SIM7020 Series_MQTT(S) _Application Note

LPWA Module
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<tr>
<td>V1.00</td>
<td>2018.04.10</td>
<td>Xiaohui.Xu</td>
<td>First Release.</td>
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<tr>
<td>V1.01</td>
<td>2018.06.07</td>
<td>Albert Meng</td>
<td>Revised</td>
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<tr>
<td>V1.03</td>
<td>2019.05.10</td>
<td>Xiaohui.Xu/Wenjie.lai</td>
<td>Add MQTT introduction and SSL sample</td>
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<tr>
<td>V1.04</td>
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<td>Xiaohui.Xu</td>
<td>Add MQTT connect to Azure IoT</td>
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<td>2020.06.10</td>
<td>Xiaohui.Xu</td>
<td>All</td>
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Scope

This document applies to the following products

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<th>Name</th>
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<td>Band 1/3/5/8</td>
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<tr>
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<td>24*24</td>
<td>Band 5/8</td>
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<tr>
<td>SIM7020G</td>
<td>NB2</td>
<td>17.6*15.7</td>
<td>Band 1/2/3/4/5/8/12/13/17/18/19/20/25/26/28/66/70/71/85</td>
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<td>NB2+GNSS</td>
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1 Introduction

1.1 Purpose of the document

Based on module AT command manual, this document will introduce MQTT(S) application process.

Developers could understand and develop application quickly and efficiently based on this document.

1.2 Related documents


1.3 Conventions and abbreviations

In this document, the GSM engines are referred to as following term:
ME (Mobile Equipment);
MS (Mobile Station);
TA (Terminal Adapter);
DCE (Data Communication Equipment) or facsimile DCE (FAX modem, FAX board);

In application, controlling device controls the GSM engine by sending AT Command via its serial interface.
The controlling device at the other end of the serial line is referred to as following term:
TE (Terminal Equipment);
DTE (Data Terminal Equipment) or plainly "the application" which is running on an embedded system;
2 MQTT Introduction

MQTT (Message Queue Telemetry Transport) is a messaging protocol based on the publish/subscribe paradigm under the ISO standard (ISO/IEC PRF 20922). It works on the TCP/IP protocol suite and is a publish/subscribe messaging protocol designed for remote devices with poor hardware performance and poor network conditions. The MQTT protocol is a protocol designed for the communication of remote sensors and control devices with limited computing power and working on low-bandwidth, unreliable networks. It has the following main features:

1) Use the publish/subscribe message mode to provide one-to-many message publishing and uncouple the application;
2) Message transmission for shielding the payload content;
3) Provide network connection using TCP/IP;
4) There are three types of message publishing service quality:
   - "At most once," message publishing relies entirely on the underlying TCP/IP network. Message loss or duplication can occur. This level can be used in the following situations, environmental sensor data, loss of a read record does not matter, because there will be a second transmission in the near future.
   - "At least once" to ensure that the message arrives, but message duplication may occur.
   - "Only once" to ensure that the message arrives once. This level can be used in situations where repeated or missing messages can result in incorrect results.
5) Small transmission, low overhead (fixed length of the head is 2 bytes), protocol exchange is minimized to reduce network traffic;
6) Use the Last Will and Testament features to notify the parties about the mechanism of client abort.
## 3 AT Commands for MQTT

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT+CMQNEW</td>
<td>New MQTT</td>
</tr>
<tr>
<td>AT+CMQCON</td>
<td>Send MQTT Connection Packet</td>
</tr>
<tr>
<td>AT+CMQDISCON</td>
<td>Disconnect MQTT</td>
</tr>
<tr>
<td>AT+CMQSUB</td>
<td>Send MQTT Subscribe Packet</td>
</tr>
<tr>
<td>AT+CMQUNSUB</td>
<td>Send MQTT Unsubscribe Packet</td>
</tr>
<tr>
<td>AT+CMQPUB</td>
<td>Send MQTT Publish Packet</td>
</tr>
<tr>
<td>+CMQDISCON</td>
<td>MQTT Disconnect Indication</td>
</tr>
<tr>
<td>AT+CMQALICFG</td>
<td>Configure Alibaba Clound Parameters</td>
</tr>
<tr>
<td>AT+CMQALICON</td>
<td>Send MQTT Connection Packet to Alibaba Cloud</td>
</tr>
<tr>
<td>AT+CMQTTSNEW</td>
<td>New MQTTS</td>
</tr>
<tr>
<td>AT+CMQTTSNEWEXT</td>
<td>New a MQTTS Instance by Multi Packages for a Long Size Command</td>
</tr>
<tr>
<td>AT+CMQAZURECFG</td>
<td>Configure Microsoft Azure IoT Parameters</td>
</tr>
<tr>
<td>AT+CMQAZURECON</td>
<td>Send MQTT Connection Packet to Azure IoT</td>
</tr>
<tr>
<td>AT+CMQTSYNC</td>
<td>Configure MQTT Synchronization Mode</td>
</tr>
</tbody>
</table>

For detail information, please refer to “SIM7020 Series_AT Command Manual”.
4 Bearer Configuration

Usually module will register PS service automatically.

4.1 PDN Auto-activation

//Example of PDN Auto-activation.

AT+CPIN?
+CPIN: READY

OK

AT+CSQ
+CSQ: 20,0

OK

AT+CGREG?
+CGREG: 0,1

OK

AT+CGACT?
+CGACT: 1,1

OK

AT+COPS?
+COPS: 0,2,"46000",9

OK

AT+CGCONTRDP
+CGCONTRDP: 1,5,"cmnbio","100.80.73.123.255.255.255.0"

OK
4.2 APN Manual configuration

If not attached automatically, could configure correct APN setting.

---

//Example of APN Manual configuration.

```
AT+CFUN=0
+CPIN: NOT READY
OK

AT*MCGDEFCONT="IP","cmnbio"
OK

AT+CFUN=1
OK
+CPIN: READY

AT+CGREG?
+CGREG: 0,1
OK

AT+CGCONTRDP
+CGCONTRDP: 1,5,"cmnbio","100.80.73.255.255.255.0"
OK
```

---

Attached PS domain and got IP address automatically
## 5 MQTT Synchronization Mode

To set the MQTT synchronization mode, you can refer to the following instruction. This step is optional, default is disable.

//Example of Enable or Disable Synchronization mode.

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT+CMQTSYNC=1</td>
<td>//Enable MQTT synchronization mode.</td>
</tr>
<tr>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>AT+CMQTSYNC=0</td>
<td>//Disable MQTT synchronization mode.</td>
</tr>
<tr>
<td>OK</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE**

- After MQTT Synchronization enabled, when the command (AT+CMQCON, AT+CMQSUB, AT+CMQPUB, AT+CMQUNSUB) returns OK, you can execute the next MQTT command immediately.
- After MQTT Synchronization disabled, When the command (AT+CMQCON, AT+CMQSUB, AT+CMQPUB, AT+CMQUNSUB) returns OK, it only means the message is sent successfully, whether the next MQTT command can be executed depends on when the module receives the confirmation message from the server.
6 MQTT Examples

6.1 MQTT Connect to a general MQTT server

//Example of MQTT Connect to a general MQTT server.

```
AT+CMQNEW=’”test.mosquitto.org”’,1883,12000,1024
+CMQNEW: 0
OK

//Create MQTT connection

AT+CMQCON=0,3,”myclient”,600,1,0
OK

//Send MQTT request.

AT+CMQSUB=0,”mytopic”,1
OK

//Send subscribe topic.

AT+CMQPUB=0,”mytopic”,1,0,0,8,”31323334”
OK

+CMQPUB: 0,”mytopic”,1,0,0,8,”31323334”

//Publish a MQTT message.

//Got subscribed topic and message down from server

AT+CMQUUNSUB=0,”mytopic”
OK

//Unsubscribe the topic

AT+CMQDISCON=0
OK

//Disconnect MQTT connection with id
```

6.2 MQTT Connect to Alibaba Cloud

//Example of MQTT connect to Alibaba Cloud.

```
AT+CMQNEW=’”productKey.iot-as-mqtt.cn-sha nghai.aliyuncs.com”’,1883,12000,1024
+CMQNEW: 0
OK

//Create TCP connection

//If succeed, MQTT id will return
```

www.simcom.com
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT+CMQALICFG=0,&quot;productKey&quot;,&quot;deviceName&quot;,</td>
<td>Set the Alibaba Cloud device parameters</td>
</tr>
<tr>
<td>&quot;deviceSecret&quot;</td>
<td></td>
</tr>
<tr>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>AT+CMQALICON=0,600,1</td>
<td>Send MQTT request to connect Alibaba Cloud.</td>
</tr>
<tr>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>AT+CMQSUB=0,&quot;/productKey/deviceName/TEST1&quot;,1</td>
<td>Subscribe to a topic.</td>
</tr>
<tr>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>AT+CMQPUB=0,&quot;/productKey/deviceName/TEST1&quot;,1,</td>
<td>Public message</td>
</tr>
<tr>
<td>0,0,0,16,&quot;3132333435363738&quot;1</td>
<td></td>
</tr>
<tr>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>+CMQPUB:0,&quot;/productKey/deviceName/TEST1&quot;,1,</td>
<td>Got subscribed topic and message down from server</td>
</tr>
<tr>
<td>0,0,0,16,&quot;3132333435363738&quot;</td>
<td></td>
</tr>
<tr>
<td>AT+CMQUNSUB=0,&quot;/productKey/deviceName/TEST1&quot;</td>
<td>Unsubscribe topic.</td>
</tr>
<tr>
<td>OK</td>
<td></td>
</tr>
<tr>
<td>AT+CMQDISCON=0</td>
<td>Disconnect MQTT connection with id</td>
</tr>
<tr>
<td>OK</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE**

- "productKey", "deviceName", and "deviceSecret". These three parameters can be obtained from the Alibaba Cloud website.
- To subscribe to a topic, you need to subscribe to create this topic in the TOPIC list on the Alibaba Cloud device and give the device permissions for publishing and subscribing.
7 MQTTS Examples

7.1 MQTTS Connect with AT+CSETCA

//Example of MQTTS with AT+CSETCA.

AT+CSETCA=0,1312,1,0,"-----BEGIN CERTIFICATE-----
MIIDqjCCApKgAwIBAgIJAIImRX1D4JhMMAPAOGCSqGSib3DQEBDQUAMGoxFzAVBgNV
AMDKfUe1RFVQgYmJvZ2Vyc2VydQYDVQQEQQZA1NbMTA5NTlzMi4xMDAwMDAw
MDc5ODA5NTzlMlojXmBGA1UEAwwOQW4gTVFVUVCBicm9rZXIxFDASBgNVBAsMDUg
MB0GA1UdDgQWBBShCqK2sT9GrZ0n59l8b7Btm9IaPTAPBgNVHRMBAf8EBTADAQH/
MA0GCSqGSIb3DQEBDQUA4IBdwAwwgEKAoiBAQDBdvA5HF8hcWzKrCQsQQCTcpJn
C2kb5DwE2EnZ6b1SKBTcfkv+40AZK3VWo0ndZw
Y1TXg3MLxFeQwq9eW5h2UxDS27qCQsT93z9RZfvi7yc5c0eS6DQaM0LuKMe0M8d8YN73PWVTZeT7
<br>OK

//Use the "AT+CSETCA" command to set the server certificate. It's the First Server Certificate package

AT+CSETCA=0,1312,0,0,"qfwTpSdAtMoJcUv2oAxAWN9dSVKhxgfsvd1j/O6nstrC4eErvFg6/pd603v+F+9+b+idk/0L
<br>dxzhJTyIl3uYVNKZrRarcPu0n1WAF0xDlpxAmXrDozCD4mHpOLIP/F8TFbDiMigyZ+QOQC+32KJZLq+MRzn0DxG
PsQ+z0NLI1RFmhwYkIrncWhRDomeC+SePmL1STCQ1Y
<br>Szr/iSaYWMG55N0KqJdxfY43xNuDL+tKFT3PUQXb41Q4E/0+ChnAgs6811c+TVDce6DPmH1JGnyFikjXLwW5eNt
<br>OK

// Use the "AT+CSETCA" command to set the server certificate. It's the Second Server Certificate package.
H9-----END CERTIFICATE-----

OK

AT+CSETCA=1,1520,1,0,","-----BEGIN CERTIFICATE-----

OK

AT+CSETCA=2,1656,1,0,","-----BEGIN RSA PRIVATE KEY-----

OK

//Use the "AT+CSETCA" command to set the client certificate. It's the First Client Certificate package.

//Use the "AT+CSETCA" command to set the client Key. It's the First Client Key package.
5dD+aFYXqRjZpKeEyPv8uVHG1nKyYwp8xXbw1MlOuH7Acq0chNE/DT9CsPtINFwcf/F97P8oPJN0pI3KeePrqLoOZ03b4W4lJ3W3Uysk9e/HfZ8VQR3q0WJH4txjFCs+5bowuierDaHqZlg0beaK3N7ISdB50qTRHUKaOL7eAPyEojAfPST6avMd3+HPlm7zViFbRo3iFQXYL2BcV56DOaHUFPsG5hBGZetpegTdgKgxYmLazh7PI50vglot/+P21/2/RbUBNS0DMj8HQx6uwIDAQABAoIBAQCEwYX8lVIF3ZP+K2EXptrRadCTNSTeEZemXYGp/ERGhugkuXQrhaOdvc6dpksg9CyF2IFl/w EUin9YqMcZm8gmMcv8gRc+srTM2WkDbJknzp9CpRpZ6d9jLm7mCQso71j43w8K4zKnubJAEVrP7Gb4S013pKwDb1AohnFoKkXyVpNLEx2Dhb8WkqGAPSp7WDFD8rybRAEpdUHkoIFrmV71q+Y4JGqkwRrRAA3S/2JhvX29/xqi9oTPkLOULMQij0vP2P+G7T7yDrj1bb3FeY4a/dzf93nNUgtx11du2MPYJRyrFb97gNac8XMMmqO+i5lxrGGmPw8EY1xAoGBANYMBUBCvR92ZVhInqvNe/WUzn0edBtKpdjdr16FTA7iaglRuRlwLVyqd9bIe0YnywEPSDhaUgauo5W98f3MpzDMPn3Dmg6l+ZHIb/hthbkPb+tcuGNT0fhKZxgdKHaz9JDIFF7vQhqnqgwVMWSg798Rbl6ZBx4NKaRyYmAuAuoAGBNFrY4ji5yoMzSfNdQYa02as4d5QjMZ1YWpSkDy9HdUkwvMVyLyl+d5MR152xP5KimY"OK

AT+CSETCA=2,1656,0,0,"kJHnL4o+V9oRM82hGVJeH4KVlZwOJ8Glm7QzeHXlykMVRI03SWP+gj65D7NzFBw0Fyw3MXY+GGwQZAm39a7HblMQwRcEChAOGAI GmJkglnSLmjbDB1Bo1nyZ9biyiYA+J9gD7wVBmCAr5C5g4cixDd27FwvfpAXItCDIMGKJ0clgXpWE8X9C5ii2k GPX0U4wWzlQf1GfHTU+IhvyXycRMcKMD7s4cWzYLK kfH6Q7XvCaPB+DptVF0afyjggS2zzq+v37RE+d3fbECyG EAgkhK3f1ghgKjdrKHFkxTaQ7T+JAK/AKe17Qy8CIZof FTy/rcx6YBYwFyF3zfzvRAWjUarylDy2VYyqvm4tE8LqMfN bfhTURFv+VW0oK1eKNLGsWVS0f0P3N5md7wCLtu1D6M d7M5IZgUOae+ZkMWe0nOUUI0ToQFsv1H9g+qkv4zv 0CgYAOapbpuTXbPV1Do1uL11M4UdnfgzL4jpnVFus 3SAJue9wrrKfIIRU5vb3irDRZ0d9Tewf+F2tg5x5FaeSl VJeWljk0ddfDz9Ohnr6M7jneuzvuVUBQ/E5Q+SG5XXK BTwUdCOpbufMJpKYiiWseh0VGrpOyYuPy9vcnNVZ5Q ==-----END RSA PRIVATE KEY-----"OK

//Use the "AT+CSETCA" command to set the client Key. It's the Second Client Key package.

OK

AT+CMQTTSSNEW="117.131.85.139","6001",60000,1024+CMQTTSSNEW: 0

OK

AT+CMQCON=0,3,"myclient",600,1,0

OK

//Create MQTT connection.
//If succeed, MQTT id will return

//Send MQTT request.
```markdown
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AT+CMQSUB=0,&quot;mytopic&quot;,1</td>
<td>//Send subscribe topic.</td>
</tr>
<tr>
<td>AT+CMQPUB=0,&quot;mytopic&quot;,1,0,0,10,&quot;3132333439&quot;</td>
<td>//Publish a MQTT message.</td>
</tr>
<tr>
<td>+CMQPUB: 0,&quot;mytopic&quot;,1,0,0,10,&quot;3132333439&quot;</td>
<td>//Got subscribed topic and message down from server</td>
</tr>
<tr>
<td>AT+CMQUNSUB=0,&quot;mytopic&quot;</td>
<td>//Unsubscribe the topic</td>
</tr>
<tr>
<td>AT+CMQDISCON=0</td>
<td>//Disconnect MQTT connection with id</td>
</tr>
</tbody>
</table>
```

### 7.2 MQTTS Connect to Azure IoT

//Example of MQTTS Connect to Azure IoT.

```
AT+CSETCA=0,1320,1,0,"-----BEGINCERTIFICATE-----
MIIDrzCCApegAwIBAgIQCDvgVpBCRrGhdWrJWZHH
SjANBgkqhkiG9w0BAQUFADBhMQswCQYDVQQE
VUZeEVBMBMGA1UEChMMRGlaniUNcnQgSW5jMRkwFw
YDVQQQLExB3d3cuZGlinaWNcnQuY29tMSAwHgYDVQ
QDE+ExdEaWdpQ2VydCBHbG9iYVwUm9vdCBDBTQAE
w0wNjExMTAwMDAwMDBaFw0zMTEyMTAwMDAwMD
BaMGExCzAJBgNVBAYTAlVTMRUwEwYDVQQE
//Use the "AT+CSETCA" command to set the Azure IoT server certificate. It's the First Server Certificate package
```

---

**NOTE**

- The usage of the command “AT+CSETCA” is referred to ATC document.
OK

AT+CSETCA=0,1312,0,0,"qfwTpSdAtMoJcUv2oAxDW
9dSVkHxgfsdv1j/O6nstC4cErYfT6/pd603V+Fr+b+idk/0L
dxzhJYl13UyYNKZrRarcPu0n1WAFOxIpAmXrDozCD
4mHpOIP/F8TFbDIMigyZ+QOPC+32KJZLq+Mrnz0DxC
PsQ+z0NL/IRFmhwYkircnwhRdomeC+SePmL15TCQ1Y
SrZiSaYWMG55N0KqJdfY43xNuDL+kFT3PUQXb41Q4
E/0+ChnAgs681C+TVDceD6RPnHjGnyFikjXLwW5eNt
H9-----END CERTIFICATE-----"

OK

AT+CSETCA=1,1204,1,0,"-----BEGINCERTIFICATE-----

OK

// Use the "AT+CSETCA" command to set the Azure IoT server certificate. It's the Second Server Certificate package.

// Use the "AT+CSETCA" command to set the client certificate. It's the First Client Certificate package.

// Use the "AT+CSETCA" command to set the client certificate. It's the Second Client Certificate package.
OK

AT+CSETCA=2,1652,1,0,"-----BEGIN RSA PRIVATE KEY-----
MIIEowIBAAKCAQEA5xqRb5WAqq61SAoIhg+ZZLYGLc0ZYfzKn3DQzB6EeIi4sRSCKkgOL+58ffgQYYxh2WDACSwabzpcZlVoPEh05pnnHvnjJEWczN38lx6yBzTjmiZ01fJs0nud8v4ANy4UCxu75Rer0ephDIJaKzHmE15+U5nD1h+4W1SmOHGfs80YbCKhpN1NgUbplul2GC0n915cEF7wZNTOZ5zUknWUg106hKwYiaxVDOeahYXX3N2tyrsojC63kJFgx99q1PQG1xgzpiR0NI0XG3Z1P1TQLUOFE4Nnxus0OPzf54rtaE17bBrxOUdPsfwxA88l08bNc29CaXwzaP89QIDAQAABoIAAXA0MGNHfwjaF425HMieKxKJ0HqGpF4+bs+OEBPjZy2dZUii/BvTgkdqJ9PZ94U67Elzr92LCA6a4nBDFG7RHbQdL3Qxd37lCWDFAuI1wNdP3eEZEEJQafmhUd0jzsTokS4oNhLNNwTHCj6aUPl0z9d9LACq6iREBcpoAR2Z5ymGv2AmcGNgkFtGFl+9uAt1wfNzXkdNMmJ1Vyd9N5iSnrv9snek8/Y5m5XzK02oPuCxfV/Z5ZD05S0glRwEActxQzXhKis2anJ/1u0vHC1v6pj263mh8ewaxdPJMa5El1BG1xOPJgjm+U18X9M7CJSqJ4o6suOBET7OGYECyEAg9UBOoV/JTUGDYk4itJnNo/F9NAABXl4PgREQnoylXWLoq2lYDC/MVttOGF6ret4M9qG+4wm5uhoOntAVm3/XGOLvBe16Yq/dtevRR8L13+4u/7bX4uEz3PloQEI3+MJFMXy8CE4qTn69zS6TgTtyc6f3vcAqzyKE8A8tBEfkCgYE8Hqo d4JpcSGnWtXpA2fgi0GdYW2eLRZchJO5tVP76nHUp/LvRy1qsmj0JsYwLo8V7yDCWnHxf"

OK

AT+CSETCA=2,1652,0,0,"WBMO8SckHQWttydXXj3LuG5D3Y8Rk/6zfqD4FOFFHfl0tcOy0Ok3s7Ig6JrqU8nXdbbhOU1j1MW18/iTUax/U7zMsK6Aenxgd0CgYE7Mfdw6lG8J6qXYNTVTF6rILnGuA60HFxTmSFj93EWQFOXQNFfLQYW6oBq97netZAbioU3t9eqhco2Y98LPiqKCDyQkIL SvK2KYPFDuqcl1biYHw0ZAVx6y0Bpzc+PzFofxEMwYX TzUJME7NwmGWhblQ7JL4uPcSGKjN0qCgYB6TMcm0Ffzwrfvf1H5gvyORbNNQ2R4ZbDzs/V0ZIgcwumeqeJyHTrn9R8jrWnr+IUbYjUq0GOh6cGTe/Br/r4jYhyqqx62U02sdkBoVdaphenJ+I1lImxrAPsUNKbBBW9fkePgn/2QXsmX2fyaER10U4nd27MQALZYQQU+QkBGe6TGeI2DFP5INlemG1DN+eNE07QIE4Q4OL72MKEQsTnJJKHakvmtgoohCqA2HzOzOlh8XSeokekgTw+OPys69UIHQ4rPxfLTYYykCzd2AQkwqK8CSgDAMmMMjOFfqnQtcX9pYl4Dqkcq/Gjm4nWvlxZ3M3a4vtgklR9-----
END RSA PRIVATE KEY-----

OK

AT+CMQTTSNEW="9AMIoTHub-HW.azure-devices.cn", "8883",60000,1132

//Use the "AT+CSETCA" command to set the client Key. It's the First Client Key package.

//Use the "AT+CSETCA" command to set the client Key. It's the Second Client Key package.

//Create MQTT connection.
+CMQTTSNEW: 0
OK
AT+CMQAZURECFG=0,"9AMIoTHub-HW.azure-devices.cn","simcomdevice","n1AOqKmG6ltXWtNX1HL4zPAih/ug50D7P4rCv6pc/3c=",86400
OK
AT+CMQAZURECON=0,600,0
OK
AT+CMQSUB=0,"devices/simcomdevice/messages/devicebound/#",1
OK

+CMQPUB:
0,"devices/simcomdevice/messages/devicebound/%24.mid=ded0dda5-42df-42f3-a530-d5842e152d18&%24.to=%2Fdevices%2Fscomdevice%2Fmessage",1,0,0,14,"32333323323233"
AT+CMQPUB=0,"devices/simcomdevice/messages/events/",1,0,0,12,"313233343938"
OK
AT+CMQDISCON=0
OK

//Set parameters for Azure IoT.
//Receive a message from the Azure IoT
//Publish a MQTT message.
//Disconnect MQTT connection with id

NOTE

- The parameter of the AT+CMQAZURECFG can be obtained from Azure IoT.
- The format of the topic of AT+CMQSUB is as below, "devices/deviceID/messages/devicebound/#"
- The format of the topic of AT+CMQPUB is as below, "devices/deviceID/messages/events/"