



How to setup SMART NVR

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1. Installation & Setup

Note:

Following the ecCLOUD update with the SMART NVR function on 2025/08/11, if you are currently using SMART NVR, please refer to section 1.6 Appendix for detailed instructions.

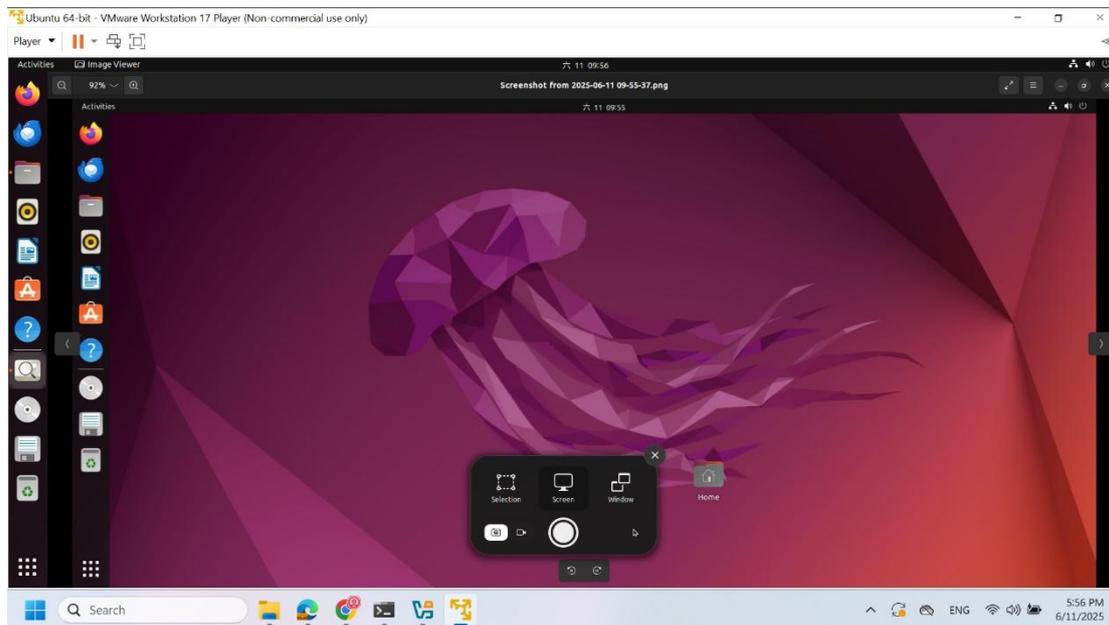
If you have not installed Smart NVR, please follow the steps below.

1.1 Setup ICE/NVR Server

Set up Ubuntu 22.04 LTS on a bare-metal device or a virtual machine (VM) that you plan to use as the NVR and ICE server.

Ensure the system has internet connectivity throughout the installation process.

Note: Ubuntu 22.04 LTS must be installed on an x86-based system. please ensure that firewall ports 51820 and 443 are open.



1.2 Apply License

Get a license voucher from the business.

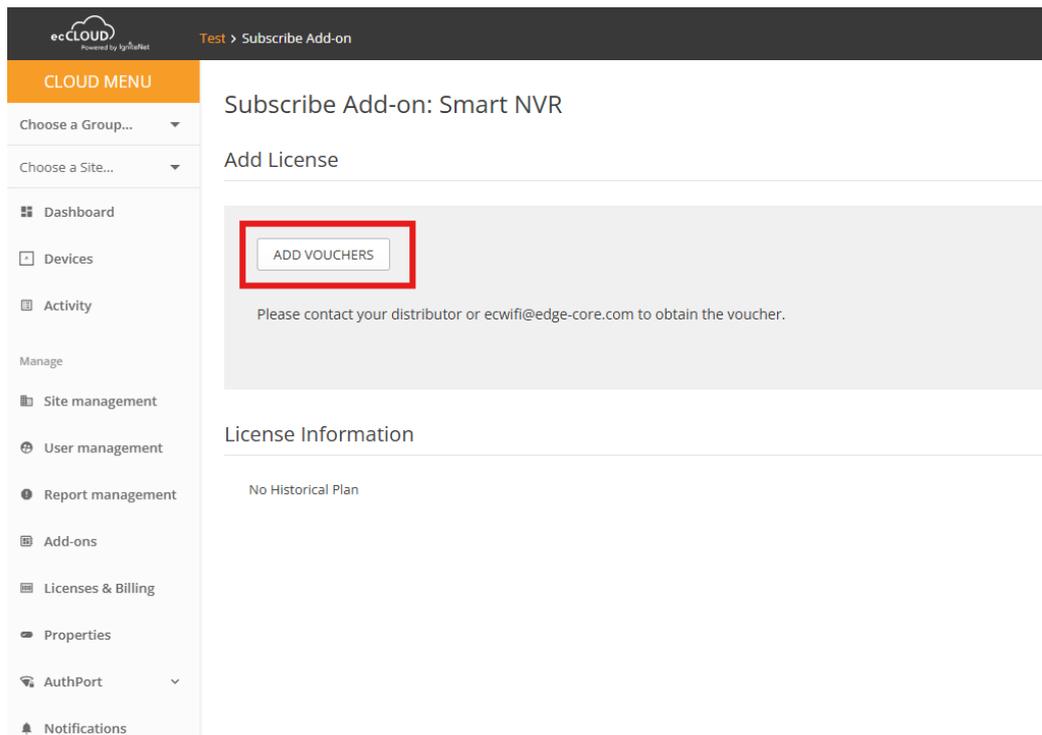
1. Login ecCLOUD
2. Go to Smart NVR Add-ons and Click the SUBSCRIBE/REDEEM button below the Smart NVR.

The screenshot shows the ecCLOUD interface. The left sidebar has a 'CLOUD MENU' with 'Add-ons' highlighted. The main area is titled 'Add-ons' and shows a list of available services. The 'Smart NVR' service is highlighted with a red border and includes a 'SUBSCRIBE / REDEEM' button.

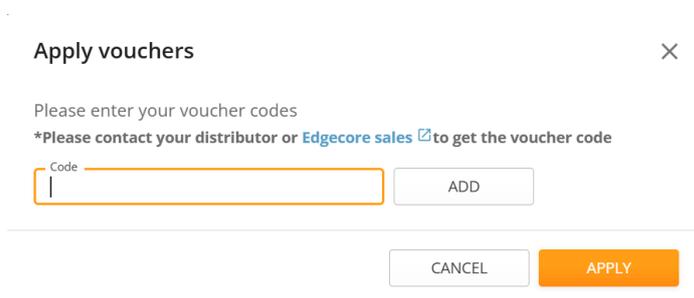
3. click on the “ACTIVATE SERVICE” button

The screenshot shows the 'Subscribe Add-on: Smart NVR' page. The 'ACTIVATE SERVICE' button is highlighted with a red box. The page displays 'License Information' and 'No Historical Plan'.

4. click on the “ADD VOUCHERS” button



5. Enter the voucher code and click the APPLY button.



6. Show License Information

ecCLOUD Powered by IyflNet cloud_01 > Subscribe Add-on

CLOUD MENU

- Choose a Group...
- Choose a Site...
- Dashboard
- Devices
- Smart NVR
- Activity
- Manage
 - Site management
 - User management
 - Report management
 - Add-ons
 - Licenses & Billing
 - Properties
 - AuthPort
 - Notifications

Subscribe Add-on: Smart NVR

Add License

[ADD VOUCHERS](#)

Please contact your distributor or ecwifi@edge-core.com to obtain the voucher.

License Information [TERMINATE SERVICE](#)

Plan Duration	Total Quota	Used Quota	Expire At
1 Month	8	0	2025-08-21 (Active)

7. Go to SMART NVR

- SMART NVR will show License overview on the device information.

ecCLOUD Powered by IyflNet cloud_01 > Smart NVR > Dashboard

SMART NVR

- Dashboard
- IP Cameras
- Streaming
- Activity

Smart NVR

Smart NVR

DEVICE INFORMATION

License Overview 8 Quota | Valid until 2025-08-21 04:14:15

Cloud: cloud_01

Firmware: Ubuntu 22.04.5 LTS

Serial Number: VNEC25212540

Created on: 2025-07-18 14:51 (3 days ago)

Last contact: 2025-07-21 18:00 (a minute ago)

Uptime: 3 Days 3 hours 5 minutes 37 seconds

System time: Mon Jul 21 10:01:48 2025

WAN IP: 10.240.0.45

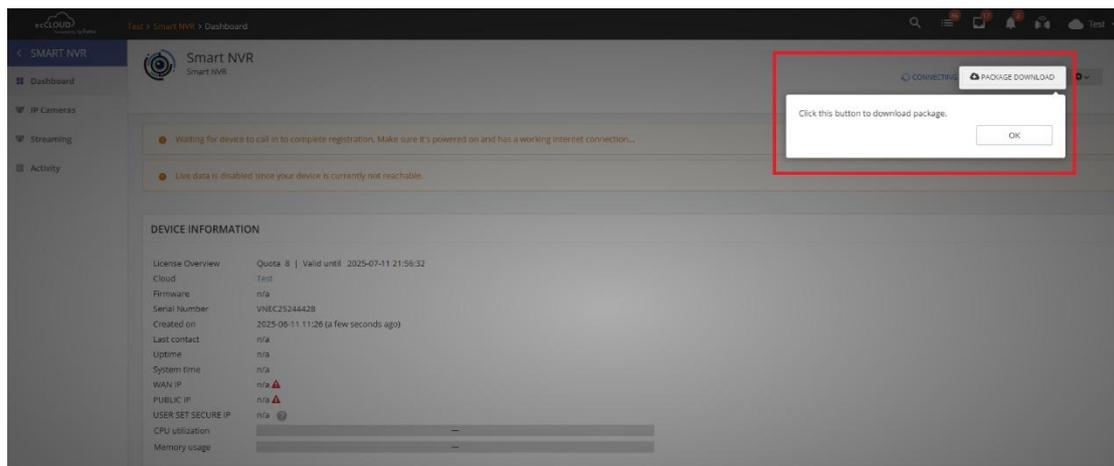
PUBLIC IP: 34.80.36.118

USER SET SECURE IP: 34.80.36.118

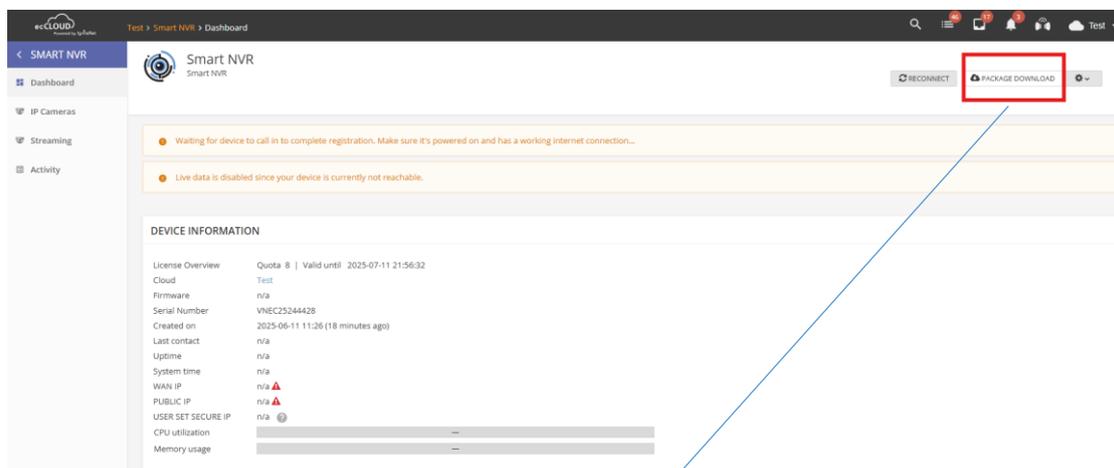
CPU utilization: 2%

Memory usage: Used: 657MB (total 3662MB)

8. Pop up dialog “Click this button to download package. ” and click OK button



9. Click the DOWNLOAD PACKAGE button, then enter the IP address of the VM you want to use to build the NVR



Input Required

Please enter an IP to be used for Secure IP

- The IP format should be IPv4 address
- You can change the IP on NVR dashboard
 - If WireGuard does not work between NVR, APs and viewer.
 - Make sure NVR and AP are placed under the same subnet

CONNECTED REBOOT PACKAGE DOWNLOAD

REALTIME ACTION

Reboot

BASIC SETTINGS

Rename

Change Secure IP

1.3 NVR and ICE Server Package installation and setup

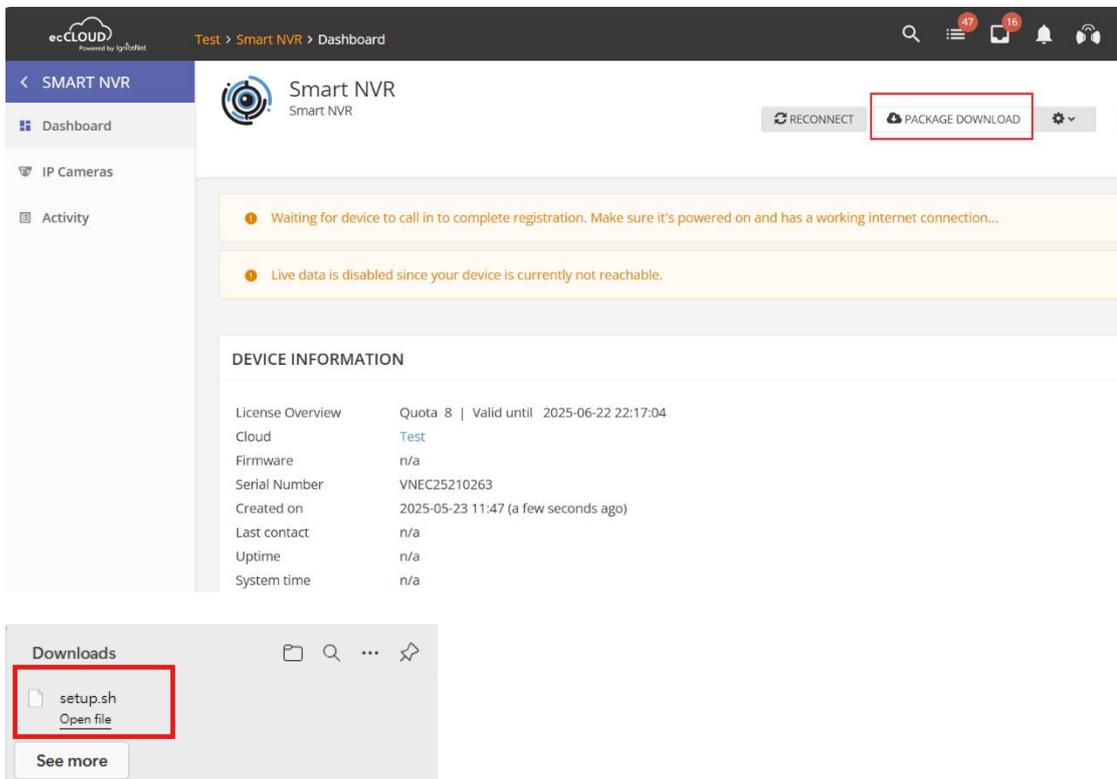
Make sure to perform the installation on Ubuntu 22.04 LTS, either on a bare metal device or a VM(virtual machine), that you intend to use for the NVR and ICE server.

Internet connectivity is required during the installation process.

Note: Ubuntu 22.04 LTS must be installed on an x86-based system.

Once the environment is ready, please follow the steps below to install the NVR and ICE server packages.

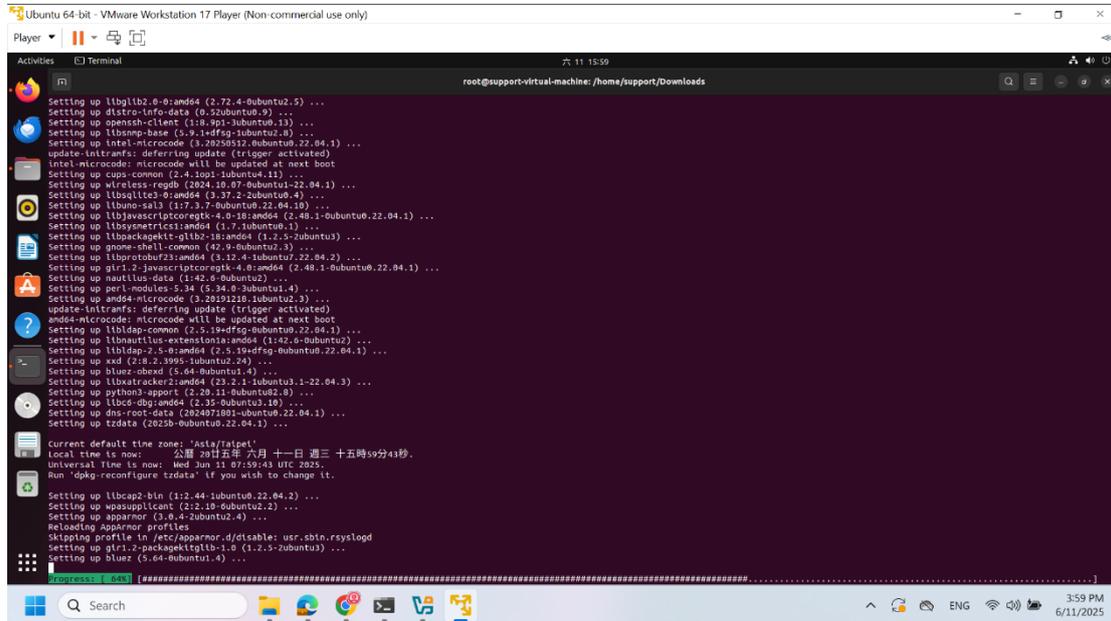
1. Login ecCloud on your Ubuntu 22.04 LTS device or VM.
2. Go to SMART NVR > PACKAGE DOWNLOAD, and a file named setup.sh will be downloaded.



3. Navigate to the DOWNLOAD folder and execute the following command to install.

```
sudo su
chmod +x setup.sh
./setup.sh
```

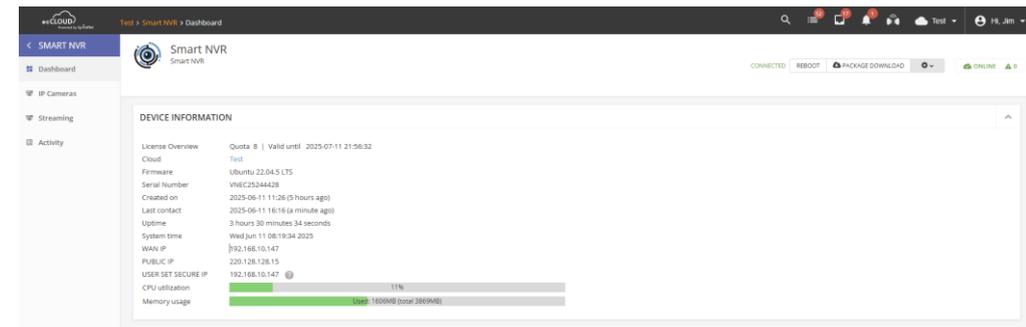
4. Installation and setup for the package is now in progress



5. Wait for installation to complete

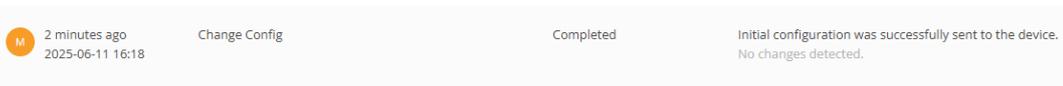
6. Wait for registration to be done

➤ If the waiting registration warning disappears on dashboard, the registration is done



7. Wait for first config sync to be done

➤ You can go to activity page to check the sync state



1.4 AP Setup

1. ONVIF Scan support
 - Please ensure the firmware on EAP111 or EAP112 is v12.6.7 or later.
2. Connect IP cams to LAN ports of AP or SSID configured in “Route to Internet” mode

Ethernet Settings

Ethernet Port #0 | Ethernet Port #1

Network Behavior: Route to Internet

Network Name: Default local network

CAPWAP Tunnel Interface: Disable

Save & Apply | Save | Reset

NETWORK SETTINGS

Network Behavior: Route to Internet

Network Name: Default local network

CAPWAP Tunnel Interface: Disable

Limit Upload: OFF

Limit Download: OFF

Authentication: OFF

3. Check whether IP cam is connected to LAN through ARP Table
 - Network status -> ARP table

LOCAL NETWORKS

NAME	NETWORK INFO	DHCP SERVER	MEMBERS
Default Local Network	192.168.2.1 (Static IP) Netmask: 255.255.255.0	Enabled	ETH1 5 GHz: Support 2.4 GHz: Support

View ARP Table | View DHCP Leases

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- Check what IP the IP Cam obtained by its MAC

ARP TABLE



IP Address	MAC Address	Mask	Device
10.73.16.182	38:f3:ab:9b:ee:7c	*	br-wan
192.168.2.183	16:ad:2b:e7:8e:6e	*	br-lan
192.168.2.143	8c:84:01:83:62:0b	*	br-lan
10.73.1.254	0e:10:f3:2c:06:64	*	br-wan
192.168.2.186	14:a7:8b:af:2f:1e	*	br-lan
192.168.2.132	22:3a:33:86:c6:25	*	br-lan

 Refresh

1.5 IP Cam Setup

Take the camera out of the box and install it in a suitable location.

Connect the camera's adapter and make sure it is in standby mode.

Connect the camera to your AP via wired connection (LAN Port).

1. Upgrade BL100 new firmware:

- Download new firmware v0.13:

JP Version:

https://drive.google.com/file/d/1KCrTupTiCG6CxPrta2bqSIEX_1FK-m2B/view?usp=sharing

US Version:

<https://drive.google.com/file/d/1qskiFoE-FXjHOQXmv-ouMbrzX6V8XXJX/view?usp=sharing>

EU Version:

https://drive.google.com/file/d/1Ye7_Zct359rcZtPbdXUp1ABdOWARfSMW/view?usp=sharing

- Please perform a firmware upgrade by following the steps below:

There are two methods for performing a firmware upgrade, as described below:

1. Method 1: SD Card

- (1) First, prepare a Micro-SD card and format it to Windows' default format, "FAT32."
- (2) Place the "FWXXXXXX.bin" file onto the SD card.
- (3) Insert the SD card into SD Card Slot.
- (4) Power on the device.
- (5) The device will start firmware upgrade.
- (6) After upgrading firmware, remove the SD card from SD Card Slot.
- (7) Delete the firmware files on the SD card.
- (8) Insert the SD card into SD Card Slot.

2. Method 2: Web GUI

Due to limitations, if your current version is lower than 0.7, please upgrade to version 0.7 using the SD card method first.

https://drive.google.com/file/d/126FqGemH14RwfNHZWFm11k_ah_Lsv81j/view?usp=sharing

Please follow the steps below to perform the firmware update via Web GUI:

(1) Click System page

The screenshot shows the Viewsec web interface. On the left is a navigation menu with items: Liveview, SD Video, Network, Video, System (highlighted with a red box), Logs, Security, and Status. The main content area is titled 'System Information' and contains two sections: 'Device' and 'Network'. The 'Device' section lists: Model Name (IPCam), System Up Time (0 days, 0 hours, 4 minutes, 19 sec), Hardware Ver. (NT98560 EVB), and Firmware Ver. (0.7 (2025-02-07 14:49:22)). The 'Network' section lists: MAC Address (D0:AE:EC:BB:A8:19), IP Address (10.72.72.183), Subnet Mask (255.255.0.0), Default Gateway (10.72.1.254), and DNS (8.8.8.8). The 'Firmware Ver.' field is circled in blue.

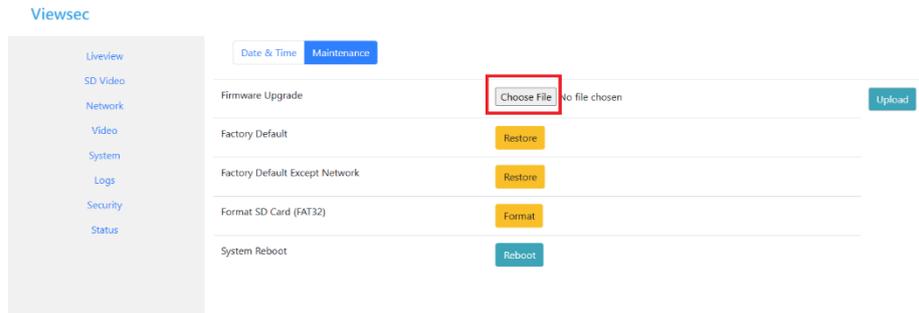
(2) Popup dialog appears asking for a username and password. The default value should be admin/'blank'.

The screenshot shows a 'Sign in to access this site' popup dialog. The text reads: 'Authorization required by http://10.72.22.40:10201' and 'Your connection to this site is not secure'. There are two input fields: 'Username' and 'Password'. Below the fields are two buttons: 'Sign in' and 'Cancel'.

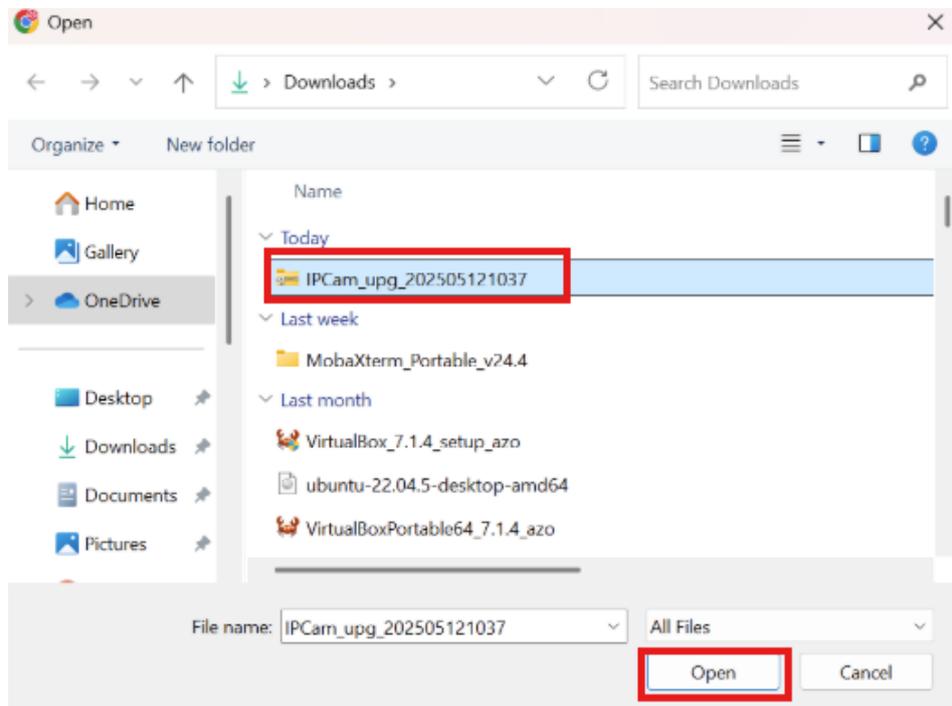
(3) Click Maintenance Page

The screenshot shows the Viewsec web interface. On the left is a navigation menu with items: Liveview, SD Video, Network, Video, System, Logs, Security, and Status. The main content area is titled 'Date/Time' and contains a 'Maintenance' tab (highlighted with a red box). The 'Maintenance' page has two radio buttons: 'NTP Sync' (selected) and 'Manual Sync'. The 'Manual Sync' option has a date field (2025-06-04) and a time field (10:55:49). There is a checkbox for 'Sync with computer time'. Below these fields is a 'Time Zone' dropdown menu set to '(UTC+08:00) Taipei' and an 'Apply' button.

(4) Click “Choose File”

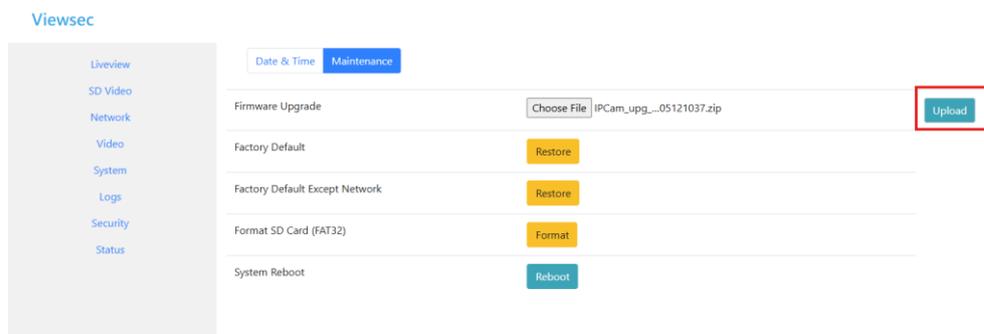


(5) Please select the firmware file
“IPCam_upg_XXXXXXXXXXXXX.zip” to proceed with the update.



(6) Click “Upload” to upload the firmware.

Important: Ensure that the file “FW98560A.bin” is deleted from the SD card before proceeding with this step.



(7) Please wait while the device reboots.

Viewsec

Date & Time Maintenance

Firmware Upgrade	Choose File IPCam_upg...05121037.zip	Upload
Factory Default	Restore	
Factory Default Except Network	Restore	
Format SD Card (FAT32)	Format	
System Reboot	Reboot	

Uploading setting....

Viewsec

Date & Time Maintenance

Firmware Upgrade	Choose File IPCam_upg...05121037.zip	Upload
Factory Default	Restore	
Factory Default Except Network	Restore	
Format SD Card (FAT32)	Format	
System Reboot	Reboot	

Firmware upgrading, please wait for a moment

Hmmm... can't reach this page

10.72.72.183 refused to connect.

Try:

- Search the web for [10.72.72.183](#)
- [Checking the connection](#)
- [Checking the proxy and the firewall](#)

ERR_CONNECTION_REFUSED

Refresh

(8) The firmware update has been successfully completed.

Viewsec

System Information

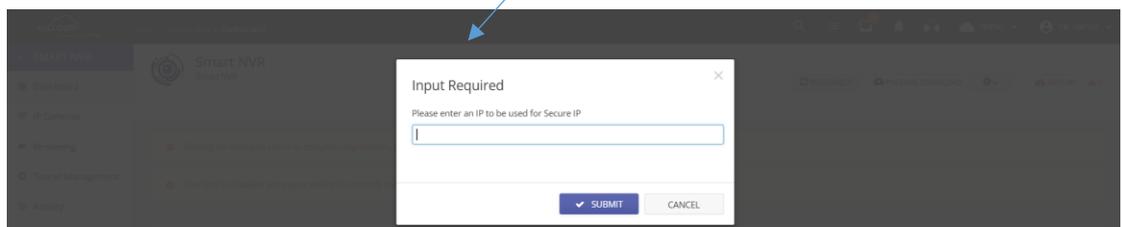
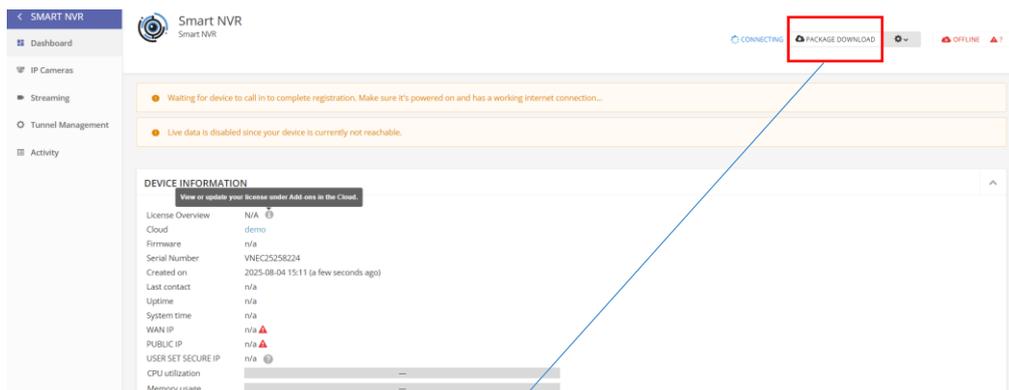
Device	Model Name	IPCam
	System Up Time	0 days, 0 hours, 1 minutes, 11 sec
	Hardware Ver.	v03
	Firmware Ver.	0.10 (2025-05-12 10:35:35)
	SDcard Status	offline.
Network	MAC Address	D0:AE:EC:BB:A8:19
	IP Address	10.72.72.183
	Subnet Mask	255.255.0.0
	Default Gateway	10.72.1.254
	DNS	8.8.8.8

2. After upgrade firmware, power the IP camera via 12V DC connection.
3. Connect the IP camera's network cable to the LAN port of the AP.
4. Check Status of LED Indicators:
 - Camera activated: Green LED indicator blinking.
 - Camera connecting: Red LED indicator blinking.
 - Camera successfully connected: Green LED remains solid.
5. Change account setting
 - Username/Password - admin/admin
 - ONVIF scan will do multicast under LAN with the account

1.6 Appendix

As our ecCLOUD has been updated SMART NVR function on 2025/08/11, if you are currently using SMART NVR, we recommend performing the following steps:

1. Remove the existing VM.
2. Create a new VM and reinstall the new software package.
 - (1) Set up Ubuntu 22.04 LTS on a virtual machine (VM) that you plan to use as the NVR and ICE server.
 - (2) Ensure the system has internet connectivity throughout the installation process.
Note: Ubuntu 22.04 LTS must be installed on an x86-based system.
 - (3) After setup VM, login ecCloud on your Ubuntu 22.04 LTS device or VM.
 - (4) Go to SMART NVR, click “PACKAGE DOWNLOAD” and, then enter the IP address of the VM you want to use to build the NVR



- (5) After setting, a file named “setup.sh” will be downloaded.



- (9) Since the previous SMART NVR service was not terminated before reinstalling SMART NVR, the status will display:

Code: 21 Error: Serial number found, but device is already registered.

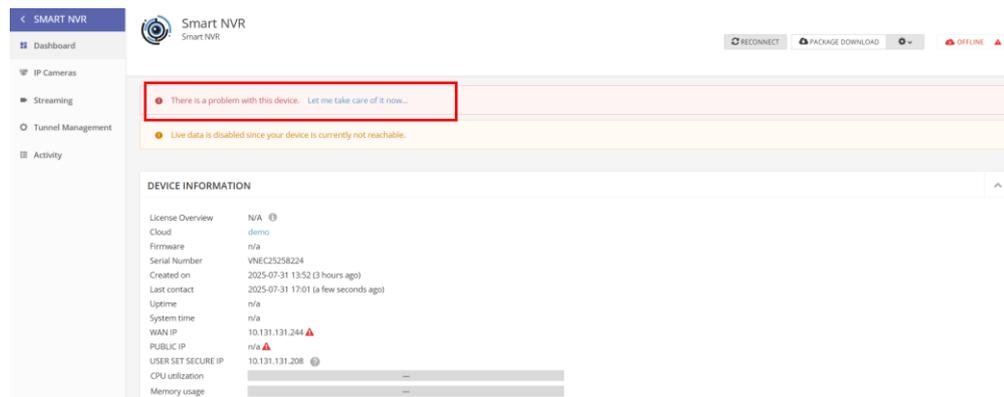
mgmtd status set to REG_FAILED

✂ This message is normal and nothing to worry about; you can safely ignore it.

```
● mgmtd.service - ecCloud Management Daemon (mgmtd)
Loaded: loaded (/lib/systemd/system/mgmtd.service; enabled; vendor preset: enabled)
Active: active (running) since Thu 2025-07-31 06:33:14 UTC; 30s ago
Main PID: 373327 (run-mgmtd.sh)
Tasks: 2 (Limit: 9196)
Memory: 3.1M
CPU: 27ms
CGroup: /system.slice/mgmtd.service
└─373327 /bin/sh /usr/sbin/run-mgmtd.sh
  └─373362 /usr/sbin/mgmtd -s

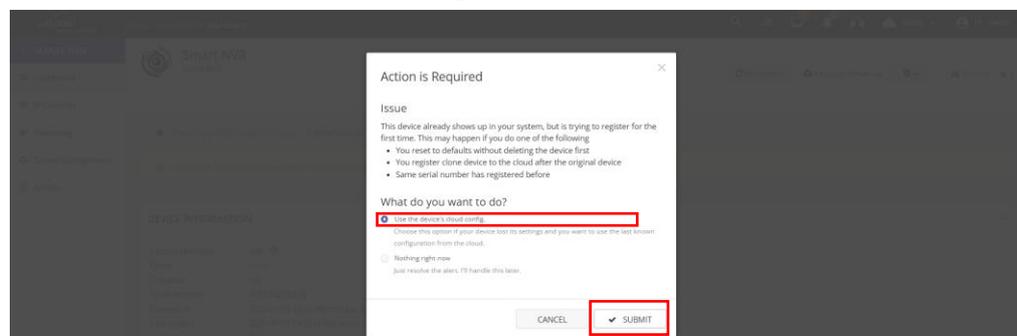
Jul 31 06:33:14 jeff-Nexstgo-NX101 mgmtd[373362]: plugin-task: entry for tasks exists: true
Jul 31 06:33:14 jeff-Nexstgo-NX101 mgmtd[373362]: Main XMPP server is not set: nil
Jul 31 06:33:14 jeff-Nexstgo-NX101 mgmtd[373362]: Backup XMPP servers are not set
Jul 31 06:33:14 jeff-Nexstgo-NX101 mgmtd[373362]: Flash read
Jul 31 06:33:14 jeff-Nexstgo-NX101 mgmtd[373362]: Starting registration process
Jul 31 06:33:14 jeff-Nexstgo-NX101 mgmtd[373362]: mgmtd status set to UNREGISTERED
Jul 31 06:33:14 jeff-Nexstgo-NX101 mgmtd[373362]: Sending registration request. Upgrade: nil
Jul 31 06:33:14 jeff-Nexstgo-NX101 mgmtd[373362]: HTTPS: 1, 200, table: 0x5b3f12596f20, HTTP/1.1 200 OK
Jul 31 06:33:14 jeff-Nexstgo-NX101 mgmtd[373362]: Code: 21 Error: Serial number found, but device is already registered.
Jul 31 06:33:14 jeff-Nexstgo-NX101 mgmtd[373362]: mgmtd status set to REG_FAILED
root@jeff-Nexstgo-NX101:/home/jeff/Downloads/smartNVR#
```

- (10) Go to SMART NVR, after completing the installation, you will see that duplicate registration has been triggered.

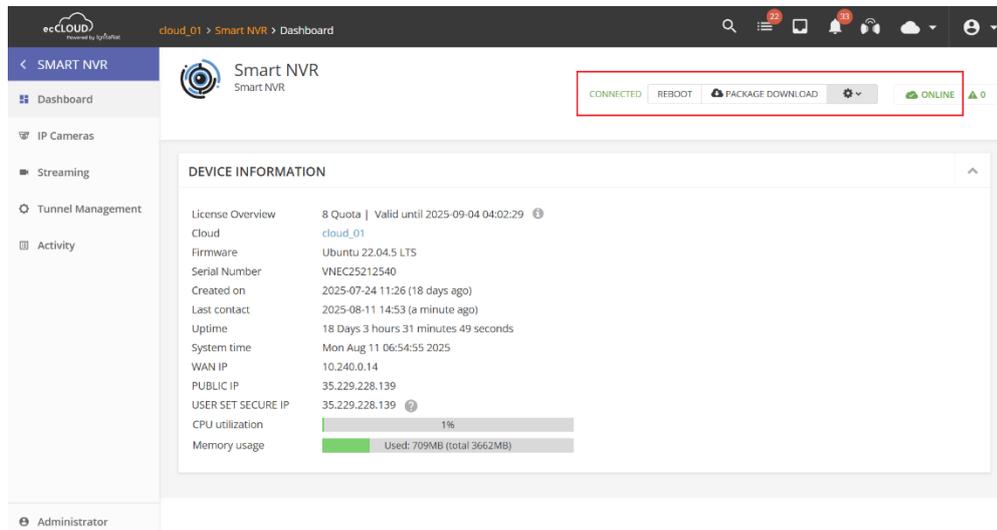


- (11) Click “let me take care of it now”

- (12) Select use the device's cloud config and click submit



(13) Wait until the Smart NVR status changes to “Connected” and the registration is done.



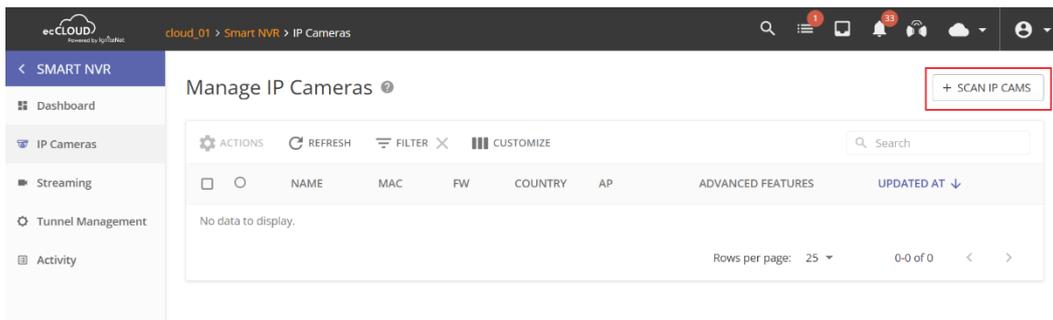
(14) Go to chapter 2 to setting SMART NVR

3. EAP112 Upgrade firmware to v12.6.7
4. IP Cam firmware upgrade to v0.13 and later
5. iOS APP version update to v0.40 and later

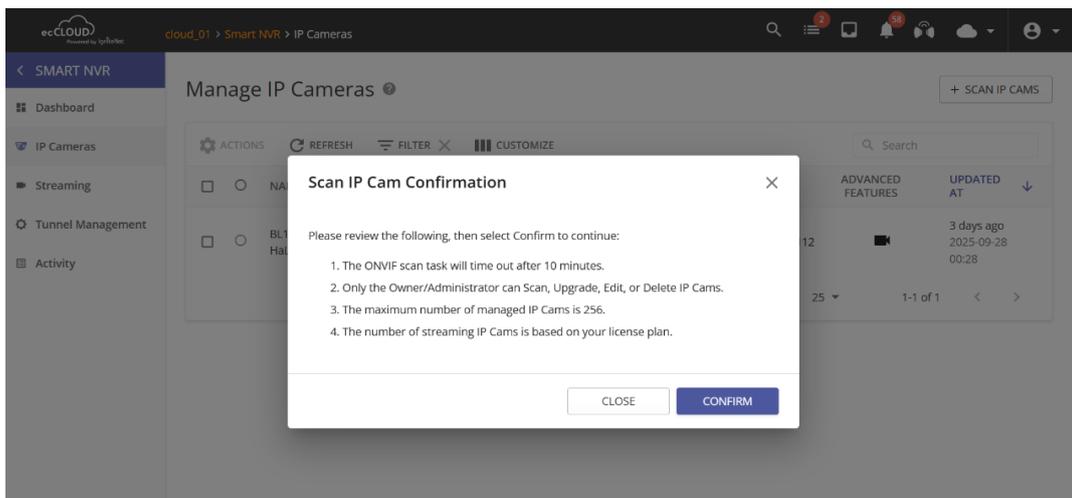
2. SMART NVR Settings

2.1 Scan IP Cam

1. Login ecCLOUD
2. Go to SMART NVR > IP Cameras
3. Make sure IP Camera successfully connected: Green LED remains solid.
4. Click “SCAN IP CAMS” button



A notification message will appear.



Please ensure that the IP Cam username and password match the credentials configured in the Cloud.

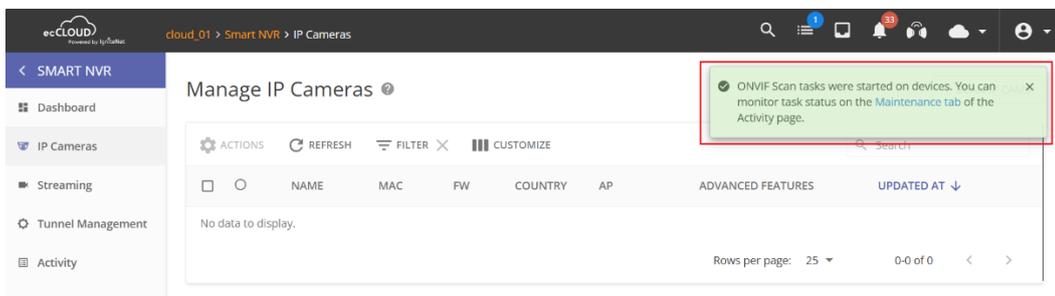
Proceed with IP Cam Scanning ✕

Enter the IP Cam Username and Password, then click Scan.
The scan runs on the APs and may take a few minutes.

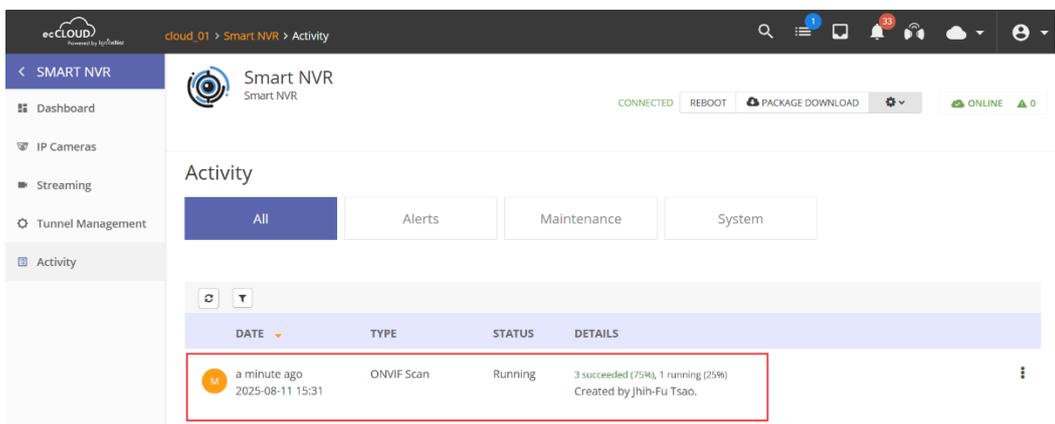
Username*

Password*

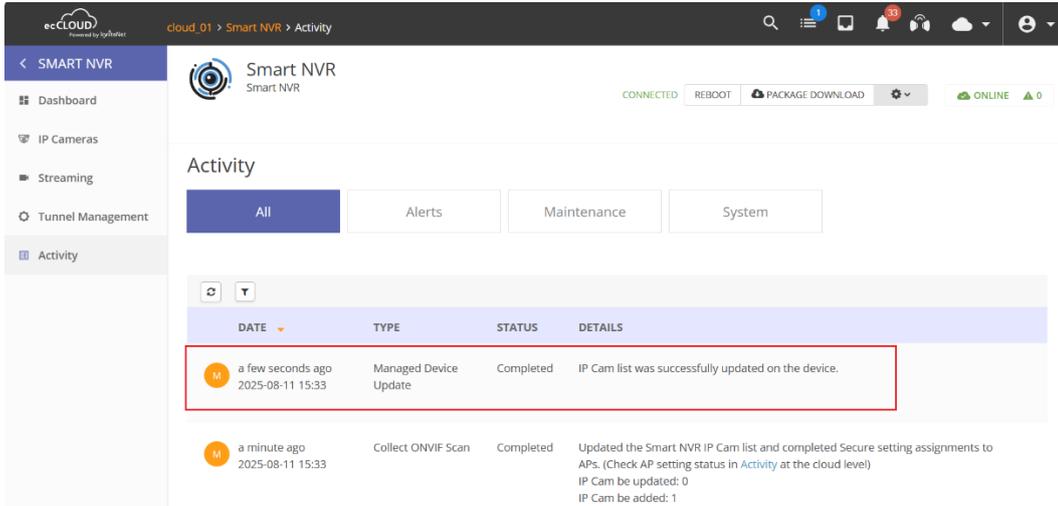
5. The ONVIF Scan task will be processed on each AP that supports ONVIF Scan



➤ Check the task status on Activity page



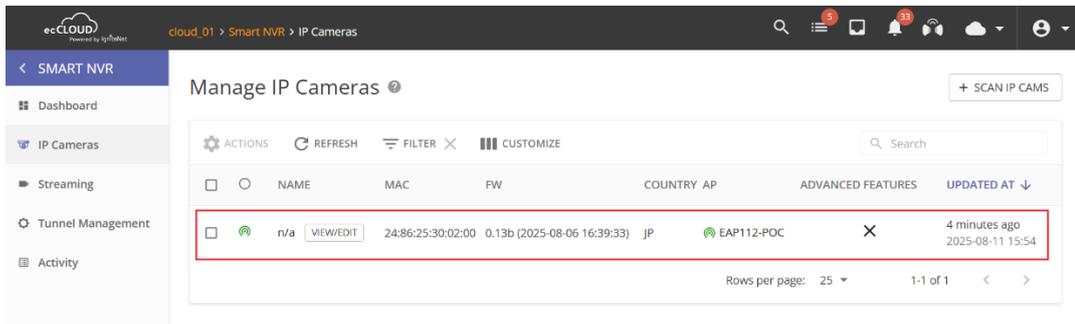
6. Wait for ONVIF Scan task to be done.



✂ If the Smart NVR is unable to scan or detect IP cameras, please try the following methods:

- A. Reboot the IP Camera.
- B. Check the network cable of the IP camera.
- C. Check the IP address of the IP camera.
- D. Use the AP to ping the camera's IP address to verify network connectivity.

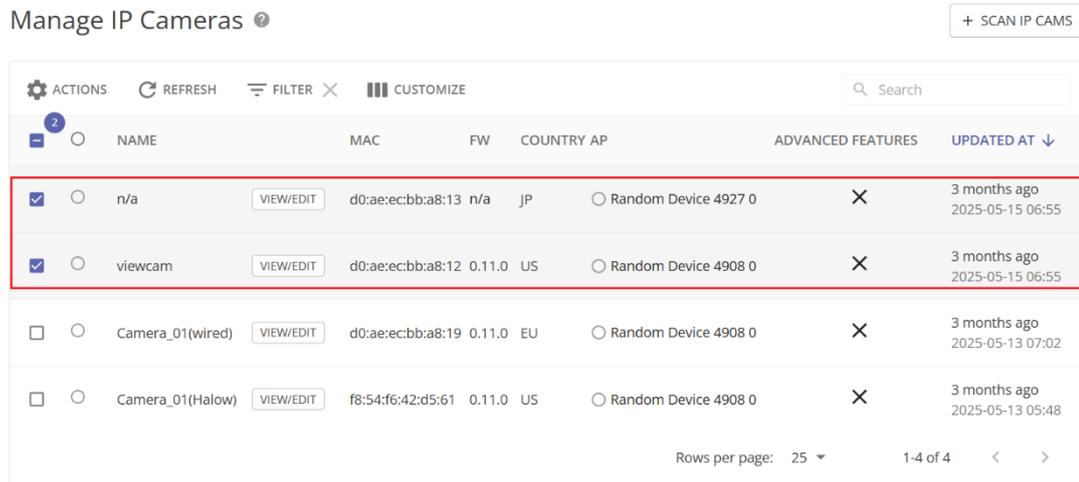
7. Go to SMART NVR > IP Cameras page, SMART NVR will display IP Cam status and version on the IP Cam list.



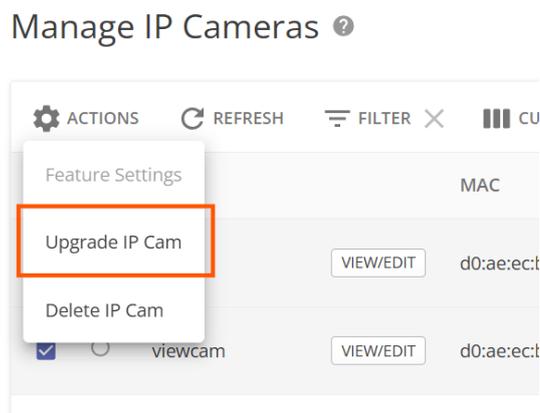
2.2 IP Cam firmware upgrade on SMART NVR

SMART NVR provides the IP Cam firmware upgrade function. If needed, please refer to the following steps.

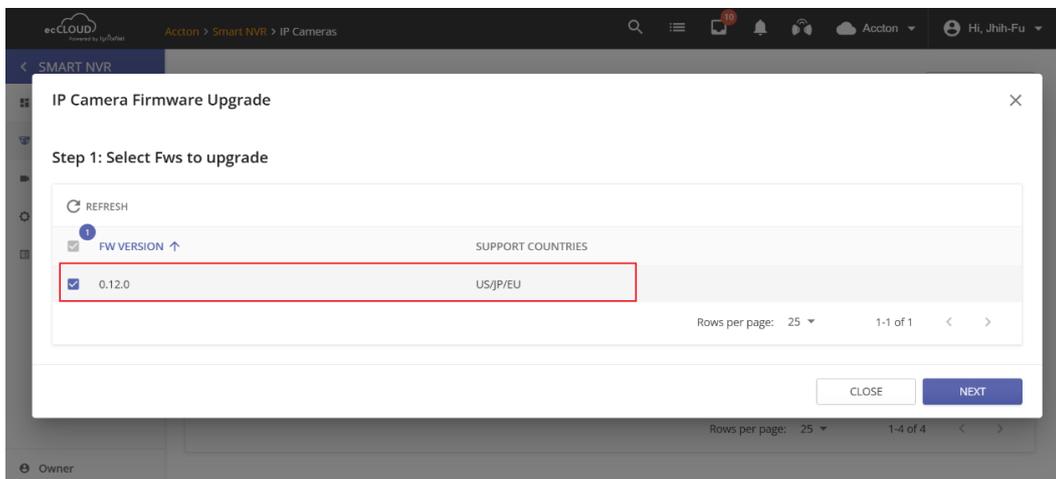
1. Selects the IP Cam that he wants to upgrade



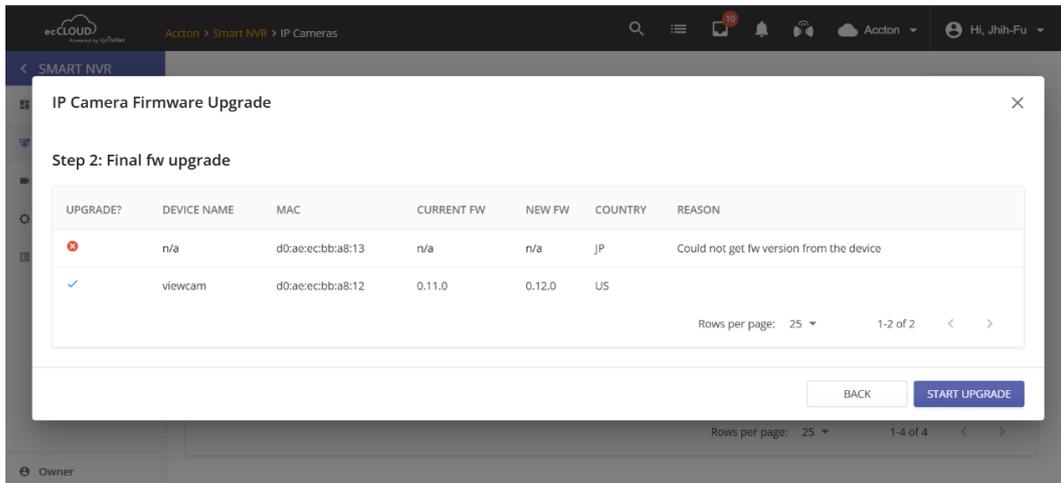
2. Select "Upgrade IP Cam" in ACTIONS



3. User selects the firmware version of IP Cam that he wants to upgrade to

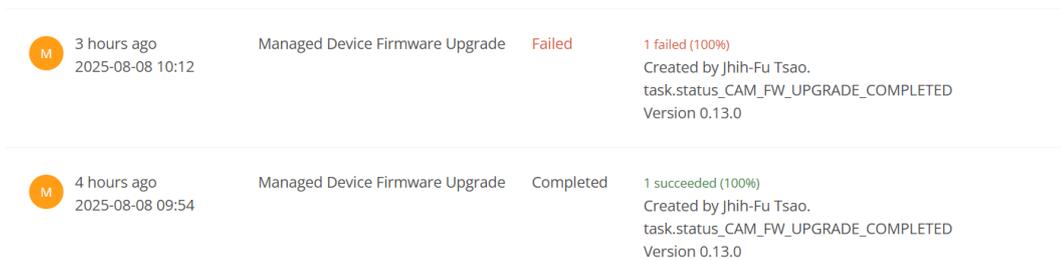


- List whether each IP camera can be upgraded. If it cannot be upgraded, describe the reason.

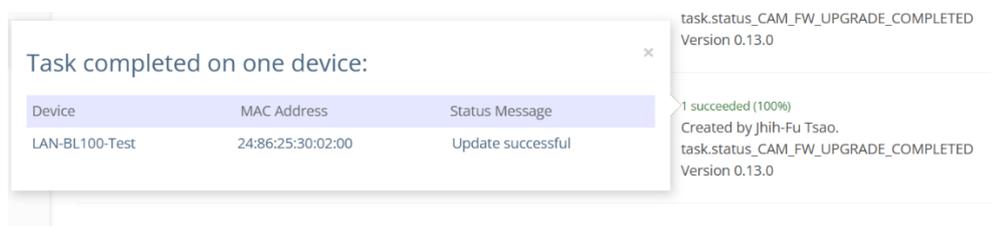


- Cloud will send the task by each country firmware to AP to do IP Cam firmware upgrades.

- User can see the task status of IP Cams on the activity page



- Smart NVR level/cloud level - Display the task status of all IP Cams that user selected
- Device level - Display the task status of IP Cams that user selected and it is connected to specific AP
- After clicking the status, the details status will display on the cloud.



- When AP finishes the task
 - If all IP Cams do the firmware upgrade
 - ◆ If all fail → the task status will be failed

DATE	TYPE	STATUS	DETAILS
 18 minutes ago 2025-08-08 13:30	Managed Device Firmware Upgrade	Failed	1 failed (100%) Created by Jhih-Fu Tsao. task.status_CAM_FW_UPGRADE_COMPLETED Version 0.13.0

◆ else → the task status will be completed

- If the IP Cam does not have a name, the device name on the activity will be n/a.
7. Cloud receives the firmware upgrade status of IP Cam from AP
 8. If IP Cam upgrades fail, AP will upload the steps checking log to the cloud. It will be added to the failed status message, then user can download it to check out.

Task failed on one device: ×

Device	MAC Address	Status Message
LAN-BL100-Test	24:86:25:30:02:00	Firmware update timed out Download troubleshooting file

DETAILS

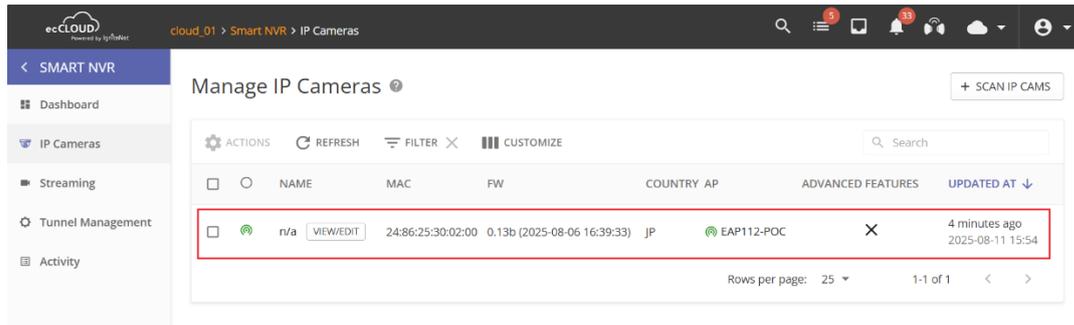
1 failed (100%)
 Created by Jhih-Fu Tsao.
 task.status_CAM_FW_UPGRADE_COMPLETED
 Version 0.13.0

2.3 Streaming

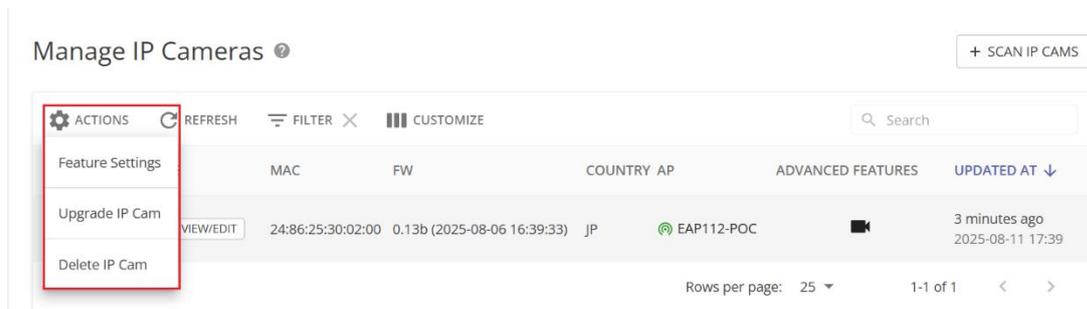
This feature allows users to view the livestream of specified IP Cameras on ecCLOUD after installing the certificates.

✂ The following steps use the Windows platform + Web Browser (Microsoft Edge/Google Chrome) as an example.

1. Go to SMART NVR > IP Cameras



2. Click ACTIONS > Feature Settings



3. Apply Advanced Features and click “CONFIRM” button

Change Feature Settings



Are you sure you want to **Apply Advanced Features** to the selected devices?

Enabling advanced features will allow you to view real-time streaming and access additional functionalities.

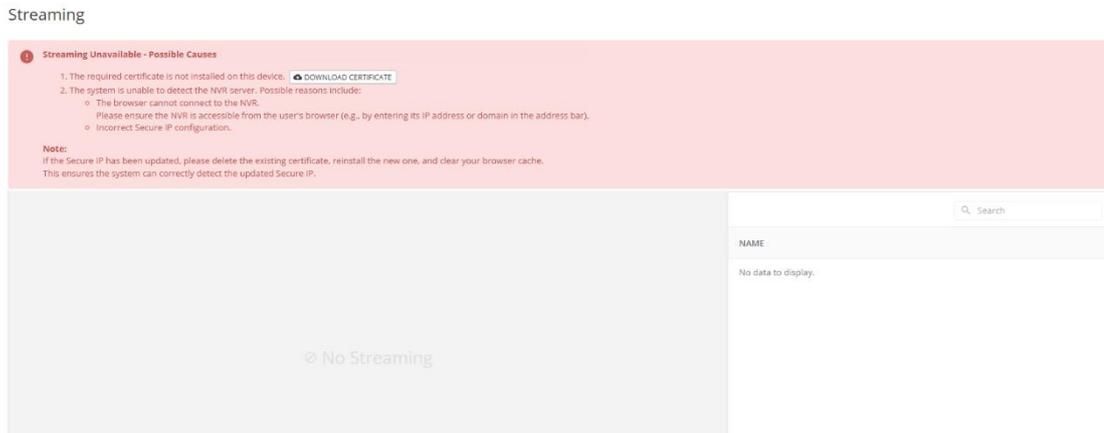
CANCEL

CONFIRM

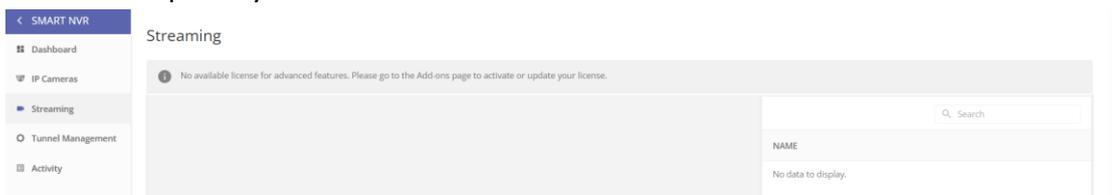
4. Change to Monitor mode with Advanced Features



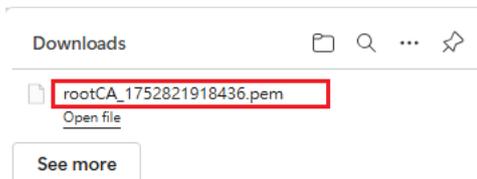
- Go to SMART NVR > Streaming
- If the Smart NVR license has been activated, a prompt will appear: "Streaming Unavailable- Possible Causes"
Click "Download certificate" button



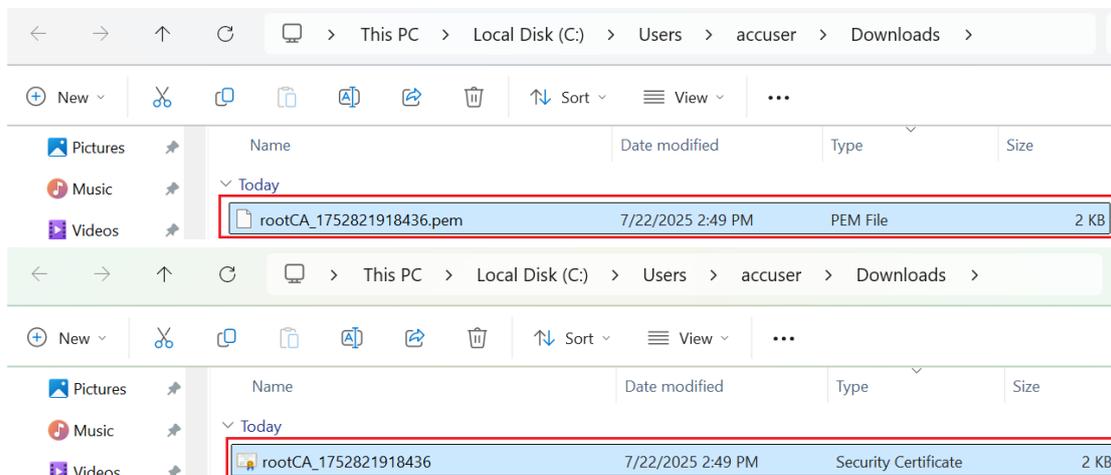
If the Smart NVR license has not been activated, a prompt will appear: "No available license for advanced features. Please go to the Add-ons page to activate or update your license."



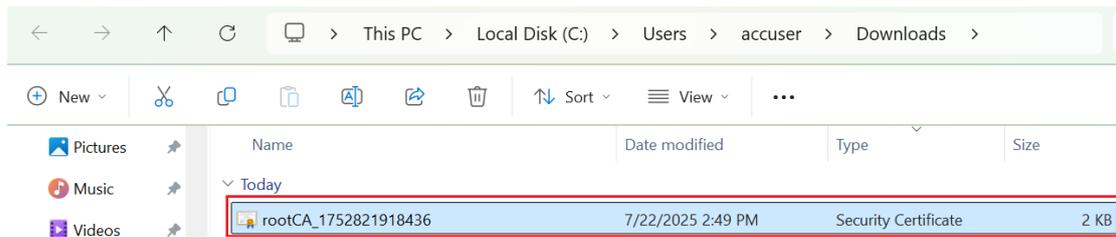
- Go to Downloads folder and will see the certificate file(.pem).



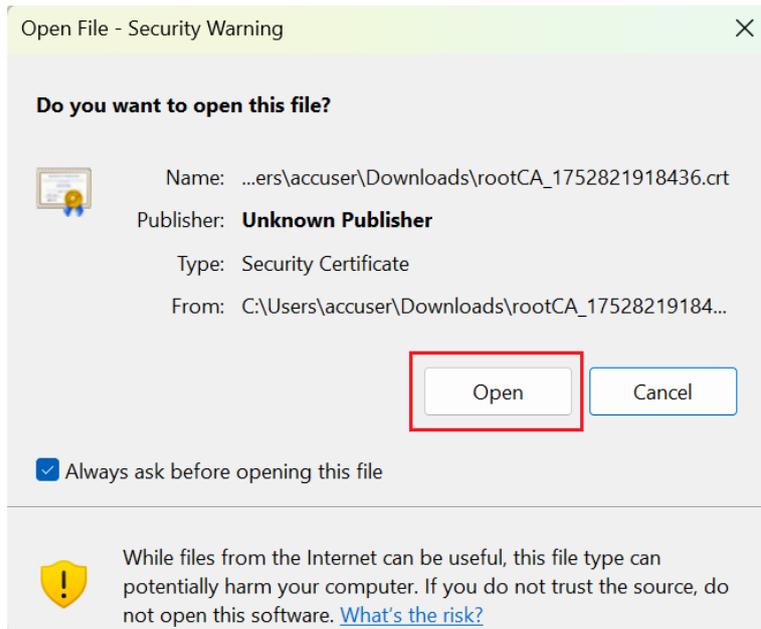
- Rename the file extension from "pem" to "crt".



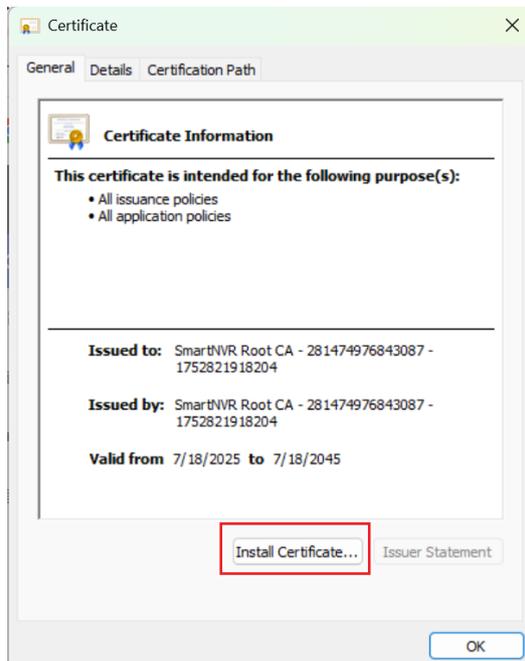
9. Double click the crt file.



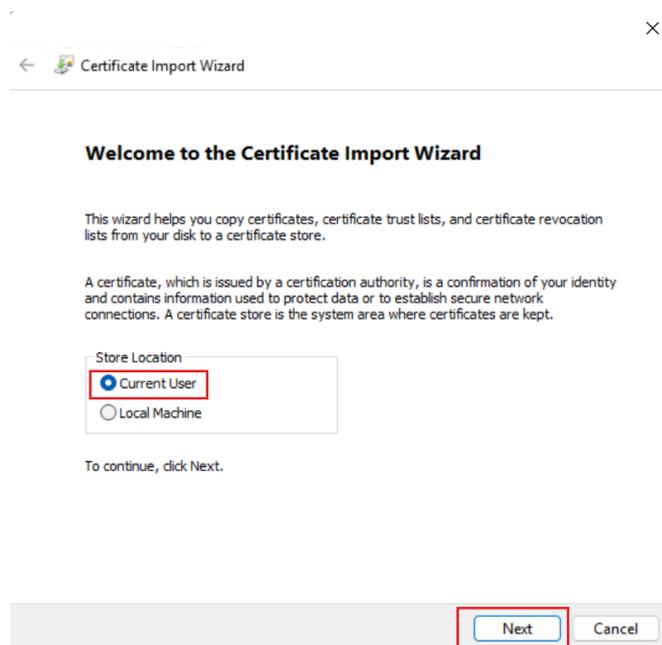
10. Pop up the dialog and click Open button to open the file.



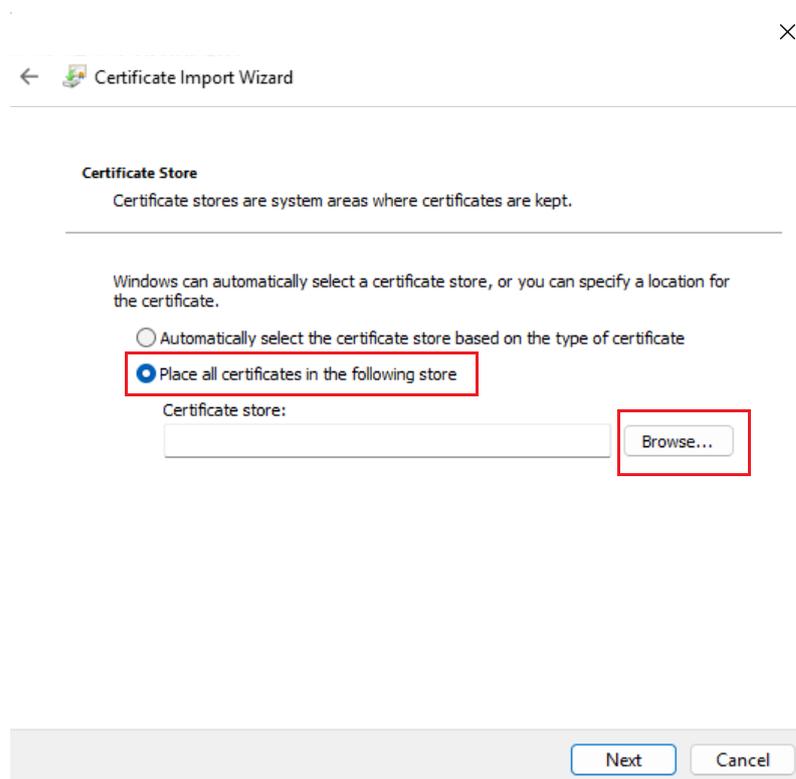
11. Click the "Install certificate" button.



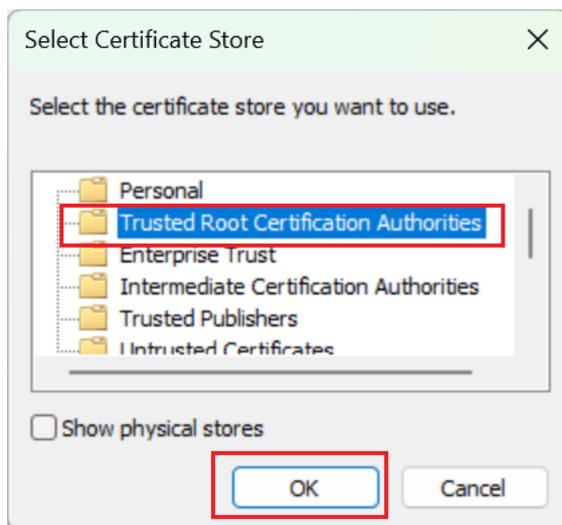
12. Select “Current user” and click Next button



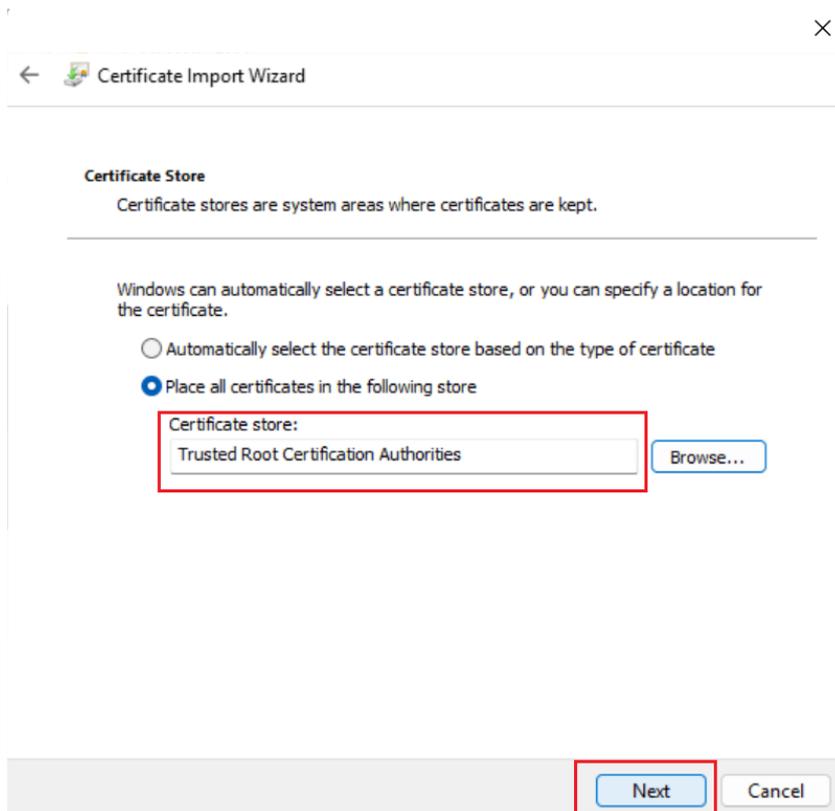
13. Select “Place all certificates in the following store” and click Browse button



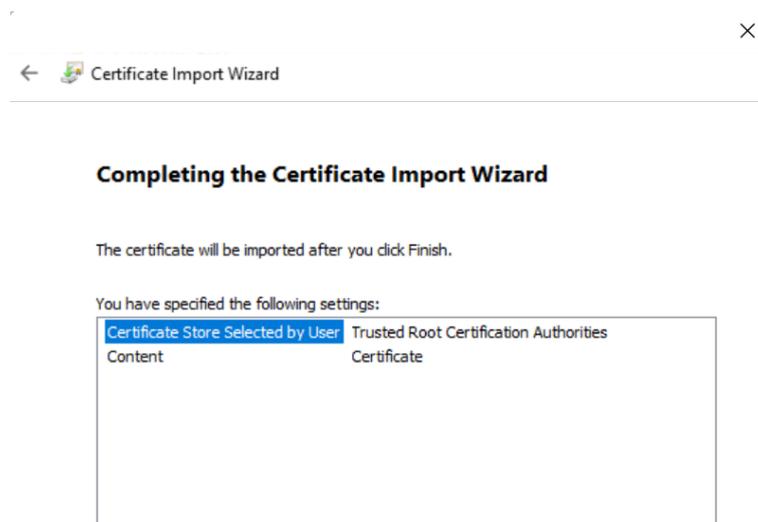
14. Select “Trusted Root Certification Authorities” and click OK button



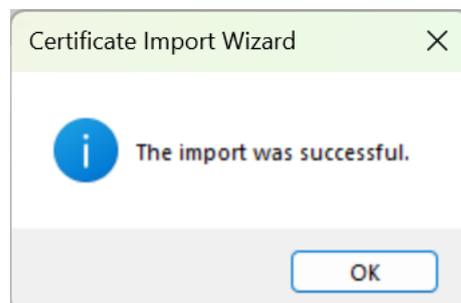
15. Make sure Certificate Store: “Trusted Root Certification Authorities” and click Next button



16. Completing the Certificate Import Wizard and click Finish button



17. Pop up "The import was successful" dialog and click OK button



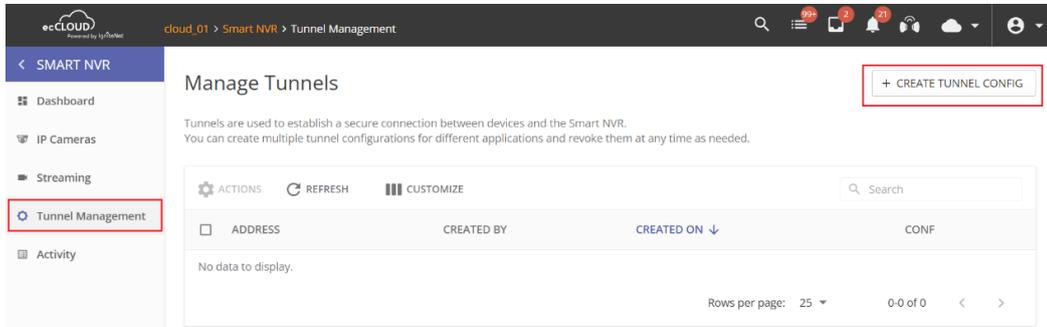
18. Go to SMART NVR > Streaming and will see the streaming video



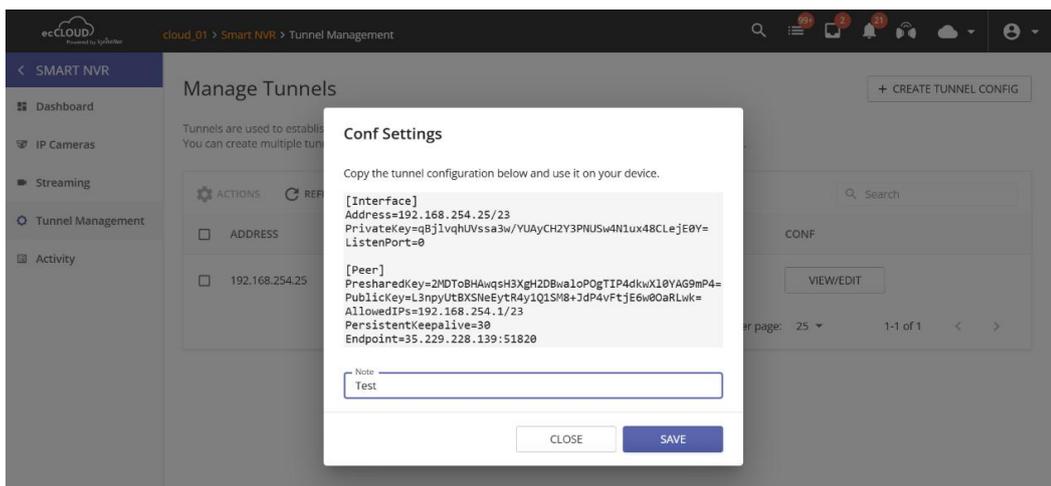
2.4 Tunnel Management

This feature allows creating a WireGuard configuration for the viewer.

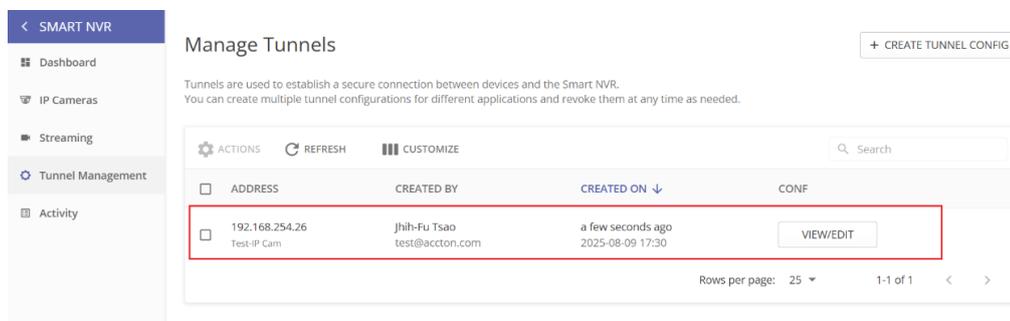
1. Go to SMART NVR > Tunnel Management
Only the owner/administrator can see the page.



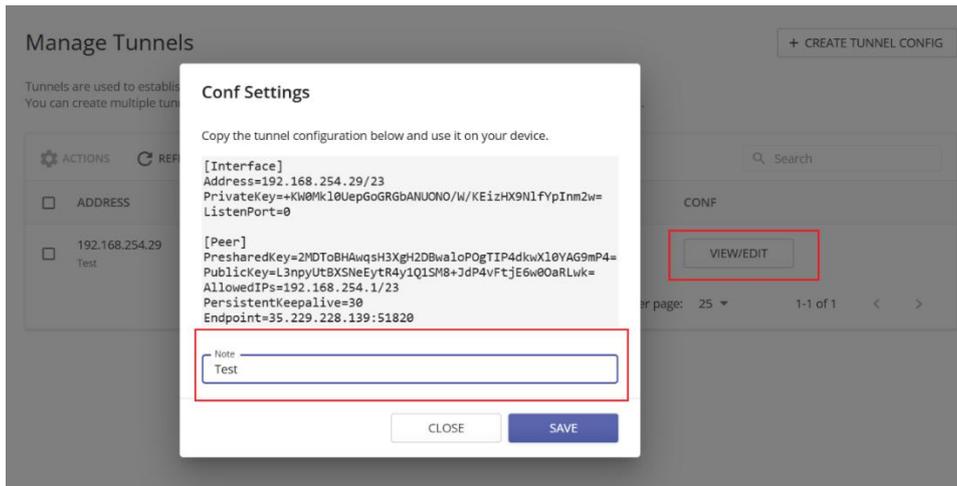
2. When the user clicks the create Tunnel Config button, it will provide a WireGuard setting for the user.
Enter Note and Click "SAVE" button.



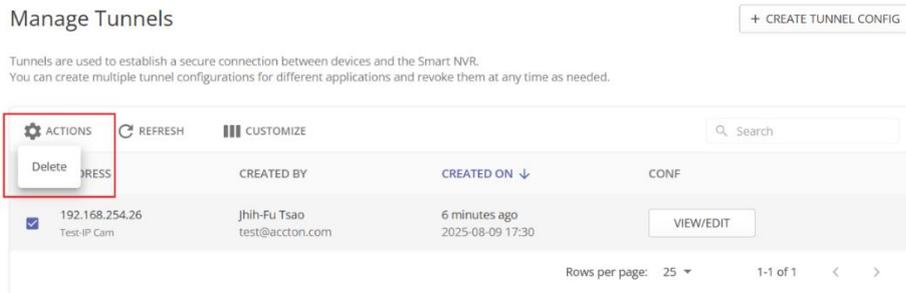
3. It will show the tunnel clients that user created on the page.



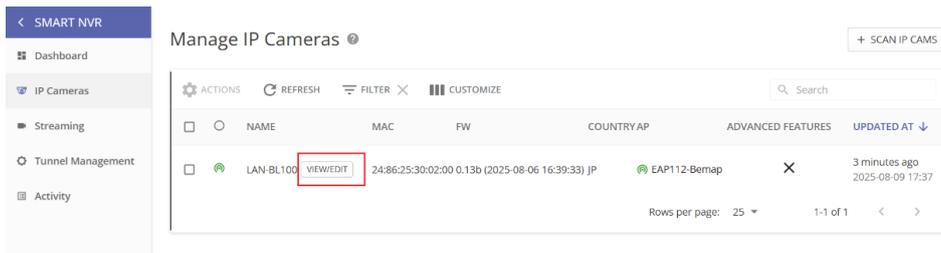
- Click the “VIEW/EDIT” Button, user can see the conf and edit note.



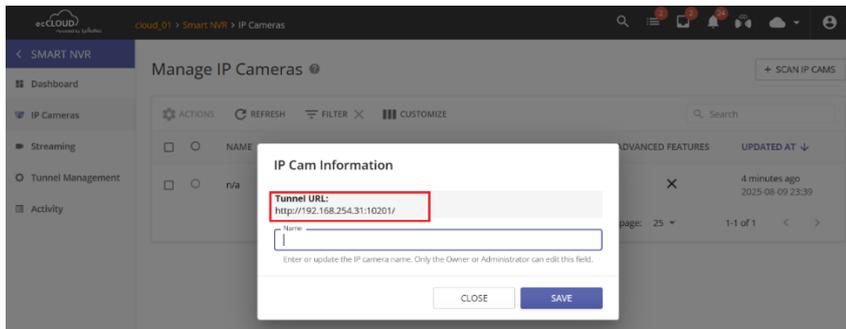
- User can search by address, note, and created user’s name/email.
- User can delete the tunnel client if he no longer needs to use.



- Go to SMART NVR > IP cameras page
- Clicks “VIEW/EDIT”, display IP Cam information.



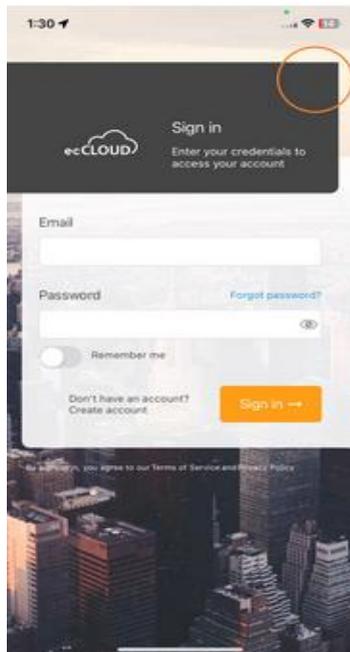
- Display the tunnel URL of IP Cam (Note: the user should build the tunnel first).



3. APP installation and connecting to IP Cam

Due that the APP hasn't been officially released, download/install the APP in testflight ([Join the ecCLOUD beta](#)) on your iPhone. Currently only supported with iOS.

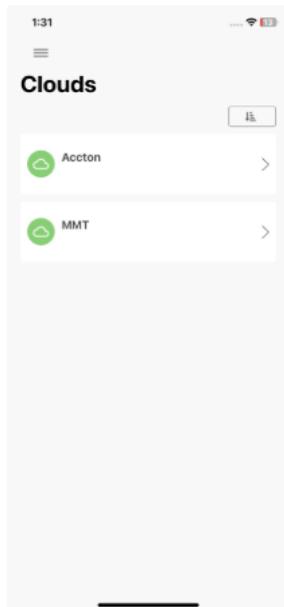
1. After install app, please How to switch ecCLOUD platform
 - A. Click the top right corner of the APP about 5 times



- B. Switch cloud window will pop up



2. Login using your ecCLOUD account
3. Go to the cloud that Smart NVR has been enabled
 - After logging in, you will see the cloud list. Please select the corresponding cloud that contains the Smart NVR.

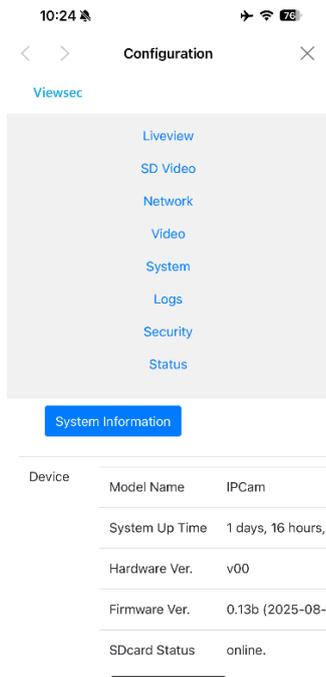


4. Go to IP cam list
 - A. Go to SmartNVR and IP cam list will be shown
 - B. Action buttons from left to right

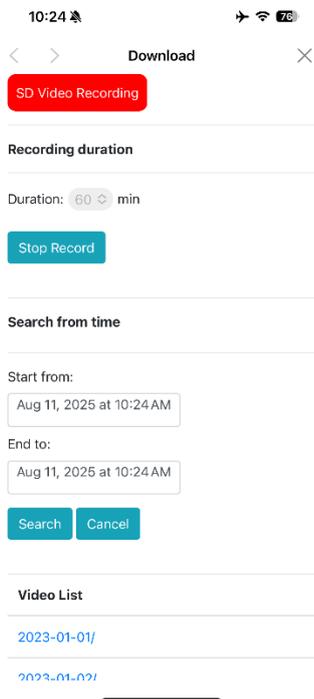
Configuration, video download and RTSP stream

a. Go to Smart NVR, then you will see IP Cam list.	b. action buttons (from left to right) configuration, live, video download, and RTSP stream

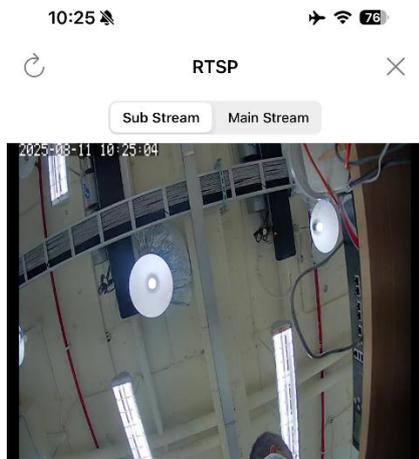
- Click the “Configuration” icon; the settings will be displayed.



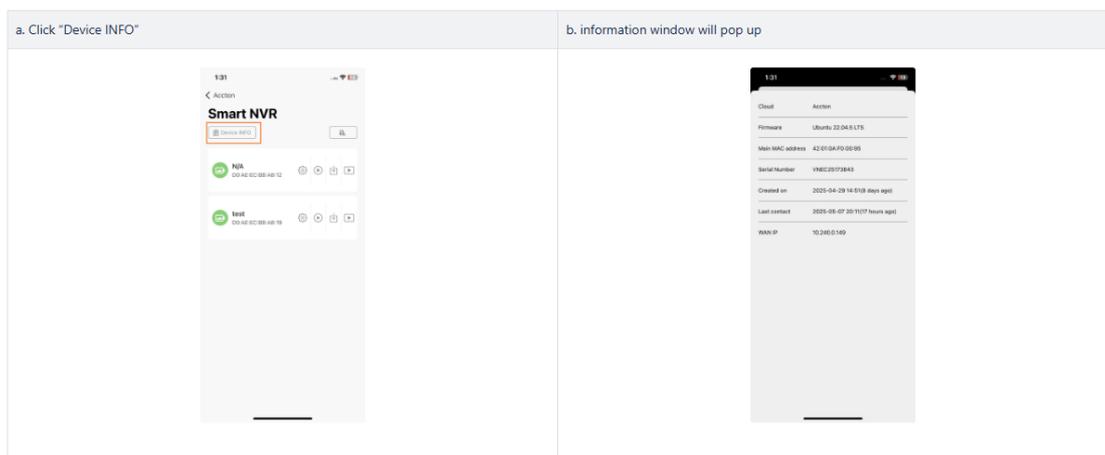
- Click the “Download” icon; the video download will be displayed.



- Click the “Video” icon; the RTSP stream will be displayed.



-
5. Check NVR info
 - A. Click “Device INFO”
 - B. Information window will pop up



4. Connect from Windows PC to IP Camera via Wireguard

The new release on ecCLOUD, and supported two features:

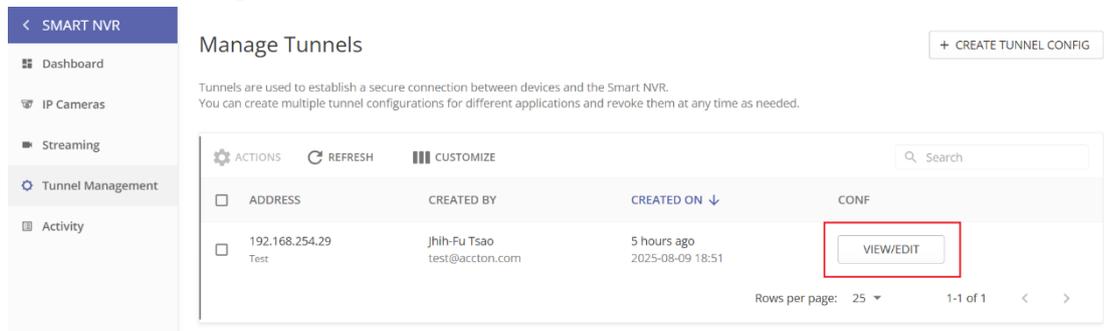
1. In ecCLOUD, show the private IP address (and port) of the camera.
2. In ecCLOUD, allow user to create Wireguard tunnel for specific client device.

By these two features, it can achieve this usage scenario:

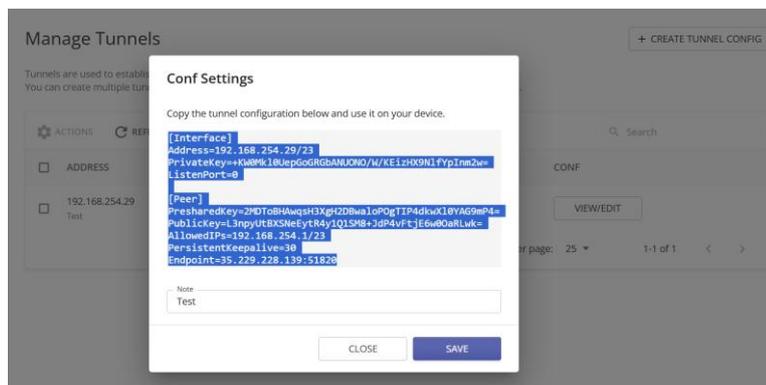
1. In ecCLOUD, create a Wireguard tunnel, it will generate the profile configuration of the Wireguard tunnel.
2. In the Windows device, copy & paste the configuration.
3. Then the Windows device will be able to connect to ICE/NVR server by Wireguard tunnel with a pre-defined IP address.
4. By checking the private IP address of the camera, the user is able to access the camera by the Wireguard tunnel.

Please follow the steps below to use this feature:

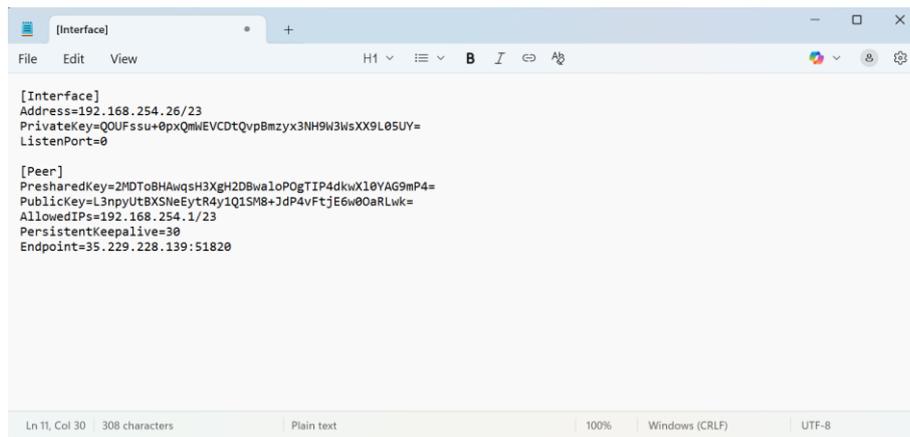
1. Install Wireguard software on Windows device
2. Go to SMART NVR > Tunnel Management
3. Click tunnel config “VIEW/EDIT” button



4. Copy the tunnel config on the Tunnel Management page



5. Open Notepad and Paste tunnel config to Notepad



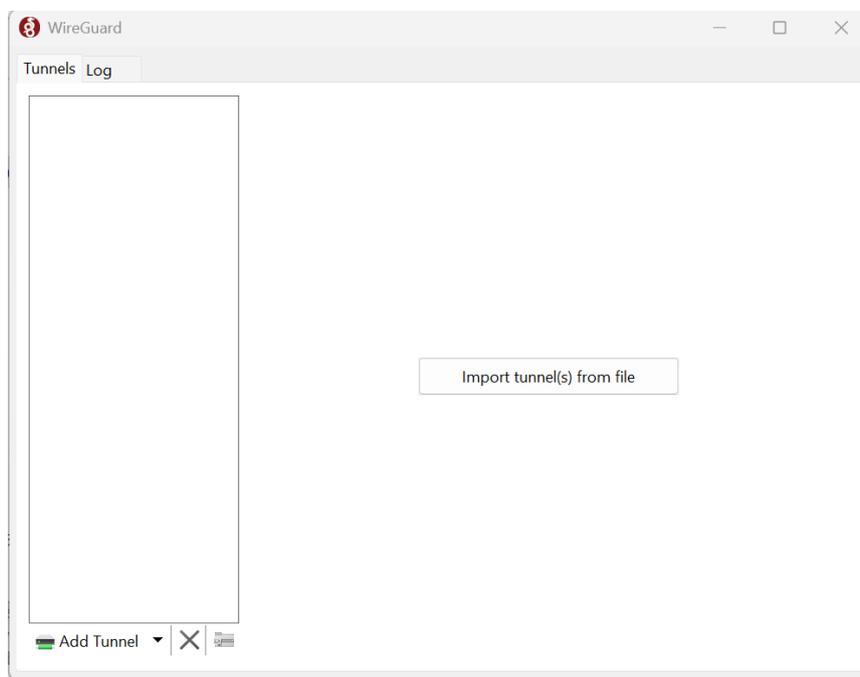
```
[Interface]
Address=192.168.254.26/23
PrivateKey=QOUFssu+0pxQmEVCDtQvpBmzyx3NH9W3WsXX9L05UY=
ListenPort=0

[Peer]
PresharedKey=2MDTo8HAWqsH3XgH2DBwaloPOgTIP4dkwX10YAG9mP4=
PublicKey=L3npyUtBXSNeEYtR4y1Q15M8+JdP4vFtjE6w0aRLwk=
AllowedIPs=192.168.254.1/23
PersistentKeepalive=30
Endpoint=35.229.228.139:51820
```

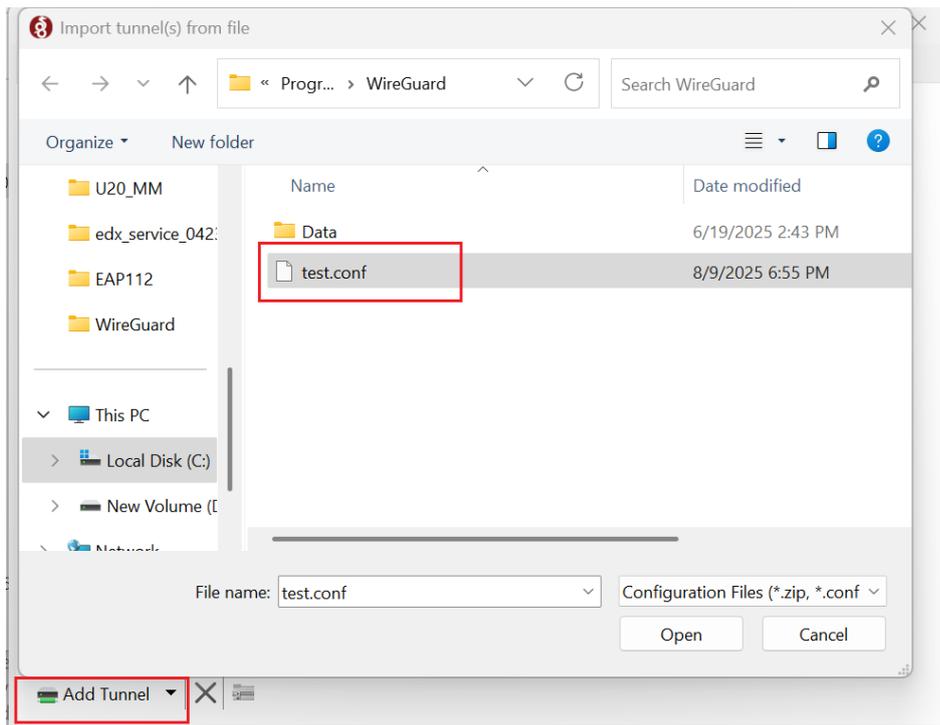
Ln 11, Col 30 | 308 characters | Plain text | 100% | Windows (CRLF) | UTF-8

6. Save as a xxx.conf file

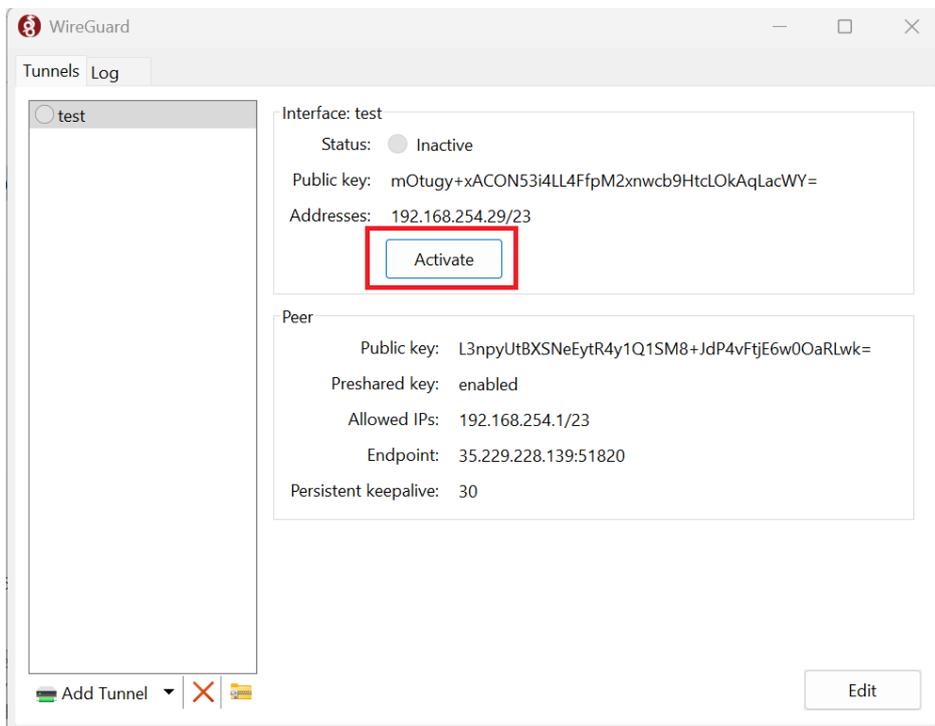
7. Open WireGuard



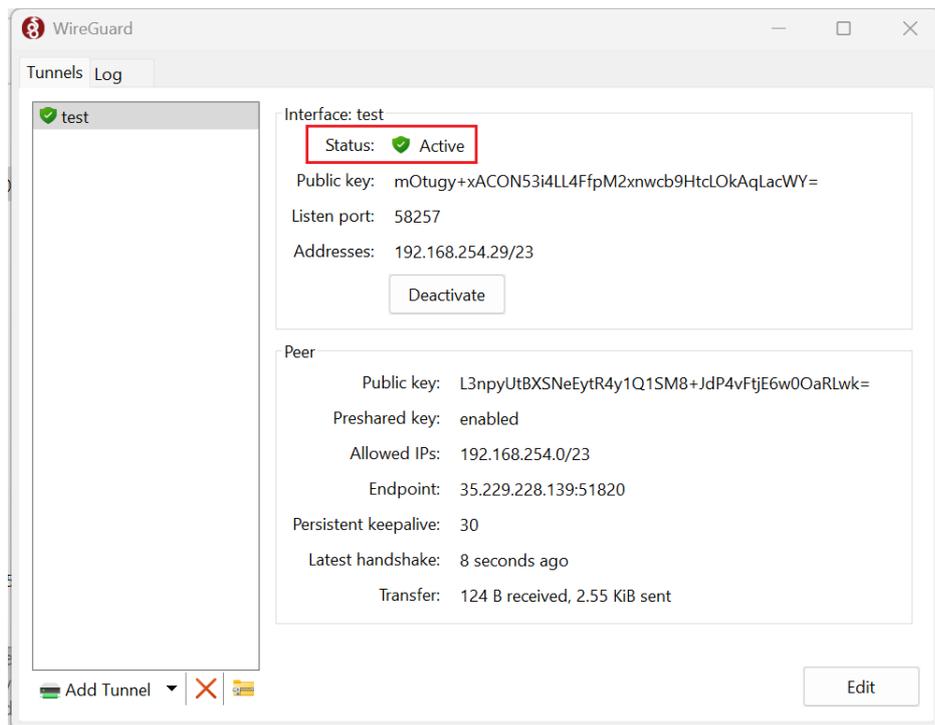
8. Click Add Tunnel and load the conf file



9. Click Activate button to open the link connection

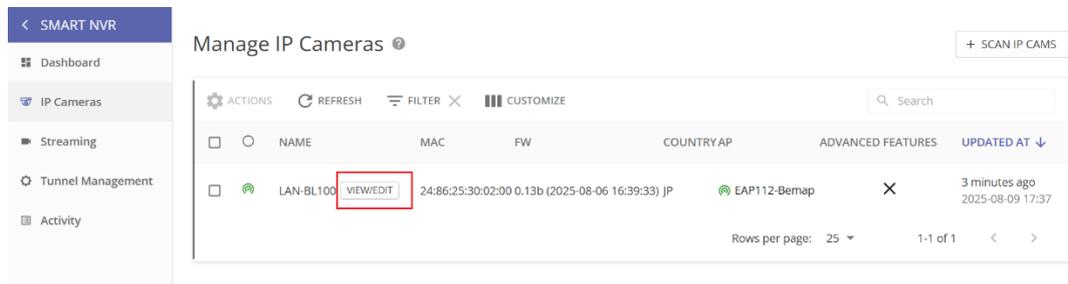


10. Windows is able to connect to the ICE/NVR server.

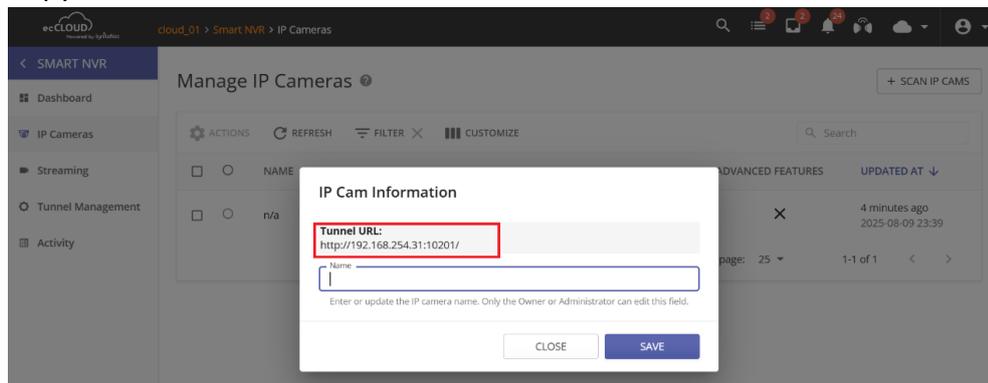


11. Go to SMART NVR > IP Cameras page on ecCLOUD

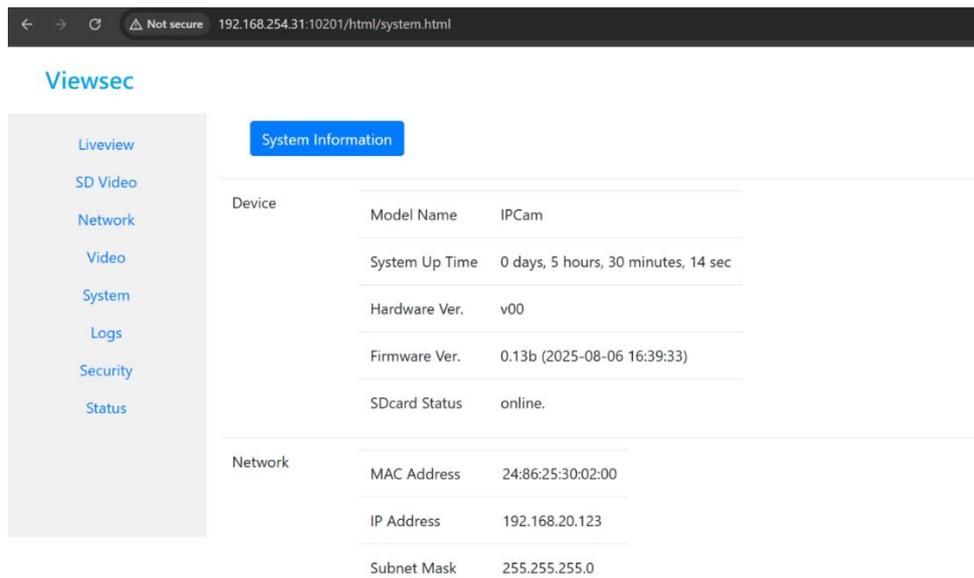
12. Click "VIEW/EDIT" button on the IP Cam that you want to check



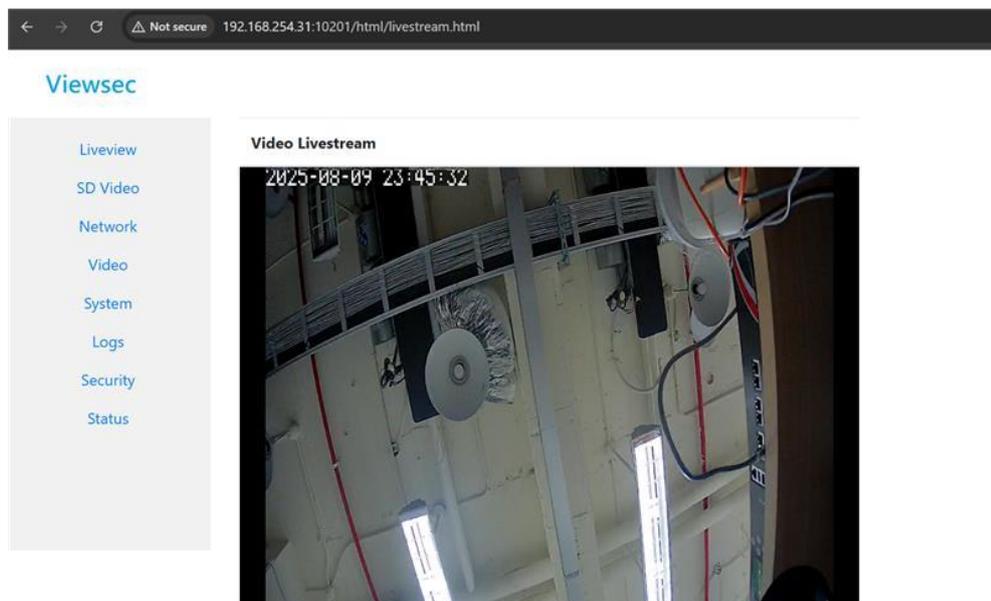
13. Copy its tunnel URL to the new tab of the browser



14. Paste the URL into a new browser tab. The IP Cam web GUI will appear.



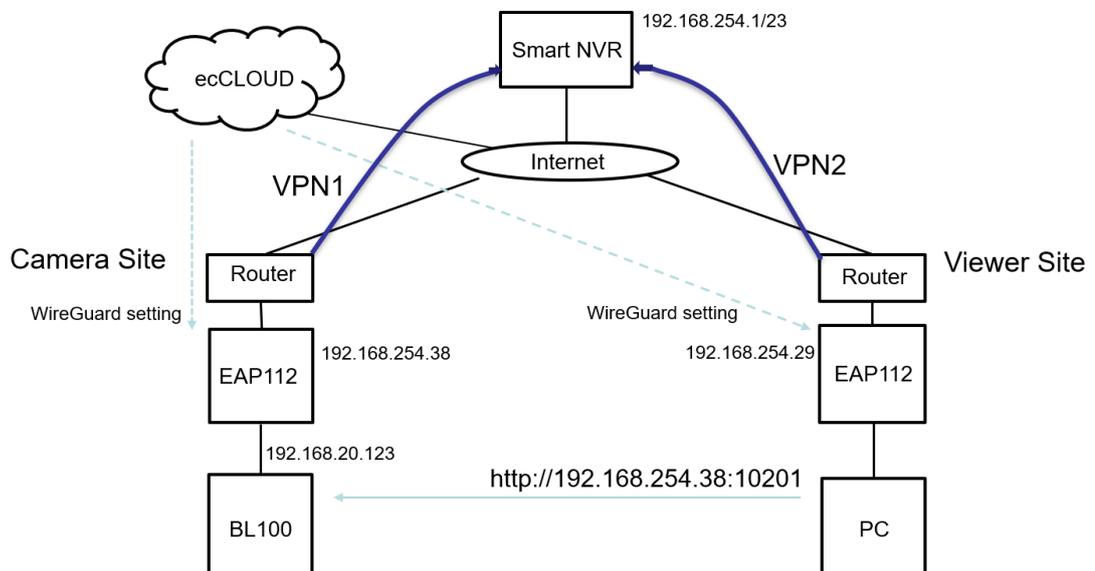
15. Click "Liveview" in the IP Cam web GUI. The live stream will appear.



5. Access the IP camera at the camera site via HTTP from a PC connected to the LAN of the viewer site's EAP112

The SMART NVR also provide an alternative method in which WireGuard is not necessary for Windows PC.

The EAP112 installed at the viewer site already supports connecting to WireGuard, eliminating the need for a Windows-based WireGuard connection. The network topology is shown below.



The release on ecCLOUD and supported two features:

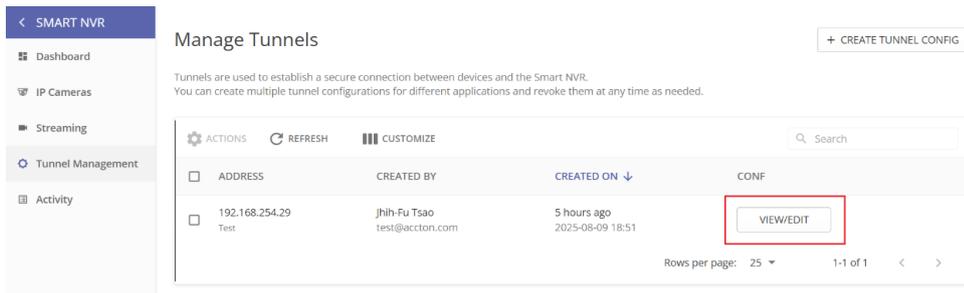
1. In ecCLOUD, show the private IP address (and port) of the camera.
2. In ecCLOUD, allow user to create Wireguard tunnel for specific client device.

By the new features, it can achieve this usage scenario:

1. Windows PC connected to the LAN of the viewer site's EAP112
2. In ecCLOUD, create a WireGuard tunnel. This will generate the profile configuration for the WireGuard tunnel.
3. Based on the tunnel configuration (WireGuard setting) information on ecCLOUD, create the VPN settings on the viewer site's EAP112.
4. Then the Windows PC will be able to connect to NVR server by Wireguard tunnel with a pre-defined IP address.
5. By checking the private IP address of the camera, the user is able to access the camera by the Wireguard tunnel.

Please follow the steps below to use this feature:

1. Go to SMART NVR > Tunnel Management
2. Click tunnel config "VIEW/EDIT" button



3. Get the tunnel configuration data.

Conf Settings

Copy the tunnel configuration below and use it on your device.

```
[Interface]
Address=192.168.254.29/23
PrivateKey=+Kw0Mk10UepGoGRGbANUONO/W/KEizHX9NlfYpInm2w=
ListenPort=0

[Peer]
PresharedKey=2MDToBHAwqsH3XgH2DBwaloPOgTIP4dkwXl0YAG9mP4=
PublicKey=L3npyUtBXSNeEytR4y1Q1SM8+JdP4vFtjE6w0OaRLwk=
AllowedIPs=192.168.254.1/23
PersistentKeepalive=30
Endpoint=35.229.228.139:51820
```

Note
Test

CLOSE SAVE

4. Windows PC connected to the LAN of the viewer site's EAP112
5. Login viewer site EAP112
6. Go to NETWORK > VPN Settings
7. Enable WireGuard

8. Active Interface

- Enable Default Local Network
- Fill out the INTERFACE SECTION and PEER SECTION field data from tunnel configuration data

9. Click "Save & Apply" button
10. Open a browser on the PC and enter the specified IP Cam URL (e.g., <http://192.168.254.38:10201/>).
11. The browser on the PC is able to connect to the camera site's IP camera web GUI.

