Billing

Billing - International

 Issue
 01

 Date
 2024-12-31





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Billing Overview

In this document, you will learn about how IoT Device Access (IoTDA) is billed, how you can renew subscriptions, and what happens if your account goes into arrears.

• Billing Modes

IoTDA provides two billing modes: yearly/monthly and pay-per-use. Yearly/ Monthly: You pay upfront for the amount of time you expect to use a resource for. You will need to make sure you have a top-up account with a sufficient balance or have a valid payment method configured first. Pay-peruse: You can use the service first, and will be billed for the messages generated or your usage duration. For details about the two billing modes, see **Overview**.

• Billing Items

IoTDA is billed based on the instance specifications and usage duration. For details about the billing factors and formulas for each billing item, see **Billing Items**.

For details about the billing samples in different scenarios and the billing process for each billing item in different billing modes, see **Billing Examples**.

• Renewal

Yearly/Monthly instances cannot be used after they expire. If you want to continue using IoTDA, you need to renew the instance within the specified period. Otherwise, the instance will be automatically released and data may be lost. Renewals can be done manually or automatically, depending on your needs. For details about renewal, see **Overview**.

• Viewing Bills

You can choose **Billing Center** > **Billing** to check the IoTDA transactions and bills. For details, see **Bills**.

• Arrears

If there is not a sufficient account balance to pay for your bill and there is no other payment method configured, your account will go into arrears. If you want to continue using your cloud services, you will need to top up your account in a timely manner. For details, see **Arrears**.

• Stopping Billing

If you no longer need to use your cloud service, you can unsubscribe from or delete it to stop the billing. For details, see **Billing Termination**.

• Managing Costs

You can manage costs from cost composition, allocation, analysis, and optimization. For details, see **Cost Management**.

2 Billing Modes

2.1 Overview

There are yearly/monthly and pay-per-use billing modes to meet your requirements.

- Yearly/Monthly billing is a prepaid mode in which you pay for the service before using it. Your bill is generated based on the required duration you specify in the order. The longer the subscription term, the higher the discount. This mode is generally suitable for mature businesses with long-term stable equipment needs.
- Pay-per-use is a postpaid billing mode. You pay as you go and just pay for what you use. This allows you to adjust resource usage easily.

 Table 2-1 compares the two billing modes.

Billing Mode	Yearly/Monthly	Pay-per-use
Payment Method	Prepaid	Postpaid
Billing Method	Billed for your subscription duration	Standard edition instance: billed by day
Billed Item	Standard edition instance	Standard edition instance
Specifications Change	Supported	Supported
Scenario	Recommended for long- term use. Suitable and price-friendly for scenarios where the resource usage duration can be estimated.	Recommended if you want more flexibility. Suitable for scenarios where resource demands fluctuate.

2.2 Yearly/Monthly Billing

If you expect to use resources for a longer period, you can save money with yearly/monthly billing. This section describes the billing rules of yearly/monthly IoTDA.

Scenarios

If you want to ensure resource stability over a certain period of time, yearly/ monthly billing is a good choice for the following types of workloads:

- Long-term workloads with stable resource requirements, such as official websites, online malls, and blogs
- Long-term projects, such as scientific research projects and large-scale events
- Workloads with predictable traffic bursts, for example, e-commerce promotions or festivals.
- Workloads with high data security requirements.

Billing Items

The following billing items support yearly/monthly billing.

Billing Item	Description
Standard instance	You are billed based on the instance specifications and required duration.

Table 2-2 Billing items

Billing Method

A yearly/monthly IoTDA resource is billed by the subscription duration. The billing cycle begins when you activate or renew your subscription and ends at 23:59:59 on the expiration date of the following calendar month or year. To determine the expiration date, you can increment the month or year by 1.

Example:

- If you subscribed to a standard instance for one month on March 8, 2023, 15:50:04, the billing period is from March 8, 2023, 15:50:04 to April 8, 2023, 23:59:59.
- If you subscribed to a standard instance for one month on February 8, 2023, 15:50:04, the billing period is from February 8, 2023, 15:50:04 to March 8, 2023, 23:59:59.
- If you subscribed to a standard instance for one year on February 8, 2024 (leap year), 15:50:04, the billing period is from February 8, 2024, 15:50:04 to February 8, 2025, 23:59:59.

Billing Examples

Assume that you subscribed to a standard S1 unit at 15:50:04 on March 8, 2023. If you manually renew the subscription for one month before the subscription expires:

- Billed usage period 1: March 8, 2023, 15:50:04 to April 8, 2023, 23:59:59
- Billed usage period 2: April 9, 2023, 00:00:00 to May 8, 2023, 23:59:59

You must prepay for each billing cycle. **Table 2-3** shows the billing formula.

Resource	Formula	Price
loTDA standard instance	Unit price x Unit quantity x Purchase duration	Visit Price Calculator . Select Yearly/Monthly for Billing Mode , select Standard for Instance Edition , and select the unit type, quantity, and required duration. The estimated price is displayed in the lower part of the page.

Table 2-3 Formula

Impact on Billing After Specifications Change

If the specifications of a yearly/monthly instance no longer meet your needs, you can change the specifications on the console. The system will recalculate the price and either bill or refund you the difference.

- If you upgrade the specifications, you need to pay the difference in price.
- If you downgrade the specifications, Huawei Cloud will refund you the difference.

Assume that you subscribed to one low-frequency unit S1 of the standard instance on April 8, 2023 for one month. You plan to change the specifications to intermediate frequency unit S2 on April 18, 2023, the number of units is 1. The price for the old specifications is 800/month, and that for the new specification is 3,000/month. The calculation formula is as follows:

Price difference for the specifications upgrade = Price for the new specifications × Remaining period - Price for the original specifications × Remaining period

The remaining period in the formula is the number of days remaining in each calendar month divided by the maximum number of days in that month. In this example, the remaining period=12 (the remaining days in April, excluding the change day)/30 (the maximum number of days in April) + 8 (the remaining days in May)/31 (the maximum number of days in May)=0.6581. Cost of specification upgrade = $3,000 \times 0.6581 - 800 \times 0.6581 = 1447.82$.

For details, see **Pricing of a Changed Specification**.

Impact of Expiration

Figure 2-1 shows the statuses of a yearly/monthly IoTDA resource in each phase. After a resource is purchased, it enters a valid period and runs normally during this period. If the resource is not renewed after it expires, it first enters a grace period and then a retention period.

Figure 2-1 Lifecycle of yearly/monthly IoTDA resources



- Expiration warning: The system will send you a reminder (by email, SMS, or in-app message) 7 days before a yearly/monthly IoTDA resource expires to remind you to renew the subscription.
- Impact of expiration:
 - If your yearly/monthly IoTDA resource is not renewed after it expires, it changes to the **Expired** status and enters a grace period. During the grace period, you can use IoTDA.
 - If the yearly/monthly IoTDA resource is not renewed after the grace period ends, its status turns to **Frozen** and it enters a retention period. You cannot perform any operations on the resource while it is in the retention period.
 - After the retention period expires, if the yearly/monthly IoTDA resource is not renewed, the resource will be released, and data cannot be restored

D NOTE

• For details about the renewal, see **Overview**.

2.3 Pay-per-Use Billing

Pay-per-use billing is a postpaid mode in which you pay for what you use. This billing mode requires no upfront or long-term commitments. This section describes the billing rules for pay-per-use IoTDA resources.

Scenario

Pay-per-use is suitable for applications or services that cannot be interrupted when facing temporary or sudden traffic increases or unpredictable demands, such as e-commerce flash sales, testing, and scientific computing.

Billing Items

You are billed for the following resources on a pay-per-use basis.

Billing Item	Description
Standard instance	Billed by instance specifications and usage duration

Billed Usage Period

The usage of pay-per-use IoTDA resources is billed on a daily basis. If a resource is used for less than a full day, the fee is calculated based on the actual duration of usage. Billing is settled at 00:00 every day (UTC+08:00), and a new billing cycle begins thereafter. The billing starts from the time when the standard instance is successfully created and ends at the time when the instance is deleted.

Billing Examples

Assume you subscribed to a standard SU1 instance at 09:59:30 on April 18, 2023 and then deleted it at 11:45:46 on April 20, 2023. The following usage periods will be billed:

- The first billing cycle spans from April 18, 2023, 00:00:00 to April 19, 2023, 00:00:00. Fees are incurred from April 18, 2023, 09:59:30 to April 19, 2023, 00:00:00, resulting in a billing duration of 50,400 seconds.
- The second billing cycle spans from April 19, 2023, 00:00:00 to April 20, 2023, 00:00:00. Fees are incurred throughout this period, resulting in a billing duration of 86,400 seconds.
- The third billing cycle spans from April 20, 2023, 00:00:00 to April 21, 2023, 00:00:00. Fees are incurred from April 20, 2023, 00:00:00 to April 20, 2023, 11:45:46, resulting in a billing duration of 42,346 seconds.

You need to pay for each billing cycle. **Table 2-5** lists the billing formula. The prices displayed in the pricing details is per day, so you need to divide it by 86,400 to obtain the price for each second and then multiple the per-second price by the total number of seconds.

Resource	Formula	Unit Price
loTDA standard instance	Unit price x Unit quantity x Purchase duration	To make a purchase, please refer to the IoTDA Price Calculator and select the desired unit type. By default, the number of units is set to 1 and the duration is set to one day. The configuration fee displayed at the bottom of the page represents the daily price of the instance.

Table 2-3 Formulas for billing pay-per-use for DA resource.	Table 2-5	Formulas	for billing	pay-per-use	IoTDA	resources
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Impact on Billing After Specifications Change

If you change the specifications of a pay-per-use instance, the original order will become invalid and a new order will be placed. You will be billed based on the new specifications.

If you change the instance configuration within one day after the purchase, the billing cycle information is generated based on the new configuration.

For example, if you subscribed to a standard SU1 unit at 09:00:00 on April 18, 2023 and upgraded it to a SU2 unit at 09:30:00 on April 18, 2023, two billing records are generated in the billing cycle on that day.

- The first record corresponds to the period from April 18, 2023 09:00:00 to April 18, 2023 9:30:00. The instance specifications are charged based on one SU1.
- The second record corresponds to the period from April 18, 2023 09:30:00 to April 19, 2023 00:00:00. The instance specifications are billed based on one SU2 unit.

A standard instance can be configured with multiple units of the same type, for example, five SU1 units, but cannot be configured with different types of units, for example, two SU1 units and three SU2 units. You can change the number and type of units at any time. For example, you can upgrade two SU1 units to five SU1 units or two SU1 units to two SU2 units. A free SUF unit can be upgraded to an SU1, SU2, SU3, or SU4 unit. After the upgrade, the original SUF unit is no longer retained.

Impact of Arrears

Figure 1 shows the statuses a pay-per-use IoTDA instance can have throughout its lifecycle. After an IoTDA instance is purchased, it enters the valid period and runs normally during this period. If your account goes into arrears, the IoTDA instance enters a grace period and then a retention period.



Figure 2-2 IoTDA instance lifecycle

- The system deducts fees from your account balance for pay-per-use resources at the end of each billing cycle. When your account is in arrears, you will be notified by email, SMS, and internal message.
- Impact of arrears
 - If your account is insufficient to pay your amount, your account goes into arrears. However, your resources will not be stopped immediately; instead, they enter the grace period. You will need to pay for the fees incurred during the grace period, which you can see on the **Billing &**

Costs > **Billing Center** > **Overview** page of the Huawei Cloud console. Huawei Cloud will automatically deduct this amount when you top up.

- If you do not pay the arrears within the grace period, your resources will enter the retention period and become frozen. You cannot perform any operations on the pay-per-use resources during this period.
- If you do not bring your account balance current before the retention period ends, your resource will be released and the data cannot be restored.

NOTE

- Both the grace period and retention period for Huawei Cloud International are 15 days.
- For details about top-up, see **Top-Up and Repayment**.

3 Billing Items

Billing Description

For details about the billing items of IoTDA, see Table 3-1.

Table 3-1	IoTDA	billing	items
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Instance Type	Billing Item	Billing Mode	Formula
Standard edition	Instance specifications (unit type and quantity) and required duration	Pay-per-use and yearly/ monthly billing	Unit price x Unit quantity x Purchase duration

Table 3-2 specifies the billing rules about daily messages and message TPS.

Tuble 5 2 for Britingsbuge billing	Table	3-2	IoTDA	message	billing
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Message Type	Description	Billing Mode
Device messages	Messages sent by devices by calling the MQTT PUB interface	The number of messages is
	Messages received by devices by calling the MQTT SUB interface	Dilled.
	Messages sent by devices by calling the LwM2M Update/Notify interface	
	Response messages received by devices by calling the LwM2M Update interface	
	Messages and properties reported by devices by calling the HTTP interface	

Message Type	Description	Billing Mode
	Command messages sent by the platform by calling the LwM2M Read/Write/Write- Attributes/Execute interface and response messages reported by devices	
	MQTT Connect messages called by devices	Standard
	LwM2M Register messages called by devices	edition: free of charge
Applicatio n messages	Messages sent by applications by calling platform APIs	The number of messages is billed.
Messages forwarded by rules	Messages forwarded to other Huawei Cloud services using rules	If there are fewer forwarded messages sent from devices to the cloud, the forwarded messages are free of charge. If not, the excess forwarded messages are charged. Example: • If 1 million messages are reported and 1.1 million messages are forwarded, the number of billed messages is calculated as 1.1 million. • If 1 million messages are forwarded, the number of billed messages are reported and 900,000 messages are forwarded, the number of billed messages are reported and 900,000 messages are forwarded, the number of billed messages are forwarded, the number of billed messages is calculated as 1 million.

Message Type	Description	Billing Mode
	Message pushed by IoTDA to the third-party applications	The number of messages is billed.
Protocol messages	Logout messages Heartbeat messages ACK messages at the protocol layer Subscription messages Unsubscription messages	Free
OTA upgrade	You will be billed for using OBS to store upgrade packages. For details, see Software/ Firmware Package Upload .	The OTA upgrade is provided free of charge. However, utilizing the OBS service may incur charges.

4Billing Examples

Yearly/Monthly Billing

A user purchased a monthly IoTDA instance of the standard edition at 15:30:00 on March 18, 2023. The instance configuration is as follows:

- Service unit type: SU1
- Number of service units: 5
- Required duration: 5 months

After a period of time, the user found that the current instance specifications no longer met service requirements and updated the instance specifications to ten SU2 units at 9:00:00 on May 22, 2023. What is the total cost after the five-month subscription period expires?

The fees can be divided into two parts: those for the old specifications and those for the specifications upgrade.

Price difference for the specifications upgrade = Price for the new specifications × Remaining period - Price for the original specifications × Remaining period

- Fee of the old specifications: 50 × 5 × 5 = USD1,250 (five SU1 units for five months).
- Upgrade fee:
 - The user upgraded the specifications at 09:00:00 on May 20, 2023.
 Remaining period = 11 (the remaining days in May, excluding the change day)/31 (the maximum number of days in May) + 2 (June and July) + 18/31 (the remaining days in August/the maximum number of days in August) = 2.9355 months
 - Price of the new specifications: 350 × 10 = 3,500
 - Price of the old specifications: 50 × 5 = 250
 - Upgrade fee: (3,500 250) x 2.9355 = USD9540.38
- Total fee: Old specifications fee + Upgrade fee = 1250 + 9540.38 = USD10790.38

Pay-per-Use Billing

A user purchased a pay-per-use IoTDA instance of the standard edition at 15:30:00 on March 18, 2023. The instance configuration is as follows:

- Service unit type: SU1
- Number of service units: 5

After a period of time, the user found that the current instance specifications no longer met service requirements and updated the instance specifications to ten SU2 units at 9:00:00 on March 22, 2023 15:30:00. How much is the total cost by the end of March?

The fee can be divided into two parts.

- From March 18, 2023, 15:30:00 to March 22, 2023, 15:30:00, the usage duration is 4 days, and the billing is based on 5 SU1 units: 0.81 (per unit per day) × 5 × 4 = USD16.2.
- From March 22, 2023, 15:30:00 to March 23, 2023, 00:00:00, the usage duration is 8.5 hours, and the billing is based on 10 SU2 units: 5.32 (per unit per day) × 10 × (8.5/24) = USD18.84.
- From March 23, 2023 00:00:00 to April 1, 2023 00:00:00, the usage duration is 9 days, and the billing is based on 10 SU2 units: 5.32 (per unit per day) × 10 × 9 = USD478.8.

Therefore, the total cost is: 16.2 + 18.84 + 478.8 = USD513.84.

5 Billing Mode Change

You can change the billing mode if it no longer meets your needs.

5.1 From Pay-per-Use to Yearly/Monthly

If you want to use IoTDA standard instances for a long time, you can change the billing mode to yearly/monthly to reduce costs. By doing so, a new order is generated and the yearly/monthly resource takes effect immediately after you pay the order.

NOTE

Assume that you bought a pay-per-use IoTDA SU1 instance on April 18, 2023, 15:29:16, and you changed the billing mode to yearly/monthly on April 19, 2023, 16:30:30 (a change-to-yearly/monthly order generated). After you paid the order, the IoTDA instance immediately entered the yearly/monthly billing mode. On the **Billing Center** > **Billing** page, three line items were generated:

- Pay-per-use expenditures for 15:29:16 to 00:00:00 on April 18, 2023
- Pay-per-use expenditures for 00:00:00 to 16:30:30 on April 19, 2023
- Yearly/monthly expenditure for the period from April 19, 2023, 16:30:30

Constraints

- Currently, only standard edition instances support changing the billing mode from pay-per-use to yearly/monthly.
- The specifications cannot be changed when the billing mode is being changed to yearly/monthly.
- You cannot change the billing mode of an instance to yearly/monthly if there is an unpaid order for changing the billing mode from pay-per-use to yearly/ monthly.
- Pay-per-use resources that are being frozen or deleted cannot be changed to yearly/monthly.

Prerequisites

The billing mode of the IoTDA instance is pay-per-use.

Procedure

- **Step 1** Log in to the console.
- **Step 2** In the navigation pane, click \equiv and choose **IoT** > **IoT Device Access**.
- **Step 3** Choose **IoTDA Instances** and confirm the standard edition instance to be changed to yearly/monthly.
- Step 4 Click on the right of the instance and select Change to Yearly/Monthly Billing.

Figure 5-1 IoTDA instance - Changing to yearly/monthly billing

IoT Device Access	IoTDA Instances Haavei Cloud to T Device Access (IoTDA) allows you to connect your physical devices to the cloud, where you									
IoTDA Instances	can collect device data and deliver commands to devices for remote control. It can also work with other Huawei Cloud services to help you quickly develop to To skutters.									
Profiles IoT Device Provisioning (New)	C. Search by Instance Name by default									
Documentation C IoT Device Provisioning (Old) C	O Ruming 3,000 150,000,000 10,000 R Details & Modify Standard-Standard: \$3*1 default Messages TPS Max Messages Max Devices Pay-per use I Created Change to Yearv/Monthly									
	The instance is ide. Register devices.									

Step 5 Select the required duration, determine whether to enable auto-renewal, confirm the expected expiration date and price, and click **Pay**.

Figure 5-2 IoTDA instance - Changing the billing mode from pay-per-use to yearly/monthly



Step 6 Select a payment method and make your payment. Once the order is paid, the billing mode becomes yearly/monthly.

----End

5.2 From Yearly/Monthly to Pay-per-Use

After purchasing a yearly/monthly IoTDA instance, you can change the billing mode to pay-per-use to reclaim some costs and use the instance more flexibly.

D NOTE

You can change the billing mode from yearly/monthly to pay-per-use in either of the following ways:

- Change to pay-per-use immediately: The pay-per-use billing mode takes effect immediately.
- Change to pay-per-use upon expiration: The pay-per-use billing mode takes effect only after the yearly/monthly subscription has expired.

Constraints

- Currently, only standard edition instances support the change from yearly/ monthly to pay-per-use.
- You have passed real-name authentication.
- You can change the billing mode from yearly/monthly to pay-per-use only for in-use IoTDA instances on the renewal page.
- Yearly/Monthly IoTDA instances that are in the grace period or retention period cannot be changed to pay-per-use.

Prerequisites

Change to pay-per-use immediately: This operation can be performed only on the IoTDA console. Change to pay-per-use upon expiration: This operation can be performed only on the renewal page of Billing Center.

Procedure for Changing to Pay-per-Use Immediately

- **Step 1** Log in to the console.
- **Step 2** In the navigation pane, click \equiv and choose **IoT** > **IoT Device Access**.
- **Step 3** Choose IoTDA Instances and confirm the standard edition instance to be changed to pay-per-use.
- **Step 4** Click ... on the right of the instance and select **Change to Pay-per-Use**.

IoT Device Access		IoTDA Instances				
IoTDA Instances		can collect device data and deliver commands to devices for remote con Cloud services to help you quickly develop IoT solutions.	trol. It can also work with other Huaw	ei		
Profiles IoT Device Provisioning (New) Documentation		C Edition: Standard X Add filter	0.000	450 000 000	10.000	×)(C
IoT Device Provisioning (Old)		Standard- Standard S3 * 1 default	3,000 Messages TPS	Max Messages	Max Devices	Pay-per-use Created on Oct 23, 2024 11:13:08 GMT+08:00
		The instance is idle. Register devices.	200	4,000,000	10,000	R Details
	5	Chanton of Chanton of Chine Constant	messages in a	max messages	Max Devices	
		Standard-Access BU2*2 default	200 Messages TPS	8,000,000 Max Messages	20,000 Max Devices	Details Q Retry C Unsubscribe Pey-per-use I Created on Sep 25, 2024 15:50:40 GMT-08:00
		C Running Standard- Standard S1*1 default	200 Messages TPS	4,000,000 Max Messages	10,000 Max Devices	R Details & Modify Renew Enable Auto Renew
		The instance is idle. Register devices.				Unsubscribe
						Change to Pay-per-Use

Figure 5-3 IoTDA instance - Changing to pay-per-use billing

Step 5 Click OK. Then you are switched to Billing Center.



Change the following instand	ce to pay-per-use billing?		
Instance Name	Status \ominus	Remarks \ominus	
Standard	Running Idle instance. Charging.	-	
		Cancel	ĸ

Figure 5-5 Changing from yearly/monthly to pay-per-use billing

 Yearly/ (1) If returne (2) If will no After th The se 	monthly subscription f you are eligible for a ed, but the applied dis f you are not eligible t be returned. he billing mode is cha dected instances are	refund rules: a five-day uncondition scount coupons will n for a five-day uncond inged to pay-per-use associated with othe	al unsubscription (F ot. itional unsubscription , the system will char rs. If you do not want	ive-Day Refund h (<mark>Partial Refund ge you based o to change all o</mark>	i), the amount y d), you will be in the actual exp f them to pay-pe	vou paid will be refunde charged a handling fee. enditures. Ensure that : er-use, deselect those y	d, and no handling fees wi The amount you paid, a you have a sufficient acco ou do not need.	III be charged. Any applied s well as any applied cas unt balance to prevent sus	cash coupons sh coupons ar pension due to	(if still valid) will be nd discount coupor o arrears.View Balan
						Refund Information			Pay-Pe	r-Use Pricing
	Instance Nam	Product Infor	Туре		Paid (¥)	Deducted (¥)	Refund Estimate (¥)	Actual Refund (¥)		Price(¥)
~			Partial Refund	Credit C	ard/Accou	Consumed: -2,213	Account Balance:	Account Balance: 5,7		¥1.7000 / Hour
	Total				8,000.00	-2,213.70 ③	5,786.30	5,786.30 ③		¥1.7000 / Hour
										Hide
								Ac	tual Refund	¥5,786.3
							If your order was paid u WeChat, Alipay, and e-b to your Huawel Cloud a This is an estimate only	sing a third-party online pa panking, the refund for an u ccount. See the final bill for the ex	Total Refur syment method unsubscription xact amount.	nded: ¥5,786.30 I, such as will be returned

Step 6 Confirm the refund information, select **I understand a handling fee will be charged for this unsubscription**, and click the button to complete the change.

----End

Procedure for Changing to Pay-per-Use upon Expiration

- **Step 1** Log in to the console.
- **Step 2** On the top navigation bar, choose **Billing** > **Renewal**.
- **Step 3** Search for the IoTDA instance to be changed to pay-per-use based on the instance ID or name.
- **Step 4** Click **More > Change Billing Upon Expiration** in the **Operation** column.

Figure 5-6 Changing to pay-per-use in billing center

Billing Center	Reneals 2 GM UKI (host Stars) (host Stars)	et)							
Oveniew Onters ^ Linguid Onters									
Reservate My Orders Unsubscriptions and Roturns/Exchanges	Care Al 101 Francisconderarea (E Gamerica and Tagos and E Gamerica Tagos 10 Gamerica and Tagos								
Resource Packages	0								
Elling v Promotions v	Main Binness () Apple Streems (1) Pay on clock the Equation () Revenue Streems (1) Main Binness Streem Hower () Binness Binness () Binness Binness ()								
Invoices Export History	Instantion Product Specifications Regin 7 Enrogine Project 7 Product Specifications Mathy Media Rewriting in Constraints Description Descripion Description Description <td></td>								
Cost Certier									

Step 5 Confirm the change details and click **Change to Pay-per-Use**.

Figure 5-7 Changing the billing mode to pay-per-use billing upon expiration

The billing mode change to pay-pe After pay-per-use is enabled, the a Auto-renewal will not be applied ar	r-use will be applied after the resource's current subscription term end clual cost incurred while changing the resources will be billed to your a ymore after the resource' billing mode is changed to pay-per-use.	s. account.		
Instance Name/ID	Product Information	Auto-Renew (?)	Pay-per-Use Starts	Price
~	Product Type IoT Device Access Current Configuration IoTDA Standard Instance S1 1PCS Region CN North-Beijing4	Renewal Period: 1 Remaining Renewa	Jun 30, 2025 23:59:59 GMT+08:00	¥1.7000 / Hour
				Total ¥1.7000 / Hour
				Change to Pay-per-Use

----End

6 Renewal

6.1 Overview

Introduction

If an IoTDA instance is about to expire but you want to continue using it, renew the subscription within a specified period. Otherwise, resources will be automatically released, and data will be lost and cannot be restored.

Only yearly/monthly IoTDA instances can be renewed. Pay-per-use IoTDA instances can run as long as you have sufficient account balance.

If your subscription is renewed before it expires, all resources are retained and your instances are not affected. For details about the statuses of an IoTDA instance after it expires, see **Impact of Expiration**.

Renewal Methods

You can renew a yearly/monthly IoTDA instance manually or automatically.

Method	Description
Manual renewal	To use a yearly/monthly IoTDA instance longer, renew the subscription anytime on the console as long as the instance is not automatically deleted due to expiration.
Auto-renewal	After auto-renewal is enabled, IoTDA instances are automatically renewed before the subscription expires. This prevents resources from being automatically deleted in the event that you forget to manually renew the subscription.

Table	6-1	Renewal	methods

You can renew your subscription across the lifecycle of your IoTDA instance, as shown in **Figure 6-1**.

Figure 6-1 Lifecycle of an IoTDA instance



- 1. An IoTDA instance is in the **Running** status from the time when it is purchased to the time when it expires. After the instance expires, its status changes to **Expired**.
- 2. If the instance is not renewed upon expiration, it enters the grace period. If it is not renewed after the grace period ends, the status changes to **Frozen**.
- 3. If you do not renew your subscription after the grace period ends, your resource enters a retention period. If you do not renew the subscription within the retention period, your resource is automatically deleted.

NOTE

Both the grace period and retention period for Huawei Cloud International are 15 days.

You can enable auto-renewal anytime before an IoTDA instance expires. By default, the system will make the first attempt to charge your account for the renewal at 03:00, seven days before the expiry date. If this attempt fails, it will make another attempt at 03:00 every day until the subscription is renewed or expires. By default, renewal charges are deducted from your account seven days before the new expiration date. You can change this auto-renew payment date as required.

6.2 Manual Renewal

Renewing on the Console

Step 1 Log in to the console.

- **Step 2** In the navigation pane, click \equiv and choose **IoT** > **IoT Device Access**.
- **Step 3** On the IoTDA instance list page, select the IoTDA instance to be renewed.
- **Step 4** Click ******* on the right of the instance and select **Renew**. Confirm the instance to be renewed and go to the Billing Center of **Step 5** to pay for the renewal.

IoT Device Access	ю н	o TDA Instar luawei Cloud Io1	nces T Device Access (IoTDA) allows you to connect your p	hysical devices to the cloud, where you						
IoTDA Instances	Са О	can collect device data and deliver commands to devices for remote control. It can also work with other Huavei Cloud services to help you quickly develop loT solutions.								
Profiles										
IoT Device Provisioning (New)		Q Search	by Instance Name by default.				0			
Documentation			O Running	3,000	150,000,000	10,000	Q Details & Modify 😐			
IoT Device Provisioning (Old)			Standard- Standard S3 * 1 default	Messages TPS	Max Messages	Max Devices	Yearly Renew			
		The instan	ro is idla. Danistar davisas				Enable Auto-Renew			
		THE INSIDI	ие ю ше, педиле четиел.				Unsubscribe			
							Change to Pay-per-Use			

Figure 6-2 IoTDA instance - Renewal

----End

Renewing in Billing Center

- **Step 1** Log in to the console.
- **Step 2** On the top navigation bar, choose **Billing** > **Renewal**.
- **Step 3** Customize the filter criteria.

On the **Manual Renewals**, **Auto Renewals**, **Pay-per-Use After Expiration**, and **Renewals Canceled** tab pages, you can view the resources to be renewed.

Figure	6-3	Renewal	management

= 🏥 HUAWEICLOU	10 Console					ICP License Resources Billing	Enterprise Tools Service Tickets	© C [*] (⊕ en hvstaf_pub_loTON hoosecas
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Renewals								
My Orders	Expires Alt 564 Frazen (in reletion period	(: 0 Expired (in grace period): 0 Expires in 2	daya: 0 Gogines in 15 daya: 159	Expires in 30 days: 418 Custom				
Unsubscriptions and Reforms/Exchanges	Do not show resources that have orders pending payme	nt 🔄 Do net shew resource packages 🗸						
Resource Packages	C. Instance IDResource ID is used to search by default.							
Funds Management 🤍 🗸								
ang v	Manual Renewals (5) Auto Renewals (555)	Pay-per-Use After Expiration (D) Renewals Gi	incelled (0)					
Promotions v								
Cantracts			Provide Carlos (Probal -)					
Invoices	Instance Name ID	Product Type Specifications 🚏	Region V	Enterprise Project 💡	Provisioned Expires	Sietzs	Velidity Period	Operation
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CHICOMM C			Clobal		Nev 29, 2323 10 22 48 0MT+08 00 Nev 28, 2024 22 58 59 GMT+08 00	o Provisioned	50.6895 until expretten Auto expire	Renner 🛞 Eng Again 🛞 Mare 🗸
	0 •		CN Noth-Ulangab201		Nev 14, 2022 18:41:04 GMT-08:00 Dec 14, 2024 23:58:59 GMT-08:00	Provisioned	55.6ept solid scaladies oprace period	Ranew Enable Auto Ranewall More +
	0 ×		CN Noth-Usinge0201		Nov 14, 2022 10:41:04 GMT+08:00 Dec 14, 2024 23:59:59 GMT+08:00	o Provisioned	65 days until expiration (prece period)	Ramer Enable Auto-Rameral Nove ~
	D •		CN East-Sharghal1		Jul 25, 2024 10 44.48 (047+05.08 Jul 25, 2025 23 59:58 GMT+02:08	© Provisioned	283 days will expendent Auto expire	Renev () Buy Again () Mare
	0 •		CN Noth-Beijingd		Aug 15, 2024 14:32:40 GMT+08:00 Aug 15, 2025 23:55:50 GMT+08:00	o Provisioned	213 days until expiration Auto expres	Rener() Duy Again() More ~

You can move all resources that need to be manually renewed to the **Manual Renewals** tab. For details, see **Restoring to Manual Renewal**.

Step 4 Manually renew the resources.

• Individual renewal: Click **Renew** in the **Operation** column for the desired resource.

Figure 6-4 Renewing a single resource

Billing Center	Recent 2 0x0100 Unit in the local test
Overview Orders A Unpaid Orders	Or A match status
Renewals	
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Unsubscriptions and Reforms/Exchanges	Dural filos resources that have solving pending partnerf 📃 Dural takes resource pendings -
Resource Packages	Q Add ther X
Funds Management 🤍 👻	
Diling ~	Manual Revenuis (i) Add Revenues (t) Pay-get-Use After Expration (ii) Revenues Canceled (ii)
Prometiens ~	
Contracts	
Invoices	Instance Name/D Product Syster Specifications 🖓 Region 🖓 Enterprise Provisioned Express Status Validity Rend Remonstrations Operation
Export History	or Townson USA On Number Regist Dist / Address USA Bits / Address USA of Provident Bits / Address USA Bits / Address USA 1013 1013 1013 1013 1014 Address USA Address USA Bits / Addre
Cost Center 2	

• Batch renewal: Check the boxes for the desired resources, and click **Batch Renew** in the upper left corner.

Figure 6-5 Batch renewal

Billing Center	Renewals					(2 Quick Links	Resour Domain Notify Message Recovert
Oveniew Orders A Urpaid Orders	New Year work to continue samp any securicity allow of the section, where the Head Continue Research of Calment of Program 2 and America Calment of the Security of the s	e Resources to De Renewed? and Haw Do I Chang also time is reached. Isd? reveal Date nad service campole. Common cloud services: DCS	pe the Billing Made from Yearly-Manthly to Pay-per-	lar"			
Renewals							
My Orders	Expines All 554 Prozen (in reletion period): 0 Expined (in grace period): 0 Expin	es in 7 days: 0 Expires in 15 days: 159	Expires in 30 days: 418 Custom				
Unsubscriptions and Returns/Exchanges	Do not show resources that have enters pending payment. Do not show resource packages ~						
Resource Packages	C. Instance IDResource ID is used to search by default.						
Contra Menseement							
Partis managements							
Dilleg ~	Manual Renewals (6) Auto Renewals (558) Pay-per-Use After Expiration (0) Renewa	als Canceled (0)					
Promotions ~	Enable Auto-Removal Change to Pay-per-Use After Expirator Cancel Rem	nval Set Reneval Date Doport ~					
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Cost Center 2	• • •	Gisbal		Nev 29, 2023 10.22 45 0917-95.00 Nev 29, 2024 23:59 59 0917-95.00	o Provisioned	58 dezi adli esendor. Auto orpro	Renew 🕑 Buy Again 🕙 Mare ~
	•	CN North-Ulangab201		Nev 14, 2022 18:41 84 (MIT+80.00 Dec 14, 2024 23:59 59 (MIT+80.00	o Provisioned	65 days until expiration (grace period)	Renew Enable Auto-Renewal More ~
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		CN East-Shanghai1		Jul 25, 2024 10 44 49 OMT+08 09 Jul 25, 2025 23 59 59 OMT+08 09	o Provisioned	200. deva until scatoliten Auto expire	Renev () Day Again () More ~
		CN North-Beijing4		Aug 15, 2024 14:32:40 CBIT+30:00 Aug 15, 2025 23:50 50 CBIT+00:00	o Provisioned	232,0000 antil anatoliten Auto enpire	Rener() Duy Again() More ~

Step 5 Select a renewal duration and optionally select Renew on the standard renewal date. For details, see Setting the Same Renewal Day for Yearly/Monthly Resources. Confirm the price and click Pay.

Figure 6-6 Confirming renewal

Renewals / Renew													
Renew													
 If you change the res The renewal period in 	source specific n effect is not	cations before its eligible for a 5-c	s renewal period ta tay unconditional u	kes effect, the rene nsubscription.	wal period canno	t be unsubscribed	from.						
Instances To Be Ren	ewed: 1												
Instance Name/IC	D		Product Inform	ation				Auto-Renew	0		Renewal Duration	n Expiration Time	Fee
~ Teadloo			Product Type Io Current Configu Region CN Nort	F Device Access Io ration:IoTDA Stand h-Beijing4	TDA ard instance(S1(1	PCS		Renewal Peri Remaining Re	od: 1 year inewals: Unlimited		1 year	Current: Jun 30, 2025 23:59:59 GMT+08:00 New: Jun 30, 2026 23:59:59 GMT+08:00	¥8,000.00
Renewal Settings													
Renewal Duration													
1 month 2 m	ionths	3 months	4 months	5 months	6 months	7 months	8 months	9 months	1 year	2 years	3 years		
Renewal Date Renew on the standar If you change the exp	rd renewal dat	te, the 1st of ev Renewal Date,	very month at 23: the expenditures	9:59 GMT+08:00 vill be added. You (d. can check the ren	ewal days in the Ri	enewal Duration co	lumn.					

Step 6 Select a payment method and confirm the payment. After you pay the order, the renewal is complete.

----End

Setting the Same Renewal Day for Yearly/Monthly Resources

If you have multiple IoTDA instances with different expiration dates, you can set a fixed expiration date to facilitate routine management and renewal.

In **Figure 6-7**, a user renews two resources that will expire at different time for one month and sets a fixed renewal date.

Figure 6-7 Setting a fixed renewal date

Procedure	1. Configure	e a renewal date.	2. Select reso	ources for operations.	3. Renew to the renewal date.		
Rules	For example, Resource A Expiration: April 17	the renewal date is Renewal for 1	the 1 day of eac	ch month. Additional renewal for 14 days	Expiration: June 01		
	Resource B Expiration: May 08	Renewal for 1	month •	Additional renewal fo days	r 24 Expiration: July 01		

For details, see **Setting a Renewal Date**.

6.3 Auto-Renewal

Auto-renewal can prevent IoTDA instances from being automatically deleted if you forget to manually renew them. The auto-renewal rules are as follows:

- The auto-renewal period of an IoTDA instance varies depending on how you enable auto-renewal.
- You can enable auto-renewal anytime before an IoTDA instance expires. By default, the system will make the first attempt to charge your account for the renewal at 03:00, seven days before the expiry date. If this attempt fails, it will make another attempt at 03:00 every day until the subscription is renewed or expires.
- After auto-renewal is enabled, you can still renew the IoTDA instance manually if you want to. After a manual renewal is complete, auto-renewal is still valid, and the renewal expenditure will be deducted from your account seven days before the new expiry date.
- By default, the renewal expenditure is deducted from your account seven days before the new expiry date. You can change this auto-renewal payment date as required.

For details about auto-renewal rules, see Auto-Renewal Rules.

Prerequisites

The yearly/monthly IoTDA instance has not expired.

Enabling Auto-Renewal During Instance Purchase

You can enable auto-renewal on the IoTDA instance purchase page, as shown in **Figure 6-8**.

Figure 6-8 IoTDA instance - Auto-renewal configuration

ed Duration 1 2 3 4 5 6 7 8 9 months 1 year 2 years 2 3 years 2 3 years 2 3 years 2

The auto-renewal periods are as follows:

- Monthly subscriptions renew each month.
- Yearly subscriptions renew each year.

Enabling Auto-renewal on the Renewals Page

- **Step 1** Log in to the console.
- **Step 2** On the top menu bar, choose **Billing** > **Renewal**.
- **Step 3** Set the search criteria.
 - Click **Auto Renewals**. On this tab, you can view the resources for which autorenewal has been enabled.
 - On the Manual Renewals, Pay-per-Use After Expiration, and Renewals Canceled page, you can enable auto-renewal for resources.

Figure 6-9 Renewal management

E 🌺 HUAWEI CLOU	10 Console				ICP LIC	onse Resources Billing Enter	prise Tools Service Tickets	C C C C C C C C C C C C C C C C C C C	D_IOTOMP
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Recevals My Criters	Expires All 564 Prozen (in reletion period)	0 Expired (in prace period): 0 Expires in 7 da	ys. 0 Graines in 15 days. 159	Sopinas in 30 days: 418 Custom					
Unsubscriptions and Refums/Exchanges	Do not show resources that have orders pending payment	Do not show resource packages ~							
Resource Packages	C: Instance IDResource ID is used to search by default.								
Funds Management 🤍 🗸									
Billing ~	Manual Renewals (5) Auto Renewals (555)	Pay-per-Use After Expiration (0) Renewats Cano	eled (D)						
Promotions V Contracts	Eastch Formers Enable Auto-Renewal Char	nge to Pay-per-Lise After Expiration Cancel Revenuel	Set Resevut Date						
Invoices	Instance Name ID	Product Type Specifications 💱	Region 17	Enterprise Project 7	Provisioned Expires	Sietus	Validity Period	Operation	
Export History	• •		Grobal		Nov 28, 2023 10:18:59 GMT+08:00 Nov 28, 2024 23:59:59 GMT+08:00	o Provisioned	50 days until expiration Auto expire	Renew 🗇 Day Apim 🗇 Mare 🗸	
Cast Carrier 5			Clobal		Nev 28, 2523 10 22 48 0MT+08 00 Nev 28, 2524 22 58 59 GMT+08 00	o Provisioned	50 days until expiration Auto expire	Rammer 🛞 - Ency Again 🛞 - Mare 🛩	
	0 •		CN Noth-Ulangeb201		Nev 14, 2022 10:41:04 GMT+00:00 Dec 14, 2024 23:59:59 GMT+00:00	• Provisioned	55. Nava setti susimilari oprace periodi	Ranew Enable Auto-Ranewall More -	
	• •		CN Noth-Usingi0291		Nov 14, 2022 10:41:04 GMT+08:00 Dec 14, 2024 23:59:59 GMT+08:00	· Provisioned	65 days until expiration (prace period)	Ramer Enable Auto-Rameral Nove -	
	•		CN East-Shanghai1		Jul 25, 2024 10 44 48 0MT+85.08 Jul 25, 2025 23 59:58 GMT+82.08	o Provisioned	288 days will expedition Auto expire	Renev () Buy Again () Mare -	
	0 •		CN Noth-Rejing4		Aug 16, 2024 14:32:40 GMT-08:00 Aug 18, 2025 23:58:59 GMT-08:00	o Provisioned	219 days until expiration Auto expire	Renew (Day Again(*)) More ~	

Step 4 Enable auto-renewal for yearly/monthly resources.

 Enabling auto-renewal for a single resource: Select the IoTDA instance for which you want to enable auto-renewal and click Enable Auto-Renewal in the Operation column.

Figure 6-10 Renewing a single resource

Owner C • P and the states and a program is states and a provide to the st	
Renewals	
No Ordens Espènes 🔥 Espènes 👘 Alt 594 🚆 Fritzes in Indention percolt, 6 Espène (in grace percolt, 6 Espène in 7 days; 8 Espines in 15 days; 149 Espines in 35 days; 4.18 Outlin	
Underschlan wirf Recent Scharges	
Resource Prologes Add Iden	×
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Elling V Manual Borreveni (s) Aulta Borreveni (s) Aulta Borreveni (s) Amor Experiation (s) Revenue Loncolet (s)	
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Contract	
Invites	Operation
Equilibrium U V Markans VIGA Access VIGA Conception Concepting Concepting Concepting Con	Renew Modily Auto-Renew More ~
Conformer (2	

• Enabling auto-renewal for multiple resources at a time: Select the IoTDA instances for which you want to enable auto-renewal and click **Enable Auto-Renewal** above the list.

Nodily Message Recipient

5	5		
Billing Center	Renewals	C Ource Links	Report Do
Overview Onters A Unpaid Orders			
Renowals			
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Unsubscriptions and Raturns/Exchanges	Do not shar resources that have unlikes pending payment D and show resource packages ~		
Resource Packages	C, Instance IDRessurse D is used to search to debuilt.		
Funds Management 🔍			
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Nov 29, 2823 10.18.59 GMT-03.00 Nov 29, 2824 23.59.59 GMT-03.00

Nov 29, 2023 10:22:40 OMT+08:00 Nov 29, 2024 23:59:59 GMT+00:00

Nev 14, 2022 18,41.04 Chil7+05:00 Dec 14, 2024 22:50:58 Chil7+05:00

Nov 14, 2022 18:41:04 ONT-08:00 Dec 14, 2024 22:59:59 GNT-00:00

Jul 25, 2024 10 44 49 CMT-08 99 Jul 25, 2025 22 58 59 GMT-08 99

Aug 16, 2024 16:22:40 GNT+00:00 Aug 16, 2025 23:59:59 GNT+00:00

Figure 6-11 Enabling auto-renew for multiple resources

Global

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CN North-Ulangeb201

CN East-Shanghait

Step 5 Select a renewal period, specify the auto-renewal times, and click OK.

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The auto-renew period is subject to the selected renewal period and auto-renew times. For example, if you select three months as the renewal period and do not select **Preset Auto-renewals**, your subscription is automatically renewed for three months before each expiration.

Figure 6-12 Enabling auto-renewal



----End

7 Bills

To learn about your expenditures, go to the bills page, and check the transactions and detailed bills.

Bill Generation

After yearly/monthly resources are paid, a bill is reported to the billing system for settlement.

The usage of pay-per-use resources is reported to the billing system at a fixed interval. Pay-per-use IoTDA resources are settled by day.

You are not billed immediately after a record is generated. On the **Billing Center** > **Billing > Transactions and Detailed Bills > Transaction Bills** page, **Expenditure Time** indicates the time when a pay-per-use product is used.

Viewing Bills of a Specific Resource

Example 1: Use the resource ID to search for the bill. The resource ID is the same as that in the bill.

- Step 1 Log in to the console, choose IoT > IoTDA Device Access in the navigation pane. Go to the IoTDA instance list page and go to the details page of the target instance.
- Step 2 Copy the resource ID as shown in the figure.

Figure 7-1 IoTDA instance	e - Obtaining the resource ID
---------------------------	-------------------------------

IoTDA Instances / Instance De	tails							
< freeStandardIns	tance 🖉 Standard Standard O Running IC	2					& Modify	🛱 Unsubscribe 🛱 Change to YearlyMonthly Billing
Access Details								
Specifications								
Edition	Free unit S0	Unit	5	1	Max Register Devices	1,000		
Max Message TPS	10	Max	Messages	10,000	Enterprise Project	default		
Description	and 2							
Billing Info								
Billing Mode	Pay-per-use	Cres	ted	Aug 29, 2024 20:03:14 GMT+08:00				

Step 3 On the top menu bar, choose **Billing** > **Bills**.

Step 4 Choose Transactions and Detailed Bills > Bill Details. On the displayed page, select Resource ID as the filter condition, paste the resource ID copied in Step 2, and search for the bill of the resource.

Figure 7-2 Querying resource i	Figure	e bills
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Billing Center	Yranactions and Detailed Bills	(Whit's New
Oversiew	1. The final all for the cannel month will be available after 16.00 on the 4b ag of the following month. For monthly-added amic UVA, their falls can be viewed on the 3d ag of the following month.	
Orders ~		
Resource Packages	Transactor Bita (b) Bit Doluth (b)	
Funds Management	iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	
Billing o	Sat By Usage Server 5;59 () Data Pende By dates over By daty Dollant Resolution?	
50	(Equit) Continues Column	
Transactions and Detailed Bills	C Researce D: 071018214031-4554402491112350888 × Ant the	×
Experting Dife	Hilling-, Estimption Account Name 🕐 Service Type Headause T Billing Mode Bill Type Selection Tag Specification @ Discourse Tag Specification @	Amount (P) 🗇
Usage Details	00/204 Mehat biTbelora. Properties Cogentizes biTbelora. Mc-Road A21 Number - 185 1UM/humber 8 number - 50-45 0.09	90.45
Promotions ~		
Contracts		
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By default, bill details are displayed by usage and billing cycle. You can also select other statistical dimensions or periods.

----End

Check the Consistency of the Actual Usage and Billed Usage

Assume that you purchased two IoTDA SU1 units at 10:09:06 on April 8, 2023, and delete the them at 10:09:06 on April 10, 2023.

• IoTDA transaction bills

Pay-per-use IoTDA instances are billed by day and settled at 00:00 (UTC +08:00) every day. You can check the transaction records against the actual information. For details, see **Table 7-1**.

Service	IoTDA
Produc t	IoTDA standard instance
Billing Mode	Pay-per-use billing
Expend iture Time	 From 10:09:06 on April 8, 2023 to 10:09:06 on April 10, 2023, 3 transaction bills were generated: April 8, 2023, 10:09:06 to April 9, 2023, 00:00:00 April 9, 2023, 00:00:00 to April 10, 2023, 00:00:00 April 10, 2023, 00:00:00 to April 10, 2023, 10:09:00
List Price	List price = Usage x Unit price In this example, you use IoTDA for 36,546 seconds in the first billing cycle. You can query the unit price on the IoTDA Pricing Details page. For example, if the daily price is USD0.81 for a SU1 unit and the number of units is 2, the list price is USD0.6852375. Calculation: $(36,546/86,400) \times 2 \times 0.81 = USD0.6852375.$

 Table 7-1
 IoTDA transaction bills

Discou nted Amoun t	Discounts offered for cloud services, for example, commercial discounts, partner authorized discounts, and promotional discounts. Discounts are based on the list prices.
Trunca ted Amoun t	Huawei Cloud bills a resource with the price (USD) accurate to the 8th decimal place. However, the amount due is truncated to the 2nd decimal place, while the third and later decimal places are referred to as the truncated amount. Taking the first billing cycle as an example, the truncated amount is USD0.0052375.
Amoun t Due	Amount due = List price – Discount amount – Truncated amount Take the first period as an example. If the discount amount is 0, the amount due is USD0.68 (0.6852375 – 0 – 0.0052375).

• IoTDA bill details

Bill details can display in multiple ways. By default, the bill details of a resource are displayed by usage and by billing cycle. **Table 7-2** illustrates the IoTDA bill details, which can be used to check against the actual usage.

Table	7-2	IoTDA	bill	details
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Service	IoTDA
Produc t	IoTDA standard instance
Billing Mode	Pay-per-use billing
Resour ce Name/I D	Name and ID of an IoTDA instance. Example: iotda-test-instance, 4cdeb1cd-7071-4890-9ce4- e6c2299e960e
Specifi cations	Example: IoTDA standard instance Small package SU1
Usage type	Duration
Unit Price	In the pay-per-use billing mode, the unit price is provided only when the amount is equal to the usage multiplied by the unit price. No unit price is provided in other pricing modes, for example, tiered pricing. For details about the unit price of pay-per-use IoTDA instances, see IoTDA Pricing Details
Price Unit	Unit price in IoTDA Pricing Details: USD/day.

Usage	The usage is displayed by the unit price, which is USD/day for IoTDA. The usage is measured by day. In this example, the usage duration from 10:09:06 on April 8, 2023 to 10:09:06 on April 10, 2023 is two days, and the number of units is 2. Therefore, the total usage is 4 (2 x 2).
Usage Unit	day
List Price	List price = Usage x Unit price In this example, the usage is 2 days, and the unit price can be queried in IoTDA Price Details . For example, if the price is USD0.81 per unit per day and the number if units is 2, the list price is USD3.24 ($0.81 \times 2 \times 2$).
Discou nted Amoun t	Discounts offered for cloud services, for example, commercial discounts, partner authorized discounts, and promotional discounts. Discounts are based on the list prices.
Amoun t Due	Amount that should be paid for used cloud services after discounts are applied.

8 Arrears

If there is not a sufficient account balance to pay for your bill and there is no other payment method configured, your account will go into arrears. To continue using your cloud services, top up your account in a timely manner.

Arrears Reason

In pay-per-use mode, your account balance is insufficient.

Impact of Arrears

• Yearly/Monthly

This is a pre-paid billing mode, so you can continue using yearly/monthly resources even if your account is in arrears.

Pay-per-use

If your account is insufficient to pay your amount, your account goes into arrears.

- a. However, your resources will not be stopped immediately; instead, they enter the grace period. You are still responsible for expenditures generated during the grace period. You can view the charges on the **Billing Center** > **Overview** page and pay any past due balances as needed.
- b. If you do not bring your account current before the grace period ends, the resource enters a retention period and its status becomes **Frozen**. You cannot perform any operations while it is in the retention period.
- c. If you do not bring your account balance current before the retention period ends, your resource will be released and the data cannot be restored.

Figure 8-1 IoTDA instance lifecycle



NOTE

Both the grace period and retention period for Huawei Cloud International are 15 days.

Avoiding and Handling Arrears

If you are in arrears, top up your account in time. For details, see **Top-up and Repayment**..

Configure the **Balance Alert** function on the **Billing Center** > **Overview** page. When the total amount of the available quota, general cash coupons, and cash coupons is lower than the threshold, the system automatically notifies you by SMS or email.

If your account is in arrears, top up your account in a timely manner.

9 Billing Termination

Yearly/Monthly Resources

You pay for a resource billed in yearly/monthly mode, such as a yearly/monthly IoTDA instance, when you purchase it. Billing automatically stops when the subscription expires.

- Unsubscribe from them when no longer in use. The system will then return you a certain amount of money, depending on whether your resources are subject to five-day unconditional unsubscription and whether you have used some cash or discount coupons. For details about unsubscription rules, see Unsubscription Rules.
- If you have enabled the auto-renewal function, disable it before the autorenewal deduction date (seven days before the expiration date by default) to avoid unexpected fees.

Pay-per-Use Resources

If a pay-per-use IoTDA instance is no longer needed, delete it to stop billing.

10 Cost Management

As you migrate more of your services to the cloud, managing cloud costs becomes more important. For example, you may be more concerned with cost management when using IoTDA instances. The following describes how to manage costs from four dimensions: cost composition, allocation, analysis, and optimization, to help maximize return on your investment.

Cost Composition

Huawei Cloud **Cost Center** helps you manage resource costs with ease. However, you need to identify, manage, and optimize O&M costs by yourself.

Cost Allocation

A good cost accountability system is the basis of cost management. It ensures that departments, business teams, and owners are accountable for their respective cloud costs. Allocate costs to different teams or projects so that organizations have a clear picture of their respective costs.

Huawei Cloud **Cost Center** supports cost collection and reallocation with multiple tools for you to choose from.

• By linked account

The enterprise master account can categorize the costs of its member accounts by linked account to manage the accounting of those member accounts. For details, see **Viewing Costs by Linked Account**.

• By cost tag

You can use tags to sort your Huawei Cloud resources in a variety of different ways, for example, by purpose, owner, or environment. The following is the process of managing costs by predefined tags (recommended).



Figure 10-1 Adding tags to cloud resources

Add Tag		×
If a new tag has an existing key, the new value will overwrite the existing value. TMS's predefined tags are recommended for adding the same tag to different cloud resources. Create predefined tags 🕑	Q	
+ Add Tag		
You can add 20 more tags.		_
	Cancel OK	
		_

For details, see Viewing Costs by Cost Tag.

• By cost category

You can use **Cost Categories** provided by **Cost Center** to split shared costs. Shared costs include the costs for the resources (compute, network, storage, or resource packages) shared across departments or the costs that cannot be directly split by cost tag or enterprise project configured for the resources. These costs are not directly attributable to a singular owner, and hence cannot be categorized into a singular cost category. In this case, you can define cost splitting rules to fairly allocate these costs among teams or business units. For details, see **Viewing Cost By Cost Category**.

Cost Analysis

To accurately control and optimize your costs, you need a clear understanding of what parts of your enterprise incurred different costs. **Cost Center** visualizes your original costs or amortized costs using various dimensions and display filters. You can analyze the trends and drivers of your service usage and costs from a variety of perspectives and scopes.

Cost Anomaly Detection provided by **Cost Center** also detects unexpected expenses promptly for tracing, monitoring, and analysis.

For details, see **Performing Cost Analysis to Explore Costs and Usage** and **Enabling Cost Anomaly Detection to Identify Anomalies**.

Cost Optimization

You can create different types of budgets on the **Budgets** page of Cost Center to track your costs against the budgeted amount you specified. If the budget thresholds you defined are reached, Cost Center will send alerts to the recipients you configured. You can also create budget reports and specify recipients to receive budget alerts if any at a frequency you configured.

Suppose you want to create a monthly budget of 2000 for a pay-per-use ECS and expect to receive an alert if the forecasted amount exceeds 80% of the budgeted amount. You can refer to the following budget information.

Cost Center Q	Budgets / Create Budget
Overview Cost Assistant NEW	Monthly Budget for Service Types
Getting Started	Budget Name
Cost Insights	Monthly-Budget-for-Service-Types
Cost Analysis Cost Anomaly Detection	Budget Scope
Cost Details Export	Specify the service types for your budget.
	In T Device Access (InTDA) $ imes$ $ imes$
Cost Organization Cost Tags	Budgeted Amount
Cost Categories	This budget will track your net original costs (actual payments).
Enterprise Projects [2]	2000
Budget Management	Last month's actual payments: ¥113,390.70
Budgets	Recipients(1/10)
Budget Reports	Recipients will receive a budget alert if the actual cost exceeds 85% or 100% of the budgeted amount or if the forecasted cost exceeds 100% of the budgeted amount.
Cost Optimization	recipient + Select From Contacts
Summary	
Resource Packages 🗸	
Other	Save Menious Cancel
Preferences NEW	
Export History	
bining Center	

Figure 10-2 Creating a budget

For details, see **Enabling Forecasting and Creating Budgets to Track Cost and Usage**.