LINKINGVISION
Leading IoT video solution

USC UNIFIED SECURITY

User manual

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LINKINGVISION

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1.Preface

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1 Preface

Preface

Thank you very much for using our company's products. We will be happy to provide you with the best and highest quality service.

This manual may contain technical inaccuracies or text errors.

The content of this manual will be updated regularly without notice; the updated content will be added to the new version of this manual.

The interface images extracted from this manual are only used as examples. The interface may vary between versions, so please refer to the actual interface for accuracy.

We have a professional support team to answer your questions. Thank you for your support.

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2.Version Update

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2 Version Update

2.1 Version Update Description

Version Update Description

Version	Date	Describe
r1	2024/06/18	First version

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3.Content Overview

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3 Content Overview

Content Overview

USC unified security.

3.1 Platform Introduction

Platform Introduction

The USC security platform utilizes new IT technology, based on HTML5 native video playback technology, which can be accessed through any web browser on the PC side. It has a simplified and intuitive icon user interface that enhances the user experience. Based on a microservices architecture, it can achieve real-time stream replication of databases, supports two backup databases, and the system can automatically detect and select the primary database. It supports node hot standby mode to achieve high availability in device management;A unified device management model has been implemented to display and control system access resources in a unified manner;Realized video analysis algorithm based on deep learning;Realized video storage and metadata storage based on streaming storage;The video system abstracts a universal device access interface, which can fully comply with the SDKs and industry standards of various manufacturers;The video system adopts automatic detection and transcoding technology, which can make the browser play smoother and more fluent;Integrate mainstream access control systems;It fully supports GB28181 and GB35114, and can achieve the docking of national standards for safe city level.

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4.Software Installation

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4 Software Installation

Software Installation Preparation

Windows 7/8/10, Windows Server 2008/2012/2016, Centos 7, RockyLinux 8/9, Redhat 7/8/9, Ubuntu20.04/22.04 and other 64-bit operating systems, 8G memory, 4-core CPU and above.You can also use Linux systems running on Kunpeng 920 Feiteng Loongson.The versions are as follows

CPU	Operating System	Version Name
x64	Windows 7/8/10， Windows Server 2008/2012/2016/2019	usc-*-win64-release.zip usc-*-win64-release.exe (Installation package)
x64	CentOS 7/RockyLinux 8/Ubuntu16.04/18.04/20.04 Debian 9/10/11 (CentOS 8 is not recommended)	usc-*-linux-x86_64-64bit.tar.gz
Kunpeng 920 Flying RK3399(ARMv8)	Linux	usc-*-linux-armv8-64bit.tar.gz
Godson 3	Linux	usc-*-linux-loongson-64bit.tar.gz

Download The Installation Package

Download the corresponding installation package from the following link https://linkingvision.com/swdload

4.1 Windows Installation

Install Windows Run Support Package

Please download all the runtime support libraries from the following link:
https://linkingvision.com/download/h5stream/win/VisualC%2B%2BRedistributable/
Please install in order, 2008, 2010, 2013, 2015-2022. If there is an installation failure, please update the operating system in the System and Security Check Updates section of the Control Panel.

If Windows 2012 still cannot solve the problem, please refer to the following link or update the operating system at the operating system update section.

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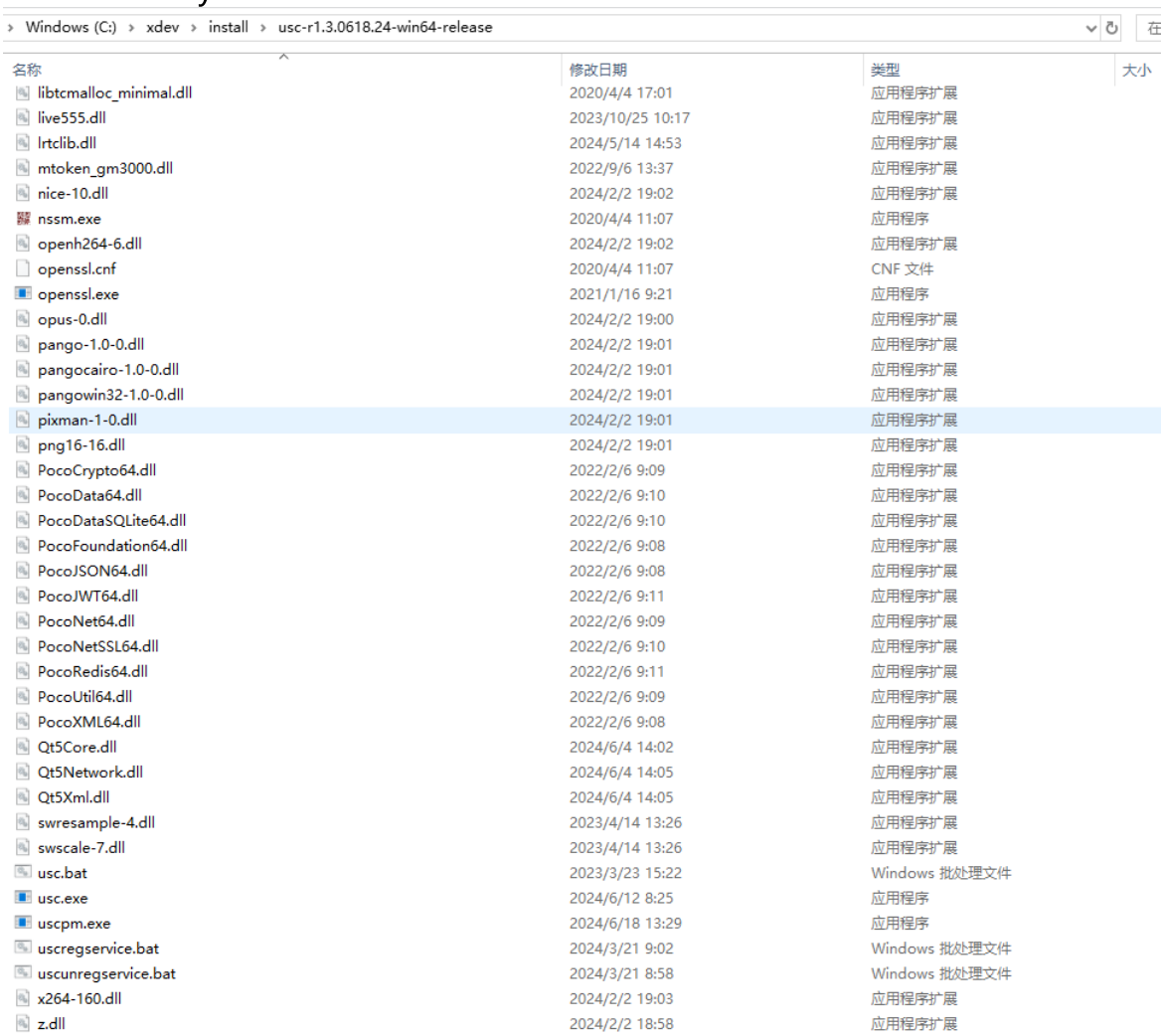
https://answers.microsoft.com/en-us/windows/forum/windows8_1-windows_install/api-ms-win-crt-string-1-1-0dll-and-others-missing/85a91890-ed8a-4e6e-8f94-b53639c39970?auth=1

Run Manually

Unzip the product package and run usc.bat.If you install the Windows installation package, the service will automatically run. If you manually run it again, you need to stop the service. It is recommended to stop the service and run it manually.



› Windows (C:) › xdev › install › usc-r1.3.0618.24-win64-release

名称	修改日期	类型	大小
libtcmalloc_minimal.dll	2020/4/4 17:01	应用程序扩展	
live555.dll	2023/10/25 10:17	应用程序扩展	
lrtclib.dll	2024/5/14 14:53	应用程序扩展	
mtoken_gm3000.dll	2022/9/6 13:37	应用程序扩展	
nice-10.dll	2024/2/2 19:02	应用程序扩展	
nssm.exe	2020/4/4 11:07	应用程序	
openh264-6.dll	2024/2/2 19:02	应用程序扩展	
openssl.cnf	2020/4/4 11:07	CNF 文件	
openssl.exe	2021/1/16 9:21	应用程序	
opus-0.dll	2024/2/2 19:00	应用程序扩展	
pango-1.0-0.dll	2024/2/2 19:01	应用程序扩展	
pangocairo-1.0-0.dll	2024/2/2 19:01	应用程序扩展	
pangowin32-1.0-0.dll	2024/2/2 19:01	应用程序扩展	
pixman-1-0.dll	2024/2/2 19:01	应用程序扩展	
png16-16.dll	2024/2/2 19:01	应用程序扩展	
PocoCrypto64.dll	2022/2/6 9:09	应用程序扩展	
PocoData64.dll	2022/2/6 9:10	应用程序扩展	
PocoDataSQLite64.dll	2022/2/6 9:10	应用程序扩展	
PocoFoundation64.dll	2022/2/6 9:08	应用程序扩展	
PocoJSON64.dll	2022/2/6 9:08	应用程序扩展	
PocoJWT64.dll	2022/2/6 9:11	应用程序扩展	
PocoNet64.dll	2022/2/6 9:09	应用程序扩展	
PocoNetSSL64.dll	2022/2/6 9:10	应用程序扩展	
PocoRedis64.dll	2022/2/6 9:11	应用程序扩展	
PocoUtil64.dll	2022/2/6 9:09	应用程序扩展	
PocoXML64.dll	2022/2/6 9:08	应用程序扩展	
Qt5Core.dll	2024/6/4 14:02	应用程序扩展	
Qt5Network.dll	2024/6/4 14:05	应用程序扩展	
Qt5Xml.dll	2024/6/4 14:05	应用程序扩展	
swresample-4.dll	2023/4/14 13:26	应用程序扩展	
swscale-7.dll	2023/4/14 13:26	应用程序扩展	
usc.bat	2023/3/23 15:22	Windows 批处理文件	
usc.exe	2024/6/12 8:25	应用程序	
uscpm.exe	2024/6/18 13:29	应用程序	
uscregservice.bat	2024/3/21 9:02	Windows 批处理文件	
uscunregservice.bat	2024/3/21 8:58	Windows 批处理文件	
x264-160.dll	2024/2/2 19:03	应用程序扩展	
z.dll	2024/2/2 18:58	应用程序扩展	

Install As A Service To Run

You can directly run uscregservice.bat to install the service or run uscunregservice.bat to cancel the installation of the service. You need to use an administrator to open the cmd command line to run the script.

*You can start and stop services in the service management tool

Control Panel\All Control Panel Items\Administrative Tools

The service name of the USC Security platform is USCSecurity

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4.2 Linux Install

Decompress Install Package

There are soft links inside the Linux package, so it can only be unzipped on a Linux host. It is not supported to unzip on Windows and then upload to Linux.

Manual Running

cd to the product directory and execute the following command to start:

#./usc.sh

If manual stop is required, it is recommended to use the kill command. First, use the ps command to find the corresponding PID:

#ps -ef | grep usc

Then use kill to stop it, where PID is the PID filtered out by ps:

#kill -9 PID

Run As System Service

Copy the release package to /opt/usc. This path cannot be modified because the service script uses an absolute path. You can refer to the following figure:

```
/opt/usc
|-- certificate
|-- conf
|-- devcontroller
|-- devices
|-- etc
|-- genca.sh
|-- genrootca.sh
|-- h5ssext
|-- h5ssmain
|-- installgpudriver.sh
|-- lib
|-- libexec
|-- modules
|-- openssl
|-- openssl.cnf
|-- sbin
|-- services
|-- upgrade
|-- usc
|-- usc.service
|-- usc.service.sh
|-- usc.sh
|-- uscpm
|-- var
`-- www
```

Centos 7/8 Rocky 8/9 Redhat 7/8/9

#cp usc.service /usr/lib/systemd/system/

#systemctl enable usc.service

#systemctl start usc.service

If you upgrade the service, you need to stop the service with systemctl disable usc.service and then cp usc.service again

Ubuntu 18.04/20.04

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#sudo mkdir -p /usr/lib/systemd/system/
#sudo apt install systemd
#sudo cp usc.service /usr/lib/systemd/system/
#sudo systemctl enable usc.service
#sudo systemctl start usc.service

Stop the service command as systemctl stop usc.service

4.3 Linux Performance Improvement

Linux Performance Improvement Configuration

The default parameter configuration of Linux distributions is not very good for supporting high-capacity systems, so it is necessary to modify the parameters to improve performance.

#sudo vi /etc/security/limits.conf

Add the following lines at the end of the file

root soft nofile 655350
root hard nofile 655350
* soft nofile 655350
* hard nofile 655350
* soft nproc 655350
* hard nproc 655350

```
#*                soft    core            0
#*                hard    rss             10000
#@student         hard    nproc           20
#@faculty         soft    nproc           20
#@faculty         hard    nproc           50
#ftp              hard    nproc           0
#@student         -       maxlogins       4
# End of file
root soft nofile 655350
root hard nofile 655350
* soft nofile 655350
* hard nofile 655350
* soft nproc 655350
* hard nproc 655350
~
```

#sudo vi /etc/sysctl.conf

Add the following lines at the end of the file

fs.file-max = 655350
kernel.pid_max = 655350
net.core.rmem_max = 128000000
net.core.somaxconn = 10000
kernel.core_pattern = core.%e

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```
# sysctl settings are defined through files in
# /usr/lib/sysctl.d/, /run/sysctl.d/, and /etc/sysctl.d/.
#
# Vendors settings live in /usr/lib/sysctl.d/.
# To override a whole file, create a new file with the same in
# /etc/sysctl.d/ and put new settings there. To override
# only specific settings, add a file with a lexically later
# name in /etc/sysctl.d/ and put new settings there.
#
# For more information, see sysctl.conf(5) and sysctl.d(5).

fs.file-max = 655350
kernel.pid_max = 655350
net.core.rmem_max = 128000000
net.core.somaxconn = 10000
kernel.core_pattern = core.%e
~
~
~
~
```

#sudo sysctl -p

Linux Performance View

#ulimit -a

open files 和max user processes 为655350

```
core file size          (blocks, -c) unlimited
data seg size           (kbytes, -d) unlimited
scheduling priority             (-e) 0
file size               (blocks, -f) unlimited
pending signals                 (-i) 14950
max locked memory       (kbytes, -l) 64
max memory size         (kbytes, -m) unlimited
open files                      (-n) 655350
pipe size            (512 bytes, -p) 8
POSIX message queues     (bytes, -q) 819200
real-time priority              (-r) 0
stack size              (kbytes, -s) 8192
cpu time               (seconds, -t) unlimited
max user processes              (-u) 655350
virtual memory          (kbytes, -v) unlimited
file locks                      (-x) unlimited
```

#cat /proc/sys/kernel/pid_max

pid_max 为655350

```
[root@localhost user]# cat /proc/sys/kernel/pid_max
655350
```

You can check whether the following variables are the same as those in the configuration file

#cat /proc/sys/net/core/rmem_max

#cat /proc/sys/net/core/somaxconn

4.4 Open The Management Interface

Open The Management Interface

After USC is running normally, you can open the default port 8085 with the latest version of Chrome or Edge. The following interface will appear. If you can see the interface, it means that the operation has been successful.The address is as follows:

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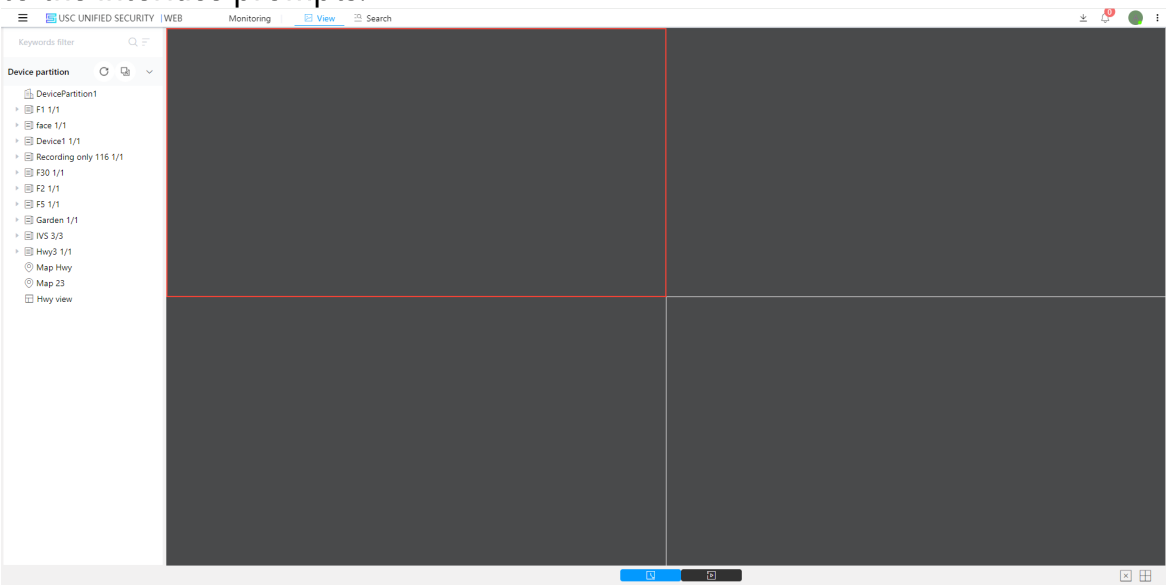
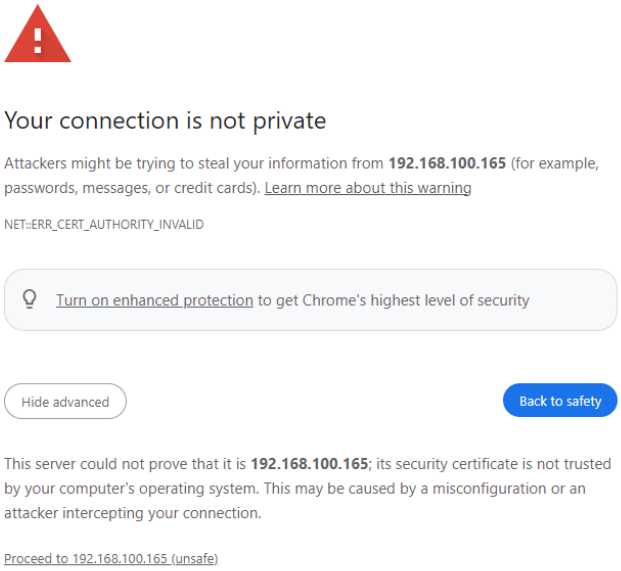
http://192.168.100.121:8085/ Replace 192.168.100.121 with the actual IP address.

The default port for HTTP is 8085, and the default port for HTTPS is 8445.

The default password is Vision@168. If the user logs in for the first time, they are required to change the default password. For password rules, please refer to the interface prompts.



Or use https://192.168.100.121:8445/ to access. If you use HTTPS, you need to click the following advanced button. The main reason is that the default certificate of USC is self-signed.



The login interface allows users to select the desired language:

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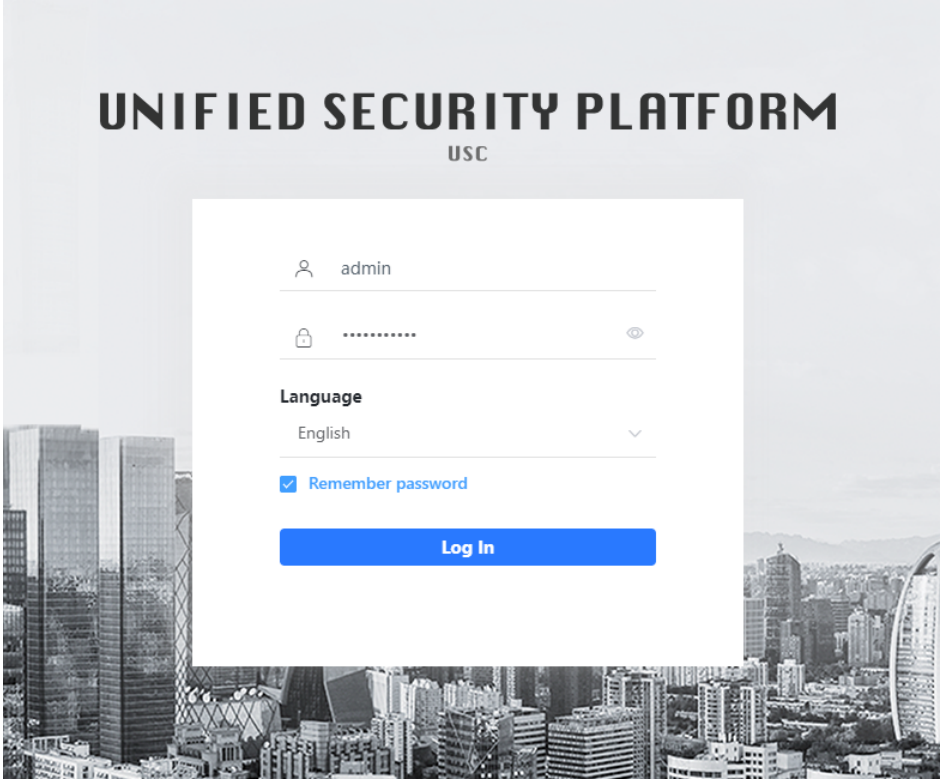
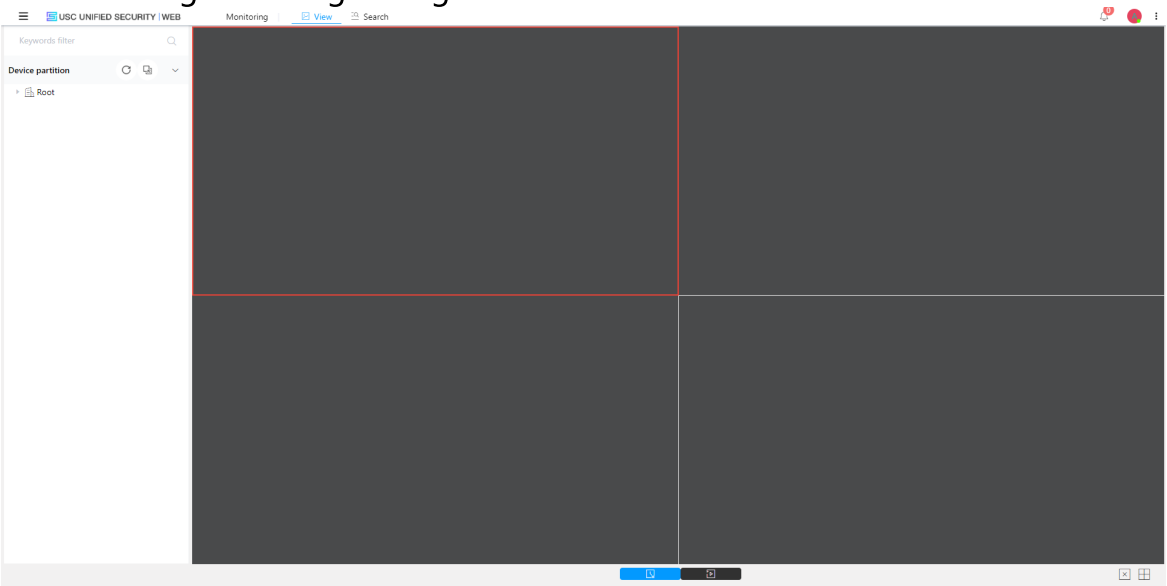


The following is the English login interface:



4.5 Install License

Install License

In the management interface of the web, navigate to **System-》Authorization Management-》Settings-》Copy to obtain the Hostid (host number)**.Then

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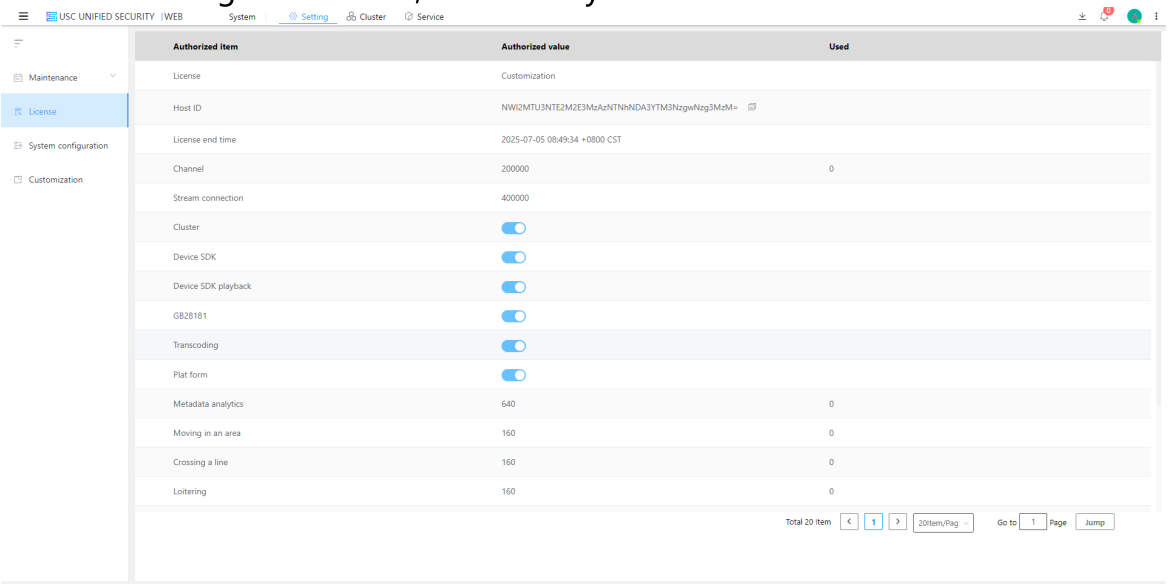
send the Hostid and the note USC to info@linkingvision.com , and after receiving the usc.lic license file, put the usc.lic file under the conf directory, and then restart usc.Please close all virtual network cards and remove all USB network cards when generating Hostid.

If you want to replace the lic file, you need to move or delete the original lic file. Renaming is not supported because USC only recognizes the .lic suffix and supports different authorization file names.

If the original lic file name is inconsistent with the new one, please manually remove the original one first, so that only the new one will take effect.



4.6 Port

Port

The ports used by USC are referenced in the following table:

Name	Port	Protocol	Describe
HTTP	8085	TCP	Management Port
HTTPS	8445	TCP	Encryption management port
WBERTC	50000-54999	TCP	For the port range, the number can be adjusted
TURN	9478	TCP	WEBRTC forwarding mode takes effect
GB SIP	5160	TCP/UDP	TCP/UDP can be configured
GB RTP	55000-55999	UDP/TCP	For the port range, the number can be adjusted

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GB35114 SIP	5164	TCP/UDP	TCP/UDP can be configured
GB35114 RTP	56000-56999	UDP/TCP	For the port range, the number can be adjusted

4.7 N Version Windows Installation

Install Windows Run Support Package

Please download all the runtime support libraries from the following link:

https://linkingvision.com/download/h5stream/win/VisualC%2B%2BRedistributable/

Please install in order, 2008, 2010, 2013, 2015-2019. If there is an installation failure, please update the operating system in the System and Security Check Updates section of the Control Panel.

If Windows 2012 still cannot solve the problem, please refer to the following link or update the operating system at the operating system update section.

https://answers.microsoft.com/en-us/windows/forum/windows8_1-windows_install/api-ms-win-crt-string-1-1-0dll-and-others-missing/85a91890-ed8a-4e6e-8f94-b53639c39970?auth=1

Run Manually

Unzip the product package and run nusc.bat.If you install the Windows installation package, the service will automatically run. If you manually run it again, you need to stop the service. It is recommended to stop the service and run it manually.

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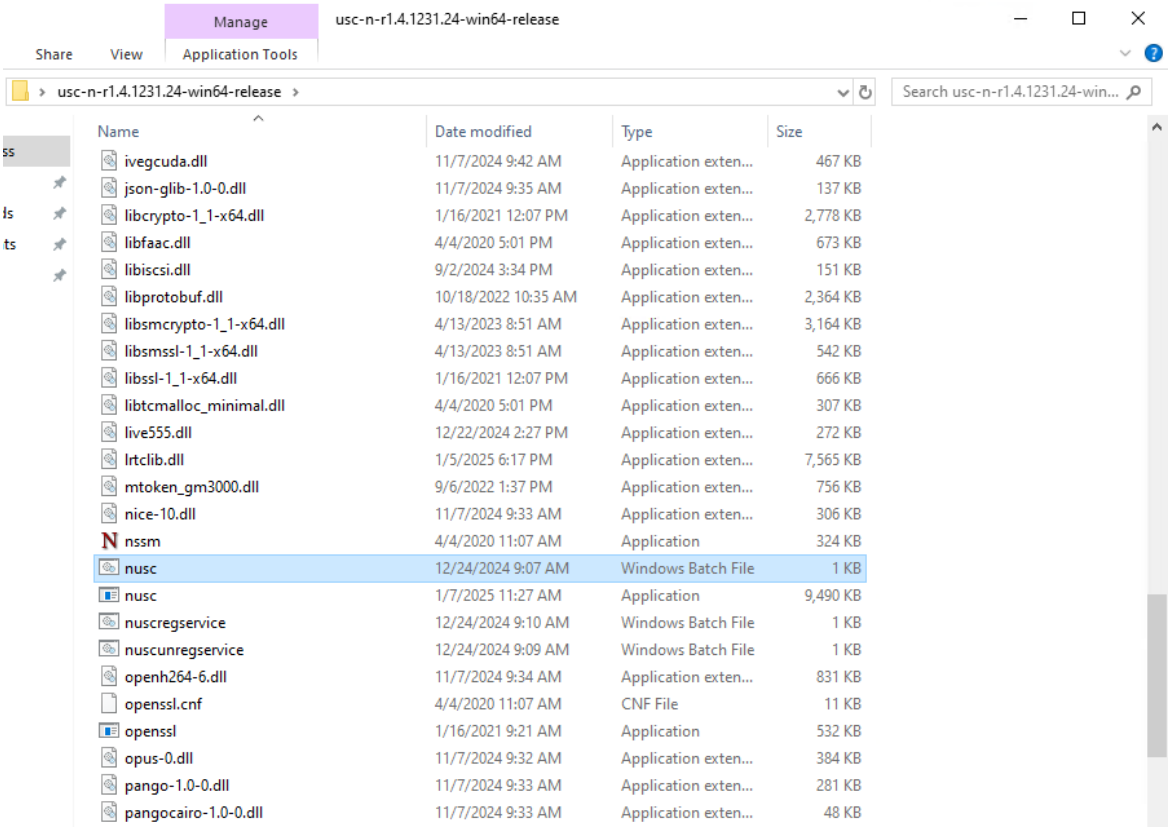

Install As A Service To Run

You can directly run nuscregservice.bat to install the service or run nuscunregservice.bat to cancel the installation of the service. You need to use an administrator to open the cmd command line to run the script.

*You can start and stop services in the service management tool
Control Panel\All Control Panel Items\Administrative Tools
The service name of the USC Security platform is NUSCSecurity

4.8 N Version Linux Installation

Decompress Install Package

There are soft links inside the Linux package, so it can only be unzipped on a Linux host. It is not supported to unzip on Windows and then upload to Linux.

Manual Running

cd to the product directory and execute the following command to start:
#./nusc.sh
If manual stop is required, it is recommended to use the kill command. First, use the ps command to find the corresponding PID:
#ps -ef | grep nusc

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Then use kill to stop it, where PID is the PID filtered out by ps:
#kill -9 PID

Run As System Service

Copy the release package to /opt/nusc. This path cannot be modified because the service script uses an absolute path. You can refer to the following figure:

```
[root@localhost nusc]# pwd
/opt/nusc
[root@localhost nusc]# ll
total 121108
drwxrwxr-x.  2 user user      153 Dec 31 13:30 certificate
drwxrwxr-x.  2 user user       28 Dec 31 13:30 conf
-rwxrwxr-x.  1 user user   548824 Dec 31 13:30 devcontroller
drwxrwxr-x. 12 user user      178 Dec 31 13:30 devices
drwxrwxr-x.  4 user user       34 Dec 31 13:30 doc
drwxrwxr-x.  4 user user       37 Dec 31 13:30 etc
-rwxrwxr-x.  1 user user      829 Dec 31 13:30 genca.sh
-rwxrwxr-x.  1 user user      334 Dec 31 13:30 genrootca.sh
-rwxrwxr-x.  1 user user 50986354 Dec 31 13:30 h5ssext
-rwxrwxr-x.  1 user user 51691016 Dec 31 13:30 h5ssmain
drwxr-xr-x.  9 user user    16384 Dec 31 13:30 lib
drwxrwxr-x.  2 user user       39 Dec 31 13:30 libexec
drwxrwxr-x. 76 user user     4096 Dec 31 13:30 mkspecs
drwxrwxr-x.  8 user user       78 Dec 31 13:30 modules
-rwxrwxr-x.  1 user user  9380799 Dec 31 13:30 nusc
-rw-rw-r--.  1 user user      816 Dec 31 13:30 nusc.service
-rwxrwxr-x.  1 user user     1580 Dec 31 13:30 nusc.service.sh
-rwxrwxr-x.  1 user user      969 Dec 31 13:30 nusc.sh
-rwxr-xr-x.  1 user user   752504 Dec 31 13:30 openssl
-rw-rw-r--.  1 user user    10835 Dec 31 13:30 openssl.cnf
drwxrwxr-x.  7 user user      109 Dec 31 13:30 plugins
drwxrwxr-x.  2 user user       73 Dec 31 13:30 sbin
drwxrwxr-x.  7 user user       67 Dec 31 13:30 services
drwxrwxr-x.  2 user user     4096 Dec 31 13:30 upgrade
-rwxrwxr-x.  1 user user  9380391 Dec 31 13:30 usc
-rwxrwxr-x.  1 user user  1189888 Dec 31 13:30 uscpm
```

Centos 7/8 Rocky 8/9 Redhat 7/8/9

#cp nusc.service /usr/lib/systemd/system/
#systemctl enable nusc.service
#systemctl start nusc.service

If you upgrade the service, you need to stop the service with systemctl disable nusc.service and then cp nusc.service again

Ubuntu 18.04/20.04

#sudo mkdir -p /usr/lib/systemd/system/
#sudo apt install systemd
#sudo cp nusc.service /usr/lib/systemd/system/
#sudo systemctl enable nusc.service
#sudo systemctl start nusc.service

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Stop the service command as systemctl stop nusc.service

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5.Basic Configuration

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5 Basic Configuration

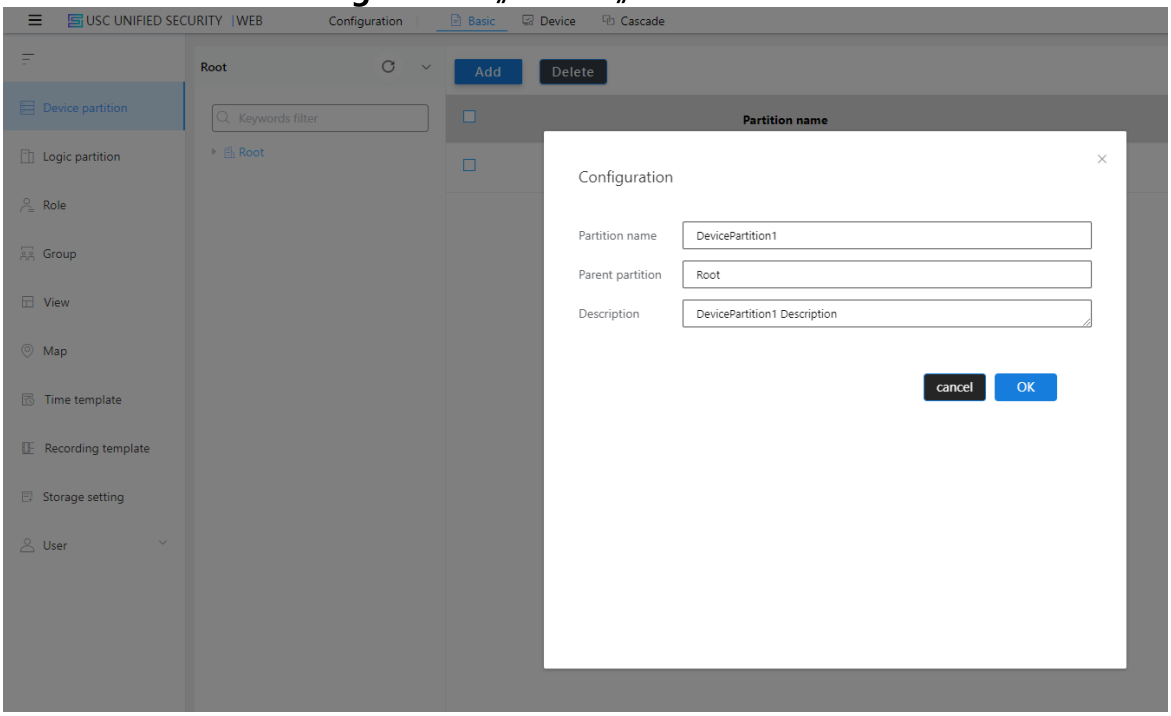
5.1 Device Partitioning

Introduction To Equipment zoning

The system abstracts various system resources into device partitions, including partitions/maps/views/cameras/doors, which users can view and operate in a unified manner.The system also provides logical partition management, allowing users to customize the device organization mode.Users can create multiple levels of partitions as needed, and subsequent configurations can mount the corresponding resources to the corresponding partitions.

Operation Steps

Add and delete in **Configuration-》Basic-》Device Partition**.



1. The first time you add a click on the ***root node***, if you have added it before.You can select the ***device partition*** under the root node

Note

The root node or device partition clicked here is the parent partition of the subsequent device partition.

2. Click the ***Add*** button
3. Customize partition name
4. Custom partition notes

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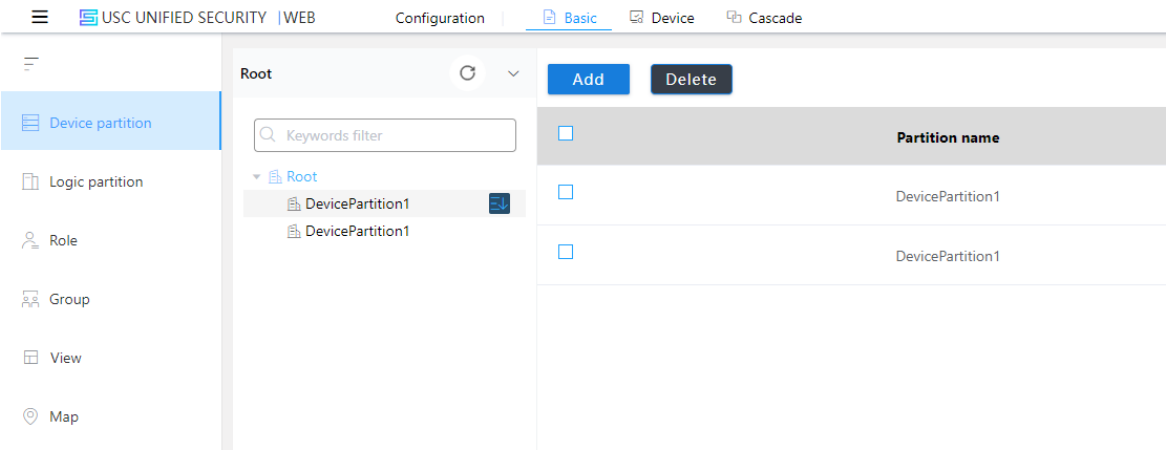
5. Click the up and down arrows to move the partition position, which can achieve sorting function

Caution

If there are sub-partitions under the deleted partition, the sub-partitions will be deleted first.



5.2 Logical Partitioning

Introduction To Logical Partitioning

Logical partitions are a type of partition that can define multiple root nodes, used to reorganize system resources. Logical partitions can mount the same resources as device partitions, but by default, logical partitions do not have root nodes and require the creation of new root nodes.

Operation Steps

Add and delete logical partitions in **Configuration-》Basic-》Logical Partition**.

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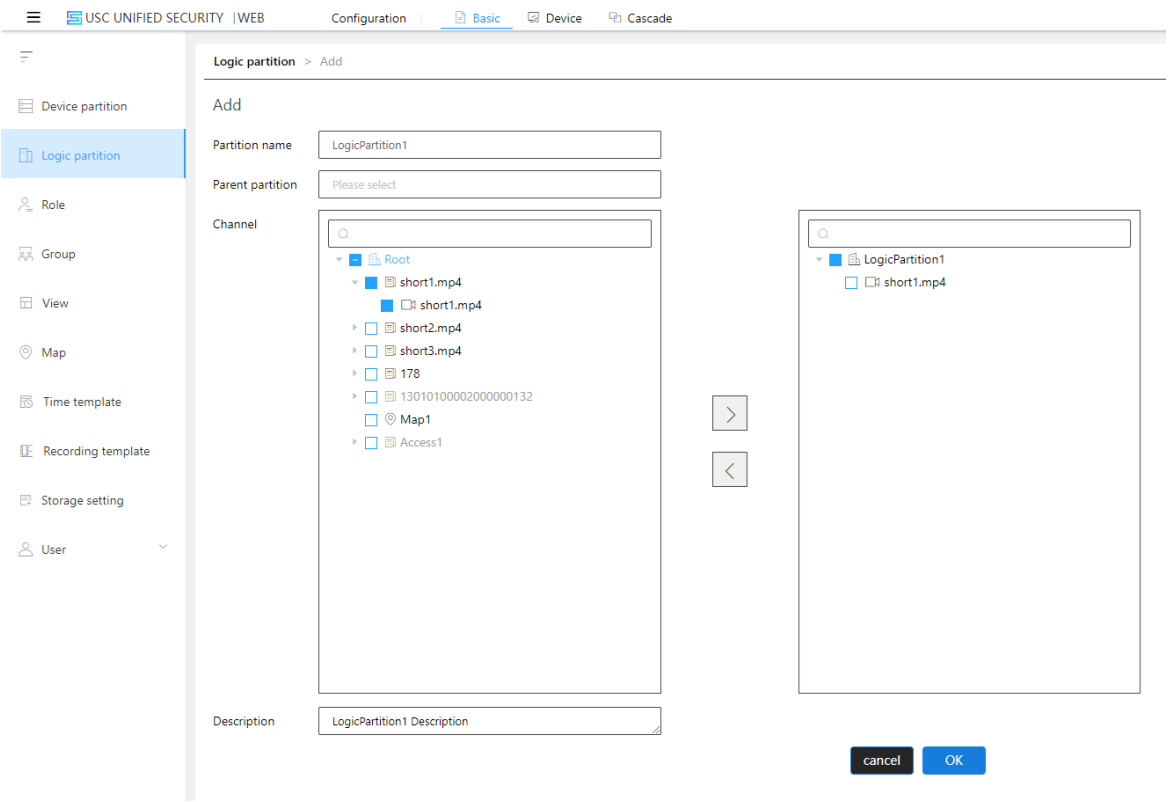

1. Click the ***Add*** button
2. Customize the partition name
3. Select the ***parent partition***

Note

If it is the first time to add a partition, there is no need to select it. By default, there is no parent partition, so the added partition is a root partition;If you do not select a parent partition, you are also adding a root partition. The system allows multiple root logical partitions.

4. Select the channel and click the **>** button to allocate it to the logical partition on the right. To cancel the allocation of the channel, click the **<** button in the same way

Caution

The current version of logical partitioning can only allocate channel resources.

5. Customize notes, which can add notes for the partition

Caution

Editing operation: Editing mainly involves the allocation and cancellation of operation channels.

Delete operation: You can directly delete the parent partition here, which will delete the sub-partitions as well.

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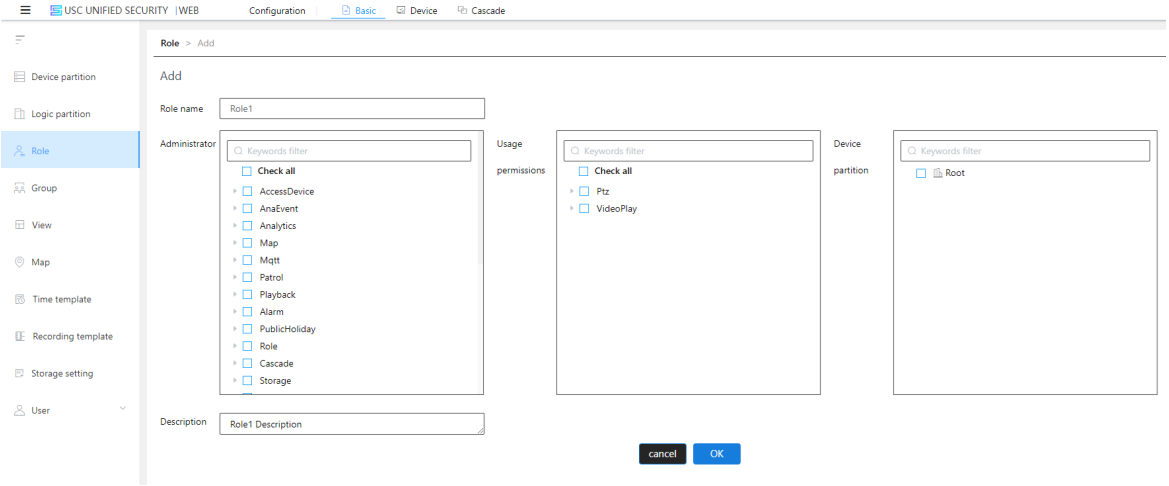
5.3 Role

Role Introduction

The role controls user permissions, assigning management permissions, usage permissions, and device partition permissions to the role for use by platform users.

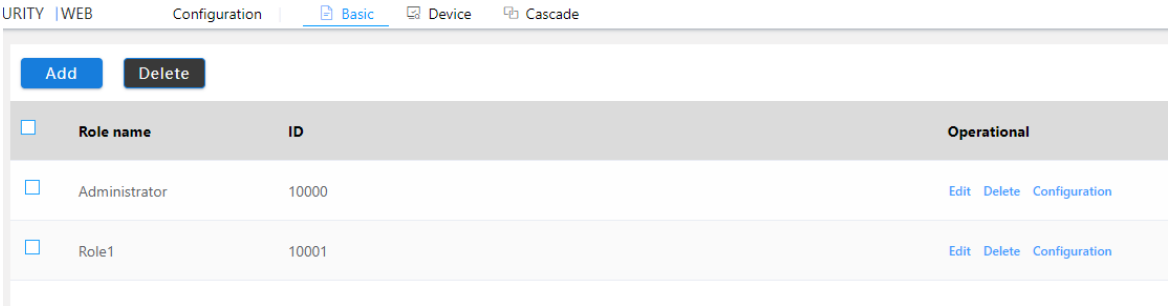
Operation Steps

Add and delete roles in **Configuration-》Basic-》Roles**.



1. Click the ***Add*** button
2. Customize the role name
3. Select management authority (optional operation)
4. Select the usage rights (optional operation)
5. Select device partition (optional operation)
6. Custom Notes

Operation Steps For Modifying Roles



1. Edit: Edit roles, re-assign permissions, and partition devices
2. Delete: delete the role
3. Configuration: Modify role parameters

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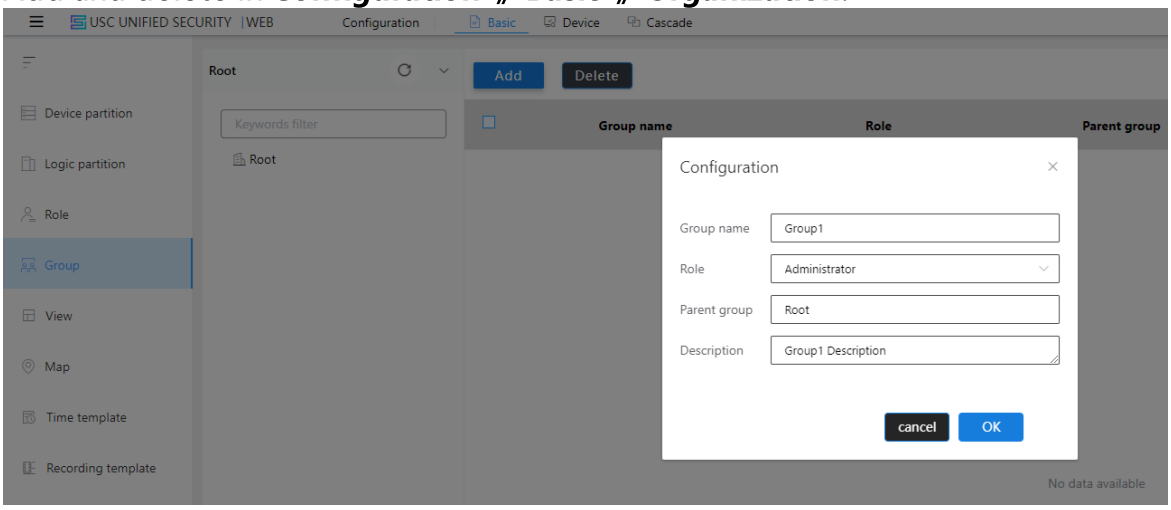
5.4 Group

Group Introduction

An organization is a grouping of users. When a role is assigned to a newly created organization, the users under that organization will inherit the role permissions by default. When a new user is assigned to a corresponding organization, they will also inherit the role permissions of that organization.

Operation Steps

Add and delete in **Configuration-》Basic-》Organization**.



1. Click the ***Add*** button
2. Customize the organization name
3. Select a ***role***
4. Add the default root node for the first time, and you can select other organizations under the root node later
5. Custom notes

Edit: Re-modify the organization

⚠ *Caution*

Delete operation: Only the lowest-level sub-organization can be directly deleted. If the sub-organization to be deleted has a parent, you need to select the parent and then delete the sub-organization below.

5.5 View

View Introduction

The view can play or view various system resources, and can allocate system resources such as cameras/doors/maps to the view for easy subsequent viewing.

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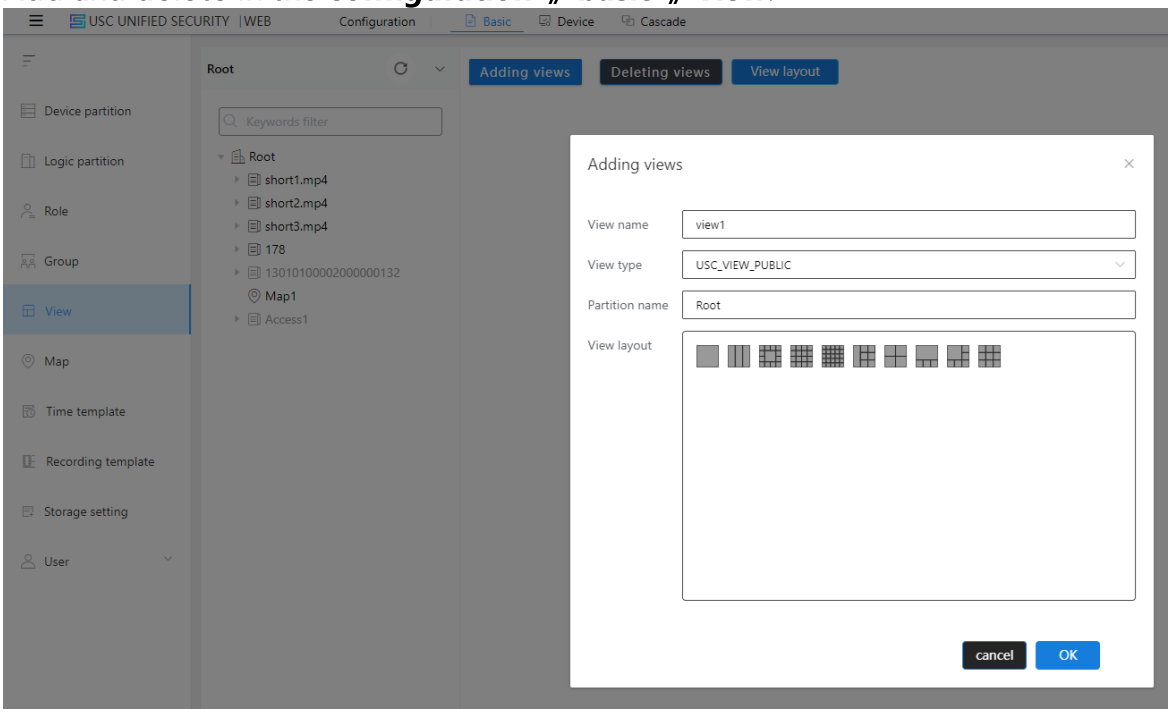
Operation Steps

Add and delete in the **configuration-》basic-》view**.



1. Click ***Add View***
2. Customize the view name
3. Select the view type (USC_VIEW_PUBLIC public, USC_VIEW_PRIVATE private).When selecting the private type, only the user who added the application on the platform can see this view
4. Select to place the view under the corresponding partition
5. Select View Grid
6. After adding a view, click or drag the device and map to the view, and click ***Save***

Note

*Delete view: select the view under the root node on the left, and click **Delete View***

*Edit: select the view under the root node on the left, and click **Edit***

*Save: After adding views and view layouts, to place maps and cameras in the view, you need to click **Save***

View Layout

Click ***View Layout***, click ***View Layout***, click ***New View Layout***, adjust the rows and columns (optional operation), click the ***gap between the grids*** to merge the grids (optional operation), and click the ***Restore Default*** button to restore the default state.

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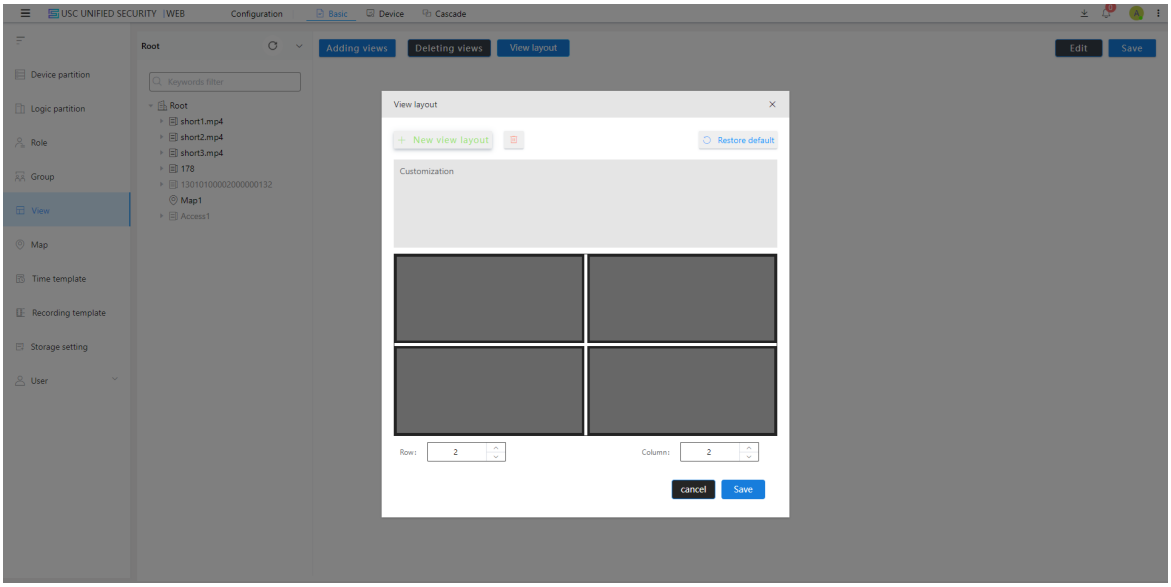
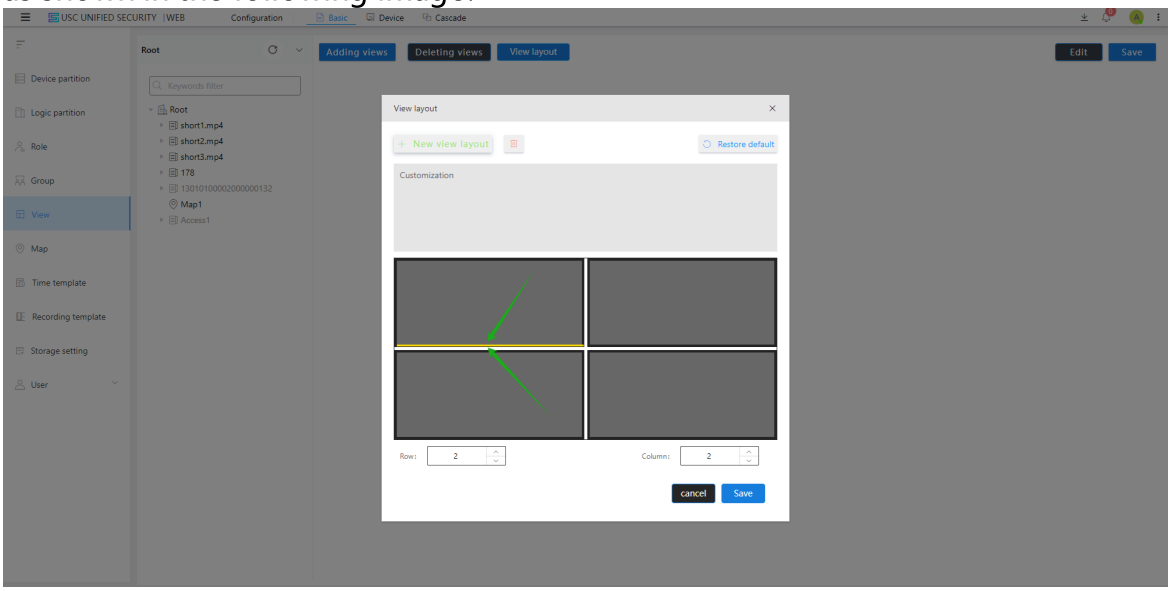


When merging cells, you can click on the adjacent yellow lines to merge them, as shown in the following image:



5.6 Map

Map Introduction

Support the addition of static maps (JPG/PNG), Google Maps, Gaode Maps, Tiandi Maps, and sliced maps.Drag camera/door/view and other system resources onto the map, and click the camera icon on the map to view.

Operation Steps

Add and delete in **Configuration-》Basic-》Map**.

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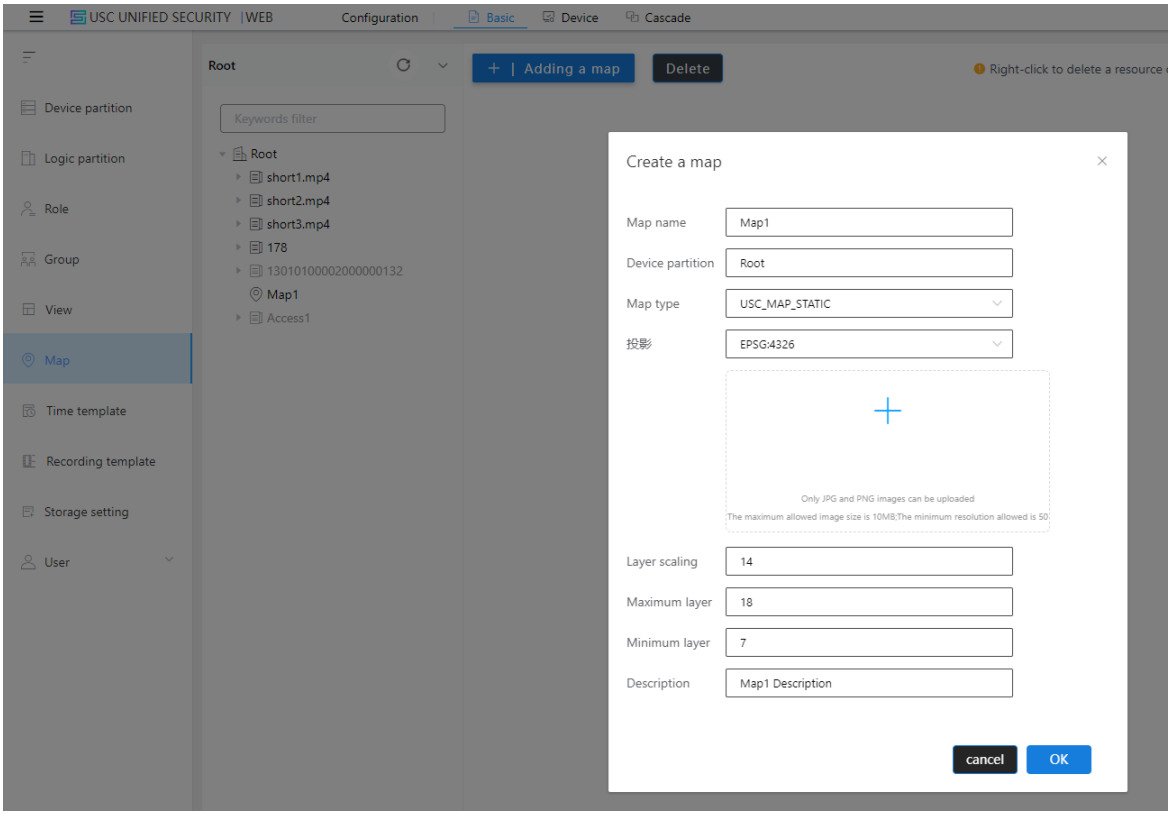

1. Click the ***Add*** Map button
2. Select ***Device Partition***
3. Select the map type USC_MAP_STATIC static map JPG\PNG format, USC_MAP_GOOGLE Google map, USC_MAP_GAO_DE Gaode map, USC_MAP_TIAN Tiandi map, USC_MAP_TILE tile map
4. Select the projection EPSG:4326, EPSG:3857, EPSG:4490, EPSG:4214, EPSG:4610
5. Enter the url of Gaode, Google, Tiandi, and tile maps
6. Use default or custom settings for longitude, latitude, layer zoom, maximum layer, and minimum layer
7. Custom notes
8. After adding a map, you can drag another map to create a jump between maps, and you can also drag views, cameras, and doors in.You can view it in the View menu.

Note

*Edit map: Select the map under the root node and click the **Edit Map** button*
*Clear the map: Select the map under the root node and click the **Clear** button*
*Delete map: select the map under the root node and click the **Delete** button*

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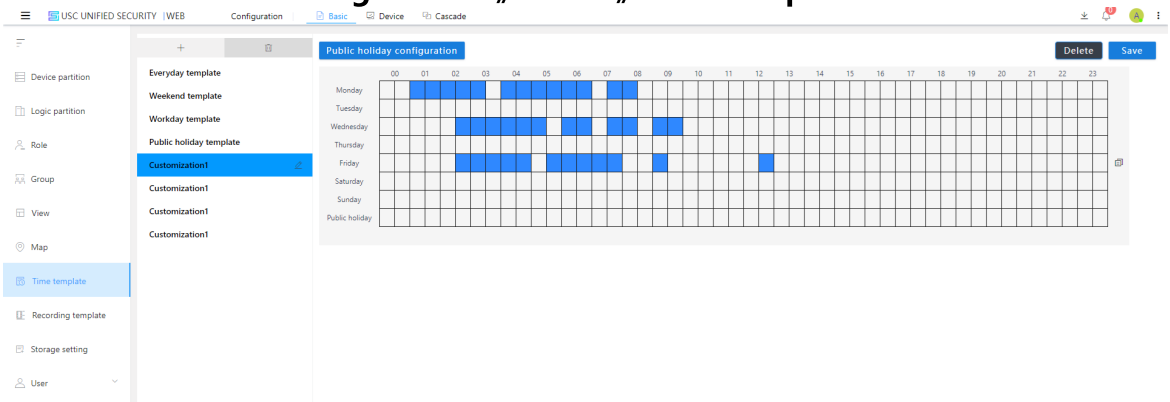
5.7 Time Template

Introduction To Time Template

The customizable template specifies which days of the week the cameras on the platform should be turned on and which days they should not be turned on.and which time periods of the day to record videos.Alternatively, you can use the default video template provided by the platform. Once the camera on the platform is activated for recording, it will record according to the specified template.

Operation Steps

Add and delete in **Configuration-》Basic-》Plan Template**.



1. Click the ***Add*** button
2. Select the added custom template
3. Click or click and drag the mouse to select the table
4. Click ***Save***

Delete：

1. Select the template
2. Click the ***Delete*** button

⚠ *Caution*

If there is an error in the drawing operation in the table and it needs to be redrawn, simply switch pages or refresh the page. This can be done before saving.

5.8 Storage setting

5.8.1 Recording template

Recording Introduction

Configure continuous recording, motion detection recording, object detection recording, and motion+object detection recording for the main and auxiliary streams of the camera. And different types of continuous recording,

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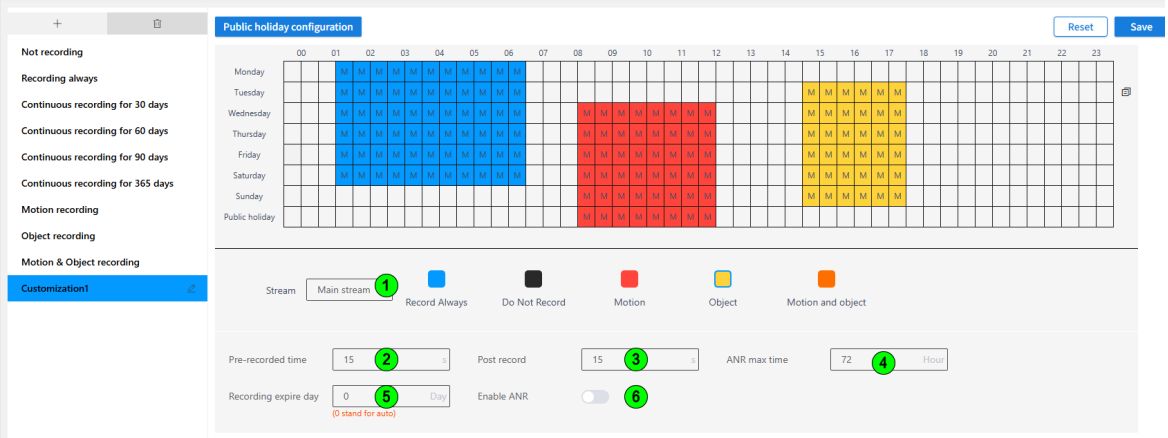
non recording, motion detection, object detection, motion and object detection.

Operation Steps

Edit in **Configuration-》Basic-》Storage setting-》Recording template.**



Number	Name	Function
1	Stream	Camera stream (main stream/M, auxiliary stream/S)
2	Pre-recorded time	Plan time unit: seconds
3	Post record	Recording delay unit in seconds
4	ANR max time	Video retention time unit: days
5	Recording expire day	Maximum time unit for network interruption and transmission renewal: hour
6	Enable ANR	Do you want to enable network disconnection and continue transmission

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5.8.2 Snapshot Plan

Operation Steps

Edit in **Configuration-》Basic-》Storage setting-》Snapshot Plan.**

Number	Name	Function
1	Stream	Camera stream (main stream/M, auxiliary stream/S)
2	Snapshot delay	Capture delay time unit in seconds (0 indicates automatic)
3	Resolution	640x320, 720x576, 1280x720, 1920x1080, 0x0 represent automatic
4	Image quality	high, medium, low
5	Snapshot time interval	Capture interval time unit: seconds
6	Snapshot expire day	Capture retention time in days (0 indicates automatic)

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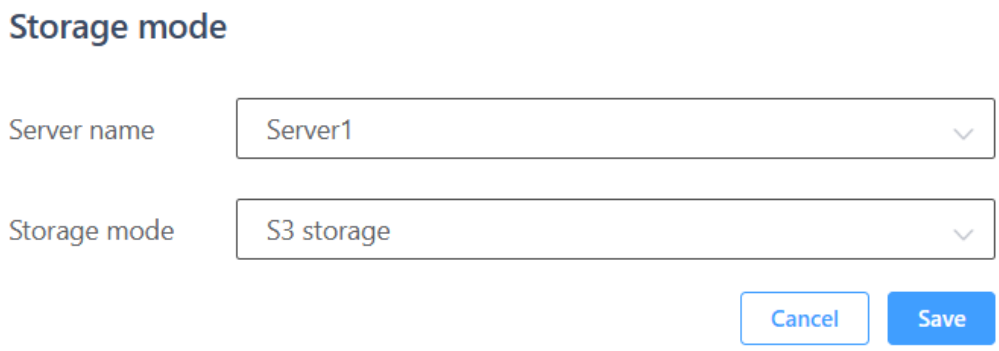
5.8.3 Storage mode

Operation Steps

Edit in **Configuration-》Basic-》Storage setting-》Storage mode.**



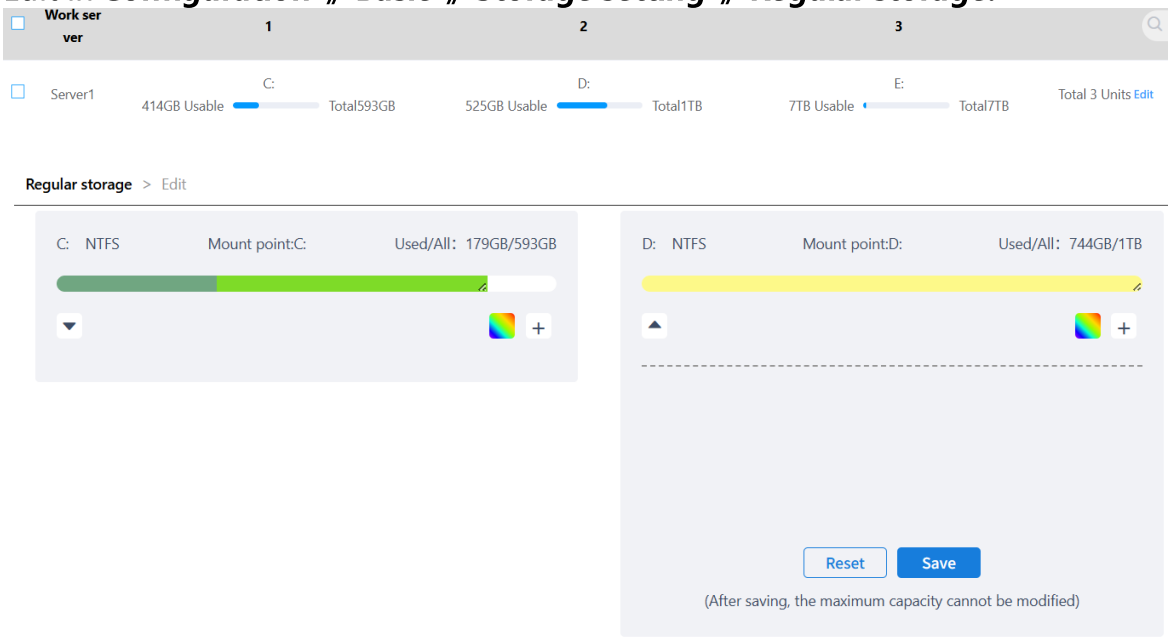
5.8.4 Regular storage

Regular storage Introduction

Create a space on the server's disk to store videos on the platform. Multiple spaces can be created on the same disk. It is recommended to create only one space per disk for easy management.

Operation Steps

Edit in **Configuration-》Basic-》Storage setting-》Regular storage.**



1. Click the + button
2. Drag the color bar left and right to determine the size of the recording partition
3. Click on the color block to determine the color of the color bar

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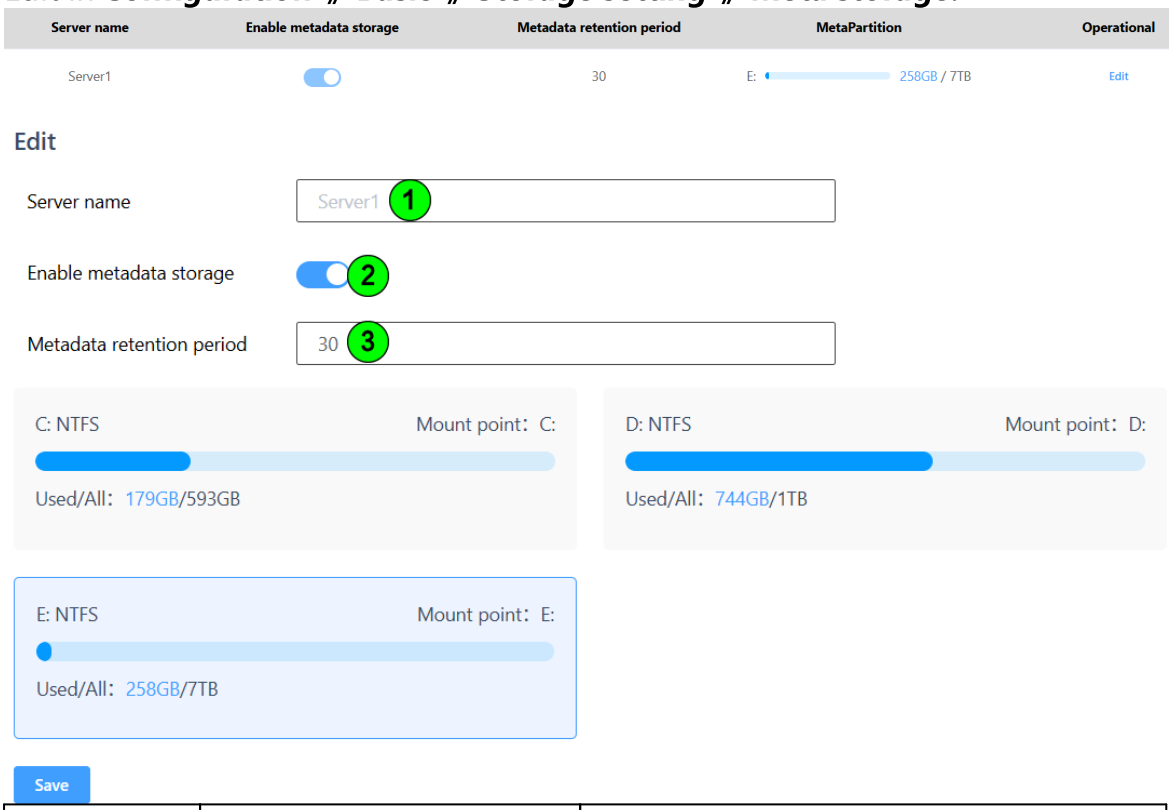
4. Click the save button
Delete video partition:
1. Click the down button,
2. Click on the red button

5.8.5 Meta storage

Operation Steps

Edit in **Configuration-》Basic-》Storage setting-》Meta storage.**



Number	Name	Function
1	Server name	Select server
2	Enable metadata storage	Whether to enable metadata storage
3	Metadata retention period	Metadata retention days

5.8.6 Image storage

Operation Steps

Edit in **Configuration-》Basic-》Storage setting-》Image storage.**

Number	Name	Function

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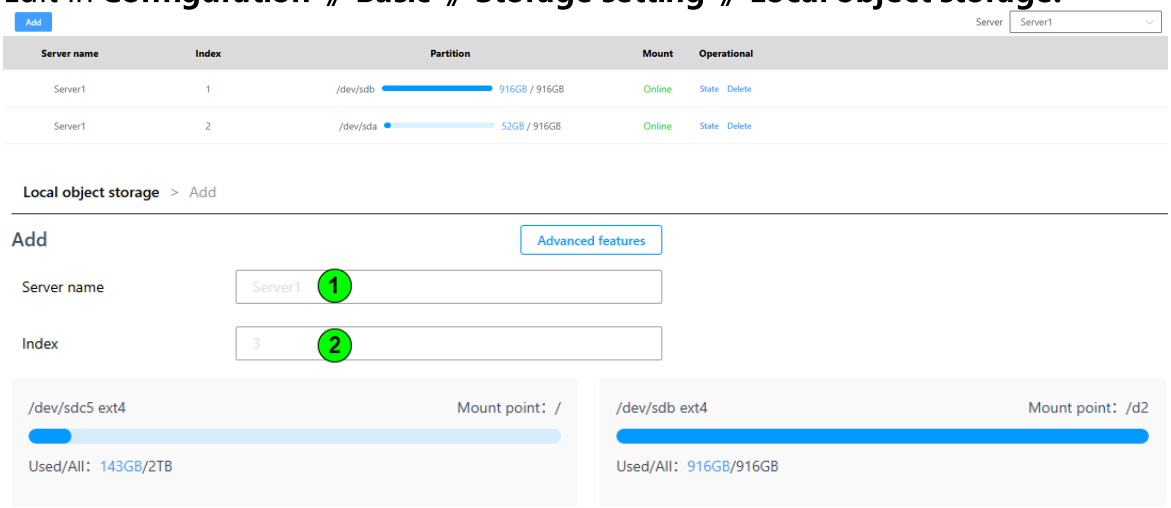
1	Server name	Select server

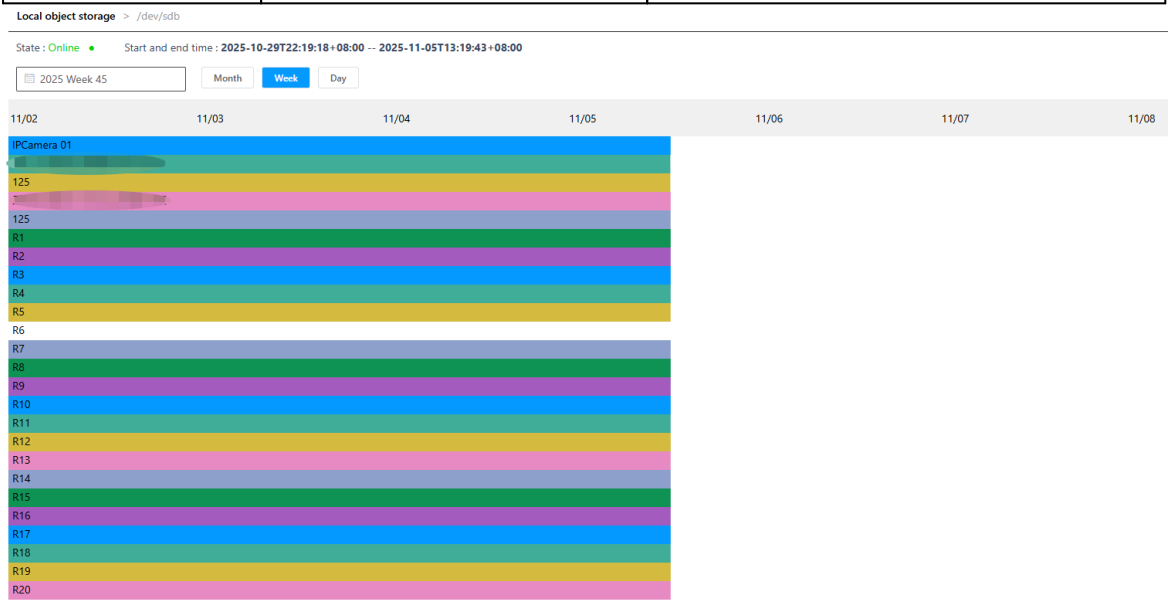
5.8.7 Local object storage

Operation Steps

Edit in **Configuration-》Basic-》Storage setting-》Local object storage.**



Number	Name	Function
1	Server name	Select server
2	Index	



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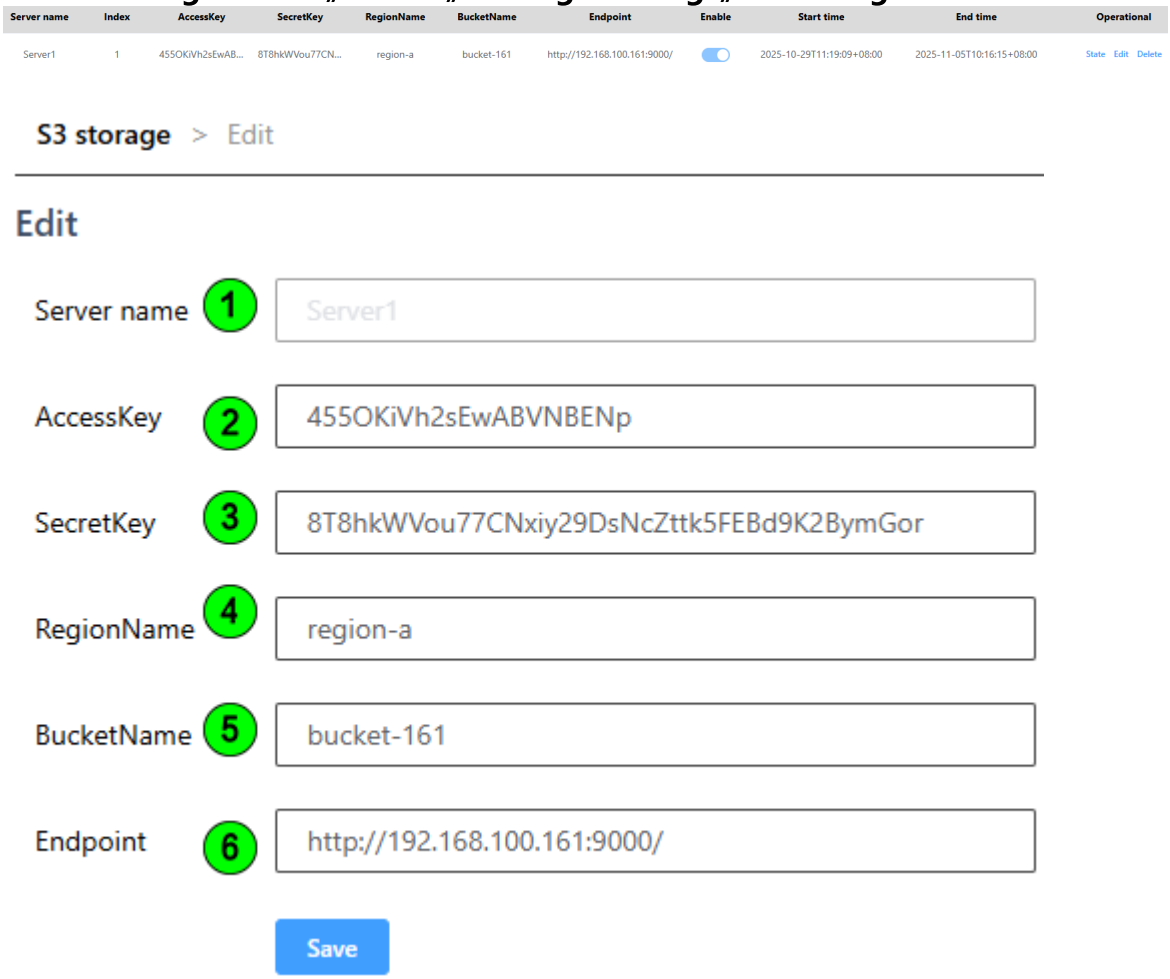
5.8.8 S3 storage

Operation Steps

Edit in **Configuration-》Basic-》Storage setting-》S3 storage.**



Number	Name	Function
1	Server name	Select server
2	AccessKey	
3	SecretKey	
4	RegionName	
5	BucketName	
6	Endpoint	

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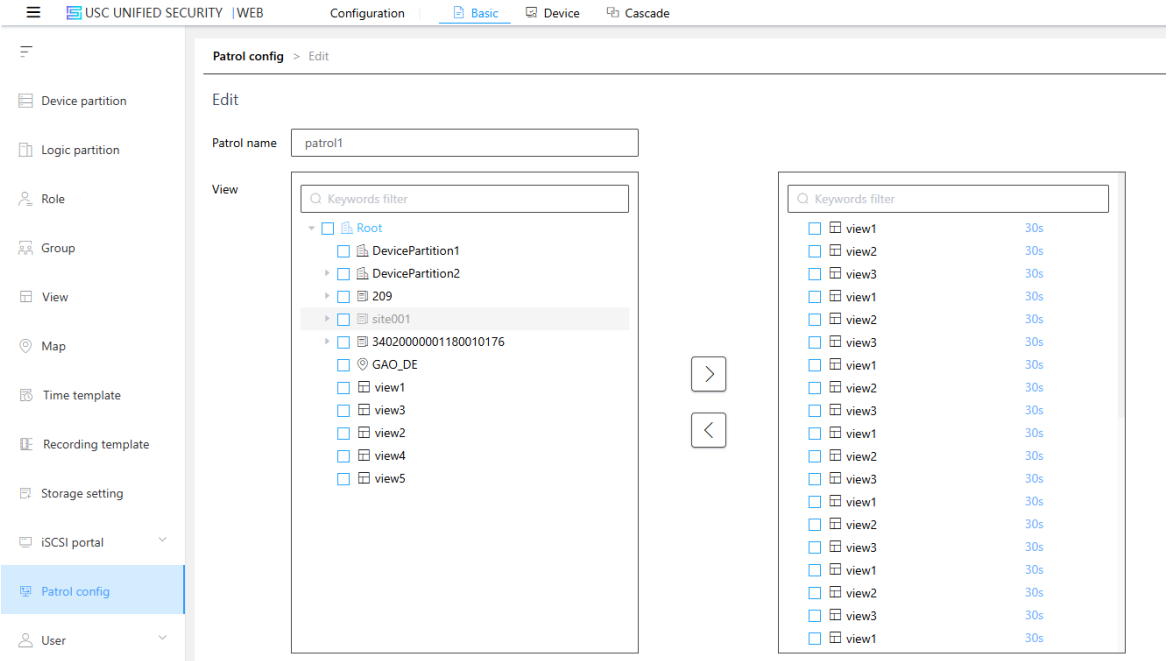
5.9 Patrol Config

Patrol Config

In View-》 **Bottom left corner of the page**, assign multiple views to a patrol configuration. Select a patrol configuration and the views within it will be patrolled one by one.

1. Click ***Add*** button
2. Customize the name of the patrol
3. Select the view to be patrolled
4. Click > button
5. Adjust the patrol time for each view (optional operation)
   Adjust the position of each view up and down (optional operation)
6. Click ***OK*** button
7. Switch to the view page and select the newly created patrol configuration in the lower left corner
8. Click the blue play button to start the patrol



The buttons are arranged from left to right, with loop playback, previous view, play, pause, next view, and close patrol.

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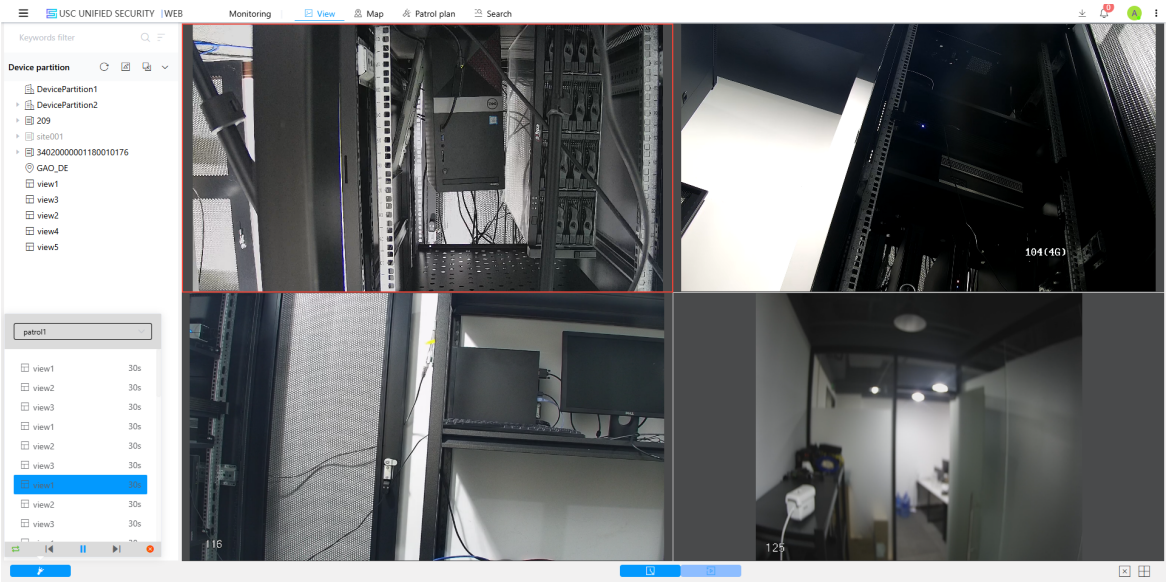


5.10 User

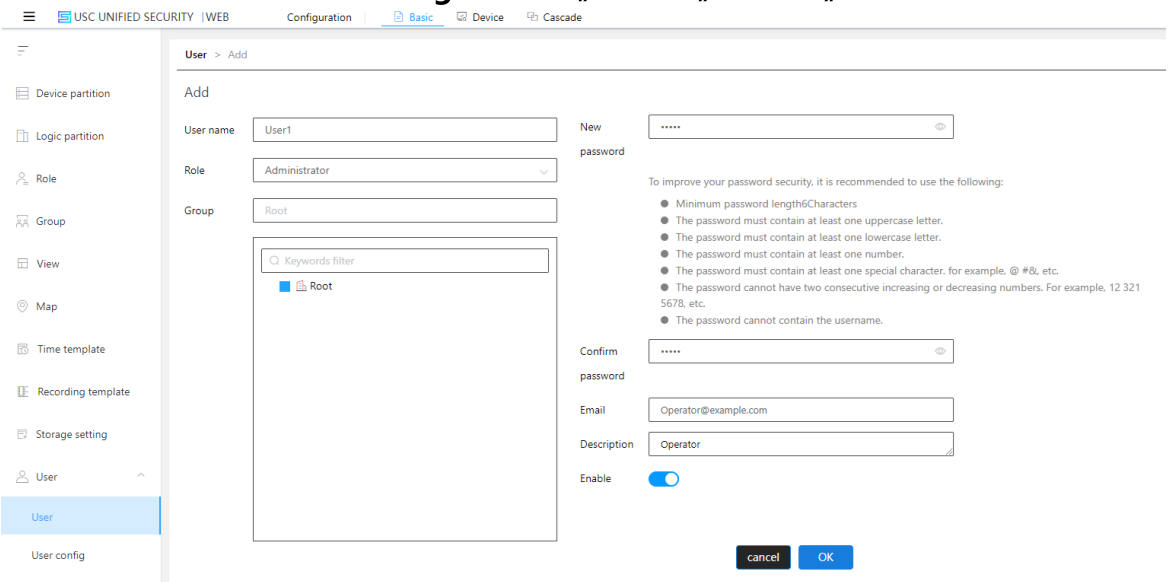
User Introduction

Add, delete, and modify user passwords.And adjust some user configurations, which only take effect on the client side.

5.10.1 User

Operation Steps

Add and delete users in **Configuration-》Basic-》Users-》Users**.



1. Click ***Add*** User
2. Customize Username

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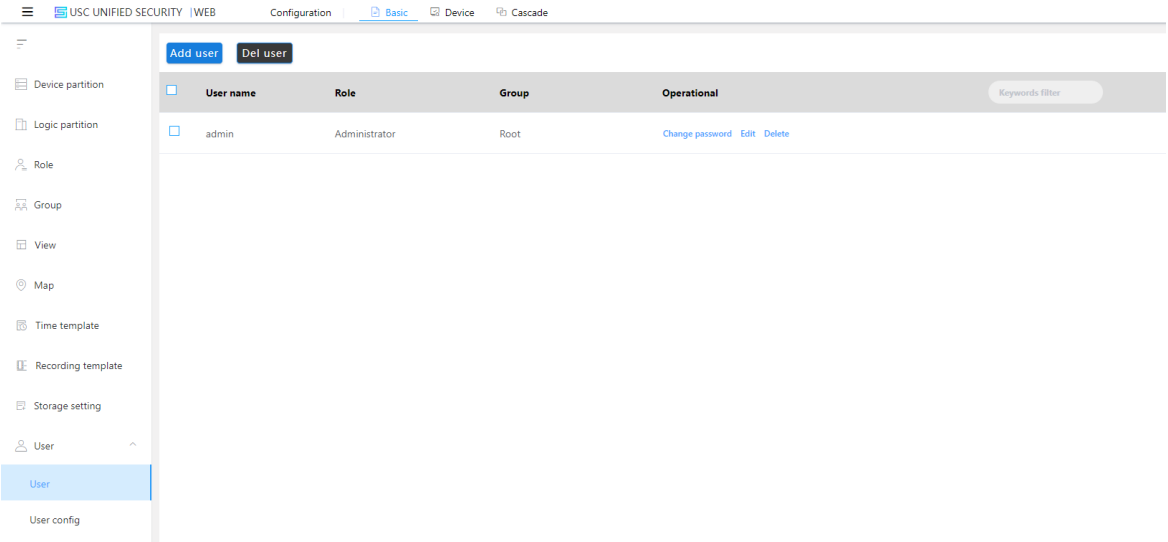
3. Select a role
4. Select organization
5. Enter password
6. Re-enter the confirmation password
7. Enter Email
8. Custom Notes

Change Password:

1. Click ***Change Password***
2. Change the user password



Editor:

1. Click ***Edit***
2. Edit user information

Delete:

1. Select User
2. Click on ***Delete User*** or directly click on ***Delete***

⚠ *Caution*

The user name cannot be repeated, otherwise the addition will fail.

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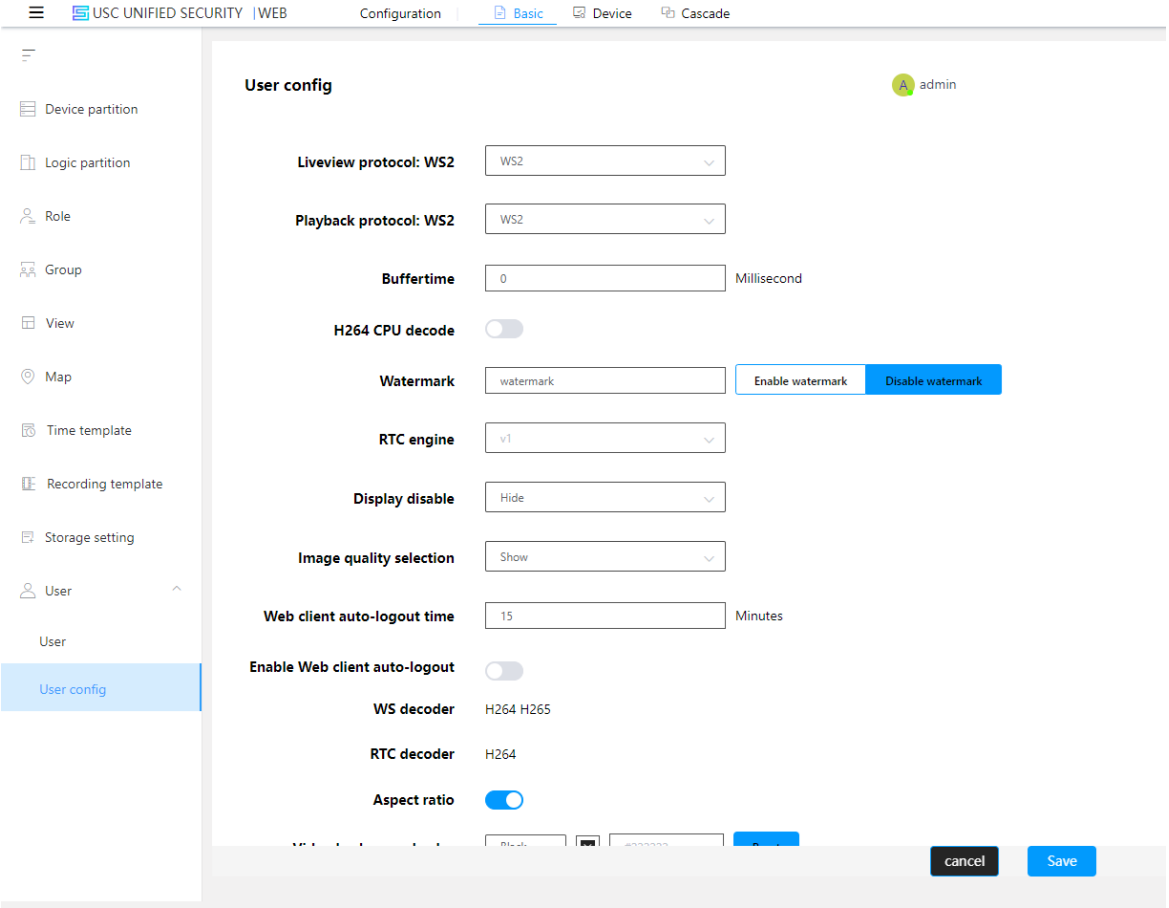
5.10.2 User config

Operation Steps

Add and delete in **Configuration-》Basic-》User-》User Configuration**.



Configuration	Explain
Liveview protocol	
Playback Protocol	
Buffertime	
H264 CPU decode	
Watermark	
PTC engine	
Display disable	
Image quality selection	
Web client auto-logout time	

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Enable Web client auto-logout	

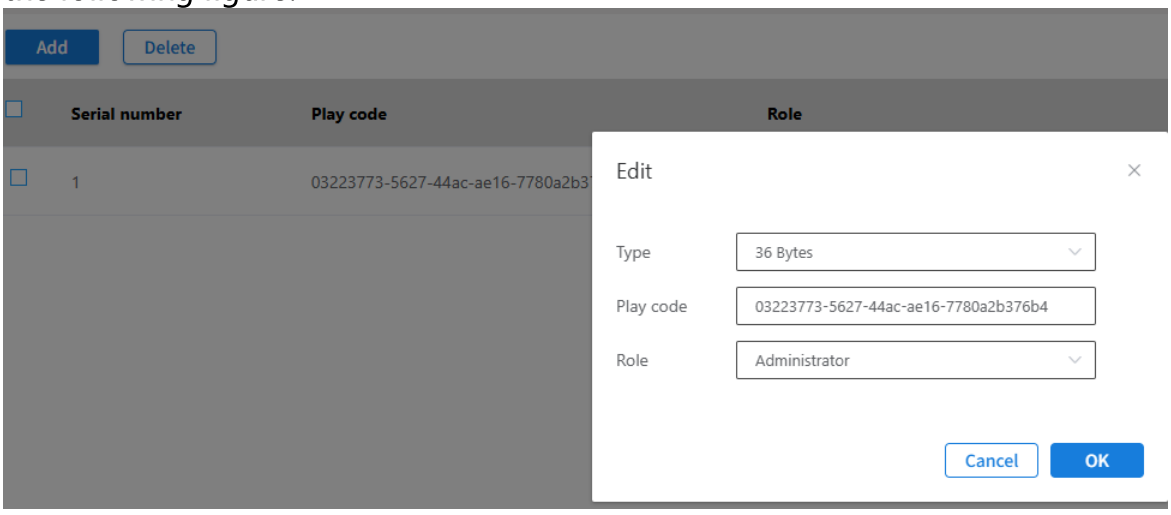
5.10.3 Play code

Play code Introduction

Playcodes can be used to replace session playback of videos, and playcodes can be considered as fixed sessions.

Operation Steps

Edit in **Configuration-》Basic-》User-》Play code** Add and Delete Playcode. You can specify the permissions for the playcode. The playcode has 4-digit and 36 bit modes, which can be selected according to your needs. Please refer to the following figure:



5.11 Joystick

Joystick Introduction

Calibrate the sensitivity of the joystick and button configuration joystick.

Operation Steps

Edit and calibrate in **Configuration-》Basic-》Joystick**.

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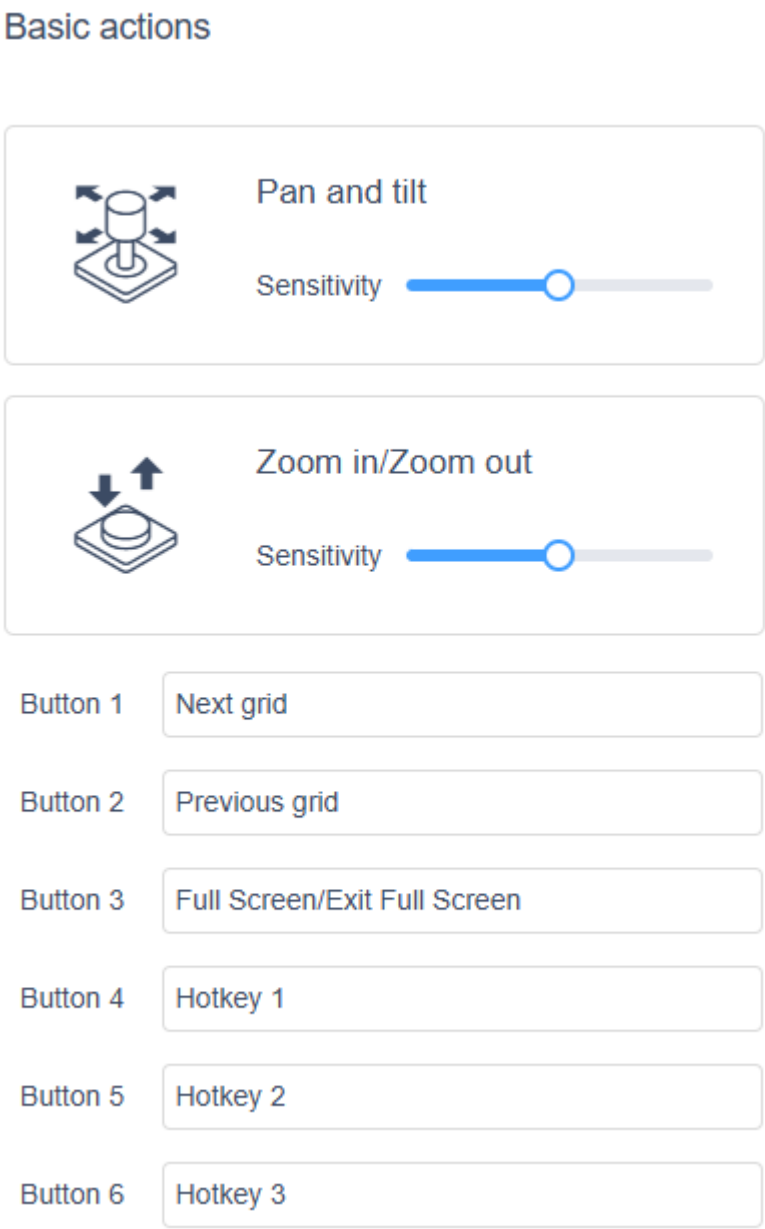

1. Calibration
2. Pressing the corresponding button on the joystick button page will flash
3. Edit sensitivity
4. Sliding sensitivity slider

5.12 Rules and Events

5.12.1 Rule configuration

Operation Steps

Go to **Configuration-》Basic-》Rules and Events-》Rule Configuration-》Add.**

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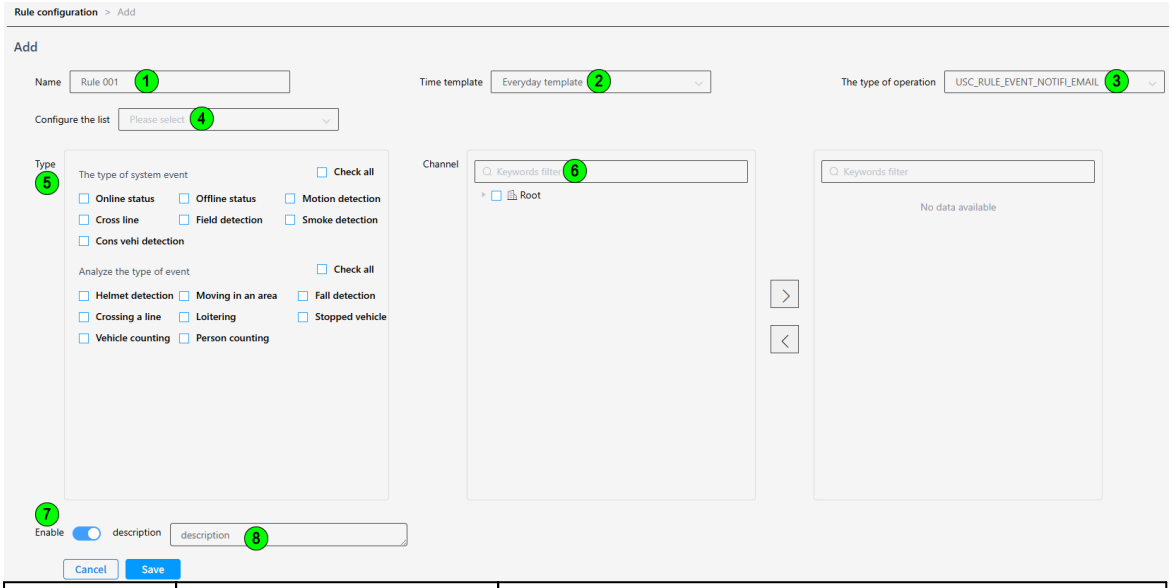

Number	Name	Function
1	Name	Name
2	Time template	Time template
3	The type of operation	Operation Type
4	Configure the list	List after selecting the operation type
5	Type	Type of triggering event
6	Channel	Channel for triggering events
7	Enable	Enable or not
8	description	description

5.12.2 Send notification configuration

5.12.2.1 Email configuration

Operation Steps

Go to **Configuration-》Basic-》Rules and Events-》Send notification configuration-》Email configuration-》Add.**

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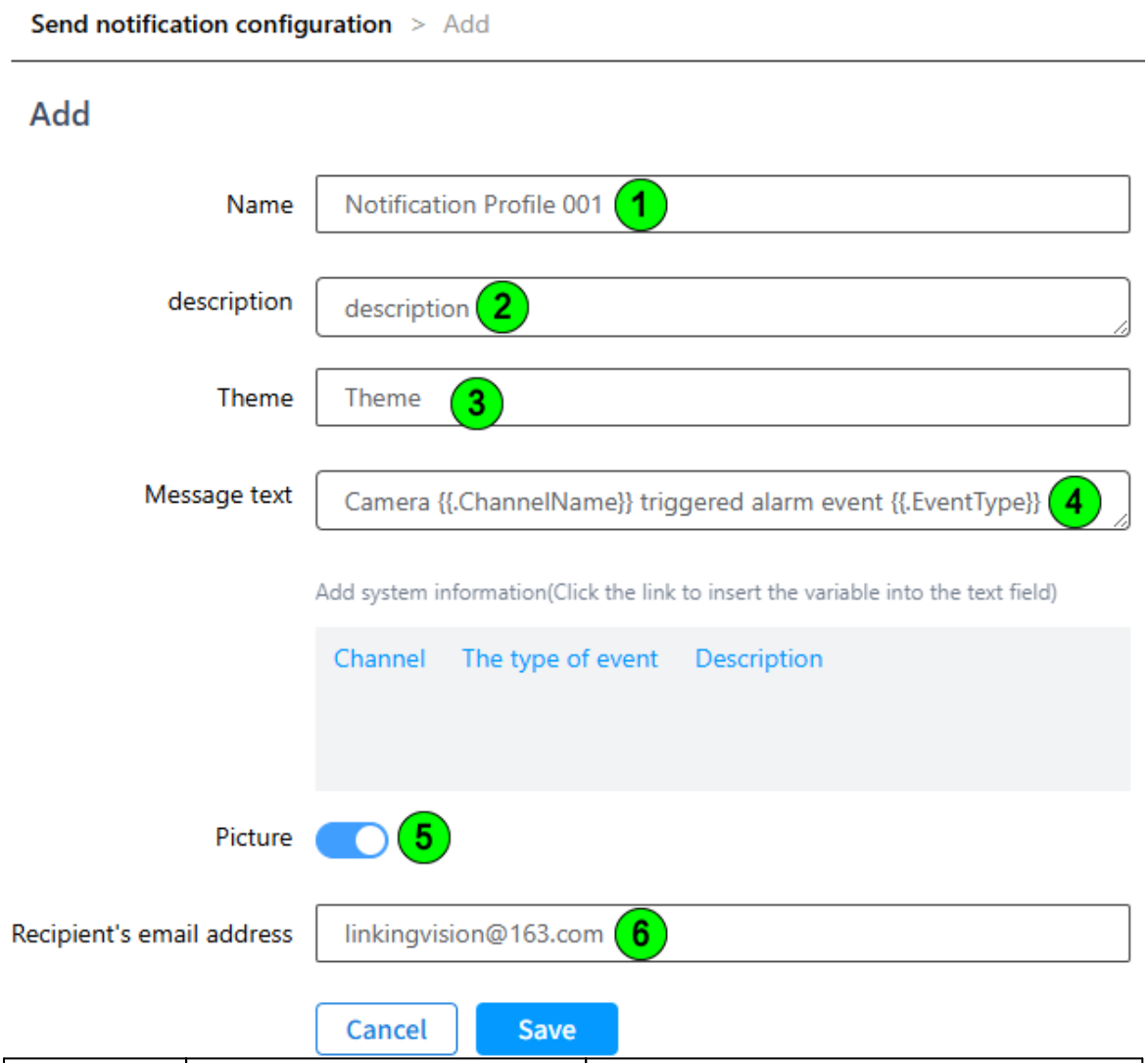

Number	Name	Function
1	Name	Name
2	description	description
3	Theme	Subject of the email
4	Message text	Email message
5	Picture	Attachment image of email
6	Recipient's email address	Recipient's address

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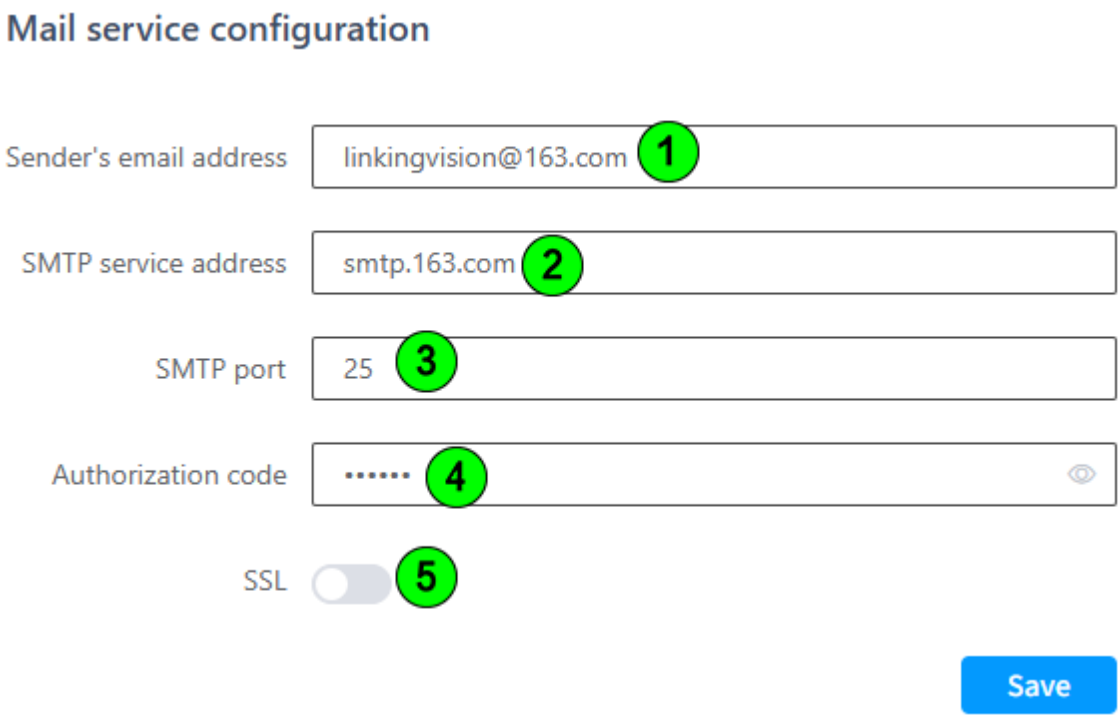
5.12.3 Mail service configuration

Mail service configuration

Go to **Configuration-》Basic-》Rules and Events-》Mail service configuration**



Number	Name	Function
1	Sender's email address	Sender's email address
2	SMTP service address	SMTP service address
3	SMTP port	SMTP port
4	Authorization code	Authorization code
5	SSL	Whether to enable SSL

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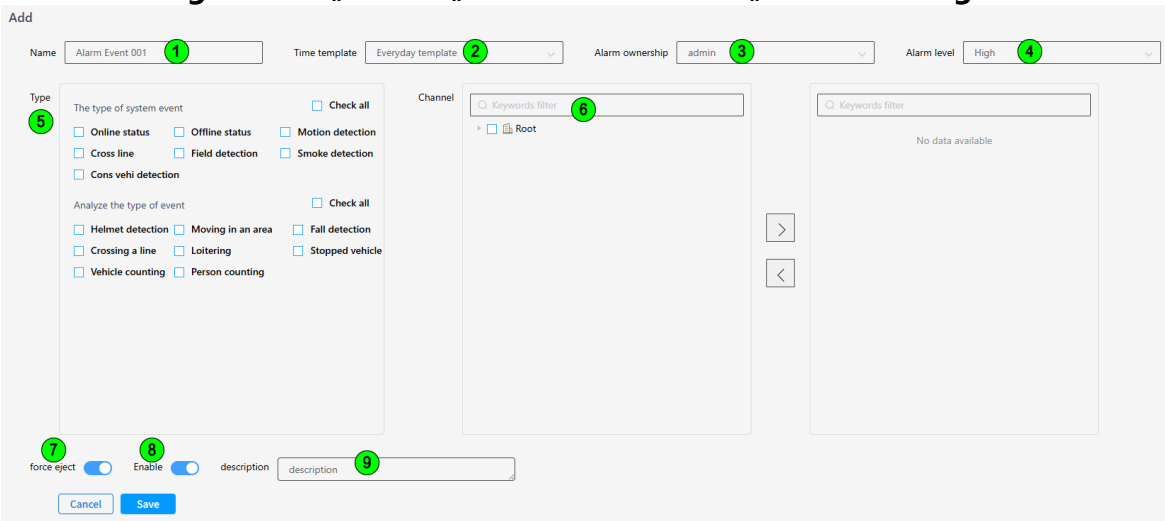
5.13 Alarm configuration

Operation Steps

Go to **Configuration-》Basic-》Rules and Events-》Alarm configuration**



Number	Name	Description
1	Name	Name
2	Time template	Time template
3	Alarm ownership	Alarm ownership
4	Alarm level	Alarm level
5	Type	Type of alarm trigger
6	Channel	Channel of alarm trigger
7	force eject	Whether to force pop up the alarm when the alarm is triggered
8	Enable	Whether to enable
9	description	description

If forced pop-up is enabled, an alarm pop-up will appear on any page whenever an alarm is triggered.

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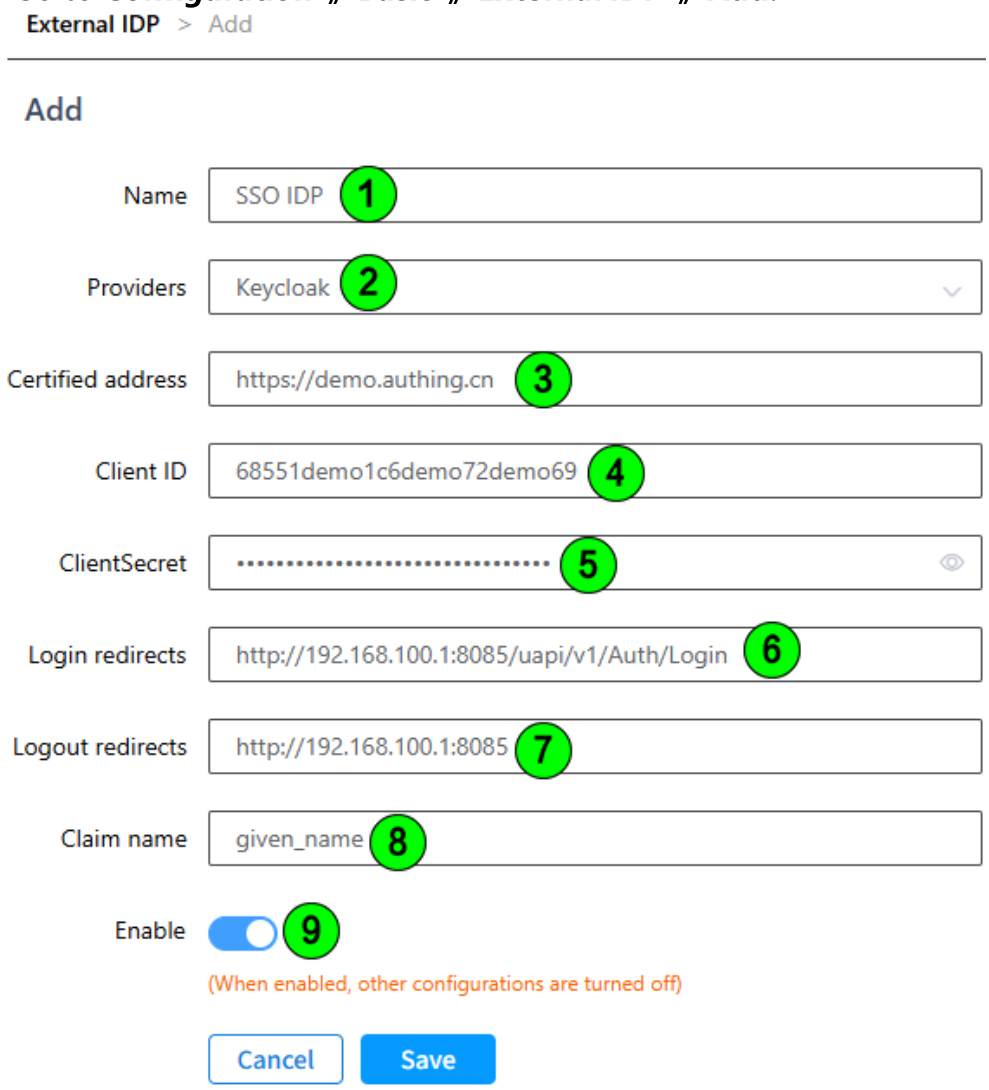
5.14 External IDP

Operation Steps

Go to **Configuration-》Basic-》External IDP-》Add.**



Number	Name	Description
1	Name	Name
2	Providers	keycloak、authing、okta
3	Certified address	Basic authentication address for login
4	Client ID	Application ID
5	ClientSecret	Application Secret

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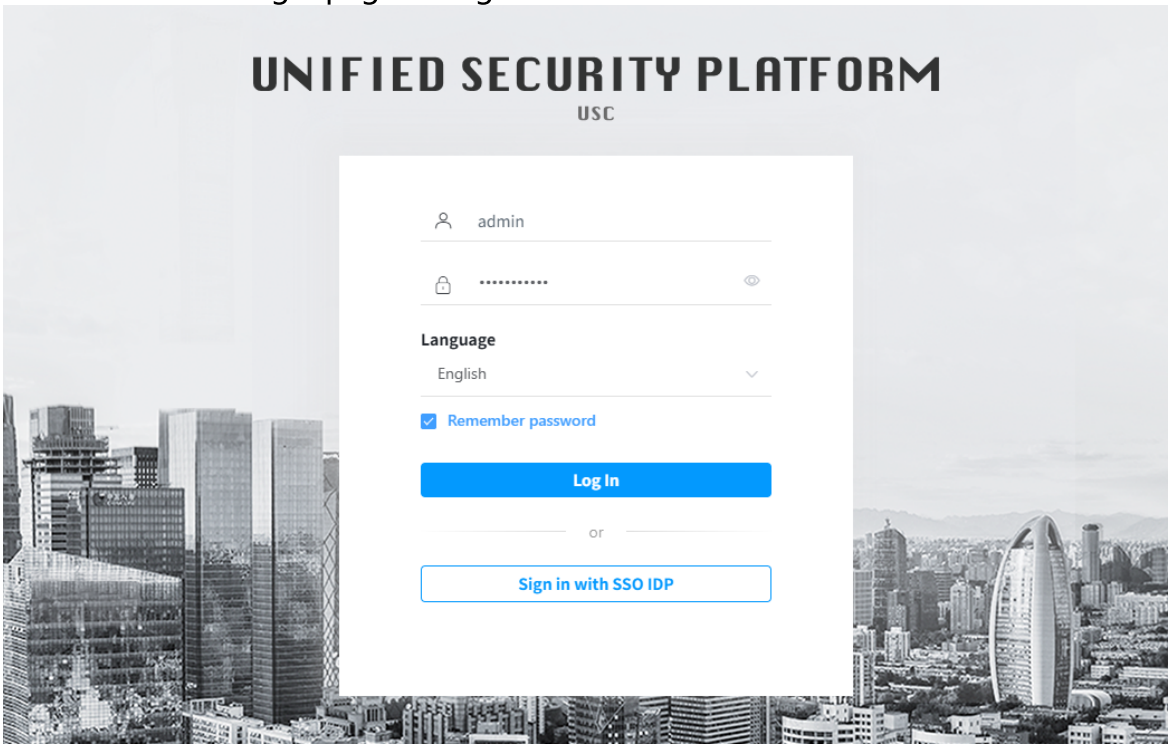
6	Login redirects	Redirect login address http://...:.../uapi/v1/Auth/Login
7	Logout redirects	Redirect logout address http://...:...
8	Claim name	Role mapping relationship for login accounts
9	Enable	Whether to enable

Once all required configurations are completed, you can select other login methods on the login page to log in.



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6.Configuration

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6 Configuration

6.1 Region Management

6.1.1 Device Management

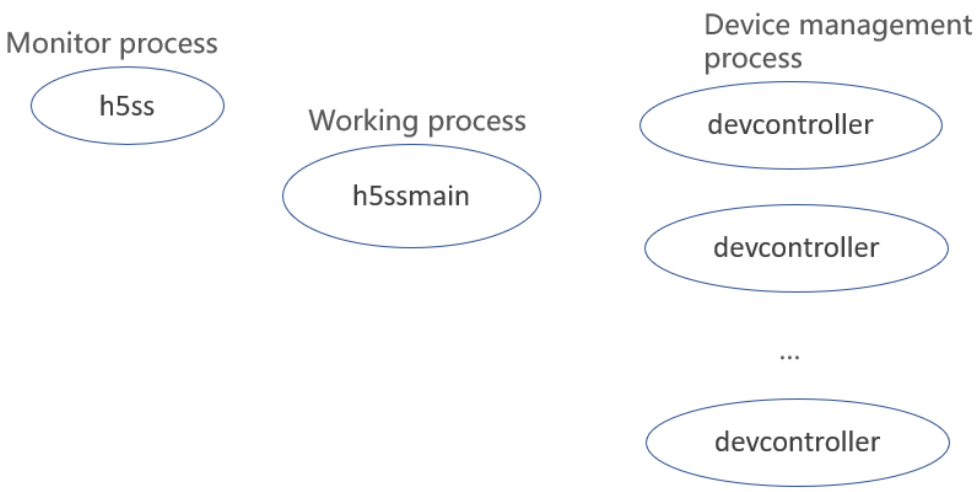
Video Device Configuration

USC integrates the device SDKs of mainstream video surveillance manufacturers in China to support richer features. Since the device SDKs include software libraries from other manufacturers, from the perspective of software product stability, USC provides two modes of operation, one is centralized and the other is sandbox.

Centralized is that all devices run to a process space.The advantage is high efficiency, without cross-process communication costs, and high efficiency;The disadvantage is that all devices are interconnected, and if an exception occurs, it will cause all devices to experience an exception.

In Sandbox mode, it supports the offline channel of the NVR connected to the playback device SDK.

The Sandbox mode is to open an independent process for each device.The advantage is that they are isolated from each other and have high stability;The disadvantage is that it increases the cost of cross-process communication.The Sandbox mode can be referred to the following figure:



6.1.1.1 Video Device

Introduction To Video Device Configuration

The system supports industry standard protocols and mainstream manufacturers' SDK video devices.

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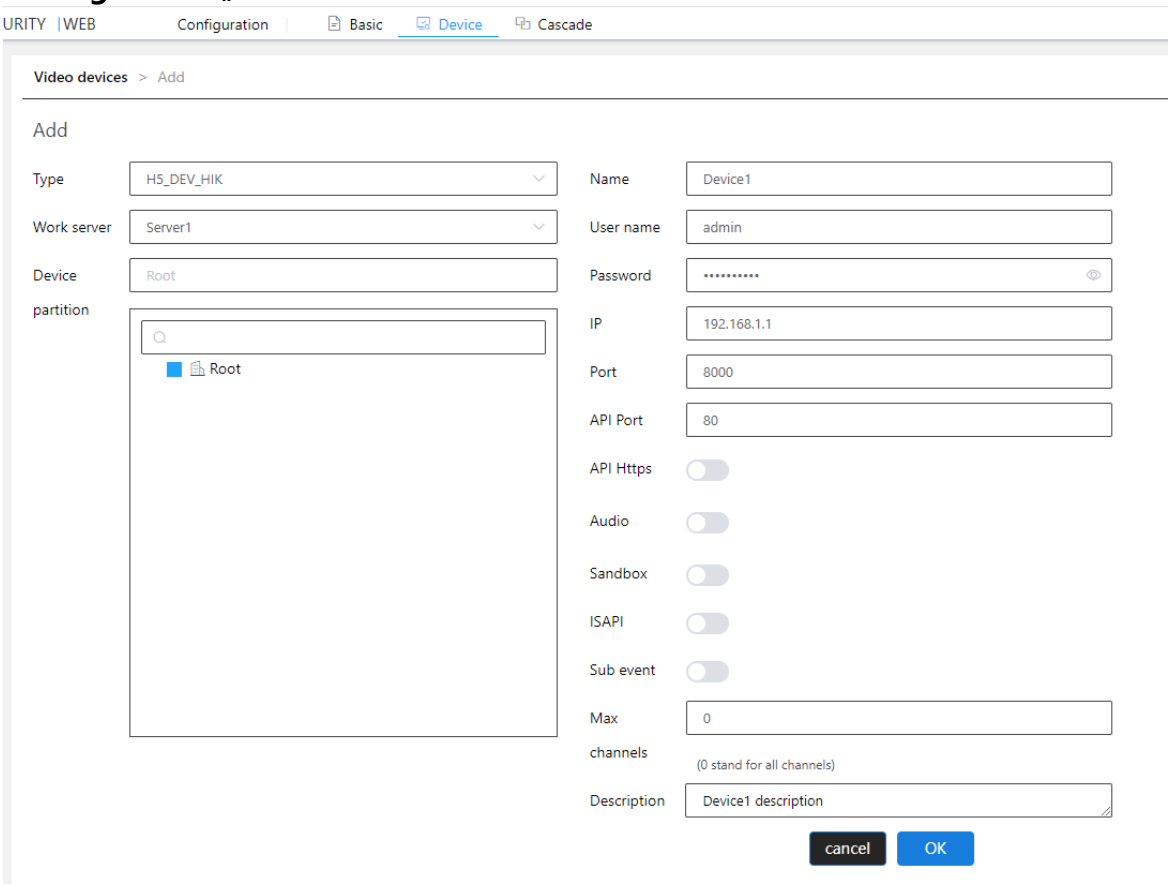
Operation Steps

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.



1. Click ***Add***
2. Select type
3. Select the home server
4. Select device partition
5. Custom name
6. Enter the device user name
7. Enter the device password
8. Enter the device ip address
9. Input Device Port
10. Turn on and turn off audio
11. Custom Notes

Delete:

1. Select the device
2. Click ***Delete***

Editor:

1. Select device

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2. Click ***Edit***
Importing devices:
1. Click on ***Device Import***
2. Click to ***download the template***
3. Refer to the template content, fill in the device information and import it
Device export:
1. Click on the ***device export***

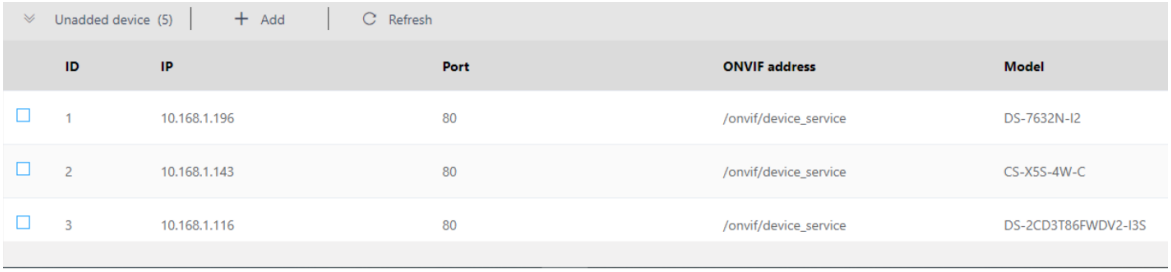
⚠ *Caution*

When adding, the password should be filled in correctly. If the wrong password is filled in, the device will be locked during the login process, and it will not be able to connect during this period. You need to restart the device to unlock it or wait for the device to automatically unlock.The lock is usually locked for 30 minutes, depending on the equipment manufacturer's regulations.

6.1.1.2 Device Search

Introduction to Device Search

The system supports ONVIF-based device search. When adding ONVIF and ONVIF STG (Profile S/Profile T/Profile G) types, the system automatically searches for ONVIF devices on the current network segment, supporting cameras and NVRs.



ID	IP	Port	ONVIF address	Model
1	10.168.1.196	80	/onvif/device_service	DS-7632N-I2
2	10.168.1.143	80	/onvif/device_service	CS-X5S-4W-C
3	10.168.1.116	80	/onvif/device_service	DS-2CD3T86FWDV2-I3S

6.1.1.3 RTSP/RTMP Source

RTSP/RTMP Source Configuration

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.

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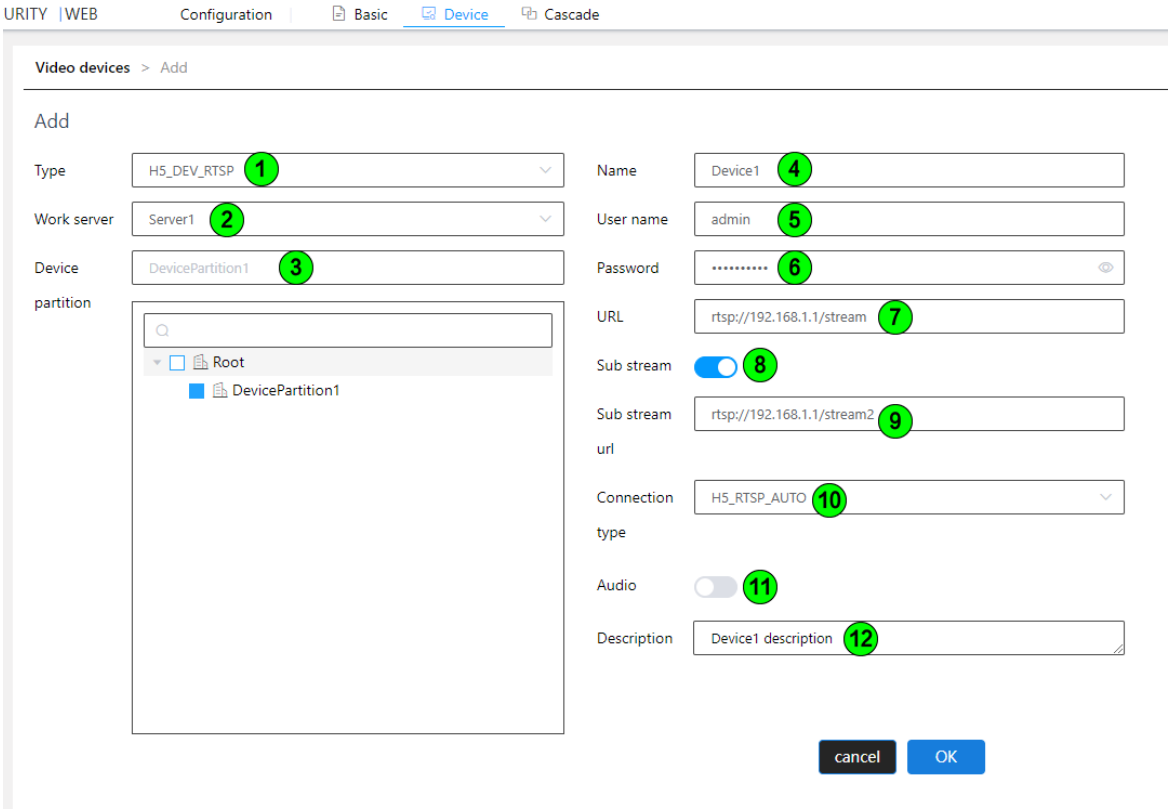

Number	Name	Function
1	Type	H5_DEV_RTSP
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition
4	Name	Device name
5	User name	Device Username
6	Password	Device password
7	URL	RTSP address
8	Sub stream	Whether to enable the auxiliary code stream
9	Sub stream url	RTSP address of auxiliary code stream
10	Connection type	H5_RTSP_AUTO H5_RTSP_TCP H5_RTSP_UDP The default is TCP mode
11	Audio	Whether to enable audio
12	Description	Description

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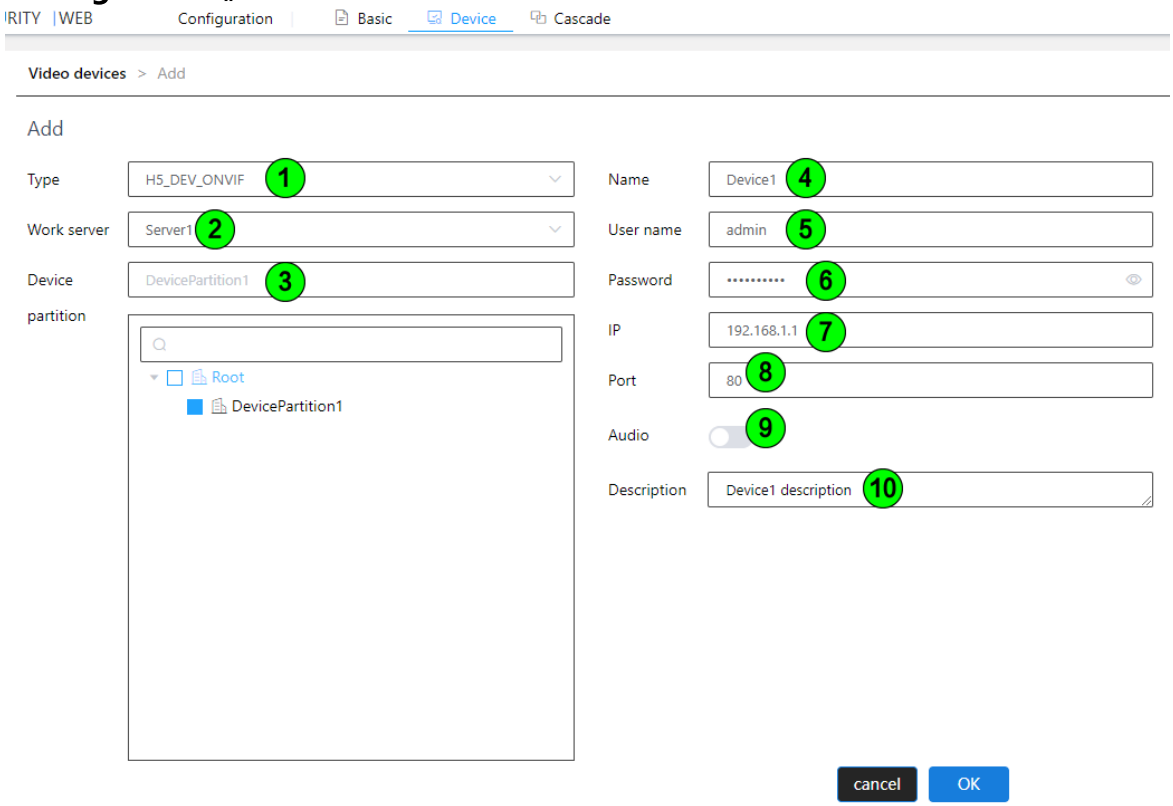
6.1.1.4 ONVIF Source

ONVIF Source Configuration

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.



Number	Name	Function
1	Type	H5_DEV_ONVIF
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition
4	Name	Device name
5	User name	Device Username
6	Password	Device password
7	IP	Device IP address
8	Port	Device SDK port
9	Audio	Whether to turn on audio
10	Description	Description

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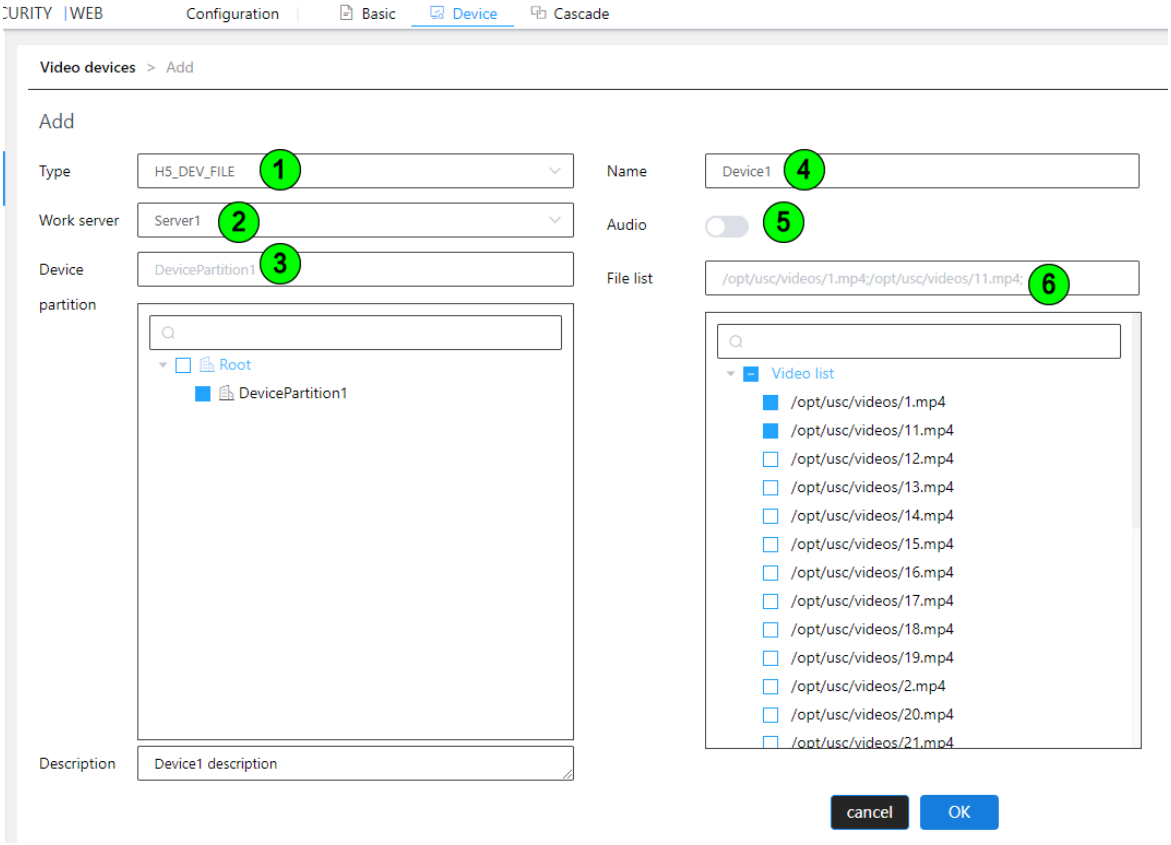
6.1.1.5 File Source

File Source Configuration

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.Support for configuring multiple files.



Number	Name	Function
1	Type	H5_DEV_FILE
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition
4	Name	Device name
9	Audio	Whether to enable audio
6	File list	File list, in the software directory videos, you can select multiple files

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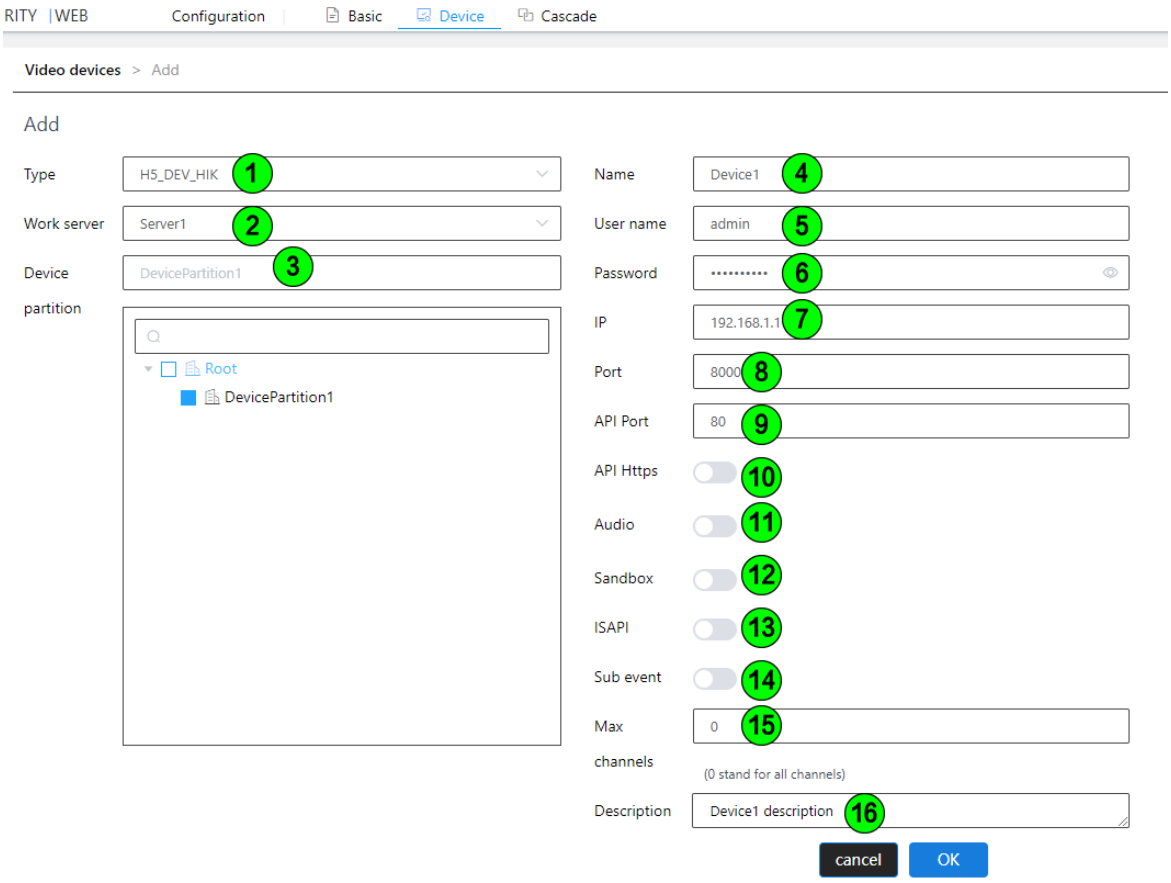
6.1.1.6 Hikvision SDK

Introduction To Hikvision SDK

Hikvision SDK supports all video devices of Hikvision series (except for Yingshi), including cameras, NVRs, and some access control devices with video functions. It also supports CVR, and the configuration of CVR will be introduced later.

Hikvision SDK Configuration

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.The default port is 8000.



Number	Name	Function
1	Type	H5_DEV_HIK
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition

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4	Name	Device name
5	User name	Device Username
6	Password	Device password
7	IP	Device IP address
8	Port	Device SDK port
9	API Port	Equipment protocol port, alarm transmission, generally the same as the equipment web port
10	API Https	Whether the device protocol port is enabled for HTTPS
11	Audio	Whether to enable audio
12	Sandbox	Whether to open the sandbox
13	ISAPI	Whether real-time video is obtained using ISAPI
14	Sub event	Whether to enable subscription events
15	Max channels	The maximum number of channels to load, default is 0, indicating that all channels are loaded
16	Description	Description

⚠ *Caution*

If you enter the wrong password and cannot log in online even after correcting it, you can check whether the device configuration interface has enabled illegal login, or wait for 30 minutes to automatically unlock it.You can refer to the following interface.

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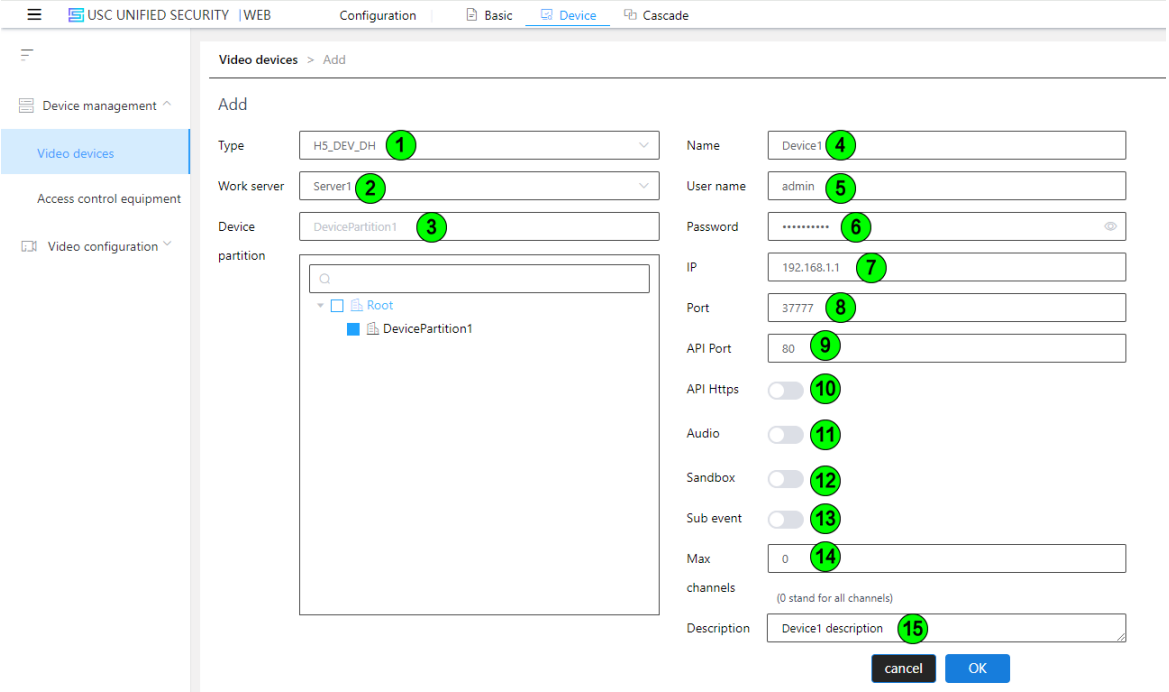
6.1.1.7 Dahua SDK

Dahua SDK Configuration

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.The default port is 37777.



Number	Name	Function
1	Type	H5_DEV_DH
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition
4	Name	Device name
5	User name	Device Username
6	Password	Device password
7	IP	Device IP address
8	Port	Device SDK port
9	API Port	Device protocol port, alarm transmission, generally the same as the device web port

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10	API Https	Whether the device protocol port is enabled for HTTPS
11	Audio	Whether to enable audio
12	Sandbox	Whether to enable sandbox
13	Sub event	Whether to enable subscription events
14	Max channels	The maximum number of channels to load, default is 0, indicating that all channels are loaded
15	Description	Description

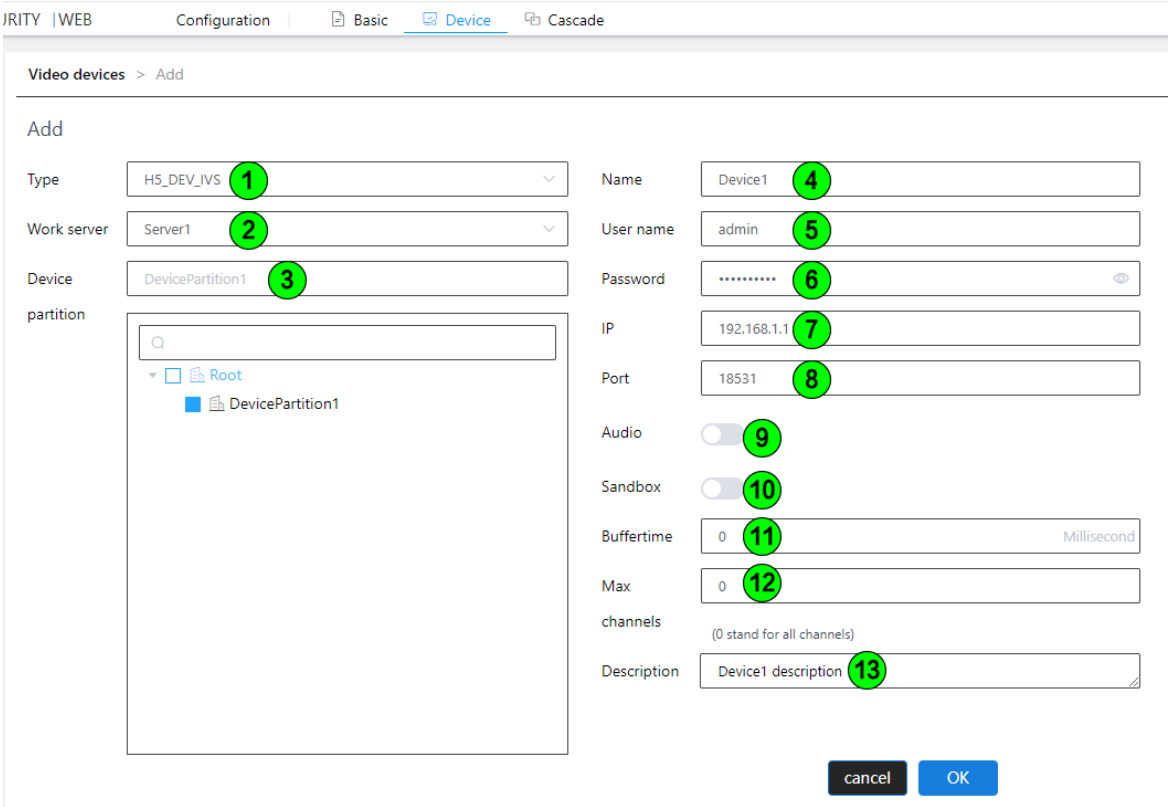
6.1.1.8 Huawei IVS

Introduction to Huawei IVS

Huawei IVS SDK supports Huawei IVS1800 and IVS3800.

Huawei IVS Configuration

Add and delete video devices in **Configure-》Device-》Device Management-》Video Devices**.



Number	Name	Function

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1	Type	H5_DEV_IVS
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition
4	Name	Device Username
5	User name	Device Username
6	Password	Device password
7	IP	Device IP address
8	Port	Device SDK port
9	Audio	Whether to turn on audio
10	Sandbox	Whether to enable sandbox
11	Buffertime	The default value is 0, which is mainly used for large-resolution video RTP jitter buffering. Keep the default value
12	Max channels	The maximum number of channels to load, default is 0, which means all channels are loaded
13	Description	Description

6.1.1.9 ONVIFSTG

Introduction to ONVIF STG

ONVIF STG type supports ONVIF Profile S/Profile T/Profile G, and supports cameras and network hard disk video recorders.

ONVIF STG Configuration

Add and delete video devices in **Configure-》Device-》Device Management-》Video Devices**.

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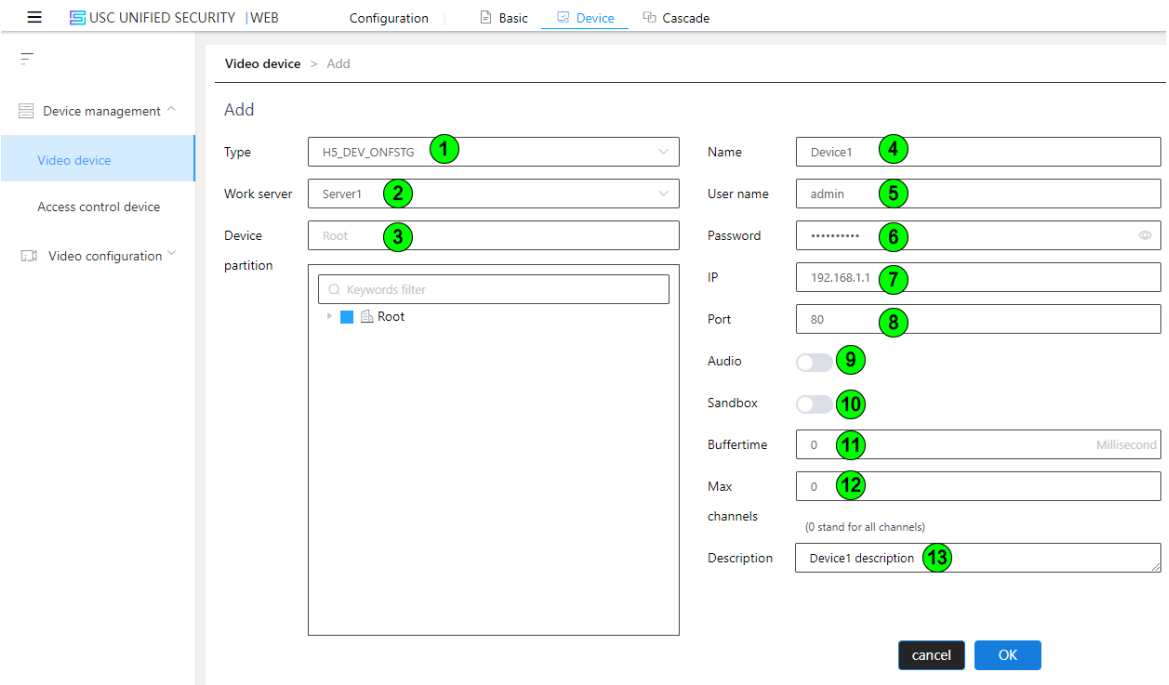

Number	Name	Function
1	Type	H5_DEV_IVS
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition
4	Name	Device Username
5	User name	Device Username
6	Password	Device password
7	IP	Device IP address
8	Port	Device SDK port
9	Audio	Whether to turn on audio
10	Sandbox	Whether to enable sandbox
11	Buffertime	The default value is 0, which is mainly used for large-resolution video RTP jitter buffering. Keep the default value
12	Max channels	The maximum number of channels to load, default is 0, which means all channels are loaded

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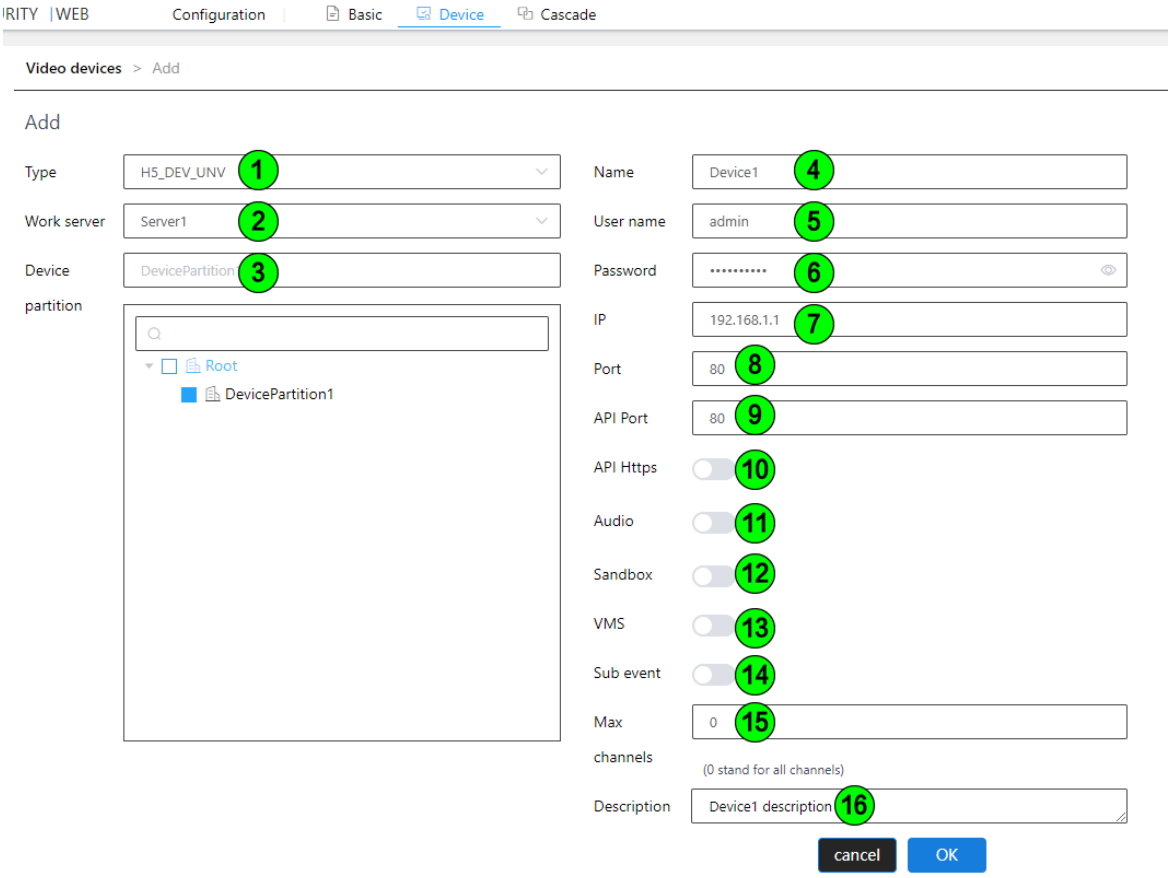
13	Description	Description

6.1.1.10 UNV SDK

UNV SDK Configuration

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.The default port is 80.



Number	Name	Function
1	Type	H5_DEV_UNV
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition
4	Name	Device name
5	User name	Device Username

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6	Password	Device password
7	IP	Device IP address
8	Port	Device SDK port
9	API Port	Equipment protocol port, alarm transmission, generally the same as the equipment web port
10	API Https	Whether the device protocol port is enabled for HTTPS
11	Audio	Whether to enable audio
12	Sandbox	Whether to open the sandbox
13	VMS	Whether real-time video is obtained using VMS
14	Sub event	Whether to enable subscription events
15	Max channels	The maximum number of channels to load, default is 0, indicating that all channels are loaded
16	Description	Description

6.1.1.11 Tiandy SDK

Tiandy SDK Configuration

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.The default port is 3000.

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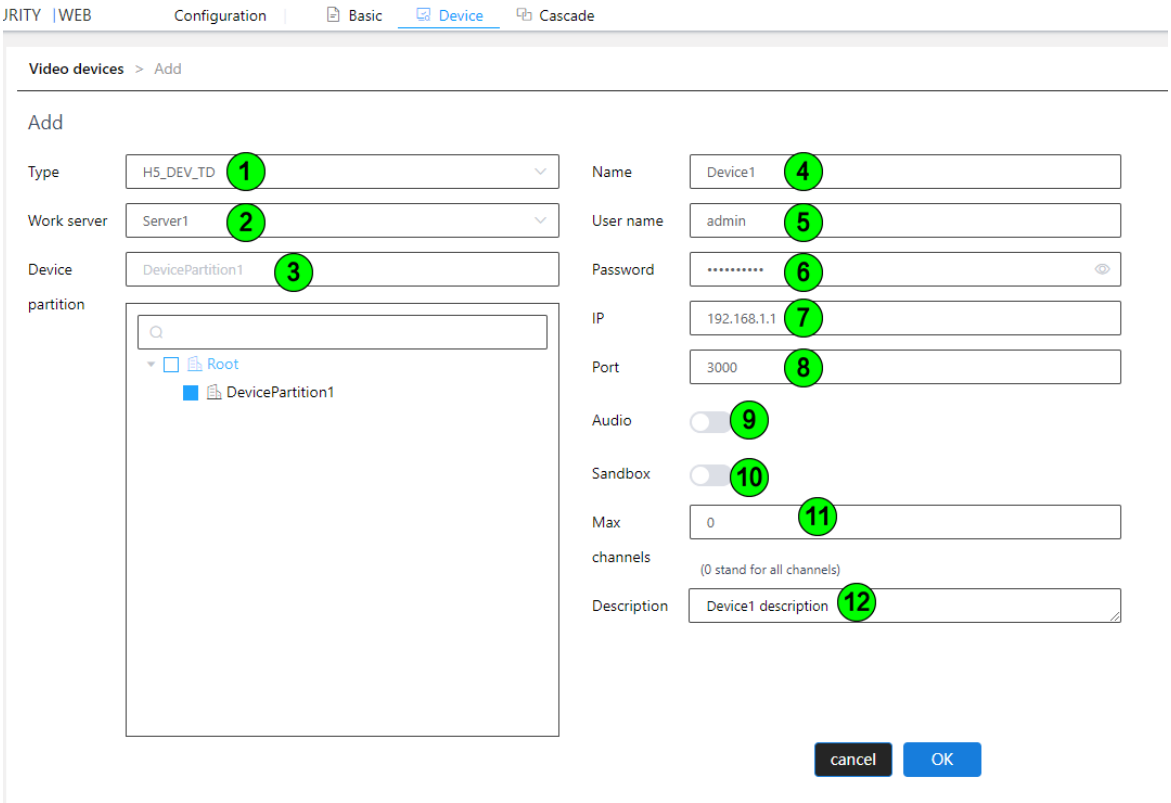

Number	Name	Function
1	Type	H5_DEV_TD
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition
4	Name	Device name
5	User name	Device Username
6	Password	Device password
7	IP	Device IP address
8	Port	Device SDK port
9	Audio	Whether to enable audio
10	Sandbox	Whether to open the sandbox
11	Max channels	The maximum number of channels to load, default is 0, indicating that all channels are loaded

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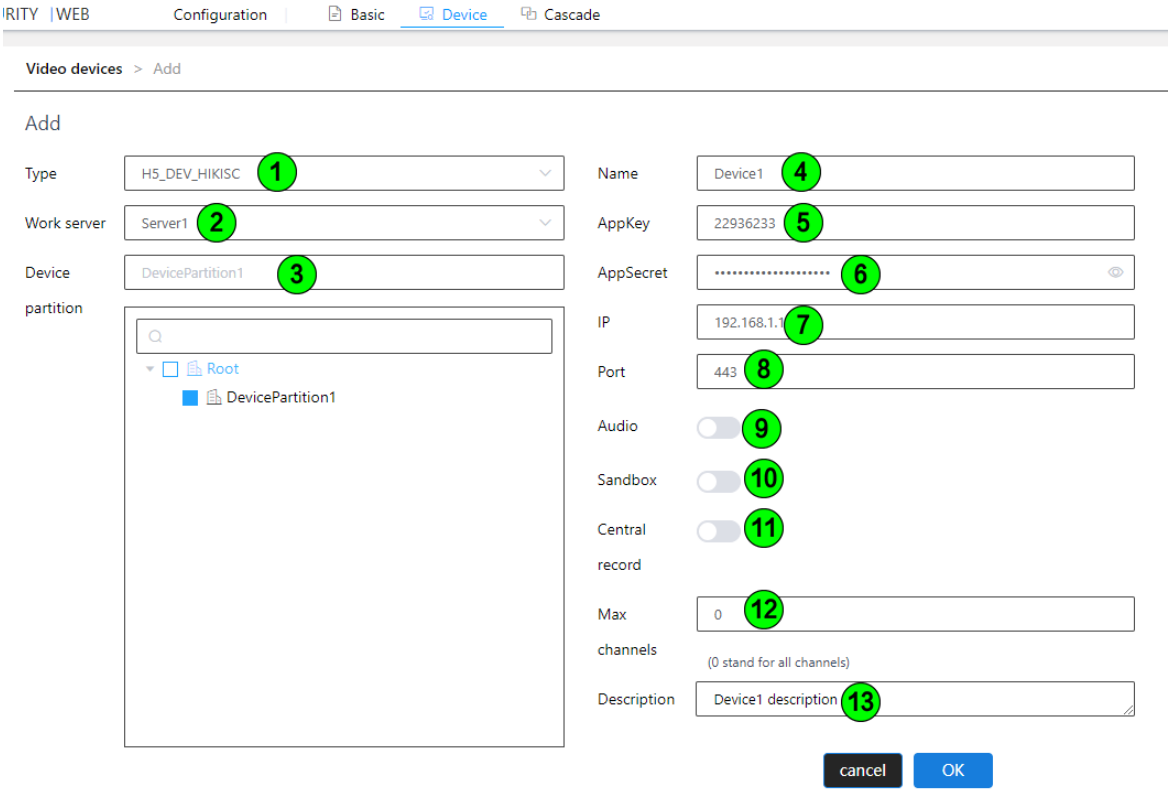
12	Description	Description

6.1.2 Platform

6.1.2.1 Hikvision ISC

Hikvision ISC Platform Configuration

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.The default port is 443.



Number	Name	Function
1	Type	H5_DEV_HIKISC
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition
4	Name	Device name
5	User name	Device Username
6	Password	Device password
7	IP	Device IP address

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8	Port	Device SDK port
9	Audio	Whether to enable audio
10	Sandbox	Whether to open the sandbox
11	Central record	Does ISC use central storage
12	Max channels	The maximum number of channels to load, default is 0, indicating that all channels are loaded
13	Description	Description

The partner AppKey and partner AppSecret can be configured from the Hikvision ISC operation center. The specific method is as follows

1. Enter the operation center (http://ip:8001/center), enter the [Status Monitoring] module, select [API Gateway], select the [API Management] function, and enter the API management center.

2. Select [Partner Management]. After the platform is installed, an internal partner will be created by default. This partner can be used for interface call testing. The actual running environment needs to create a new partner based on the actual situation.

3. Click on the name of the partner to enter the partner details interface and obtain the partner key (AK) and partner secret (SK).Select the permission to check the video business

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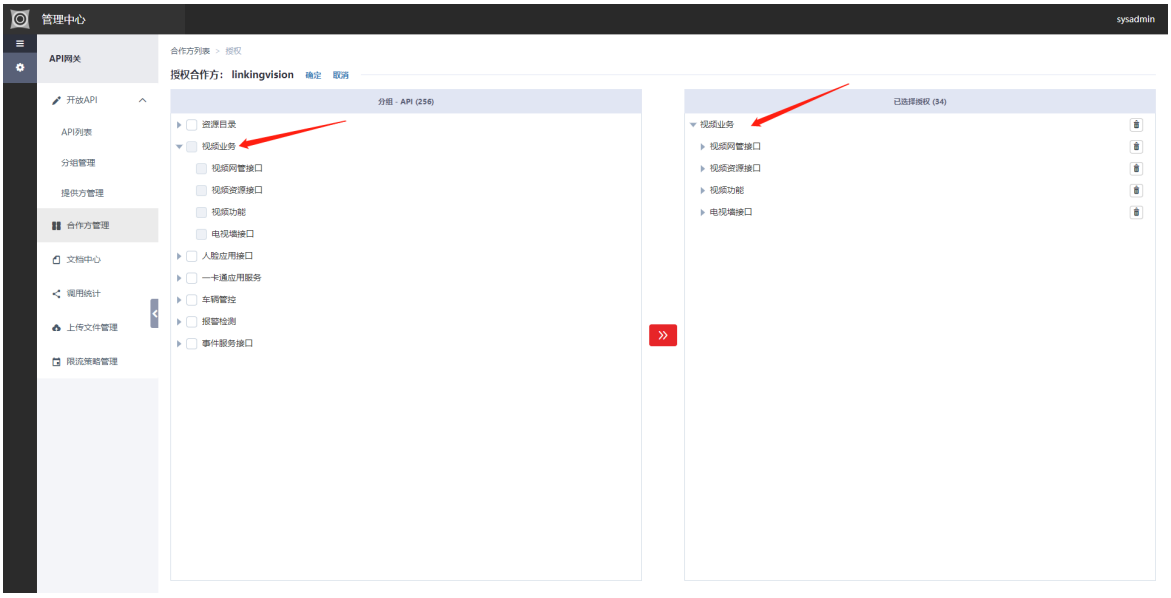

The H5S video platform uses the following APIs to integrate with ISC, and it is necessary to ensure that the following APIs are properly authorized.

API	Describe
/api/resource/v1/cameras	Paging to obtain monitoring point resources
/api/nms/v1/online/camera/get	Obtain the online status of the monitoring point
/api/video/v1/ptzs/controlling	Operate the PTZ interface according to the monitoring point number
/api/video/v1/presets/searches	Query preset point information
/api/video/v1/presets/addition	Set preset point information
/api/video/v1/presets/deletion	Delete preset point information
/api/video/v1/cameras/playbackURLs	Get the playback URL of the monitoring point
/api/video/v1/cameras/previewURLs	Obtain the URL for previewing and streaming at the monitoring point

By default, the ISC does not have the function of obtaining device status. You can refer to the following figure to open the inspection plan.If the inspection plan is enabled but still offline, you need to contact Hikvision to check if there is a service that has not been enabled.

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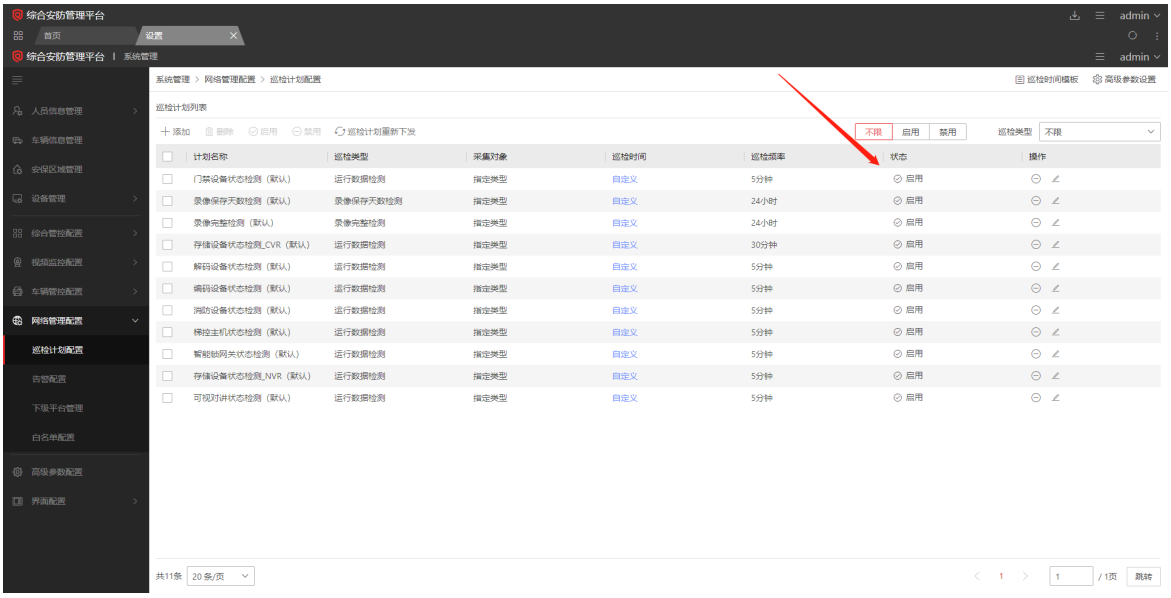
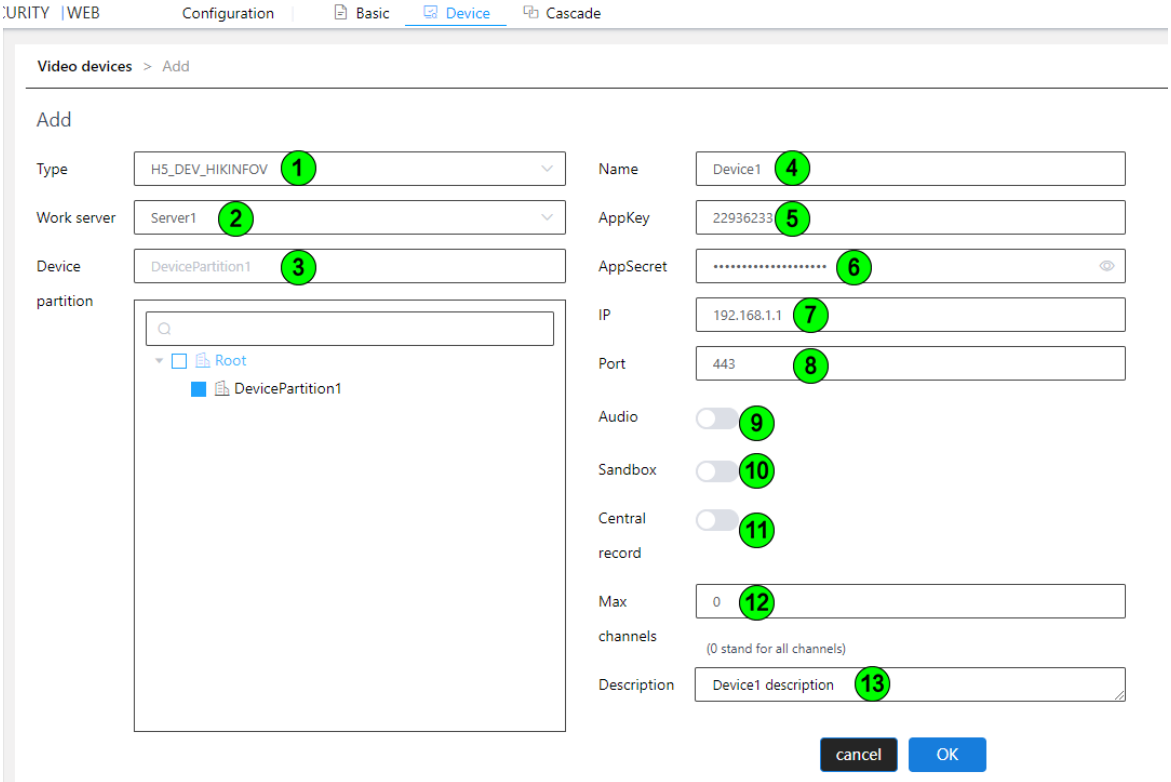


6.1.2.2 Hikvision Infovision

Hikvision Infovision Configuration

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.The default port is 443.



Numb	Name	Function

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er		
1	Type	H5_DEV_HIKINFOV
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition
4	Name	Device name
5	User name	Device Username
6	Password	Device password
7	IP	Device IP address
8	Port	Device SDK port
9	Audio	Whether to enable audio
10	Sandbox	Whether to open the sandbox
11	Central record	Does ISC use central storage
12	Max channels	The maximum number of channels to load, default is 0, indicating that all channels are loaded
13	Description	Description

6.1.2.3 Dahua ICC

Dahua ICC Configuration

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.The default port is 443.

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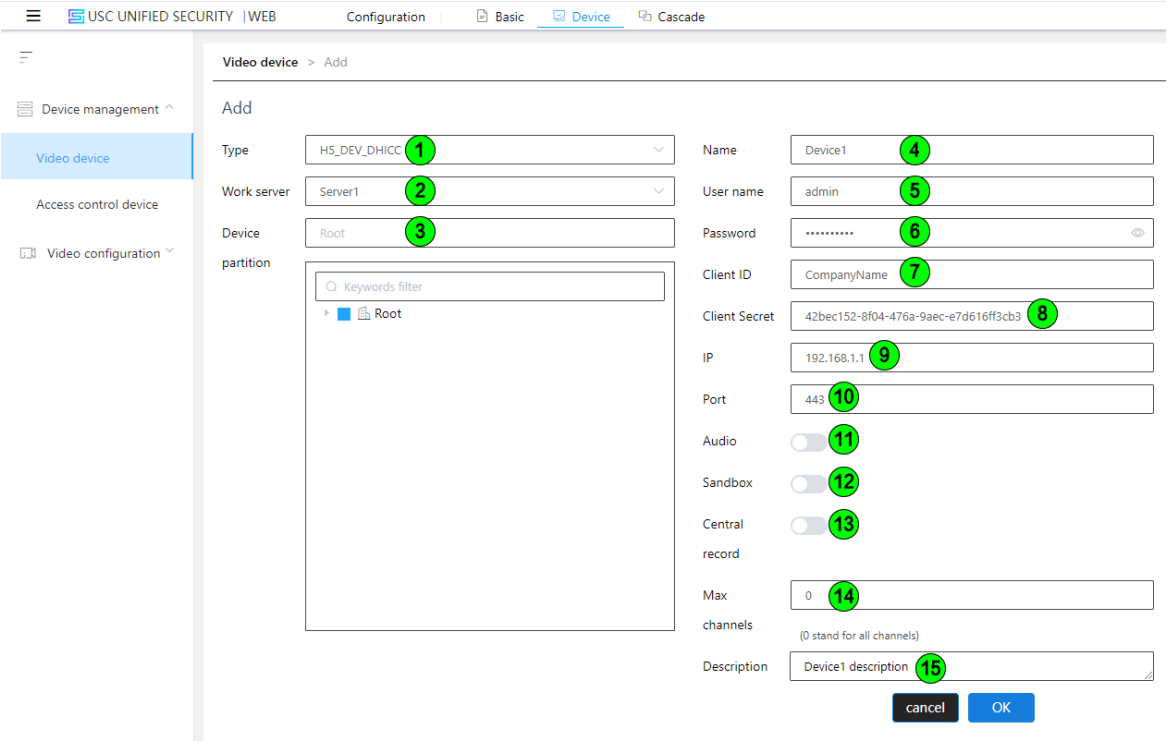

Number	Name	Function
1	Type	H5_DEV_DHICC
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition
4	Name	Device name
5	User name	Device Username
6	Password	Device password
7	Client ID	Client ID
8	Client Secret	Client Secret
9	IP	Device IP address
10	Port	Device SDK port
11	Audio	Whether to enable audio
12	Sandbox	Whether to open the sandbox

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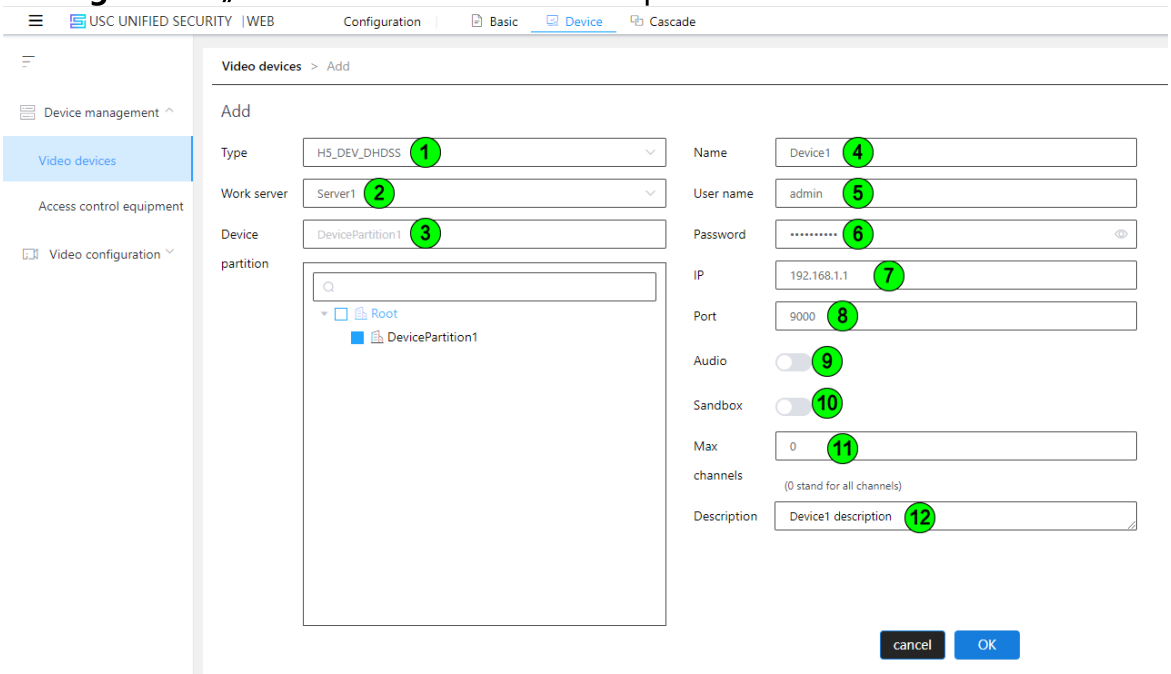
13	Central record	Does ISC use central storage
14	Max channels	The maximum number of channels to load, default is 0, indicating that all channels are loaded
15	Description	Description

6.1.2.4 Dahua DSS

Dahua DSS Configuration

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.The default port is 9000.



Number	Name	Function
1	Type	H5_DEV_DHDSS
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition
4	Name	Device name
5	User name	Device Username
6	Password	Device password

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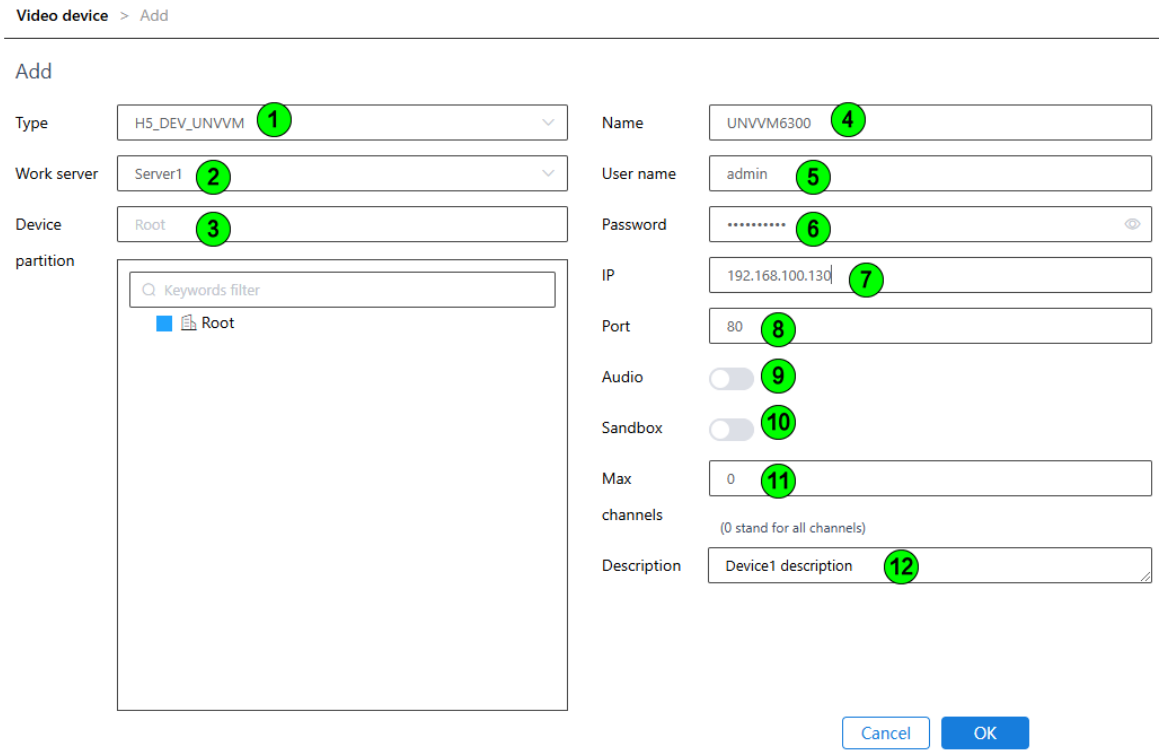
7	IP	Device IP address
8	Port	Device SDK port
9	Audio	Whether to enable audio
10	Sandbox	Whether to open the sandbox
11	Max channels	The maximum number of channels to load, default is 0, indicating that all channels are loaded
12	Description	Description

6.1.2.5 UNV VM6300

UNV VM6300 Configuration

Add and delete video devices in **Configuration-》Device-》Device Management-》Video Devices**.The default port is 80.



Number	Name	Function
1	Type	H5_DEV_DHICC
2	Work server	Work nodes, each of which can start the service
3	Device partition	Mounted partition

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4	Name	Device name
5	User name	Device name
6	Password	Device Username
7	IP	Device IP address
8	Port	Device SDK port
9	Audio	Whether to enable audio
10	Sandbox	Whether to open the sandbox
11	Max channels	The maximum number of channels to load, default is 0, indicating that all channels are loaded
12	Description	Description

The platform uses the following APIs to integrate with VM6300. Ensure that the following APIs are properly authorized.

API	**Describe**
POST /VIID/login/v2	User login interface V2
GET /VIID/hadesadapter/user/keepalive	Login to Stay Alive
GET /VIID/query	Query the list of resources under the organization
GET /VIID/live/player/build	Register a broadcast channel
GET /VIID/live/player/release	Log out of the playback channel
POST /VIID/live/start	Start RTSP live
POST /VIID/live/stop	Stop RTSP Live
POST /VIID/ptz/start	Start the control of the pan-tilt head
POST /VIID/ptz/ctrl	Send PTZ control command
GET /VIID/ptz/query/preset	Query preset position
GET /VIID/ptz/preset/set	Set the preset position
DELETE /VIID/ptz/preset	Delete preset position
GET /VIID/ptz/preset/use	Use preset position
POST /VIID/vod/record/query	Video inquiry
POST /VIID/vod/record/url	Video playback query

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POST /VIID/common/queryRecordRetrieval	Video inquiry

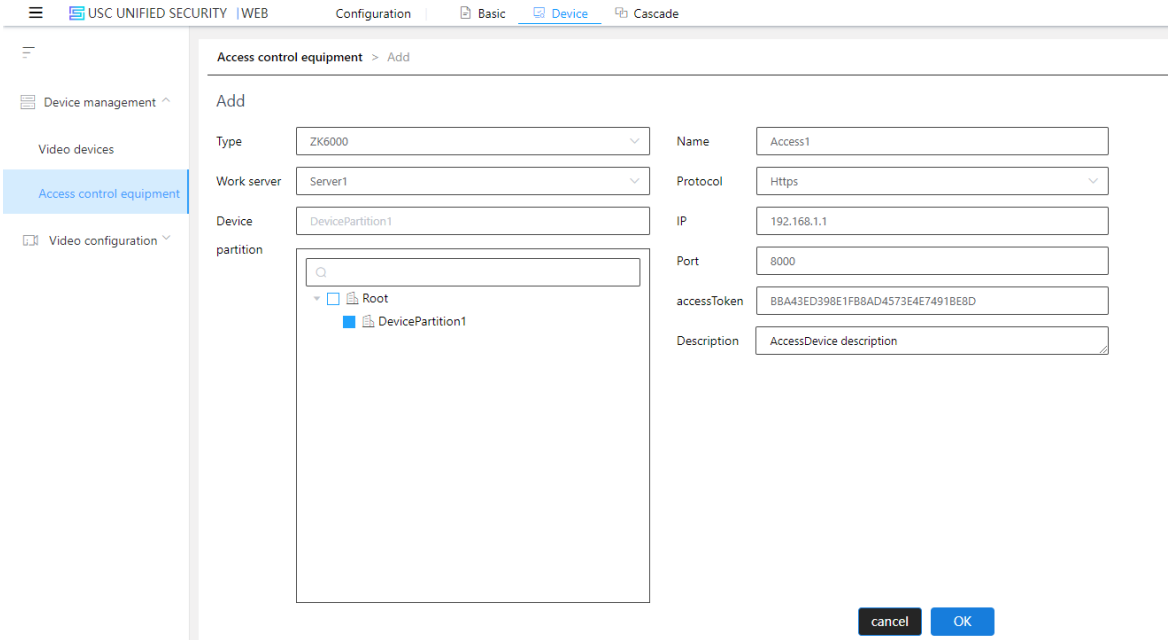
6.1.3 Access Control Platform ZK6000

Access Control Platform ZK6000

The system supports adding ZK6000. After adding, the system automatically synchronizes the access control controller/door/card reader, and can view the status of the door and remotely control the door on the map.

Operation Steps

Add and delete in **Configuration-》Device-》Device Management-》Access Control Device**.



1. Click the ***Add*** button
2. Type default
3. Default of the home server
4. Select device partition
5. Customize the name
6. Default of agreement
7. Enter the IP address of the access control device client
8. Enter the port of the access control device client
9. In the ZK6000 access control system, navigate to Web **System Management-》Permission Management-》API Authorization-》Add-》Client ID Definition**. After adding, there will be a Client Key field.Fill the key value into the accessToken input box
10. Customize the note

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Caution

After adding here, you also need to add the access control on the access control device client.The platform will only show online status.

6.2 Video Configuration

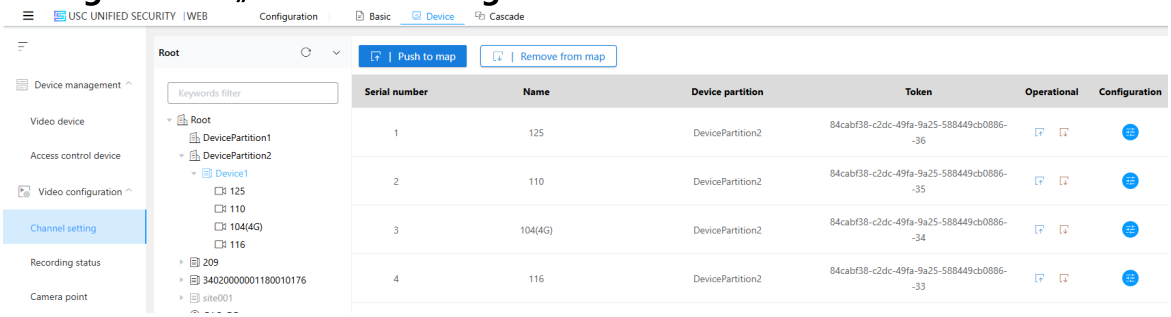
Introduction To Video Configuration

Configure the video recording schedule for the devices that have been added to the platform.

6.2.1 Channel Setting

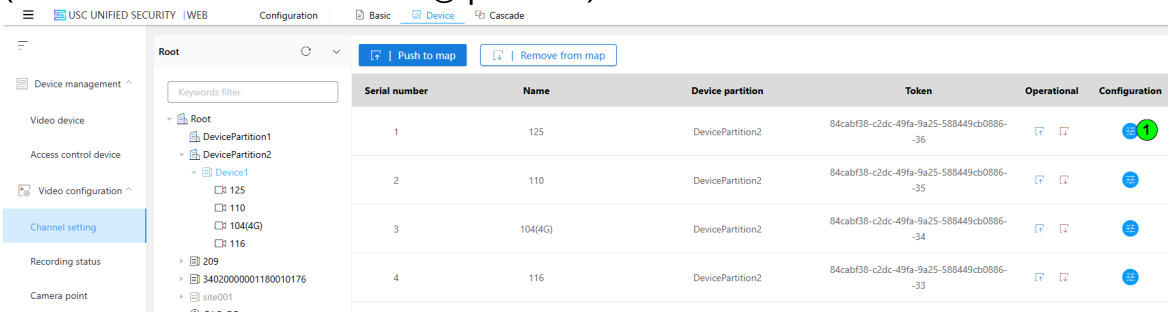
Introduction To Channel Setting

Configure the longitude and latitude of the camera and then upload the image. Configure the camera video recording in **Configuration -》 Device -》 Video Configuration -》 Channel setting**.



General Operation Steps

1. Select the device under the root node and click the configuration button (located at the serial number ① position).



2. Enter longitude
3. Enter latitude

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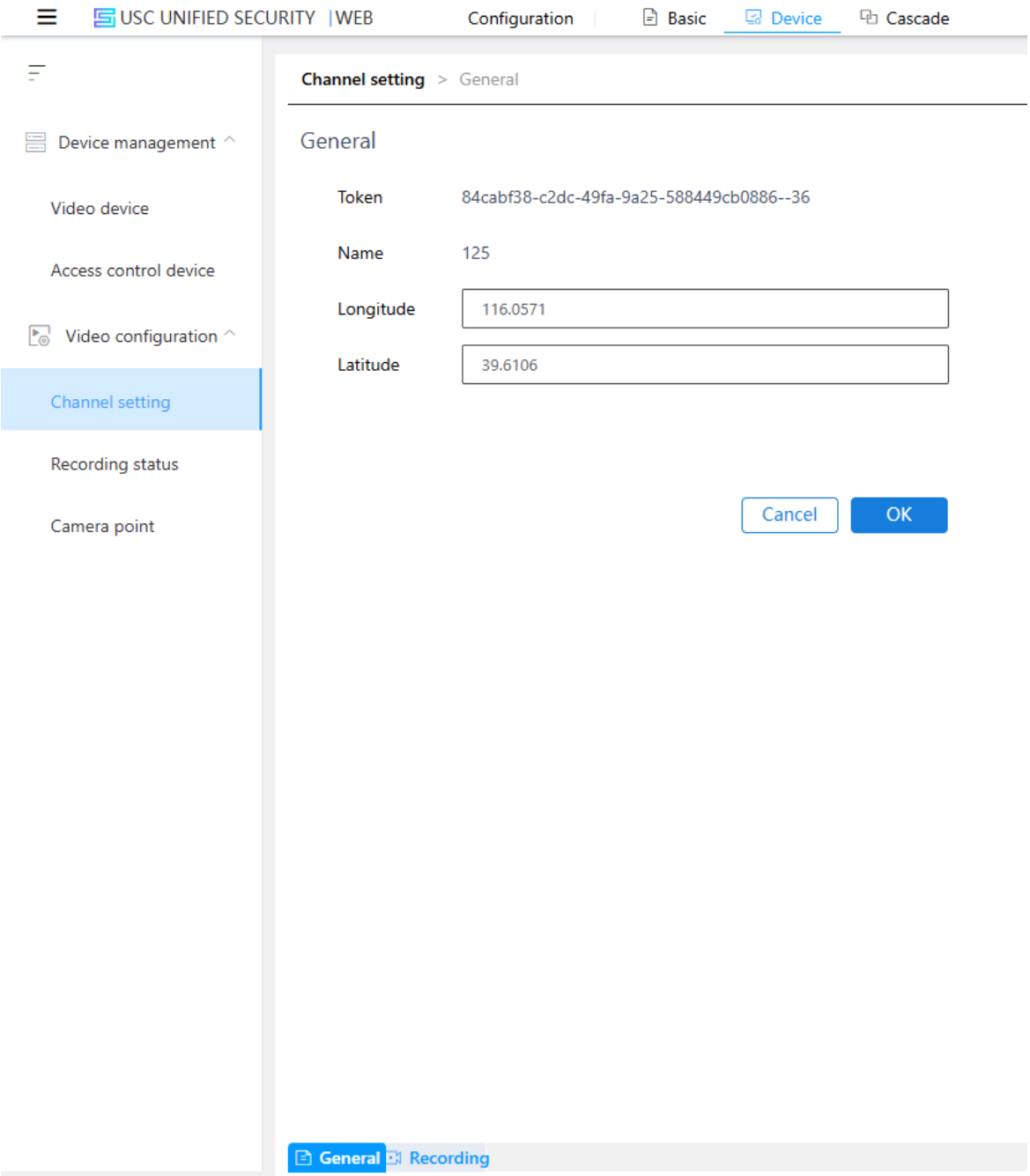

4. Click ***OK***
5. Click the buttons of "Previous" and "Next" under the operation bar on the return channel configuration page

⚠ *Caution*

One-click mapping: Map all cameras under the selected partition to the selected map. If there are cameras in the partition that have not entered their latitude and longitude, they will not be mapped by default.

One-click image removal: Remove all cameras under the partition from the map.

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Recording Operation Steps

1. Select the device under the root node and click the configuration button
2. Click ***Recording***
3. Select Time template
4. Enable：Turn on
5. Click ***OK***

⚠ *Caution*

Copy video plan：Copy the camera template with configured video to other cameras.

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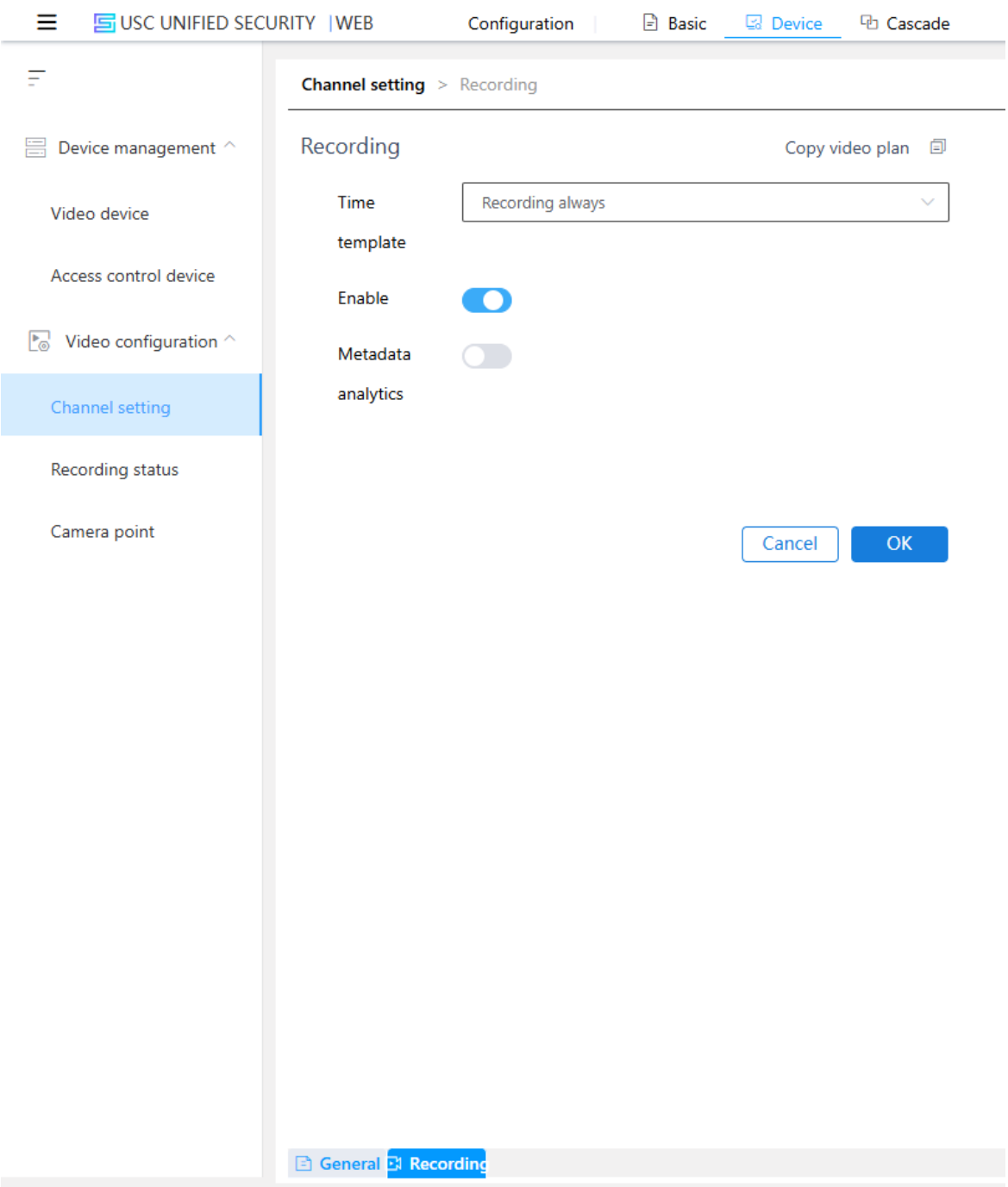

6.2.2 Recording Status

Introduction To Recording Status

Check the number of camera channels, number of recordings, disk read and write, in **Configuration -》 Device -》 Video Configuration -》 Recording Status**.

Operation Steps

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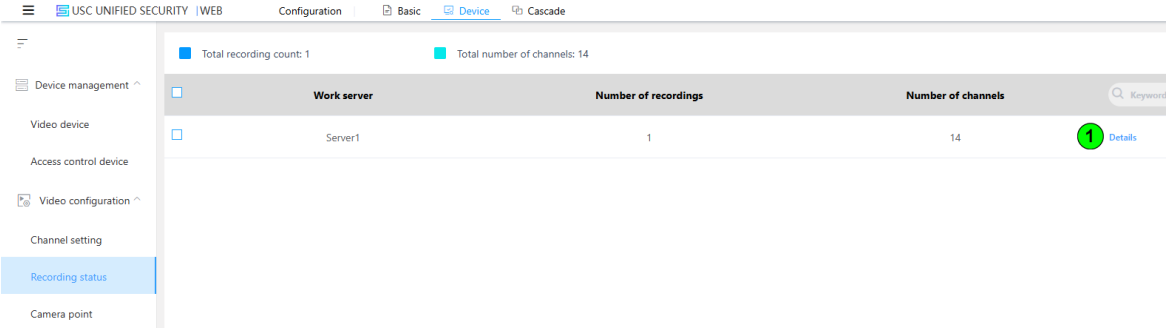
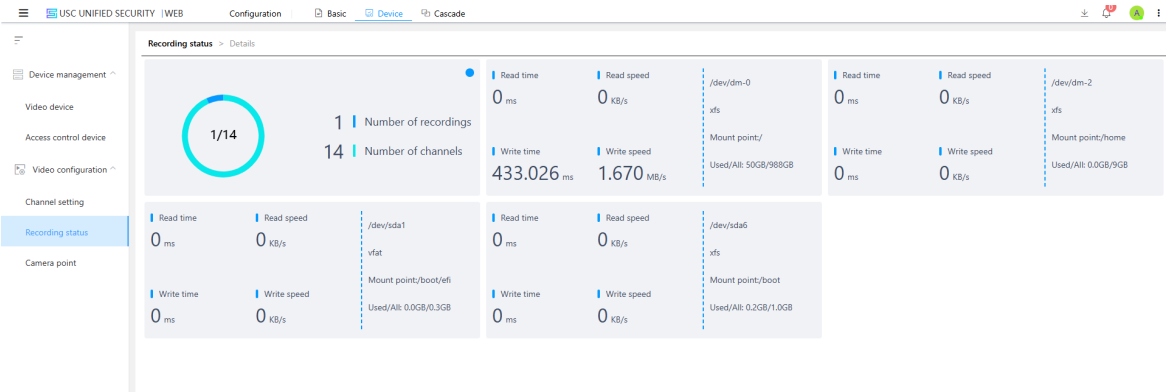
Click ***Details*** (located at the serial number ① position)





6.2.3 Camera Point

Introduction To Camera Point

Enable and disable cameras, control the number of authorized cameras, in **Configuration -》 Device -》 Video Configuration -》 Camera point**.

Operation Steps

1. Select the device under the root node
2. Enable/Disable
3. Click ***Save***

⚠ *Caution*

All on: Change all the selected devices and cameras below to the on state.
All Off: Turn off all cameras selected below.
Disable offline: Change all offline cameras under the selected device to disabled status.
Save All: Save all the selected devices and all the cameras below.
Copy button: copy the on/off status to other cameras.

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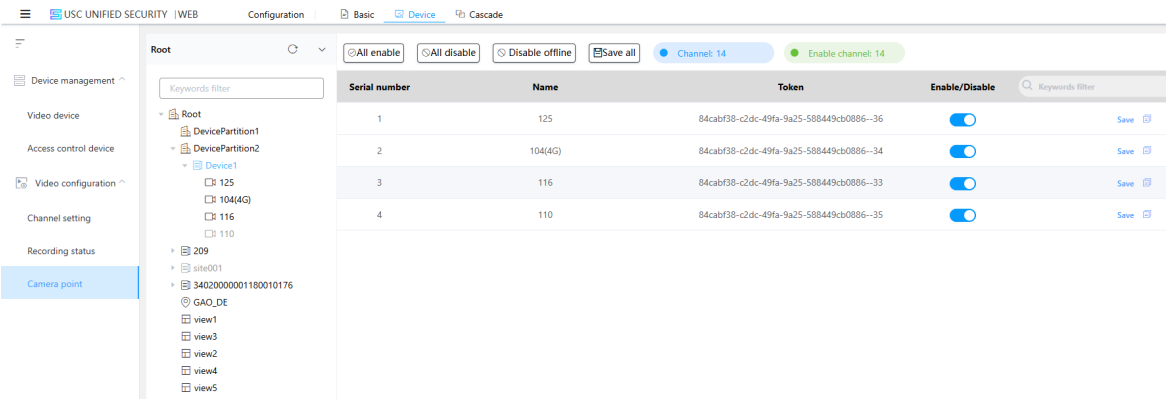

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7.Monitoring

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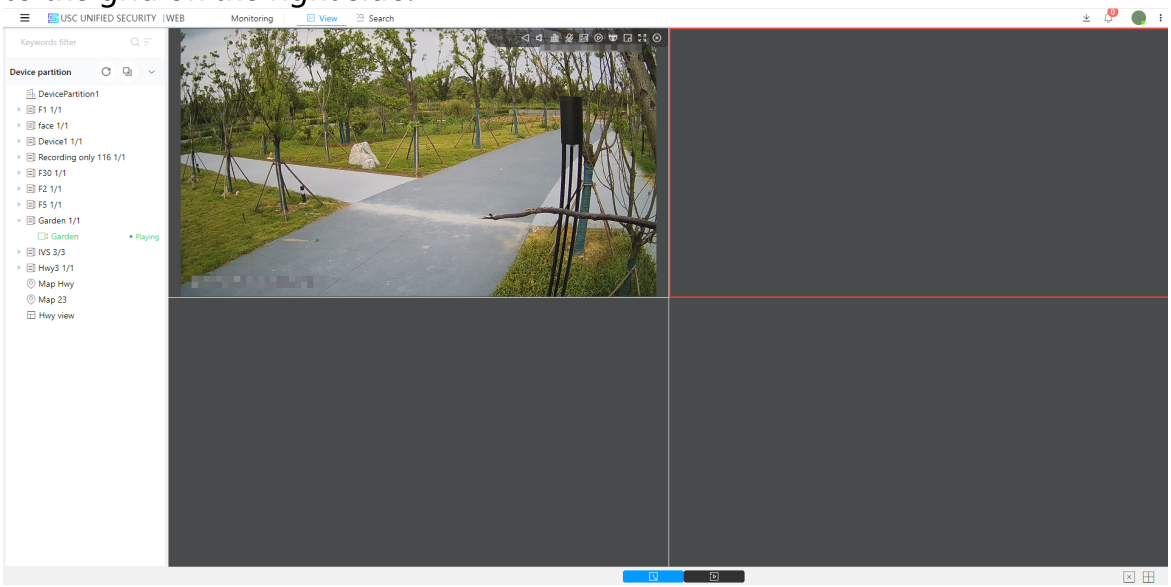
7 Monitoring

7.1 Liveview

Liveview

Click the device under the root node on the left side of the interface or drag it to the grid on the right side.



Introduction to the functions related to the device partition bar:

1. The refresh button is used to refresh the online, offline, disabled, and idle status of the device obtained after adding the device, as well as the number of device channels obtained
2. The switch button is used to switch between device partitions and logical partitions
3. The down arrow is used to expand the device list
4. Right click the device to view the device channel status

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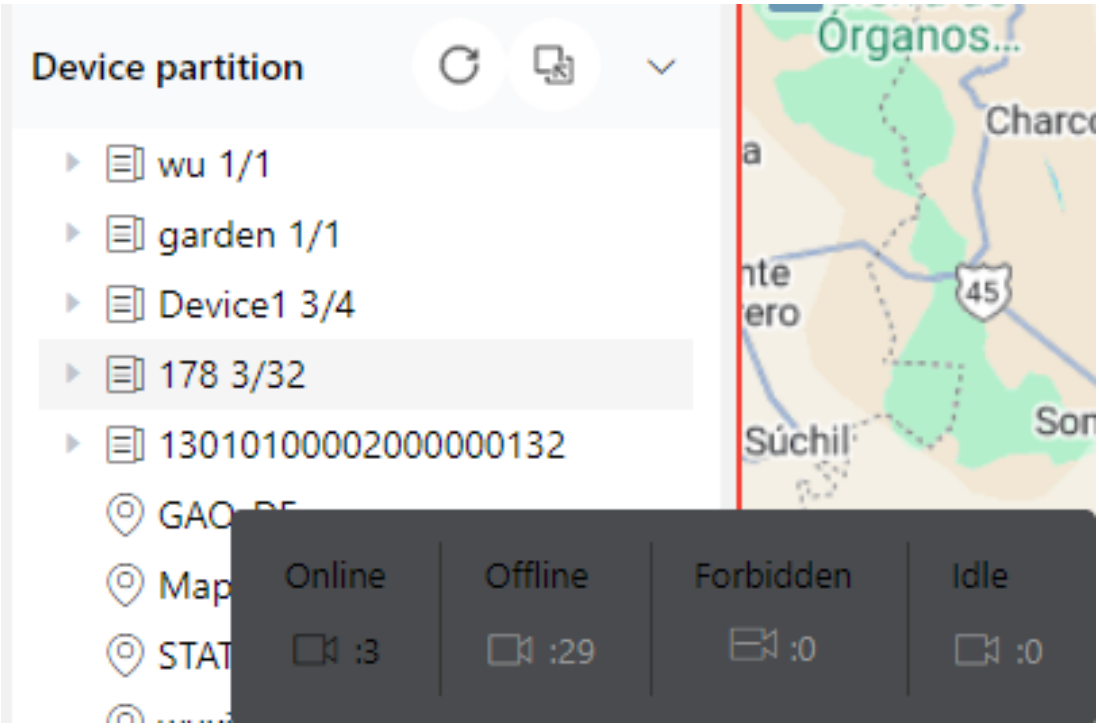
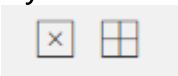


Close all videos

Switch between 1, 3, 4, 6, 7, 9, 13, 16, 25 grid layouts and customize the view layout.



The buttons in the upper right corner of the video are described from left to right as follows:

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Number	Name	Function
1	Play Protocol	View the currently used playback protocol
2	Voice	After opening, you can listen to the sound transmitted from the device.(The premise is that the device itself has properly configured audio input and output, and the audio button is turned on when adding it to the platform.)
3	View video encoding information	Video information: encoding type, resolution, frame rate, bit rate Audio information: encoding type, sampling rate, sampling bit width, number of channels
4	Intercom	After opening, you can talk to the device (Note: Currently only supports Hikvision and Dahua cameras, and requires HTTPS access to the platform)
5	Screenshot	Intercept video images and save them in the client
6	Videotape	Start and stop platform video recording.(Note: After activation, the button will turn red, and a red dot will appear next to the device below the root node to indicate that it is in the video recording state.)
7	PTZ control	Refer to the control of the pan-tilt head
8	Electronic PTZ	Reference electronic PTZ
9	Full screen	Video full screen
10	Close	Close the current video

7.2 View

View

1. Click the view under the root node on the left side of the interface, or click and drag it to the grid on the right side to play.

⚠ *Caution*

Because views can store maps, and maps can also store views.So after playing the view, you can see the map, and you can also click the blue button in the map to view the view from the map.

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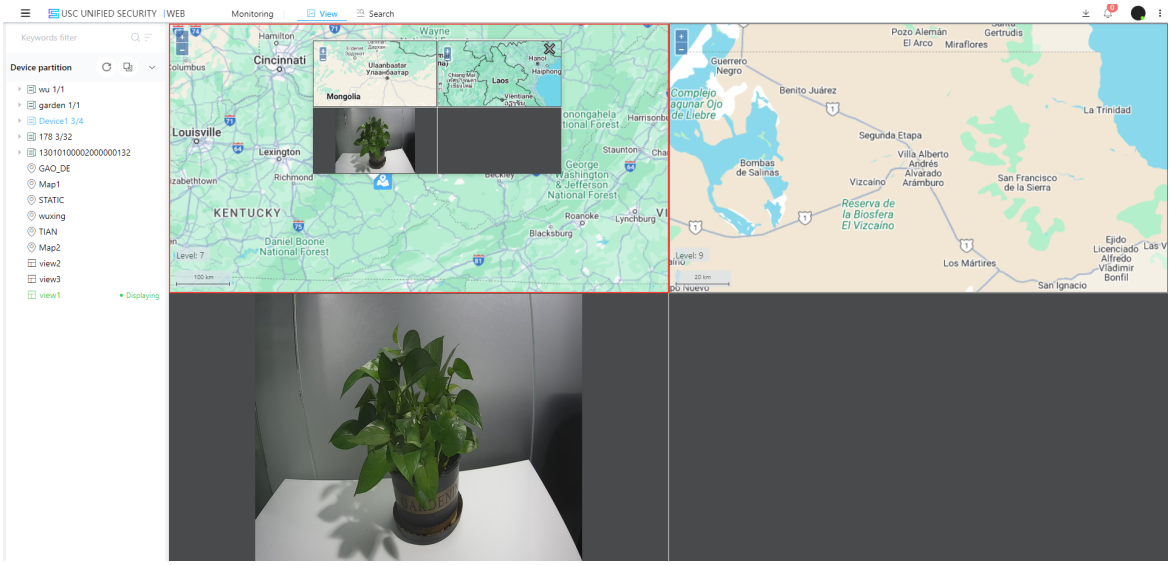

7.3 Electronic PTZ

Electronic PTZ

Both live and playback videos support electronic zooming in.

1. After clicking the electronic zoom button, a video window will appear in the lower right corner.
2. You can zoom in and out of the window size by using the mouse wheel, and then click the window to move it.

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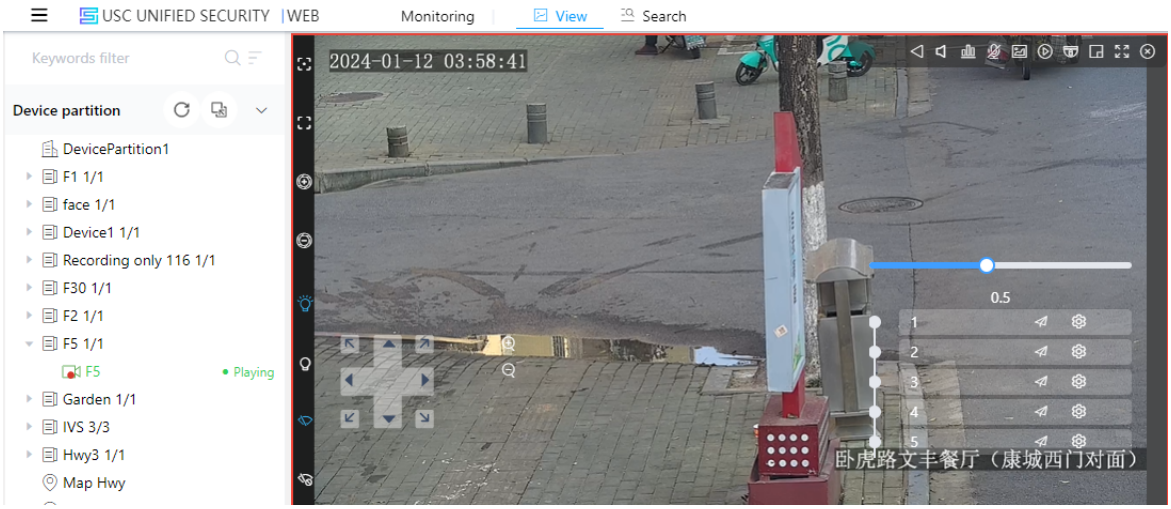
7.4 PTZ Control

PTZ Control

1. Introduce from left to right, focusing on zooming in and out, aperture zooming in and out, light switch, wiper switch.
2. Rotate in all directions, including up and down, left and right, as well as left and right.
3. Zoom in and out of the screen.
4. The speed of the pan-tilt head is 0.5 (adjustable).
5. Preset position name, call preset position, set preset position.



7.5 Playback

Playback

Playback sub-center storage and device storage. Center storage refers to the devices that have video recording enabled on the platform, while device storage refers to the video recordings that come with the device itself (such as those stored in video recorders).So please select the corresponding storage mode when playing back, otherwise the playback will not work properly.

1. Select the device under the root node.
2. Select the storage mode. If you need to view the video of the device on the platform, select central storage. If you need to view the video of the device itself, select device storage.
3. Drag the timeline with the mouse, and use the mouse wheel or click the + - buttons to zoom in and out of the timeline (optional operation).
4. Select playback time (optional operation).
5. Select playback speed (optional operation).
6. Play and pause (optional operation).
7. Turn on and off the sound (optional operation).
8. Video cropping, cropping video export, (optional operation).

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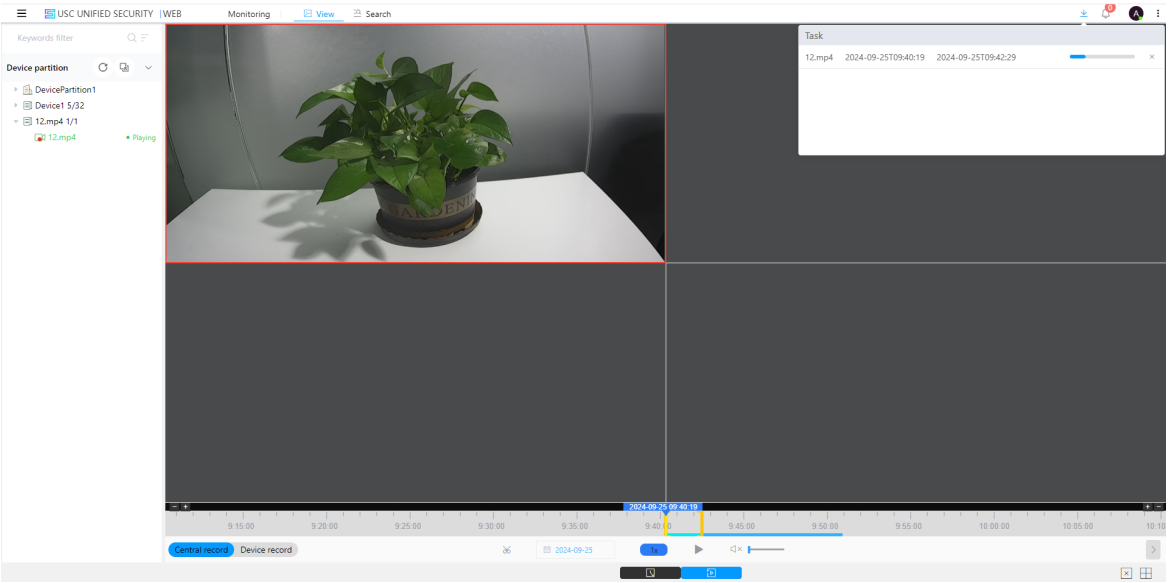
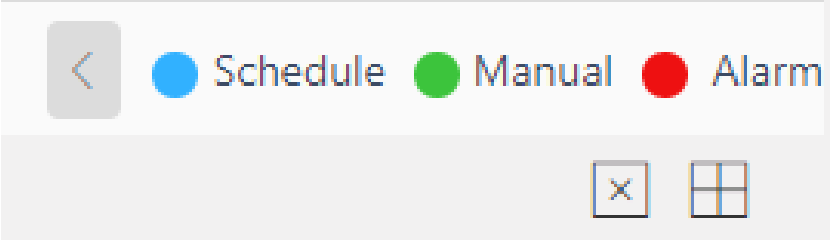


Click the < button to view the video type

Click the ***X*** button to close all replays

Click the **Palace Grid** button to switch back to the playback palace grid



⚠ *Caution*

The buttons in the grid are introduced from left to right.View the protocol used for current playback, client screenshot, electronic zoom-in, close playback, and full screen zoom-in.

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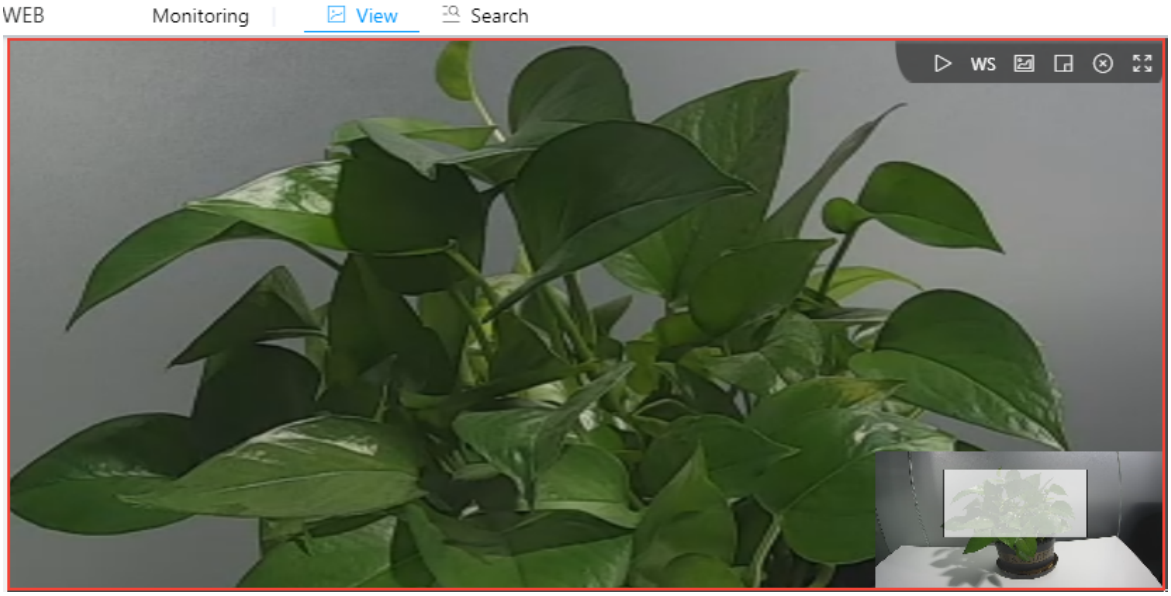
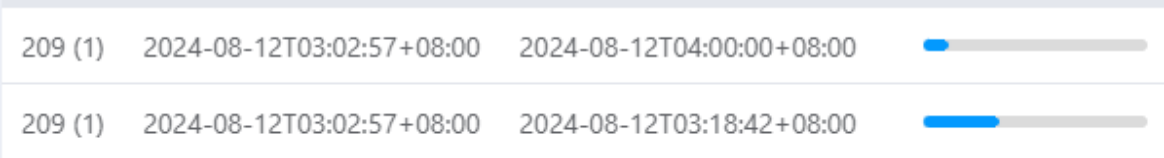


You can view the progress of video cropping in the taskbar, as shown in the following figure:



7.6 Video Patrol

Video Patrol

Videos can be played in polling mode according to the configuration of ***.

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7.7 Map

Open The Map

1. Click the view under the root node on the left side of the interface, or click and drag it to the grid on the right side to play.

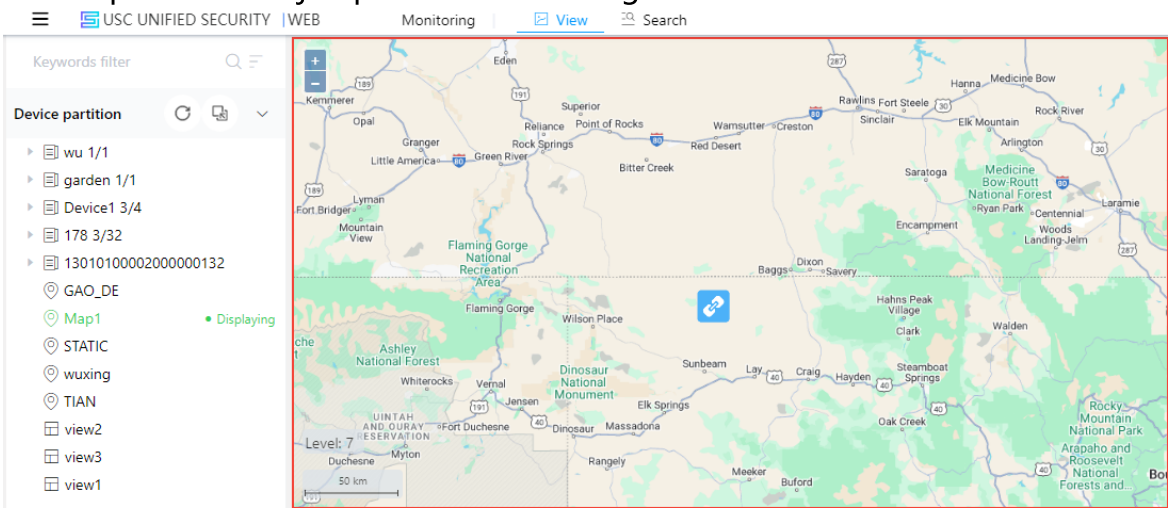
⚠ *Caution*

Because maps can embed maps, views, cameras, and access control, embedded views and cameras can be viewed in the map, and then maps can be jumped between to achieve multi-level map relationships.

The buttons in the map are described from left to right:

1. Zoom in on the map.
2. Zoom out the map.
3. Map-to-map jump links.
4. Full screen map.
5. Close the map.

The map before the jump is shown in the figure below:



The map will jump to the following figure:

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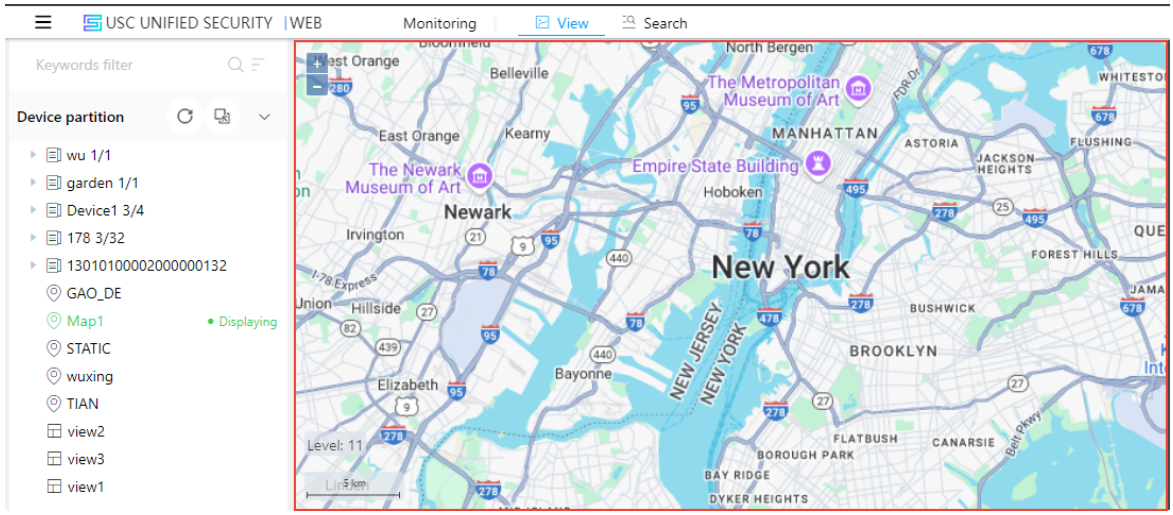
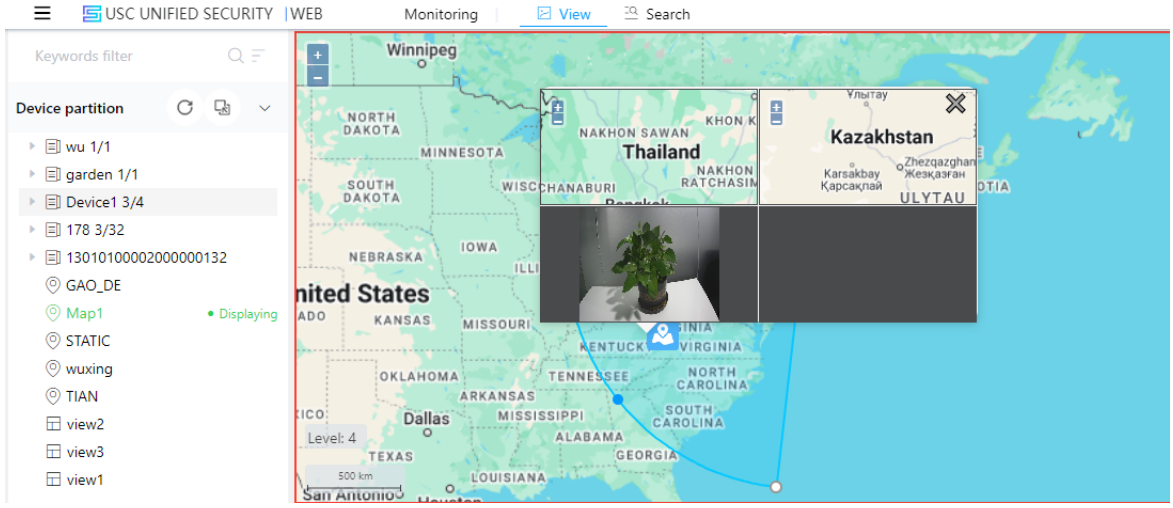
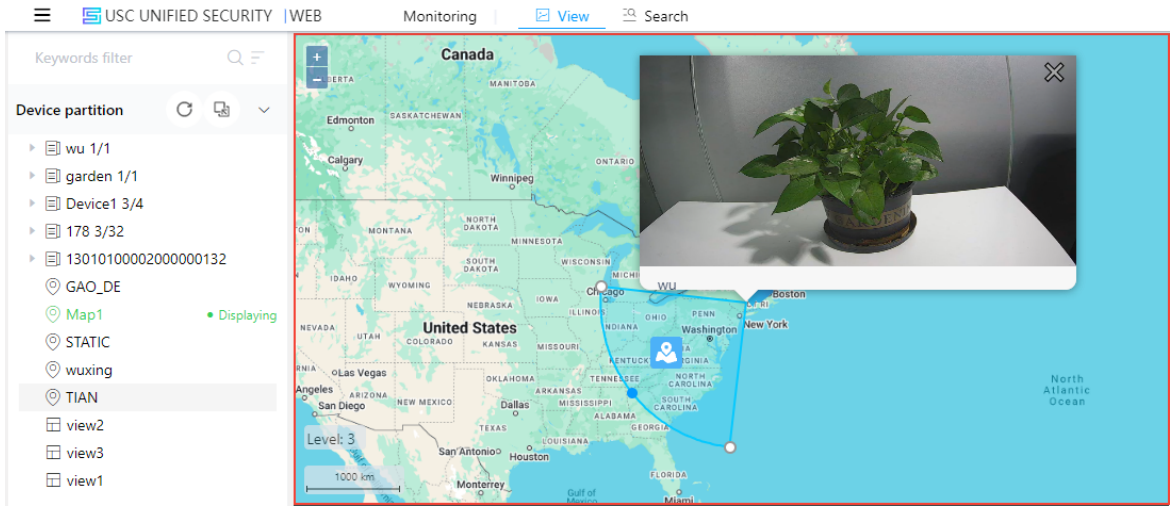


The view in the map is shown in the figure below:



The camera is shown in the map as shown in the figure:



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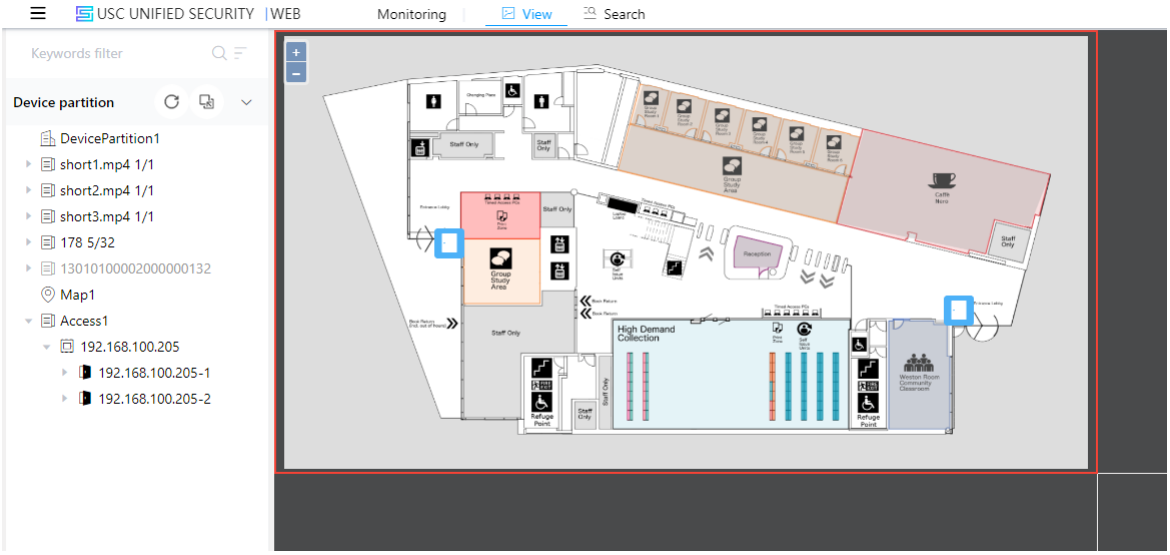
7.8 Access Control

Access Control

When adding a map, drag the access control device to the map, and then click on the map display under **Monitoring-》View**. After the map is displayed, you can click on the Open and Close buttons in the image to remotely control the access control switch.

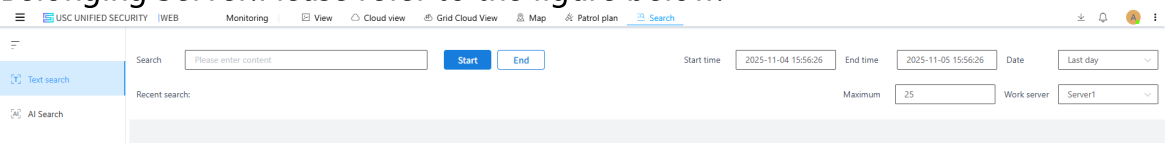


7.9 Search

7.9.1 Text search

Text search

Go to **Monitoring-》Search-》Text search** to modify the search criteria. The modifiable parameters include: Text, Time, Maximum Quantity, and Belonging Server.Please refer to the figure below:



7.9.2 AI Search

AI Search

The video database can store metadata for deep learning inference, thereby enabling data structuring. Users can quickly search for metadata, thereby enabling post-event rapid retrieval functions.**Enter View-》Device Partition-》Root Node** to select the device to search, and then modify the search criteria, The parameters that can be modified include: time, object type, color, and the area where the object is located.Refer to the following figure:

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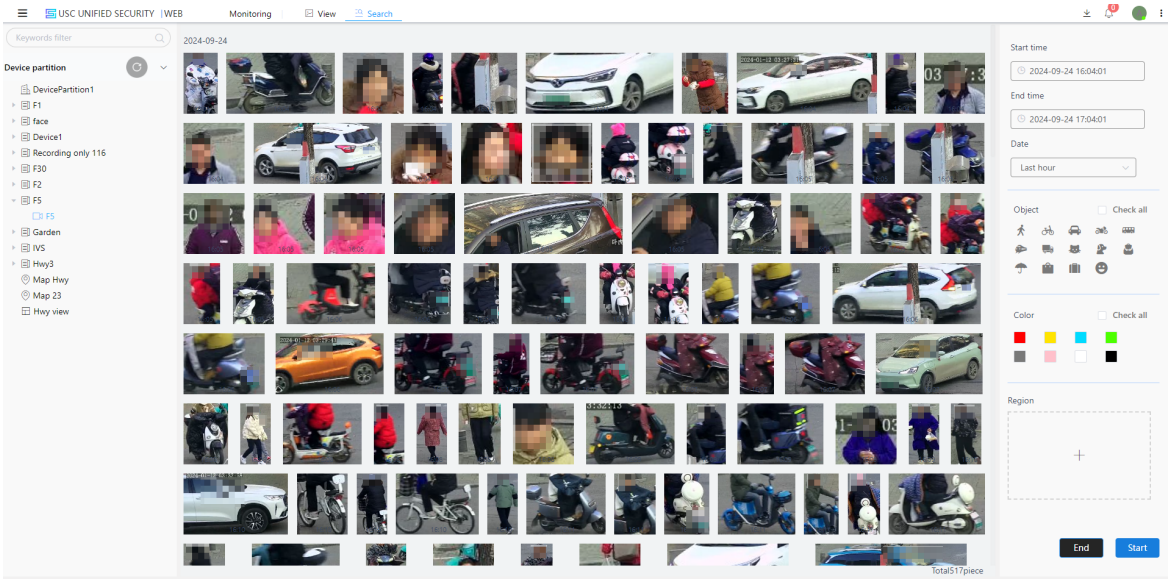
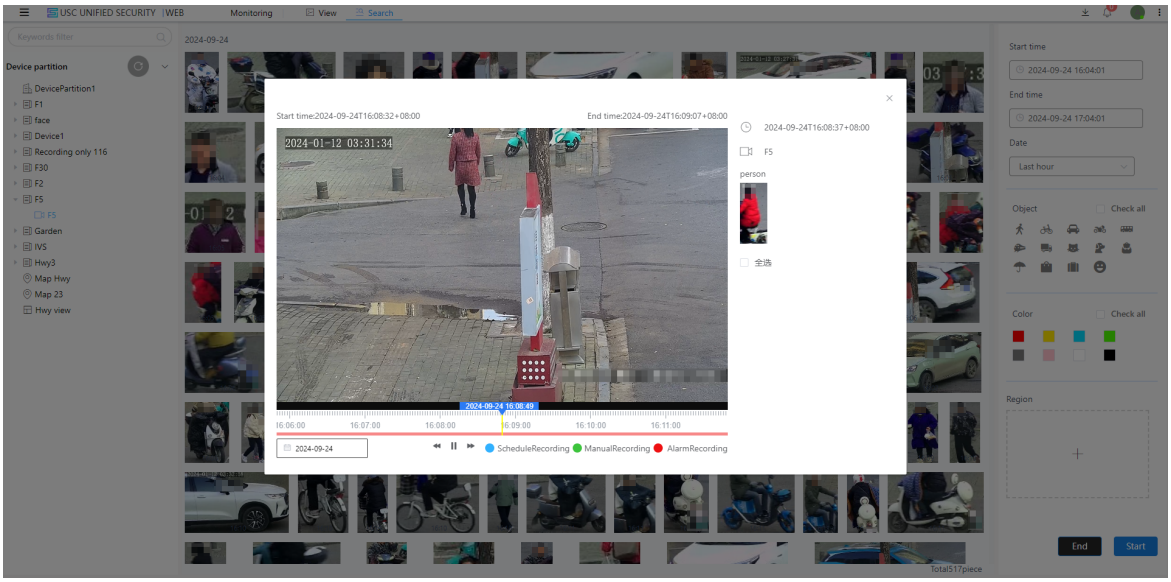


If you need to view the detailed information of an object, you can click on the object and a playback window for the object will pop up. Refer to the following figure:



7.9.3 Motion search

Motion search

Go to **Monitoring-》Search-》Motion Search**, and select the devices to be searched under the device partition.

The modifiable parameter is: Date and Time.Please refer to the figure below:

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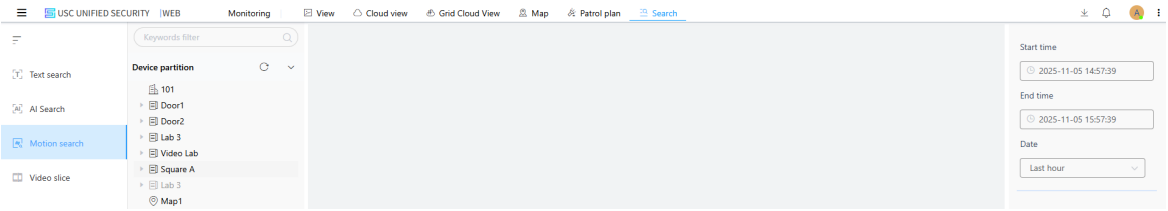
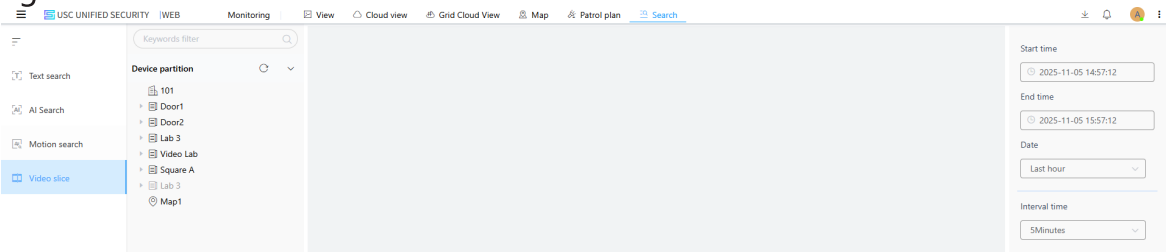


7.9.4 Video slice

Video slice

Go to **Monitoring-》Search-》Video slice**, and select the devices to be searched under the device partition.

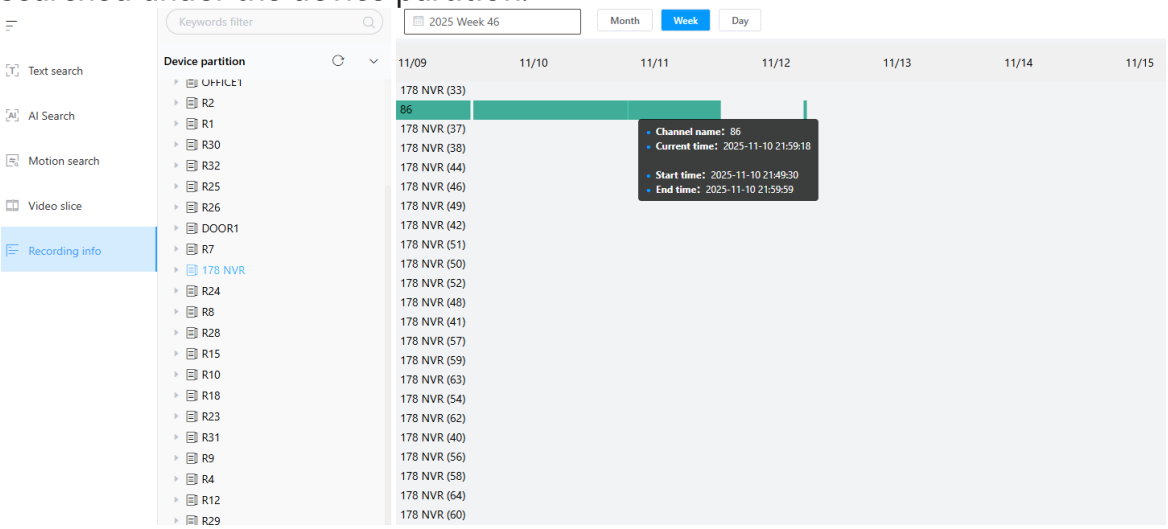
The modifiable parameters include: Time, Interval Time.Please refer to the figure below:



7.9.5 Recording info

Recording info

Go to **Monitoring-》Search-》Recording info**, and select the devices to be searched under the device partition.



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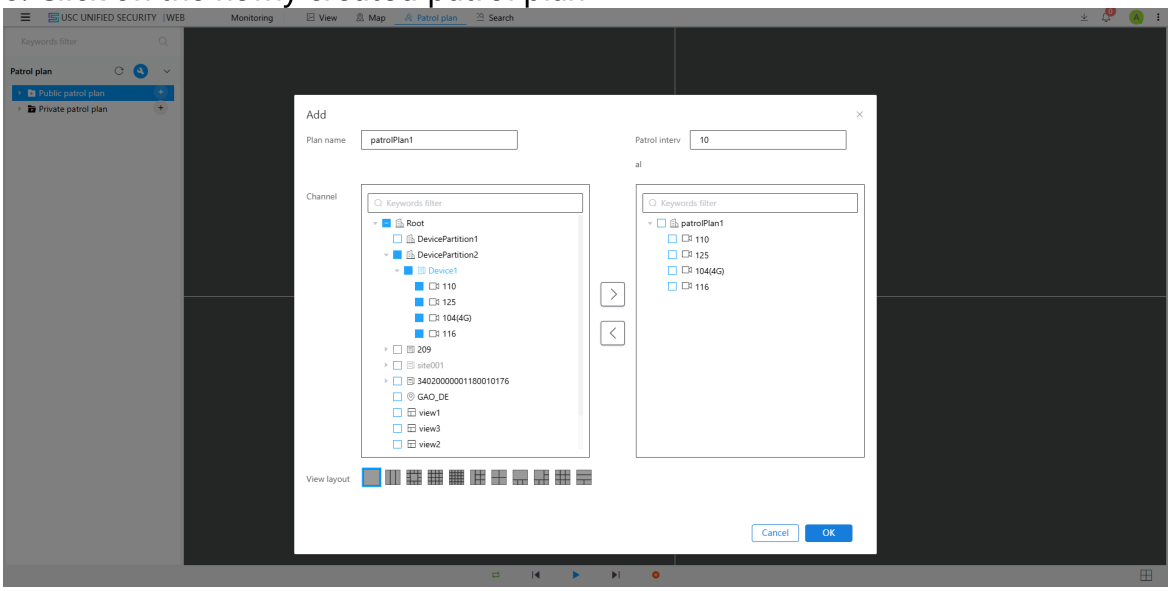
7.10 Patrol Plan

Patrol Plan

In **View-》 Patrol Plan**, public and private patrol plans are supported. Multiple cameras can be allocated to a view layout to create a patrol plan, and a single patrol plan can be patrolled individually.

1. Click + button
2. Customize the name of the plan
3. Patrol interval, unit: second
4. Check the channels that need to be allocated
5. Click > button
6. Select the view layout grid or a custom view layout
7. Click ***OK***
8. Click on the newly created patrol plan



The buttons are arranged from left to right, with a single cycle of the patrol plan. Previous video, play, pause, next video, close patrol plan, switch view layout, and custom view layout.

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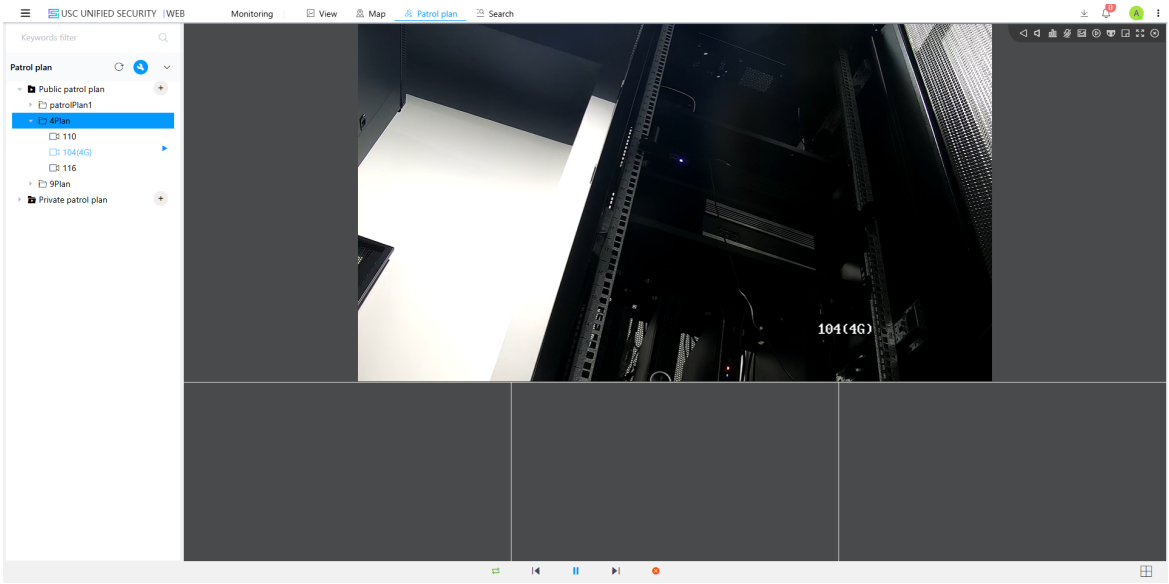


Caution

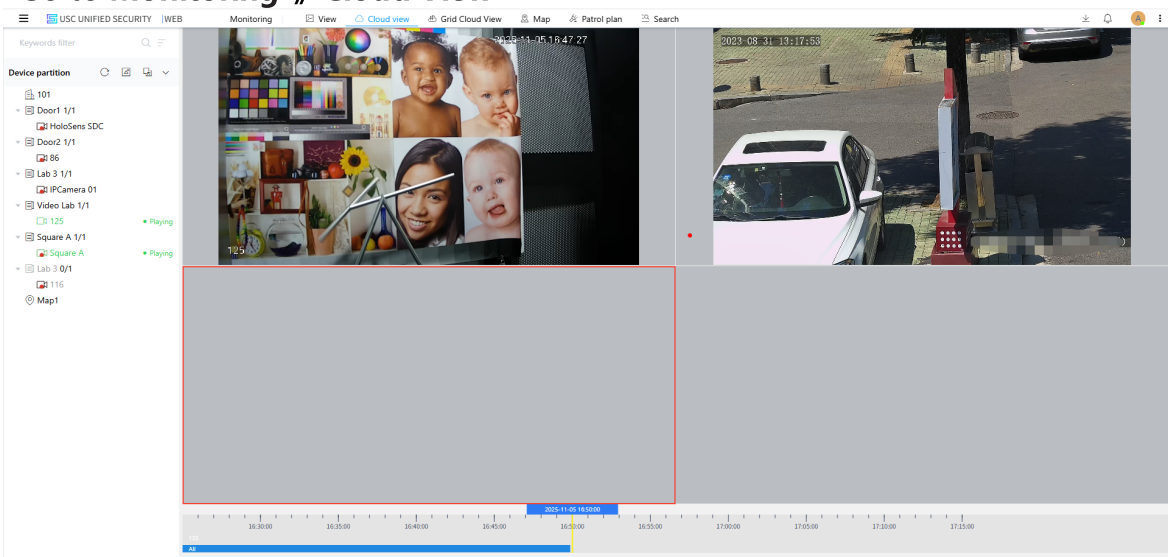
Public patrol plan: all users can see it.

Private patrol plan: Only users who create private patrol plans can see it, and non-creating users cannot see it.

7.11 Cloud view

Operation Steps

Go to **Monitoring-》Cloud View**



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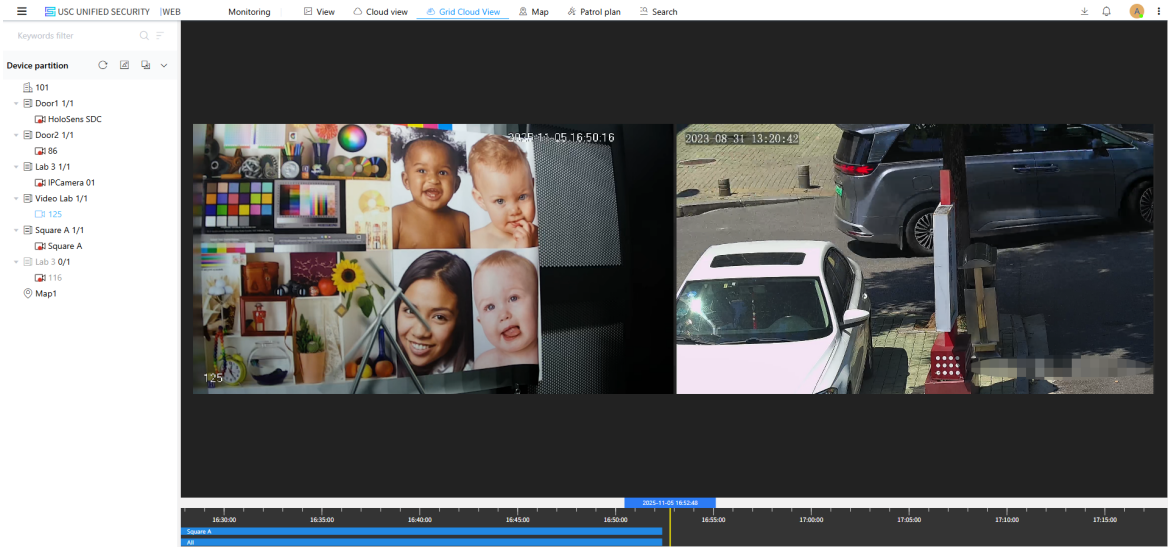
7.12 Grid Cloud View

Operation Steps

Go to **Monitoring-》Grid Cloud View**



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8.Cascade Configuration

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8 Cascade Configuration

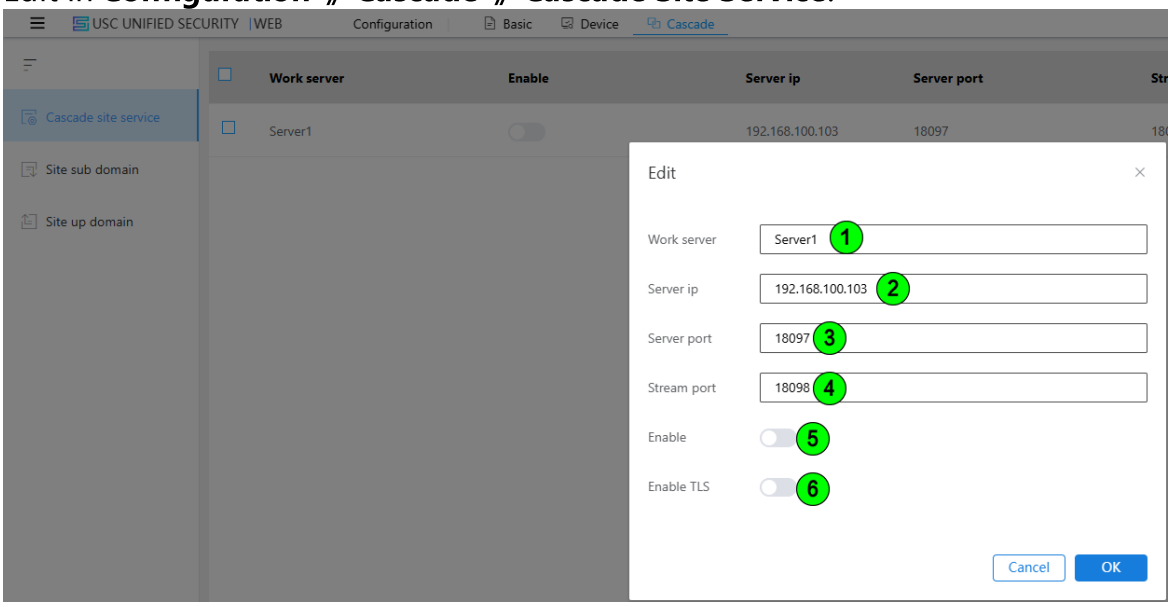
8.1 Cascade Site Service

Introduction To Cascade Site Service

The site service configuration is in a downstream mode, mainly providing services to the USC security platform in other projects. It is used for docking between USC security platforms.

Operation Steps

Edit in **Configuration-》Cascade-》Cascade Site Service**.



1. Click ***Edit***
2. Work server: Working node
3. Server ip: Service local address
4. Server port: Keep the default or customize it
5. Stream port: Keep the default or customize it
6. Enable：Turn on
7. Enable TLS：It is turned off by default, and can be turned on if necessary

Number	Name	Function
1	Work server	Work nodes, each of which can start the service
2	Server ip	The IP address of the higher-level service needs to be modified according to the actual situation. If it is a cloud service, it needs to be modified to the mapped IP address
3	Server port	Parent service port

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4	Stream port	Superior service stream TCP port
5	Enable	Is it enabled
6	Enable TLS	Whether to enable TLS

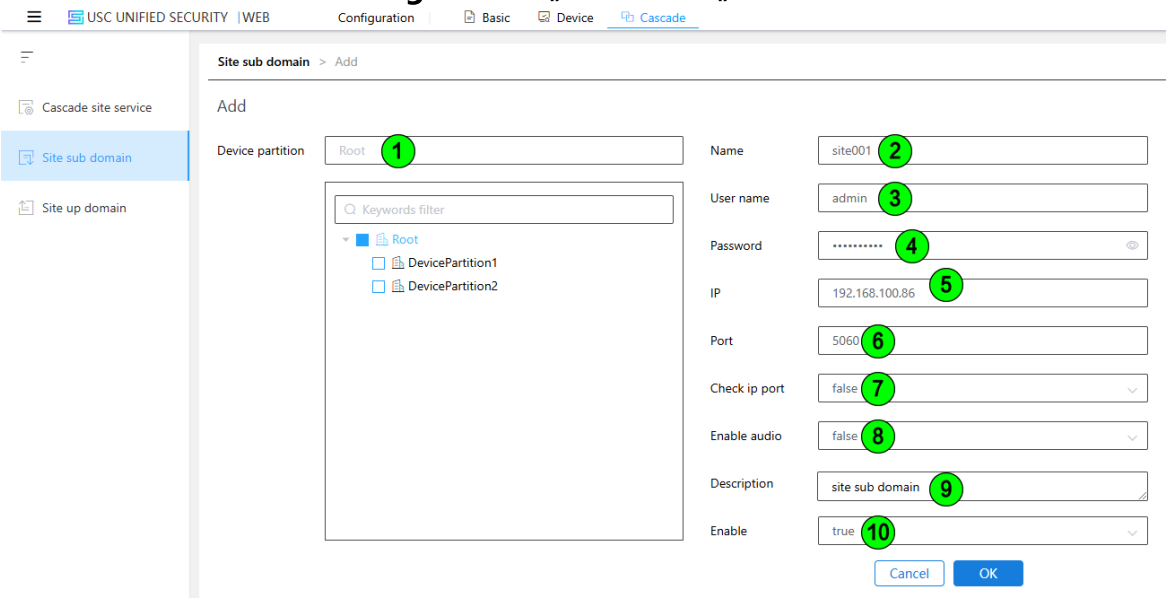
8.2 Site Sub Domain

Introduction To Site Sub Domain

When interfacing with the subordinate USC security platform, it is necessary to add the subordinate site here and fill in the user name, password, IP address, and port of the subordinate USC security platform. Other parameters are customized.

Operation Steps

Add and delete in the **Configuration-》Cascade-》Site Sub Domain**.



1. Click ***Add*** button
2. Customize device partitions
3. Custom name
4. User name of the subordinate platform
5. Password of subordinate platform
6. IP address of the subordinate platform
7. Customize or use the default
8. Other parameters remain default

Number	Name	Function

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1	Device partition	Mount partition
2	Name	Subordinate user name, multiple subordinate user names cannot be the same
3	User name	Subordinate user name, multiple subordinate user names cannot be the same
4	Password	Lower level password
5	IP	IP address registered by the subordinate
6	Port	Port registered by the subordinate
7	Check ip port	Whether to verify the IP address and port registered by the subordinate. By default, it is not verified
8	Enable audio	Whether to turn on audio
9	Description	Description
10	Enable	Enable or disable the device. If it is disabled, the device cannot be registered.

⚠ *Caution*

Import button: Import the exported data. If the imported data has any overlap with the added data, the addition will fail.

Export button: Export the added subordinate site data.

8.3 Site Up Domain

Introduction To Site UP Domain

When connecting with the superior USC security platform, it is necessary to add the superior site here, and fill in the user name, password, IP address, and port of the superior USC security platform. Other parameters are customized.

Operation Steps

Add and delete in **Configuration-》Cascade-》Site Up Domain**.

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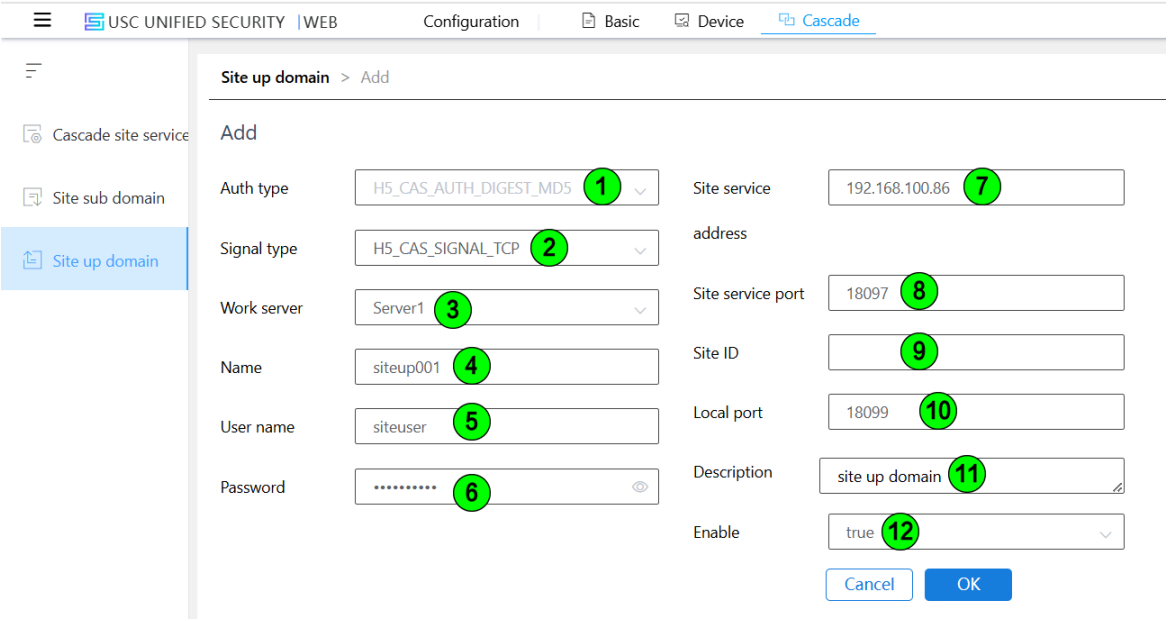

1. Click ***Add*** button
2. Auth type: Keep default
3. Signal type: Keep the default or select as needed
4. Work server: Keep default
5. Name: Customize
6. User name: User name of the higher-level platform
7. Password: Password of the higher-level platform
8. Site service address: IP address of the superior platform
9. Site service port: Superior platform port
10. Description: Customize
11. Enable: : Keep default

Number	Name	Function
1	Auth type	Authentication type: default to H5_CAS_AUTH_DIGEST_MD5
2	Signal type	H5_CAS_SIGNAL_TCP or H5_CAS_SIGNAL_TLS
3	Work server	Work Node
4	Name	Subordinate Name
5	User name	Subordinate User Name
6	Password	Lower level password
7	Site service address	Site service address
8	Site service port	Site service port

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9	Site ID	Site ID
10	Local port	Local port
11	Description	Description
12	Enable	Enable or disable

Caution

Import button: Import the exported data. If the imported data has any overlap with the data already added, the addition will fail.

Export button: Export the added parent site data.

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9.Analytics

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9 Analytics

Introduction To Analysis

The system is based on deep learning technology, supports Intel CPU and NVIDIA GPU inference, supports real-time analysis of perimeter and illegal behavior, and stores metadata in a streaming video database that can be searched based on different conditions, providing more powerful security prevention strategies and post-event investigation methods.The platform detects abnormal behavior and suspicious activities based on user-defined rules, providing real-time alert reporting without the need for continuous manual monitoring.Realize 7×24 hours of uninterrupted reasoning, greatly reduce the workload of manual processing of massive video data, and proactively identify potential safety hazards and prevent suspicious risks.

9.1 Installation

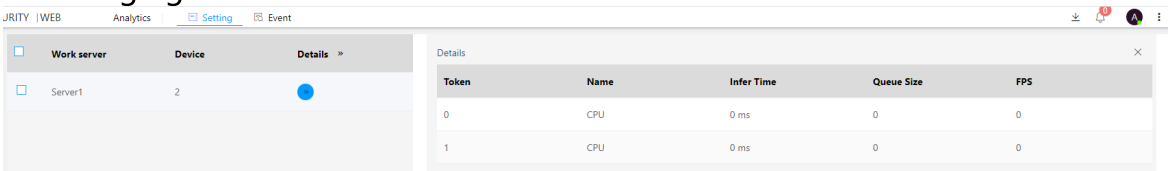
Introduction To The Installation Of Video Analysis Service

The system installation package comes with inference model files and supporting libraries based on Intel CPUs by default. Deep learning inference based on Intel CPUs only supports Windows.

Enter Analysis-》Settings-》Inference Service Configuration to set the inference engine and model accuracy.USC_ANALYTICS_CPU is inference based on Intel CPU, and USC_ANALYTICS_CUDA is inference based on NVIDIA CUDA.After modifying the engine or model accuracy, you need to restart the system.

The models tested by NVIDIA GPU are NVIDIA RTX 4000 SFF/NVIDIA RTX A2000 6G/NVIDIA RTX 3060, which support multiple GPUs of the same model in a single server.

After the analysis configuration is complete, **enter Analysis-》Settings-》Inference Service Status** to view the real-time status of the inference service, including inference time/inference queue length/frame rate. CPU-based inference time can be relatively long, and if the inference queue is large, it indicates that the inference resources have been exhausted. Refer to the following figure:



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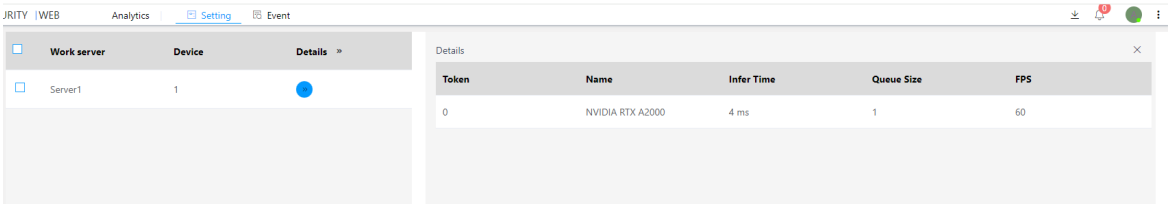


9.1.1 Windows CUDA Inference

Windows CUDA Inference

The system requires a CUDA-related runtime environment, installation of the CUDA driver and TensorRT support library, and acquisition of model files.

Install the CUDA Driver For Windows

The CUDA driver comes with its own GPU driver, so there is no need to install the GPU driver separately before installing the CUDA driver.The currently used version of CUDA is CUDA_11.8.0_522.06_windows.

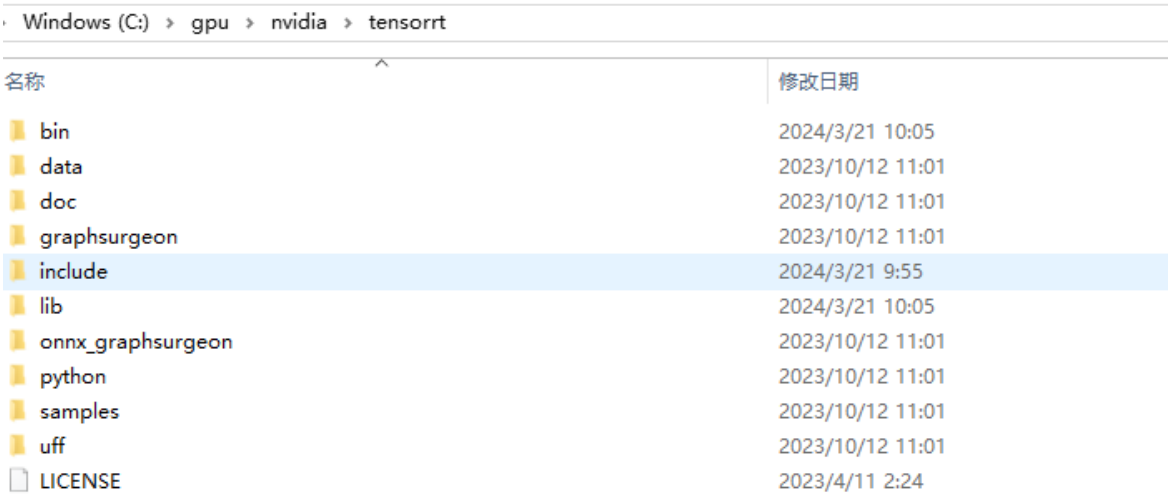
You can access the following link to download
https://developer.nvidia.com/cuda-downloads

You can also directly click the following link to download:
https://developer.download.nvidia.com/compute/cuda/11.8.0/local_installers/cuda_11.8.0_522.06_windows.exe

After downloading, simply install it using the default configuration.

Installation Of Windows TensorRT Support Library

Contact technical support to obtain the tensorrt.zip package, and extract the package to C:\gpu\nvidia\tensorrt. The final directory structure is as follows:



Model File Installation

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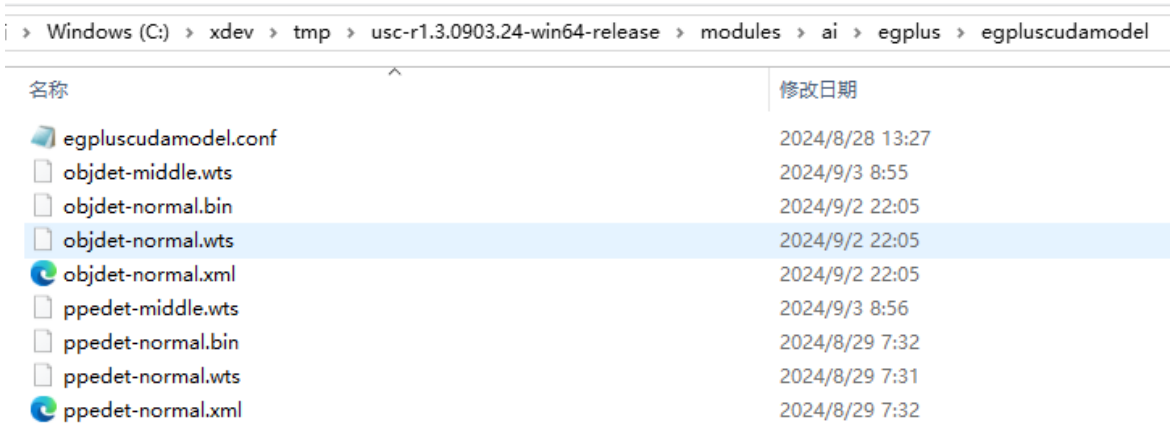
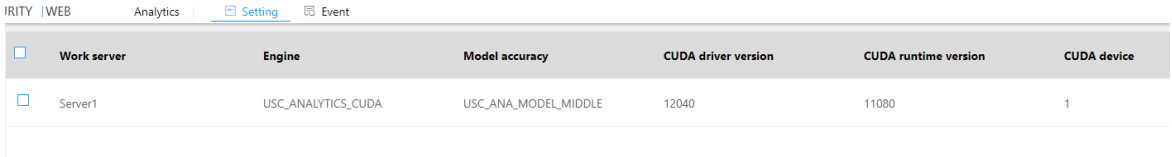
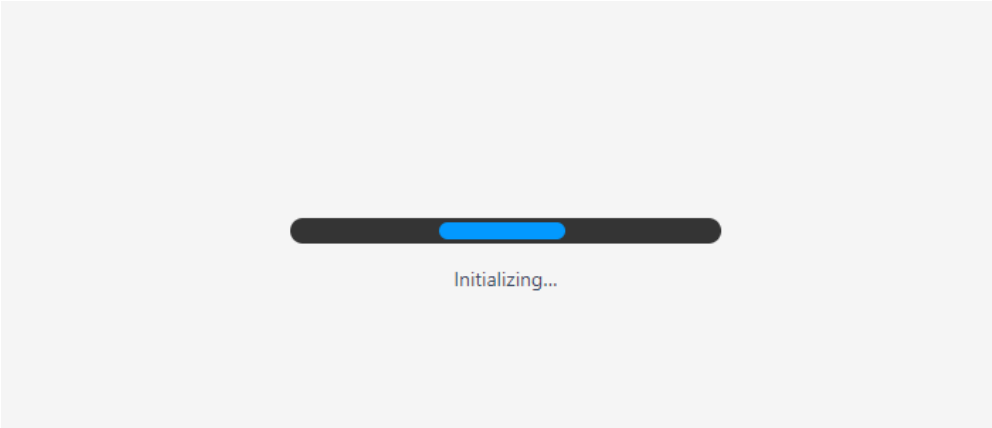
Contact technical support to obtain the model file package egplus.zip, and place the files in egplus\egpluscudamodel into the modules\ai\egplus\egpluscudamodel directory. The final directory structure is as follows:



After the installation is complete, restart the USC service and navigate to **Analysis-》Settings-》Inference Service Configuration**. You should be able to view the CUDA driver version and the CUDA runtime version. Please refer to the figure below for reference:



The system will generate an optimized model based on the GPU model during the first startup, which takes about 5 minutes. There will be a prompt in the **Analyze-》Settings-》Inference Service Status**, as shown in the following figure:



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9.1.2 Linux CUDA Inference

Linux CUDA Inference

The system requires a CUDA-related runtime environment, the installation of the CUDA driver and TensorRT support library, and the acquisition of model files. The Linux verification version is Ubuntu 20.04.6 LTS x86_64.

Ubuntu Turn Off Kernel Auto Update

The installed driver is related to the operating system kernel. If the operating system kernel is updated, the driver will become invalid. Therefore, it is necessary to disable automatic kernel updates.Take Ubuntu 20.4 as an example.

sudo systemctl disable --now unattended-upgrades
sudo systemctl status unattended-upgrades

sudo vi /etc/apt/apt.conf.d/20auto-upgrades

```
APT::Periodic::Update-Package-Lists "0";
APT::Periodic::Unattended-Upgrade "0";
~
~
~
~
~
```

cat /etc/apt/apt.conf.d/20auto-upgrades
APT::Periodic::Update-Package-Lists "0";
APT::Periodic::Unattended-Upgrade "0";

Install CUDA Driver For Linux

The CUDA driver comes with its own GPU driver, so there is no need to install the GPU driver separately before installing the CUDA driver.The currently used version of CUDA is cuda_11.8.0_520.61.05_linux.run.

You can enter the following link to download
https://developer.nvidia.com/cuda-downloads

You can also directly click the link below to download:
https://developer.download.nvidia.com/compute/cuda/11.8.0/local_installers/cuda_11.8.0_520.61.05_linux.run

After downloading, refer to the following commands to install it. Install the GPU driver during installation.
sudo ./cuda_11.8.0_520.61.05_linux.run
If the installation fails, you can replace tmpdir and install again.
sudo ./cuda_11.8.0_520.61.05_linux.run --tmpdir=/home/user/tmp

Linux Tensorrt Support Library Installation

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Contact technical support to obtain the tensorrt.tar.gz package, and extract the package to /opt/tensorrt. The final directory structure is as follows:

```
root@user-YANYU:/opt/tensorrt# tree -L 1 /opt/tensorrt
/opt/tensorrt
├── bin -> targets/x86_64-linux-gnu/bin
├── data
├── doc
├── graphsurgeon
├── include
├── lib -> targets/x86_64-linux-gnu/lib
├── LICENSE
├── onnx_graphsurgeon
├── python
├── samples
├── targets
└── uff

11 directories, 1 file
```

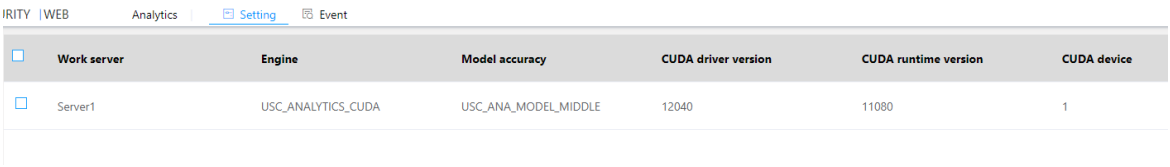
Installation Of Model Files

Contact technical support to obtain the model file package egplus.zip, and place the files in egplus/egpluscudamodel into the modules/ai/egplus/egpluscudamodel directory. The final directory structure is as follows:

```
user@ubuntu:/opt/usc/conf/ai/egplus/egpluscudamodel/IVE_GPU_CUDA$ tree /opt/usc/conf/ai/egplus/egpluscudamodel/IVE_GPU_CUDA
/opt/usc/conf/ai/egplus/egpluscudamodel/IVE_GPU_CUDA
├── crowd-middle.wts
├── facerecog-middle.wts
├── firsmo-middle.wts
├── lprdet-normal.wts
├── lprrecog-middle.wts
├── objdet-high.engine
├── objdet-high.wts
├── objdet-middle.engine
├── objdet-middle.wts
└── ppedet-middle.wts

0 directories, 10 files
```

After installation, restart the USC service, **enter Analysis-》Settings-》Inference Service Configuration**, and you can see the CUDA driver version and CUDA runtime version. Refer to the following figure:



The system will generate optimized models based on the GPU model when it is first started. After about 5 minutes, there will be a prompt in the **Analyze-》Settings-》Inference Service Status**. Refer to the following figure:

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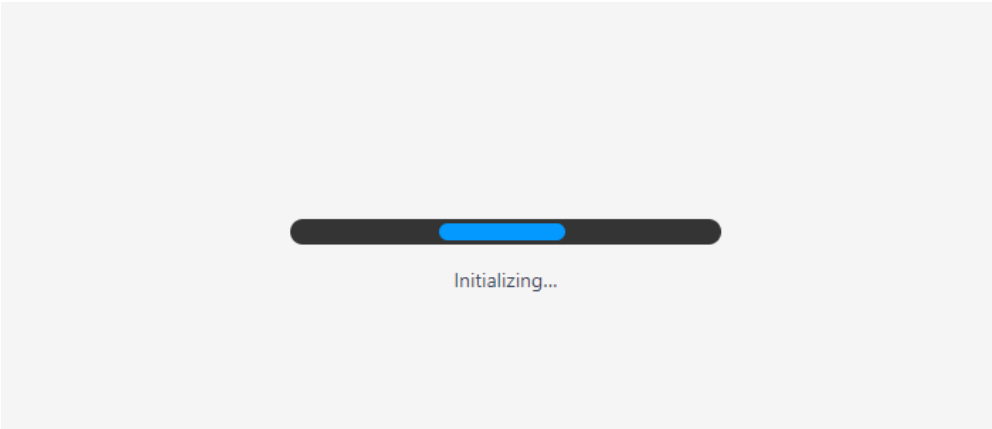

9.1.3 Jetson CUDA Inference

Jetson CUDA Inference

The system requires Jetson hardware. JetPack comes pre-installed with CUDA and Tensorrt and retrieves model files. The verified Jetson version is Ubuntu 20.04 JetPack version 5.1.5, and CUDA version 11.8 needs to be upgraded. JetPack version reference: https://developer.nvidia.com/embedded/jetpack-sdk-515

Upgrade CUDA

JetPack version 5.1.5 comes with CUDA 11.4 pre-installed. You need to upgrade from 11.4 to 11.8. Please refer to the following link for instructions.
https://developer.nvidia.com/cuda-11-8-0-download-archive?target_os=Linux&target_arch=aarch64-jetson&Compilation=Native&Distribution=Ubuntu&target_version=20.04&target_type=deb_local

The operation method is as follows:

```
wget
https://developer.download.nvidia.com/compute/cuda/repos/ubuntu2004/arm64/cuda-ubuntu2004.pin
sudo mv cuda-ubuntu2004.pin /etc/apt/preferences.d/cuda-repository-pin-600
wget
https://developer.download.nvidia.com/compute/cuda/11.8.0/local_installers/cuda-tegra-repo-ubuntu2004-11-8-local_11.8.0-1_arm64.deb
sudo dpkg -i cuda-tegra-repo-ubuntu2004-11-8-local_11.8.0-1_arm64.deb
sudo cp /var/cuda-tegra-repo-ubuntu2004-11-8-local/cuda-*-keyring.gpg /usr/share/keyrings/
sudo apt-get update
sudo apt-get -y install cuda
```

Installation Of Model Files

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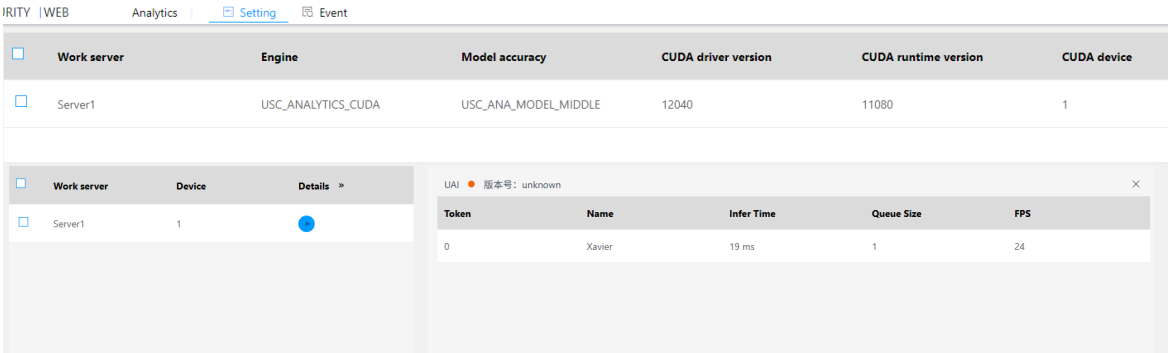
Contact technical support to obtain the model file package egplus.zip, and place the files in egplus/egpluscudamodel into the modules/ai/egplus/egpluscudamodel directory. The final directory structure is as follows:

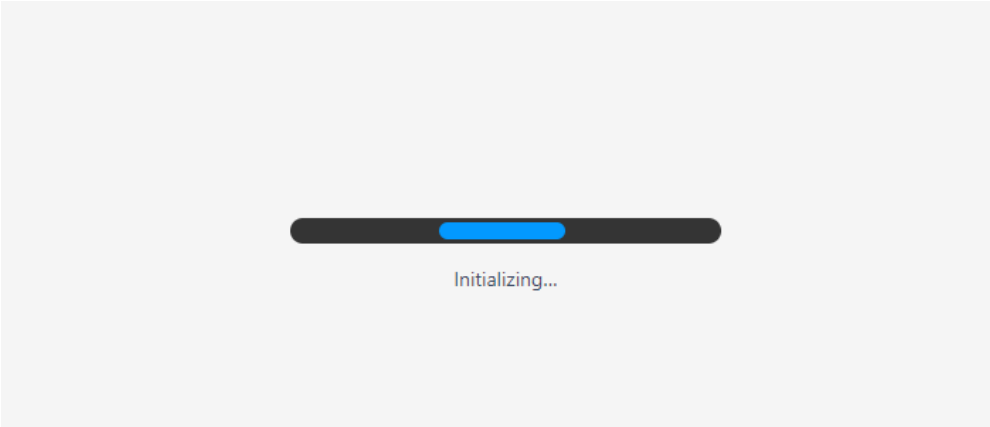
```
user@ubuntu:/opt/usc/conf/ai/egplus/egpluscudamodel/IVE_GPU_CUDA$ tree /opt/usc/conf/ai/egplus/egpluscudamodel/IVE_GPU_CUDA
/opt/usc/conf/ai/egplus/egpluscudamodel/IVE_GPU_CUDA
├── crowd-middle.wts
├── facerecog-middle.wts
├── firsmo-middle.wts
├── lprdet-normal.wts
├── lprrecog-middle.wts
├── objdet-high.engine
├── objdet-high.wts
├── objdet-middle.engine
├── objdet-middle.wts
└── ppedet-middle.wts

0 directories, 10 files
```

After installation, restart the USC service, **enter Analysis-》Settings-》Inference Service Configuration**, and you can see the CUDA driver version and CUDA runtime version. Refer to the following figure:



The system will generate optimized models based on the GPU model when it is first started. After about 5 minutes, there will be a prompt in the **Analyze-》Settings-》Inference Service Status**. Refer to the following figure:



jtop Status

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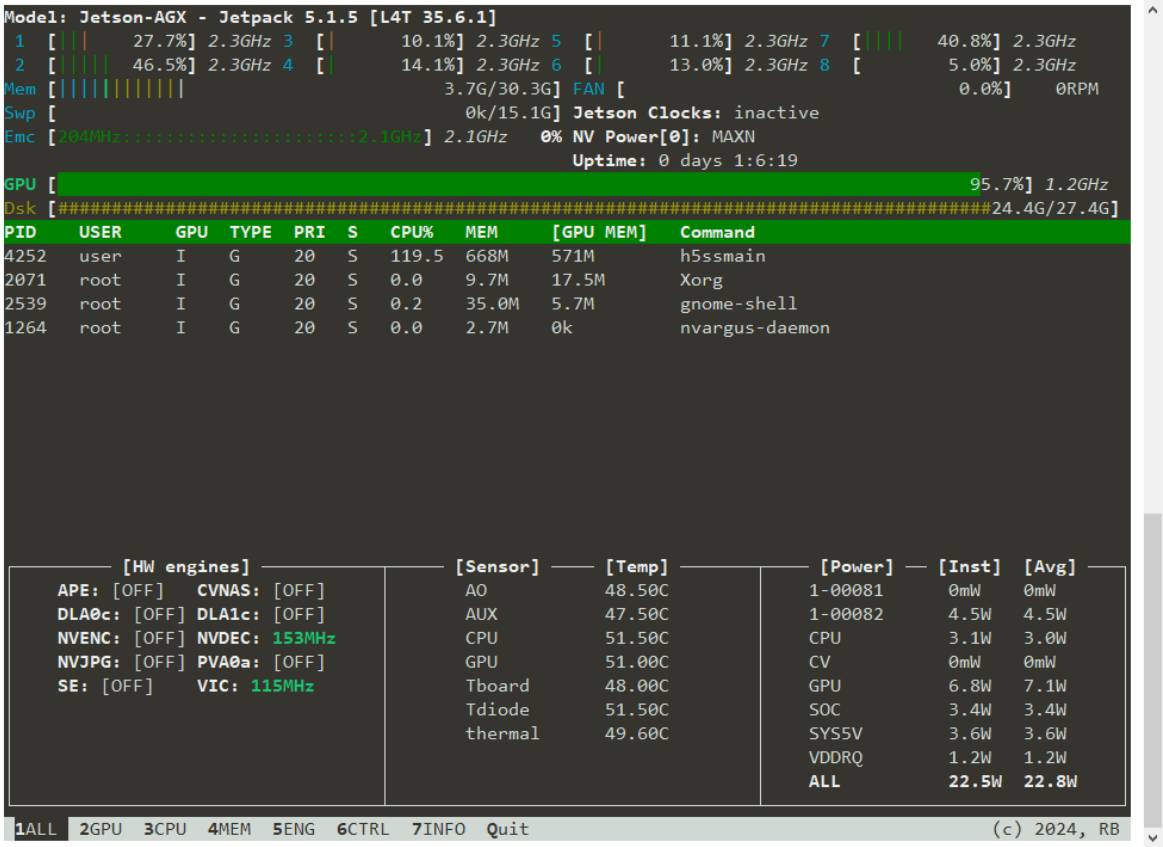
Once the model is running, you can use jtop to check the GPU decoding and inference performance.



9.2 Setting

9.2.1 Rule Configuration

9.2.1.1 General

Introduction To Basic Rules

The basic rule is to set the analysis parameters of the channel, and all other analysis rules for that channel are based on these parameters. The polygon set by the basic rule defines the scope of the analysis, and only objects within that polygon will be calculated.If the inference engine is set to USC_ANALYTICS_CPU (i.e., CPU mode), the maximum frame rate is 5 frames. If the setting is greater than 5 frames, it will be forced to 5 frames.

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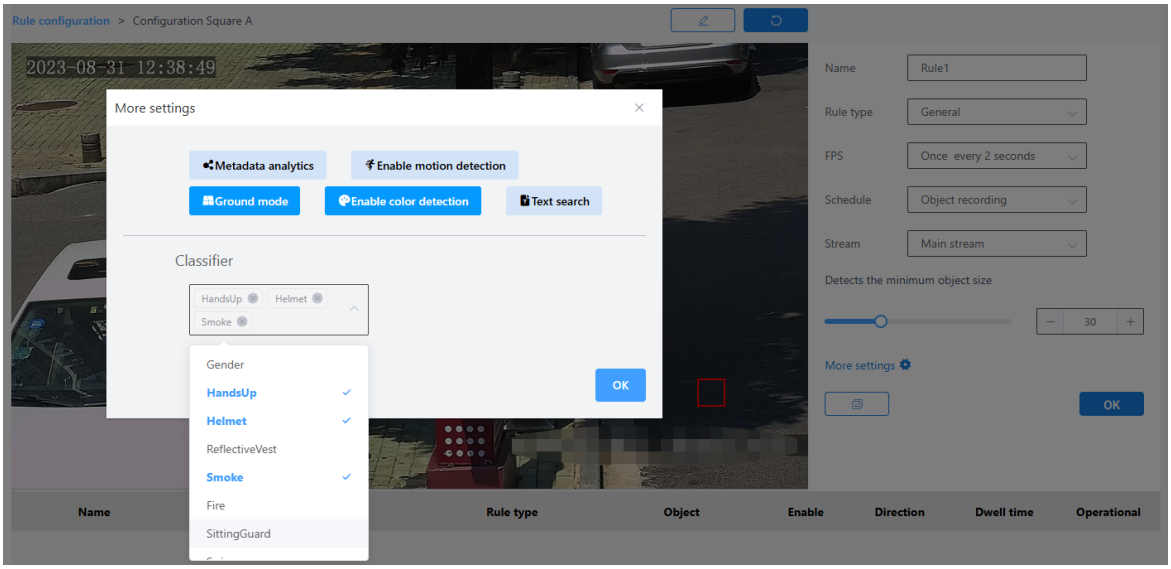

Rule configuration:

1. Select the device under the root node, and click on the configuration under the edit field on the right side of the interface
2. Custom name
3. Select the check type as ***Basic Configuration***
4. Customize the frame rate or use the default frame rate
5. Select a plan
6. Open metadata analysis
7. Select the code stream
8. Adjust the minimum object size for detection
9. Configure more settings
10. Click the ***Brush*** button to draw a frame in the image.After drawing the frame, you need to click the brush button to confirm that the frame is drawn
11. Next to the ***Brush*** button is the ***Restore*** button, which restores the frameless state
12. Finally click the ***OK*** button

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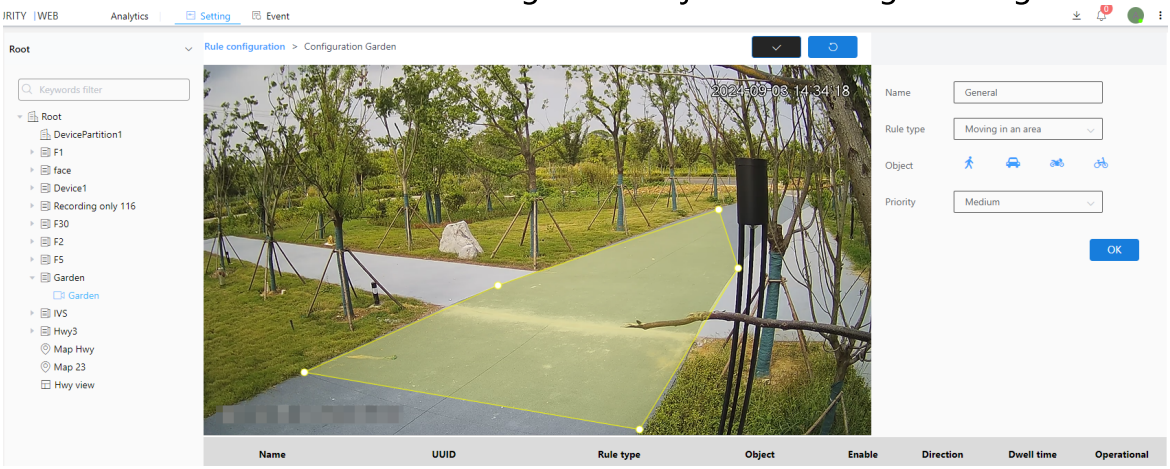
9.2.1.2 Moving In An Area

Area Intrusion

Area intrusion is a rule for detecting active objects within a given range.

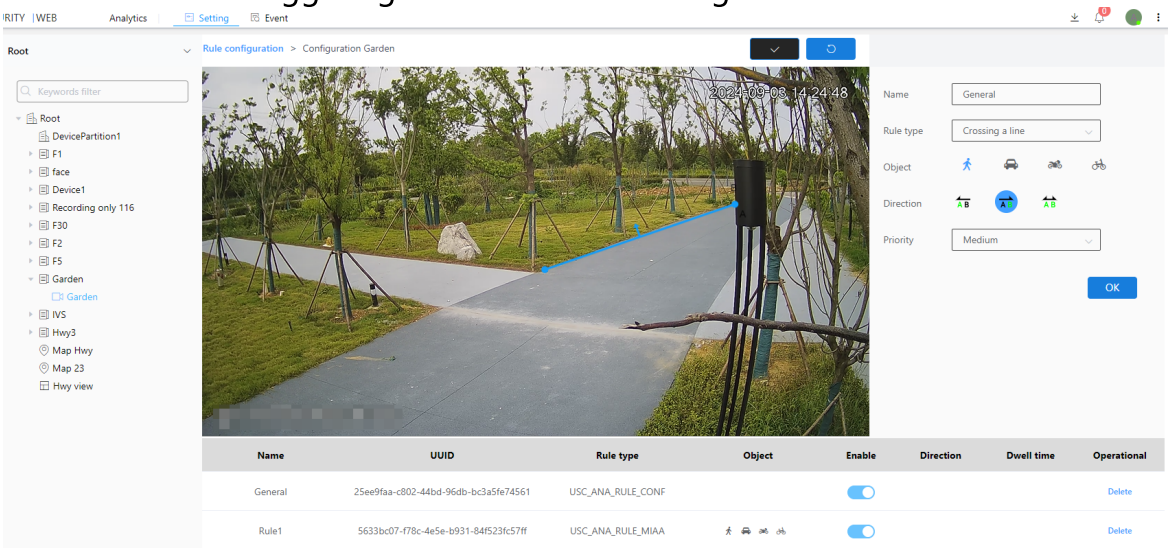


1. Select the inspection type as area intrusion
2. Select the intrusion object (person, car, motorcycle, bicycle)
3. Select level
4. Click the ***Brush*** button to draw a frame in the image.After drawing the frame, you need to click the brush button to confirm that the frame is drawn
5. Next to the ***Brush*** button is the ***Restore*** button, which restores the frameless state
6. Finally click the ***OK*** button

9.2.1.3 Crossing A Line

Crossing Line Inspection

Area intrusion is the detection of object movement in a given direction, and the direction for triggering an alarm can be configured.



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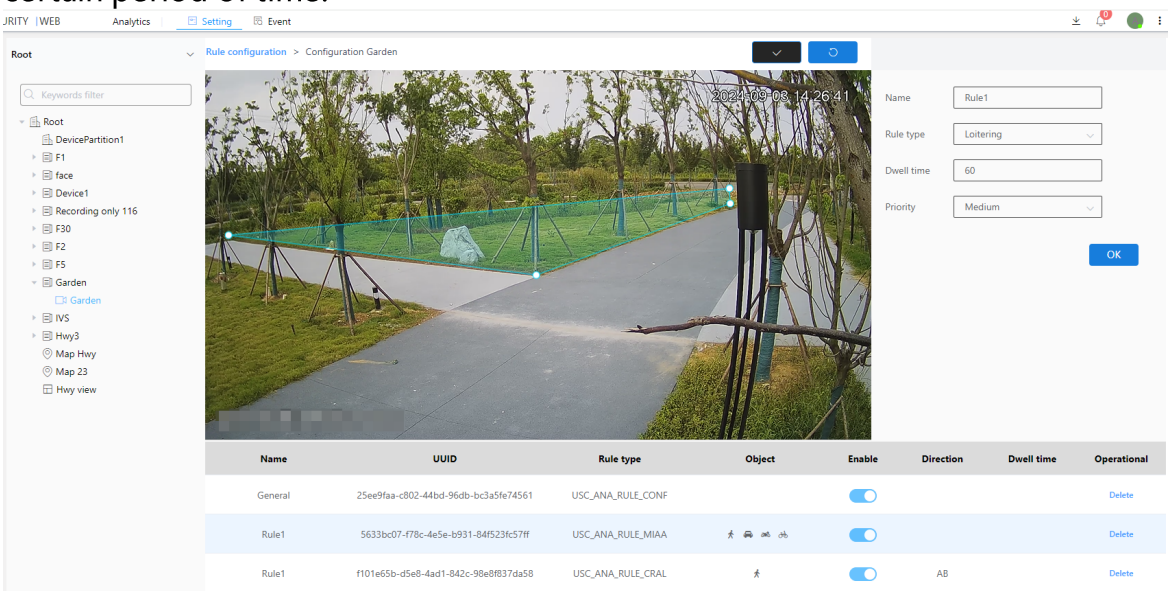
1. Select the inspection type as Mixing ***Line Inspection***
2. Select the object for mixing line detection
3. Select the detection direction
(The first direction A is green, indicating that A is out and B is in)
(The second direction B is green, indicating that B is out and A is in)
(The third direction AB is green, indicating that both AB are in and out.)
4. Select level
5. Click the ***Brush*** button to draw a frame in the image.After drawing the frame, you need to click the brush button to confirm that the frame is drawn
6. Next to the ***Brush*** button is the ***Restore*** button, which restores the frameless state
7. Finally click the ***OK*** button

9.2.1.4 Loitering

Loitering

Loitering is an algorithm that detects people staying in a given area for a certain period of time.



1. Select the inspection type as ***Personnel Stay***
2. Customize or use the default dwell time, in seconds
3. Select level
4. Click the ***Brush*** button to draw a frame in the image.After drawing the frame, you need to click the brush button to confirm that the frame is drawn
5. Next to the ***Brush*** button is the ***Restore*** button, which restores the frameless state
6. Finally click the ***OK*** button

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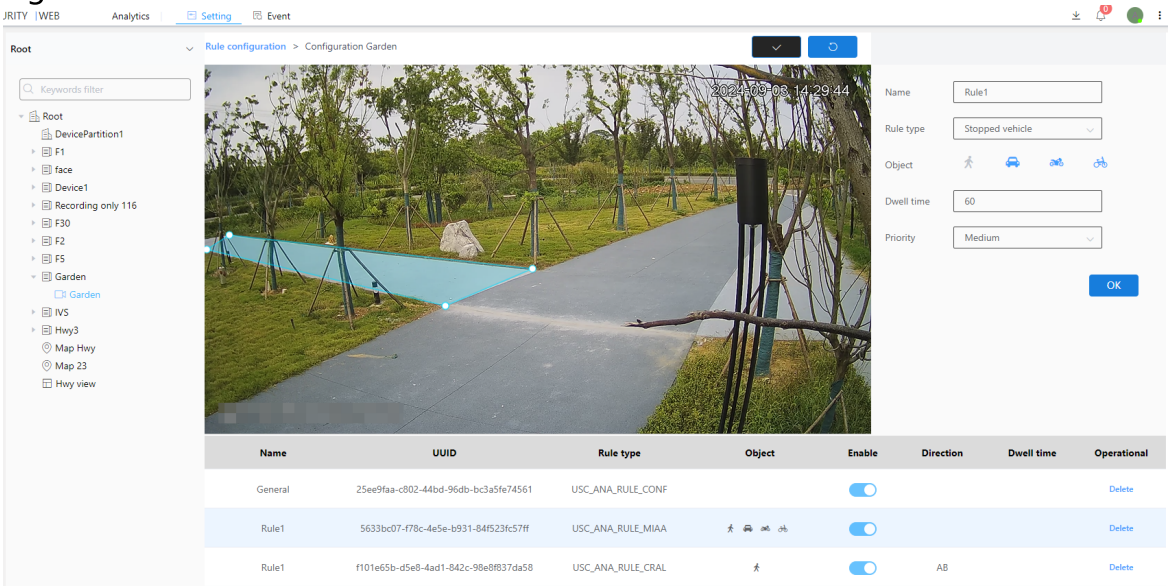
9.2.1.5 Illegal parking

Illegal parking

Illegal parking is an algorithm that detects cars/motorcycles/bicycles staying in a given area.



1. Select the type of inspection as ***illegal parking***
2. Select the detection object of illegal parking
3. Customize or use the default dwell time, unit: seconds
4. Select level
5. Click the ***Brush*** button to draw a frame in the image.After drawing the frame, you need to click the brush button to confirm that the frame is drawn
6. Next to the ***Brush*** button is the ***Restore*** button, which restores the frameless state
7. Finally click the ***OK*** button

9.2.1.6 Vehicle Counting

Vehicle Counting

Vehicle counting is the statistics of the total number of vehicles passing through a given direction.

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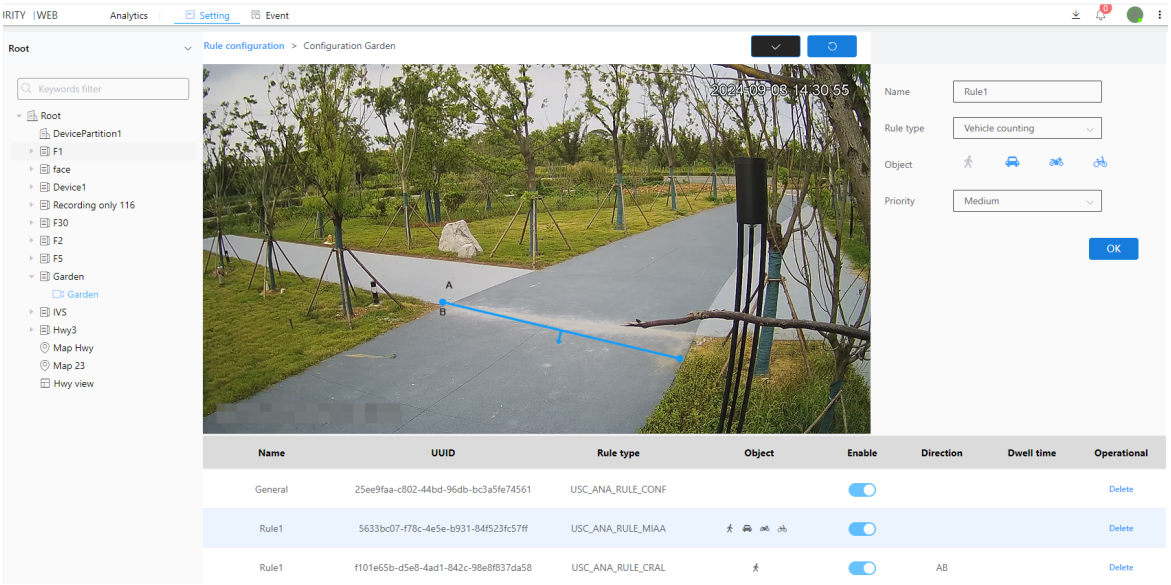

1. Select the vehicle counting as the inspection type
2. Select the detection object for vehicle counting
3. Select level
4. Click the ***Brush*** button to draw a frame in the image.After drawing the frame, you need to click the brush button to confirm that the frame is drawn
5. Next to the ***Brush*** button is the ***Restore*** button, which restores the frameless state
6. Finally click the ***OK*** button

9.2.1.7 Person Counting

People Counting

People counting is the statistics of the total number of people who have passed through a certain direction.

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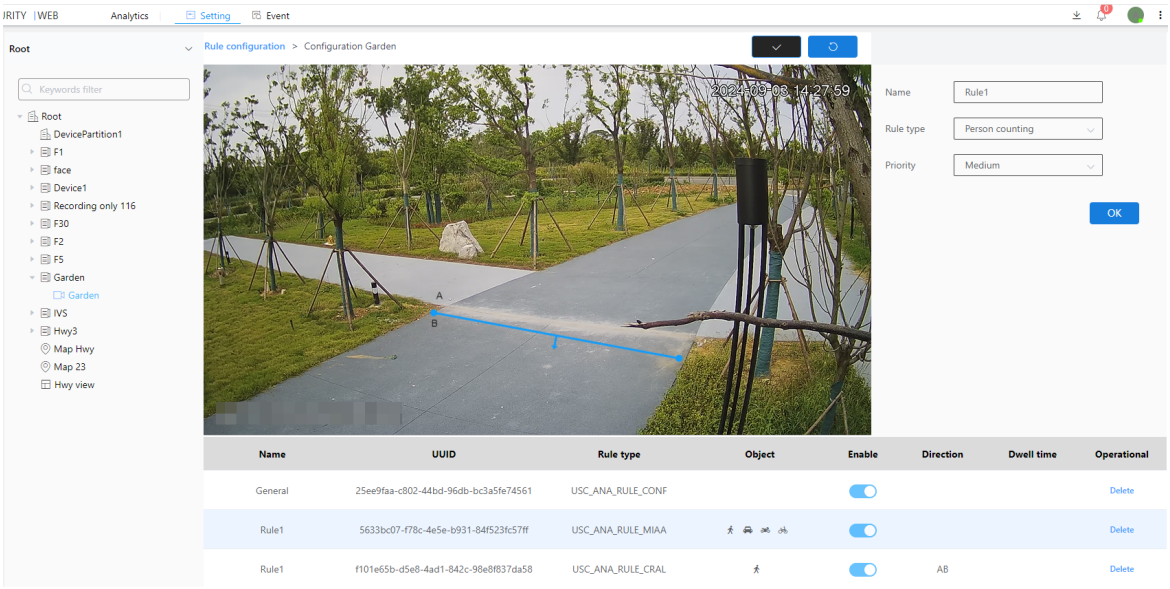

1. Select the inspection type as ***Person Counting***
2. Select level
3. Refer to steps 9, 10, and 11 of the ***Basic Configuration***
4. Click the ***Brush*** button to draw a frame in the image.After drawing the frame, you need to click the brush button to confirm that the frame is drawn
5. Next to the ***Brush*** button is the ***Restore*** button, which restores the image to its original state without a frame
6. Finally click the ***OK*** button

9.2.1.8 License plate recognition

License plate recognition

License plate recognition is the process of detecting the license plate rules of vehicles within a given range.

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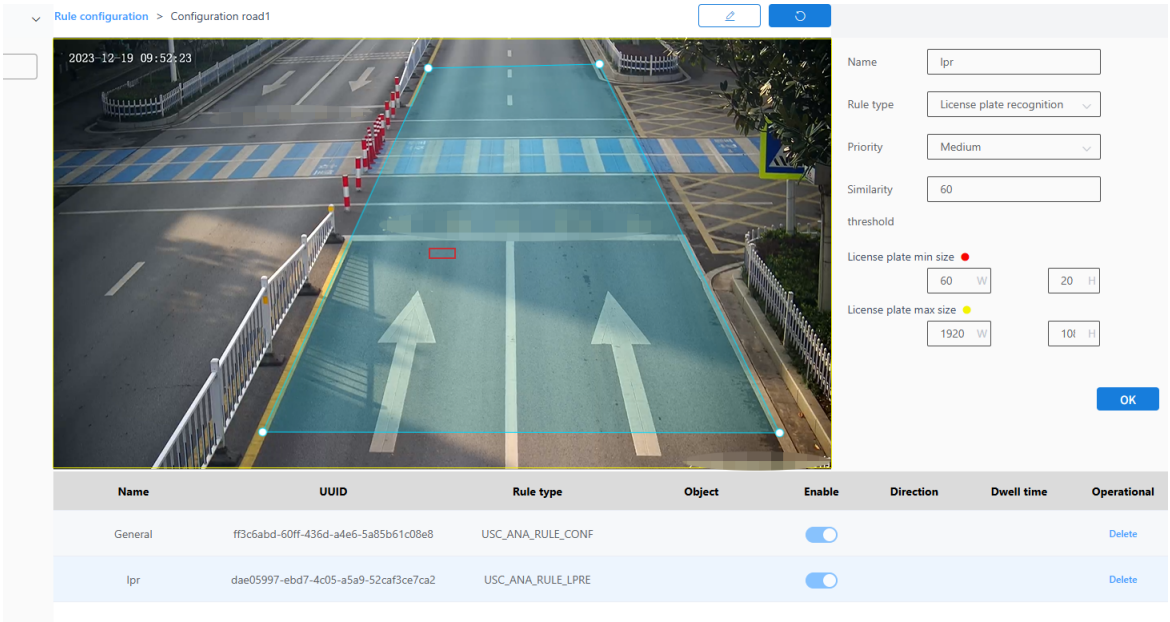

1.Select ***License Plate Recognition*** as the check type.
2.Choose the level.
3.Enter the similarity threshold.
4.Enter the minimum and maximum sizes of the license plate.
5.Click the Brush button and draw a frame on the image. After drawing the frame, you need to click the Brush button again to confirm that the frame is completed.
6.Next to the Brush button is the Restore button, which restores the state to before any frame was drawn.
7.Finally, click the ***OK*** button.

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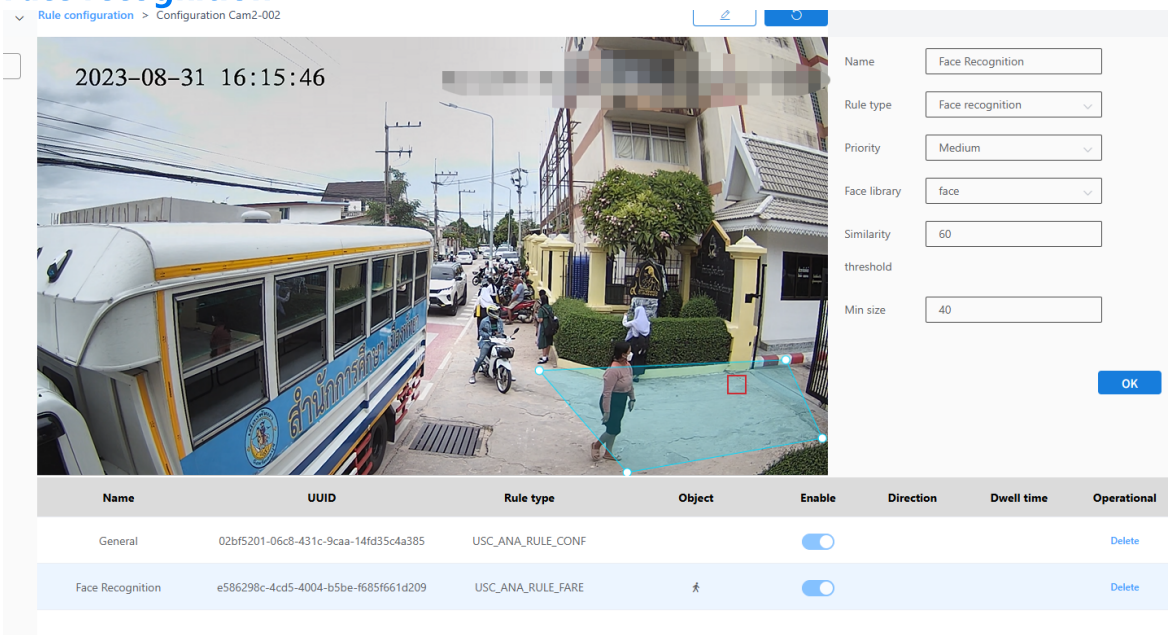
9.2.1.9 Face recognition

Face recognition



1. Select ***Face Recognition*** as the check type.
2.Choose the level.
3.Select the face database.
4.Enter the similarity threshold.
5.Enter the minimum size.
6.Click the Brush button and draw a frame on the image. After drawing the frame, you need to click the Brush button again to confirm the frame is completed.
7.Next to the Brush button is the Restore button, which reverts to the state where no frame was drawn.
8.Finally, click the ***OK*** button.

9.2.2 Video quality inspection

9.2.2.1 Scheme configuration

Operation Steps

Go to **Analyics-》Setting-》Video quality inspection-》Scheme configuration-》Add**

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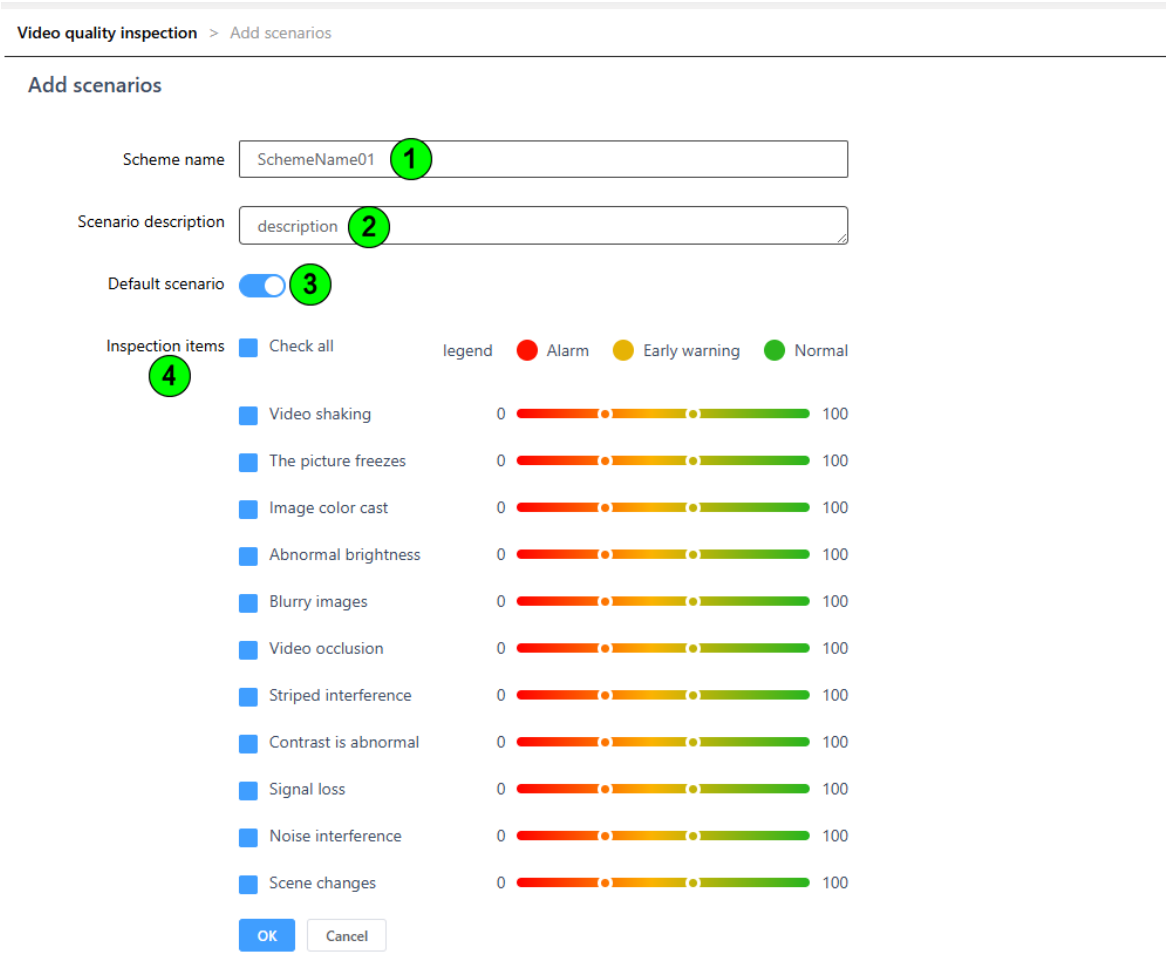

Number	Name	Description
1	Scheme name	Scheme name
2	Scenario description	Scenario description
3	Default scenario	Whether it is the default scheme
4	Inspection items	Items to be checked in the scheme

9.2.2.2 Plan configuration

Operation Steps

Go to **Analyics-》Setting-》Video quality inspection-》Plan configuration-》Add**

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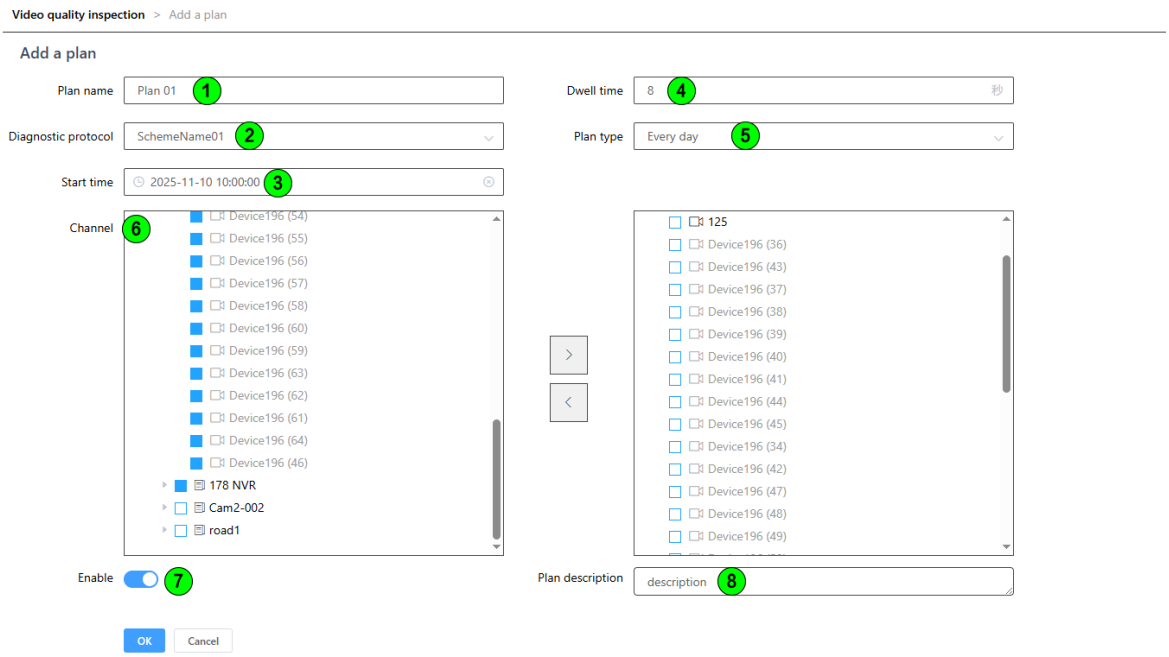

Number	Name	Description
1	Plan name	Plan name
2	Diagnostic protocol	Scheme configuration list
3	Start time	Scheme start time point
4	Dwell time	Detection duration
5	Plan type	Daily / Weekly / Once
6	Channel	Detection channel(s)
7	Enable	Whether enabled
8	Plan description	Plan description

9.2.2.3 Diagnostic results

Operation Steps

Go to **Analyics-》Setting-》Video quality inspection-》Diagnostic results**

For the video quality detection diagnosis results, the time range is a mandatory parameter, and other parameters are optional.

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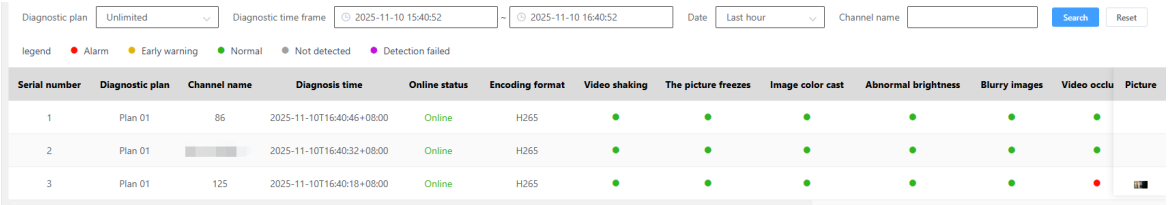
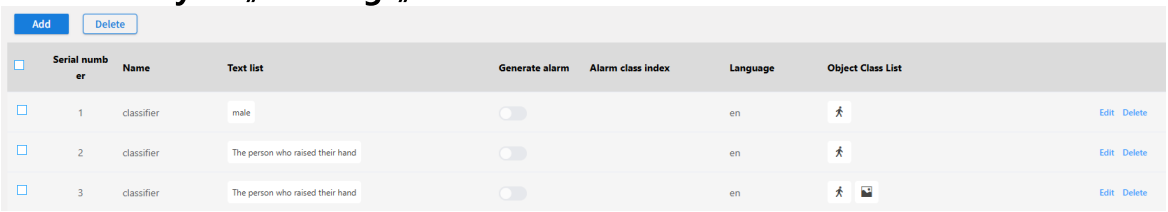
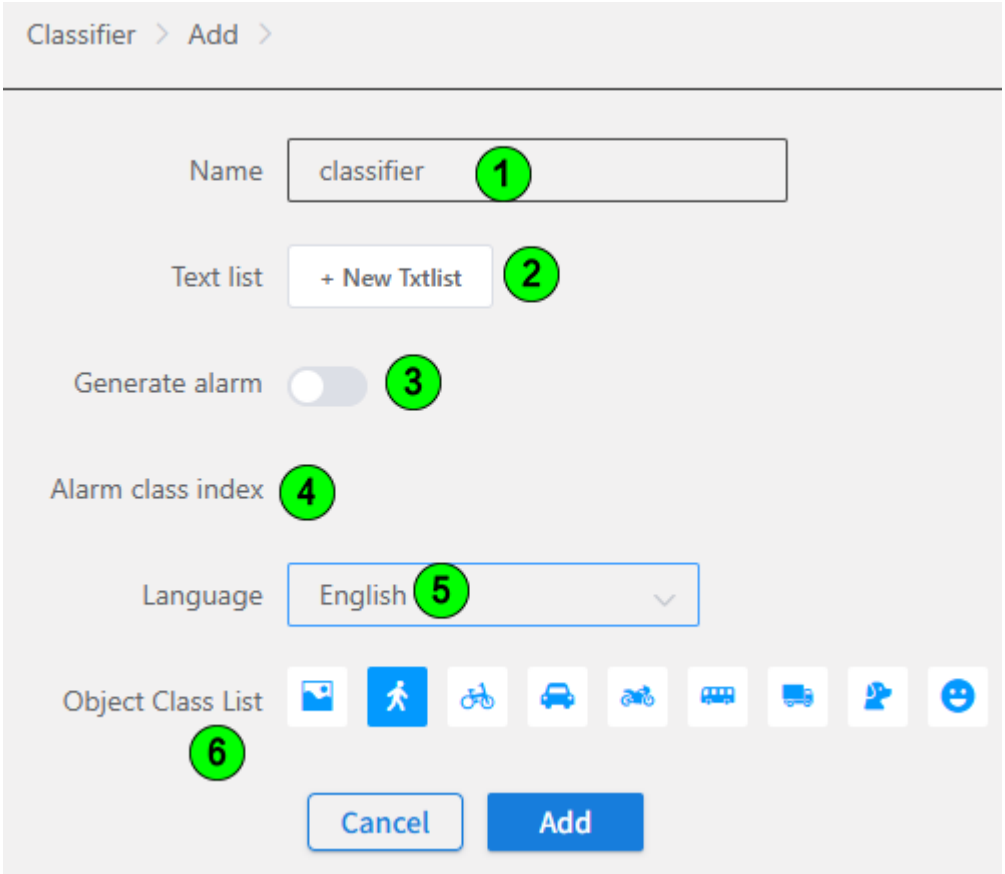


9.2.3 Classifier

Operation Steps

Go to **Analyics-》Setting-》Classifier**





Number	Name	Description
1	Name	Classifier Name

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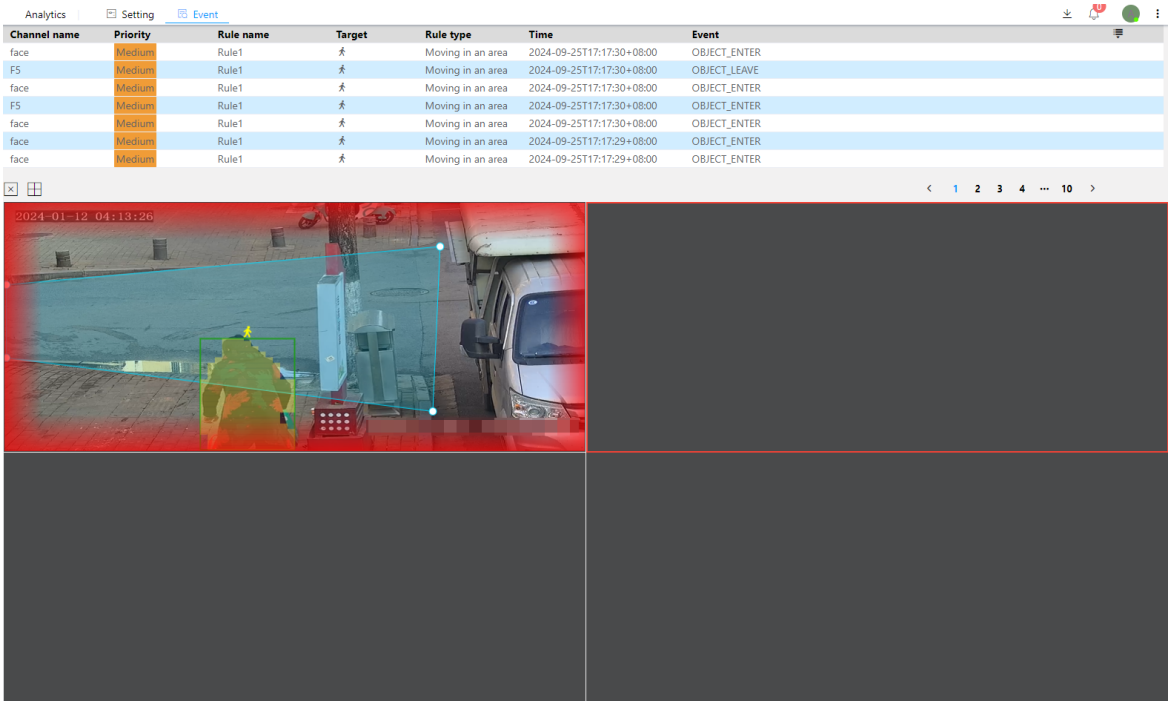
2	Text list	Text List
3	Generate alarm	Whether to Generate Alarm
4	Alarm class index	Alarm Category Index
5	Language	Language (zh, en)
6	Object Class List	Target Objects to Check (background, person, bicycle, car, motorcycle, bus, truck, dog, face)

9.3 Event

Event Introduction

The analysis event is the metadata after the fact display reasoning analysis. You can see the real-time rule alarm. If the object in the video triggers the alarm, the video will flash red to indicate it.



9.4 Face

9.4.1 Person library

Face library

1. Click + to add a face database
2.Select a face database
3.Click ***Add***

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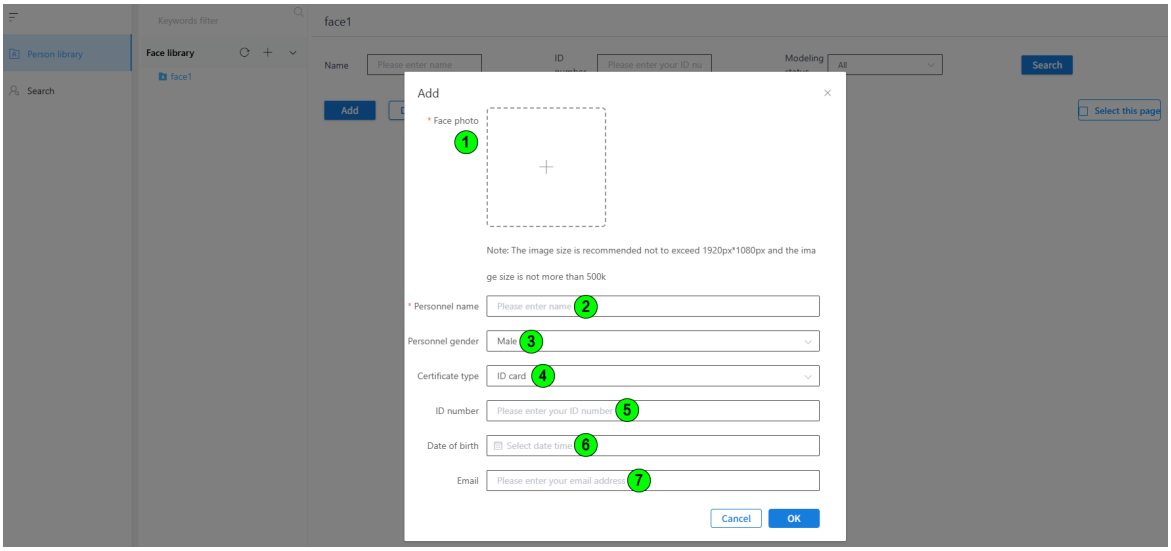

Number	Name	Function
1	Face photo	Face photo
2	Personnel name	Name
3	Personnel gender	Male / Female
4	Certificate type	ID Card / Passport / Vehicle License
5	ID number	Document Number
6	Date of birth	Date of Birth
7	Email	Email

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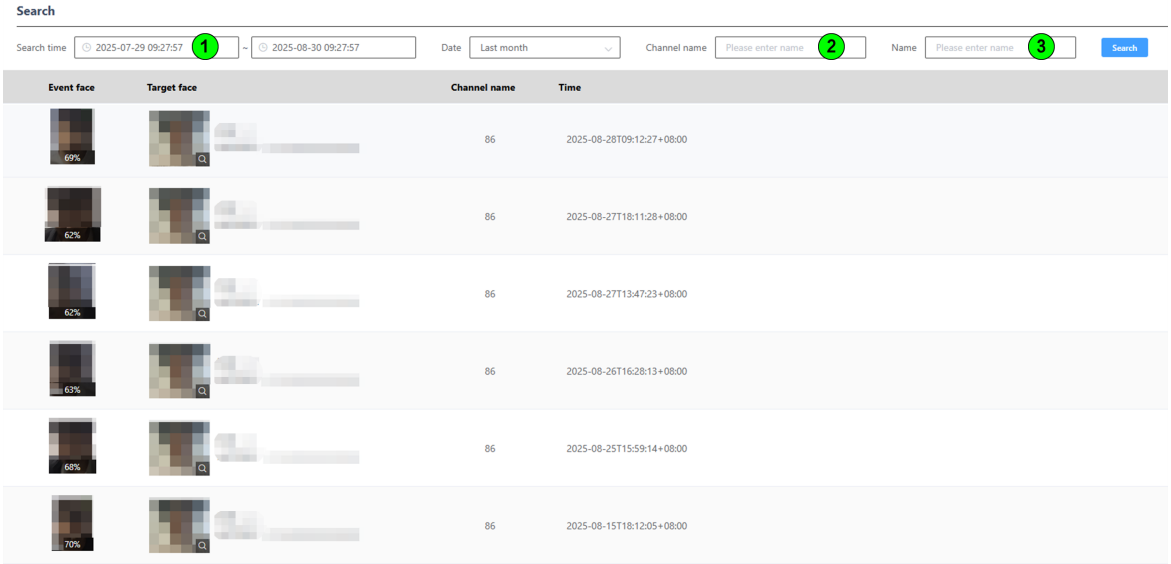
9.4.2 Search

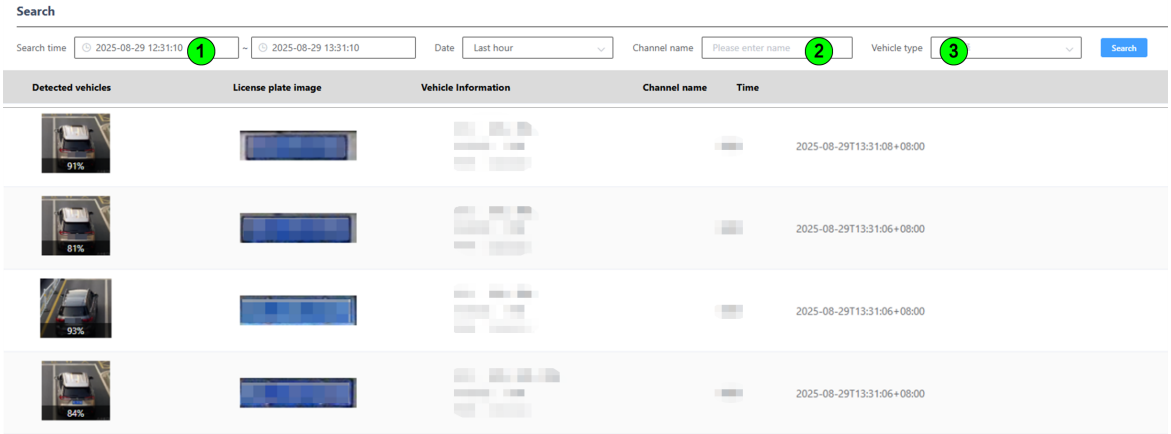
Search



Number	Name	Function
1	Search time	Events within the search period
2	Channel name	Channel name
3	Name	Names in the face database

9.5 License plate

License plate introduction



Number	Name	Function
1	Search time	Events within the search period

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2	Channel name	Channel name
3	Vehicle type	Car, motorcycle, bus, truck

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10.System

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10 System

10.1 Setting

10.1.1 System maintenance

10.1.1.1 Operation Log

Operation Log

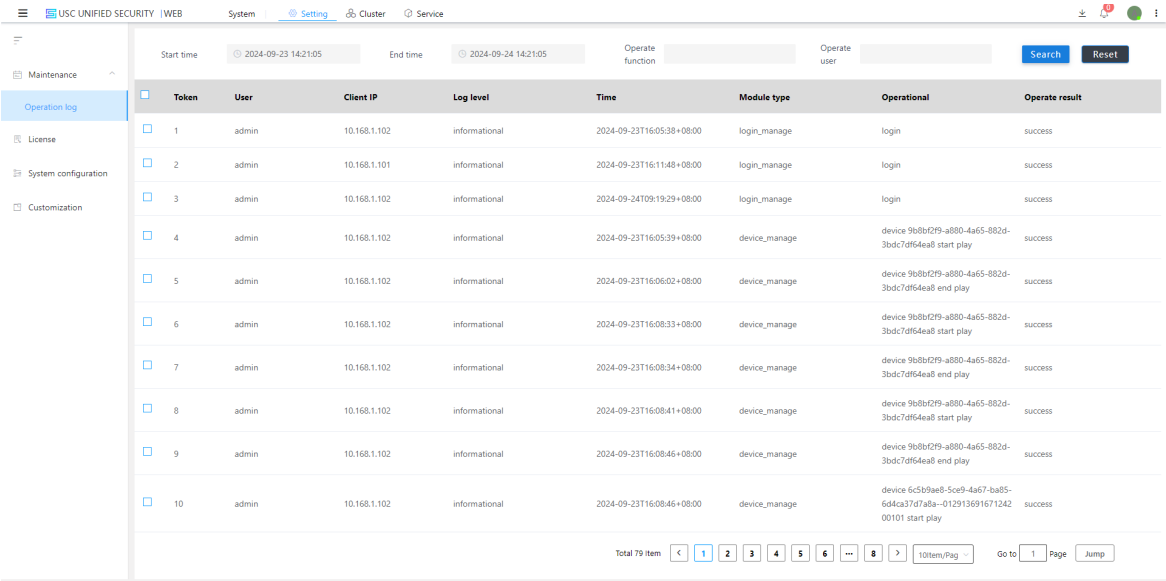
After entering the operation log interface, click the search button to search for the latest operation log.

Optional operation: select the start time, end time, input operation function, and operation user.

Reset button: used to reset the start time, end time, operation function, and previously entered values by the operating user.

⚠ *Caution*

The input box for the operation function should be filled with the value of the module type field.



Authorization Management

View test authorization and purchased formal authorization information

Host number: An ID generated after each machine is deployed on the USC platform, used to obtain testing and official authorization

Copyright end time: the end time of the test authorization period. The official authorization is permanent and will not expire

Number of channels: the number of cameras that can be connected

Concurrent video number: the number of camera videos that can be viewed

Cluster: If it is blue, it means that the cluster function is supported

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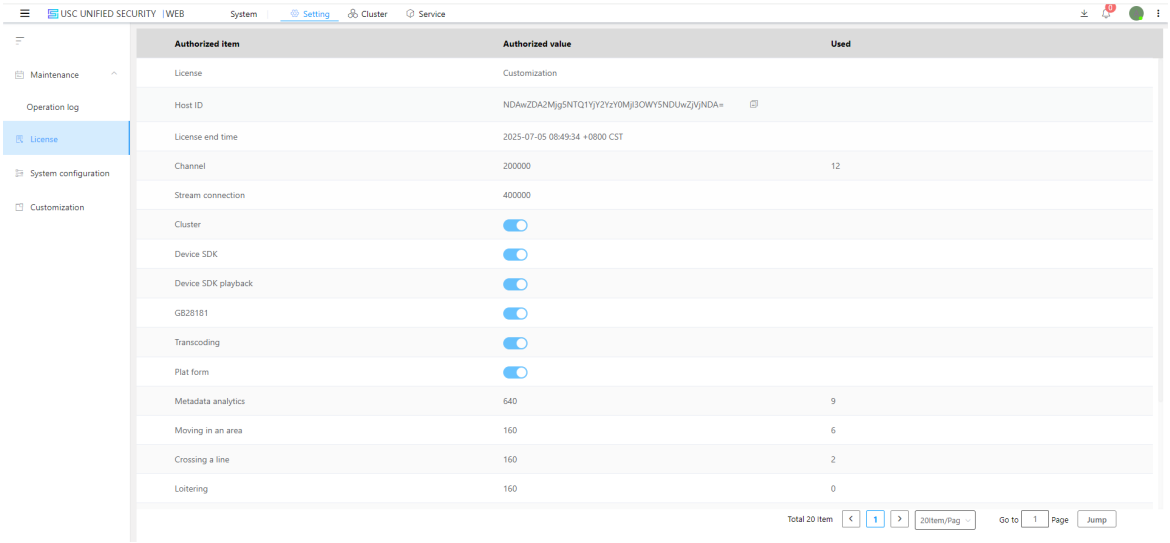
Device SDK: If it is blue, it means that it supports accessing cameras and video recorders through SDK
Device SDK playback: If it is blue, it means that playback is supported, and the camera and video recorder are accessed in the SDK mode
GB28181: If it is blue, it means that it supports accessing cameras and video recorders using the GB28181 protocol
Transcoding: If it is blue, it means that H265 is supported for conversion to H264
Platform: If the color is blue, it indicates support for connecting to the Hikvision ISC platform, Dahua DSS, EVS platform, and Huawei IVS platform
Metadata analysis: How many entries can this function support? Metadata analysis
Regional invasion: how many regions are supported by this function, regional invasion
Mixing line detection: how many lines can be supported by this function, mixing line detection
Personnel stay: This function supports how many personnel stay
Illegal parking: how many illegal parking functions are supported
Vehicle counting: how many vehicles can be counted with this function
Personnel counting: how many people can be counted with this function
Safety helmet detection: how many lines of this function are supported, safety helmet detection



10.1.1.2 System maintenance

Operation Steps

Go to **System-》Setting-》System maintenance-》System maintenance** for editing.

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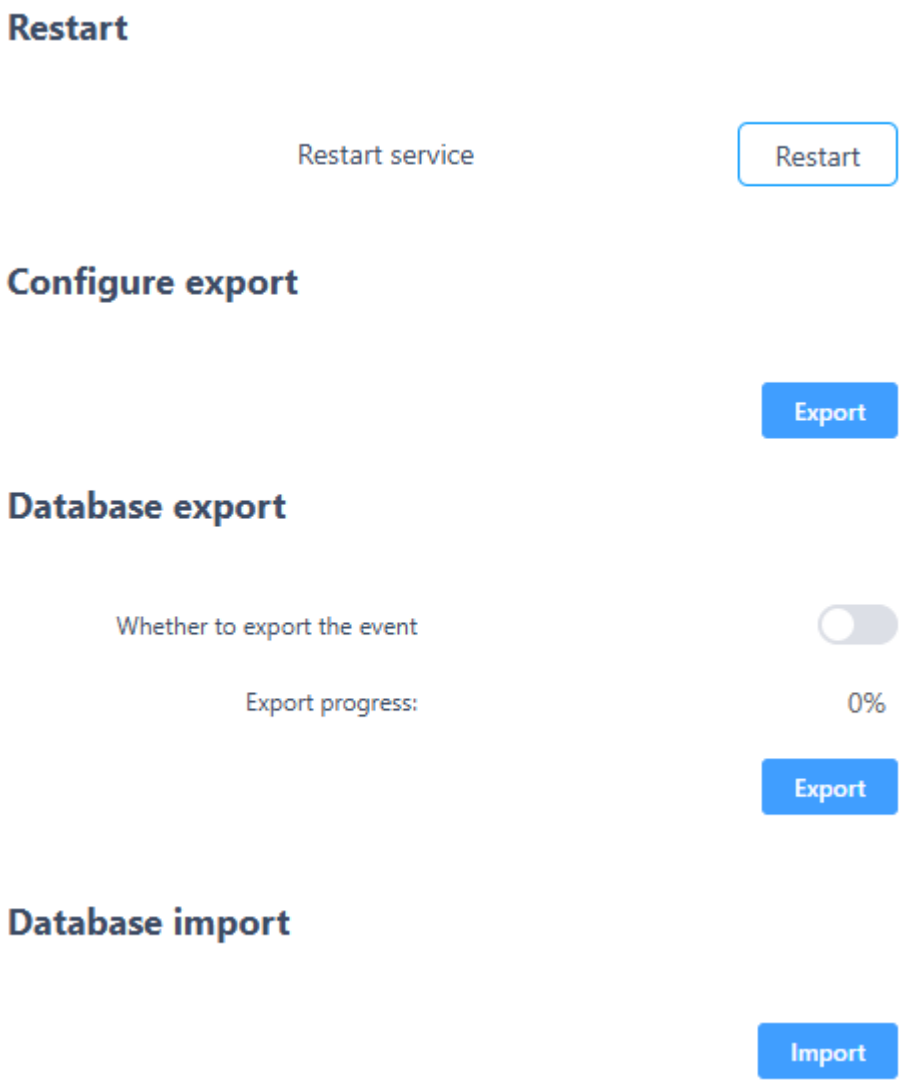
Configuration Export: Export all configuration files under the conf directory of the USC software package.
Database Export: If Event Export is checked, the event table will be exported together.



10.1.1.3 System upgrades

Operation Steps

Go to **System-》Setting-》System maintenance-》System upgrades** for editing.

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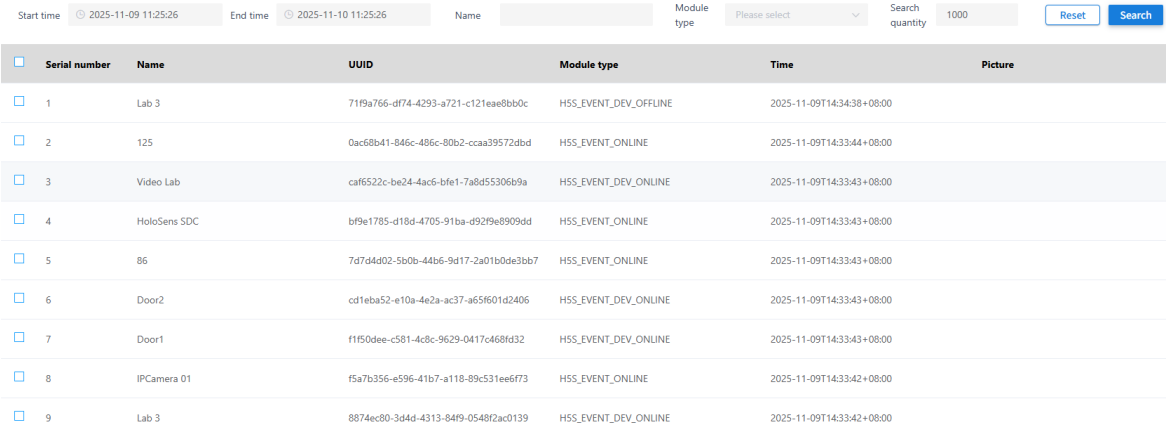
10.1.2 Event search

Operation Steps

Go to **System-》Setting-》Event Search** and select a time to search.



Serial number	Name	UUID	Module type	Time	Picture
1	Lab 3	71f9a766-df74-4293-a721-c121eae8bb0c	H5S_EVENT_DEV_OFFLINE	2025-11-09T14:34:38+08:00	
2	125	0ac68b41-846c-486c-80b2-ccaa39572dbd	H5S_EVENT_ONLINE	2025-11-09T14:33:44+08:00	
3	Video Lab	caf6522c-be24-4ac6-bfe1-7a8d55306b9a	H5S_EVENT_DEV_ONLINE	2025-11-09T14:33:43+08:00	
4	HoloSens SDC	bf9e1785-d18d-4705-91ba-d92f9e8909dd	H5S_EVENT_ONLINE	2025-11-09T14:33:43+08:00	
5	86	7d7d4d02-5b0b-44b6-9d17-2a01b0de3bb7	H5S_EVENT_ONLINE	2025-11-09T14:33:43+08:00	
6	Door2	cd1eba52-e10a-4e2a-ac37-a65f601d2406	H5S_EVENT_DEV_ONLINE	2025-11-09T14:33:43+08:00	
7	Door1	f1f50dee-c581-4c8c-9629-0417c468fd32	H5S_EVENT_DEV_ONLINE	2025-11-09T14:33:43+08:00	
8	IPCamera 01	f5a7b356-e596-41b7-a118-89c531ee6f73	H5S_EVENT_ONLINE	2025-11-09T14:33:42+08:00	
9	Lab 3	8874ec80-3d4d-4313-84f9-0548f2ac0139	H5S_EVENT_DEV_ONLINE	2025-11-09T14:33:42+08:00	

10.1.3 Alarm search

Operation Steps

Go to **System-》Setting-》Alarm Search** and select a time to search.

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10.1.4 License

Operation Steps

Go to **System-》Setting-》License** and import the authorization file.

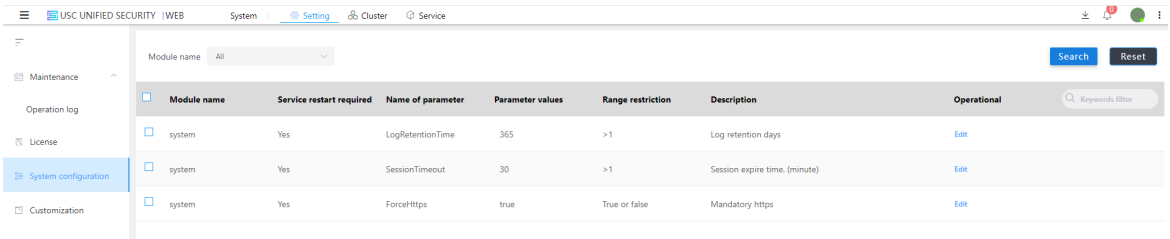
Upload license

Authorized item	Authorized value	Used
License	Customization	
Host ID	NWJkZjE1OWFjMjVmZjUyNGlwMjM0MTM5OGUwZGQ4OWM=	
License end time	unlimited	
Channel	2000	6
Stream connection	4000	
Cluster		
Device SDK		
Device SDK playback		
GB28181		
Transcoding		
Plat form		
VQD		
Video analysis channel		
Metadata analytics	640	0
Moving in an area	160	0

10.1.5 System Configuration

Operation Steps

After entering the page, click the search button. Same parameters need to be restarted after modification before they take effect.



Explanation of parameter names:

Number	Name	Function
1	LogRetentionTime	Number of days to keep logs, in days
2	SessionTimeout	Session validity period, in minutes

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3	ForceHttps	true is to force http access to https access, false is to turn off this function
4	EventTableTimeInDay	The time length of the event table switching table is in days, with a default of 30, which means that a new table is switched every 30 days. This is mainly for performance optimization and to prevent too much content in a single table. It is actually adjusted based on the amount of project events
5	AnalyticsEventRetentionTime	Analyze events retention time. The default is 120 days
6	EventRetentionTime	The length of time for which the event is retained. The default is 120 days
7	EnableTimelineInertia	Turn on playback timeline inertia. Default enabled
8	PartitionLoadDeviceOnly	Only devices are displayed in the device partition, and other resources such as views and maps are not displayed. It is turned on by default
9	PlaybackShowStorageMode	View playback displays the center storage and device configuration, which is enabled by default
10	EnablePartitionTreeCacheSearch	Enable view partition search Search in the client memory, enabled by default. If it is disabled, search in the server data and replace the existing partition list. If the number of devices is large, it needs to be enabled, such as more than 5000 entries
11	EnableDevPartitionLazyLoading	Enable the lazy loading mode for device partitions. It is disabled by default. When the number of devices and partitions exceeds 5000, it needs to be enabled, otherwise the client operation will be slower
12	EnableDevPartitionShowDeviceNode	Open the display device node in the device partition. It is recommended to open it if

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		there are many NVRs connected, and close it if there are only cameras connected directly
13		
14		

10.1.6 Customization

Customization

Replace the ICO, logo, title, and copyright on the platform with those of your own company

Product customization, custom logo, and custom login logo are all the same operation:

1. First click the download button in the figure to download the original icon of the usc platform to the local to obtain the width and height of the icon
2. Then, redesign your icon based on the acquired width and height
3. Click the folder button again to upload your own icon
4. Click Save
5. Note: There is a language and theme drop-down box next to the download button, indicating that the icon can be uploaded to different languages and themes. If you need to upload to all theme languages.Then you need to choose different theme languages and manually upload multiple times

Customize Title and Copyright: These two fields only require entering the information you need in the Reset Title and Reset Copyright input boxes, and clicking Save.

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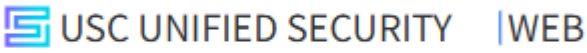
Customization

Custom ico Icon download.ico

Please select file

Default Save

Custom logo Logo download Simplified chi



Please select file

Support svg format

Default Save

Customize login logo Logo download Simplified cl

Please select file

Support svg format

Default Save

Custom title Simplified chi

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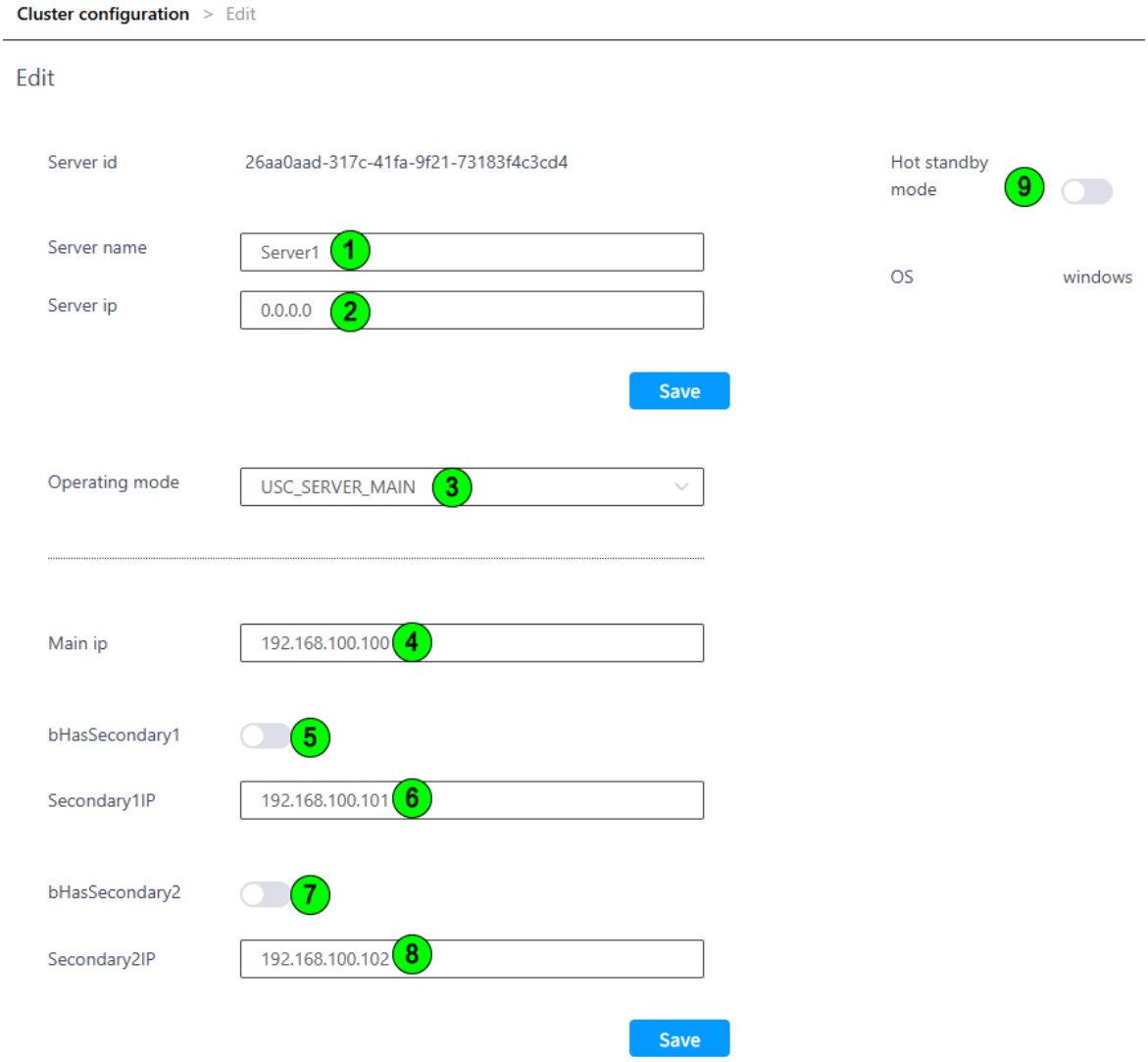
10.2 Cluster

10.2.1 Cluster configuration

Operation Steps

Go to **System-》Cluster-》Cluster Configuration** and make edits.



Number	Name	Function
1	Server name	
2	Server ip	
3	Operating mode	
4	Main ip	
5	bHasSecondary1	
6	Secondary1IP	

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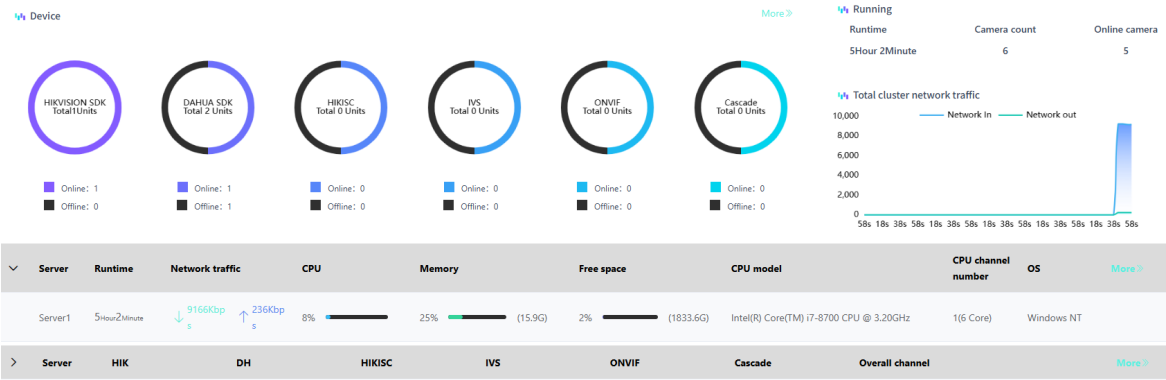
7	bHasSecondary2	
8	Secondary2IP	
9	Hot standby mode	

10.2.2 System info

Operation Steps

Go to **System-》Cluster-》System info** to view.



10.3 Service

10.3.1 HTTP service

Operation Steps

Edit in **System-》Service-》HTTP Service** to modify the service HTTP and HTTPS ports. After modification, restart the platform.If it is a multi-node system, keep all node ports the same.

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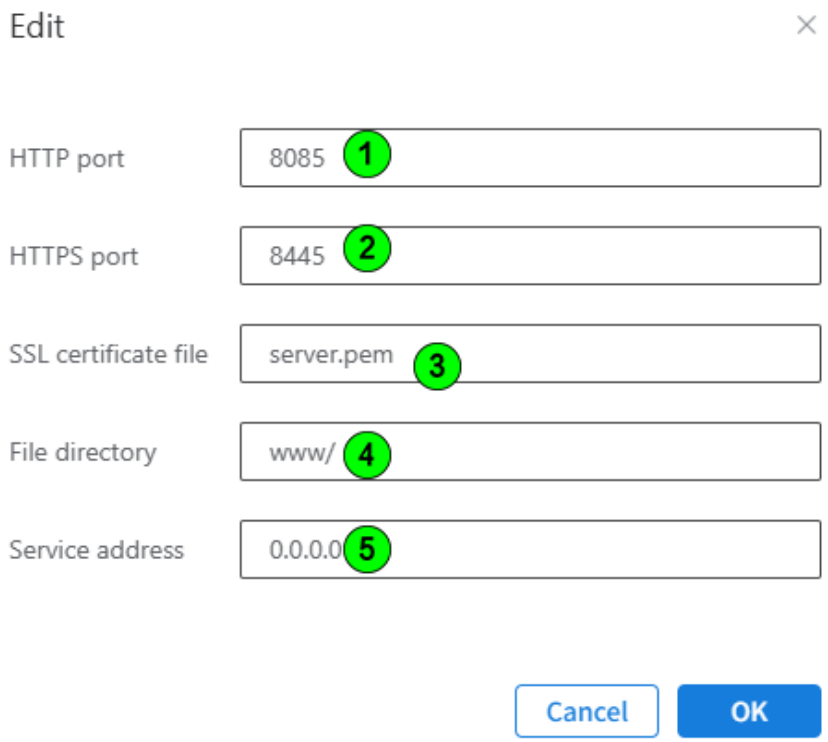

Number	Name	Function
1	HTTP port	
2	HTTPS port	
3	SSL certificate file	
4	File directory	
5	File directory	

10.3.2 MQTT service

MQTT Service Configuration

USC has a built-in MQTT service, and device alarms are pushed to the MQTT server by default. The MQTT service supports hot standby mode and allows specifying which node to enable it on. Multiple MQTT services cannot use the same node.

Operation Steps

System-》Service-》MQTT service MQTT Service Parameters

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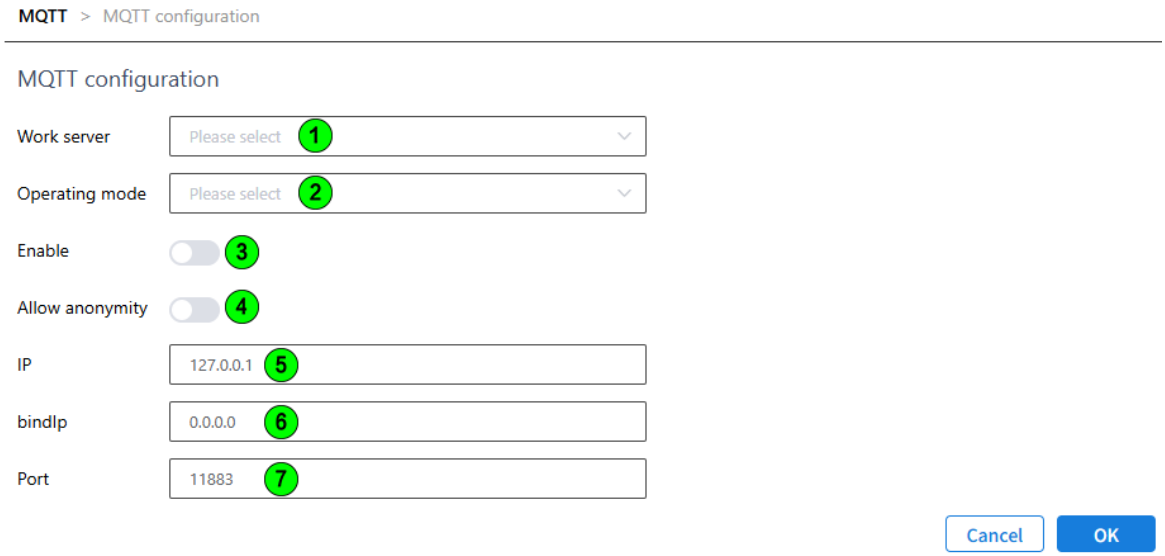

Number	Name	Function
1	Work server	On which node is the MQTT service running
2	Operating mode	Current operating mode of the MQTT service (Primary/Standby)
3	Enable	Whether it is enabled
4	Allow anonymity	Whether MQTT authentication is enabled
5	IP	IP address bound to the MQTT service (default: 127.0.0.1)
6	bindIP	Specify the IP of the network interface that the MQTT server listens on (default: 0.0.0.0, listening on all available network interfaces)
7	Port	MQTT service port

By default, MQTT comes with a built-in account (username: sysmqtt, password: 12345). It is recommended to change the default password, and all MQTT services share the same set of account credentials.

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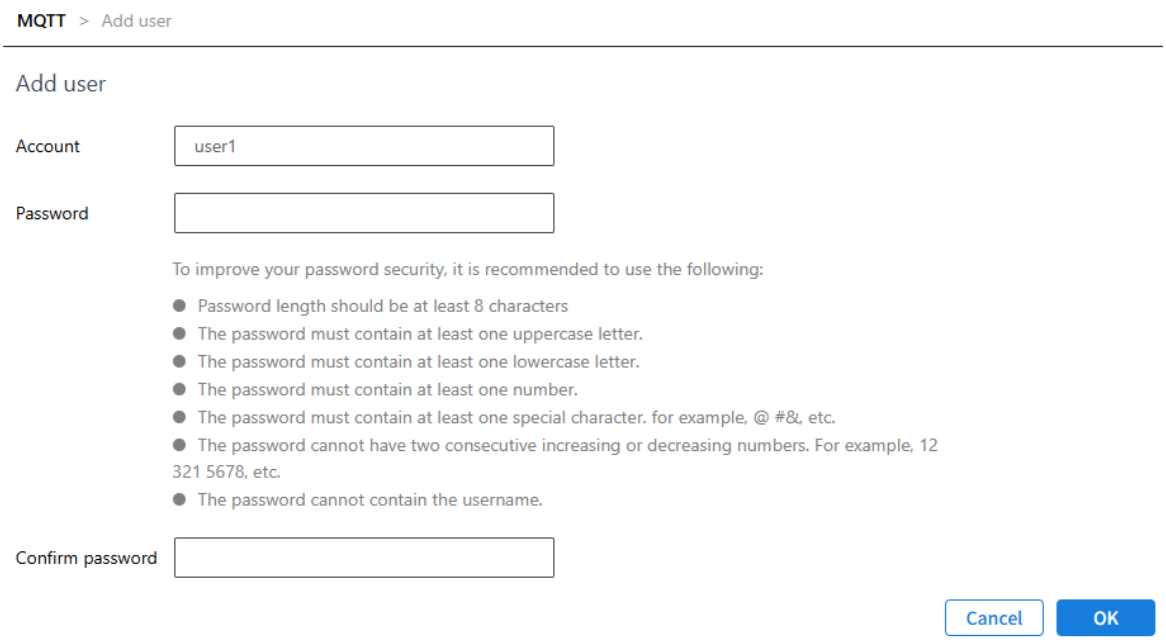
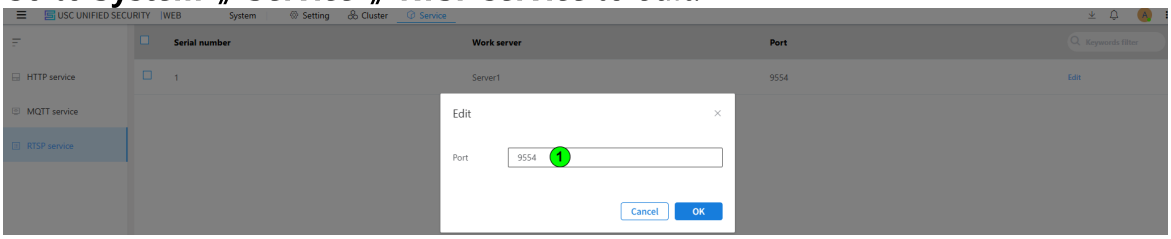


10.3.3 RTSP service

Operation Steps

Go to **System-》Service-》RTSP service** to edit.



Number	Name	Function
1	Port	

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11.Appendix A FAQ

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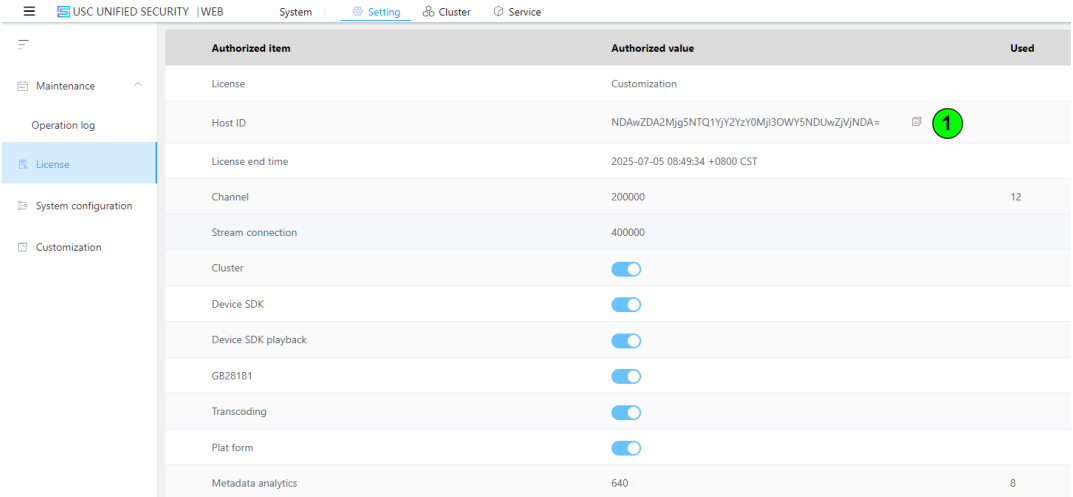
11 Appendix A FAQ

1. How to obtain a test license?

You can log in to the USC Web **system-》Authorization Management**, and click the Copy button behind the host number.



Send the host number and company name and address to info@linkingvision.com to obtain a test license. Please note USC Security Platform in the email.

After receiving the lic file, place it in the conf directory and restart the software.If you replace the new license, please delete or move the old license file from the conf directory. Do not back up to the conf directory.

The system reads the license file based on the file extension.

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2. How to quickly upgrade and retain the configuration?

First stop the service, run as administrator uscunregservice.bat(Windows)/systemctl(Linux) to cancel the installation of the service, then copy or move the ***conf db*** directories from the old version to the new version. If there are test file video sources configured, move or copy the ***videos*** directory from the old version to the new version.

3. After replacing the NVIDIA model, deep learning inference does not work?

The system will generate optimized models based on the GPU model. After replacing the GPU, you need to regenerate the optimized model file. Therefore, you need to delete the .engine file in the modules/ai/egplus/egpluscudamodel directory, and then restart the system to regenerate the optimized model file based on the new GPU model.

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