Global SIM Link

User Guide

Issue   01

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HUAWEI CLOUD COMPUTING TECHNOLOGIES CO., LTD.

Contents

1 Physical SIM Cards

1.1 Introduction

A physical SIM card is a hardware chip that can be used in a device. It is a user identification card, which stores user data, authentication methods, and passwords for the system to identify users. At the same time, the SIM card connects users with the system and exchange information between them.

Currently, GSL provides commercial and industrial physical SIM cards.

- Commercial physical SIM cards: made of common plastics and applicable to common consumption scenarios.
- Industrial physical SIM cards: made of injection molding and ceramic materials. Industrial physical SIM cards are resistant to high temperature, moisture, vibration, corrosion, electromagnetic interference, and have long service life.

The following table lists their differences.

Product Type	Commercial SIM		Industrial SIM	
Product Form	Plug-in SIM	SMD SIM	Plug-in SIM	SMD SIM
Packaging Material	ABS or PVC	ABS or PVC	Industrial plastics or ceramics	Industrial plastics or ceramics
Operating Temperature	–25°C to +85°C	–25°C to +85°C	–40°C to +105°C	–40°C to +105°C

Shock	5 Hz to 500 Hz	20 Hz to 2,000 Hz	5 Hz to 500 Hz	20 Hz to 2,000 Hz
Lifecycle	100,000 times	100,000 times	500,000 times	500,000 times

The following table lists the physical SIM card types supported by GSL.

Type	Description
Commercial	There are four types of commercial physical SIM cards. ● **Commercial plug-in SIM**: common SIM (2FF). ● **Commercial plug-in 2-in-1 SIM**: common (mini) SIM and micro SIM, excluding nano SIM. ● **Commercial plug-in 3-in-1 SIM**: common (mini) SIM, micro SIM, and nano SIM. ● **Consumer SMD SIM**: 5 mm x 6 mm and 2 mm x 2 mm SMD SIM, which can be welded to devices.
Industrial	There are three types of industrial physical SIM cards. ● **Industrial plug-in SIM**: common SIM (2FF). ● **Industrial plug-in 2-in-1 SIM**: common (mini) SIM and micro SIM, excluding nano SIM. ● **Industrial SMD SIM**: 5 mm x 6 mm and 2 mm x 2 mm SMD SIM, which can be welded to devices.
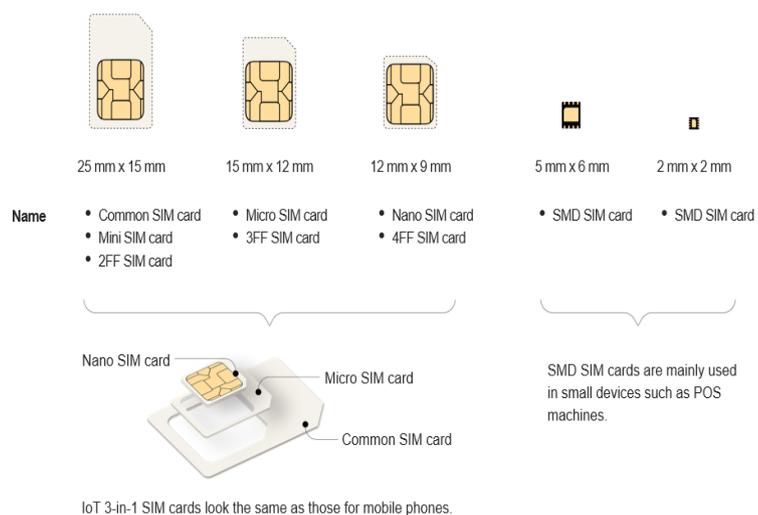
1.2 Purchasing IoT SIM Cards

1.2.1 Procedure

Registration and Real-Name Authentication

Register a Huawei Cloud account and complete **enterprise real-name authentication**.

Purchasing Physical SIM Cards

Step 1 Contact the account manager or **consult online** to obtain the commercial discount, and then purchase the product with the provided purchase link.

Step 2 Specify the plan specifications.

Set the application scenario, SIM type, monthly data plan per card, whether to use a forward data pool, quantity unit, required duration, and quantity.

- **Plan types:**

  Currently, GSL provides Chinese mainland data plans and global data plans. Click tabs to switch between them.

- **SIM card type**: **Multiple physical SIM card types** are supported, such as the commercial plug-in 3-in-1 SIM and industrial plug-in 2-in-1 SIM.

- **Carrier**: Different carriers support different network standards. Select a carrier based on the network supported by your device.
  - China Mobile IoT SIM cards only support 4G networks.
  - China Telecom IoT SIM cards only support 4G networks.
  - China Unicom IoT SIM cards support both 3G and 4G networks.
  - IoT SIM cards of carriers outside the Chinese mainland only support 4G networks.

- **Data type**: Two options are available only for Chinese mainland plans.
  - **Common data**: All domain names and IP addresses can be accessed. The monthly data usage cannot exceed 100 MB, or the card will be suspended. The quota is restored in the next month.

            – **Dedicated data**: You need to configure a fixed domain name or IP address. After the configuration, IoT SIM cards can be used to access only the pre-set fixed addresses.

- **Forward data pool**: If you select **Existing forward data pool** or **New forward data pool** when purchasing SIM cards, the SIM cards in the order share data.

    – All SIM cards in the same data pool share data. For example, ten 1 GB SIM cards form a 10 GB data pool.

    – Once the pool is at its monthly data usage limit, all its SIM cards will be suspended until next month.

    – Test cards cannot form data pools.

    – For China Telecom SIM cards, you can only specify the data pool when placing an order. After the order is placed, the data pool cannot be changed.

    – It is recommended that you create a data pool during card purchase process. Carriers may not support pooling after purchase.

    Note: You cannot form a data pool with unpooled cards after the order is placed.

- **Quantity**: The number of cards to purchase is equal to quantity multiplied by quantity unit. Example: If **Quantity Unit** is set to **1000**, **Quantity** is set to **5**, 5,000 SIM plans will be purchased.

- **Fixed address information**: A fixed domain name or IP address is required for dedicated data. For details, see **Dedicated Data**.

Step 3 Read the **precautions**.

Step 4 Confirm the order information.

        Click **Buy Now**.

Step 5 Pay for the order.

        Select **I have read and agree to the Global SIM Link Disclaimer**, click **Pay Now**, and wait for the delivery.

        📖 **NOTE**

           After the payment is successful, cards will be shipped within about 10 working days (six weeks for China Mobile SIM cards with plans of over 100 MB).

----End

1.2.2 Precautions

Before placing an order, read the following precautions:

- **Regional restrictions:**
  - IoT SIM cards provided by Chinese carriers can be used only in the Chinese mainland. To use IoT SIM cards in high-risk border areas such as Xinjiang, Tibet, Guangxi, and Yunnan, you need to purchase cards from local carriers. View the detailed **List of High-Risk Areas**.
  - Due to policy-based control, permanent roaming in China, Brazil, Türkiye, Pakistan, Saudi Arabia, and the United Arab Emirates (UAE) is prohibited for IoT cards provided by carriers outside the Chinese mainland. If the roaming duration exceeds three to six months (the time depends on the specific country), the roaming service will be permanently disabled by carriers.
- **Voice and SMS functions are unavailable.** IoT SIM cards provide only data.
- **Internet of Human (IoH) devices or applications cannot be accessed**. By default, IoT SIM cards require enterprise real-name authentication and can be used for only IoT devices. To use IoT SIM cards in IoH scenarios (except mobile phones), buy cards that require real-name authentication instead. One person can have up to five IoT cards that complete real-name authentication. For assistance, contact Huawei technical support.
- **The carrier or plan cannot be changed**. After order placement, the carrier or plan of the purchased card cannot be changed.
- **The number segment cannot be specified.** Contact the account manager for more information.
- **Threshold for auto disconnection:**
  - When the data usage of a single card reaches the preset network disconnection threshold, the system automatically suspends the card. Generally, it is used to limit the usage of a pooled card.
  - To resume a card suspended due to data threshold met, set a higher threshold. When the monthly usage of the card is less than the threshold and the card has remaining usage, or the associated data pool has remaining usage, the card will be automatically resumed.

- – Due to the delay in data update, the actual usage may exceed the preset threshold when a card is suspended.

  Note: Auto disconnection threshold is only available for pooled cards of China Unicom and China Mobile and all China Telecom physical cards.

- **Suspension due to data use-up**

  - – Once at the plan data threshold, a card will be suspended and resumed in the next month. Any remaining data of the current month will not be rolled over to the next month.

  - – If the plan quota of a pooled card is used up, the card may not be suspended. When the used data exceeds the total data of the cards in the pool, all cards are automatically suspended. Any remaining data for a forward data pool of the current month will not be rolled over to the next month.

  - – If the bound SIM cards are suspended due to data use-up, devices can recover connection without restarting after add-on subscription or quota restoration. If some devices cannot connect to the Internet, restart the devices.

- **Device-SIM binding**: When a SIM card is inserted into device A for the first time and activated successfully, the card is automatically bound to device A. If this card is then inserted into device B, the card will be suspended due to device-SIM separation. Therefore, do not insert a SIM card into multiple devices. Currently, device-SIM binding is not available for IoT SIM cards provided by carriers outside the Chinese mainland.

- **Dedicated data**: Fixed addresses (domain names or IP addresses) are only available for physical SIM cards of a card purchase/transfer order with dedicated data. After the configuration, IoT SIM cards can be used to access only the pre-set fixed addresses. Currently, dedicated data cannot be configured for IoT cards provided by carriers outside the Chinese mainland.

- **Add-ons** are only available for SIM cards of China Telecom, China Unicom, and China Mobile. For details, see **Subscribing to a Card Add-on** and **Subscribing to a Forward Data Pool Add-on**.

- **Real-name authentication**: By default, GSL provides SIM cards that require enterprise real-name authentication. To buy cards that require individual real-name authentication, contact Huawei technical support before placing an order. For these cards, you need to complete the individual real-name authentication for them before activating them. If you activate these cards directly by inserting them into devices and powering them on or online activation, they become suspended due to violation and cannot be used. If these cards form a forward data pool, their data can be shared but cannot be used by themselves. These cards can be used only after the individual real-name authentication is completed and they return to in use status.

- **General data limit**: For a SIM card either with 30 MB or 100 MB general data plan, the monthly data usage cannot exceed 100 MB, or the card will be suspended. The quota is restored in the next month. The limit cannot be changed by purchasing an add-on or forming a forward data pool.

- **Restrictions on regions (China Mobile)**: There are regional restrictions for a China Mobile SIM card with over 100 MB data plan monthly. When a card is connected to the Internet for the first time, it is automatically bound to the province. To change the bound province, submit a Huawei Cloud service ticket. The rebinding takes one working day.

- **Billing rules**: For details, see **Billing Details**.

1.3 Using an IoT SIM Card

1.3.1 Dedicated Data

What Is Dedicated Data?

If you configure dedicated data for your IoT SIM cards, they can only access preset platforms or systems. You can configure dedicated data with fixed addresses, including fixed domain names and fixed IP addresses.

A fixed domain name or IP address is required for dedicated data.

Configuration Rules

Currently, dedicated data can be configured only for IoT SIM cards of China Telecom, China Mobile, and China Unicom.

Configuration rules of different carriers:

📖 **NOTE**

- Do not directly use the content of the **Fixed Address (Only for Reference)** column in the table. Set the fixed address based on the site requirements.
- The wildcard character (*) indicates any characters. For example, the domain name **https://*.example.com** includes **https://www.example.com**, **https://a.example.com**, and **https://b.example.com**. The wildcard character (*) can be used only once in a domain name.

- **China Telecom**: Up to 10 fixed addresses. Five IP addresses at most. Wildcard characters are allowed only for domain names. Your request will be processed within five working days. Example:

Type	Protocol	Wildcard Supported	Fixed Address (Only for Reference)	Port
Domain name	HTTP	Yes	http://www.*.example.com:80	Optional (default value: **80**)
Domain name	HTTPS	No	https://www.example.com:443	Optional (default value: **443**)
Domain name	UDP or TCP	No	tcp://example.com	Optional
Domain name	Others	Yes	mqtt://*.example.com	Optional
IP	--	--	127.0.0.1	--

- **China Unicom**: Up to 10 fixed addresses. "/*" is the default end of an HTTP domain name. Addresses using HTTP and HTTPS protocols support wildcard characters. Your request will be processed within seven working days. Example:

Type	Protocol	Wildcard Supported	Fixed Address (Only for Reference)	Port
Domain name	HTTP	No	http://www.example.com	Optional
Domain name	HTTPS	Yes	https://*.example.com	--
Domain name	TCP or UDP	--	tcp://example.com	Optional
Domain name	Others	--	mqtt://example.com	Optional
IP	--	--	127.0.0.1	Optional

- **China Mobile**: Configure up to 10 fixed addresses. Wildcard characters are allowed only for domain names. Your request will be processed within six weeks. Example:

Type	Protocol	Wildcard Supported	Fixed Address (Only for Reference)	Port
Domain name	HTTP	No	http://www.example.com	Optional
Domain name	HTTPS	Yes	https://www.*.example.com	Optional
Domain name	UDP or TCP	Yes	tcp://*.example.com	Optional
Domain name	Others	No	mqtt://example.com	Optional
IP	--	--	127.0.0.1	--

Configuring a Fixed Domain Name/IP Address

📖 NOTE

- If invalid fixed addresses are configured, the corresponding cards may fail to use data. You are advised to configure fixed addresses for a small number of test cards at first and then for all cards.
- Configure fixed addresses under the guidance of technical personnel. If you encounter any problem during the configuration, contact Huawei technical support.
- Fixed address is only available for physical SIM cards of a card purchase/transfer order with dedicated data.

1. Log in to the **GSL** console.
2. In the navigation pane, choose **Orders and Renewal**.
3. Click the target batch number to access the **Order Details** page.
4. On the **Fixed Address Info** tab page in the lower part of the page, you can add, modify, or delete fixed addresses.

   You can click **Add Historical Fixed Address** to select an existing target fixed address.

   – Adding a fixed address

     Click **Add Fixed Address**. In the displayed dialog box, configure the fixed address by referring to **Configuration Rules**.

     Figure 1-1 Adding fixed domain name

   – Modifying a fixed address
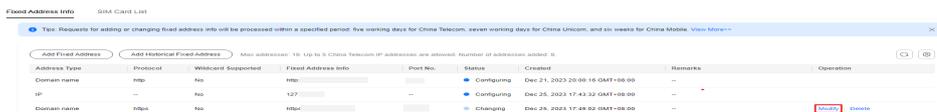
Locate the target fixed address and click **Modify** in the **Operation** column to modify the fixed address.

📖 **NOTE**

> A fixed address in the **Configuring**, **Reviewing**, or **Deleting** status cannot be modified.

– Deleting a fixed address

Locate the target fixed address and click **Delete** in the **Operation** column to delete the fixed address.

📖 **NOTE**

- A fixed address in the **Configuring** or **Reviewing** status cannot be deleted.
- Orders configured with dedicated data must retain at least one fixed address.

1.3.2 Activation

Automatic Activation After Inactive Period

Generally, the inactive period of physical SIM cards of Chinese carriers is six months. This period will not be counted into the validity period. When a SIM card gets manually activated (getting inserted into a device and powered on or activated on the console) within the inactive period or automatically activated after six months, the system starts to calculate the card usage time. The validity period is the same as the required duration (one or three years) of the order.

Automatic Activation After Test Period

For physical SIM cards from carriers outside the Chinese mainland, a test period of six months is provided. This period will not be counted into the validity period. When a SIM card gets manually activated (getting inserted into a device and powered on or activated on the console) within the test period or automatically activated after six months, the system starts to calculate the card usage time. The validity period is the same as the required duration (one or three years) of the order.

Automatic Activation After Being Inserted into a Device and Powered On

An IoT SIM card will be automatically activated after being inserted into the device and powered on. This process usually takes about 30 seconds.

If a device does not work for a long time (for example, more than 10 minutes), you can set its APN (case-insensitive) and check whether the device works properly.

- For a China Mobile IoT SIM card, set both the name and APN to cmiot.

- For a China Telecom IoT SIM card, set both the name and APN to **ctnet**.
- For a China Unicom SIM card, set both the name and APN to scuiot.

If the device still cannot work normally, contact Huawei technical support.
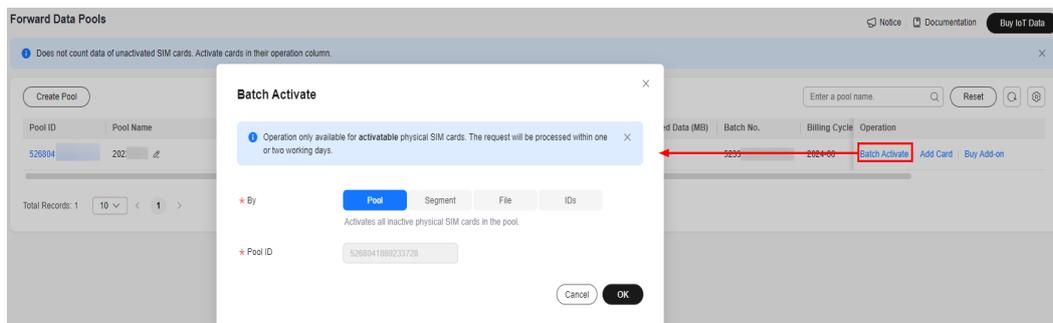
Activation on the Console

You can log in to the GSL console to view all SIM cards on the **SIM Cards** page.

You can activate a **Testable** or **Activatable** physical SIM card by clicking **Activate** in the **Operation** column. The request will be processed within one or two working days. The card status becomes **In use** after the activation.

Activating Cards in Batches

The total effective data of the forward data pool depends on the number of activated cards. You can activate physical SIM cards in the pool in batches.

On the **Forward Data Pools** page, click **Batch Activate** in the **Operation** column.

GSL provides four batch activation modes.

Table 1-1 Batch activation modes

Mode	Description
Pool	In this mode, the system activates all inactive physical SIM cards in the pool. Click **OK** and wait for the request to be processed.
Segment	In this mode, the system activates physical SIM cards in the pool according to their start and end numbers. Enter the start number and end number as required, click **OK**, and wait for the request to be processed. **NOTE** Enter only digits. The container IDs between the start number and end number must be consecutive and the corresponding cards cannot be activated.

Mode	Description
File	In this mode, the system activates physical SIM cards in the pool based on the file. Download the template file, edit and upload it as required, click **OK**, and wait for the request to be processed. **NOTE** The **SIM Card Status** column in the template is for reference only. The system activates SIM cards in batches based on the uploaded **Container ID** column.
IDs	In this mode, the system activates physical SIM cards in the pool based on input IDs. Enter container IDs as required, click **OK**, and wait for the request to be processed. **NOTE** A container ID can contain only digits.

1.3.3 Threshold for Auto Disconnection

> **NOTICE**
>
> Only available for pooled cards of China Unicom and China Mobile and all China Telecom physical cards.

- When the data usage of a single card reaches the preset network disconnection threshold, the system automatically suspends the card. Generally, it is used to limit the usage of a pooled card.

- To resume a card suspended due to data threshold met, set a higher threshold. When the monthly usage of the card is less than the threshold and the card has remaining usage, or the associated data pool has remaining usage, the card will be automatically resumed.

- Due to the delay in data update, the actual usage may exceed the preset threshold when a card is suspended.

1.3.4 Suspended Due to Data Use-up

- Once at the plan data threshold, a card will be suspended and resumed in the next month. Any remaining data of the current month will not be rolled over to the next month.

- If the plan quota of a pooled card is used up, the card may not be suspended. When the used data exceeds the total data of the cards in the pool, all cards are automatically suspended. Any remaining data for a forward data pool of the current month will not be rolled over to the next month.

- If the bound SIM cards are suspended due to data use-up, devices can recover connection without restarting after add-on subscription or quota restoration. If some devices cannot connect to the Internet, restart the devices.

1.3.5 Device-SIM Binding

GSL enables the device-SIM binding function for IoT SIM cards. When a SIM card is inserted into device A for the first time and activated successfully, the card is

automatically bound to device A. If this card is then inserted into device B, the card will be suspended due to device-SIM separation. (Note: China Telecom SIM card will be disconnected from the network but its status is still **In use**.) You need to apply for device-SIM rebinding to resume the card. The following describes the solutions to the device-SIM separation problem for different carriers:

- China Mobile: The SIM card status displayed on the **GSL console** is **Suspended (due to violation)**. In the navigation pane, choose **SIM Cards** > **Card List**. In the **Operation** column of the target card, click **More**, select **Rebind Device**, and select **Ordinary Device-SIM Rebinding** to unbind the card. The card will be unbound within three working days and restored to the **In use** status.

- China Telecom: The SIM card status displayed on the **GSL console** is **In use**. In the navigation pane, choose **SIM Cards** > **Card List**. In the **Operation** column of the target card, click **More**, select **Rebind Device**, and select **Ordinary Device-SIM Rebinding** to bind the card to the IMEI of the new device (by default). Restart the device 5 minutes after the operation is complete. A card can be unbound at most twice in each calendar month.

- China Unicom: The SIM card status displayed on the **GSL console** is **Suspended (due to violation)**. Submit a request and the request will be processed within one to three working days.

1.4 Renewing an IoT SIM Card

You can renew physical SIM cards by card (individually) or order (in batches).

Description

- You can only renew **in-use** physical SIM cards that are **not deregistered** and have **unexpired** plans.

- You can only renew physical SIM cards from a **completed Card purchase** or **Card transfer** order that is **not part of a backward data pool**.

- You can only renew a **Card purchase** order when its previous renewal is completed.

- When an IoT SIM card is about to expire, the system will send a notification email to your registered email address. It is recommended that you renew your cards one month in advance. In special cases, contact Huawei technical support in advance.

- After the renewal is complete, the new expiration time is calculated as follows: New expiration time = Original expiration time + Required period

- IoT cards that are not renewed upon expiration will be deregistered. Deregistered IoT cards cannot be restored.

- The total validity period of each IoT card after renewal cannot exceed six years after the current time.

- The renewal order can be processed within three working days (the renewal must be performed before the 20th day of each month).

Process

1. Select the order to be renewed and the operation mode (renew by order or SIM card).

2.   Confirm the order information.

3.   Pay for the order.

4.   Track the renewal order status until it is complete.

Renewing Physical SIM Cards

Step 1   Select the orders you want to renew.

Log in to the **GSL console** and choose **Orders and Renewal** in the navigation pane. Select **one or more** orders and click **Renew** above the list.

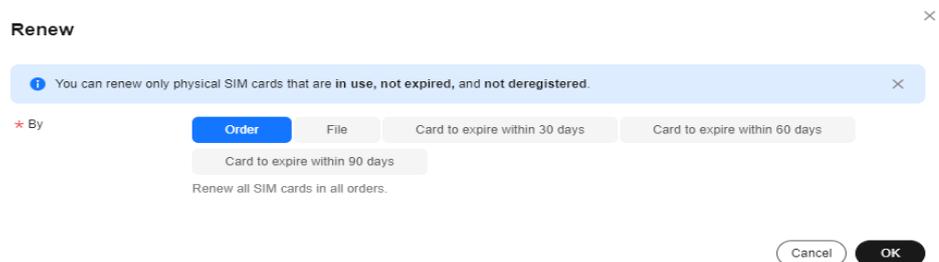📖 **NOTE**

Only orders that meet the renewal requirements can be renewed. If you click **Renew** without selecting an order, the system selects all qualified orders by default.

Renewal is only available for physical SIM cards from a completed **Card purchase** or **Card transfer** order that is not part of a backward data pool. The selected orders that cannot be renewed will be filtered by the system.

You can select up to 10 orders for renewal at a time. If you want to renew all orders in the account (without specifying any one), ensure that the number of orders that meet the renewal requirements does not exceed 50, or an error will occur.

Step 2   Select an operation mode.

- If you do not select any order, click **Renew** to renew all orders that meet the renewal requirements and contain qualified cards.

   - By order: In this mode, the system renews all qualified physical SIM cards in the target order.

   - By file: In this mode, the system renews qualified physical SIM cards in the target order based on the file. Click **Renewable**, select items from the list of renewable container IDs on demand.

Modify the Excel file and upload it.

- By card expiration time: In this mode, the system renews qualified physical SIM cards that will expire within 30/60/90 days in the target order. You can use tags and SIM card status as filtering conditions.

Renew

ⓘ You can renew only physical SIM cards that are **in use**, **not expired**, and **not deregistered**.

| ★ By | Order | File | Card to expire within 30 days | Card to expire within 60 days |
| Card to expire within 90 days |

Renew all physical SIM cards that meet conditions in all orders and will expire within 30 days.

Container ID	MSISDN	SIM Card Status ▽	Tag ▽

No data available.

Cancel   OK

- If you select one or more orders, click **Renew** to renew them. The selected orders that cannot be renewed will be filtered by the system. You can check the batch numbers of the orders left. You can also renew cards by order, file, and card expiration time.

    – By order

    Renew

    ⓘ You can renew only physical SIM cards that are **in use**, **not expired**, and **not deregistered**.

    | ★ Batch No. | 55479 |

    | ★ By | Order | File | Card to expire within 30 days | Card to expire within 60 days |
    | Card to expire within 90 days |

    Renew all SIM cards in selected orders.

    Cancel   OK

    – By file

Renew

ⓘ You can renew only physical SIM cards that are **in use, not expired,** and **not deregistered.** ✕

＊ Batch No.   5547927113758976

＊ By   [Order] [**File**] [Card to expire within 30 days] [Card to expire within 60 days]
[Card to expire within 90 days]

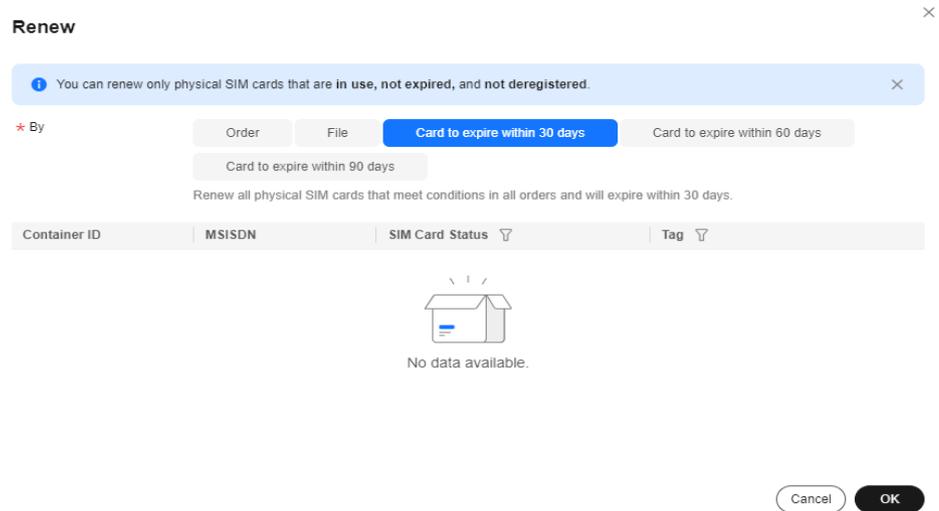Renews specified physical SIM cards in selected orders based on the file.

＊ Upload File   [_____] [Select File]

Download a template based on the site requirements and upload the file.

Renewable | Card to Expire Within 30 Days | Card to Expire Within 60 Days | Card to Expire Within 90 Days

Tips:
1. Download a template.
2. Upload an XLSX file.
3. Only the first sheet in the file will be uploaded.
4. Max file size: 10 MB.
5. The renewal duration of each IoT card cannot exceed six years.
6. Renew up to 100,000 numbers at a time. Select the cards from this list of physical SIM cards available for renewal from the selected orders.

[Cancel] [OK]

– By card expiration time

Renew

ⓘ You can renew only physical SIM cards that are **in use, not expired,** and **not deregistered.** ✕

＊ Batch No.   5547927113758976

＊ By   [Order] [File] [**Card to expire within 30 days**] [Card to expire within 60 days]
[Card to expire within 90 days]

Renew all physical SIM cards that meet conditions in current orders and will expire within 30 days.
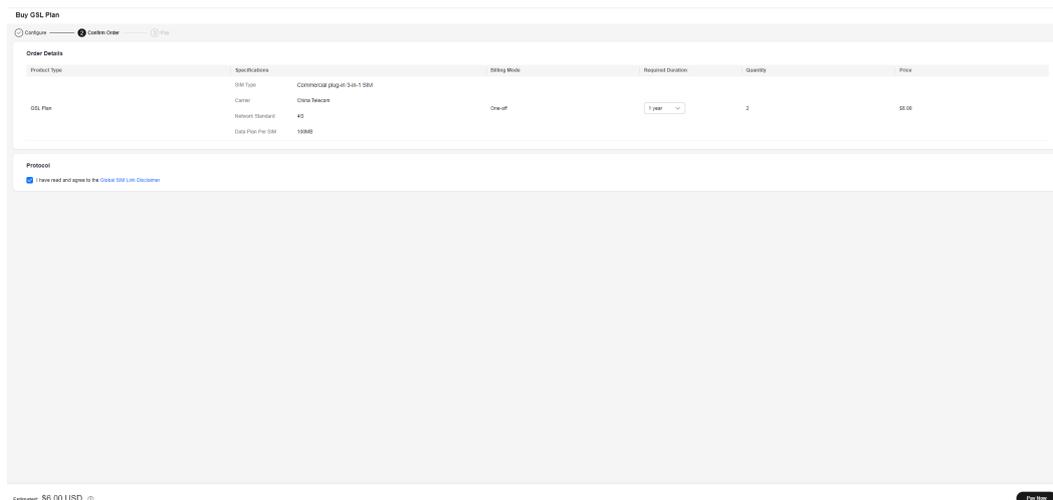
Container ID	MSISDN	SIM Card Status ▽	Tag ▽

No data available.

[Cancel] [OK]

Step 3 Confirm the order information.

Click **OK**. In the displayed page, select the required duration of the order. Check the renewal order details.

If you have any question, contact Huawei technical support.

Step 4 Pay for the order.

After confirming the order information, click **Go to Online Payment** to complete the payment.

Step 5 Track the renewal order status until it is complete.

On the **Orders and Renewal** page, click the batch number to go to the order details page. You can view the list of SIM cards involved in the renewal. (Currently, the list is displayed only after the renewal order is approved.)

----End

1.5 Subscribing to a Card Add-on

Card add-ons are only available for physical SIM cards of China Telecom, China Unicom, and China Mobile.

Description

- The objects must be the physical SIM cards that are in use or suspended for exceeding data usage limit.

- For a SIM card using general data, the total data of the basic plan and add-on cannot exceed 100 MB.

- You can only perform batch subscription of add-ons for cards of the same order.

- Card add-ons are not available for pooled cards. If necessary, subscribe to **pool add-ons**.

Process

1. Select the container IDs of the target SIM cards.

2. Select a subscription mode (subscribe for a single card or in batches).

3. Select the add-on specifications and complete the payment.

4. After the payment, the subscription is expected to be completed within 5 minutes.

Procedure

1. Select a subscription mode (manual or batch template–based).

   – Manual subscription

     Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane. Select one or several SIM cards, click **Subscribe to Add-on** above the list, and wait for the system verification. You can only perform batch subscription of add-ons for cards of the same order.
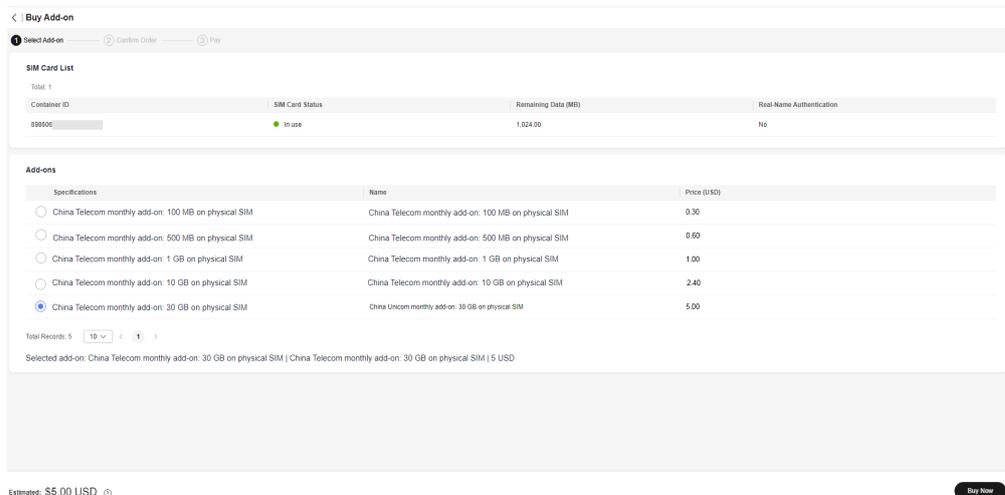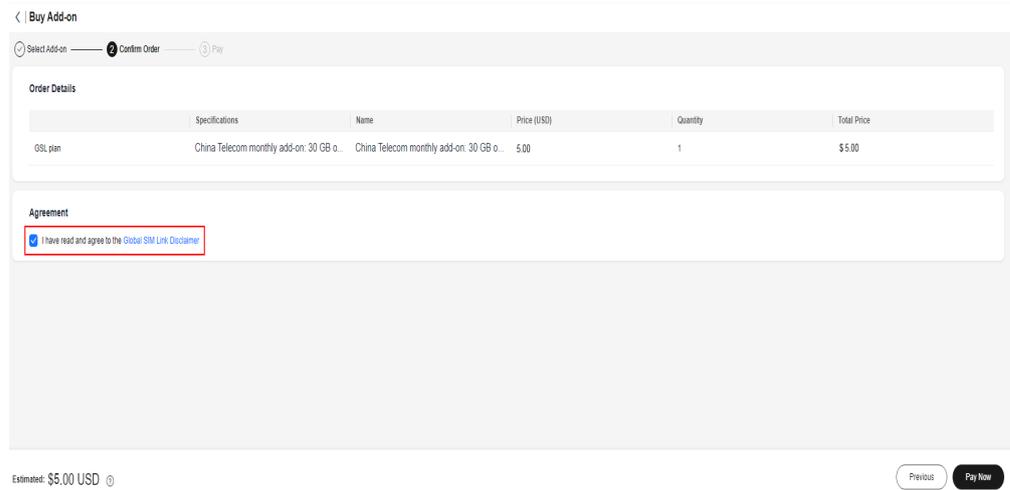

   – Batch template–based subscription

     Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane. Click **Batch** > **Batch Add-on Subscription** above the list. Download the template file, edit and upload it as required, and click **OK**.

2. The page for purchasing an add-on is displayed only after the verification succeeds. Select the specifications of the add-on and click **Buy Now**.
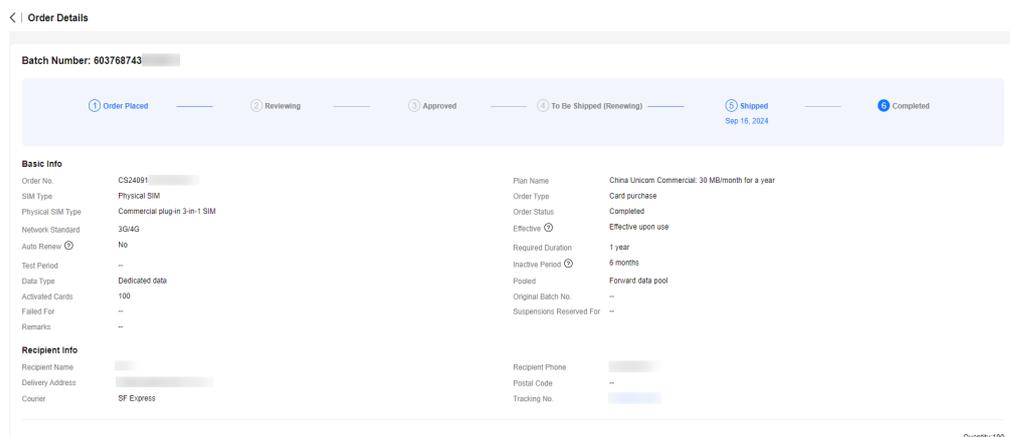

3. Confirm the order details, select **I have read and agree to the Global SIM Link Disclaimer**, and click **Pay Now**.

4. Select a payment method and click **Go to Online Payment**.

5. After the order is generated, view the order details.

   After the payment, the system automatically reviews the order, which takes about 5 minutes. The add-on takes effect immediately after the subscription is successful. Choose **Orders and Renewal** in the navigation pane, and click the batch number of the target order to go to its details page and check its progress. Wait until the order status changes from **Processing** to **Completed**.

1.6 Subscribing to a Forward Data Pool Add-on

Forward data pool add-ons are only available for physical SIM cards of China Telecom, China Unicom, and China Mobile.

Process

1. Select the forward data pool for which you want to subscribe to an add-on.

2. Select the specifications of the pool add-on and complete the payment.

3. After the payment, the subscription is expected to be completed within 5 minutes.
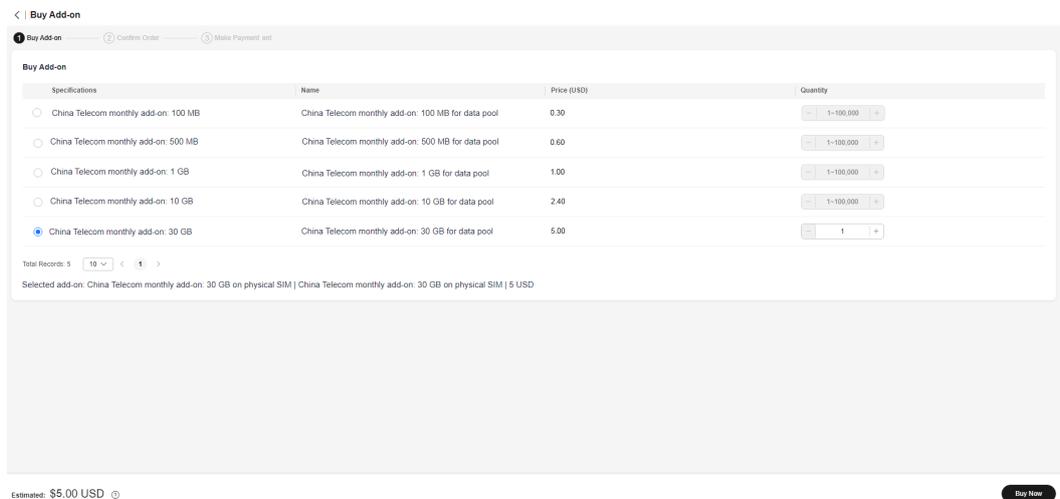
Procedure

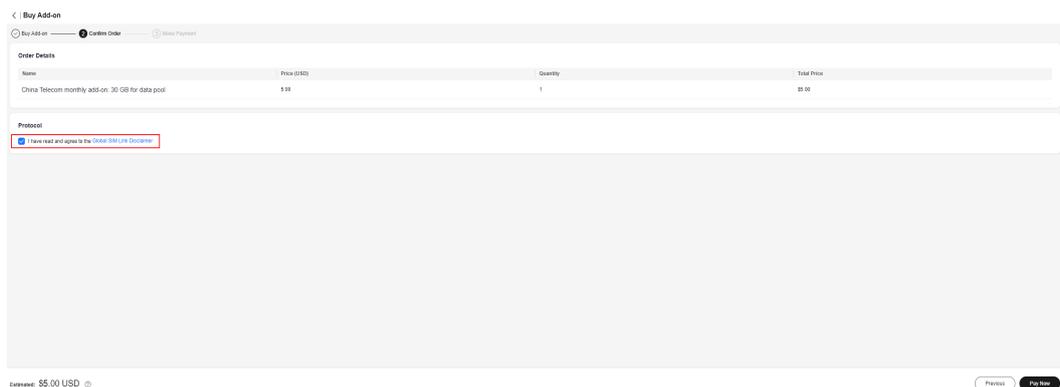**Step 1**   Log in to the **GSL** console.

Step 2   Choose **Data Pools** > **Forward Data Pools** in the navigation pane and click **Buy Add-on** in the **Operation** column.

Step 3   Select the pool add-on to be purchased and click **Buy Now**.

Step 4   Select **I have read and agree to the Global SIM Link Disclaimer** and click **Pay Now**.

Step 5   Confirm the order, select a payment method, and click **Go to Online Payment**.
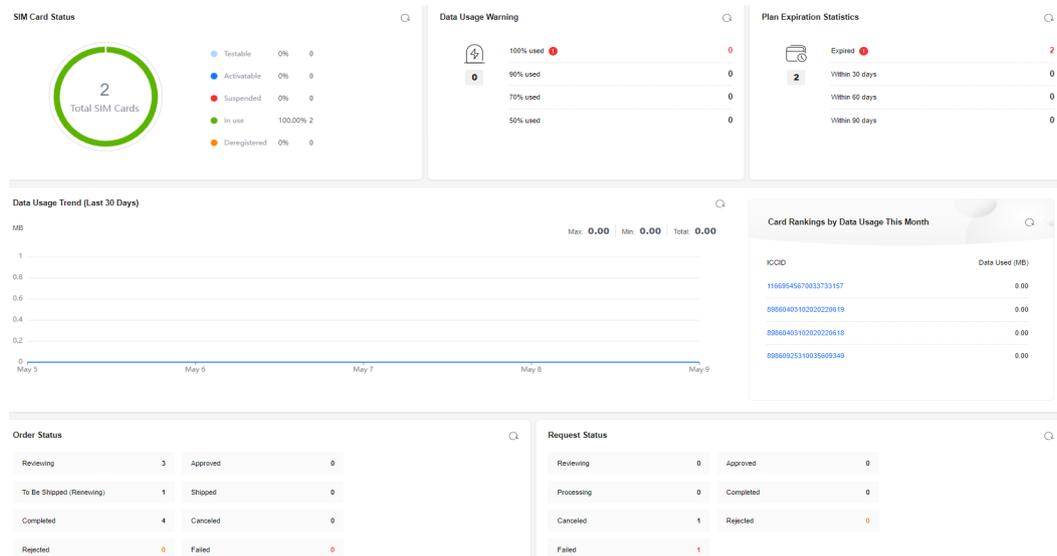
After the payment, the subscription is expected to be completed within 5 minutes.

----End

1.7 Platform Functions

1.7.1 Dashboard

Log in to the **GSL console**, you can view the overall information about SIM cards and devices on the **Dashboard** page.

- **SIM card status**

  SIM Card Status records the number of SIM cards in total and in different lifecycle status. The lifecycle statuses of a SIM card are described in the following table.

Status	Description
Activatable	The SIM card has subscribed to a plan but has not been used.
In use	The SIM card has subscribed to a plan and is in use.
Suspended	The plan data of the SIM card is used up or the SIM card is manually suspended.
Deregistered	The SIM card is deregistered after being suspended.

- **Data statistics**

  You can view **Data Usage Warning**, **Plan Expiration Statistics**, **Data Usage Trend (Last 30 Days)**, and **Card Rankings by Data Usage This Month**. Click a statistical item to check the list of SIM cards that meet the conditions.

- **Order status**

  You can view the number of orders in different statuses, including **Reviewing**, **Approved**, **To Be Shipped (Renewing)**, **Shipped**, **Completed**, **Canceled** (not applicable to physical SIM cards), **Failed**, **Rejected**, **Processing**, and **Unsubscribed**. Click a statistical item to check the list of orders that meet the conditions.

- **Request status**

  You can trace the request progress of various operations, including card suspension and resumption, batch suspension and resumption, batch transfer or activation of physical SIM cards (for all or specified cards), and creation of a data pool.

  You can view the number of requests in different statuses, including **Reviewing**, **Approved**, **Processing**, **Completed**, **Canceled**, **Failed**, and **Rejected**. Click a statistical item to check the list of requests that meet the conditions.

1.7.2 SIM Cards

1.7.2.1 Card List

Checking SIM Card Information

Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane. The basic information of all SIM cards is displayed on the page. You can click ⚙ in the upper right corner to select fields to be displayed.
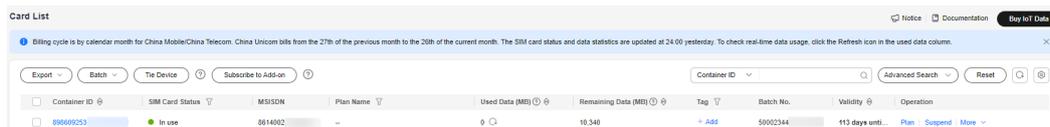
> ⚠️ **CAUTION**
>
> For the following situations, the SIM card data will be cleared and cannot be viewed.
>
> - A SIM card in the **Deregistered** status has expired for more than two months.
> - A SIM card in the **Suspended** status has expired for more than 12 months.

You can activate, resume, or suspend a specified SIM card.

- You can activate a **Testable** or **Activatable** physical SIM card by clicking **Activate** in the **Operation** column. The request will be processed within one or two working days. The card status becomes **In use** after the activation.

- You can resume a **Suspended** physical SIM card by clicking **Resume** in the **Operation** column. The request will be processed within one or two working days. The card status becomes **In use** after the resumption.

- You can suspend an **In use** physical SIM card by clicking **Suspend** in the **Operation** column. The request will be processed within one or two working days. The card status becomes **Suspended** after the request is processed.

Table 1-2 Basic information of the SIM card list

Parameter	Description
Container ID	The identifier for an IoT data card, which is almost the same as the ID printed on the SIM carrier. (The last digit of the ID printed on the SIM card is an English letter, and the GSL system will convert it into a number randomly for the container ID.) You can enter a container ID to search for the specified SIM card. If you use the ICCID printed on the card for the search, enter only the first 19 digits.
SIM Card ID	A SIM card ID uniquely identifies an IoT SIM card in the GSL system and is used to call APIs.

Parameter	Description

SIM Card Status	An IoT SIM card can be in the following statuses: **Testable**, **Inactive** (only for non-physical SIM cards), **Activatable**, **In use**, **Suspended** and **Deregistered**.
	
	● **Testable**: The card is in the test period. If a user activates the card manually or the test period expires, the card status changes from **Testable** to **Activatable**.
	
	● **Activatable**: The card is in the inactive period. If a user activates the card manually or the inactive period expires, the card status changes from **Activatable** to **In use**.
	
	● **In use**: The card works.
	
	● **Suspended**: The card is disconnected from the network. Here are the possible causes:
	
	  – **Suspended (data used up)**: If the plan data is used up, a card is automatically disconnected from the network.
	    – Add-ons of the current month are available.
	    – The card status automatically becomes **In use** in the next month.
	
	  – **Suspended (data threshold met)**: If the data threshold set by the user is reached, a card is automatically disconnected from the network.
	    – For pooled cards of China Unicom and China Mobile and all China Telecom physical cards, you can click **More** in the **Operation** column on the SIM card list page and change the threshold to restore the cards.
	    – The card status automatically becomes **In use** in the next month.
	
	  – **Suspended (pool data used up)**: For cards in the same data pool, if the used data exceeds the total data of the cards, all cards are automatically disconnected from the network.
	    – You can activate other unactivated cards in the pool to increase the pool data quota.
	    – You can purchase cards with the same plan as the pooled cards and add them to the pool to increase the pool data quota.
	    – The pool data quota is restored in the next month.
	
	  – **Suspended (plan expired)**: If a card expires and is not renewed, the network is automatically disconnected and the card is deregistered.
	
	  – **Suspended (manually)**: If you suspend a card manually on the GSL platform, you can resume the card on the platform.
	
	  – **Suspended (due to violation)**: If a card is separated from a device, used in the mobile phone, or used in high-risk areas, the card will be suspended. In this case, contact Huawei technical support.

Parameter	Description
	– **Suspended (data pool frozen)**: A card in a backward data pool is suspended due to account arrears. You can recharge the account in Billing Center to resume the card. – **Suspended (backward pool threshold met)**: If you enable an automation rule for a backward data pool, set the trigger to backward data pool usage and the action to card suspension, so when the pool data threshold is reached, all cards in this pool will be suspended. The card status automatically becomes **In use** in the next month. • **Deregistered**: IoT cards that are not renewed upon expiration will be deregistered. Deregistered IoT cards cannot be restored. You can also manually deregister a card by submitting a service ticket.
SIM Type	Physical SIM cards.
MSISDN	It is equivalent to the phone number on the fixed network. It is a public number for users to dial.
Plan Name	The name of the plan that you select when placing a card purchase order.
Used Data (MB)	Only the used data of activated (**In use** or **Suspended**) cards is displayed. The statistics of used data were updated at 24:00 yesterday. To check real-time data usage, click ↻ in the used data column.
Remaining Data (MB)	Only the used data of activated (**In use** or **Suspended**) cards is displayed. A negative value indicates the excess data.
Node ID	This field does not apply to physical SIM cards.
Device IMEI	IMEI is short for International Mobile Equipment Identity. It is a globally unique set of numbers.
Device Model	This field does not apply to physical SIM cards.
IMSI	IMSI is short for International Mobile Subscriber Identity, which uniquely identifies a mobile subscriber.
Tags	Tags are used to classify SIM cards, facilitating card management. You can add tags to a single SIM card or multiple SIM cards in batches.
Batch No.	A batch number is an attribute of an order and is used to identify the order to which a SIM card belongs. You can enter a batch number to search for the specified SIM cards.
Real-name Verified (Yes/No)	This field is applicable only to cards that require real-name authentication. To check the real-time status, click the refresh icon in this column.

Parameter	Description
Validity	The validity period of an IoT card starts from the time when the order is placed and is calculated by calendar month. By default, the validity period includes the test period (if any), inactive period (only for physical SIM cards from Chinese carriers), and activation period. The test period and inactive period are six months in total. The activation period is the same as the required duration (one year or three years). If a physical SIM card is manually activated by the user during the inactive period or test period, the card automatically enters the activation period, and the activation month is counted as a whole calendar month of validity period (no matter whether the card is activated at the beginning or end of a month).
Activated	The time when a SIM card gets manually activated (getting inserted into a device and powered on or activated on the console) within inactive/test period or automatically activated after six months.
Expires	Since activated, a SIM card will work for the required duration until it expires. You can renew the subscription to extend the expiration time.
Custom Attribute	You can use custom attributes to add remarks to SIM cards. Only enabled custom attributes can be edited and displayed on the SIM card list page. A user can create up to six custom attributes.

Exporting SIM Card Information

Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane. Click **Export** above the list to export information about specified or all SIM cards.

📖 NOTE

- Filter is available. Up to 500,000 records can be exported at a time.
- If you export files multiple times, wait for 5 minutes before performing the next export task.
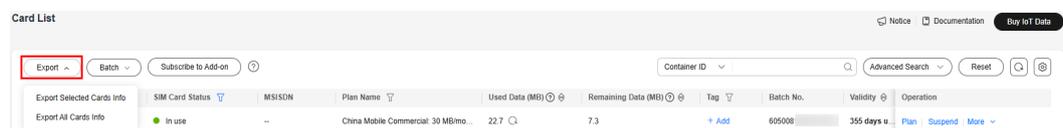
Table 1-3 Export tasks

Operation	Description
Export Selected Cards Info	Select one or several cards, click **Export**, and select **Export Selected Cards Info**. In the displayed dialog box, click **Export Results** to go to the export task list page. When the task export status becomes **Successful**, click **Download** in the **Operation** column to download the card information and the monthly usage report in the last six months. Alternatively, after the export task is submitted, choose **Export Task List** in the navigation pane to go to the export task list page. When the task export status becomes **Successful**, click **Download** in the **Operation** column to download the card information.
Export All Cards Info	Click **Export** and select **Export All Cards Info**. In the displayed dialog box, click **Export Results** to go to the export task list page. When the task export status becomes **Successful**, click **Download** in the **Operation** column to download the card information and the monthly usage report in the last six months for all cards. Alternatively, after the export task is submitted, choose **Export Task List** in the navigation pane to go to the export task list page. When the task export status becomes **Successful**, click **Download** in the **Operation** column to download the card information.

Subscribing to a Card Add-on

 NOTE

- The objects must be the physical SIM cards that are in use or suspended for exceeding data usage limit.
- For a SIM card using general data, the total data of the basic plan and add-on cannot exceed 100 MB.
- You can only perform batch subscription of add-ons for cards of the same order.
- Card add-ons are not available for pooled cards. If necessary, subscribe to **pool add-ons**.

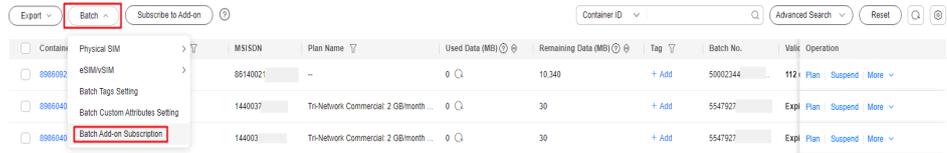1. Select a subscription mode (manual or batch template–based).
   - Manual subscription

     Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane. Select one or several SIM cards, click **Subscribe to Add-on** above the list, and wait for the system verification. You can only perform batch subscription of add-ons for cards of the same order.
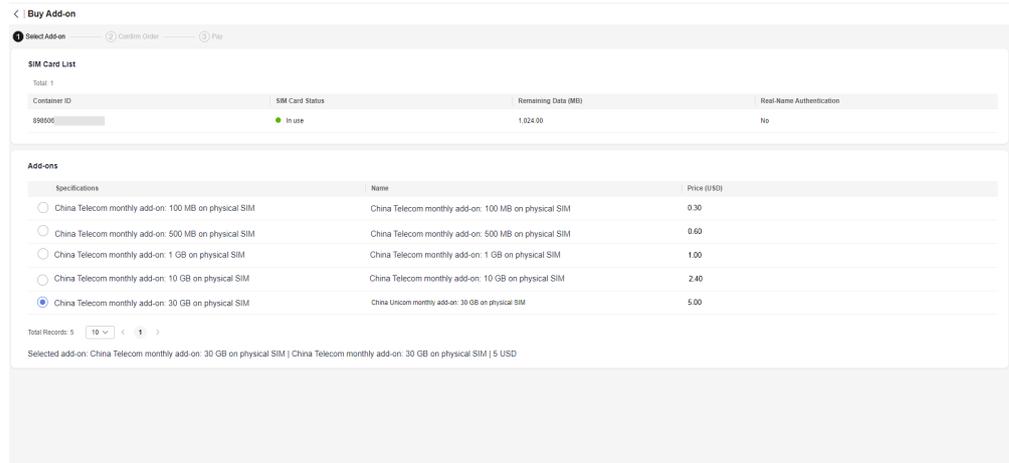

   - Batch template–based subscription

     Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane. Click **Batch** > **Batch Add-on Subscription** above the
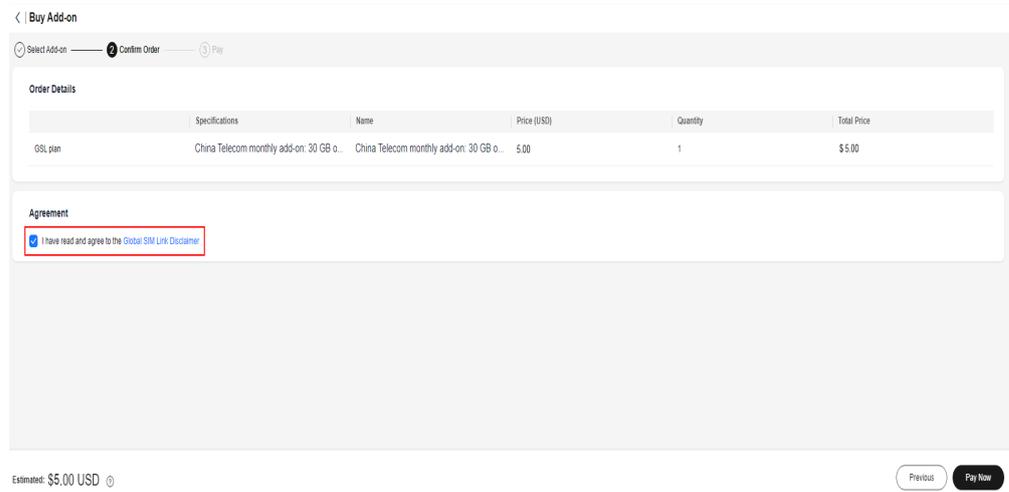
list. Download the template file, edit and upload it as required, and click **OK**.

2. The page for purchasing an add-on is displayed only after the verification succeeds. Select the specifications of the add-on and click **Buy Now**.
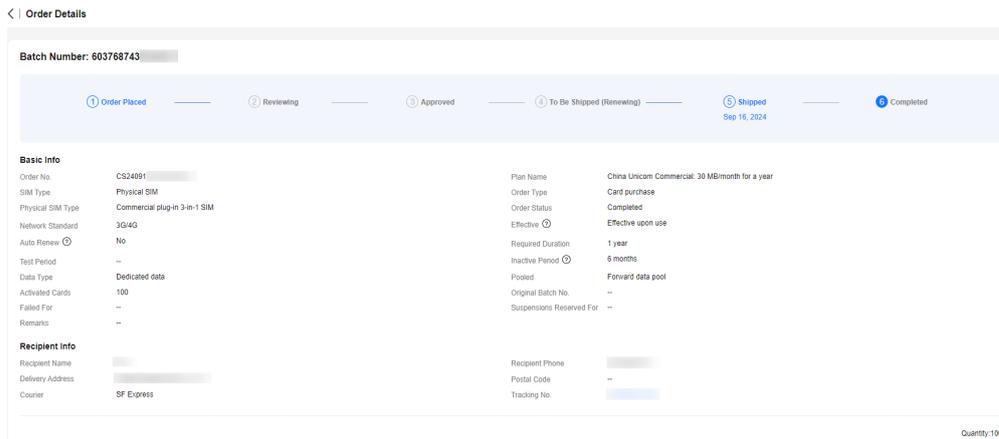

3. Confirm the order details, select **I have read and agree to the Global SIM Link Disclaimer**, and click **Pay Now**.
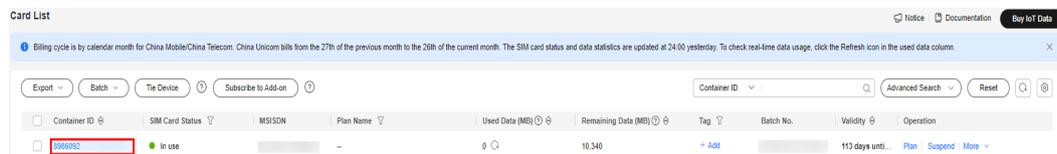

4. Select a payment method and click **Go to Online Payment**.

5. After the order is generated, view the order details.

   After the payment, the system automatically reviews the order, which takes about 5 minutes. The add-on takes effect immediately after the subscription is successful. Choose **Orders and Renewal** in the navigation pane, and click the batch number of the target order to go to its details page and check its progress. Wait until the order status changes from **Processing** to **Completed**.
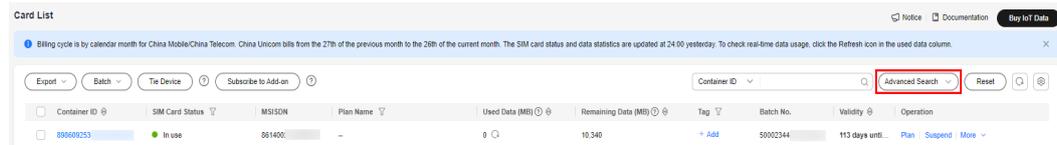
Checking SIM Card Details

Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane. Click the container ID of a SIM card to check its details.

| Tab	Description
Basic Information	Basic SIM card information and associated device information are displayed. You can also set tags and add custom attributes for the SIM card.
Plan Management	Details about the in-use plan are displayed.
Usage Statistics	• The monthly usage tab page displays the monthly usage statistics of the SIM card plan in six months. • The usage trend tab page displays the daily usage trend and usage details of the SIM card plan in two months.
Lifecycle	The page displays the lifecycle stage of the SIM card and records the key time when the card status changes, such as activation, suspension, and expiration. You can suspend an in-use SIM card by clicking **Suspend** on the lifecycle tab page. The operation takes affect after the request is complete (within one to two working days).

Searching for SIM Cards Based on Card Information (Advanced Search)

Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane. Click **Advanced Search** above the list, and you can search for SIM cards by used data, remaining data, data threshold, plan expiration time, and custom attributes.

Searching for SIM Cards Based on Plan Names

Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane. Click in the **Plan Name** column to search for SIM cards with specified plans. You can select up to ten plan names as filters at a time.
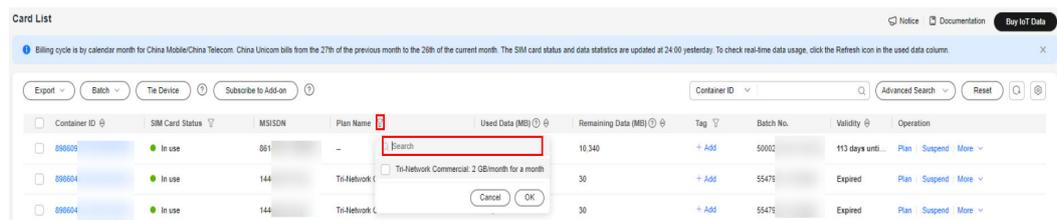
Managing SIM Cards

On the **Card List** page, you can activate, suspend, and resume SIM cards one by one or in batches.

Single Card Operations

Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane. **Table 1-4** lists the operations that can be performed on a single SIM card.

Table 1-4 Operations

Operation	Description
Tags	On the SIM card list page, you can add tags to a specified SIM card. You can attach or delete multiple tags at a time by clicking **+Add** or the existing tags in the **Tag** column.
Custom Attribute	On the SIM card list page, you can set custom attributes for a specified SIM card. You can click **+Add** in the custom attribute column to add attribute content or click the existing content to modify it.
Plan Management	You can view the plan details of a physical SIM card by clicking **Plan** in the **Operation** column.
Activate	You can activate a **Testable** or **Activatable** physical SIM card by clicking **Activate** in the **Operation** column. The request will be processed within one or two working days. The card status becomes **In use** after the activation.

Operation	Description
Resume	You can resume a **Suspended** physical SIM card by clicking **Resume** in the **Operation** column. The request will be processed within one or two working days. The card status becomes **In use** after the resumption. **NOTE** 　China Mobile SIM cards that are suspended due to violations or device-SIM separation cannot be resumed. Use device-SIM rebinding instead.
Suspend	You can suspend an **In use** physical SIM card by clicking **Suspend** in the **Operation** column. The request will be processed within one or two working days. The card status becomes **Suspended** after the request is processed.
Rebind device	GSL provides the device-SIM rebinding function. Two modes are available: Fixed device-SIM rebinding binds the SIM card to the device with the specified IMEI; ordinary device-SIM rebinding binds the SIM to the device it was inserted into. Log in to the GSL console and go to the SIM card list page. Choose **More** > **Rebind Device** in the **Operation** column and select the required binding type. ● Ordinary device-SIM rebinding: Click **OK**. After the request is complete, the previously bound information is cleared and the SIM card is bound to the device it was inserted into. ● Fixed device-SIM rebinding: Select **Fixed Device-SIM Rebinding**, enter an IMEI, and click **OK**. After the request is complete, the previously bound information is cleared and the SIM card is bound to the device with the specified IMEI. **NOTE** ● The operation is available for China Telecom SIM cards in use. Each SIM card can be rebound max twice a month. If the rebinding fails, contact Huawei technical support. ● The operation is available for China Mobile SIM cards suspended due to violations. Request will be processed within three working days. Only ordinary device-SIM rebinding can be performed. ● China Unicom SIM cards do not support device-SIM rebinding and will be automatically unbound.
Clear real-name info	To clear the real-name information of a physical SIM card from China Telecom, choose **More** > **Clear Real-Name Info** in the **Operation** column and then click **OK**. The operation takes affect after the request is complete.
Limit physical SIM speed	By default, the speed of a physical SIM card is not limited. Physical SIM cards of China Telecom or China Unicom support speed limiting. Choose **More** > **Limit Physical SIM Speed** in the **Operation** column, select a speed and click **OK**. The operation takes affect after the request is complete. **NOTE** 　For China Unicom, speed limit is only available for cards that complete real-name authentication.

Operation	Description
Disconnect manually	Only available for physical SIM cards of China Telecom. Choose **More** > **Disconnect Manually** in the **Operation** column and click **OK**. The operation takes affect after the request is complete.
Recover from manual disconnecti on	Only available for physical SIM cards of China Telecom. Choose **More** > **Recover from Manual Disconnection** in the **Operation** column and click **OK**. The operation takes affect after the request is complete.
Set threshold for auto disconnecti on	Only available for pooled cards of China Unicom and China Mobile and all China Telecom physical cards. Choose **More** > **Set Threshold for Auto Disconnection** in the **Operation** column, enter a data threshold (unit: MB), and click **OK**. The threshold value can only be **0**, **-1**, or a positive integer. The value **-1** indicates that the network is not limited. The value **0** indicates that the network is disconnected immediately as soon as any data is consumed. The operation takes affect after the request is complete. **NOTE** To resume a disconnected card, set a higher threshold or set the limit value to **-1**, which means no limit.
Cancel threshold for auto disconnecti on	Only available for pooled cards of China Unicom and China Mobile and all China Telecom physical cards. Choose **More** > **Cancel Threshold for Auto Disconnection** in the **Operation** column and click **OK**. The operation takes affect after the request is complete. **NOTE** To resume a disconnected card, reset the threshold instead of canceling.

Batch Operations

Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane. Click **Batch** above the list. **Table 1-5** lists the operations that can be performed on multiple SIM cards in batches. For details, see **Batch Operations**.

Table 1-5 Batch operations

Card Type	Batch Operation	Description
Physi cal SIM cards	Batch Activate	Activating containers in batches. The card statuses of these containers become **In use** after the activation.
	Batch Resume	Resuming containers in batches. The card statuses of these containers become **In use** after the resumption.

Card Type	Batch Operation	Description
	Batch Suspend	Suspending containers in batches. The card statuses of these containers become **Suspended** after the suspension.
	Transferring physical SIM cards in batches	Transferring SIM cards of containers to other **GSL account** in batches.
	Batch Rebind Card	Rebinding SIM cards of containers to IoT devices in batches.
	Batch Set Threshold for Auto Disconnection	Setting auto disconnection thresholds for containers in batches.
	Batch Cancel Threshold for Auto Disconnection	Canceling auto disconnection thresholds for containers in batches.
	Batch Deregister	Deregistering containers in batches.
All SIM cards	Batch Tags Setting	Setting tags for containers in batches. Multiple tags can be added or deleted at a time.
	Batch Custom Attributes Setting	Setting custom attributes for containers in batches. Multiple attributes can be added, modified or deleted at a time. Target attributes must be enabled.
	Batch Add-on Subscription	Subscribing to add-ons for containers in batches.

1.7.2.2 Status Check

GSL provides the SIM card status check for network diagnosis and fault locating.

1. Log in to the **GSL console** and choose **SIM Cards** > **Status Check** in the navigation pane.
2. Enter a container ID, MSISDN, or IMEI, and click **Check**.

Figure 1-2 SIM card status check page

3. The result page is displayed. You can view the basic information and check results of the SIM card.
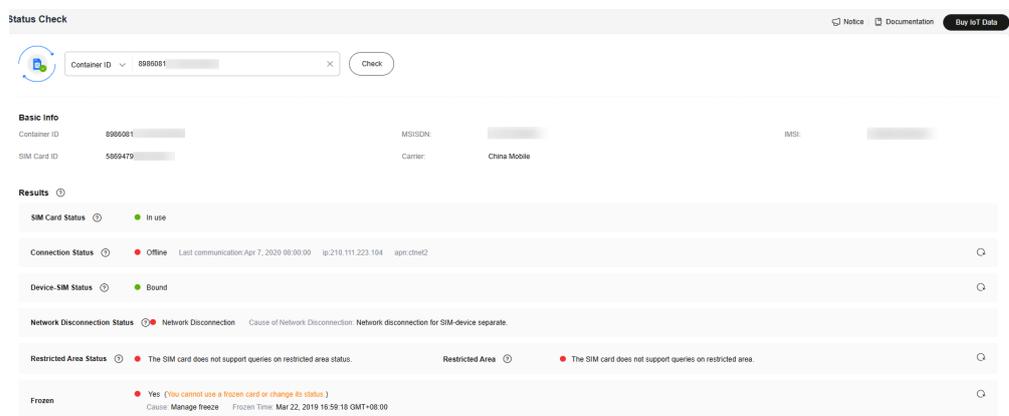
Figure 1-3 Result page

Table 1-6 Result parameters

Parameter	Description
SIM Card Status	The SIM card status.
Connection Status	The status of the bound device.
Device-SIM Status	Whether the SIM card is bound to a device IMEI.
Network Disconnection Status	Network status of the SIM card (connected or disconnected). Causes: policy-based restriction, data use-up, data pool/shared data (remaining allocation) use-up, proactive disconnection (CMIOT system), proactive disconnection (third-party system), abnormal data, usage limit, IoV control, auto disconnection threshold, manual disconnection, customer-level device-SIM rebinding, device-SIM rebinding, transfer to a non-restricted area, and first-call device-SIM rebinding.
Restricted Area Status	Whether the SIM card is used in a restricted area.

Parameter	Description
Restricted Area	The restricted area of the SIM card.
Frozen	Only available for China Unicom and China Mobile SIM cards. • China Unicom: You cannot change the status of a frozen card. • China Mobile: You cannot use a frozen card or change its status.

1.7.2.3 Batch Operations

You can perform batch operations on SIM cards on the GSL console, including activating, suspending, resuming, transferring, rebinding, and deregistering cards, setting/canceling threshold for auto disconnection, setting tags or custom attributes, and purchasing add-ons for cards.

Batch Activation

You can activate multiple physical SIM cards in the **Activatable** or **Testable** status in batches to turn them to the **In use** status.

1. Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane.

2. On the displayed page, click **Batch** > **Physical SIM** > **Batch Activate**.

3. In the displayed dialog box, click **Download Template**.

4. Enter the IDs of the target containers in the downloaded template, save the template, and click **Select File** to upload the template.

5. After the verification is successful, click **OK** to submit the request.

   The request will be processed within one or two working days. The card status becomes **In use** after the request is processed.

Batch Resumption

You can resume multiple physical SIM cards in the **Suspended** status in batches to turn them to the **In use** status.

📖 **NOTE**

China Mobile SIM cards that are suspended due to violations or device-SIM separation cannot be resumed. Use device-SIM rebinding instead.

1. Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane.

2. On the displayed page, click **Batch** > **Physical SIM** > **Batch Resume**.
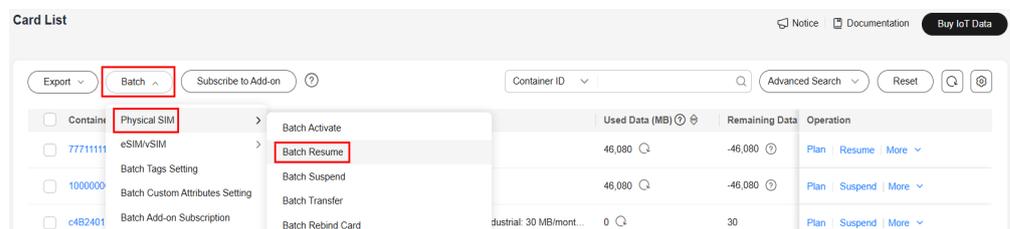
3. In the displayed dialog box, click **Download Template**.

Batch Resume

Download Template enter data as instructed, and upload the template.

Tips:
1. Download a template.
2. Upload an XLSX file.
3. Only the first sheet in the file will be uploaded.
4. Max file size: 10 MB.
5. Max rows: 10,000.
6. Target cards will turn from suspended to in use.
7. China Mobile SIM cards that are suspended due to violations or device-SIM separation cannot be resumed. Use device-SIM rebinding instead.

★ Upload File   Select a file.   Select File

Cancel   OK

4. Enter the IDs of the target containers in the downloaded template, save the template, and click **Select File** to upload the template.

5. After the verification is successful, click **OK** to submit the request.

The request will be processed within one or two working days. The card status becomes **In use** after the request is processed.

Batch Suspension

You can suspend multiple physical SIM cards in the **In use** status in batches to turn them to the **Suspended** status.

1. Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane.

2. On the displayed page, click **Batch** > **Physical SIM** > **Batch Suspend**.
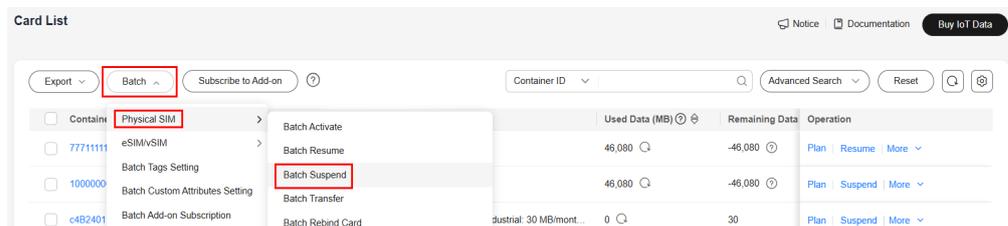
3. In the displayed dialog box, click **Download Template**.

Batch Suspend

Download Template, enter data as instructed, and upload the template.

Tips:
1. Download a template.
2. Upload an XLSX file.
3. Only the first sheet in the file will be uploaded.
4. Max file size: 10 MB.
5. Max rows: 10,000.
6. Target cards will turn from in use to suspended.

★ Upload File   Select a file.   Select File

Cancel   OK

4. Enter the IDs of the target containers in the downloaded template, save the template, and click **Select File** to upload the template.

5. After the verification is successful, click **OK** to submit the request.

    The request will be processed within one or two working days. The card status becomes **Suspended** after the request is processed.

Batch Transfer

On the GSL platform, you can transfer physical SIM cards by order, segment, tag, pool, file, and IDs.

1. Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane.

2. On the displayed page, click **Batch** > **Physical SIM** > **Batch Transfer**.
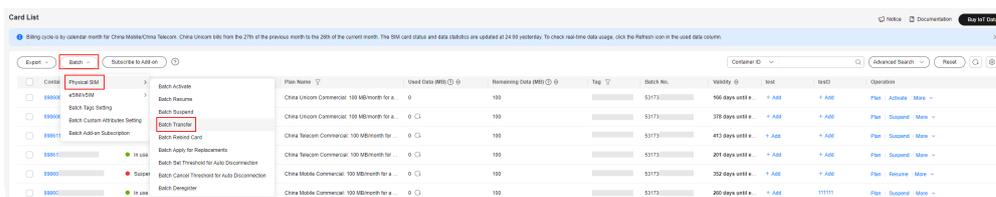
    –   By order:

      In the displayed dialog box, choose **Order**, enter the target Huawei Cloud account and the order batch number as required, and click **OK**.

Batch Transfer ×

ⓘ Only physical SIM cards **of the same carrier** can be involved in a single operation. Physical SIM cards ×
in the forward data pool support only the operations at **forward data pool level.** The transferred
physical SIM cards **cannot be transferred again.** Physical SIM cards **in a backward data pool**
cannot be transferred. After a physical SIM card is transferred, its **previous tags and custom
attributes will be cleared.**

| * By | Order | Segment | Tag | Pool | File | IDs |

Transfers all physical SIM cards of the entered batch number to the target account.

* Target Account   Enter a Huawei Cloud account.

* Batch No.   _____   Obtain Batch No.

Cancel   OK

– By segment:

a. In the displayed dialog box, choose **Segment**, enter the target Huawei
Cloud account and the start number and end number as required, and
click **OK**.

📖 NOTE

- Start number: start container ID of the number segment. This ID must exist
and be smaller than the end number.
- End number: start container ID of the number segment. This ID must exist
and be larger than the start number.

Batch Transfer ×

ⓘ Only physical SIM cards **of the same carrier** can be involved in a single operation. Physical SIM cards ×
in the forward data pool support only the operations at **forward data pool level.** The transferred
physical SIM cards **cannot be transferred again.** Physical SIM cards **in a backward data pool**
cannot be transferred. After a physical SIM card is transferred, its **previous tags and custom
attributes will be cleared.**

| * By | Order | Segment | Tag | Pool | File | IDs |

Transfers physical SIM cards to the target account according to their start and end
numbers.

* Target Account   Enter a Huawei Cloud account.

* Container ID   Start Number - End Number

Cancel   OK

– By tag:

i. In the displayed dialog box, choose **Tag**, enter the target Huawei
Cloud account, and click **Add**.

ii. On the **Select Tag** page, select a tag and click **OK**.

- By pool:

  In the displayed dialog box, choose **Pool**, enter the target Huawei Cloud account and the pool ID as required, and click **OK**.

– By file:

i. In the displayed dialog box, choose **File** and click **Download Template**.

Batch Transfer   ×

> ℹ Only physical SIM cards **of the same carrier** can be involved in a single operation. Physical SIM cards ×
> in the forward data pool support only the operations **at forward data pool level**. The transferred
> physical SIM cards **cannot be transferred again**. Physical SIM cards in a **backward data pool**
> cannot be transferred. After a physical SIM card is transferred, its **previous tags and custom**
> **attributes will be cleared**.

* By | Order | Segment | Tag | Pool | **File** | IDs |

Transfers physical SIM cards to the target account based on the file.

Download Template enter data as instructed, and upload the template.
Tips:
1. Download a template.
2. Upload an XLSX file.
3. Only the first sheet in the file will be uploaded.
4. Max file size: 10 MB.
5. Max rows: 10,000.
6. Batch transfer is only available for physical SIM cards.

* Target Account   Enter a Huawei Cloud account.

* Upload File   Select a file.   (Select File)

                    (Cancel) (OK)

ii. In the first column of the file, enter the container IDs of the cards to be transferred.

A	B	C
Container ID		
936083		

iii. Modify the file and upload it.

    –   By IDs:

        In the displayed dialog box, choose **IDs**, enter the target Huawei Cloud account and container IDs as required, and click **OK**.

> **NOTICE**
>
> A maximum of 100 container IDs can be entered at a time. Separate them with commas (,).

Batch Device-SIM Rebinding

GSL provides the device-SIM rebinding function. Two modes are available: Fixed device-SIM rebinding binds the SIM card to the device with the specified IMEI; ordinary device-SIM rebinding binds the SIM to the device it was inserted into.

📖 **NOTE**

- The operation is available for China Telecom SIM cards in use. Each SIM card can be rebound max twice a month. If the rebinding fails, contact Huawei technical support.
- The operation is available for China Mobile SIM cards suspended due to violations. Request will be processed within three working days. Only ordinary device-SIM rebinding can be performed.
- China Unicom SIM cards do not support device-SIM rebinding and will be automatically unbound.

1. Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane.

2. On the displayed page, click **Batch** > **Physical SIM** > **Batch Rebind Card**.
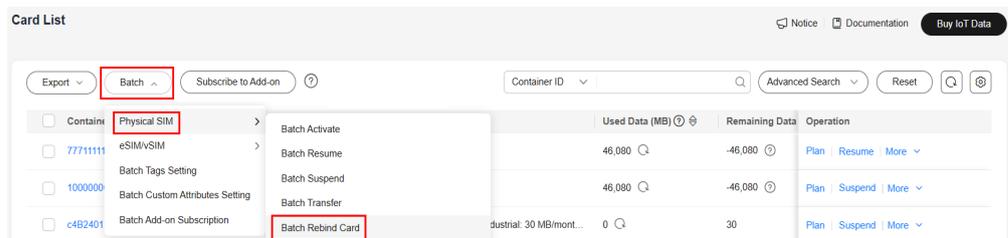
3. In the displayed dialog box, click **Download Template**.

4. In the downloaded template, enter the container ID and binding type. Enter the IMEI for fixed device-SIM rebinding. Save the template and click **Select File** to upload it.

    –   Ordinary device-SIM rebinding binds the SIM card to the device it was inserted into.

> – Fixed device-SIM rebinding binds the SIM card to the device with the specified IMEI.

5. After the verification is successful, click **OK** to submit the request.
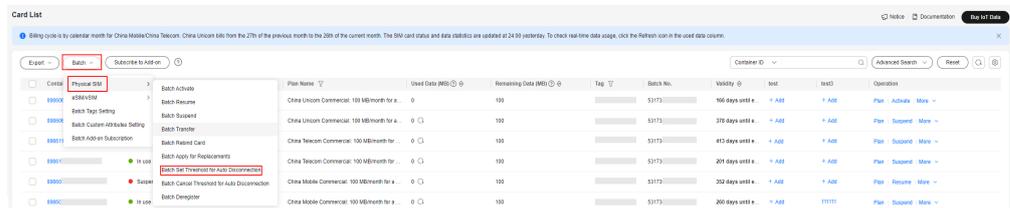
    Wait until the request is processed.

Batch Auto Disconnection Threshold Setting

Based on container IDs, you can set data usage thresholds for when multiple SIM cards will disconnect automatically. The quotas are restored in the next month. Any remaining data of the current month will not be rolled over to the next month.

NOTICE

- Only available for pooled cards of China Unicom and China Mobile and all China Telecom physical cards.
- Due to the delay in data update, the actual usage may exceed the preset threshold when a card is suspended.

---

1. Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane.

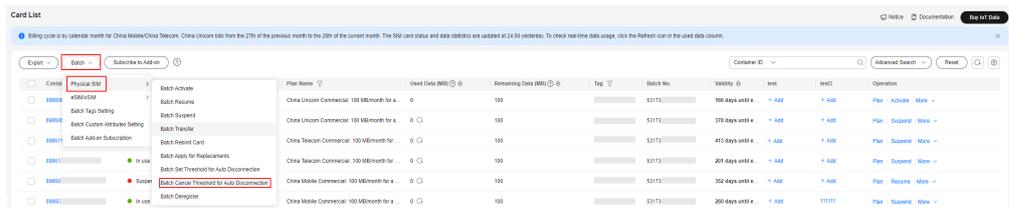2. On the displayed page, click **Batch** > **Physical SIM** > **Batch Set Threshold for Auto Disconnection**.

3. In the displayed dialog box, click **Download Template**.

Batch Set Threshold for Auto Disconnection

> ℹ Sets a data usage limit for when SIM cards will shutdown automatically. To resume the disconnected card, set a higher threshold or set the limit value to -1, which means no limit. Only available for pooled cards of China Unicom and China Mobile and all China Telecom cards.

Download Template, enter data as instructed, and upload the template.
Tips:
1. Download a template.
2. Upload an XLSX file.
3. Only the first sheet in the file will be uploaded.
4. Max file size: 10 MB.
5. Max rows: 10,000.

* Data Threshold   [Enter the data threshold.]   MB

* Upload File   [Select a file.]

(Select File)

(Cancel)   (OK)

4. In the first column of the file, enter the container IDs of the cards to be operated.

A	B	C
Container ID		
936083		

5. Modify the file and upload it.
6. Click **OK**.

Batch Auto Disconnection Threshold Canceling

You can cancel the auto disconnection thresholds for SIM cards.

> **NOTICE**
>
> - Only available for pooled cards of China Unicom and China Mobile and all China Telecom physical cards.
> - To resume a disconnected card, reset the threshold instead of canceling.

1. Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane.

2. On the displayed page, click **Batch** > **Physical SIM** > **Batch Cancel Threshold for Auto Disconnection**.

3. In the displayed dialog box, click **Download Template**.

4. In the first column of the file, enter the container IDs of the cards to be operated.

5. Modify the file and upload it.
6. Click **OK**.

Batch Deregistration

You can deregister SIM cards in batches by container ID. Card deregistration cannot be undone. Exercise caution when performing this operation.

1. Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane.
2. On the displayed page, click **Batch** > **Physical SIM** > **Batch Register**.

3. In the displayed dialog box, click **Download Template**.

4. In the first column of the file, enter the container IDs of the cards to be deregistered.

5. Modify the file and upload it.

> ⚠ CAUTION
>
> Only SIM cards in **Inactive**, **Activatable**, **In use**, and **Suspended** statuses can be deregistered.

6. Click **OK**.

Batch Deregister

Download Template, enter data as instructed, and upload the template.

Tips:
1. Download a template.
2. Upload an XLSX file.
3. Only the first sheet in the file will be uploaded.
4. Max file size: 10 MB.
5. Blank line or duplicate IDs not allowed. Max rows: 10,000.
6. Do not enter the information of deregistered SIM cards.
7. Card deregistration cannot be undone. Exercise caution when performing this operation.

✱ Upload File   [BatchExceedCutNetTe... (18.96KB)   ✕]   [Select File]

100.00% Verification completed

[Cancel]   [OK]

Batch Tag Setting

You can attach or delete one or multiple tags for cards by container ID.

1. Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane.

2. On the displayed page, click **Batch** > **Batch Tags Setting**.

3. In the displayed dialog box, click **Download Template**.

4. In the downloaded template, set parameters as instructed, save the settings, and click **Select File** to upload the template.

5. After the verification is successful, click **OK** to submit the request.

Batch Custom Attributes Setting

You can set custom attributes in batches by container ID. You can add, modify, or delete multiple enabled custom attributes at a time.

1. Log in to the **GSL console** and choose **SIM Cards** > **Card List** in the navigation pane.

2. On the displayed page, click **Batch** > **Batch Custom Attributes Setting**.
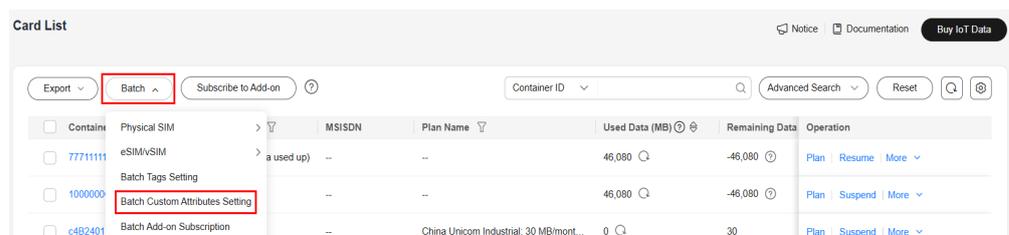
3. In the displayed dialog box, click **Download Template**.

Batch Custom Attributes Setting

Download Template, enter data as instructed, and upload the template.

Tips:
1. Download a template.
2. Upload an XLSX file.
3. Only the first sheet in the file will be uploaded.
4. Max file size: 10 MB.
5. Set custom attributes for up to 10,000 numbers at a time.

* Upload File   [Select a file.]   [Select File]

[Cancel]   [OK]

4. In the downloaded template, set parameters as instructed, save the settings, and click **Select File** to upload the template.

5. After the verification is successful, click **OK** to submit the request.

Batch Add-on Subscription

You can purchase add-ons in batches by container ID. For details, see **Subscribing to a Card Add-on**.

1.7.3 Orders and Renewal

Log in to the **GSL console** and choose **Orders and Renewal** in the navigation pane. The basic information of all orders is displayed. You can click ⚙ in the upper right corner to select fields to be displayed. You can also renew physical SIM cards on this page.

Orders and Renewal						
Batch No.	Order No.	Plan Name	Physical SIM Type	Order Type	Order Status	Operation
5827233	CS240603	China Unicom Global Commercial: 5...	Commercial plug-in 3-in-1 SIM	Card purchase	Shipped	
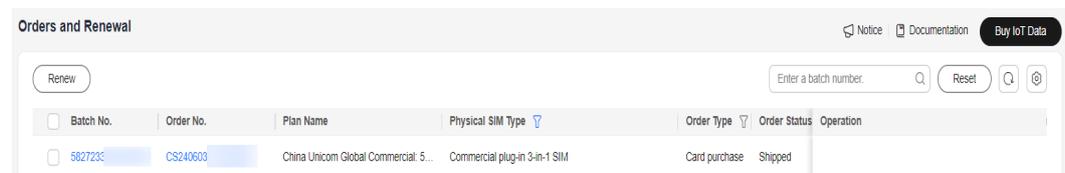
Table 1-7 Basic information of orders

Parameter	Description
Batch No.	A batch number uniquely identifies an order. It is an attribute of the SIM card and data pool, which indicates the association between the order and the SIM card or data pool.
	Click a batch number to go to the order details page. You can view the order status and logistics information.

Parameter	Description
Order No.	An order number uniquely identifies an order. Click an order number to go to the **Billing Center** page and view the order payment information.
Plan Name	Monthly data plan specifications of a single SIM card. It is an attribute of the SIM card and data pool.
Physical SIM Type	There are several types of physical SIM cards. ● Commercial plug-in SIM: common SIM (2FF). ● Commercial plug-in 2-in-1 SIM: common (mini) SIM and micro SIM, excluding nano SIM. ● Commercial plug-in 3-in-1 SIM: common (mini) SIM, micro SIM, and nano SIM. ● Consumer SMD SIM: 5 mm x 6 mm and 2 mm x 2 mm SMD SIM, which can be welded to devices. ● Industrial plug-in SIM: common SIM (2FF). ● Industrial plug-in 2-in-1 SIM: common (mini) SIM and micro SIM, excluding nano SIM. ● Industrial SMD SIM: 5 mm x 6 mm and 2 mm x 2 mm SMD SIM, which can be welded to devices.
Order Type	Order types include: ● **Card purchase**: order generated when you purchase physical SIM cards on the GSL platform. The order can be renewed. ● **Renewal by order**: order generated when you renew SIM cards by order or card expiration time. The order cannot be renewed. ● **Renewal by card**: order generated when you renew SIM cards by file. The order cannot be renewed. ● **Card transfer**: order generated when you transfer physical SIM cards in batches. The order can be renewed. ● **Card add-on**: order generated when you subscribe to add-ons for SIM cards. ● **Pool add-on**: order generated when you subscribe to add-ons for forward data pools.

Parameter	Description
Order Status	Order statuses include: ● **Reviewing**: The generated order is under review. ● **Approved**: The order is approved. ● **To Be Shipped (Renewing)**: For a card purchase order, the SIM cards are waiting for delivery. For a renewal order, the renewal request is being processed by GSL. ● **Shipped**: The purchased cards have been shipped. ● **Completed**: All the processes required for different types of orders have been successfully completed. ● **Canceled** (not applicable to physical SIM cards): The order is canceled. ● **Failed**: Part of the processes required for the order failed. In this case, contact Huawei technical support. ● **Rejected**: The order is rejected by Huawei. ● **Processing**: The add-on order is being processed by GSL. ● **Unsubscribed**: The order is unsubscribed.
Model	Communication modules need to be purchased by enterprises.
Network Standard	The network standard can be 3G or 4G.
Courier	The logistics company that delivers the cards of the order. It is displayed only when the order status is **Shipped** or **Completed**.
Tracking No.	The logistics order number for the cards of the order. It is displayed only when the order status is **Shipped** or **Completed**.
Shipment Date	The date when the cards of the order are shipped.
Quantity	The quantity of cards in the order.
Data Type	Data type used by the cards. Options: **General data** and **Dedicated data**.
Required Duration	The purchased duration for the cards of the order.
Test Period	For physical SIM cards from carriers outside the Chinese mainland, a test period of six months is provided. This period will not be counted into the validity period. When a SIM card gets manually activated (getting inserted into a device and powered on or activated on the console) within the test period or automatically activated after six months, the system starts to calculate the card usage time.

Parameter	Description
Inactive Period	Generally, the inactive period of physical SIM cards is six months. This period will not be counted into the validity period. Physical SIM cards of carriers outside the Chinese mainland do not have the inactive period. When a SIM card gets manually activated (getting inserted into a device and powered on or activated on the console) within the inactive period or automatically activated after six months, the system starts to calculate the card usage time.
Pooled	Values: **Not pooled**, **Forward data pool**, and **Backward data pool**.
Pool ID	A pool ID uniquely identifies a data pool.
Activated Cards	The number of activated SIM cards in the order.
Original Batch No.	The batch number of the order as the operation object.
Failed For	Failure cause of an order.
Created	The order creation time.
Remarks	The order remarks.

Renewing Physical SIM Cards

Step 1 Select the orders you want to renew.

Log in to the **GSL console** and choose **Orders and Renewal** in the navigation pane. Select **one or more** orders and click **Renew** above the list.

📖 **NOTE**

Only orders that meet the renewal requirements can be renewed. If you click **Renew** without selecting an order, the system selects all qualified orders by default.

Renewal is only available for physical SIM cards from a completed **Card purchase** or **Card transfer** order that is not part of a backward data pool. The selected orders that cannot be renewed will be filtered by the system.

You can select up to 10 orders for renewal at a time. If you want to renew all orders in the account (without specifying any one), ensure that the number of orders that meet the renewal requirements does not exceed 50, or an error will occur.

Step 2 Select an operation mode.

- If you do not select any order, click **Renew** to renew all orders that meet the renewal requirements and contain qualified cards.

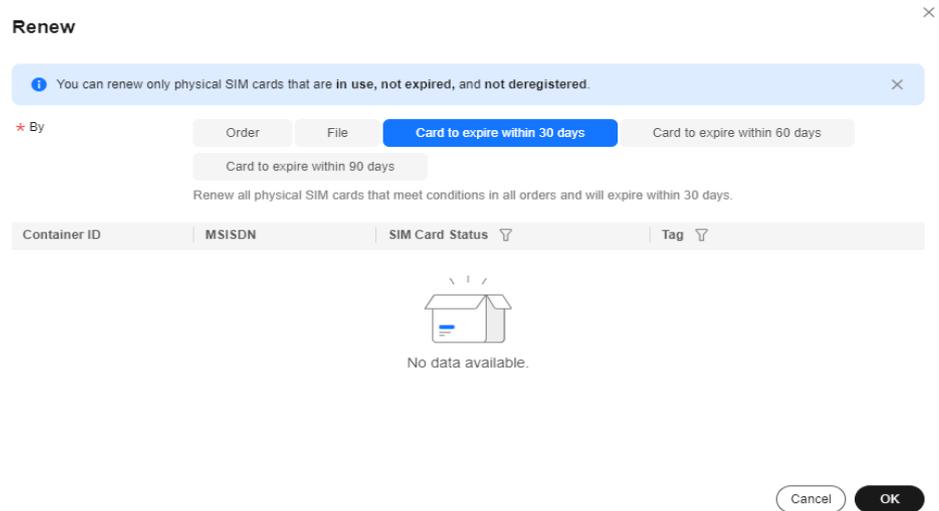– By order: In this mode, the system renews all qualified physical SIM cards in the target order.

– By file: In this mode, the system renews qualified physical SIM cards in the target order based on the file. Click **Renewable**, select items from the list of renewable container IDs on demand.

Modify the Excel file and upload it.

– By card expiration time: In this mode, the system renews qualified physical SIM cards that will expire within 30/60/90 days in the target order. You can use tags and SIM card status as filtering conditions.

- If you select one or more orders, click **Renew** to renew them. The selected orders that cannot be renewed will be filtered by the system. You can check the batch numbers of the orders left. You can also renew cards by order, file, and card expiration time.

    – By order

    – By file

Renew

ⓘ You can renew only physical SIM cards that are **in use**, **not expired**, and **not deregistered**.

∗ Batch No. 5547927113758976

∗ By   [Order] [**File**] [Card to expire within 30 days] [Card to expire within 60 days]
[Card to expire within 90 days]

Renews specified physical SIM cards in selected orders based on the file.

∗ Upload File [   ] [Select File]

Download a template based on the site requirements and upload the file.

Renewable | Card to Expire Within 30 Days | Card to Expire Within 60 Days | Card to Expire Within 90 Days

Tips:
1. Download a template.
2. Upload an XLSX file.
3. Only the first sheet in the file will be uploaded.
4. Max file size: 10 MB.
5. The renewal duration of each IoT card cannot exceed six years.
6. Renew up to 100,000 numbers at a time. Select the cards from this list of physical SIM cards available for renewal from the selected orders.

[Cancel] [OK]

– By card expiration time

Renew

ⓘ You can renew only physical SIM cards that are **in use**, **not expired**, and **not deregistered**.

∗ Batch No. 5547927113758976

∗ By   [Order] [File] [**Card to expire within 30 days**] [Card to expire within 60 days]
[Card to expire within 90 days]

Renew all physical SIM cards that meet conditions in current orders and will expire within 30 days.
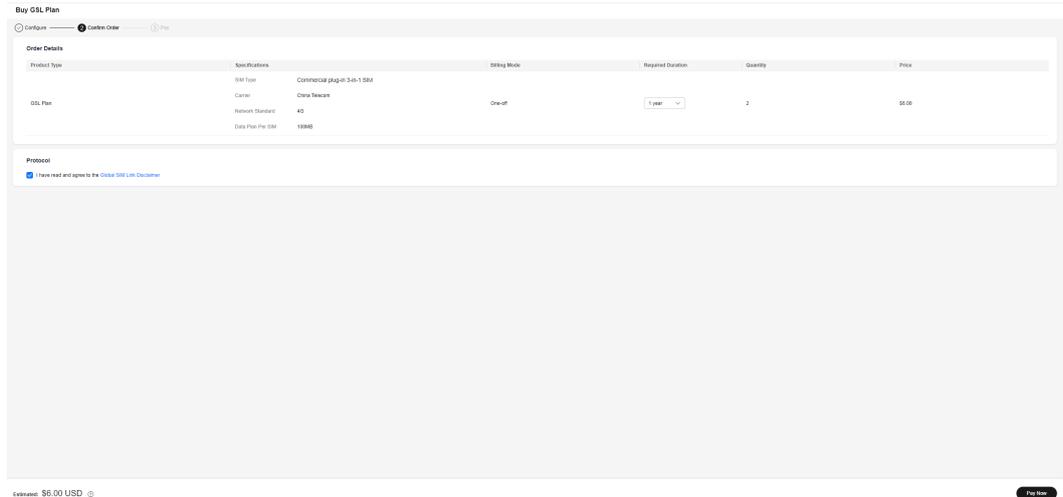
Container ID	MSISDN	SIM Card Status ▽	Tag ▽

No data available.

[Cancel] [OK]

Step 3 Confirm the order information.

Click **OK**. In the displayed page, select the required duration of the order. Check the renewal order details.

If you have any question, contact Huawei technical support.

Step 4 Pay for the order.

After confirming the order information, click **Go to Online Payment** to complete the payment.

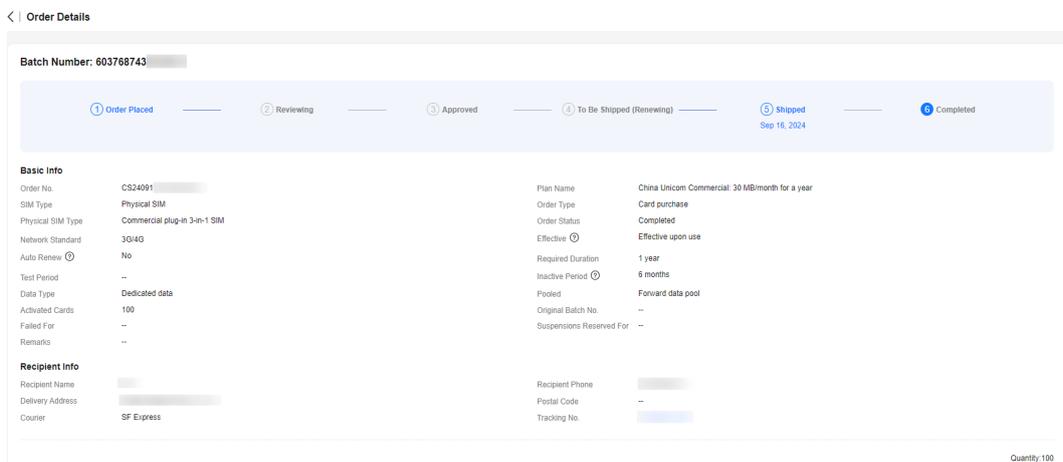**Step 5** Track the renewal order status until it is complete.

On the **Orders and Renewal** page, click the batch number to go to the order details page. You can view the list of SIM cards involved in the renewal. (Currently, the list is displayed only after the renewal order is approved.)

----End

Order Details

You can click a batch number to go to the order details page.

Fixed Address Information

If you configure dedicated data for your IoT SIM cards, they can only access preset platforms or systems. Currently, dedicated data cannot be configured for physical SIM cards provided by carriers outside the Chinese mainland.

On the **Fixed Address Info** tab page of the order details page, you can add, modify, and delete fixed addresses as required. For details, see **Configuring a Fixed Domain Name/IP Address**.

📖 **NOTE**

Fixed address is only available for physical SIM cards of a card purchase/transfer order with dedicated data.
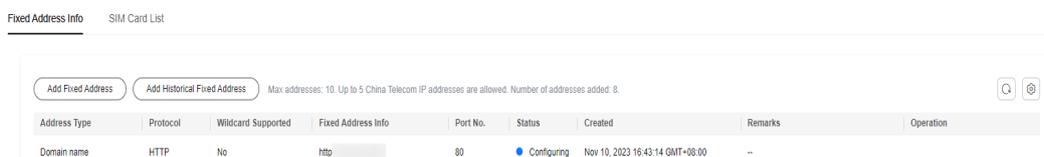
1.7.4 Tags

You can create, modify, and delete tags and attach them to SIM cards. A tag that is attached to a SIM card is **In use**.

Precautions

- Up to 10,000 tags can be created for an account.

- Up to 10 tags can be attached to a single SIM card.

- After a tag is deleted, information about the tag is deleted from all SIM cards to which the tag is attached.

Procedure

**Step 1** Log in to the **GSL** console.

Step 2 In the navigation pane, choose **Tags**.

Step 3 Perform the following operations as required.

- Adding a tag

  a. In the upper left corner of the page, click **Add Tag**.

  b. In the displayed dialog box, enter a tag name.

  Enter a unique name using only digits, letters, underscores (_), and hyphens (-). Maximum: 100 characters.

Add Tag ×

★ Tag Name

Tag Name

Enter a unique name with only digits, letters, underscores
(_), and hyphens (-). Max: 100 characters.

Close   Submit
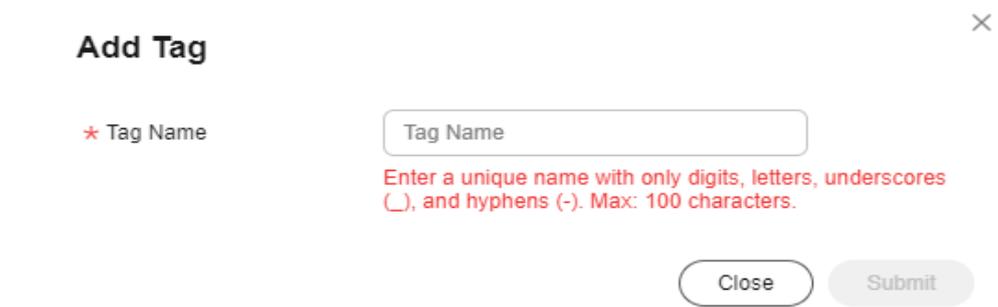
    c.   Click **Submit**.

- Modifying a tag

    a.   Locate the target tag and click **Modify** in the **Operation** column.

    b.   In the displayed dialog box, change the tag name.

    c.   Click **Submit**.

Tags			
Add Tag		Enter a tag name.	Reset
Tag ID	Tag Name	Status	Operation
52716393	test123	● Unused	Modify Delete

- Deleting a tag

    a.   Locate the target tag and click **Delete** in the **Operation** column.

    b.   In the displayed dialog box, click **OK** to delete the tag.

Tags			
Add Tag		Enter a tag name.	Reset
Tag ID	Tag Name	Status	Operation
52716393	test123	● Unused	Modify Delete

----End

1.7.5 Data Pools

1.7.5.1 Forward Data Pools

SIM cards that have subscribed to the same data plan can form a forward data pool to share data.

Buying a Pool

When purchasing data plans for SIM cards, you can create a forward data pool or add cards to an existing one.

CAUTION

- All SIM cards in the same forward data pool share data.

- Once the pool is at its monthly data usage limit, all its SIM cards will be suspended until next month.

- Only orders with the same carrier, data type, and plan can form a forward data pool.

- It is recommended that you create a data pool during card purchase process. Carriers may not support pooling after purchase.

- For a pooled SIM card with 30 MB general data plan, the monthly data usage cannot exceed 100 MB, or the card will be suspended.

- Any remaining data of the current month will not be rolled over to the next month.

- Once at the plan data threshold, the network will be disconnected and resumed in the next month.

Checking Basic Information

Log in to the **GSL** console and choose **Data Pools** > **Forward Data Pools** in the navigation pane.

The basic information of all forward data pools is displayed on the page. You can click ⚙ in the upper right corner to select fields to be displayed. You can also change the forward data pool name and refresh the usage data on this page. Click a pool ID to go to the pool details page. You can view the pool information, activate cards of the pool in batches, add cards to the pool, and buy an add-on for the pool.

Table 1-8 Basic information about the forward data pool

Parameter	Description
Pool ID	A pool ID uniquely identifies a data pool. You can click a pool ID to go to the pool details page and view the list of activated members.
Pool Name	You can click ✏ to change the name of the forward data pool.
Total Cards	Total number of cards in the forward data pool. You can use SIM cards in one or more orders to form a forward data pool.
Effective Cards	Total number of activated cards in the forward data pool. Data of inactive SIM cards cannot be shared.
Plan	Monthly data plan specifications of a single SIM card. It is an attribute of the SIM card and data pool.
Effective Data (MB)	Effective data = Number of activated SIM cards in the forward data pool x Monthly data plan specifications of a single SIM card
Remaining/Used Data (MB)	Effective data = Remaining data + Used data. If the remaining data is less than or equal to 0, the plan quota of the forward data pool is used up. In this case, all cards in the forward data pool are suspended and automatically resumed in the next month. You can click the refresh icon to refresh the data usage information.
Batch No.	The batch number is an attribute of an order. For data pools, this field identifies the orders (one or more) that form the data pool.
Billing Cycle	You can click 🔽 in the **Billing Cycle** column to select a month to view the data usage.
Status	A data pool can be in use or disabled. After all cards in the order corresponding to the data pool are deregistered, the data pool status changes to disabled. You cannot add a member, subscribe to a data pool add-on, or activate a physical SIM card for a disabled data pool.
Updated	Time when the data usage data of the selected billing cycle is updated.
Billing Cycle Starts	Start time of the selected billing cycle. A billing cycle starts in the first day of a calendar month for China Telecom, China Mobile, and carriers outside the Chinese mainland, and on the 27th day of the previous month for China Unicom.

| Parameter	Description
Billing Cycle Ends	End time of the selected billing cycle. A billing cycle ends in the last day of a calendar month for China Telecom, China Mobile, and carriers outside the Chinese mainland, and on the 26th of the current month for China Unicom.

Changing the Pool Name

On the **Forward Data Pools** page, click 🖉 next to the pool name, enter a name as required, and click **Submit**.
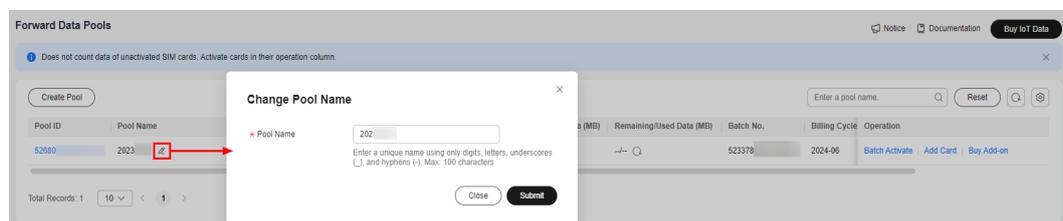
Checking Pool Details

Click a pool ID to go to the pool details page. You can view the basic information, SIM card statistics, data statistics, data pool members (cards), and pool add-ons.
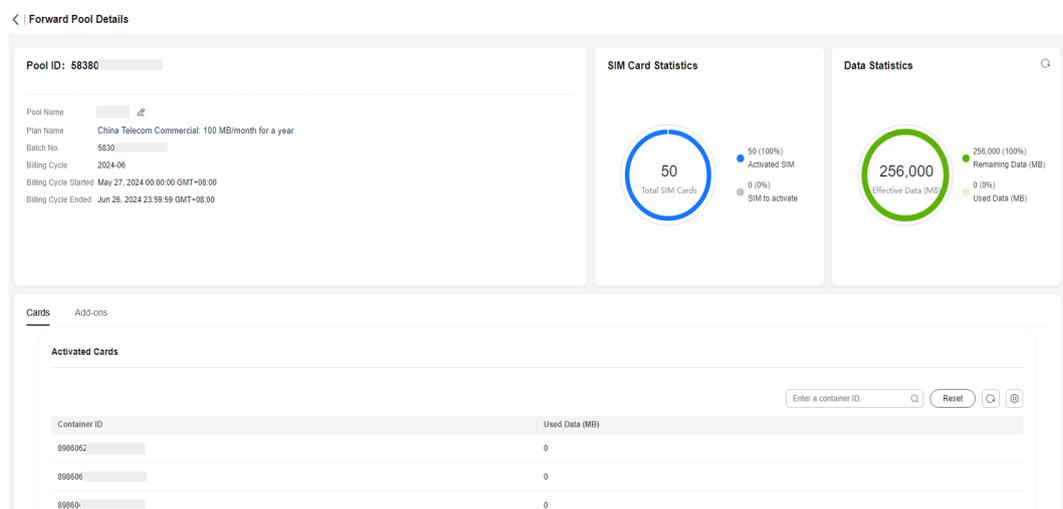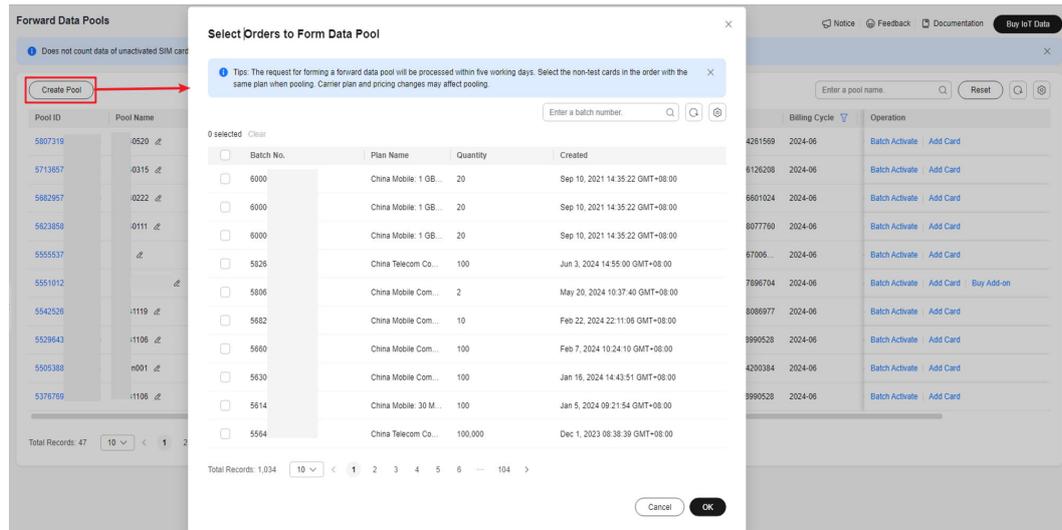

Pooling

Creating a pool

On the **Forward Data Pools** page, click **Create Pool** above the list and select unpooled physical SIM card orders to form a new forward data pool. The cards in the same pool share data.

Only orders with the same carrier and plan can form a forward data pool. The request will be processed within five working days.

Adding a card to an existing data pool

On the **Forward Data Pools** page, click **Add Card** in the **Operation** column to add unpooled physical SIM card orders to the pool. Only orders with the same carrier and plan can be selected.
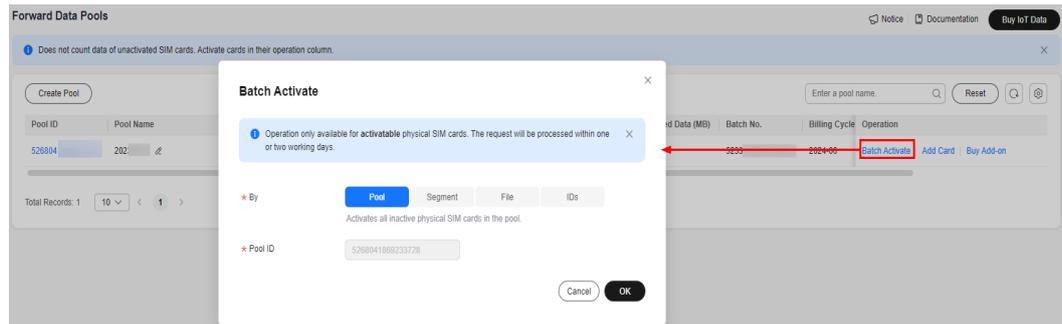
Tips:

- Only orders with the same carrier, data type, and plan can form a forward data pool.

- Carrier plan and pricing changes may affect pooling.

- After the pool is successfully created, the pool takes effect in the next month at the latest.

- Test cards cannot form data pools.

- For China Telecom SIM cards, you can only specify the data pool when placing an order.

- For SIM cards of China Mobile and China Unicom, it is recommended that you create a data pool during card purchase process. Carriers do not support pooling after purchase.

- If the pooling fails, contact Huawei technical support.

- Newly purchased China Mobile/Unicom/Telecom physical SIM cards can no longer be added to forward data pools that were formed before November 27, 2024.

Activating Cards in Batches

The total effective data of the forward data pool depends on the number of activated cards. You can activate physical SIM cards in the pool in batches.

On the **Forward Data Pools** page, click **Batch Activate** in the **Operation** column.

GSL provides four batch activation modes.

Table 1-9 Batch activation modes

Mode	Description
Pool	In this mode, the system activates all inactive physical SIM cards in the pool. Click **OK** and wait for the request to be processed.
Segment	In this mode, the system activates physical SIM cards in the pool according to their start and end numbers. Enter the start number and end number as required, click **OK**, and wait for the request to be processed. **NOTE** Enter only digits. The container IDs between the start number and end number must be consecutive and the corresponding cards cannot be activated.
File	In this mode, the system activates physical SIM cards in the pool based on the file. Download the template file, edit and upload it as required, click **OK**, and wait for the request to be processed. **NOTE** The **SIM Card Status** column in the template is for reference only. The system activates SIM cards in batches based on the uploaded **Container ID** column.
IDs	In this mode, the system activates physical SIM cards in the pool based on input IDs. Enter container IDs as required, click **OK**, and wait for the request to be processed. **NOTE** A container ID can contain only digits.

1.7.5.2 Backward Data Pools

For a backward data pool, you do not need to subscribe to basic plans for IoT SIM cards in the pool. All cards in the pool share data and are charged based on the actual data usage.

Currently, backward data pools are only available for China Telecom SIM.

Buying a Backward Data Pool

When purchasing data plans for SIM cards, you can create a backward data pool or add cards to an existing one. The backward data pool is charged based on the number of activated SIM cards and the actual data used in the current month.

> **⚠ CAUTION**
>
> - The backward data pool can be used only in the Chinese mainland.
> - Once purchased, backward data pools are not refundable.
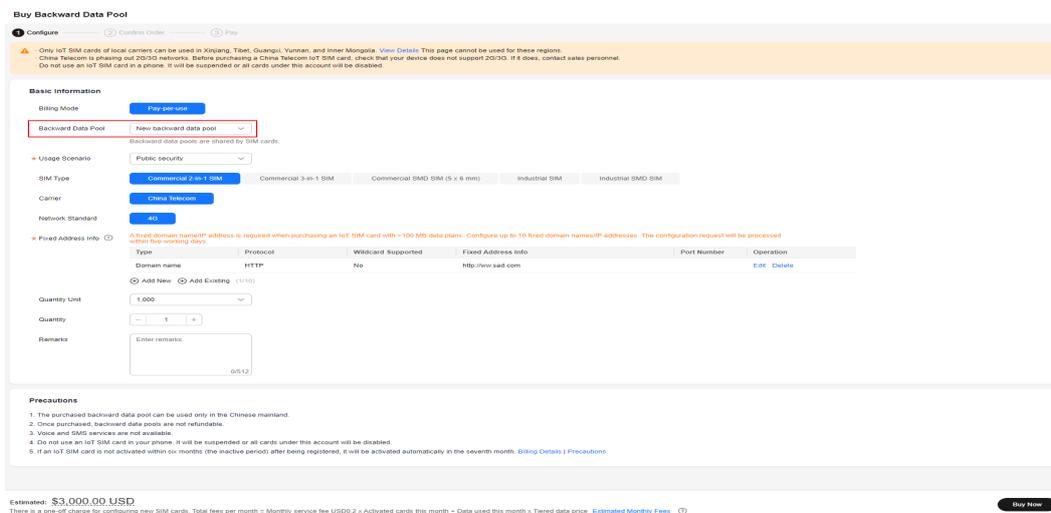
Basic Information

Log in to the **GSL** console and choose **Data Pools** > **Backward Data Pools** in the navigation pane.

The basic information of all backward data pools is displayed on the page. You can click ⚙ in the upper right corner to select fields to be displayed. You can also click a pool ID to go to the pool details page.

Table 1-10 Basic information about the backward data pool

Parameter	Description
Pool ID	A pool ID uniquely identifies a data pool. You can click a pool ID to go to the pool details page and view the list of activated members.
Pool Name	This feature facilitates backward data pool management.
Status	Backward data pool status. For details, see **Lifecycle**.
Total Cards	Total number of cards in the backward data pool. You can use SIM cards in one or more orders to form a backward data pool.

Parameter	Description
Effective Cards	Total number of activated cards in the backward data pool. Data of inactive SIM cards cannot be shared.
Used Data (MB)	Total monthly used data of all activated SIM cards in the backward data pool. You can click the refresh icon to refresh the data usage information.
Batch No.	The batch number is an attribute of an order. For data pools, this field identifies the orders (one or more) that form the data pool.
Billing Cycle	You can click ▽ in the **Billing Cycle** column to select a month to view the data usage.
Updated	Time when the data usage data of the selected billing cycle is updated.
Billing Cycle Starts	Start time of the selected billing cycle. A billing cycle starts in the first day of a calendar month for China Telecom, China Mobile, and carriers outside the Chinese mainland, and on the 27th day of the previous month for China Unicom.
Billing Cycle Ends	End time of the selected billing cycle. A billing cycle ends in the last day of a calendar month for China Telecom, China Mobile, and carriers outside the Chinese mainland, and on the 26th of the current month for China Unicom.

Pool Details

Click a pool ID to go to the pool details page. You can view the basic information, SIM card statistics, used data statistics, and data pool members (cards).

Lifecycle

The lifecycle status of the backward data pool is displayed in the **Status** column. The following table describes pool lifecycle stages.

Status	Description
In use	The backward data pool is generated and is in use.
Suspended	The pool is suspended when your account is in the **retention period** or when the pool data threshold is met.
Disabled	If you fail to pay the outstanding amount when the **retention period** ends, your backward data pools will be **Disabled**.

Changing the Name of a Backward Data Pool

On the **Backward Data Pools** page, click ✏ next to the pool name, enter a name as required, and click **Submit**.
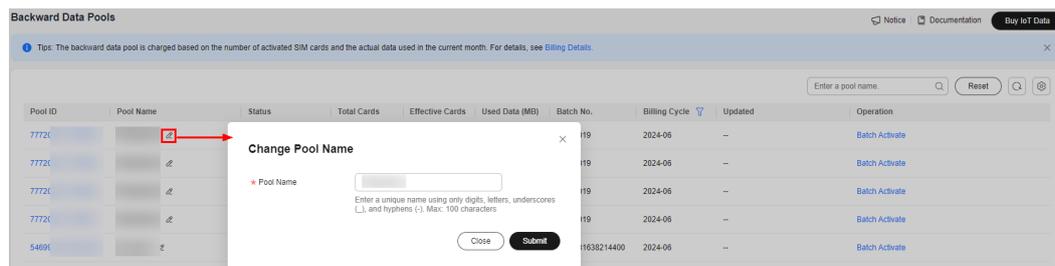

Enabling a Disabled Backward Data Pool

If your account is in arrears but is still in the retention period, your backward data pool resources are frozen. If you fail to pay the outstanding amount when the retention period ends, your backward data pools will be **Disabled**. The data of SIM cards in the data pools is not deleted. You can enable a **Disabled** backward data pool again within one month.

Step 1 Recharge for the disabled backward data pool.

Step 2 Log in to the **GSL** console, choose **Data Pools** > **Backward Data Pools** in the navigation pane, and click **Re-enable** in the **Operation** column.
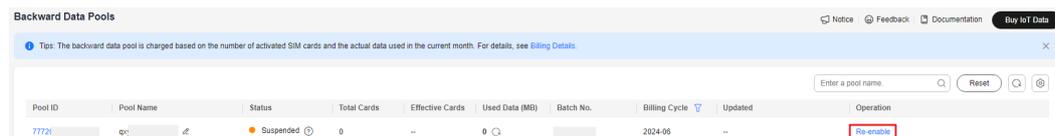
Step 3 Click **OK**. The request will be processed within one or two working days. After the request is complete, the pool status changes from **Disabled** to **In use**, and statuses of the SIM cards in this pool change from **Suspended** to **In use**. Pay-per-use fees start to get charged again.
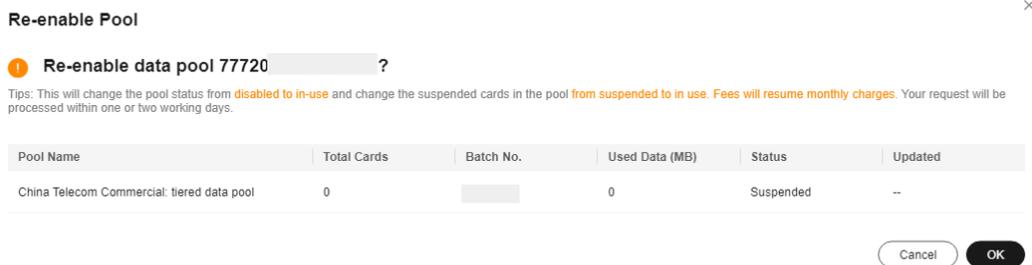
----End

1.7.6 Automation Rules

Automation rules are used to monitor information about SIM cards and data pools. When the conditions are met, the system will send SMS or email notifications to you at the specified interval. Currently, you can monitor the number of days before the physical SIM card expires, as well as the used and remaining data of the SIM card or data pool.

Creating a Rule

Log in to the **GSL console** and choose **Automation Rules** in the navigation pane. Click **Create Rule**.


Table 1-11 Rule parameters

Parameter	Description
Rule Name	You can customize the name of a rule for easy management.
Rule Type	**Order management**, **Usage monitoring**, **Card status monitoring**, and **Data pool monitoring** are available.
Trigger	Triggers are classified into the following types: • **Plan expiration**: trigger of the **Order management** rule • **Data usage per period**: trigger of the **Usage monitoring** rule. • **Card status change**: trigger of the **Card status monitoring** rule. • **Forward data pool usage**: trigger of the **Data pool monitoring** rule. • **Backward data pool usage**: trigger of the **Data pool monitoring** rule.

Parameter	Description
Condition	Trigger conditions are classified into the following types: • Days to expiry: condition for triggering an **Order management** rule. • Remaining data (MB): condition for triggering a **Usage monitoring** rule or **Data pool monitoring** rule. • Card status change (**Inactive**, **Activatable**, **In use**, **Suspended**, or **Deregistered**): condition for triggering a **Card status monitoring** rule.

Action	After a rule is triggered, available notification modes are as follows:
	• **SMS & Email:**
	  – Notify: You can set the notification period as required.
	  – SMS to: An example of the SMS notification template is displayed.
	• **API push:**
	  – API push address: You can specify an API push address. If no push address is available, go to the **Push Addresses** page and add one.
	  – Merged push: If you select **Merge Events and Send**, see **API Merged Push Packet**. If not, see **API Push Packet**.
	  – Notify: You can set the notification period as required.
	  – Push failure notification: If push failure notification is enabled, you will receive a notification in the **Message Center** when a push fails. Choose **Message Receiving Management** in the navigation pane, you can configure the recipients of SMS or email notifications for different message types.

Filter	By default, all SIM cards in your account are monitored. You can use a filter to specify the objects to be monitored. • Plan: You can filter SIM cards by the purchased plan. • Tag: You can filter SIM cards by the tag. • Forward data pool: You can filter SIM cards by the forward data pool name. • Backward data pool: You can filter SIM cards by the backward data pool name.

Execution Records

Log in to the **GSL console**, choose **Automation Rules** in the navigation pane, and click the **Execution Records** tab.

All rule execution records are displayed. You can view the cards that trigger the rule, triggering conditions, and email addresses or SMS recipients that receive notifications.
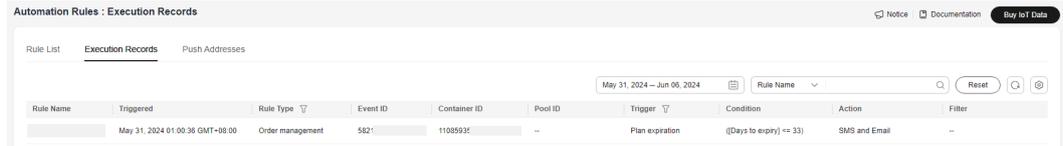
Push Addresses

Log in to the **GSL console**, choose **Automation Rules** in the navigation pane, and click the **Push Addresses** tab. Click **Add Address**, enter information as required, and click **Test**.

You can view and manage existing push addresses on the **Push Addresses** page.
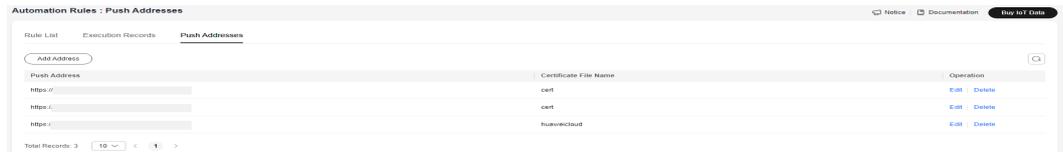
Parameter	Description
Push Address	URL of the push address.
Certificate File Name	Server certificate (in .pem format) corresponding to the URL.

API Push Packet

Push body parameters

Parameter	Type	Description
cid	string	Container ID.
ruleType	int	Rule types: ● **1**: **Order management** ● **2**: **Usage monitoring** ● **3**: **Data pool monitoring** ● **4**: **Card status monitoring**

Parameter	Type	Description
templateName	string	Template names: • **api_rule_price_plan_expired**: template for SIM card plan expiration • **api_rule_flow_usage_remain**: template for data usage per period • **api_rule_sim_status_modify**: template for card status change • **api_sim_pool_rule_flow_usage_remain**: template for pool data usage per period • **sim_pool_rule_flow_usage**: email template for forward data pool • **sim_pool_rule_flow_usage_remain**: email template for forward data pool • **back_pool_rule_flow_usage**: email template for backward data pool • **api_back_pool_rule_flow_usage**: API push template for backward data pool data usage per period
templateParams	list	Template parameter set. It is recommended that you parse the parameter set based on the key value. Other key values may be added later.

SIM card plan expiration (api_rule_price_plan_expired)

[GSL] Dear {accountName}, your SIM card (container ID: {cid}, plan name: {pricePlanName}) will expire in {daysToExpire} days. Please renew it in time.

```
{
  "cid": "4441380627973120",
  "ruleType": 1,
  "templateName": "api_rule_price_plan_expired",
  "templateParams": [
    {
      "key": "cid",
      "value": "4441380627973120"
    },
    {
      "key": "pricePlanName",
      "value": "China Mobile: 30 MB/month"
    },
    {
      "key": "poolId",
      "value": "0"
    },
    {
      "key": "daysToExpire",
      "value": "9"
    }
  ]
}
```

Data usage per period (api_rule_flow_usage_remain)

[GSL] Dear {accountName}, your SIM card (container ID: {cid}, plan name: {pricePlanName}) has less than {remainFlow} MB data. Monitor your usage to avoid disconnection.

```
{
  "cid": "4441380627973120",
  "ruleType": 1,
  "templateName": "api_rule_flow_usage_remain",
  "templateParams": [
    {
      "key": "cid",
      "value": "4441380627973120"
    },
    {
      "key": "pricePlanName",
      "value": "China Mobile: 30 MB/month"
    },
    {
      "key": "remainFlow",
      "value": "100"
    }
  ]
}
```

Card status change (api_rule_sim_status_modify)

[GSL] Dear {accountName}, your SIM card (container ID: {cid}) changed from {oldStatus} to {newStatus} at {modifyTime}.

```
{
  "cid":"2021080621060000T",
  "ruleType":4,
  "templateName":"api_rule_sim_status_modify",
  "templateParams":[
    {
      "key":"cid","value":"2021080621060000T"
    },
    {
      "key":"modifyTime","value":"2022-05-16 03:24:08"
    },
    {
      "key":"oldStatus","value":"Inactive"
    },
    {
      "key":"newStatus","value":"Activatable"
    }
  ]
}
```

Pool data usage per period (api_sim_pool_rule_flow_usage_remain)

[GSL] Dear {accountName}, your data pool (pool ID: {poolId}, pool name: {poolName}, plan name: {pricePlanName}) has less than {remainFlow} MB data. Monitor your usage to avoid disconnection.

```
{
  "cid": "4441380627973120",
  "ruleType": 1,
  "templateName": "api_sim_pool_rule_flow_usage_remain",
  "templateParams": [
    {
      "key": "poolId",
      "value": "4441380627973120"
    },
    {
      "key": "poolName",
```

```
      "value": "xx data pool"
    },
    {
      "key": "pricePlanName",
      "value": "China Mobile: 30 MB/month"
    },
    {
      "key": "remainFlow",
      "value": "100"
    }
  ]
}
```

Email template for forward data pool (sim_pool_rule_flow_usage)

[Huawei Cloud] Dear {Account}, your forward data pool (pool ID: {poolId}, pool name: {poolName}, plan name: {pricePlanName}) has used {usageFlow} MB data. Monitor your usage to avoid disconnection.

```
{
  "cid": "null",
  "ruleType": 3,
  "templateName": "api_back_pool_rule_flow_usage_remain",
  "templateParams": [
    {
      "key": "poolId",
      "value": "4441380627973120"
    },
    {
      "key": "poolName",
      "value": "xx data pool"
    },
    {
      "key": "pricePlanName",
      "value": "China Telecom Commercial: tiered data pool"
    },
    {
      "key": "usageFlow",
      "value": "100"
    }
  ]
}
```

Email template for forward data pool (sim_pool_rule_flow_usage_remain)

[Huawei Cloud] Dear {Account}, your forward data pool (pool ID: {poolId}, pool name: {poolName}, plan name: {pricePlanName}) has less than {remainFlow} MB data. Monitor your usage to avoid disconnection.

```
{
  "cid": "4441380627973120",
  "ruleType": 1,
  "templateName": "api_sim_pool_rule_flow_usage_remain",
  "templateParams": [
    {
      "key": "poolId",
      "value": "4441380627973120"
    },
    {
      "key": "poolName",
      "value": "xx data pool"
    },
    {
      "key": "pricePlanName",
      "value": "China Mobile: 30 MB/month"
    },
    {
      "key": "remainFlow",
```

```
      "value": "100"
    }
  ]
}
```

Email template for backward data pool (back_pool_rule_flow_usage)

[Huawei Cloud] Dear {Account}, your backward data pool (pool ID: {poolId}, pool name: {poolName}, plan name: {pricePlanName}) has used {usageFlow} MB data. Monitor your usage to avoid excessive fees.

```
{
  "cid": "null",
  "ruleType": 3,
  "templateName": "api_back_pool_rule_flow_usage_remain",
  "templateParams": [
    {
      "key": "poolId",
      "value": "4441380627973120"
    },
    {
      "key": "poolName",
      "value": "xx data pool"
    },
    {
      "key": "pricePlanName",
      "value": "China Telecom Commercial: tiered data pool"
    },
    {
      "key": "usageFlow",
      "value": "100"
    }
  ]
}
```

API push template for backward data pool data usage per period (api_back_pool_rule_flow_usage)

[Huawei Cloud] Dear {Account}, your backward data pool (pool ID: {poolId}, pool name: {poolName}, plan name: {pricePlanName}) has used {usageFlow} MB data. Monitor your usage to avoid excessive fees.

```
{
  "cid": "null",
  "ruleType": 3,
  "templateName": "api_back_pool_rule_flow_usage_remain",
  "templateParams": [
    {
      "key": "poolId",
      "value": "4441380627973120"
    },
    {
      "key": "poolName",
      "value": "xx data pool"
    },
    {
      "key": "pricePlanName",
      "value": "China Telecom Commercial: tiered data pool"
    },
    {
      "key": "usageFlow",
      "value": "100"
    }
  ]
}
```

API Merged Push Packet

Push body parameters

Parameter	Type	Description
ruleType	int	Rule types: • **1**: **Order management** • **2**: **Usage monitoring** • **4**: **Card status monitoring**
templateName	string	Template names: **api_rule_price_plan_exp ired**: template for SIM card plan expiration **api_rule_flow_usage_re main**: template for data usage per period **api_rule_sim_status_mo dify**: template for card status change
templateParamsList	array	A template parameter set that contains information about a maximum of 500 cards.
templateParamsList.tem plateParams	array	Template parameter set for individual cards. It is recommended that you parse the parameter set based on the key value. Other key values may be added later.

SIM card plan expiration (api_rule_price_plan_expired)

```
{
 "ruleType": 1,
 "templateName": "api_rule_price_plan_expired",
 "templateParamsList": [
  {
   "templateParams": [
    {
     "key": "cid",
     "value": "4441380627973120"
    },
    {
     "key": "pricePlanName",
     "value": "China Mobile: 30 MB/month"
    },
    {
     "key": "daysToExpire",
     "value": "9"
```

```
    }
   ]
  },
  {
   "templateParams": [...]
  }
  ...
 ]
}
```

Data usage per period (api_rule_flow_usage_remain)

```
{
 "ruleType": 2,
 "templateName": "api_rule_flow_usage",
 "templateParamsList": [
  {
   "templateParams": [
    {
     "key": "cid",
     "value": "4441380627973120"
    },
    {
     "key": "pricePlanName",
     "value": "China Mobile: 30 MB/month"
    },
    {
     "key": "usageFlow",
     "value": "100"
    }
   ]
  },
  {
   "templateParams": [...]
  }
  ...
 ]
}
```

Card status change (api_rule_sim_status_modify)

```
{
 "ruleType": 4,
 "templateName": "api_rule_sim_status_modify",
 "templateParamsList": [
  {
   "templateParams": [
    {
     "key": "cid",
     "value": "2021080621060000T"
    },
    {
     "key": "modifyTime",
     "value": "2022-05-16 03:24:08"
    },
    {
     "key": "oldStatus",
     "value": "Inactive"
    },
    {
     "key": "newStatus",
     "value": "Activatable"
    }
   ]
  },
  {
   "templateParams": [...]
  }
  ...
```

```
  ]
}
```

API Push Failure Notification

If you select **API push** as the notification type and enable the push failure notification, you will receive a notification in the **Message Center** when a push fails.

Example:

Dear {accountName},
API push of automation rule {ruleName} failed at {pushTime}. Push URL: {pushUrl}. For details, see the attachment.
This email is automatically sent by the GSL system. Please do not reply.
Thank you for your support.

📖 **NOTE**

- If you select **API push** and **Merge Events and Send**, the packet is different from that when **Merge Events and Send** is not selected.
- Merged push is not available for data pool usage notifications.
- The attachment is the content of the packet that fails to be pushed.

1.7.7 Request Management

1.7.7.1 Request List

You can trace the request progress of various operations, including suspension and resumption of a single card or multiple SIM cards, batch transfer or activation of physical SIM cards (for all or specified cards), and creation of a data pool.

Precautions

The system stores request records for up to one year.

Procedure

Step 1 Log in to the **GSL** console.

Step 2 In the navigation pane, choose **Requests** > **Request List**.

Step 3 On the displayed page, you can view the basic information such as the request number, type, status, and result.

Only requests in the **Reviewing** status can be canceled.

Step 4 Click a request No. to go to the **Request Item List** page and check details.

----End

1.7.7.2 Request Item List

You can query the request type and handling status of SIM cards involved according to the request No. or container ID.

Precautions

You can query data of the last 12 months with a time span of one year.

Procedure

Step 1 Log in to the **GSL** console.

Step 2 In the navigation pane, choose **Requests** > **Request Item List**.

Alternatively, access the **Request List** page and click a request No. to go to the **Request Item List** page.

Step 3 Check the request type and handling status of SIM cards involved.

----End

1.7.8 Custom Attributes

You can use custom attributes to add remarks to SIM cards. You can add, modify, enable, and disable custom attributes and set these attributes for SIM cards.

Precautions

- A user can create up to six custom attributes.
- Only enabled custom attributes can be edited and displayed on the SIM card list page.

Adding a Custom Attribute

Step 1 Log in to the **GSL** console.

Step 2 In the navigation pane, choose **Custom Attributes**.

Step 3 Click **Add Custom Attribute**.

Step 4 In the displayed dialog box, set the custom attribute name.

Enter up to 32 characters, including digits, letters, underscores (_), and hyphens (-). The new name must be unique.

Step 5 Click **Submit**.

----End

Managing Custom Attributes

You can disable, enable, or modify an existing custom attribute.

Step 1 Log in to the **GSL** console.

Step 2 In the navigation pane, choose **Custom Attributes**.

Step 3 Perform the following operations as required.

- Disabling a custom attribute

  Click **Disable** in the **Operation** column of the target attribute. The disabling is successful when the **Status** becomes **Disabled**.

- Enabling a custom attribute

  Click **Enable** in the **Operation** column of the target disabled attribute. The enabling is successful when the **Status** becomes **Enabled**.

- Modifying a custom attribute

  Click **Modify** in the **Operation** column of the target attribute. In the displayed dialog box, change the custom attribute name and click **Submit**.

  Enter up to 32 characters, including digits, letters, underscores (_), and hyphens (-). The new name must be unique.

----End

1.7.9 Export Task List

You can view the task progress on the **Export Task List** page, and download the target data.

Procedure

Step 1 Log in to the **GSL** console.

Step 2 In the navigation pane, choose **Export Task List**.

Step 3 Click **Download** in the **Operation** column to download the target data.

----End

2 Permissions Management

2.1 Creating a User and Granting Permissions

This topic describes how to use **IAM** to implement fine-grained permissions control for your GSL resources. With IAM, you can:

- Create IAM users for employees from different departments of your enterprise. In this way, each IAM user has a unique security credential to use GSL resources.

- Grant users only the permissions required to perform a given task based on their job responsibilities.

- Entrust a Huawei Cloud account or cloud service to perform efficient O&M on your GSL resources.

If your Huawei Cloud account does not require individual IAM users, skip this section.

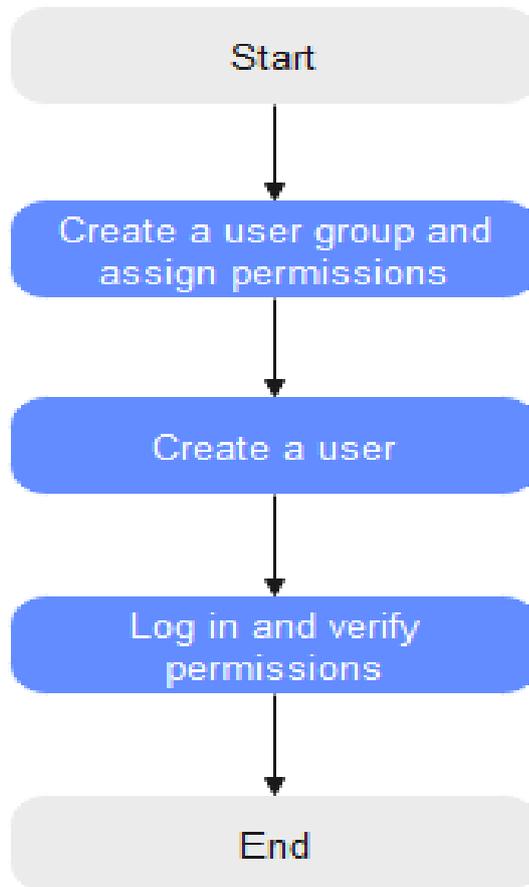The following describes the procedure for assigning permissions (see **Figure 2-1**).

Prerequisites

Learn about the **system-defined policies** supported by GSL and select policies as required. For the permissions of other services, see **System Permissions**.

Process

Figure 2-1 Process of granting GSL permissions

1. **Create a user group and assign permissions.**

   Create a user group on the IAM console and attach the **GSL FullAccess** policy to the group.

   📖 **NOTE**

   Set the permission scope of **GSL FullAccess** to **All resources**. If other scopes such as **Global services** are used, when a user in the user group accesses the GSL console, a message is displayed indicating insufficient permissions.

2. **Create an IAM user and add it to the user group.**

   Create a user on the IAM console and add the user to the group created in **1**.

3. **Log in** and verify permissions.

   Log in to the console as the created user and verify all permissions.

   – Choose **Service List** > **Global SIM Link** to go to the **Dashboard** page. If the **Dashboard** page is properly displayed, the **GSL FullAccess** policy has taken effect.
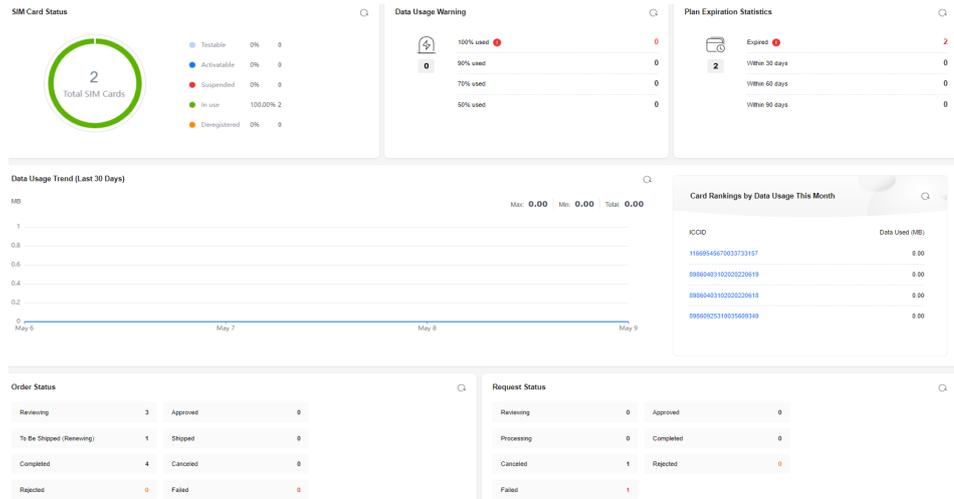
- Choose another service from the service list. If a message appears indicating that you have insufficient permissions to access the service, the **GSL FullAccess** policy has taken effect.

3 CTS

3.1 Overview

Cloud Trace Service (CTS) records operations performed on cloud resources in your account. The operation logs can be used to perform security analysis, track resource changes, perform compliance audits, and locate faults.

3.2 Key Operations Recorded by CTS

Scenarios

GSL supports CTS. With CTS, you can record operations associated with GSL for future query, audit, and backtracking.

Prerequisites

You have enabled **CTS**.

Key Operations Recorded by CTS

Table 3-1 Operations that can be recorded by CTS

Operation	Resource Type	Trace Name
Exporting all cards info	sim-card	createExportTask
Downloading export result	sim-card	downloadFile
Canceling an order	order	cancelOrder
Creating a snapshot of a SIM card that meets renewal conditions in an order	order	createOrderSnapshot

Operation	Resource Type	Trace Name
Verifying whether an order meets the requirements for joining an existing pool	order	verifyOrder
Creating an order	order	createOrder
Adding a fixed address	order-directional	createOrderDirectional
Modifying fixed address information	order-directional	editOrderDirectional
Deleting a fixed address	order-directional	cancelOrderDirectional
Creating a rule	rule	createRule
Editing a rule	rule	editRule
Deleting a rule	rule	deleteRule
Enabling a rule	rule	activateRule
Disabling a rule	rule	deactivateRule
Suspending a SIM card	sim-card	stopSimCard
Resuming a SIM card	sim-card	resetSimCard
Exporting selected cards info	sim-card	exportSelected
Exporting monthly usage of selected cards	sim-card	exportSelectedMonUsage
Collecting monthly device usage statistics	sim-card	showMonthUsages
Transferring physical SIM cards in batches	work-order	modifySimCardAccount
Setting custom attributes for a SIM card	sim-card	setAttributeForSimCard
Resuming SIM cards in batches	work-order	batchResetSimCards
Suspending SIM cards in batches	work-order	batchStopSimCards
Setting custom attributes in batches	sim-card	batchBindAttributes

Operation	Resource Type	Trace Name
Activating a physical SIM card	sim-card	enableSimCard
Activating physical SIM cards in batches	work-order	batchEnableSimCards
Disconnecting/ Recovering the network of a SIM card manually	sim-card	startStopSimCardNet
Setting/Canceling the threshold for SIM card auto disconnection	sim-card	resumeSimCard
Rebinding a SIM card to a device	sim-card	bindDevice
Clearing real-name authentication info	sim-card	clearRealName
Limiting physical SIM speed	sim-card	setSpeedLimit
Verifying card add-on subscription	sim-card	verifySubPackageOrder
Rebinding SIM cards to devices in batches	work-order	batchBindDevices
Creating a forward data pool	work-order	createSimPool
Changing the name of a forward data pool	sim-pool	editSimPoolName
Activating some or all physical SIM cards in a forward data pool	sim-pool	activeSimPoolEntityCard
Verifying forward data pool add-on subscription	sim-pool	verifySimPoolOverlayPack-age
Subscribing to a plan	package	subscribePackage
Unsubscribing from a plan	package	unsubscribePackage
Activating a plan	package	activePackage
Subscribing to plans in batches	work-order	batchSubscribePackage
Unsubscribing from plans in batches	work-order	batchUnsubscribePackage

Operation	Resource Type	Trace Name
Querying physical SIM card data in batches	sim-card	showFlowBySimCards
Modifying a tag added to a SIM card	sim-card	bindSimTags
Setting tags for SIM cards in batches	sim-card	batchSetSimTags
Canceling a request	work-order	cancelWorkOrder
Activating some or all physical SIM cards in a backward data pool	back-pool	enableBackPoolEntityCard
Changing the name of a backward data pool	back-pool	updateBackPoolName
Creating a push address	web-hook-url	createWebhookUrl
Modifying a push address	web-hook-url	updateWebhookUrl
Deleting a push address	web-hook-url	deleteWebhookUrl
Testing address connectivity	web-hook-url	VerifyWebhookUrlConnec-tion
Uploading a certificate	web-hook-url	UploadWebhookCert
Adding a custom attribute	attribute	createAttribute
Modifying a custom attribute	attribute	editAttribute
Enabling a custom attribute	attribute	enableAttribute
Disabling a custom attribute	attribute	disableAttribute
Adding a tag	sim-tag	createCmTag
Modifying a tag	sim-tag	editCmTag
Deleting a tag	sim-tag	deleteCmTag
Accessing GSL	service	openService
Placing an order through the CBC interface	service	createCBCOrder

Operation	Resource Type	Trace Name
Querying CBC interface plan discounts	service	showPromoteinformation
Uploading a file	sim-card	uploadFile

3.3 Viewing Tracing Logs

For details about how to view audit logs, see **Querying Real-Time Traces**.