

This is just an example, you must have to create a device and certificates with your AWS account to use it!

1. Log in AWS IoT, And create a goods.
  - 1) You should create a type before, and fill in the name of the goods (device\_id in the example project), and then click the Next.

aws Services

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### AWS IoT

- monitor
- activity
- ▶ Getting started training
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  - goods**
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Software

Set up

Learn

Feature highlights

documentation

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This step creates a registry key and item shadow for your device in the item registry.

name

mydevice

#### Apply the type to this item

Using item types simplifies device management by providing consistent registry data for items of the same properties and a description of an item that describe the identity and functionality of the device.

The type of item

shao

The type of creation

#### Add this item to the group

Adding items to a group allows you to remotely manage devices using tasks.

Item group

group /

#### Set searchable item properties (optional)

Enter values for one or more of these properties so that you can search for your items in the registry.

The item type has no searchable properties

#### Set non-searchable item properties (optional)

You can use item properties to describe the identity and functionality of your device.

The property key	value
Provides property keys, such as The Provider	Provides property values, such as

Add another one

Displays the shadow of the item

Cancel

Feedback English (US)

- 2) Click Create a certificate to generate the certificate and key.

AWS IoT > goods > Create an item > Add the device to the item registry > Add a certificate

CREATE AN ITEM

STEP 2 OF 3

Add a certificate for the item

The certificate is used to verify your device's connection to AWS IoT.

One-click certificate creation (recommended)

This uses AWS IoT's certification authority to generate certificates, public keys, and private keys.

Create a certificate

Create with CSR

Upload your own Certificate Signature Request (CSR) based on the private key you own.

Create with CSR

Use my certificate

Register your CA certificate and use your own certificate for one or more devices.

Entry

Skip the certificate and create an item

You'll need to add a certificate to the item later before your device can connect to AWS IoT.

Create an item without a certificate

- 3) Download The certificate for the item, Private key and The root CA of AWS IoT to local, then click activation. Attention: you should add the additional policies.

The certificate has been created!

Download these files and keep them in a safe place. Certificates can be retrieved at any time, but private and public keys cannot be retrieved after this page is closed.

To connect your device, you'll need to download the following:

The certificate for the item	b06802efa2.cert.pem	Download
Public key	b06802efa2.public.key	Download
Private key	b06802efa2.private.key	Download

You also need to download the root CA of AWS IoT:

The root CA of AWS IoT Download

activation

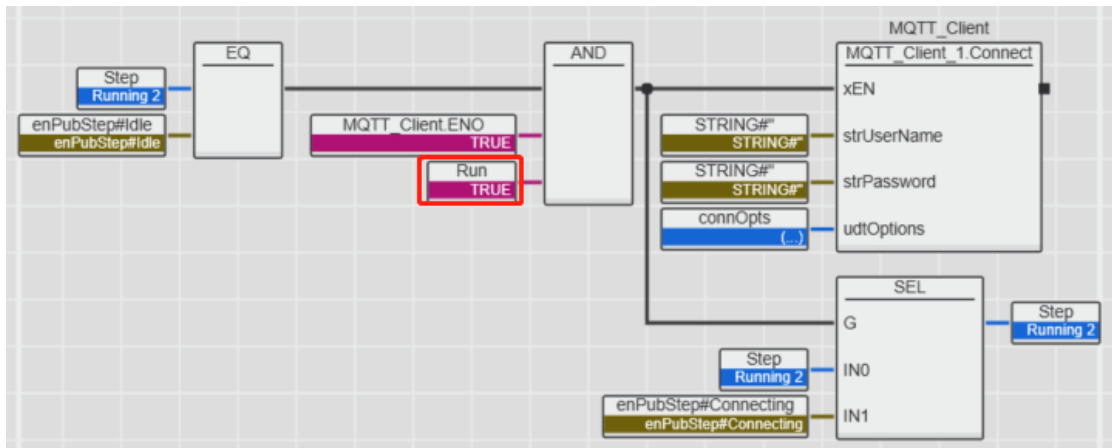
Cancel

finish

Additional policies

2. Open the project of PLCnext Engineer, Like IIOT\_TEST\_AWS\_PUB\_2.pcwex.open the programs variables list, you can see ca\_path, cert\_path and key\_path. Please put these three files you downloaded before to /opt/plcnext/certs/ in PLCnext. And fill in the





- Open the MQTT test client in AWS IoT. Copy the TOPIC value of project to AWS IoT. Subscribe the topic and you can receive the message from PLCnext.

TOPIC	STRING	Local	<input type="checkbox"/>	STRING#/devices/mydevice/messages/events/
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AWS IoT > MQTT test client

## MQTT test client [Information](#)

You can use the MQTT test client to monitor MQTT messages delivered in your AWS account. The MQTT test client to subscribe to the MQTT message topic and publish the MQTT message to the topic.

Subscribe to the topic

Publish to the topic

Topic filter [information](#)

Topic filters describe the topics you want to subscribe to. Topic filters can include MQTT wildcards.

► Other configurations

subscribe

/devices/mydevice/messages/events/

Time out

purge

Export

edit

/devices/mydevice/messages/events/  

▼

/devices/mydevice/messages/events/

June 03, 2021, 18:38:05 (UTC+0800)

{ID:34,DT:"DT#2021-06-03-18:38:15.59"}

▼

/devices/mydevice/messages/events/

June 03, 2021, 18:37:59 (UTC+0800)

{ID:33,DT:"DT#2021-06-03-18:38:09.59"}

▼

/devices/mydevice/messages/events/

June 03, 2021, 18:37:53 (UTC+0800)

{ID:32,DT:"DT#2021-06-03-18:38:03.59"}

▼

/devices/mydevice/messages/events/

June 03, 2021, 18:37:47 (UTC+0800)

{ID:31,DT:"DT#2021-06-03-18:37:57.59"}

If you want to realize subscribe function in PLCnext, you can open IIOT\_TEST\_AWS\_SUB\_2.pcwex project. Steps are the same. And you can see the message topic, message contents and message information from msgTopic, msg, msgInfo these three variables.

AWS IoT > MQTT test client

MQTT test client

Information

You can use the MQTT test client to monitor MQTT messages delivered in your AWS account. The device publishes MQTT messages to the MQTT test client to subscribe to the MQTT message topic and publish the MQTT message to the topic.

Subscribe to the topic

Publish to the topic

The subject name

The subject name identifies the message. The message load is published to this topic with Quality of Service (QoS) 0.

/plcnext\_test\_wr/sub

Message load

1234567

Other configurations

publish

Name	Value	Data type	Instance
msgTopic	/plcnext_test_wr/sub	MyString	demo-aws / PLC.demo_sub
msg	[...]	MyArray	demo-aws / PLC.demo_sub
msgInfo	(...)	MQTT_UDT_ME...	demo-aws / PLC.demo_sub
udiLength	7	UDINT	demo-aws / PLC.demo_sub.msgInfo
diQos	0	DINT	demo-aws / PLC.demo_sub.msgInfo
xDuplicate	FALSE	BOOL	demo-aws / PLC.demo_sub.msgInfo
xRetained	FALSE	BOOL	demo-aws / PLC.demo_sub.msgInfo

Attention: Make sure your PC time is correct, or the certificate you download is invalid.