7b4828cefe71b9a9fdadb534bdce6089"
          }
        },
        "DeviceId": "",
        "ModuleId": ""
      },
      "Tags": {
        "TestDevice": "Yes"
      },
      "IsEdgeDevice": true,
      "IsSimulated": false,
      "Authentication": {
        "AuthenticationType": 0
      }
    }
  ]
}
```



## Query Devices

Lists the Devices based on the query conditions from request body.

### Permissions

**ReadAll** permission is required to call this api.

### Http Request

POST /iothub-manager/v1/devices/query
---------------------------------------

### Request headers

HEADER	VALUE
Authorization	Bearer {token}. Required.
Content-Type	application/json
x-ms-continuation	Continuation Token from response of previous request,if request is called to get next dataset.

### Request Body

JSON serialized string representing the conditions to fetch the devices.

### Response

If successful, this method returns DeviceListApiModel object in the response body.

### Response Schema



```

{
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "continuationToken": "string",
  "items": [
    {
      "eTag": "string",
      "id": "string",
      "c2DMessageCount": 0,
      "lastActivity": "2020-10-30T04:20:41.681Z",
      "connected": true,
      "enabled": true,
      "lastStatusUpdated": "2020-10-30T04:20:41.681Z",
      "ioTHubHostName": "string",
      "metadata": {
        "additionalProp1": "string",
        "additionalProp2": "string",
        "additionalProp3": "string"
      },
      "properties": {
        "reported": {
          "additionalProp1": [
            null
          ],
          "additionalProp2": [
            null
          ],
          "additionalProp3": [
            null
          ]
        },
        "desired": {
          "additionalProp1": [
            null
          ],
          "additionalProp2": [
            null
          ],
          "additionalProp3": [
            null
          ]
        },
        "deviceId": "string",
        "moduleId": "string"
      },
      "tags": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      },
      "isEdgeDevice": true,
      "isSimulated": true,
      "authentication": {
        "primaryKey": "string",
        "secondaryKey": "string",
        "primaryThumbprint": "string",
        "secondaryThumbprint": "string",
        "authenticationType": 0
      }
    }
  ]
}

```

Sample Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "ETag": "AAAAAAAAAAc=|AAAAAAAAAAc=",
      "Id": "TestDevice",
      "C2DMessageCount": 1,
      "LastActivity": "0001-01-01T00:00:00Z",
      "Connected": false,
      "Enabled": true,
      "LastStatusUpdated": "0001-01-01T00:00:00Z",
      "IoTHubHostName": "iothub-209d7f79.azure-devices.net",
      "$metadata": {
        "$type": "Device;1",
        "$uri": "/v1/devices/TestDevice",
        "$twin_uri": "/v1/devices/TestDevice/twin"
      },
      "Properties": {
        "Reported": {},
        "Desired": {
          "softwareConfig": {
            "softwareName": "Firmware",
            "version": "1.0.0",
            "softwareURL": "https://TestPackageUrl",
            "fileName": "SW1Package.json",
            "serialNumber": "",
            "checksum": "16b557cb7b4828cefe71b9a9fdadb534bdce6089"
          }
        },
        "DeviceId": "",
        "ModuleId": ""
      },
      "Tags": {
        "TestDevice": "Yes"
      },
      "IsEdgeDevice": true,
      "IsSimulated": false,
      "Authentication": {
        "AuthenticationType": 0
      }
    }
  ]
}
```

Security

Type: OpenID Connect  
Flow: implicit  
Authorization URL: <https://login.microsoftonline.com/crsctestab2c.onmicrosoft.com>

Examples

- 1. Get Devices based on Device Group Conditions

POST /iothub-manager/v1/devices/query

Request Body

"[{\"key\": \"Tags.TestDevice\", \"operator\": \"EQ\", \"value\": \"Yes\"}]\"

Reference: Device Group Conditions as Request body.

CONDITIONS	JSON SERIALIZED DATA
[{"key": "Tags.TestDevice", "operator": "EQ", "value": "Yes"}]	[{"key\\": \"Tags.TestDevice\\", \"operator\\\": \"EQ\\", \"value\\\": \"Yes\\\"}]

```

### Response
```json
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "ETag": "AAAAAAAAAAc=|AAAAAAAAAAc=",
      "Id": "TestDevice",
      "C2DMessageCount": 0,
      "LastActivity": "0001-01-01T00:00:00Z",
      "Connected": false,
      "Enabled": true,
      "LastStatusUpdated": "0001-01-01T00:00:00Z",
      "IoTHubHostName": "iothub-209d7f79.azure-devices.net",
      "$metadata": {
        "$type": "Device;1",
        "$uri": "/v1/devices/TestDevice",
        "$twin_uri": "/v1/devices/TestDevice/twin"
      },
      "Properties": {
        "Reported": {},
        "Desired": {
          "softwareConfig": {
            "softwareName": "Firmware",
            "version": "1.0.0",
            "softwareURL": "https://testpackageurl",
            "fileName": "SW1Package.json",
            "serialNumber": "",
            "checksum": "16b557cb7b4828cefe71b9a9fdadb534bdce6089"
          }
        },
        "DeviceId": "",
        "ModuleId": ""
      },
      "Tags": {
        "TestDevice": "Yes"
      },
      "IsEdgeDevice": true,
      "IsSimulated": false,
      "Authentication": {
        "AuthenticationType": 0
      }
    }
  ]
}
```

```

#### 1. Get Devices based on DeviceIds

```
POST /iothub-manager/v1/devices/query
```

#### Request Body

```
"deviceId IN ['TestDevice']"
```

#### Response

```

{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "ETag": "AAAAAAAAAAI=|AAAAAAAAAAI=",
      "Id": "TestDevice",
      "C2DMessageCount": 0,
      "LastActivity": "0001-01-01T00:00:00Z",
      "Connected": false,
      "Enabled": true,
      "LastStatusUpdated": "0001-01-01T00:00:00Z",
      "IoTHubHostName": "iothub-233a1ca2.azure-devices.net",
      "$metadata": {
        "$type": "Device;1",
        "$uri": "/v1/devices/TestDevice",
        "$twin_uri": "/v1/devices/TestDevice/twin"
      },
      "Properties": {
        "Reported": {},
        "Desired": {
          "softwareConfig": {
            "softwareName": "Firmware",
            "version": "1.0.0",
            "softwareURL": "https://testpackageurl",
            "fileName": "SW1Package.json",
            "serialNumber": "",
            "checksum": "16b557cb7b4828cefe71b9a9fdadb534bdce6089"
          }
        },
        "DeviceId": "",
        "ModuleId": ""
      },
      "Tags": {},
      "IsEdgeDevice": false,
      "IsSimulated": false,
      "Authentication": {
        "AuthenticationType": 0
      }
    }
  ]
}

```



# Get Device

Retrives the Device data based on the DeviceId.

## Permissions

**ReadAll** permission is required to call this api.

## Http Request

GET /iothub-manager/v1/devices/{id}

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Query Params

| NAME | VALUE     |
|------|-----------|
| id   | Device Id |

## Request Body

NA

## Response

If successful, this method returns **DeviceRegistryApiModel** object in the response body.

## Response Schema

```

{
  "eTag": "string",
  "id": "string",
  "c2DMessageCount": 0,
  "lastActivity": "2020-10-30T05:16:15.047Z",
  "connected": true,
  "enabled": true,
  "lastStatusUpdated": "2020-10-30T05:16:15.047Z",
  "ioTHubHostName": "string",
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "properties": {
    "reported": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "desired": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "deviceId": "string",
    "moduleId": "string"
  },
  "tags": {
    "additionalProp1": [
      null
    ],
    "additionalProp2": [
      null
    ],
    "additionalProp3": [
      null
    ]
  },
  "isEdgeDevice": true,
  "isSimulated": true,
  "authentication": {
    "primaryKey": "string",
    "secondaryKey": "string",
    "primaryThumbprint": "string",
    "secondaryThumbprint": "string",
    "authenticationType": 0
  }
}

```

Sample Response

```
{
  "ETag": "\"NTU4MTc1Mjcw\"|AAAAAAAAAAc=",
  "Id": "TestDevice",
  "C2DMessageCount": 0,
  "LastActivity": "0001-01-01T00:00:00Z",
  "Connected": false,
  "Enabled": true,
  "LastStatusUpdated": "0001-01-01T00:00:00Z",
  "IoTHubHostName": "iothub-209d7f79.azure-devices.net",
  "$metadata": {
    "$type": "Device;1",
    "$uri": "/v1/devices/TestDevice",
    "$twin_uri": "/v1/devices/TestDevice/twin"
  },
  "Properties": {
    "Reported": {},
    "Desired": {
      "softwareConfig": {
        "softwareName": "Firmware",
        "version": "1.0.0",
        "softwareURL": "https://testpackageurl",
        "fileName": "SW1Package.json",
        "serialNumber": "",
        "checksum": "16b557cb7b4828cefe71b9a9fdadb534bdce6089"
      }
    },
    "DeviceId": "",
    "ModuleId": ""
  },
  "Tags": {
    "TestDevice": "Yes"
  },
  "IsEdgeDevice": true,
  "IsSimulated": false,
  "Authentication": {
    "PrimaryKey": "raNhoHDRAWE9w7VwiSEitlc2CBNJUwhN/d/96AIJB84=",
    "SecondaryKey": "5OWFNATivex9vTIbBuSQm99QNZ+jWwkIGEjQrajFIK0=",
    "AuthenticationType": 0
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>

## Example

1. Get Device Details using DeviceId

```
GET iothubmanager/v1/Devices/TestDevice
```

## Response

```
{
  "ETag": "\"NTU4MTc1Mjcw\"|AAAAAAAAAAc=",
  "Id": "TestDevice",
  "C2DMessageCount": 0,
  "LastActivity": "0001-01-01T00:00:00Z",
  "Connected": false,
  "Enabled": true,
  "LastStatusUpdated": "0001-01-01T00:00:00Z",
  "IoTHubHostName": "iothub-209d7f79.azure-devices.net",
  "$metadata": {
    "$type": "Device;1",
    "$uri": "/v1/devices/TestDevice",
    "$twin_uri": "/v1/devices/TestDevice/twin"
  },
  "Properties": {
    "Reported": {},
    "Desired": {
      "softwareConfig": {
        "softwareName": "Firmware",
        "version": "1.0.0",
        "softwareURL": "https://testpackageurl",
        "fileName": "SW1Package.json",
        "serialNumber": "",
        "checksum": "16b557cb7b4828cefe71b9a9fdadb534bdce6089"
      }
    },
    "DeviceId": "",
    "ModuleId": ""
  },
  "Tags": {
    "TestDevice": "Yes"
  },
  "IsEdgeDevice": true,
  "IsSimulated": false,
  "Authentication": {
    "PrimaryKey": "raNhoHDRAWE9w7VwiSEitlc2CBNJUwhN/d/96AIJB84=",
    "SecondaryKey": "5OWFNATivex9vTIbBuSQm99QNZ+jWwkIGEjQrajFIK0=",
    "AuthenticationType": 0
  }
}
```





## Get Device Deployment History

Retrieves the DeviceTwins properties from the Deployment Impacted Devices collection for the device.

### Permissions

**ReadAll** permission is required to call this api.

### Http Request

```
GET /iothub-manager/v1/devices/deploymentHistory/{id}
```

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Query Params

| NAME | VALUE     |
|------|-----------|
| id   | Device Id |

### Request Body

NA

### Response

If successful, this method returns **TwinPropertiesListApiModel** object in the response body.

### Response Schema

```
{
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "continuationToken": "string",
  "items": [
    {
      "reported": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      },
      "desired": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      },
      "deviceId": "string",
      "moduleId": "string"
    }
  ]
}
```

Sample Response

```

{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "Reported": {
        "firmware": {
          "currentFwVersion": "3.0.2",
          "status": "Current",
          "lastFwUpdateStartTime": "2020-09-16T16:30:21.5586691Z",
          "lastFwUpdateEndTime": "2020-09-16T16:30:22.5586691Z"
        }
      },
      "Desired": {
        "softwareConfig": {
          "softwareName": "Firmware",
          "version": "3.0.0",
          "softwareURL": "https://testpackageurl",
          "fileName": "SW2Package.json",
          "serialNumber": "",
          "checksum": "b01e454d79de5b07a3fe41ae30f77193f02e0e47"
        }
      },
      "DeviceId": "TestDevice"
    },
    {
      "Reported": {
        "firmware": {
          "currentFwVersion": "3.0.0",
          "status": "Current",
          "lastFwUpdateStartTime": "2020-09-16T15:20:21.5586691Z",
          "lastFwUpdateEndTime": "2020-09-16T15:20:22.5586691Z"
        }
      },
      "Desired": {
        "softwareConfig": {
          "softwareName": "Firmware",
          "version": "3.0.0",
          "softwareURL": "https://testpackageurl",
          "fileName": "SW2Package.json",
          "serialNumber": "",
          "checksum": "b01e454d79de5b07a3fe41ae30f77193f02e0e47"
        }
      },
      "DeviceId": "TestDevice"
    }
  ]
}

```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>

## Example

1. Get Deployment History for a DeviceId

```
GET iothubmanager/v1/Devices/deploymenthistory/TestDevice
```

## Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "Reported": {
        "firmware": {
          "currentFwVersion": "3.0.2",
          "status": "Current",
          "lastFwUpdateStartTime": "2020-09-16T16:30:21.5586691Z",
          "lastFwUpdateEndTime": "2020-09-16T16:30:22.5586691Z"
        }
      },
      "Desired": {
        "softwareConfig": {
          "softwareName": "Firmware",
          "version": "3.0.0",
          "softwareURL": "https://testpackageurl",
          "fileName": "SW2Package.json",
          "serialNumber": "",
          "checksum": "b01e454d79de5b07a3fe41ae30f77193f02e0e47"
        }
      },
      "DeviceId": "TestDevice"
    },
    {
      "Reported": {
        "firmware": {
          "currentFwVersion": "3.0.0",
          "status": "Current",
          "lastFwUpdateStartTime": "2020-09-16T15:20:21.5586691Z",
          "lastFwUpdateEndTime": "2020-09-16T15:20:22.5586691Z"
        }
      },
      "Desired": {
        "softwareConfig": {
          "softwareName": "Firmware",
          "version": "3.0.0",
          "softwareURL": "https://testpackageurl",
          "fileName": "SW2Package.json",
          "serialNumber": "",
          "checksum": "b01e454d79de5b07a3fe41ae30f77193f02e0e47"
        }
      },
      "DeviceId": "TestDevice"
    }
  ]
}
```



## Create Device

Creates an IoT or Edge Device in IoT Hub.

### Permissions

**CreateDevices** permission is required to call this api.

### Http Request

```
POST /iothub-manager/v1/devices
```

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Request Schema

```

{
  "eTag": "string",
  "id": "string",
  "c2DMessageCount": 0,
  "lastActivity": "2020-10-30T05:41:54.391Z",
  "connected": true,
  "enabled": true,
  "lastStatusUpdated": "2020-10-30T05:41:54.391Z",
  "ioTHubHostName": "string",
  "properties": {
    "reported": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "desired": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "deviceId": "string",
    "moduleId": "string"
  },
  "tags": {
    "additionalProp1": [
      null
    ],
    "additionalProp2": [
      null
    ],
    "additionalProp3": [
      null
    ]
  },
  "isEdgeDevice": true,
  "isSimulated": true,
  "authentication": {
    "primaryKey": "string",
    "secondaryKey": "string",
    "primaryThumbprint": "string",
    "secondaryThumbprint": "string",
    "authenticationType": 0
  }
}

```

## Request Body

In the request body, supply a JSON representation of DeviceRegistryApiModel object.

## Response

If successful, this method returns **DeviceRegistryApiModel** object in the response body.

## Response Schema

```
{
  "eTag": "string",
  "id": "string",
  "c2DMessageCount": 0,
  "lastActivity": "2020-10-30T05:41:54.391Z",
  "connected": true,
  "enabled": true,
  "lastStatusUpdated": "2020-10-30T05:41:54.391Z",
  "ioTHubHostName": "string",
  "properties": {
    "reported": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "desired": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "deviceId": "string",
    "moduleId": "string"
  },
  "tags": {
    "additionalProp1": [
      null
    ],
    "additionalProp2": [
      null
    ],
    "additionalProp3": [
      null
    ]
  },
  "isEdgeDevice": true,
  "isSimulated": true,
  "authentication": {
    "primaryKey": "string",
    "secondaryKey": "string",
    "primaryThumbprint": "string",
    "secondaryThumbprint": "string",
    "authenticationType": 0
  }
}
```

## Sample Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "ETag": "AAAAAAAAAYc=|AAAAAAAAAYc=",
      "Id": "TestDevice",
      "C2DMessageCount": 0,
      "LastActivity": "0001-01-01T00:00:00Z",
      "Connected": false,
      "Enabled": true,
      "LastStatusUpdated": "0001-01-01T00:00:00Z",
      "IoTHubHostName": "iothub-233a1ca2.azure-devices.net",
      "$metadata": {
        "$type": "Device;1",
        "$uri": "/v1/devices/TestDevice",
        "$twin_uri": "/v1/devices/TestDevice/twin"
      },
      "Properties": {
        "Reported": {},
        "Desired": {
          "softwareConfig": {
            "softwareName": "Firmware",
            "version": "1.0.0",
            "softwareURL": "https://testpackageurl",
            "fileName": "SW1Package.json",
            "serialNumber": "",
            "checksum": "16b557cb7b4828cefe71b9a9fdadb534bdce6089"
          }
        },
        "DeviceId": "",
        "ModuleId": ""
      },
      "Tags": {
        "TestDevice": "Yes"
      },
      "IsEdgeDevice": true,
      "IsSimulated": false,
      "Authentication": {
        "AuthenticationType": 0
      }
    }
  ]
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>

## Example

1. Create Device with auto generated authentication keys.

```
POST /iothubmanager/v1/devices
```

## Request



```
{
  "Id": "TestDevice",
  "IsEdgeDevice": false,
  "IsSimulated": false,
  "Enabled": true,
  "Authentication": {}
}
```

## Response

```
{
  "ETag": "\"Mjk1MTYxMjc5\"|AAAAAAAAAAE=",
  "Id": "TestDevice",
  "C2DMessageCount": 0,
  "LastActivity": "0001-01-01T00:00:00",
  "Connected": false,
  "Enabled": true,
  "LastStatusUpdated": "0001-01-01T00:00:00",
  "IoTHubHostName": "iothub-233a1ca2.azure-devices.net",
  "$metadata": {
    "$type": "Device;1",
    "$uri": "/v1/devices/TestDevice",
    "$twin_uri": "/v1/devices/TestDevice/twin"
  },
  "Properties": {
    "Reported": {},
    "Desired": {},
    "DeviceId": "",
    "ModuleId": ""
  },
  "Tags": {},
  "IsEdgeDevice": false,
  "IsSimulated": false,
  "Authentication": {
    "PrimaryKey": "hTN/qqE3aTC0Cy8yTV4GroI9gjTwXMM05vpAtPA/D7Y=",
    "SecondaryKey": "nUe22sk90wW+IDgkrIewLU4iEmWnOwJhNxxlYx+W06U=",
    "AuthenticationType": 0
  }
}
```

## 2. Create Device with authentication keys.

```
POST /iothubmanager/v1/devices
```

## Request

```
{
  "Id": "TestDevice",
  "IsEdgeDevice": false,
  "IsSimulated": false,
  "Enabled": true,
  "Authentication": {
    "AuthenticationType": 0,
    "PrimaryKey": "wpVpDAwhmLmL27+Mb09T3AVTmFv69D28LEP+xN7vTKA=",
    "SecondaryKey": "xzCw4ZfP6dig/NDUzeNxeHvpmYU4ydpkqyDnFeG2SEI=",
    "PrimaryThumbprint": null,
    "SecondaryThumbprint": null
  }
}
```

## Response

```
{
  "ETag": "\"NDE1MjQ3OTMx\"|AAAAAAAAAAE=",
  "Id": "TestDevice",
  "C2DMessageCount": 0,
  "LastActivity": "0001-01-01T00:00:00",
  "Connected": false,
  "Enabled": true,
  "LastStatusUpdated": "0001-01-01T00:00:00",
  "IoTHubHostName": "iothub-233a1ca2.azure-devices.net",
  "$metadata": {
    "$type": "Device;1",
    "$uri": "/v1/devices/TestDevice",
    "$twin_uri": "/v1/devices/TestDevice/twin"
  },
  "Properties": {
    "Reported": {},
    "Desired": {},
    "DeviceId": "",
    "ModuleId": ""
  },
  "Tags": {},
  "IsEdgeDevice": false,
  "IsSimulated": false,
  "Authentication": {
    "PrimaryKey": "wpVpDAwhmLmL27+Mb09T3AVTmFv69D28LEP+xN7vTKA=",
    "SecondaryKey": "xzCw4ZfP6dig/NDUzeNxeHvpmYU4ydpkqyDnFeG2SEI=",
    "AuthenticationType": 0
  }
}
```



## Update Device

Updates the device data.

### Permissions

**UpdateDevices** permission is required to call this api.

### Http Request

```
PUT /iothub-manager/v1/devices/{id}
```

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Query Params

| NAME | VALUE     |
|------|-----------|
| id   | Device Id |

### Request Schema

```

{
  "eTag": "string",
  "id": "string",
  "c2DMessageCount": 0,
  "lastActivity": "2020-10-30T05:41:54.391Z",
  "connected": true,
  "enabled": true,
  "lastStatusUpdated": "2020-10-30T05:41:54.391Z",
  "ioTHubHostName": "string",
  "properties": {
    "reported": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "desired": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "deviceId": "string",
    "moduleId": "string"
  },
  "tags": {
    "additionalProp1": [
      null
    ],
    "additionalProp2": [
      null
    ],
    "additionalProp3": [
      null
    ]
  },
  "isEdgeDevice": true,
  "isSimulated": true,
  "authentication": {
    "primaryKey": "string",
    "secondaryKey": "string",
    "primaryThumbprint": "string",
    "secondaryThumbprint": "string",
    "authenticationType": 0
  }
}

```

## Request Body

In the request body, supply a JSON representation of **DeviceRegistryApiModel** object.

## Response

If successful, this method returns **DeviceRegistryApiModel** object in the response body.

## Response Schema

```
{
  "eTag": "string",
  "id": "string",
  "c2DMessageCount": 0,
  "lastActivity": "2020-10-30T05:41:54.391Z",
  "connected": true,
  "enabled": true,
  "lastStatusUpdated": "2020-10-30T05:41:54.391Z",
  "ioTHubHostName": "string",
  "properties": {
    "reported": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "desired": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "deviceId": "string",
    "moduleId": "string"
  },
  "tags": {
    "additionalProp1": [
      null
    ],
    "additionalProp2": [
      null
    ],
    "additionalProp3": [
      null
    ]
  },
  "isEdgeDevice": true,
  "isSimulated": true,
  "authentication": {
    "primaryKey": "string",
    "secondaryKey": "string",
    "primaryThumbprint": "string",
    "secondaryThumbprint": "string",
    "authenticationType": 0
  }
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsItestab2c.onmicrosoft.com>



# Delete Device

Used to delete device.

## Permissions

**DeleteDevices** permission is required to call this api.

## Http Request

```
DELETE /iothub-manager/v1/devices/{id}
```

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Query Params

| NAME | VALUE     |
|------|-----------|
| id   | Device Id |

## Request Body

NA

## Response

If successful, this method returns 200 success reponse.

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>

## Examples

- 1. Delete a device using deviceid

```
DELETE /iothub-manager/v1/devices/TestDevice
```

## Response

```
200
```



# Invoke Device Method

Used to invoke a direct method on Device using a payload.

## Permissions

**CreateJobs** permission is required to call this api.

## Http Request

```
POST /iothub-manager/v1/devices/{id}/methods
```

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Query Params

| NAME | VALUE     |
|------|-----------|
| id   | Device Id |

## Request Schema

```
{
  "name": "string",
  "responseTimeout": {},
  "connectionTimeout": {},
  "jsonPayload": "string"
}
```

## Request Body

In the request body, supply a JSON representation of **MethodParameterApiModel** object.

## Sample Request

```
{
  "Name": "methodName1",
  "JsonPayload": "{TestPayload}"
}
```

## Response

If successful, this method returns **MethodResultApiModel** object in the response body.

## Response Schema

```
{
  "status": "int",
  "jsonPayload": "string"
}
```

## Sample Response

```
{  
  "status": "200",  
  "JsonPayload": "{TestAcknowledgement}"  
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>





# Send CloudToDevice Message

Used to send messages to Device from IoTHub.

## Permissions

**SendC2DMessages** permission is required to call this api.

## Http Request

```
POST /iothub-manager/v1/devices/{id}/c2dmessage
```

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Query Params

| NAME | VALUE     |
|------|-----------|
| id   | Device Id |

## Request Body

Any message as string.

## Response

If successful, this method returns 200 response code.

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsctestab2c.onmicrosoft.com>

## Examples

- 1. Send message to device.

```
POST iothubmanager/v1/devices/SimulatedDevice/c2dmessage
```

## Request Body

```
{"message": "Message to send to device"}
```

## Response

```
200
```



# Get Device Files

Lists the files uploaded by the Device.

## Permissions

**ReadAll** permission is required to call this api.

## Http Request

```
GET /iothub-manager/v1/devices/files/{id}
```

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Query Params

| NAME | VALUE     |
|------|-----------|
| id   | Device Id |

## Request Body

NA

## Response

If successful, this method returns List of URLs of files in the response body.

## Response Schema

```
[
  "string"
]
```

## Sample Response

```
[
  "https://testacct.blob.core.windows.net/209d7f79-39aa-4e2a-8e9c-56f04f7633f9-iot-file-upload/TestDevice/myimage1.png?sv=2018-03-28&sr=b&sig=wrCCy%2B22yNf9xeP5hnIgCi2LB3L5tdrx4HbrPhP5L6Q%3D&st=2020-10-31T07%3A05%3A10Z&se=2020-10-31T07%3A10%3A10Z&sp=rw",
  "https://testacct.blob.core.windows.net/209d7f79-39aa-4e2a-8e9c-56f04f7633f9-iot-file-upload/TestDevice/myimage2.png?sv=2018-03-28&sr=b&sig=0HzEu5EUmCUTjbygcVH0W6yASOPTpGgBMVcZIUKSMfE%3D&st=2020-10-31T07%3A05%3A10Z&se=2020-10-31T07%3A10%3A10Z&sp=rw"
]
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>



# Jobs

Service: IoT Hub Manager

## Operations

| OPERATION                   | DESCRIPTION   |
|-----------------------------|---|
| <a href="#">Get Jobs.</a>   | Lists the jobs from IoT Hub based on timeframe, job type and job status.            |
| <a href="#">Get Job.</a>    | Gets the details of an job from IoT Hub based on jobid, job status.                 |
| <a href="#">Create Job.</a> | Creates a Job to add tags, modify properties or invoke methods on selected devices. |



# Get Jobs

Lists the jobs from IoTHub based on timeframe, job type and job status.

## Permissions

**ReadAll** permission is required to call this api.

## Http Request

```
GET /iothubmanager/v1/jobs?from={from}&to={to}&jobType={jobType}&jobStatus={jobStatus}&pageSize={pageSize}
```

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Query Params

| NAME      | VALUE   |
|-----------|---|
| from      | Start Timeframe to consider   |
| to        | End Timeframe to consider   |
| jobType   | Unknown = 0<br>ScheduleDeviceMethod = 3<br>ScheduleUpdateTwin = 4,  |
| jobStatus | Unknown = 0<br>Enqueued = 1<br>Running = 2<br>Completed = 3<br>Failed = 4<br>Cancelled = 5<br>Scheduled = 6<br>Queued = 7 |
| pageSize  | Indicates the no of jobs that page should contains when queried from IoTHub. Will not impact the end result.              |

## Request Body

NA

## Response

If successful, this method returns **List of JobApiModel** object in the response body.

## Response Schema

[  
 {  
 "jobId": "string",  
 "queryCondition": "string",  
 },  
 ...  
]

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```
"createdTimeUtc": "2020-10-30T09:24:26.223Z",
"startTimeUtc": "2020-10-30T09:24:26.223Z",
"endTimeUtc": "2020-10-30T09:24:26.223Z",
"maxExecutionTimeInSeconds": 0,
"type": 0,
"status": 0,
"methodParameter": {
  "name": "string",
  "responseTimeout": {
    "ticks": 0,
    "days": 0,
    "hours": 0,
    "milliseconds": 0,
    "minutes": 0,
    "seconds": 0,
    "totalDays": 0,
    "totalHours": 0,
    "totalMilliseconds": 0,
    "totalMinutes": 0,
    "totalSeconds": 0
  },
  "connectionTimeout": {
    "ticks": 0,
    "days": 0,
    "hours": 0,
    "milliseconds": 0,
    "minutes": 0,
    "seconds": 0,
    "totalDays": 0,
    "totalHours": 0,
    "totalMilliseconds": 0,
    "totalMinutes": 0,
    "totalSeconds": 0
  },
  "jsonPayload": "string"
},
"updateTwin": {
  "eTag": "string",
  "deviceId": "string",
  "properties": {
    "reported": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "desired": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "deviceId": "string",
    "moduleId": "string"
  },
}
```

```

    "tags": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "isSimulated": true
  },
  "failureReason": "string",
  "statusMessage": "string",
  "resultStatistics": {
    "deviceCount": 0,
    "failedCount": 0,
    "succeededCount": 0,
    "runningCount": 0,
    "pendingCount": 0
  },
  "devices": [
    {
      "deviceId": "string",
      "status": 0,
      "startTimeUtc": "2020-10-30T09:24:26.223Z",
      "endTimeUtc": "2020-10-30T09:24:26.223Z",
      "createdDateTimeUtc": "2020-10-30T09:24:26.223Z",
      "lastUpdatedDateTimeUtc": "2020-10-30T09:24:26.223Z",
      "outcome": {
        "status": 0,
        "jsonPayload": "string"
      },
      "error": {
        "code": "string",
        "description": "string"
      }
    }
  ]
}
]

```

Sample Response

```
[
  {
    "JobId": "TestDeviceTag-093931a9-3dd0-477f-bce8-e7ebbefde73d",
    "QueryCondition": "deviceId in ['TestDevice']",
    "CreatedTimeUtc": "2020-10-16T08:22:16.2455974Z",
    "StartTimeUtc": "2020-10-16T08:22:16.1110507Z",
    "EndTimeUtc": "2020-10-16T08:22:21.0180671Z",
    "MaxExecutionTimeInSeconds": 3600,
    "Type": 4,
    "Status": 3,
    "UpdateTwin": {
      "ETag": "*",
      "DeviceId": null,
      "Properties": {
        "Reported": {},
        "Desired": {},
        "DeviceId": "",
        "ModuleId": ""
      },
      "Tags": {
        "TestDevice": "Yes"
      },
      "IsSimulated": false
    },
    "ResultStatistics": {
      "DeviceCount": 1,
      "FailedCount": 0,
      "SucceededCount": 1,
      "RunningCount": 0,
      "PendingCount": 0
    }
  },
  {
    "JobId": "SimulatedDeviceTag-627073e2-5c71-4907-8b51-294439e11e0a",
    "QueryCondition": "deviceId in ['SimulatedDevice']",
    "CreatedTimeUtc": "2020-10-16T08:45:59.7788363Z",
    "StartTimeUtc": "2020-10-16T08:45:59.630406Z",
    "EndTimeUtc": "2020-10-16T08:46:05.3843691Z",
    "MaxExecutionTimeInSeconds": 3600,
    "Type": 4,
    "Status": 3,
    "UpdateTwin": {
      "ETag": "*",
      "DeviceId": null,
      "Properties": {
        "Reported": {},
        "Desired": {},
        "DeviceId": "",
        "ModuleId": ""
      },
      "Tags": {
        "Org": "Test"
      },
      "IsSimulated": false
    },
    "ResultStatistics": {
      "DeviceCount": 1,
      "FailedCount": 0,
      "SucceededCount": 1,
      "RunningCount": 0,
      "PendingCount": 0
    }
  }
]
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/csltestab2c.onmicrosoft.com>

## Examples

1. Get Jobs based on TimeFrame

```
GET iothubmanager/v1/jobs?from=NOW-P1M&to=NOW
```

2. Get Jobs based on TimeFrame and Job Status

```
GET iothubmanager/v1/jobs?from=NOW-P1M&to=NOW&jobStatus=2
```

3. Get Jobs based on TimeFrame and Job Type

```
GET iothubmanager/v1/jobs?from=NOW-P1M&to=NOW&jobType=4
```

4. Get Jobs based on TimeFrame and Job Status and JobType

```
GET iothubmanager/v1/jobs?from=NOW-P1M&to=NOW&jobStatus=2&jobType=4
```





# Create Job

Create a Job to add tags, modify properties or invoke methods on selected devices.

## Permissions

**CreateJobs** permission is required to call this api.

## Http Request

POST /iothubmanager/v1/jobs

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Request Schema

```
{
  "jobId": "string",
  "queryCondition": "string",
  "createdTimeUtc": "2020-10-30T10:21:05.675Z",
  "startTimeUtc": "2020-10-30T10:21:05.675Z",
  "endTimeUtc": "2020-10-30T10:21:05.676Z",
  "maxExecutionTimeInSeconds": 0,
  "type": 0,
  "status": 0,
  "methodParameter": {
    "name": "string",
    "responseTimeout": {},
    "connectionTimeout": {},
    "jsonPayload": "string"
  },
  "updateTwin": {
    "eTag": "string",
    "deviceId": "string",
    "properties": {
      "reported": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      },
      "desired": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      }
    }
  }
}
```

```

        "additionalProp3": [
            null
        ]
    },
    "deviceId": "string",
    "moduleId": "string"
},
"tags": {
    "additionalProp1": [
        null
    ],
    "additionalProp2": [
        null
    ],
    "additionalProp3": [
        null
    ]
},
"isSimulated": true
},
"failureReason": "string",
"statusMessage": "string",
"resultStatistics": {
    "deviceCount": 0,
    "failedCount": 0,
    "succeededCount": 0,
    "runningCount": 0,
    "pendingCount": 0
},
"devices": [
    {
        "deviceId": "string",
        "status": 0,
        "startTimeUtc": "2020-10-30T10:21:05.676Z",
        "endTimeUtc": "2020-10-30T10:21:05.676Z",
        "createdDateTimeUtc": "2020-10-30T10:21:05.676Z",
        "lastUpdatedDateTimeUtc": "2020-10-30T10:21:05.676Z",
        "outcome": {
            "status": 0,
            "jsonPayload": "string"
        },
        "error": {
            "code": "string",
            "description": "string"
        }
    }
]
}

```

## Request Body

In the request body, supply a JSON representation of **JobApiModel** object.

## Response

If successful, this method returns **JobApiModel** object in the response body.

## Response Schema

```

{
    "jobId": "string",
    "queryCondition": "string",
    "createdTimeUtc": "2020-10-30T10:21:05.675Z",
    "startTimeUtc": "2020-10-30T10:21:05.675Z",
    "endTimeUtc": "2020-10-30T10:21:05.676Z",
    "maxExecutionTimeInSeconds": 0,

```

```
"type": 0,
"status": 0,
"methodParameter": {
  "name": "string",
  "responseTimeout": {},
  "connectionTimeout": {},
  "jsonPayload": "string"
},
"updateTwin": {
  "eTag": "string",
  "deviceId": "string",
  "properties": {
    "reported": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "desired": {
      "additionalProp1": [
        null
      ],
      "additionalProp2": [
        null
      ],
      "additionalProp3": [
        null
      ]
    },
    "deviceId": "string",
    "moduleId": "string"
  },
  "tags": {
    "additionalProp1": [
      null
    ],
    "additionalProp2": [
      null
    ],
    "additionalProp3": [
      null
    ]
  },
  "isSimulated": true
},
"failureReason": "string",
"statusMessage": "string",
"resultStatistics": {
  "deviceCount": 0,
  "failedCount": 0,
  "succeededCount": 0,
  "runningCount": 0,
  "pendingCount": 0
},
"devices": [
  {
    "deviceId": "string",
    "status": 0,
    "startTimeUtc": "2020-10-30T10:21:05.676Z",
    "endTimeUtc": "2020-10-30T10:21:05.676Z",
```

```

    "createdDateTimeUtc": "2020-10-30T10:21:05.676Z",
    "lastUpdatedDateTimeUtc": "2020-10-30T10:21:05.676Z",
    "outcome": {
      "status": 0,
      "jsonPayload": "string"
    },
    "error": {
      "code": "string",
      "description": "string"
    }
  }
]
}

```

## Sample Response

```

{
  "JobId": "Test-c372b74f-0d92-4b5c-9148-524fbaaf4e58",
  "MaxExecutionTimeInSeconds": 0,
  "Type": 4,
  "Status": 7
}

```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>

## Examples

1. Job to update tags of a Device.

### Http Request

```
POST /iothubmanager/v1/jobs
```

### RequestBody

```

{
  "JobId": "Test-c372b74f-0d92-4b5c-9148-524fbaaf4e58",
  "QueryCondition": "deviceId in ['DemoDevice']",
  "MaxExecutionTimeInSeconds": 0,
  "UpdateTwin": {
    "Tags": {
      "TestTag": "Test"
    }
  }
}

```

### Response

```

{
  "JobId": "Test-c372b74f-0d92-4b5c-9148-524fbaaf4e58",
  "MaxExecutionTimeInSeconds": 0,
  "Type": 4,
  "Status": 7
}

```

2. Job to execute direct on devices.

### Request

```
{
  "JobId": "Test-c372b74f-0d92-4b5c-9148-524fbaaf4e58",
  "QueryCondition": "deviceId in ['DemoDevice']",
  "MaxExecutionTimeInSeconds": 0,
  "MethodParameter": {
    "Name": "methodName1",
    "JsonPayload": "{TestPayLoad}"
  }
}
```

## Response

```
{
  "JobId": "Test-c372b74f-0d92-4b5c-9148-524fbaaf4e58",
  "MaxExecutionTimeInSeconds": 0,
  "Type": 3,
  "Status": 7
}
```



# Modules

Service: IoT Hub Manager

## Operations

| OPERATION                      | DESCRIPTION  |
|--------------------------------|--|
| <a href="#">Get Modules.</a>   | Lists the Modules based on the query conditions.                   |
| <a href="#">Query Modules.</a> | Lists the Modules based on the query conditions from request body. |
| <a href="#">Get Module.</a>    | Gets the Module data based on the DeviceId and ModuleId.           |



# Get Modules

Lists the Modules based on the query conditions.

## Permissions

**ReadAll** permission is required to call this api.

## Http Request

```
GET /iothub-manager/v1/modules?query={query}
```

## Request headers

| HEADER            | VALUE  |
|-------------------|--|
| Authorization     | Bearer {token}. Required.  |
| Content-Type      | application/json   |
| x-ms-continuation | Continuation Token from response of previous request,if request is called to get next dataset. |

## Query Params

| NAME  | VALUE  |
|-------|--|
| query | URL encoded string from Conditions to query devices. |

## Request Body

NA

## Response

If successful, this method returns **TwinPropertiesListApiModel** object in the response body.

## Response Schema

```
{
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "continuationToken": "string",
  "items": [
    {
      "reported": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      },
      "desired": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      },
      "deviceId": "string",
      "moduleId": "string"
    }
  ]
}
```

Sample Response



```

{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "Reported": {},
      "Desired": {
        "schemaVersion": "1.0",
        "runtime": {
          "type": "docker",
          "settings": {
            "loggingOptions": "",
            "minDockerVersion": "v1.25"
          }
        },
        "systemModules": {
          "edgeAgent": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-agent:1.0",
              "createOptions": "{}"
            }
          },
          "edgeHub": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-hub:1.0",
              "createOptions": "{}"
            }
          },
          "status": "running",
          "restartPolicy": "always"
        }
      },
      "modules": {}
    },
    "DeviceId": "TestDevice",
    "ModuleId": "$edgeAgent"
  ]
}

```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>

## Examples

1. Get Modules based on query

### Http Request

```

GET /iothub-manager/v1/modules?
query=deviceId+IN+%5B%27Test0903%27%5D+AND+moduleId+%3D+%27%24edgeAgent%27

```

Reference: Conditions in Encoded format

| CONDITIONS   | URL ENCODED DATA  |
|--|---|
| <div>deviceId IN ['TestDevice'] AND moduleId = '\$edgeAgent'</div> | <div>deviceId+IN+%5B%27TestDevice%27%5D+AND+moduleId+%3D+%27%24edgeAgent%27</div> |

## Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "Reported": {},
      "Desired": {
        "schemaVersion": "1.0",
        "runtime": {
          "type": "docker",
          "settings": {
            "loggingOptions": "",
            "minDockerVersion": "v1.25"
          }
        },
        "systemModules": {
          "edgeAgent": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-agent:1.0",
              "createOptions": "{}"
            }
          },
          "edgeHub": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-hub:1.0",
              "createOptions": "{}"
            }
          },
          "status": "running",
          "restartPolicy": "always"
        }
      },
      "modules": {}
    },
    {
      "DeviceId": "TestDevice",
      "ModuleId": "$edgeAgent"
    }
  ]
}
```



# Query Modules

Lists the Modules based on the query conditions from request body.

## Permissions

**ReadAll** permission is required to call this api.

## Http Request

POST /iothub-manager/v1/modules/query

## Request headers

| HEADER            | VALUE  |
|-------------------|--|
| Authorization     | Bearer {token}. Required.  |
| Content-Type      | application/json   |
| x-ms-continuation | Continuation Token from response of previous request,if request is called to get next dataset. |

## Request Body

String representing conditions to get the modules.

## Response

If successful, this method returns **TwinPropertiesListApiModel** object in the response body.

## Response Schema

```
{
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  },
  "continuationToken": "string",
  "items": [
    {
      "reported": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      },
      "desired": {
        "additionalProp1": [
          null
        ],
        "additionalProp2": [
          null
        ],
        "additionalProp3": [
          null
        ]
      },
      "deviceId": "string",
      "moduleId": "string"
    }
  ]
}
```

Sample Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "Reported": {},
      "Desired": {
        "schemaVersion": "1.0",
        "runtime": {
          "type": "docker",
          "settings": {
            "loggingOptions": "",
            "minDockerVersion": "v1.25"
          }
        },
        "systemModules": {
          "edgeAgent": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-agent:1.0",
              "createOptions": "{}"
            }
          },
          "edgeHub": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-hub:1.0",
              "createOptions": "{}"
            },
            "status": "running",
            "restartPolicy": "always"
          }
        },
        "modules": {}
      },
      "DeviceId": "TestDevice",
      "ModuleId": "$edgeAgent"
    }
  ]
}
```

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>

## Examples

1. Get Modules based on query from Request body.

### Http Request

```
POST /iothub-manager/v1/modules/query
```

### Request Body

```
"deviceId IN ['Test0903'] AND moduleId = '$edgeAgent'"
```

### Response

```
{
  "$metadata": {
    "$type": "DeviceList;1",
    "$uri": "/v1/devices"
  },
  "ContinuationToken": null,
  "Items": [
    {
      "Reported": {},
      "Desired": {
        "schemaVersion": "1.0",
        "runtime": {
          "type": "docker",
          "settings": {
            "loggingOptions": "",
            "minDockerVersion": "v1.25"
          }
        },
        "systemModules": {
          "edgeAgent": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-agent:1.0",
              "createOptions": "{}"
            }
          },
          "edgeHub": {
            "type": "docker",
            "settings": {
              "image": "mcr.microsoft.com/azureiotedge-hub:1.0",
              "createOptions": "{}"
            },
            "status": "running",
            "restartPolicy": "always"
          }
        },
        "modules": {}
      },
      "DeviceId": "TestDevice",
      "ModuleId": "$edgeAgent"
    }
  ]
}
```



## Get Module

Gets the Module data based on the DeviceId and ModuleId.

### Permissions

**ReadAll** permission is required to call this api.

### Http Request

```
GET /iothub-manager/v1/modules/{deviceId}/{moduleId}
```

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Query Params

| NAME     | VALUE                   |
|----------|-------------------------|
| deviceId | DeviceId of Edge Device |
| moduleId | ModuleId                |

### Request Body

NA

### Response

If successful, this method returns **TwinPropertiesApiModel** object in the response body.

### Response Schema

```

{
  "reported": {
    "additionalProp1": [
      null
    ],
    "additionalProp2": [
      null
    ],
    "additionalProp3": [
      null
    ]
  },
  "desired": {
    "additionalProp1": [
      null
    ],
    "additionalProp2": [
      null
    ],
    "additionalProp3": [
      null
    ]
  },
  "deviceId": "string",
  "moduleId": "string"
}

```

## Sample Response

```

{
  "Reported": {},
  "Desired": {
    "schemaVersion": "1.0",
    "runtime": {
      "type": "docker",
      "settings": {
        "loggingOptions": "",
        "minDockerVersion": "v1.25"
      }
    },
    "systemModules": {
      "edgeAgent": {
        "type": "docker",
        "settings": {
          "image": "mcr.microsoft.com/azureiotedge-agent:1.0",
          "createOptions": "{}"
        }
      },
      "edgeHub": {
        "type": "docker",
        "settings": {
          "image": "mcr.microsoft.com/azureiotedge-hub:1.0",
          "createOptions": "{}"
        },
        "status": "running",
        "restartPolicy": "always"
      }
    },
    "modules": {}
  },
  "DeviceId": "TestDevice",
  "ModuleId": "$edgeAgent"
}

```



## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crsltestab2c.onmicrosoft.com>

## Examples

### 1. Get Module Data based on DeviceId and ModuleId

```
GET /iothub-manager/v1/modules/TestDevice/$edgeAgent
```

## Response

```
{
  "Reported": {},
  "Desired": {
    "schemaVersion": "1.0",
    "runtime": {
      "type": "docker",
      "settings": {
        "loggingOptions": "",
        "minDockerVersion": "v1.25"
      }
    },
    "systemModules": {
      "edgeAgent": {
        "type": "docker",
        "settings": {
          "image": "mcr.microsoft.com/azureiotedge-agent:1.0",
          "createOptions": "{}"
        }
      },
      "edgeHub": {
        "type": "docker",
        "settings": {
          "image": "mcr.microsoft.com/azureiotedge-hub:1.0",
          "createOptions": "{}"
        },
        "status": "running",
        "restartPolicy": "always"
      }
    },
    "modules": {}
  },
  "DeviceId": "TestDevice",
  "ModuleId": "$edgeAgent"
}
```



# Status

Service: IoT Hub Manager

Status Controller provides Health status of the Service and its dependencies.

## Operations

| OPERATION                   | DESCRIPTION                                     |
|-----------------------------|---|
| <a href="#">Get Status</a>  | Gets status of the Service and its dependencies |
| <a href="#">Ping Status</a> | Provides the health status of the service.      |



## Get Status

Provides the status of the IoT Hub Manager Service and its dependencies

### Permissions

N/A

### Http Request

GET /iothubmanager/v1/status

### Request headers

| HEADER       | VALUE            |
|--------------|------------------|
| Content-Type | application/json |

### Request Body

N/A

### Response Schema

```
{
  "name": "string",
  "status": {
    "isHealthy": true,
    "message": "string"
  },
  "currentTime": "string",
  "startTime": "string",
  "upTime": 0,
  "uid": "string",
  "properties": {
    "authRequired": true,
    "endpoint": "string"
  },
  "dependencies": {
    "additionalProp1": {
      "isHealthy": true,
      "message": "string"
    },
    "additionalProp2": {
      "isHealthy": true,
      "message": "string"
    },
    "additionalProp3": {
      "isHealthy": true,
      "message": "string"
    }
  },
  "metadata": {
    "additionalProp1": "string",
    "additionalProp2": "string",
    "additionalProp3": "string"
  }
}
```

## Response

```
{
  "Name": "IoTHub Manager",
  "Status": {
    "IsHealthy": true,
    "Message": "Alive and well!"
  },
  "CurrentTime": "2020-10-29T15:48:25+00:00",
  "StartTime": "2020-10-26T23:00:48+00:00",
  "UpTime": 233256,
  "UID": "WebService.c477e657-a941-4a01-82fd-ecc2d6cfaba4",
  "Properties": {
    "authRequired": true,
    "endpoint": "http://+:80"
  },
  "Dependencies": {
    "Storage Adapter": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    },
    "User Management": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    },
    "App Config": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    }
  },
  "$metadata": {
    "$type": "Status;0",
    "$uri": "/status"
  }
}
```



## Ping Status

Provides the health status of the service.

### Permissions

N/A

### Http Request

GET /iothubmanager/v1/status/ping

### Request headers

| HEADER       | VALUE            |
|--------------|------------------|
| Content-Type | application/json |

### Request Body

N/A

### Response

Respond with 200 Status code if service is up.



# Namespace Mmm.Iot.IoTHubManager.WebService.Controllers

## Classes

[DeploymentsController](#)

[DevicePropertiesController](#)

[DevicesController](#)

[JobsController](#)

[ModulesController](#)

[StatusController](#)



# Class DeploymentsController

Inheritance

System.Object

DeploymentsController

Namespace: [Mmm.Iot.IoTHubManager.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class DeploymentsController : Controller
```

## Constructors

### DeploymentsController(IDeployments)

Declaration

```
public DeploymentsController(IDeployments deployments)
```

Parameters

| TYPE         | NAME        | DESCRIPTION |
|--------------|-------------|-------------|
| IDeployments | deployments |             |

## Methods

### DeleteAsync(String, Boolean)

Declaration

```
public Task DeleteAsync(string id, bool isDelete = true)
```

Parameters

| TYPE           | NAME     | DESCRIPTION |
|----------------|----------|-------------|
| System.String  | id       |             |
| System.Boolean | isDelete |             |

Returns

| TYPE                        | DESCRIPTION |
|-----------------------------|-------------|
| System.Threading.Tasks.Task |             |

### ExportDeploymentReport(String, Boolean)

Declaration

```
public Task<IActionResult> ExportDeploymentReport(string id, bool isLatest = true)
```

Parameters

| TYPE           | NAME     | DESCRIPTION |
|----------------|----------|-------------|
| System.String  | id       |             |
| System.Boolean | isLatest |             |

Returns

| TYPE                                       | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<IActionResult> |             |

### GetAsync()

Declaration

```
public Task<DeploymentListApiModel> GetAsync()
```

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<DeploymentListApiModel> |             |

### GetAsync(String, Boolean, Boolean)

Declaration

```
public Task<DeploymentApiModel> GetAsync(string id, bool includeDeviceStatus = false, bool isLatest = true)
```

Parameters

| TYPE           | NAME                | DESCRIPTION |
|----------------|---------------------|-------------|
| System.String  | id                  |             |
| System.Boolean | includeDeviceStatus |             |
| System.Boolean | isLatest            |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<DeploymentApiModel> |             |

### GetDeploymentImpactedDevices(String, String, Boolean)

Declaration

```
public Task<DeviceListApiModel> GetDeploymentImpactedDevices(string id, string query, bool isLatest = false)
```

Parameters

| TYPE          | NAME | DESCRIPTION |
|---------------|------|-------------|
| System.String | id   |             |
|               |      |             |



| TYPE           | NAME     | DESCRIPTION |
|----------------|----------|-------------|
| System.String  | query    |             |
| System.Boolean | isLatest |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<DeviceListApiModel> |             |

GetDeploymentImpactedEdgeModules(String, String, Boolean)

Declaration

```
public Task<TwinPropertiesListApiModel> GetDeploymentImpactedEdgeModules(string id, string query, bool isLatest = false)
```

Parameters

| TYPE           | NAME     | DESCRIPTION |
|----------------|----------|-------------|
| System.String  | id       |             |
| System.String  | query    |             |
| System.Boolean | isLatest |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<TwinPropertiesListApiModel> |             |

PostAsync(DeploymentApiModel)

Declaration

```
public Task<DeploymentApiModel> PostAsync(DeploymentApiModel deployment)
```

Parameters

| TYPE               | NAME       | DESCRIPTION |
|--------------------|------------|-------------|
| DeploymentApiModel | deployment |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<DeploymentApiModel> |             |

ReactivateAsync(String)

Declaration

```
public Task ReactivateAsync(string id)
```

Parameters

| TYPE          | NAME | DESCRIPTION |
|---------------|------|-------------|
| System.String | id   |             |

Returns

| TYPE                        | DESCRIPTION |
|-----------------------------|-------------|
| System.Threading.Tasks.Task |             |



# Class DevicePropertiesController

Inheritance

System.Object

DevicePropertiesController

Namespace: [Mmm.Iot.IoTHubManager.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class DevicePropertiesController : Controller
```

## Constructors

### DevicePropertiesController(IDeviceProperties)

Declaration

```
public DevicePropertiesController(IDeviceProperties deviceProperties)
```

Parameters

| TYPE              | NAME             | DESCRIPTION |
|-------------------|------------------|-------------|
| IDeviceProperties | deviceProperties |             |

## Methods

### GetAsync()

Declaration

```
public Task<DevicePropertiesApiModel> GetAsync()
```

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<DevicePropertiesApiModel> |             |



# Class DevicesController

Inheritance

System.Object

DevicesController

Namespace: [Mmm.Iot.IoTHubManager.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class DevicesController : Controller
```

## Constructors

DevicesController(IDevices, IDeviceService, IDeviceProperties)

Declaration

```
public DevicesController(IDevices devices, IDeviceService deviceService, IDeviceProperties deviceProperties)
```

Parameters

| TYPE              | NAME             | DESCRIPTION |
|-------------------|------------------|-------------|
| IDevices          | devices          |             |
| IDeviceService    | deviceService    |             |
| IDeviceProperties | deviceProperties |             |

## Methods

DeleteAsync(String)

Declaration

```
public Task DeleteAsync(string id)
```

Parameters

| TYPE          | NAME | DESCRIPTION |
|---------------|------|-------------|
| System.String | id   |             |

Returns

| TYPE                        | DESCRIPTION |
|-----------------------------|-------------|
| System.Threading.Tasks.Task |             |

GetDeviceAsync(String)

Declaration

```
public Task<DeviceRegistryApiModel> GetDeviceAsync(string id)
```

Parameters

| TYPE          | NAME | DESCRIPTION |
|---------------|------|-------------|
| System.String | id   |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<DeviceRegistryApiModel> |             |

### GetDeviceDeploymentAsync(String)

Declaration

```
public Task<TwinPropertiesListApiModel> GetDeviceDeploymentAsync(string id)
```

Parameters

| TYPE          | NAME | DESCRIPTION |
|---------------|------|-------------|
| System.String | id   |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<TwinPropertiesListApiModel> |             |

### GetDeviceFilesAsync(String)

Declaration

```
public Task<List<string>> GetDeviceFilesAsync(string id)
```

Parameters

| TYPE          | NAME | DESCRIPTION |
|---------------|------|-------------|
| System.String | id   |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<System.Collections.Generic.List<System.String>> |             |

### GetDevicesAsync(String)

Declaration

```
public Task<DeviceListApiModel> GetDevicesAsync(string query)
```

Parameters

| TYPE          | NAME  | DESCRIPTION |
|---------------|-------|-------------|
| System.String | query |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<DeviceListApiModel> |             |

InvokeDeviceMethodAsync(String, MethodParameterApiModel)

Declaration

```
public Task<MethodResultApiModel> InvokeDeviceMethodAsync(string id, MethodParameterApiModel parameter)
```

Parameters

| TYPE                    | NAME      | DESCRIPTION |
|-------------------------|-----------|-------------|
| System.String           | id        |             |
| MethodParameterApiModel | parameter |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<MethodResultApiModel> |             |

PostAsync(DeviceRegistryApiModel)

Declaration

```
public Task<DeviceRegistryApiModel> PostAsync(DeviceRegistryApiModel device)
```

Parameters

| TYPE                   | NAME   | DESCRIPTION |
|------------------------|--------|-------------|
| DeviceRegistryApiModel | device |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<DeviceRegistryApiModel> |             |

PutAsync(String, DeviceRegistryApiModel)

Declaration

```
public Task<DeviceRegistryApiModel> PutAsync(string id, DeviceRegistryApiModel device)
```

Parameters

| TYPE                   | NAME   | DESCRIPTION |
|------------------------|--------|-------------|
| System.String          | id     |             |
| DeviceRegistryApiModel | device |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<DeviceRegistryApiModel> |             |

QueryDevicesAsync(String)

Declaration

```
public Task<DeviceListApiModel> QueryDevicesAsync(string query)
```

Parameters

| TYPE          | NAME  | DESCRIPTION |
|---------------|-------|-------------|
| System.String | query |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<DeviceListApiModel> |             |

SendCloudToDeviceAsync(String, String)

Declaration

```
public Task SendCloudToDeviceAsync(string id, string message)
```

Parameters

| TYPE          | NAME    | DESCRIPTION |
|---------------|---------|-------------|
| System.String | id      |             |
| System.String | message |             |

Returns

| TYPE                        | DESCRIPTION |
|-----------------------------|-------------|
| System.Threading.Tasks.Task |             |



# Class JobsController

Inheritance

System.Object

JobsController

Namespace: [Mmm.Iot.IoTHubManager.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class JobsController : Controller
```

## Constructors

### JobsController(IJobs)

Declaration

```
public JobsController(IJobs jobs)
```

Parameters

| TYPE  | NAME | DESCRIPTION |
|-------|------|-------------|
| IJobs | jobs |             |

## Methods

### GetAsync(Nullable<JobType>, Nullable<JobStatus>, Nullable<Int32>, String, String)

Declaration

```
public Task<IEnumerable<JobApiModel>> GetAsync(JobType? jobType, JobStatus? jobStatus, int? pageSize, string from, string to)
```

Parameters

| TYPE                          | NAME      | DESCRIPTION |
|-------------------------------|-----------|-------------|
| System.Nullable<JobType>      | jobType   |             |
| System.Nullable<JobStatus>    | jobStatus |             |
| System.Nullable<System.Int32> | pageSize  |             |
| System.String                 | from      |             |
| System.String                 | to        |             |

Returns

| TYPE   | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<System.Collections.Generic.IEnumerable<JobApiModel>> |             |

### GetJobAsync(String, Nullable<Boolean>, Nullable<DeviceJobStatus>)



Declaration

```
public Task<JobApiModel> GetJobAsync(string jobId, bool? includeDeviceDetails, DeviceJobStatus? deviceJobStatus)
```

Parameters

| TYPE                             | NAME                 | DESCRIPTION |
|----------------------------------|----------------------|-------------|
| System.String                    | jobId                |             |
| System.Nullable<System.Boolean>  | includeDeviceDetails |             |
| System.Nullable<DeviceJobStatus> | deviceJobStatus      |             |

Returns

| TYPE                                     | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<JobApiModel> |             |

ScheduleAsync(JobApiModel)

Declaration

```
public Task<JobApiModel> ScheduleAsync(JobApiModel parameter)
```

Parameters

| TYPE        | NAME      | DESCRIPTION |
|-------------|-----------|-------------|
| JobApiModel | parameter |             |

Returns

| TYPE                                     | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<JobApiModel> |             |



# Class ModulesController

Inheritance

System.Object

ModulesController

Namespace: [Mmm.Iot.IoTHubManager.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class ModulesController : Controller
```

Constructors

ModulesController(IDevices)

Declaration

```
public ModulesController(IDevices devices)
```

Parameters

| TYPE     | NAME    | DESCRIPTION |
|----------|---------|-------------|
| IDevices | devices |             |

Methods

GetModuleTwinAsync(String, String)

Declaration

```
public Task<TwinPropertiesApiModel> GetModuleTwinAsync(string deviceId, string moduleId)
```

Parameters

| TYPE          | NAME     | DESCRIPTION |
|---------------|----------|-------------|
| System.String | deviceId |             |
| System.String | moduleId |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<TwinPropertiesApiModel> |             |

GetModuleTwinsAsync(String)

Declaration

```
public Task<TwinPropertiesListApiModel> GetModuleTwinsAsync(string query)
```

Parameters

| TYPE          | NAME  | DESCRIPTION |
|---------------|-------|-------------|
| System.String | query |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<TwinPropertiesListApiModel> |             |

QueryModuleTwinsAsync(String)

Declaration

```
public Task<TwinPropertiesListApiModel> QueryModuleTwinsAsync(string query)
```

Parameters

| TYPE          | NAME  | DESCRIPTION |
|---------------|-------|-------------|
| System.String | query |             |

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<TwinPropertiesListApiModel> |             |



# Class StatusController

Inheritance

System.Object

StatusController

Namespace: [Mmm.Iot.IoTHubManager.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public sealed class StatusController : ControllerBase
```

## Constructors

### StatusController(IStatusService)

Declaration

```
public StatusController(IStatusService statusService)
```

Parameters

| TYPE           | NAME          | DESCRIPTION |
|----------------|---------------|-------------|
| IStatusService | statusService |             |

## Methods

### GetAsync()

Declaration

```
public Task<StatusApiModel> GetAsync()
```

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<StatusApiModel> |             |

### Ping()

Declaration

```
public IActionResult Ping()
```

Returns

| TYPE          | DESCRIPTION |
|---------------|-------------|
| IActionResult |             |



# Tenant Manager

Tenant Manager offers APIs to maintains tenants, Alerting, tenants' readiness status, and health status of service.

Within each Serenity instance an interactive Swagger UI is available at the following path `/auth/index.html` for more information, [click here](#)

## Rest Operation Groups

The Device Telemetry REST API provides operations for working with the following:

| OPERATION GROUP              | DESCRIPTION                              |
|------------------------------|--|
| <a href="#">Tenant</a>       | Manage Tenant                            |
| <a href="#">Tenant Ready</a> | Tenant readiness status                  |
| <a href="#">Alerting</a>     | Manage stream analytics job              |
| <a href="#">Status</a>       | Health status operations for the Service |



# Tenant

Service: Tenant Manager

## Operations

| OPERATION   | DESCRIPTION                                     |
|---|---|
| <a href="#">Get Tenant details</a>                          | Fetches tenant details                          |
| <a href="#">Get All Tenants details registred to a user</a> | Fetches all tenant details regisitred to a user |
| <a href="#">Create Tenant</a>                               | Create a tenant                                 |
| <a href="#">Rename the Tenant</a>                           | Rename a tenant                                 |
| <a href="#">Delete Tenant</a>                               | Delete tenant                                   |



## Get Tenant details

API that Gets information about a tenant that is stored in table storage

### Permissions

ReadAll

### Http Request

GET /tenantmanager/api/Tenant

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Request Body

N/A

### Response

- Returns 200 OK and Tenant info:

```
json { "tenantId": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx", "iotHubName": "xxxxxxxx", "dpsName": "xxxxxxxx", "saJobName": "xxxxxxxx", "isIotHubDeployed": true, "markedForDeletion": true, "tenantName": "Tenant Name", "partitionKey": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx", "rowKey": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx", "timestamp": "2020-10-29T11:36:34.702Z", "eTag": "string" }
```



## Get All Tenants details registered to a user

API that fetches the All Tenant details which are registered to the user.

### Permissions

ReadAll

### Http Request

GET /tenantmanager/api/Tenant/All

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Request Body

N/A

### Response

- Returns 200 OK:

```
json { "Method": "GetTenants", "Models": [ { "roles": "[\"xxxxx\"]", "userId": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx", "tenantId": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx", "roleList": [ "xxxxx" ], "tenantName": "xxxxxx", "partitionKey": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx", "rowKey": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx", "timestamp": "0001-01-01T00:00:00+00:00", "eTag": null } ] }
```





## Create Tenant

API that creates a new tenant to the user.

### Other Attributes

SystemAdminAuthorize

### Http Request

POST /tenantmanager/api/Tenant

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Request Body

N/A

### Response

- Returns 200 OK and the new tenant info:

```
json { "message": "Your tenant is being created.", "tenantId": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx" }
```

- Status Code 401 - Invalid auth token



## Rename the Tenant

API that renames the tenant name.

### Other Attributes

SystemAdminAuthorize

### Http Request

PUT /tenantmanager/api/Tenant/{tenantId}

### Parameters

| PARAMETER | TYPE | DESCRIPTION |
|-----------|------|-------------|
| tenantId  | guid | Tenant Id   |

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Request Body

"New Tenant Name"

### Response

- Returns 200 OK and Tenant info:

```
json { "tenantId": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx", "iotHubName": "xxxxxxxx", "dpsName": "xxxxxxxx", "saJobName": "xxxxxxxx", "isIotHubDeployed": true, "markedForDeletion": true, "tenantName": "Tenant Name", "partitionKey": "0", "rowKey": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx", "timestamp": "2020-10-29T11:36:34.702Z", "eTag": "string" }
```



# Delete Tenant

API that deletes the specified tenant.

## Other Attributes

|                      |
|----------------------|
| SystemAdminAuthorize |
|----------------------|

## Http Request

|                                  |
|----------------------------------|
| DELETE /tenantmanager/api/Tenant |
|----------------------------------|

## Query parameters

| QUERY PARAMETER     | TYPE    | DESCRIPTION                  |
|---------------------|---------|------------------------------|
| ensureFullyDeployed | boolean | Default value is <b>true</b> |

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Request Body

|     |
|-----|
| N/A |
|-----|

## Response

- Returns 200 OK

```
json { "tenantId": "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx", "ensuredDeployment": true, "deletionRecord": {
"tenantTableStorage": true, "userTableStorage": true, "iotHub": true, "dps": true, "alerting": true, },
"fullyDeleted": true }
```



# Tenant Ready

Service: Tenant Manager

## Operations

| OPERATION  | DESCRIPTION                     |
|--|---------------------------------|
| <a href="#">Check specified tenant is ready or not</a> | Fetches tenant readiness status |



# Check specified tenant is ready or not

API that returns true or false depending on if the tenant is ready or not.

## Permissions

|     |
|-----|
| N/A |
|-----|

## Http Request

|   |
|---|
| GET /tenantmanager/api/TenantReady/{tenantId} |
|---|

## Parameters

| PARAMETER | TYPE | DESCRIPTION |
|-----------|------|-------------|
| tenantId  | guid | Tenant Id   |

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Request Body

|     |
|-----|
| N/A |
|-----|

## Response

- Status Code 200:

|      |
|------|
| true |
|------|

OR

|       |
|-------|
| false |
|-------|

- Status Code 404 - Invalid tenant id



# Alerting

Service: Tenant Manager

## Operations

| OPERATION  | DESCRIPTION                          |
|--|--------------------------------------|
| <a href="#">Get stream analytics job details</a> | Fetches stream analytics job details |
| <a href="#">Create stream analytics job</a>      | Create stream analytics job          |
| <a href="#">Remove stream analytics job</a>      | Remove stream analytics job          |
| <a href="#">Start stream analytics job</a>       | Start stream analytics job           |
| <a href="#">Stop stream analytics job</a>        | Stop stream analytics job            |



## Get stream analytics job details

API that fetches the details of stream analytics job assigned to tenant.

### Permissions

ReadAll

### Http Request

GET /tenantmanager /api /Alerting

### Query parameters

| QUERY PARAMETER   | TYPE    | DESCRIPTION   |
|-------------------|---------|---|
| createlfNotExists | boolean | If <b>true</b> it creates a stream analytics job to a tenant. Default value is <b>false</b> |

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Request Body

N/A

### Response

- Status Code 200:

```
json { "tenantId": "string", "streamAnalyticsJobName": "string", "jobState": "string", "isActive": true }
```



## Create stream analytics job

API that creates a stream analytics job to tenant.

### Permissions

EnableAlerting

### Http Request

POST /tenantmanager /api /Alerting

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Request Body

N/A

### Response

- Status Code 200:

```
json { "tenantId": "string", "streamAnalyticsJobName": "string", "jobState": "string", "isActive": true }
```





## Remove stream analytics job

API that removes a stream analytics job to the tenant.

### Permissions

DisableAlerting

### Http Request

DELETE /tenantmanager /api /Alerting

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Request Body

N/A

### Response

- Status Code 200:

```
json { "tenantId": "string", "streamAnalyticsJobName": "string", "jobState": "string", "isActive": true }
```



## Start stream analytics job

API that starts the stream analytics job assigned to the tenant.

### Permissions

EnableAlerting

### Http Request

POST /tenantmanager /api /Alerting

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Request Body

N/A

### Response

- Status Code 200:

```
json { "tenantId": "string", "streamAnalyticsJobName": "string", "jobState": "string", "isActive": true }
```



## Stop stream analytics job

API that stops the stream analytics job assigned to the tenant.

### Permissions

DisableAlerting

### Http Request

POST /tenantmanager /api /Alerting/stop

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Request Body

N/A

### Response

- Status Code 200.



# Status

Service: Tenant Manager

## Operations

| OPERATION                   | DESCRIPTION                                     |
|-----------------------------|---|
| <a href="#">Get Status</a>  | Gets status of the Service and its dependencies |
| <a href="#">Ping Status</a> | Provides the health status of the service.      |



# Get Status

API that fetches the status of the Tenant Manager Service.

## Permissions

|     |
|-----|
| N/A |
|-----|

## Http Request

|                              |
|------------------------------|
| GET /tenantmanager/v1/status |
|------------------------------|

## Request headers

| HEADER       | VALUE            |
|--------------|------------------|
| Content-Type | application/json |

## Request Body

|     |
|-----|
| N/A |
|-----|

## Response

```
{
  "Name": "Tenant Manager",
  "Status": {
    "IsHealthy": true,
    "Message": "Alive and well!"
  },
  "CurrentTime": "2020-10-29T08:39:47+00:00",
  "StartTime": "2020-10-26T23:01:14+00:00",
  "UpTime": 207513,
  "UID": "WebService.a43f99da-a107-446a-a1cb-c2cbad7eaea9",
  "Properties": {
    "authRequired": true,
    "endpoint": "http://+:80"
  },
  "Dependencies": {
    "CosmosDb": {
      "IsHealthy": true,
      "Message": "Alive and Well!"
    },
    "Tenant Runbooks": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    },
    "Table Storage": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    },
    "Identity Gateway": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    },
    "Config": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    },
    "App Config": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    }
  },
  "$metadata": {
    "$type": "Status;0",
    "$uri": "/status"
  }
}
```



## Ping Status

API that pings the Tenant Manager Service and responds to the status code.

### Permissions

N/A

### Http Request

GET /tenantmanager/v1/status/ping

### Request headers

| HEADER       | VALUE            |
|--------------|------------------|
| Content-Type | application/json |

### Request Body

N/A

### Response

Responds 200 Status code



# Namespace Mmm.Iot.TenantManager.WebService.Controllers

## Classes

[AlertingController](#)

[StatusController](#)

[TenantController](#)

[TenantReadyController](#)





# Class AlertingController

Inheritance

System.Object

AlertingController

Namespace: [Mmm.Iot.TenantManager.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class AlertingController : Controller
```

## Constructors

AlertingController(IAAlertingContainer, ILogger<AlertingController>)

Declaration

```
public AlertingController(IAAlertingContainer alertingContainer, ILogger<AlertingController> logger)
```

Parameters

| TYPE  | NAME              | DESCRIPTION |
|---|-------------------|-------------|
| IAAlertingContainer                           | alertingContainer |             |
| ILogger< <a href="#">AlertingController</a> > | logger            |             |

## Methods

AddAlertingAsync()

Declaration

```
public Task<StreamAnalyticsJobModel> AddAlertingAsync()
```

Returns

| TYPE   | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<StreamAnalyticsJobModel> |             |

GetAlertingAsync(Boolean)

Declaration

```
public Task<StreamAnalyticsJobModel> GetAlertingAsync(bool createIfNotExists = false)
```

Parameters

| TYPE           | NAME              | DESCRIPTION |
|----------------|-------------------|-------------|
| System.Boolean | createIfNotExists |             |

Returns

| TYPE   | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<StreamAnalyticsJobModel> |             |

RemoveAlertingAsync()

Declaration

```
public Task<StreamAnalyticsJobModel> RemoveAlertingAsync()
```

Returns

| TYPE   | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<StreamAnalyticsJobModel> |             |

StartAsync()

Declaration

```
public Task<StreamAnalyticsJobModel> StartAsync()
```

Returns

| TYPE   | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<StreamAnalyticsJobModel> |             |

StopAsync()

Declaration

```
public Task<StreamAnalyticsJobModel> StopAsync()
```

Returns

| TYPE   | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<StreamAnalyticsJobModel> |             |



# Class StatusController

Inheritance

System.Object

StatusController

Namespace: [Mmm.Iot.TenantManager.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public sealed class StatusController : ControllerBase
```

Constructors

StatusController(IStatusService)

Declaration

```
public StatusController(IStatusService statusService)
```

Parameters

| TYPE           | NAME          | DESCRIPTION |
|----------------|---------------|-------------|
| IStatusService | statusService |             |

Methods

GetAsync()

Declaration

```
public Task<StatusApiModel> GetAsync()
```

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<StatusApiModel> |             |

Ping()

Declaration

```
public IActionResult Ping()
```

Returns

| TYPE          | DESCRIPTION |
|---------------|-------------|
| IActionResult |             |



# Class TenantController

Inheritance

System.Object  
TenantController

Namespace: [Mmm.Iot.TenantManager.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class TenantController : Controller
```

## Constructors

TenantController(ITenantContainer, ILogger<TenantController>)

Declaration

```
public TenantController(ITenantContainer tenantContainer, ILogger<TenantController> logger)
```

Parameters

| TYPE  | NAME            | DESCRIPTION |
|---|-----------------|-------------|
| ITenantContainer                            | tenantContainer |             |
| ILogger< <a href="#">TenantController</a> > | logger          |             |

## Methods

DeleteAsync(Boolean)

Declaration

```
public Task<DeleteTenantModel> DeleteAsync(bool ensureFullyDeployed = true)
```

Parameters

| TYPE           | NAME                | DESCRIPTION |
|----------------|---------------------|-------------|
| System.Boolean | ensureFullyDeployed |             |

Returns

| TYPE   | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<DeleteTenantModel> |             |

GetAsync()

Declaration

```
public Task<TenantModel> GetAsync()
```

Returns

| TYPE                                     | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<TenantModel> |             |

GetTenantsAsync()

Declaration

```
public Task<UserTenantListModel> GetTenantsAsync()
```

Returns

| TYPE   | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<UserTenantListModel> |             |

PostAsync()

Declaration

```
public Task<CreateTenantModel> PostAsync()
```

Returns

| TYPE   | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<CreateTenantModel> |             |

UpdateAsync(String, String)

Declaration

```
public Task<TenantModel> UpdateAsync(string tenantId, string tenantName)
```

Parameters

| TYPE          | NAME       | DESCRIPTION |
|---------------|------------|-------------|
| System.String | tenantId   |             |
| System.String | tenantName |             |

Returns

| TYPE                                     | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<TenantModel> |             |



# Class TenantReadyController

## Inheritance

System.Object

TenantReadyController

Namespace: [Mmm.Iot.TenantManager.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

## Syntax

```
public class TenantReadyController : Controller
```

## Constructors

TenantReadyController(ITenantContainer, ILogger<TenantReadyController>)

## Declaration

```
public TenantReadyController(ITenantContainer tenantContainer, ILogger<TenantReadyController> logger)
```

## Parameters

| TYPE   | NAME            | DESCRIPTION |
|--|-----------------|-------------|
| ITenantContainer                                 | tenantContainer |             |
| ILogger< <a href="#">TenantReadyController</a> > | logger          |             |

## Methods

GetAsync(String)

## Declaration

```
public Task<bool> GetAsync(string tenantId)
```

## Parameters

| TYPE          | NAME     | DESCRIPTION |
|---------------|----------|-------------|
| System.String | tenantId |             |

## Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<System.Boolean> |             |



# ASA Manager

The ASA Manager service offers APIs to asynchronously convert tenant data into formats suitable for Azure Stream Analytics Job inputs.

## REST operation groups

The ASA Manager API provides operations for working with the following:

| OPERATION GROUP | DESCRIPTION |
|-----------------|-------------|
| DeviceGroups    |             |
| Rules           |             |
| Status          |             |



# Device Groups

Service: Asa Manager API Version: 2020-11-03

## Operations





# DeviceGroups

DeviceGroups Controller contains methods to convert the DeviceGroups in the Cosmos DB Collection and converts into file format suitable for Azure Stream Analytics job.

This document provides overview of following methods of DeviceGroup Controller.

- 1. [Begin Device Group Conversion](#)
- 2. [Begin IoT Hub Job Delay Device Group Conversion](#)

## Begin Device Group Conversion

API that begins the conversion of devicegroups data from cosmos collection into csv format for Azure Stream Analytics job.

### Permissions

|    |
|----|
| NA |
|----|

### Http Request

|                      |
|----------------------|
| GET /v1/devicegroups |
|----------------------|

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Request Body

|     |
|-----|
| N/A |
|-----|

### Response

If successful, this method returns **BeginConversionApiModel** object in the response body.

### Response Schema

|  |
|--|
| <pre>{   "tenantId": "string",   "operationId": "string" }</pre> |
|--|

### Sample Response

|  |
|--|
| <pre>{   "tenantId": "ac1037c4-386e-4402-9209-f9602ce90afe",   "operationId": "c2412f4c-a397-4b7a-81a1-0d175a9b69c6" }</pre> |
|--|

## Begin IoT Hub Job Delay Device Group Conversion

API that begins the conversion of devicegroups data from cosmos collection into csv format for Azure Stream Analytics job based on completion status of an IoT Hub Job.

Permissions

|    |
|----|
| NA |
|----|

Http Request

|   |
|---|
| GET /v1/devicegroups/iotHubjobdelay/{jobId} |
|---|

Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

Query Params

| NAME  | DESCRIPTION        |
|-------|--------------------|
| jobId | JobId from IoT Hub |

Request Body

|     |
|-----|
| N/A |
|-----|

Response

If successful, this method returns **BeginConversionApiModel** object in the response body.

Response Schema

|  |
|--|
| <pre>{   "tenantId": "string",   "operationId": "string" }</pre> |
|--|

Sample Response

|  |
|--|
| <pre>{   "tenantId": "ac1037c4-386e-4402-9209-f9602ce90afe",   "operationId": "c2412f4c-a397-4b7a-81a1-0d175a9b69c6" }</pre> |
|--|







# Storage Adapter Manager

Storage Adapter Manager offers APIs to maintains data in DB storage and health status of service.

Within each Serenity instance an interactive Swagger UI is available at the following path `/auth/index.html` for more information, [click here](#)

## Rest Operation Groups

The Device Telemetry REST API provides operations for working with the following:

| OPERATION GROUP        | DESCRIPTION                              |
|------------------------|--|
| <a href="#">Values</a> | Manage data in storage                   |
| <a href="#">Status</a> | Health status operations for the Service |



# Values

Service: Storage Adapter

## Operations

| OPERATION   | DESCRIPTION   |
|---|---|
| Get value for given collectionId and key              | Fetches the stored data                             |
| Get all values in collectionId                        | Fetches list of stored data related to collectionId |
| Save value by collectionId and randomly generated key | Save data in storage                                |
| Update value by collectionId and key                  | Update data in storage                              |
| Delete value from storage                             | Delete data from storage                            |



# Get value for given collectionId and key

API that fetches the data for a given collection and key.

## Permissions

|     |
|-----|
| N/A |
|-----|

## Http Request

|   |
|---|
| GET /v1/collections/{collectionId}/values/{key} |
|---|

## Parameters

| PARAMETER    | TYPE   | DESCRIPTION   |
|--------------|--------|---|
| collectionId | string | Represents the collection of data or file stored in storage                 |
| key          | string | It is a unique ID that represents a data or file, it also known as fileName |

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Request Body

|     |
|-----|
| N/A |
|-----|

## Response

- Status Code 200:

```
{
  "$metadata": {
    "$type": "Value;1",
    "$modified": "...",
    "$uri": "/v1/collections/test/values/filename"
  },
  "Key": "filename",
  "Data": "data to store",
  "ETag": "\"...\""
}
```

- Status Code 400 - Empty or invalid collection id or key. Valid characters are a-Z,A-Z,0-9,\_ and -.

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



# Get all values in collectionId

API that fetches all of the values under a given collection.

## Permissions

|     |
|-----|
| N/A |
|-----|

## Http Request

|   |
|---|
| GET /v1/collections/{collectionId}/values |
|---|

## Parameters

| PARAMETER    | TYPE   | DESCRIPTION   |
|--------------|--------|---|
| collectionId | string | Represents the collection of data or file stored in storage |

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Request Body

|     |
|-----|
| N/A |
|-----|

## Response

- Status Code 200 - Returns list of values :

```
{
  "Items": [
    {
      "$metadata": {
        "$type": "Value;1",
        "$modified": "...",
        "$uri": "/v1/collections/test/values/key1"
      },
      "Key": "key1",
      "Data": "data to store",
      "ETag": "\"...\""
    }
  ],
  "$metadata": {
    "$type": "ValueList;1",
    "$uri": "/v1/collections/test/values"
  }
}
```

- Status Code 400 - Empty or invalid collection id or key. Valid characters are a-Z,A-Z,0-9,\_ and -.

## Security



Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



# Save value by collectionId and randomly generated key

API that saves a value by collectionId and assigned a randomly generated key.

## Permissions

|     |
|-----|
| N/A |
|-----|

## Http Request

|  |
|--|
| POST /v1/collections/{collectionId}/values |
|--|

## Parameters

| PARAMETER    | TYPE   | DESCRIPTION   |
|--------------|--------|---|
| collectionId | string | Represents the collection of data or file stored in storage |

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Request Body

|                                   |
|-----------------------------------|
| {<br>"data": "data to store"<br>} |
|-----------------------------------|

## Response

- Status Code 200:

json { "\$metadata": { "\$type": "Value;1", "\$modified": "...", "\$uri":  
"/v1/collections/test/values/filename" }, "Key": "filename", "Data": "data to store", "ETag": "\"...\"" } }
- Status Code 400 - Empty or invalid collection id or key. Valid characters are a-Z,A-Z,0-9,\_ and -.

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



# Update value by collectionId and key

API that saves a value by collectionId and Key.

## Permissions

|     |
|-----|
| N/A |
|-----|

## Http Request

|   |
|---|
| PUT /v1/collections/{collectionId}/values/{key} |
|---|

## Parameters

| PARAMETER    | TYPE   | DESCRIPTION   |
|--------------|--------|---|
| collectionId | string | Represents the collection of data or file stored in storage                 |
| key          | string | It is a unique ID that represents a data or file, it also known as fileName |

## Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

## Request Body

|                                  |
|----------------------------------|
| {<br>"data":"data to store"<br>} |
|----------------------------------|

## Response

- Status Code 200:

|   |
|---|
| {<br>"\$metadata": {<br>"\$type": "Value;1",<br>"\$modified": "...",<br>"\$uri": "/v1/collections/test/values/filename"<br>},<br>"Key": "filename",<br>"Data": "data to store",<br>"ETag": "\"...\""<br>} |
|---|

- Status Code 400 - Empty or invalid collection id or key. Valid characters are a-Z,A-Z,0-9,\_ and -.

## Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



## Delete value from storage

API that deletes value by collectionId and values.

### Permissions

N/A

### Http Request

```
DELETE /v1/collections/{collectionId}/values/{key}
```

### Parameters

| PARAMETER    | TYPE   | DESCRIPTION   |
|--------------|--------|---|
| collectionId | string | Represents the collection of data or file stored in storage                 |
| key          | string | It is a unique ID that represents a data or file, it also known as fileName |

### Request headers

| HEADER        | VALUE                     |
|---------------|---------------------------|
| Authorization | Bearer {token}. Required. |
| Content-Type  | application/json          |

### Request Body

N/A

### Response

- Status Code 200 - Value has been deleted or didn't exist
- Status Code 400 - Empty or invalid collection id or key. Valid characters are a-Z,A-Z,0-9,\_ and -.

### Security

Type: OpenID Connect

Flow: implicit

Authorization URL: <https://login.microsoftonline.com/crs1testab2c.onmicrosoft.com>



# Status

Service: Storage Adapter

## Operations

| OPERATION                   | DESCRIPTION                                     |
|-----------------------------|---|
| <a href="#">Get Status</a>  | Gets status of the Service and its dependencies |
| <a href="#">Ping Status</a> | Provides the health status of the service.      |



# Get Status

API that fetches the status of the Storage Adapter Service.

## Permissions

|     |
|-----|
| N/A |
|-----|

## Http Request

|                |
|----------------|
| GET /v1/status |
|----------------|

## Request headers

| HEADER       | VALUE            |
|--------------|------------------|
| Content-Type | application/json |

## Request Body

|     |
|-----|
| N/A |
|-----|

## Response

```
{
  "Name": "Storage Adapter",
  "Status": {
    "IsHealthy": true,
    "Message": "Alive and well!"
  },
  "CurrentTime": "2020-10-30T10:22:44+00:00",
  "StartTime": "2020-10-30T10:22:44+00:00",
  "UpTime": 0,
  "UID": "WebService.fb371dfd-bf89-4ca4-bd05-d44b6d6a712a",
  "Properties": {
    "authRequired": true,
    "endpoint": "https://localhost:5001;http://localhost:5000"
  },
  "Dependencies": {
    "CosmosDb": {
      "IsHealthy": true,
      "Message": "Alive and Well!"
    },
    "App Config": {
      "IsHealthy": true,
      "Message": "Alive and well!"
    }
  },
  "$metadata": {
    "$type": "Status;0",
    "$uri": "/status"
  }
}
```



## Ping Status

API that pings the Storage Adapter Service and responds to the status code.

### Permissions

N/A

### Http Request

GET /v1/status/ping

### Request headers

| HEADER       | VALUE            |
|--------------|------------------|
| Content-Type | application/json |

### Request Body

N/A

### Response

Responds 200 Status code





# Namespace Mmm.Iot.StorageAdapter.WebService.Controllers

Classes

[StatusController](#)

[ValuesController](#)



# Class StatusController

Inheritance

System.Object

StatusController

Namespace: [Mmm.Iot.StorageAdapter.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public sealed class StatusController : ControllerBase
```

## Constructors

### StatusController(IStatusService)

Declaration

```
public StatusController(IStatusService statusService)
```

Parameters

| TYPE           | NAME          | DESCRIPTION |
|----------------|---------------|-------------|
| IStatusService | statusService |             |

## Methods

### GetAsync()

Declaration

```
public Task<StatusApiModel> GetAsync()
```

Returns

| TYPE  | DESCRIPTION |
|---|-------------|
| System.Threading.Tasks.Task<StatusApiModel> |             |

### Ping()

Declaration

```
public IActionResult Ping()
```

Returns

| TYPE          | DESCRIPTION |
|---------------|-------------|
| IActionResult |             |



# Class ValuesController

Inheritance

System.Object  
ValuesController

Namespace: [Mmm.Iot.StorageAdapter.WebService.Controllers](#)

Assembly: cs.temp.dll.dll

Syntax

```
public class ValuesController : Controller
```

## Constructors

ValuesController(IKeyValueContainer, IKeyGenerator, ILogger<ValuesController>)

Declaration

```
public ValuesController(IKeyValueContainer container, IKeyGenerator keyGenerator, ILogger<ValuesController> logger)
```

Parameters

| TYPE  | NAME         | DESCRIPTION |
|---|--------------|-------------|
| IKeyValueContainer                          | container    |             |
| IKeyGenerator                               | keyGenerator |             |
| ILogger< <a href="#">ValuesController</a> > | logger       |             |

## Methods

Delete(String, String)

Declaration

```
public Task Delete(string collectionId, string key)
```

Parameters

| TYPE          | NAME         | DESCRIPTION |
|---------------|--------------|-------------|
| System.String | collectionId |             |
| System.String | key          |             |

Returns

| TYPE                        | DESCRIPTION |
|-----------------------------|-------------|
| System.Threading.Tasks.Task |             |

Get(String)

Declaration

```
public Task<ValueListApiModel> Get(string collectionId)
```

Parameters

| TYPE          | NAME         | DESCRIPTION |
|---------------|--------------|-------------|
| System.String | collectionId |             |

Returns

| TYPE   | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<ValueListApiModel> |             |

Get(String, String)

Declaration

|   |
|---|
| public Task<ValueApiModel> Get(string collectionId, string key) |
|---|

Parameters

| TYPE          | NAME         | DESCRIPTION |
|---------------|--------------|-------------|
| System.String | collectionId |             |
| System.String | key          |             |

Returns

| TYPE                                       | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<ValueApiModel> |             |

Post(String, ValueServiceModel)

Declaration

|   |
|---|
| public Task<ValueApiModel> Post(string collectionId, ValueServiceModel model) |
|---|

Parameters

| TYPE              | NAME         | DESCRIPTION |
|-------------------|--------------|-------------|
| System.String     | collectionId |             |
| ValueServiceModel | model        |             |

Returns

| TYPE                                       | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<ValueApiModel> |             |

Put(String, String, ValueServiceModel)

Declaration

|  |
|--|
| public Task<ValueApiModel> Put(string collectionId, string key, ValueServiceModel model) |
|--|

Parameters

| TYPE              | NAME         | DESCRIPTION |
|-------------------|--------------|-------------|
| System.String     | collectionId |             |
| System.String     | key          |             |
| ValueServiceModel | model        |             |

Returns

| TYPE                                       | DESCRIPTION |
|--|-------------|
| System.Threading.Tasks.Task<ValueApiModel> |             |