Connectivity Guide

Connect Kepware Server to Ali IoT

November, 2025
Ref. 1.02

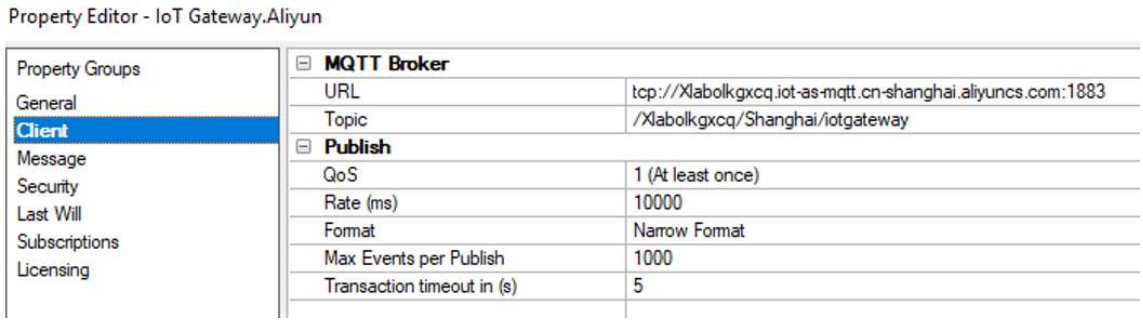
1. Overview

This document explores how to configure an MQTT Client Agent within the IoT Gateway Plug-In to send data to Ali IoT. The connection can be made using MQTT over Transmission Control Protocol (TCP) and MQTT over Transport Layer Security (TLS).

Note: Before connecting to Ali IoT via MQTT, ensure appropriate Ali IoT product and device configuration, getting ProductKey, DeviceName, DeviceSecret, and root CA certificate ready. Find this information on the console page of the website: https://iot.console.aliyun.com.

2. Configure the Agent for MQTT over TCP

1. Launch Kepware Server and use the left panel to locate the IoT Gateway Plug-In.
2. Located and select the MQTT Client Agent.
3. Right-click and select **Create...**.
4. Set the following parameters:
   a. MQTT Broker URL has the format of tcp://${YourProductKey}.iot-as-mqtt.${region}.aliyuncs.com:1883
   b. MQTT Broker Topic has the format of /${YourProductKey}/${YourDeviceName}/${CustomizedString}

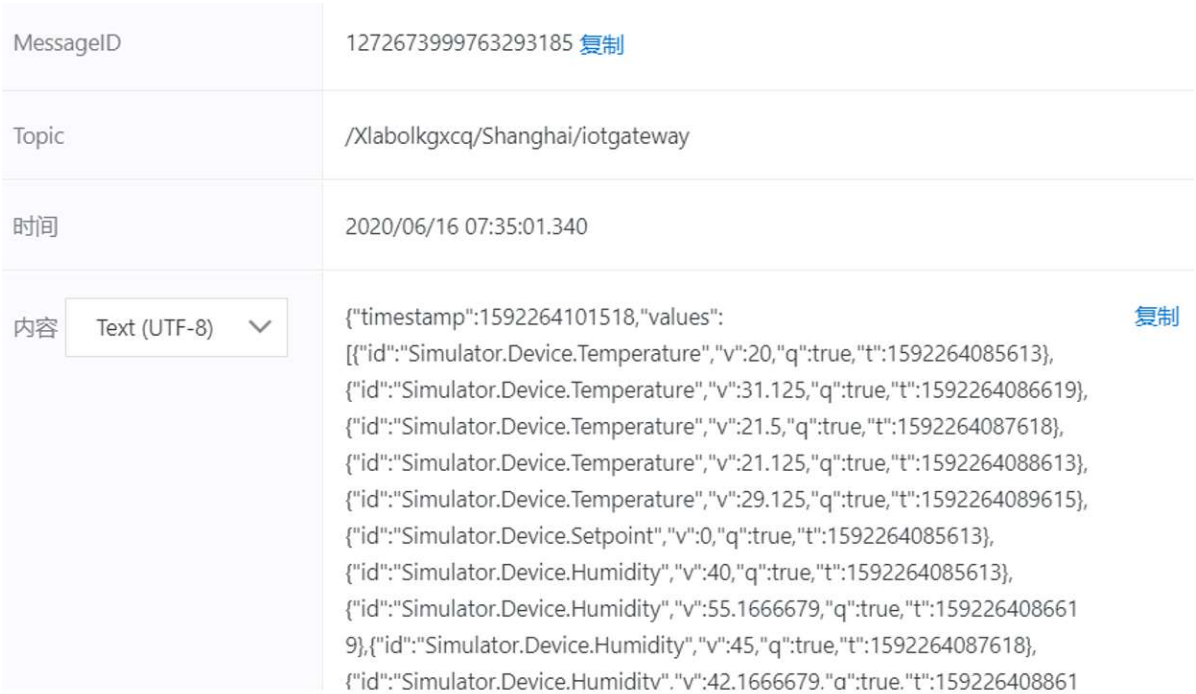


   c. Inside Credentials, specify Client ID in the format of
   ${clientId}|securemode=3,signmethod=hmacsha1| for TCP Connection
   ${clientId}|securemode=2,signmethod=hmacsha1| for TLS Connection
   Tip: {clientId} is customizable, but “Kepware” is used in this guide.
   d. For inside credentials, specify user name in the format of ${YourDeviceName}&${YourProductKey}

e. For inside credentials, the password must be calculated by HMACSHA1 algorithm.
Note: Ali IoT provides a tool to generate a password. The same password can be used for the TCP and TLS connections.

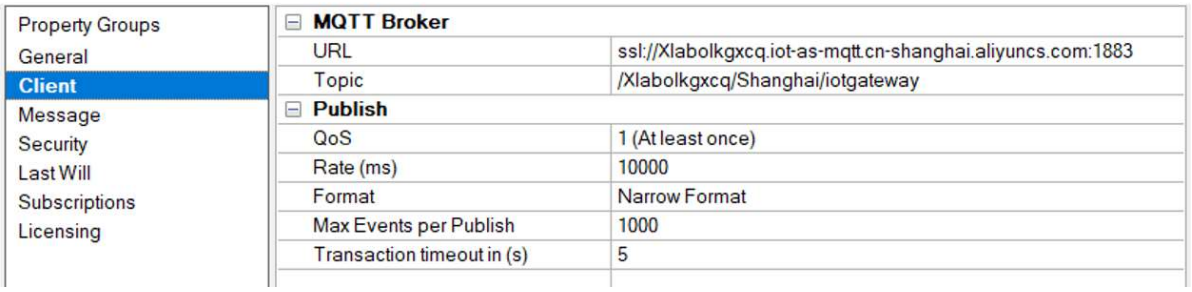
5. Set and Enable this MQTT Client Agent.
6. Verify it displays as connecting to Ali IoT.

7. Verify data is received in Ali IoT.



3. Configure MQTT Over TLS (Optional)

8. Install the root CA Certificate from Ali IoT on the host operating system.
9. Change the broker URL in the client property group of the MQTT Client Agent to reflect the use of SSL (replace “tcp://” with “ssl://”).



10. Change the TLS version in the security property group to **v1.2**.