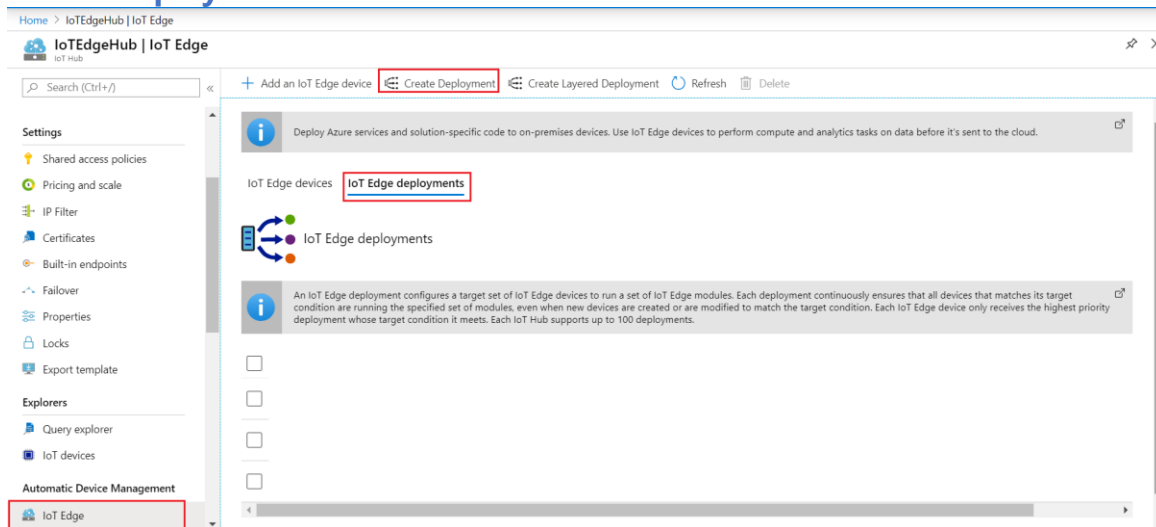


# Configure IoT Edge Auto-Deployment using Azure portal

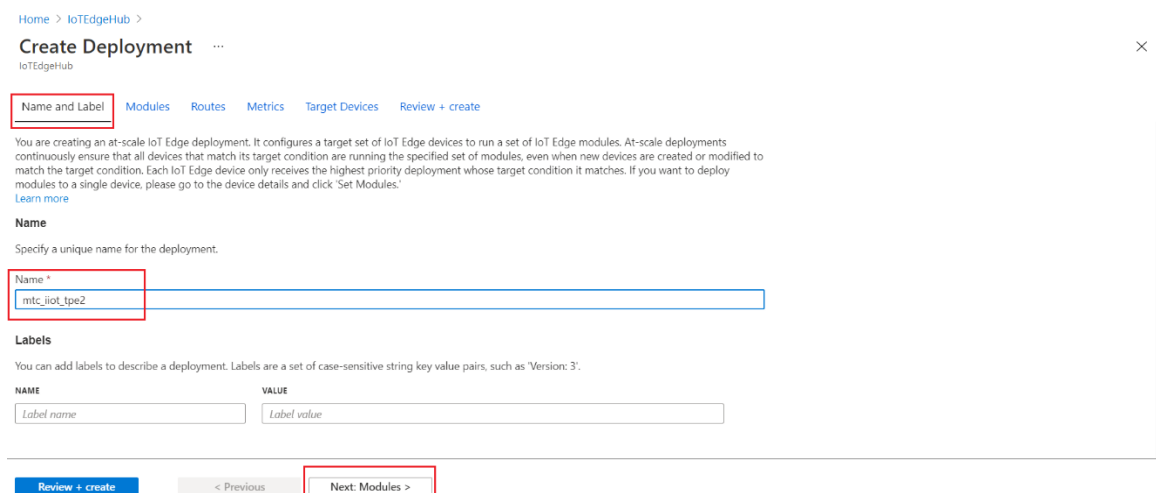
Note: Here we add total two modules for our deployment, one thingspro-agent a system module for device management for Moxa IIOT gateway and second Microsoft opcpublisher module for data acquisition from OPC-UA servers

## Create Deployment



- Name and Label
  - mtc-iiot-tpe2

Specify unique name for your deployment then select Next



# Add ThingsPro-Agent

## • Modules

### Create Deployment ...

IoT Edge Hub

Name and Label

Modules

Routes

Metrics

You can specify credentials to container registries hosting module images. If you don't specify credentials, the deployment will report error code 500 if it can't find a container registry setting for a module.

NAME

ADDRESS

IoT Edge Modules

An IoT Edge module is a Docker container you can deploy to IoT Edge devices. Using this UI you can import Azure Service IoT Edge modules towards the quota and throttled based on the IoT Hub tier and units. For more information, see [IoT Hub tier and units](#).

+ Add

+ IoT Edge Module

+ Marketplace Module

+ Azure Stream Analytics Module

Add IoT Edge Module

Specify the settings for an IoT Edge custom module.  
[Learn more](#)

IoT Edge Module Name \*

thingspro-agent

Image URI \*

moxa2019/thingspro-agent:2.1.1-929-armhf

Restart Policy

always

Desired Status

running

Image Pull Policy

Review + create

< Previous

Add

Cancel

#### IoT Edge Module Name:

- thingspro-agent

#### Docker Image URI:

- moxa2019/thingspro-agent:2.1.1-929-armhf

Home > IoT Edge Hub >

### Create Deployment ...

IoT Edge Hub

Name and Label

Modules

Routes

Metrics

Target Deployment

You can specify credentials to container registries hosting module images. If you don't specify credentials, the deployment will report error code 500 if it can't find a container registry setting for a module.

NAME

ADDRESS

IoT Edge Modules

An IoT Edge module is a Docker container you can deploy to IoT Edge devices. Using this UI you can import Azure Service IoT Edge modules towards the quota and throttled based on the IoT Hub tier and units. For more information, see [IoT Hub tier and units](#).

+ Add

+ IoT Edge Module

+ Marketplace Module

+ Azure Stream Analytics Module

Add IoT Edge Module

Specify the settings for an IoT Edge custom module.  
[Learn more](#)

IoT Edge Module Name \*

thingspro-agent

Container Create Options

Create options direct the creation of the IoT Edge module Docker container.  
[View all options](#)

```
1 {
2   "HostConfig": {
3     "Binds": [
4       "/var/thingspro/apps/cloud/data/setting:/var/thingspro/cloud/setting/",
5       "/run:/host/run/",
6       "/var/thingspro/data:/var/thingspro/data/"
7     ]
8   }
9 }
```

Review + create

< Previous

Add

Cancel

- Container Create Options:

```
{
  "HostConfig": {
    "Binds": [
      "/var/thingspro/apps/cloud/data/setting:/var/thingspro/cloud/setting/",
      "/run:/host/run/",
      "/var/thingspro/data:/var/thingspro/data/"
    ]
  }
}
```

## Add OPC Publisher

- Modules

Home > IoTEdgeHub | IoT Edge > Create Deployment

**Create Deployment**

IoTEdgeHub

Name and Label Modules Routes Metrics Target Deployment

**Container Registry Credentials**

You can specify credentials to container registries hosting module images. List find a container registry setting for a module.

NAME ADDRESS

Name Address

**IoT Edge Modules**

An IoT Edge module is a Docker container you can deploy to IoT Edge devices. Service IoT Edge modules or specify the settings for an IoT Edge module. Settings example, for S1 tier, modules can be set 10 times per second if no other updates. Learn more

+ Add Runtime Settings

NAME	DESIRED STATUS
thingspro-agent	running

**Add IoT Edge Module**

Specify the settings for an IoT Edge custom module. Learn more

IoT Edge Module Name \*

opcpublisher

**Module Settings** Environment Variables Container Create Options Module Twin Settings

Image URI \*

mcr.microsoft.com/iotedge/opc-publisher:2.3.0

Restart Policy

always

Desired Status

running

Review + create < Previous Next Add Cancel

- IoT Edge Module Name:

- opcpublisher

- Docker Image URI:

- mcr.microsoft.com/iotedge/opc-publisher:2.3.0

Home > IoTEdgeHub | IoT Edge > Create Deployment

## Create Deployment

IoT Edge Hub

Name and Label Modules Routes Metrics Target Devices

**Container Registry Credentials**

You can specify credentials to container registries hosting module images. Listed credentials are used to retrieve modules with a matching URL. The Edge Agent will report error code 500 if it can't find a container registry setting for a module.

NAME ADDRESS

NAME ADDRESS

**IoT Edge Modules**

An IoT Edge module is a Docker container you can deploy to IoT Edge devices. It communicates with other modules and sends data to the IoT Edge runtime. Using this UI you can import Azure Service IoT Edge modules or specify the settings for an IoT Edge module. Setting modules on each device will be counted towards the quota and throttled based on the IoT Hub tier and units. For example, for S1 tier, modules can be set 10 times per second if no other updates are happening in the IoT Hub.

Learn more

+ Add ▾ Runtime Settings

NAME	DESIRED STATUS
thingspro-agent	running

**Add IoT Edge Module**

Specify the settings for an IoT Edge custom module.

Learn more

IoT Edge Module Name \*

opcublisher

Module Settings Environment Variables **Container Create Options** Module Twin Settings

Create options direct the creation of the IoT Edge module Docker container.

View all options

```

1 {
2   "Hostname": "publisher",
3   "Cmd": [
4     "--aa"
5   ]
6 }
7

```

Review + create < Previous Next **Add** Cancel

### Container Create Options:

```

{
  "Hostname": "publisher",
  "Cmd": [
    "--aa"
  ]
}

```

After you finished adding the iotedge module, you will be redirect to the main page where two iotedge modules are listed as below

Home > IoTEdgeHub | IoT Edge > Create Deployment

## Create Deployment

IoT Edge Hub

Name and Label Modules Routes Metrics Target Devices Review + create

**Container Registry Credentials**

You can specify credentials to container registries hosting module images. Listed credentials are used to retrieve modules with a matching URL. The Edge Agent will report error code 500 if it can't find a container registry setting for a module.

NAME ADDRESS USER NAME PASSWORD

NAME ADDRESS USER NAME PASSWORD

**IoT Edge Modules**

An IoT Edge module is a Docker container you can deploy to IoT Edge devices. It communicates with other modules and sends data to the IoT Edge runtime. Using this UI you can import Azure Service IoT Edge modules or specify the settings for an IoT Edge module. Setting modules on each device will be counted towards the quota and throttled based on the IoT Hub tier and units. For example, for S1 tier, modules can be set 10 times per second if no other updates are happening in the IoT Hub.

Learn more

+ Add ▾ Runtime Settings

NAME	DESIRED STATUS	
thingspro-agent	running	🗑
opcublisher	running	🗑

Review + create < Previous **Next: Routes >**

## • Routes

Home > IoT EdgeHub | IoT Edge > Create Deployment

### Create Deployment

IoT EdgeHub

Name and Label Modules **Routes** Metrics Target Devices Review + create

#### Routes

You can set routes between modules, which gives you the flexibility to send messages where they need to go without the need for additional services to process messages or to write additional code. [Learn more](#)

NAME	VALUE
route	FROM /messages/* INTO \$upstream

Review + create < Previous **Next: Metrics >**

- NAME:
  - default
- VALUE:

FROM /messages/\* INTO \$upstream

## • Target Devices

Home > IoT EdgeHub >

### Create Deployment

IoT EdgeHub

Name and Label Modules Routes Metrics **Target Devices** Review + create

#### Priority

When multiple deployments target the same device, the deployment with higher priority gets applied. If multiple deployments have the same priority, the deployment with the later creation date gets applied. [Learn more](#)

Priority (higher values indicate higher priority) \*

10

#### Target Condition

The target condition is continuously evaluated to include any new devices that meet the requirements or remove devices that no longer do through the lifetime of the deployment. Valid conditions specify either a deviceId (e.g. deviceId='[id]'), one or more device twin tag criteria (e.g. tags.environment = 'prod' AND tags.location = 'westus'), or reported property criteria (e.g. properties.reported.lastStatus='200').

Target Condition

tags.workshop='MTC'

View Devices

Review + create < Previous **Next: Review + create >**

- Target Condition:

tags.workshop= 'MTC '

Home > IoTEdgeHub | IoT Edge > Create Deployment

### Create Deployment

IoT Edge Hub

Name and Label Modules Routes Metrics Target Devices **Review + create**

Validation passed.

**Deployment**  
The text box below displays the deployment to be submitted.

```
1 {
2   "id": "thingspro-edge-v2-opcpublisher",
3   "labels": {},
4   "priority": 110,
5   "targetCondition": "tags.workshop='Microsoft'",
6   "content": {
7     "modulesContent": {
8       "properties.desired": {
9         "modules": {
10           "thingspro-agent": {
11             "settings": {
12               "image": "moxa2019/thingspro-agent:2.0.0-528-armhf",
13               "createOptions": "{\\\"HostConfig\\\":{\\\"Binds\\\":[\\\"/var/thingspro/apps/cloud/data/
14             }},
15             \"type\": \"docker\",
16             \"status\": \"running\",
17             \"restartPolicy\": \"always\",
18             \"version\": \"1.0\"
19           },
20         }
21       }
22     }
23   }
24 }
```

Create < Previous Next >

## Verify IoT Edge Deployment

Home > IoTEdgeHub

### IoT Edge Hub | IoT Edge

IoT Hub

Search (Ctrl+F) < + Add an IoT Edge device Create Deployment Create Layered Deployment Refresh Delete

Pricing and scale  
Networking  
Certificates  
Built-in endpoints  
Failover  
Properties  
Locks

Explorers  
Query explorer  
IoT devices  
Automatic Device Management  
**IoT Edge**  
IoT device configuration  
Device updates

Deploy Azure services and solution-specific code to on-premises devices. Use IoT Edge devices to perform compute and analytics tasks on data before it's sent to the cloud.

IoT Edge devices **IoT Edge deployments**

IoT Edge deployments

An IoT Edge deployment configures a target set of IoT Edge devices to run a set of IoT Edge modules. Each deployment continuously ensures that all devices that matches its target condition are running the specified set of modules, even when new devices are created or are modified to match the target condition. Each IoT Edge device only receives the highest priority deployment whose target condition it meets. Each IoT Hub supports up to 100 deployments.

<input type="checkbox"/>	mtc_10t_tpe2	Deployment	tags.workshop='MTC'	10	0 Targeted 0 Applied	0 Reporting Success 0 Reporting Failure	Metrics have not b...	Wed Jul 21 2021 16:2...
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