AtlasScientific
Environmental Robotics
Cloud Settings Guide

AtlasScientific™
Internet of Things

Cloud Settings

Endpoint URI

User ID

Password

Interval (secs)   Client ID

Topic

Save

Endpoint URI - The web address of your MQTT broker.

Example io.adafruit.com

User ID - If your broker requires a login, this is where your user ID goes.

Example myUserId

Password - If your broker requires a login, this is where your password goes.

Example mypassword

Interval (secs) - How often the IoT should send to data to the broker.

Example 60

ClientID - A random ClientID. *(no spaces)*

Example My_Device

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Topic - The MQTT topic the data will be sent out under.
See http://www.steves-internet-guide.com/understanding-mqtt-topics/

Note
We append on some subtopics /SensorType/Add_(SensorAddress)/SensorName
Example /RTD/add_102/MyName

If there is no name set, we leave off that subtopic.

**Click or scroll down to see
an example MQTT setup using:**

MQTT with Mosquitto

MQTT with io.adafruit.com

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MQTT with Mosquitto

Mosquitto is an Open Source MQTT broker that works quite well and is easy to troubleshoot. It can be found at https://mosquitto.org and is well supported.

If you assume your Mosquitto Broker is on a computer called **MyComputer.** Your settings for the Atlas IoT would be

Endpoint URI	MyComputer
UserId	leave blank, if you did not setup a user ID
Password	leave blank, if you did not setup a password
Interval (Secs)	60 is a good place to start
ClientID	My_Device *(No spaces)*
Topic	MyTopic *(I usually do NOT put the starting "/")*

We will append a series of subtopic onto your topic

Example
If you are running an EZO™ RTD Temperature Circuit on the default address, and have named it, Mosquitto will receive the topic **MyTopic/RTD/add_102/SensorName**

If the circuit is unnamed (default) it will be **MyTopic/RTD/add_102**

If you have multiple sensors, there will be multiple topics, all underneath **MyTopic**. You should see them in your Mosquitto_sub session

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Endpoint URI	MyComputer
User ID	
Password	
Interval (secs)	60
Client ID	My_Device
Topic	MyTopic

Save

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MQTT with Mosquitto

Troubleshooting

If we assume that you have installed Mosquitto on a computer called **MyComputer** (see their website https://mosquitto.org for ports to open, etc),

You can monitor all traffic to that broker with a program call **mosquitto_sub** *(comes in the install package)* The Manual can be found by clicking HERE

Assuming you have not setup mosquitto for login, the command would be **mosquitto_sub -v -h MyComputer -t '#'**

That command subscribes to ALL topics (**'#'**) in a verbose manner.

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MQTT with io.adafruit.com

io.adafruit.com is a MQTT broker that has some limitations, but is usually quite reliable. That said, it has some differences from stock Mosquitto.

Your settings for the Atlas IoT would be

Endpoint URI	io.adafruit.com
UserId	your loginID. **Example** MyID
Password	This is the Adafruit IO key, a 32digit ID that you generate and download from the adafruit site. **Example** 4AF87ABC56974AF69F62434E7FEC0D9B
Interval (Secs)	60 is a good place to start
ClientID	My_Device *(No spaces)*
Topic	This is where adafruit is different. **They require a very specific format, and they do NOT allow subtopics!**

The topic **MUST** be in either of these formats
UserID/f/MyTopicNoSpaces **or** UserID/feed/MyTopicNoSpaces

Example MyID/f/MyTestTopic

However, the topic we will send for each sensor will be
UserID/f/topic_sensorType_add_SensorAddress_SensorName

Assuming a Temperature probe named MyName on default address
MyID/f/MyTestTopic_RTD_add_102_MyName

Or, if we have no name
MyID/f/MyTestTopic_RTD_add_102

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Endpoint URI	io.adafruit.com
User ID	MyID
Password	4AF87ABC56974AF69F62434E7FEC0D9B
Interval (secs)	60
Client ID	My_Device
Topic	MyID/f/MyTestTopic_RTD_add_102

Save