

IVM

User Guide

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Huawei Cloud Computing Technologies Co., Ltd.

Address: Huawei Cloud Data Center Jiaoxinggong Road
Qianzhong Avenue
Gui'an New District
Gui Zhou 550029
People's Republic of China

Website: <https://www.huaweicloud.com/intl/en-us/>

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1 Procedure

Figure 1-1 Procedure

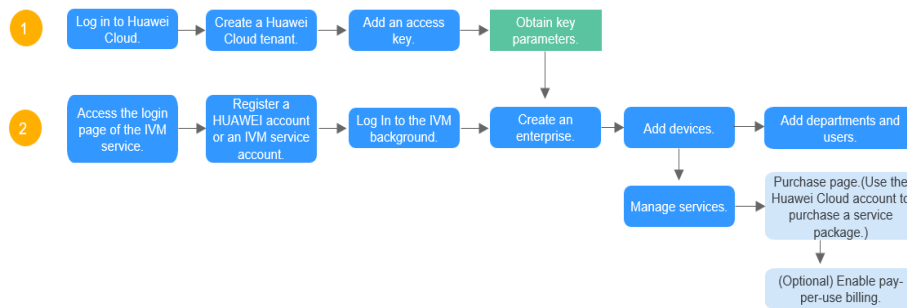


Table 1-1 Task description

Operation Platform	GUI and Task	Task Description
Huawei Cloud	Creating a Huawei Cloud Tenant	<ol style="list-style-type: none"> 1. Log in to Huawei Cloud. 2. To use the IVM service, you need to create a HUAWEI account and complete individual and enterprise authentication. 3. Add an access key. For details, see Creating a Huawei Cloud Tenant. The key file is automatically downloaded. Keep the key properly. The AK, SK, account name, account ID, project name, and project ID are key parameters for creating an enterprise.
Industry Video Management (IVM)	Registering a HUAWEI ID	<ol style="list-style-type: none"> 1. The login page of the IVM service is displayed. 2. Register a HUAWEI ID. 3. Log in to the IVM service.

Operation Platform	GUI and Task	Task Description	
	Creating an Enterprise	<ol style="list-style-type: none"> If you use the IVM service for the first time, you can add your enterprise or ask the administrator to invite your enterprise to join in. The invitation is displayed after you refresh the page. You can also create an enterprise as prompted. 	
	Devices	Adding a Device Group	You can add device groups and devices, and upgrade and roll back devices.
		Adding a Device	
		Upgrading/Rolling Back a Device	
	Staff Management	Adding Departments and Users	Add departments and users to the enterprise.
	Service Management	Purchase Page	You can select a proper package type and specifications to purchase the video access or storage capabilities as required.
Enabling Pay-per-use Billing		Enable the pay-per-use billing mode on the Huawei Cloud console.	

2 Creating a Huawei Cloud Tenant

Scenario

To use the IVM service, you need to create a HUAWEI account and complete authentication.

If you have registered a HUAWEI account and completed real-name authentication on the HoloSens Store, skip this section.

Procedure

- Step 1** Log in to Huawei Cloud.
- Step 2** Click **Register** in the upper right corner of the page and complete the registration as prompted.
- Step 3** Log in to Huawei Cloud using a registered account.
- Step 4** Click the username in the upper right corner of the page, click **My Account**, and bind an email address and perform authentication as prompted.
- Step 5** Log in to the Huawei Cloud console, move the cursor to the account in the upper right corner, choose **My Credentials** > **Access Keys**, click **Create Access Key**, enter the SMS verification code, and click **OK**. The key file is automatically downloaded. Keep it properly. The AK and SK are required when creating an enterprise.

NOTE

- Access keys can be downloaded only once and an access key disclosure will cause data leakage. For security purposes, you are advised to periodically change access keys and properly keep them.
- Up to two access keys can be added. If you need to change the AK and SK, delete the created access keys and add them again.

- Step 6** Choose **My Credentials** > **API Credentials** to obtain account name, account ID, project name, and project ID. The information will be used as key parameters for creating an enterprise.

The values of **Project Name** and **Project ID** are the same as the corresponding values of the **AP-Jakarta** region.

 **NOTE**

If **AP-Jakarta** does not exist in the project list, click **Console** in the upper left corner and select **AP-Jakarta**. Access the **API Credentials** page again.

----End

3 Registering a HUAWEI ID

Scenario

If you log in to the IVM background for the first time, you need to register a HUAWEI account or an IVM service account.

Procedure

- Step 1** Log in to the IVM background.
- Step 2** In the Huawei account login box, click **Register**. The account registration page is displayed.
- Step 3** Click **Huawei ID**. On the **Register Huawei ID** page, enter the mobile number, verification code, and password, confirm the password, and click **Register**.

NOTE

- The HUAWEI account registered here is different from that registered in [Creating a Huawei Cloud Tenant](#) (Huawei Cloud authentication).
 - The HUAWEI account registered here is used to log in to the background of the IVM service. After an enterprise is created, you can manage personnel and devices of the enterprise or organization.
 - A HUAWEI account in [Creating a Huawei Cloud Tenant](#) contains true information about an individual or enterprise that uses Huawei Cloud services. It is associated with the user's information about user basics, orders, and charges.

----End

4 Creating an Enterprise

Scenario

If you use the IVM service for the first time, you can add your enterprise or ask the administrator to invite your enterprise to join in. The invitation is displayed after you refresh the page.

Procedure

Step 1 Log in to the IVM console.

Step 2 Click **Log In to the Console**. The login page of the IVM background is displayed.

Step 3 On the login page, enter the username and password and click **Log In**.

Step 4 Click **Add Enterprise**.

Step 5 Enter enterprise information as prompted.

 **NOTE**

If you cannot obtain the project ID after on the **API Credentials** page, click **Console**, select **AP-Jakarta**, and return to the **API Credentials** page to obtain the project ID.

Step 6 Click **Add** to create an enterprise.

 **NOTE**

To modify the enterprise information, expand the triangle icon next to the enterprise name, click **Enterprise Info**, and modify the enterprise information.

----End

5 Device Management

5.1 Creating a Device Group

Procedure

- Step 1** Log in to the IVM background.
- Step 2** Choose **Devices** and click **Add**.
- Step 3** Enter the user group name and click **OK**.

 **NOTE**

- You can select a device group and click **Add** to create a sub-device group.
- You can click **Edit** or **Delete** next to a device group name to change the device group name or delete the current device group.

----End

5.2 Adding a Device

5.2.1 Adding a Single Device

5.2.1.1 Adding a Device Through the GB Protocol

Scenario

If a few cameras need to be connected to the IVM platform, you can manually add them one by one.

Restrictions on Adding a Device Through the GB Protocol

A single SIP/UDP packet sent by the device must be less than 1,300 bytes.

Configuring Platform Parameters

- Step 1** Log in to the IVM background.
 - Step 2** Choose **Devices** in the navigation pane on the left, select a device group to which you want to add devices, and click **Add**.
 - Step 3** Select **Individually** and set the **Access Protocol** to **GB**, and enter basic information.
- End

5.2.1.2 Adding a Device Through the HoloSens Protocol

Scenario

If a few HoloSens cameras need to be connected to the IVM platform, you can manually add them one by one.

Procedure

- Step 1** Log in to the IVM background.
 - Step 2** Choose **Devices** in the navigation pane on the left, select a device group to which you want to add devices, and click **Add**.
 - Step 3** Select **Individually**, connect devices through the **HoloSens** protocol, and enter basic information.
 - Step 4** After the device is added, a dialog box is displayed, indicating that the device is added successfully. Click **OK**.
- End

5.2.2 Adding Devices in Batches

Scenario

When a large number of devices can be connected to the IVS platform through the HoloSens or GB protocols, you can quickly add the devices in batches.

Configuring Platform Parameters

- Step 1** Log in to the IVM background.
 - Step 2** Choose **Devices** in the navigation pane on the left, select a device group to which you want to add devices, and click **Add**.
 - Step 3** Select **In batches**, select an access protocol as prompted, and download the corresponding template.
 - Step 4** Enter the device information in the template, upload the file, and click **OK**.
- End

5.3 Viewing the Device List

After devices are added, you can view the added devices in the device list.

Step 1 Log in to the IVM background.

Step 2 Choose **Device > Devices**.

Step 3 You can view the device information in the device list on the right.

 **NOTE**

You can click the setting button next to the search box to customize the columns to be displayed as required.

Table 5-1 Parameters

Parameter	Description
Name	Device name
Device Type	Device type
Video Sites	Number of channels
Device Group	Device group to which the device belongs
Access Protocol	Access protocol, including GB and HoloSens protocols.
Version	Version of the software running on the device.
Vendor	Device vender
Device Model	Device model
Access Time	Time when a device is added
Common Users	Number of the accessed common users
Operation	You can check the algorithm details, video site, SIP information, and click More to view common user, synchronize channel information, change device group, and delete the device.

 **NOTE**

- You can locate the row of a single device and click an operation button in the **Operation** column.
- You can also select multiple devices in batches and click an operation button above the device list.

----End

5.4 Viewing Basic Device Information

Viewing Basic Device Information

- Step 1** Log in to the IVM background.
- Step 2** Choose **Device > Devices**.
- Step 3** Select a device and click the device name in the device list to view basic device information, perform operations on online devices, and view cloud-based recording plans.

----End

Changing the Password

- Step 1** Log in to the IVM background.
- Step 2** Choose **Device > Devices**.
- Step 3** Select a device, click the device name in the device list on the right, and click **Change Password** in the online device operation area on the **Basic Information** page.
- Step 4** In the device password changing dialog box, enter the original password and new password. Confirm the passwords and click **OK**.

----End

6 Service Management

6.1 Purchase Page

6.1.1 Billing

The IVM service supports the yearly/monthly and pay-per-use billing modes. There are three kinds of yearly/monthly packages: **AI Video Access-Full Protocol-General Edition**, **AI Video Transmission-Bandwidth Edition**, and **AI Video Storage-Standard Edition**.

Billing Mode

The IVM service supports the yearly/monthly and pay-per-use billing modes.

- Yearly/Monthly package: You can [purchase a package](#) and bind resources in the purchased package to devices. The IVM service provides the AI video full protocol access package, AI video transmission bandwidth package, and AI video standard storage package.

(Note: If the bandwidth usage of an accessed device exceeds the package limit, fees are deducted based on the pay-per-use billing mode.)

- Pay-per-use: You can purchase the number of video access channels, video viewing bandwidth, and video and image cloud storage capacity in the pay-per-use billing mode. You can bind or unbind devices at any time in the IVM background.

The system deducts fees from your account balance based on actual service usage. You can go to the **Billing Center** page to view your account balance. For details, see [Top-Up](#).

Yearly/Monthly Package Quotation

Table 6-1 Commercial quotation of the IVM service

Package Name	Billing Mode	Unit	Official Website Unit Price (USD)
AI video full protocol access	Yearly	Channel/Year	9
AI video full protocol access	Monthly	Channel/Month	0.9
AI video full protocol access	Pay-per-use	Channel/Month	0.9
AI video transmission bandwidth	Yearly	Mbps/Year	171
AI video transmission bandwidth	Monthly	Mbps/Month	17.1
AI video transmission bandwidth	Pay-per-use	Mbps/Month	17.1
AI video standard storage	Yearly	TB/Year	368.64
AI video standard storage	Monthly	TB/Month	36.86
AI video standard storage	Pay-per-use	GB/Month	0.036

Remarks:

1. The AI video access package provides the number of video access channels, and the AI video transmission package provides the video viewing bandwidth.
 - a. If the peak bandwidth consumption exceeds the maximum bandwidth of the package, the excess bandwidth will be charged in pay-per-use mode (\$17.1/Mbps/month).
2. Application scenarios of the video viewing bandwidth:
 - a. Live video viewing, recording playback, and recording download: The bandwidth usage is related to the video bit rate and audio bit rate. You can set the upper limit of the camera bit rate. For example, if the bit rate is 5 Mbps, six channels of 512 Kbps videos or 1024 Kbps videos can be played at the same time.
 - b. Alarm image downloading: The bandwidth usage is related to the image download rate and the number of concurrent images.

- c. Alarm data forwarding: The bandwidth usage is related to the alarm forwarding rate and the number of concurrent alarms. You can configure the camera alarm generation interval to suppress the number of concurrent alarms.

Expiration and Arrears

Package expires

After the AI video access package and AI video transmission package expire, the device cannot continue to use the IVM service. You need to bind a new package or the pay-per-use billing mode to the device.

After the recording storage package expires, the device stops storing recordings to the cloud. You need to bind a new package to the device or bind the device to the pay-per-use billing mode. Data stored on the cloud will be deleted from the IVM service after the retention period expires.

Account in arrears

After the retention period expires, the video sites are automatically unbound from the pay-per-use billing mode and become invalid. After the account payment, you can restore the pay-per-use billing mode for all invalid sites.

6.1.2 Purchasing Packages

The IVM service provides preferential yearly/monthly packages. After a package is purchased, the package used immediately. You are advised to purchase and enable the service according to the Procedure.

Top-Up

- Step 1** Use the HUAWEI account created in [Creating a Huawei Cloud Tenant](#) to log in to Huawei Cloud.
- Step 2** Click **Console**.
- Step 3** On the **Console** page, click **Billing Center**.
- Step 4** On the **Overview** page, click **Top-Up**.
- Step 5** Select a **Top-Up Method**, enter the **Top-Up Amount**, and click **Next**. The payment page is displayed.

----End

Purchasing a Package

- Step 1** Log in to the IVM console.
- Step 2** Apply for OBT. Use the Huawei account created in [Creating a Huawei Cloud Tenant](#) (individual and enterprise authentication has been completed) to log in and go to the package purchase page.
- Step 3** Select package specifications. For details about the package, see [Table 6-2](#). For details about the price, see [Billing](#).

Table 6-2 Package description

Package	Description
AI video full protocol access	The access volume-based yearly and monthly packages are supported.
AI video transmission bandwidth	The video viewing bandwidth is charged by month or year.
AI video standard storage	The storage capacity-based monthly and yearly packages are supported. Persistent video storage: The system saves all-day recordings of online devices to the Huawei Cloud.

Step 4 In the purchase list on the left, select **I have read and agree to the Huawei Cloud Sales Agreement** and confirm the order.

Step 5 On the displayed page, confirm the package information and click **Buy Now**.

Step 6 Check the order details, read and agree to the agreements, and pay for the order.

Step 7 Select a fee deduction discount, confirm the payment, and pay for the order. After the payment is successful, you can use the package to bind devices.

After purchasing a package, you can configure it on the device management page.

----End

Follow-up Operations

- You can go to **Billing Center > Orders** to view the **Unpaid Orders, Renewals, and My Orders**.
- You can go to **Billing Center > Billing** to view bills and details, and export records.

7 Staff Management

7.1 Adding Departments and Users

Procedure

- Step 1** Log in to the IVM background.
- Step 2** Choose **Personnel** in the navigation pane on the left, click **Add**, enter the department name, and click **OK**. Construct the enterprise organization structure as required. An enterprise organization can contain a maximum of nine levels.
- Step 3** Select the department to which you want to add a user and click **Add User**.
- Step 4** Enter the user information, confirm the information, and click **Add**.

Table 7-1 Role description

Role	Description
Enterprise Administrator	<ul style="list-style-type: none">• Has the permission to manage all devices and personnel.• Has the permission to obtain the enterprise information and credentials.• Has the permission to manage algorithms and view algorithm details.

Role	Description
Department Manager	<ul style="list-style-type: none"> • Has the device permissions assigned by the enterprise administrator and cannot view the unauthorized devices. • Has the permission to manage the personnel in the current department and cannot see other personnel. • Has no permissions to modify the enterprise administrator and other department administrators. • Has no permissions to view enterprise information and credentials. • Has no permissions to view service management, algorithm management, and algorithm details. • Has the permission to assign devices or device groups to common users and other department administrators.
Common User	<ul style="list-style-type: none"> • Can perform operations through the app. • Device permissions can be assigned only by the enterprise or department administrator. • Has no permissions to view department personnel.

 NOTE

To assign a device to a user, select the user, click **Assign Device Group** or **Assign Device**, and click **OK**.

----End

7.2 Assigning Device Groups

Procedure

- Step 1** Log in to the IVM background.
- Step 2** In the user list, select a common user to which a device group is to be assigned and click **Assign Device Group** above the user list.
- Step 3** In the displayed dialog box, you can view the device groups that have been assigned to the current user. After modifying the device groups, click **OK**.

----End

7.3 Assigning Devices

Procedure

- Step 1** Log in to the IVM background.
- Step 2** In the user list, select the user to which you want to assign devices and click **Assign Device** above the user list.

Step 3 In the **Assign Device** dialog box, you can view the devices that have been assigned to the current user. After the devices are added, click **OK**.

----End

7.4 Editing a User

Procedure

Step 1 Log in to the IVM background.

Step 2 In the user list, select the user to be edited and click **Edit** in the **Operation** column.

Step 3 In the displayed dialog box, modify the username and user type and click **Edit**.

----End

7.5 Changing Department

Procedure

Step 1 Log in to the IVM background.

Step 2 In the user list, select the user whose department needs to be changed and click **Change Department** in the **Operation** column.

Step 3 In the displayed dialog box, select a department and click **Change**.

 **NOTE**

You can select multiple users and click **Change Department** above the user list to change their department in batches.

----End

7.6 Deleting Departments and Users

Procedure

Step 1 Log in to the IVM background.

Step 2 In the user list, select the user to be deleted and click **Delete** in the **Operation** column.

Step 3 In the displayed dialog box, click **Delete**.

 **NOTE**

You can select multiple users and click **Delete** above the user list to delete uses in batches.

----End

8 Usage Statistics

Procedure

- Step 1** Log in to the IVM background.
- Step 2** Choose **Usage Statistics > IVM**.
- Step 3** On the right of the page, you can select a package and month to view the statistics of the bandwidth for video viewing, industry data flow storage capacity, storage package of motion-triggered video, and persistent video storage.
----End

9 Reference

9.1 High-Risk Operations

Table 9-1 High-risk operations

Risky Operation	Impact
Disabling the Service	<p>After the service is disabled, the data resources that are being used or have been stored in the stream are cleared immediately. The details are as follows:</p> <ul style="list-style-type: none"> • Management service: All media-related services of the stream, such as live video viewing and recording playback. • Ingesting service: The cloud-based recording plan of the stream will be stopped and the stored cloud-based recording files will be deleted. • Industry data flow service: The industry data flow data storage and forwarding capabilities of the stream will be stopped and the stored industry data flow data will be deleted.
Deleting Devices	<p>After a device is deleted, services enabled for all streams of the device are automatically disabled, and the device is deleted from the device list (including the owner and sharees).</p>
Dismissing an Enterprise	<p>After an enterprise is dismissed, all devices under the enterprise are deleted.</p>

Risky Operation	Impact
Logout	<p>After a user is deregistered, its user data is deleted, including personal information, device information, and relationships between personal and enterprise permissions.</p> <p>If a deregistered user belongs to an enterprise, only the permission relationship between the user and the enterprise will be deleted, the normal use of devices under the enterprise will not be affected.</p>
Unbinding a Device	<p>You can log in to the device page and unbind the device from the cloud service.</p> <p>After a device is unbound, the services enabled for the device in the cloud service are disabled, and the user binding relationship is deleted. You can bind the device again.</p>
Deleting an AK/SK.	<p>After an enterprise developer deletes an AK/SK, all access tokens applied for the original enterprise credential become invalid.</p>
Applying for an AccessToken	<p>A single AK/SK maintains only the validity of the latest two access tokens. A newly applied access token automatically overwrites the earlier one.</p>