

# Alibaba Cloud IoT Platform

## Pricing

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# Generic conventions

Table -1: Style conventions

Style	Description	Example
	This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 <b>Danger:</b> Resetting will result in the loss of user configuration data.
	This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 <b>Warning:</b> Restarting will cause business interruption. About 10 minutes are required to restore business.
	This indicates warning information, supplementary instructions, and other content that the user must understand.	 <b>Notice:</b> Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	 <b>Note:</b> You can use Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
<b>Bold</b>	It is used for buttons, menus, page names, and other UI elements.	Click <b>OK</b> .
Courier font	It is used for commands.	Run the <code>cd / d C :/ windows</code> command to enter the Windows system folder.
<i>Italics</i>	It is used for parameters and variables.	<code>bae log list --instanceid <i>Instance_ID</i></code>
[ ] or [a b]	It indicates that it is an optional value, and only one item can be selected.	<code>ipconfig [-all -t]</code>

Style	Description	Example
<code>{}</code> or <code>{a b}</code>	It indicates that it is a required value, and only one item can be selected.	<code>swich {stand   slave}</code>



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# 1 Messaging fees


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IoT Platform charges messaging fees. The messaging fee is calculated based on the number of messages and has no minimum charge.

## Billing items

For more information about billing items, see the following table. For billable operations, see the appendix in this documentation.

Item	Description
Messaging fee (Device)	Messages sent from devices by calling the Pub operation
	Requests sent from devices by calling the RPC operation
	RRPC responses sent from devices to the server
	Messages received by devices by calling the Sub operation
	Messages sent and received by devices by calling TSL model related operations
Messaging fee (Server)	Messages sent from the server by calling the Pub and PubBroadcast operations
	RPC responses sent from the server to devices
	Messages sent from the server by calling the RRPC operation
	Messages sent from the server by calling sub-device related operations
	Messages sent from the server by calling device shadow related operations
	Messages sent from the server by calling TSL model related operations

Item	Description
Free messages	<ul style="list-style-type: none"> <li>· Connect</li> <li>· Connect Ack</li> <li>· Disconnect</li> <li>· PingReq</li> <li>· PingResp</li> <li>· Publish ACK</li> <li>· Subscribe</li> <li>· Subscribe ACK</li> <li>· Unsubscribe</li> <li>· Unsubscribe Ack</li> <li>· Messages forwarded by the rules engine</li> </ul> <div style="border: 1px solid #ccc; background-color: #f0f0f0; padding: 5px; margin-top: 10px;">  <b>Note:</b>            You can use the rules engine to forward messages for free. However, fees are charged when you transfer data to other cloud services.         </div>

## Billing method

### Tiered pricing

Messages N (per Month)	Unit price (Dollar/1,000,000 Messages)
$N \leq 1,000,000$	0
$1,000,000 < N \leq 100,000,000$	0.5
$100,000,000 < N \leq 1,000,000,000$	0.4
$1,000,000,000 < N$	0.3

### Billing details

- Fees are calculated based on the number of messages. For more information about billing items, see the preceding table.
- The first 1 million messages are free of charge for each month. The free quota takes effect at 00:00:00 on the first day of each month. Unused quota cannot be carried over to the next month. The fees are calculated when the number of messages exceeds 1 million for each month.

### How to count messages

- If a message is less than or equal to 512 bytes in size, the message is counted as one billable message.
- If a message is more than 512 bytes in size, the message is counted as two or more billable messages.
- To calculate the number of billable messages, divide the message size into bytes by 512, and round the resulting value up to the nearest integer.

#### Billing dates

- The messaging fee is calculated and charged on a daily basis.
- Fees are rounded up to the nearest cent.



#### Note:

This document is for reference only. Refer to your bill for accurate information.

#### Appendix: Billable operations

Table 1-1: Billable operations (Device)

MQTT Publish	IOT_CMP_OTA_Start
	IOT_CMP_OTA_Get_Config
	IOT_CMP_OTA_Request_Image
	IOT_CMP_Send
	IOT_MQTT_Publish
	IOT_OTA_ReportVersion
	IOT_OTA_RequestImage
	IOT_OTA_ReportProgress
	IOT_OTA_GetConfig
	IOT_Shadow_Construct
	IOT_Shadow_RegisterAttribute
	IOT_Shadow_Push
	IOT_Shadow_Push_Async
	IOT_Shadow_Pull
	IOT_Subdevice_Register
	IOT_Subdevice_Unregister
IOT_Subdevice_Login	

	IOT_Subdevice_Logout
	IOT_Gateway_Get_TOPO
	IOT_Gateway_Get_Config
	IOT_Gateway_Publish_Found_List
	IOT_Gateway_Publish
	IOT_Gateway_RRPC_Response
	linkkit_answer_service
	linkkit_invoke_raw_service
	linkkit_trigger_event
	linkkit_invoke_fota_service
	linkkit_invoke_cota_get_config
	linkkit_invoke_cota_service
CoAP Send	IOT_CoAP_SendMessage
HTTP Send	IOT_HTTP_SendMessage
You can call these operations for free. However, you may be charged for receiving messages.	IOT_CMP_Register
	IOT_MQTT_Subscribe
	IOT_Gateway_Subscribe
	IOT_Gateway_RRPC_Register

Table 1-2: Billable operations (server)

API	Description
Pub	Publish messages.
PubBroadcast	Publish broadcast messages.
RRpc	Use RRPC method to send requests to devices.
DeleteDevice	When you delete a sub-device, a message of <code>/ sys / { productKey } / { deviceName } / thing / delete</code> is triggered.
DisableThing	When you disable a sub-device, a message of <code>/ sys / \$ { productKey } / \$ { deviceName } / thing / disable</code> is triggered.
EnableThing	When you enable a sub-device, a message of <code>/ sys / \$ { productKey } / \$ { deviceName } / thing / enable</code> is triggered.

API	Description
NotifyAddThingTopo	When you add a topological relationship, a message of / sys /\${ productKey }/\${ deviceName }/ thing / topo / add / notify is triggered.
UpdateDeviceShadow	Update the shadow information of a device.
InvokeThingService	When you invoke a service provided by a device, a message of / sys /\${ productKey }/\${ deviceName }/ thing / service /\${ tsl . service . identitier } is triggered.
InvokeThingsService	When you invoke multiple services provided by multiple devices, multiple messages of / sys /{ productKey }/{ deviceName }/ thing / service /{ tsl . service . identitier } are triggered.
SetDeviceProperty	When you set properties for a device, a message of / sys / \${ productKey }/\${ deviceName }/ thing / service / property / set is triggered.
SetDevicesProperty	When you set properties for multiple devices, multiple messages of / sys /{ productKey }/{ deviceName }/ thing / service / property / set are triggered.

## 2 Device access fees

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The device access fee is calculated based on the duration that devices are connected to IoT Platform. These fees are not charged if a device is connected to IoT Platform over CoAP or HTTP, or if the device is a sub-device within a topological relationship. The device access fee supports the Pay-As-You-Go billing method and has no minimum charge fee.

### Billing method

#### Billing details

- Fees are calculated based on the duration of the connection in minutes.

The duration starts when a device successfully connects to IoT Platform and ends when the device disconnects from IoT Platform. This time period is the duration of the connection.

- The duration is calculated by minutes. If the duration of the connection is less than one minute, the duration is calculated as one minute.

For example, if a device gets connected to IoT Platform at 18:23:35 2019-01-21 and disconnects from IoT Platform at 18:24:10 on the same day, the duration is calculated as two minutes.

- If a device connects to and disconnects from IoT Platform multiple times within one minute, the duration is calculated as one minute.

For example, if a device gets connected to IoT Platform at 18:23:15 2019-01-21, disconnects at 18:23:35, reconnects to IoT Platform at 18:23:40, and disconnects at 18:23:59 again on the same day, the duration is one minute. The device connects to and disconnects from IoT Platform multiple times within one minute. The duration is calculated as one minute.

- The first 1 million minutes for each month are free of charge. The free quota takes effect at 00:00:00 on the first day of each month. Unused quota cannot be carried over to the next month. The fees are calculated when the duration exceeds 1 million minutes for the month.

### Pricings

Duration (Minutes/Month)	Unit price (Dollar/1,000,000 Minutes)
$N \leq 1,000,000$	0
$1,000,000 < N$	0.3

### Billing dates

- The device access fee is calculated and charged on a daily basis.
- Fees are rounded up to the nearest cent.



#### Note:

This document is for reference only. Refer to your bill for accurate information.

## 3 Billing examples

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### Example 1

Suppose you have 10,000 devices connected to IoT Platform eight hours a day. Every minute, each device sends out one message that is less than 0.5 KB in size. In this example, assume that one month has 30 days.

The fees are calculated as follows:

- Messaging fee

Messages sent per month:  $60 * 8 * 30 * 10,000 = 144$  million

For each month, the first 1 million messages are free of charge. The following 99 million messages are charged at 0.5 dollars per 1 million messages. The following 44 million messages are charged at 0.4 dollars per 1 million messages. The messaging fee is:  $1 * 0 + 99 * 0.5 + 44 * 0.4 = \text{USD } 67.1$ .

- Device access fee

Time that devices are online per month:  $60 * 8 * 30 * 10,000 = 144$  million minutes

For each month, the first 1 million minutes are free of charge. The following minutes are charged at 0.3 dollars per 1 million minutes. The device access fee is:  $1 * 0 + 143 * 0.3 = \text{USD } 42.9$ .

- The total monthly fee is:  $67.1 + 42.9 = \text{USD } 110$ .

### Example 2

Suppose you have 10,000 devices connected to IoT Platform eight hours a day. Every minute, each device sends out one message that is less than 0.5 KB in size and receives one message that is 0.4 KB in size. In this example, assume that one month has 30 days.

The fees are calculated as follows:



- Messaging fee

Messages sent per month:  $60 * 8 * 30 * 10,000 = 144$  million

Messages received per month:  $60 * 8 * 30 * 10,000 = 144$  million

Total messages per month:  $144$  million +  $144$  million =  $288$  million

For each month, the first 1 million messages are free of charge. The following 99 million messages are charged at 0.5 dollars per 1 million messages. The following 188 million messages are charged at 0.4 dollars per 1 million messages. The messaging fee is:  $1 * 0 + 99 * 0.5 + 188 * 0.4 = \text{USD } 124.7$ .

- Device access fee

Time that devices are online per month:  $60 * 8 * 30 * 10,000 = 144$  million minutes

For each month, the first 1 million minutes are free of charge. The following minutes are charged at 0.3 dollars per 1 million minutes. The device access fee is:  $1 * 0 + 143 * 0.3 = \text{USD } 42.9$ .

- The total monthly fee is:  $124.7 + 42.9 = \text{USD } 167.6$

### Example 3

Suppose you have 10,000 devices connected to IoT Platform eight hours a day. Every minute, each device sends out one message that is 0.6 KB in size and receives one message that is 0.4 KB in size. In this example, assume that one month has 30 days.

The fees are calculated as follows:

- Messaging fee

Messages sent per month:  $60 * 8 * 30 * 10,000 * 2 = 288$  million

Messages received per month:  $60 * 8 * 30 * 10,000 = 144$  million

Total messages per month:  $288$  million +  $144$  million =  $432$  million

For each month, the first 1 million messages are free of charge. The following 99 million messages are charged at 0.5 dollars per 1 million messages. The following 332 million messages are charged at 0.4 dollars per 1 million messages. The messaging fee is:  $1 * 0 + 99 * 0.5 + 332 * 0.4 = \text{USD } 182.3$ .

- Device access fee

Time that devices are online per month:  $60 * 8 * 30 * 10,000 = 144$  million minutes.

For each month, the first 1 million minutes are free of charge. The following minutes are charged at 0.3 dollar per 1 million minutes. The device access fee is:  $1 * 0 + 143 * 0.3 = \text{USD } 42.9$ .

- The total monthly fee:  $182.3 + 42.9 = \text{USD } 225.2$ .