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# 3M IoT Platform Guides

Welcome to the public documentation on guides that cover common activities of working with the platform.

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# Overview of IoT Devices on Azure

Conceptually, there are two types of devices that can be used in Azure: 1) Simulated and 2) Real.

Simulated devices are used to test connectivity and offer a quick way to evaluate functionality without needing to procure any hardware.

There are two types of real devices: IoT Edge device and IoT device.

If you'd like to learn more about the types of devices that can work with Azure check out Microsoft's [Device Catalog](#)

## Device Registration

Before you can use a real or simulated device, you must first register it. Use the following links to get started:

- [Register a device](#)
- [Register a simulated device](#)

# How to Register a Device

For a device to connect to the solution accelerator, it must identify itself to IoT Hub using valid credentials. You have the opportunity to save the device connection string that contains these credentials when you add the device to the solution. You include the device connection string in your client application later in this tutorial.

To add a device to your Remote Monitoring solution, complete the following steps on the Device Explorer page in the solution:

1. Choose + **New device**, and then choose **Real** as the **Device type**:

**3M Serenity IoT DEV Platform**

joetest | Get Link | Manage device groups | Query Devices

## Device Explorer

Search devices...

| Device name {}                          | Simulated | Device type | Firmware | Telemetry     | Status |
|---|-----------|-------------|----------|---------------|--------|
| <input type="checkbox"/> BridgetteDemo  | No        | ---         | ---      | ---           |        |
| <input type="checkbox"/> DemoDevice     | No        | ---         | ---      | ---           |        |
| <input type="checkbox"/> groupTest2     | No        | ---         | ---      | ---           |        |
| <input type="checkbox"/> joetest        | No        | ---         | ---      | messageSchema |        |
| <input type="checkbox"/> rule_test      | No        | ---         | ---      | ---           |        |
| <input type="checkbox"/> sah_test       | No        | ---         | ---      | ---           |        |
| <input type="checkbox"/> sah_test.test1 | No        | ---         | ---      | ---           |        |
| <input type="checkbox"/> sahih_test     | No        | ---         | ---      | ---           |        |
| <input type="checkbox"/> VisTest        | No        | ---         | ---      | messageSchema |        |

### New device

Device

☐ IoT Edge device

☒ IoT device

Number of devices

1

Device ID

☒ Enter device ID

☐ System generated device IDs

Authentication type

☒ Symmetric key

☐ X.509

Authentication key

☒ Auto generate keys

☐ Enter keys manually

Primary Key

Secondary Key

Provision summary

**1** Devices to provision

Apply x Cancel

1. Enter a Device ID you wish to use to reference this device or allow the system to generate one for you. The value must be unique and connect include spaces.
2. Select the desired authentication type and either have the system generate authentication keys for you or provide your own. CRSL generally uses a Symmetric Key but your organization might prefer x509. Chose whichever is the most appropriate.
3. Select the preferred option for how to define keys. You have the choice between:
  - o Providing your own
  - o Auto Generating



## How to Register a Simulated Device