IEI Integration Corp.

IRM

(IEI Remote Management)

Tutorials

Rev. 1.02 - March 31, 2026

Revision

Date	Version	Changes
March 5, 2026	1.02	Add: All new features of IRM 1.4.* 3. Add Device 3.2 IPMI Device (iRIS2) 7 Redundancy 8 Recovery 10.3 iVEC Management Delete: Device Discovery
February 16, 2024	1.01	Updated: 1.4 Requirements for Using IRM 1.5 Updating IRMAgentPack and IRM Added: 8.1.1 Default User 8.1.2 Create New User 9 Licenses
August 14, 2023	1.00	Initial release

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1 Overview

1.1 How to Use IRM to Manage Your Devices

IRM is a centralized remote device management solution from IEI designed for IT teams, home users, production line managers, or anyone who wants to monitor and manage computer devices.

IRM is a web-based solution that provides basic device management capabilities such as device management, monitoring, or management of all critical computing devices on the network, such as servers, computers, embedded computers, or compact computers.

Centralized management of IRM improves the manageability of IT infrastructure and computer equipment, and reduces the time required to troubleshoot and analyze system resource performance.

1.2 Browser Support

IRM supports most modern web browsers. For the best user experience, we recommend using the latest version of Google Chrome. IRM also supports the latest versions of:

- Safari
- Microsoft Edge
- Firefox

1.3 OS Support

The operating systems supported by IRM are listed below:

- **32-bit OS**
  - Windows 7
  - Windows 8/8.1
- **64-bit OS**
  - Windows 7
  - Windows 8/8.1
  - Windows 10
  - Windows 11
  - Windows Server 2012
  - Windows Server 2016
  - Windows Server 2019
  - Windows Server 2022
  - Ubuntu 16.x
  - Ubuntu 18.x
  - Ubuntu 20.x
  - Ubuntu 22.x
  - Ubuntu 24.x
  - CentOS 7
  - Debian 8
  - Debian 9
  - Debian 10
  - Debian 11
  - Debian 12

1.4 Requirements for Using IRM

Hardware:

- TS-i410X-8G2H

Software (App)

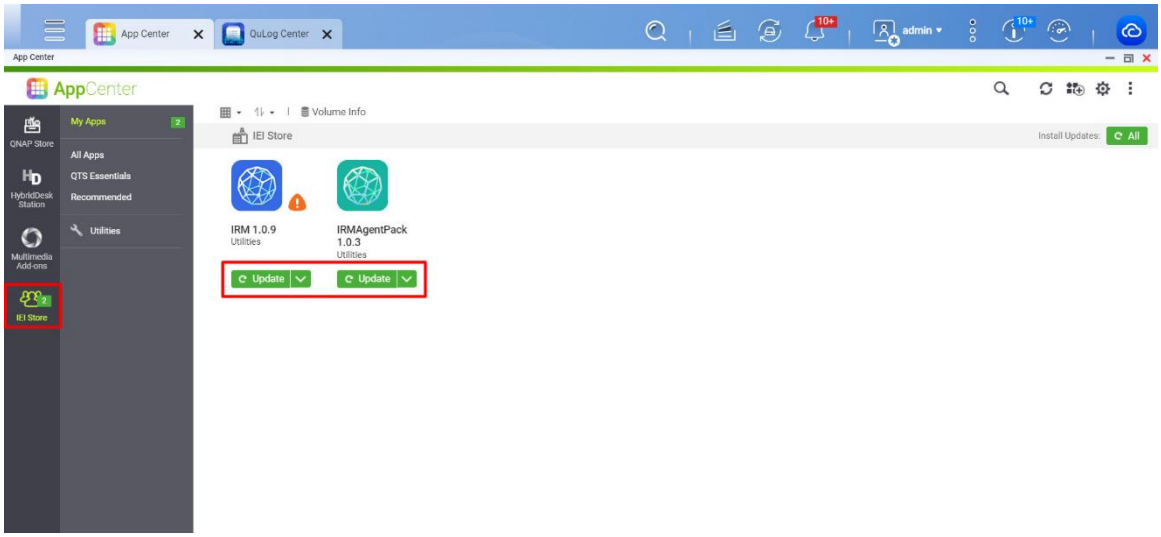
- Container Station
- IRMAgentPack
- IRM

*Container Station, IRMAgentPack and IRM are pre-installed in TS-i410X-8G2H. To locate these apps in the App Center, find Container Station in the QNAP Store, and IRMAgentPack and IRM in the IEI Store. If these apps are not installed, please contact IEI for further instructions.

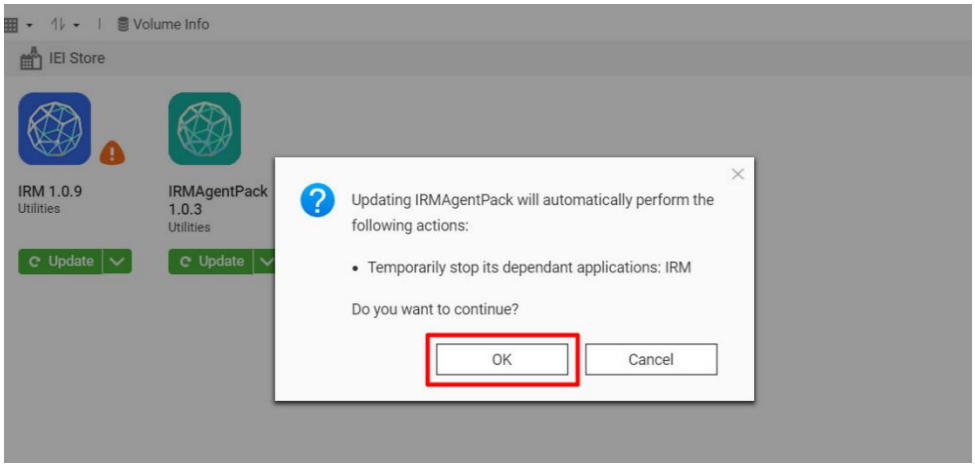
1.5 Updating IRMAgentPack and IRM

Before using IRM, connect the device to the internet and check if your IRM and IRMAgentPack apps are up-to-date. You must perform required updates to ensure the functionality, compatibility, and data security of your apps.

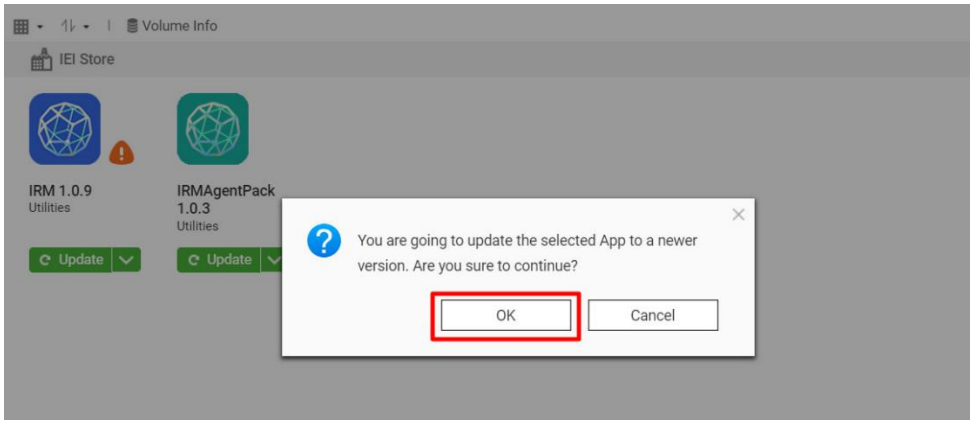
Step 1: Open **App Center** and click **IEI Store**. Locate the IRMAgentPack and IRM apps. Click the **Update** button.
Note: Update the IRMAgentPack before IRM if both require an update.



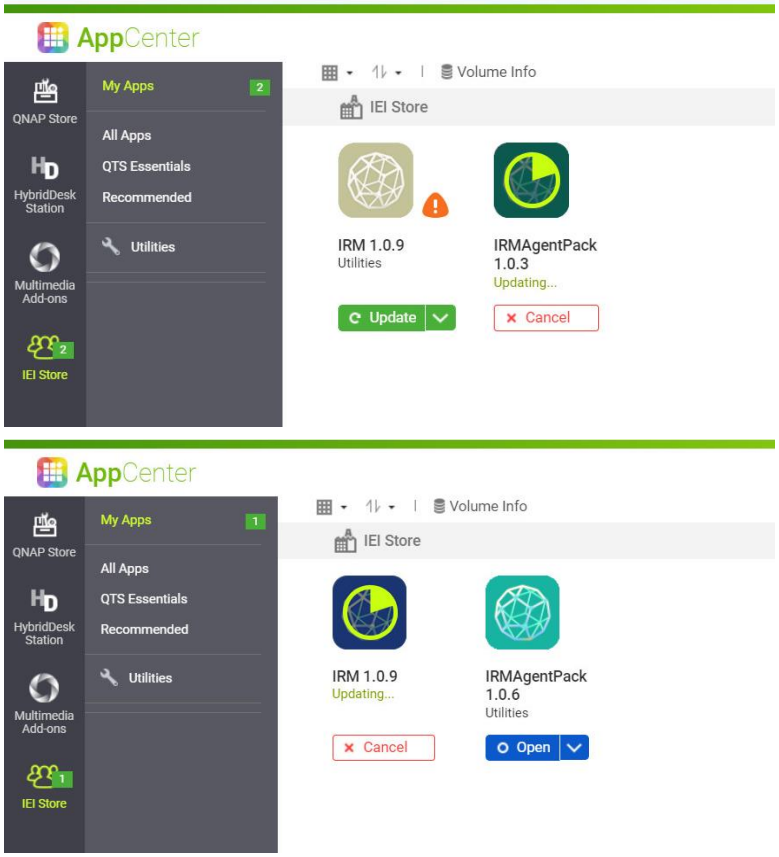
Step 2: The following warning message appears before updating the IRMAgentPack. Click **OK** to continue.



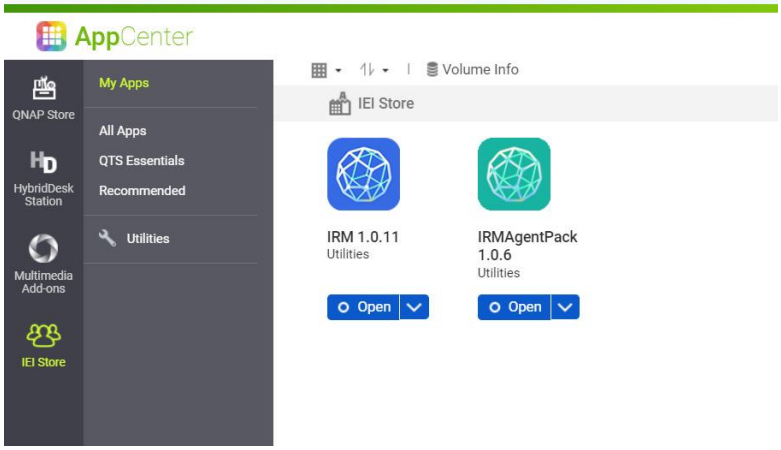
Step 3: The following confirmation message appears. Click **OK** to start update.



Step 4: The system starts updating the app.



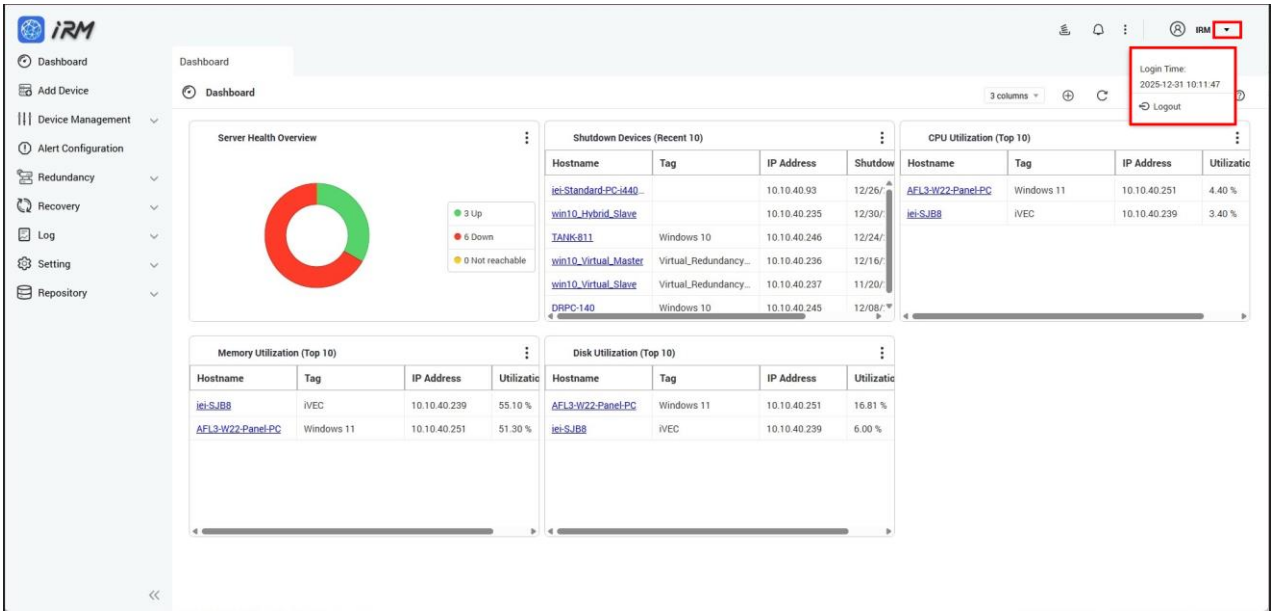
Step 5: Update is finished.



1.6 Global Toolbar

The upper-right corner of the IRM interface provides four global function icons that are available on every page, allowing users to easily view system status and account information.

1.6 1 User Account Menu



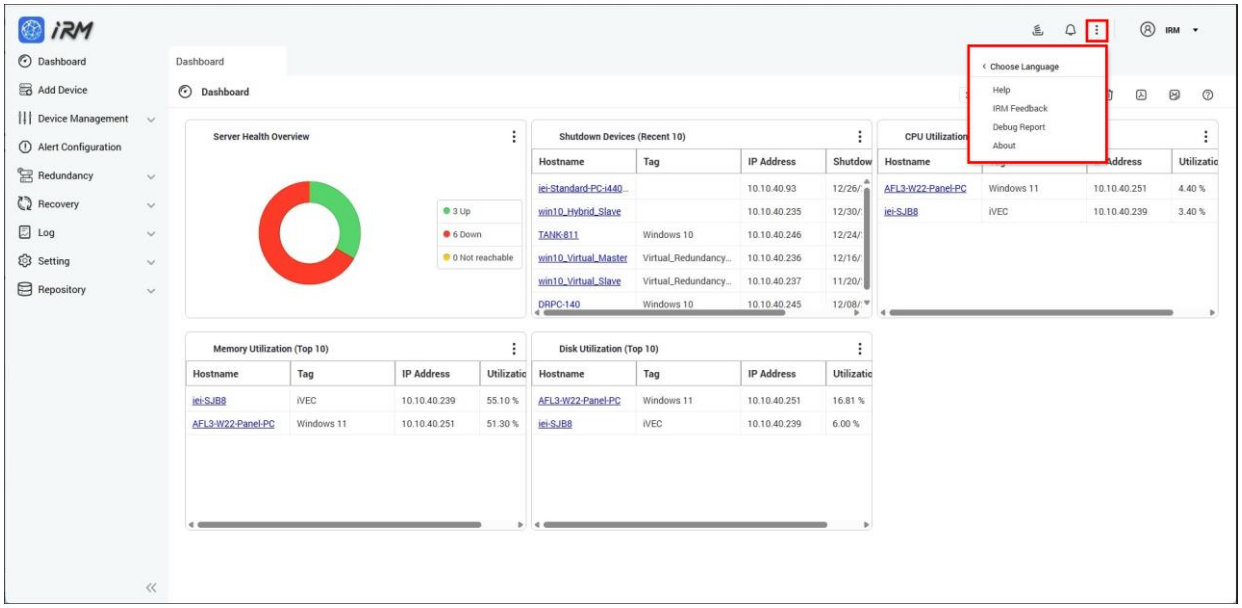
In the upper-right corner of the page, the currently signed-in account name (e.g., IRM) and a drop-down arrow (▼) are displayed.

- Click the drop-down arrow (▼) to the right of the account name to open the user account menu.
- The menu includes the following items:
  - **Login Time**

    Displays the date and time of the current IRM login session (e.g., 2025-12-23 09:22:53), allowing administrators to check when the session started.
  - **Logout**

    Click **Logout** to end the current session and sign out of IRM. The system will return to the login page. It is recommended to log out after completing operations to enhance account and system security.

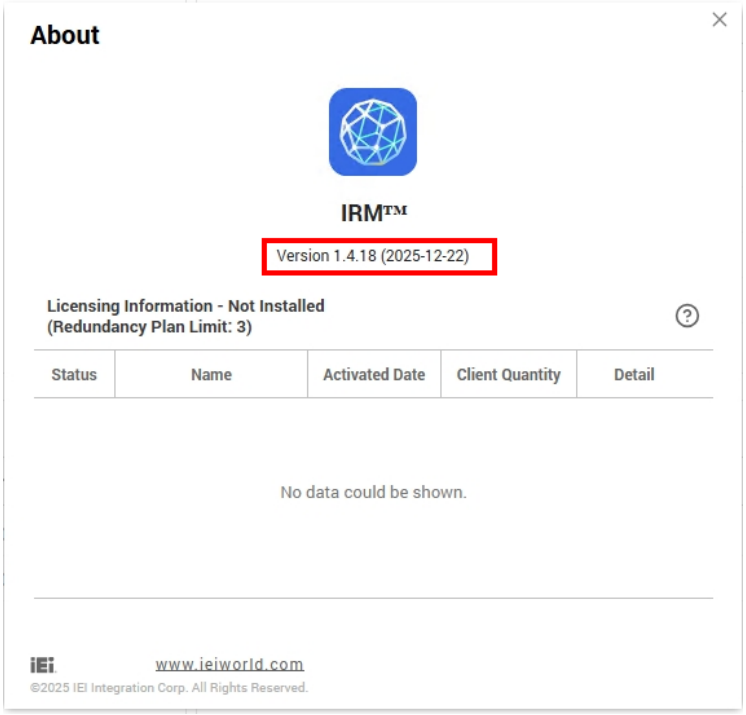
1.6 2 More Options Menu



When you click the 「⋮」 icon in the upper-right corner of the IRM interface, an extended options menu is displayed, as shown in the figure below.

The menu provides the following items:

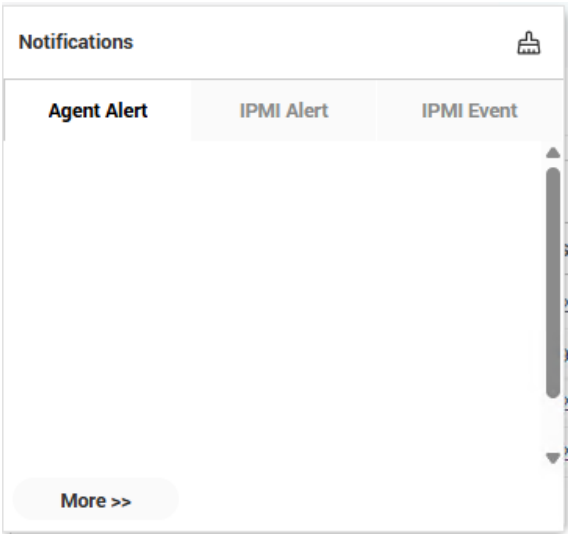
- **Choose Language**
  Opens the language selection window, where users can switch the display language of the iRM web interface. ◦
- **Help**
  Opens IRM online help or the user guide, providing instructions and descriptions for each feature.
- **IRM Feedback**
  Opens the feedback window, where users can submit issues, suggestions, or requests encountered while using iRM to IEI technical support or the development team.
- **Debug Report**
  Generates and downloads iRM debugging/diagnostic information (such as system status and log files) to provide more complete details for troubleshooting or technical support.
- **About**
  Displays iRM product information, including the version number, copyright information, and related details, useful for issue reporting and version management.



Note: The available options may vary slightly depending on the iRM version or the user's access permissions.

1.6 3 Notification Center

The Notification Center is located at the upper-right corner of the IRM management page, represented by the **notification bell (🔔) icon**. It is used to centrally display system events and various alert notifications. When a device triggers an alert condition or the system generates a related event, administrators can use the Notification Center to quickly understand the current status and take follow-up actions.

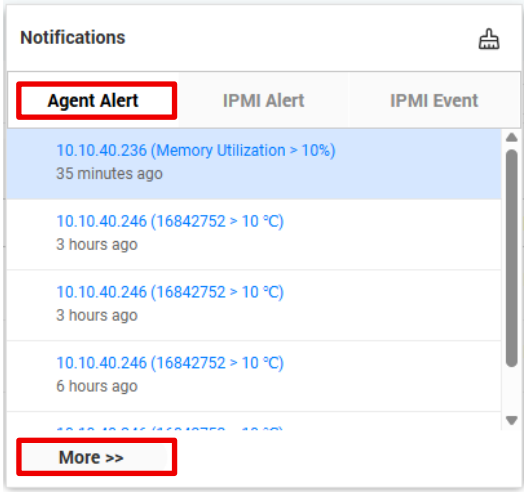


The Notification Center is divided into three tabs by source type:

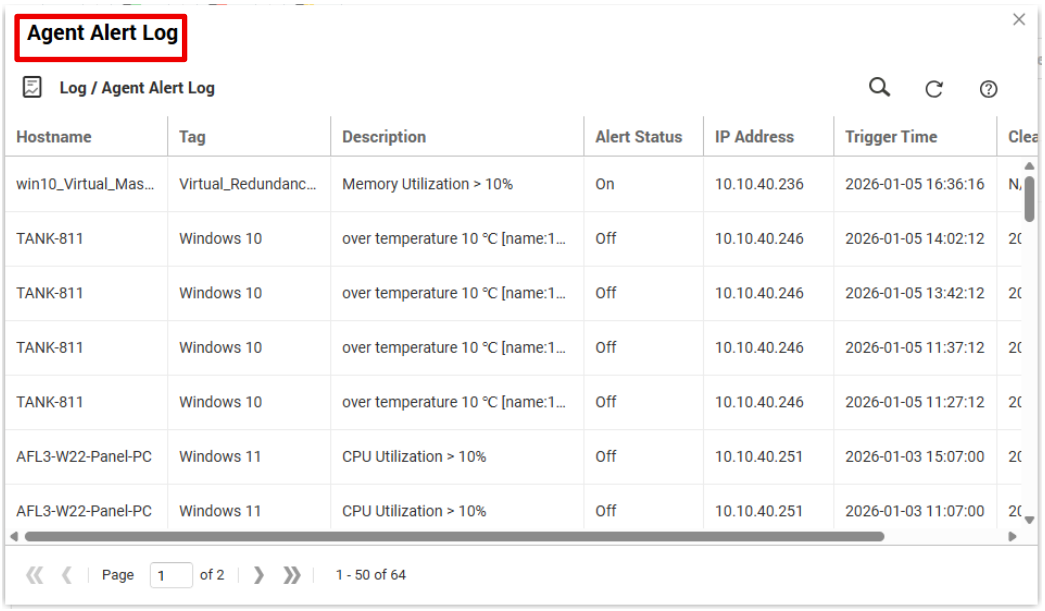
- **Agent Alert**

  Displays alert messages reported by the IRM Agent, for example:

  - Abnormal operating system power on/off status
  - Disk, memory, or CPU usage too high
  - Agent not responding and other events

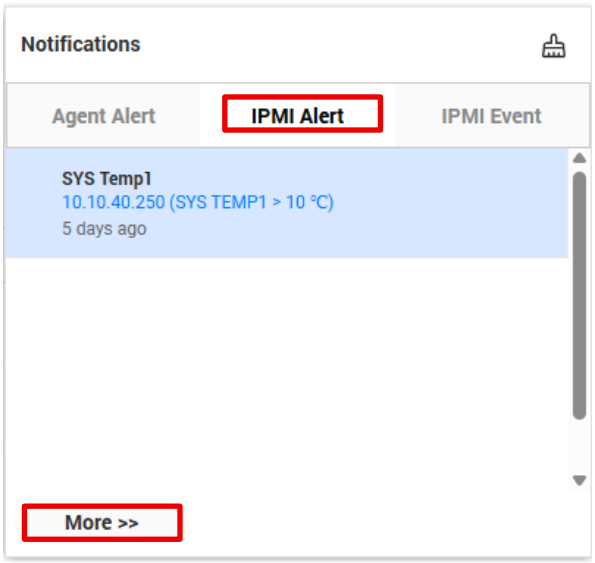


The **"More >>"** button at the bottom of the window opens the full notification/event list page, allowing users to further review, filter, and analyze historical records.

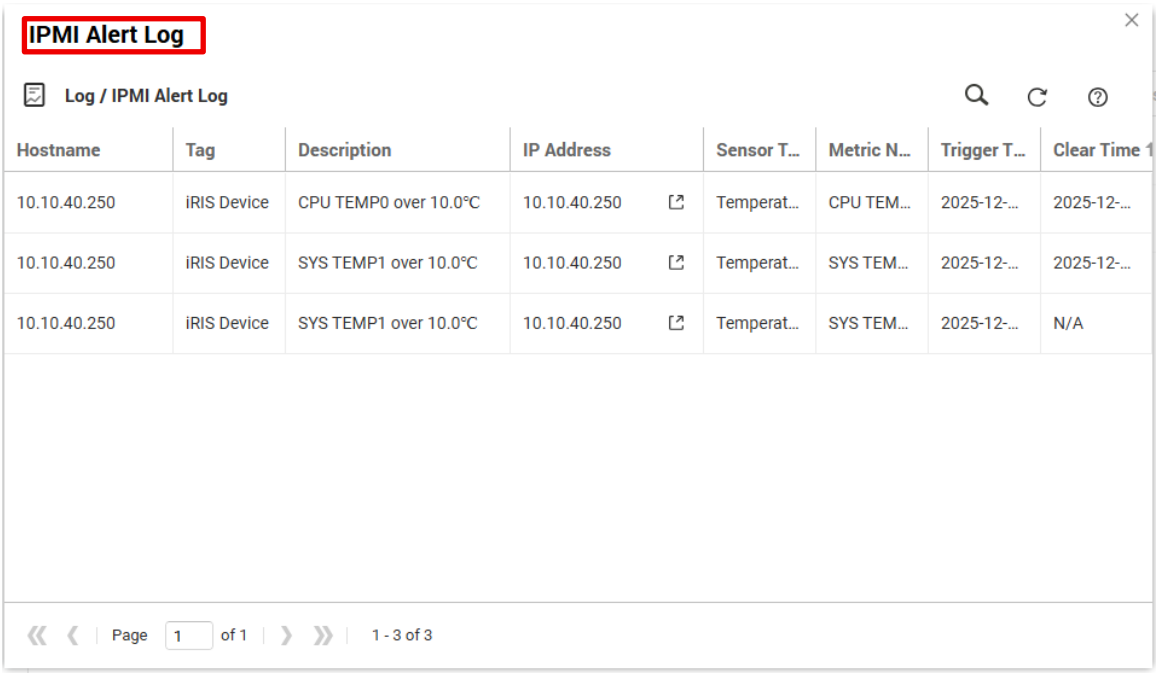


- **IPMI Alert**

  Displays hardware alerts reported by IPMI devices, such as power abnormalities, excessive temperature, or fan failures (data is shown only when IPMI devices are being monitored).



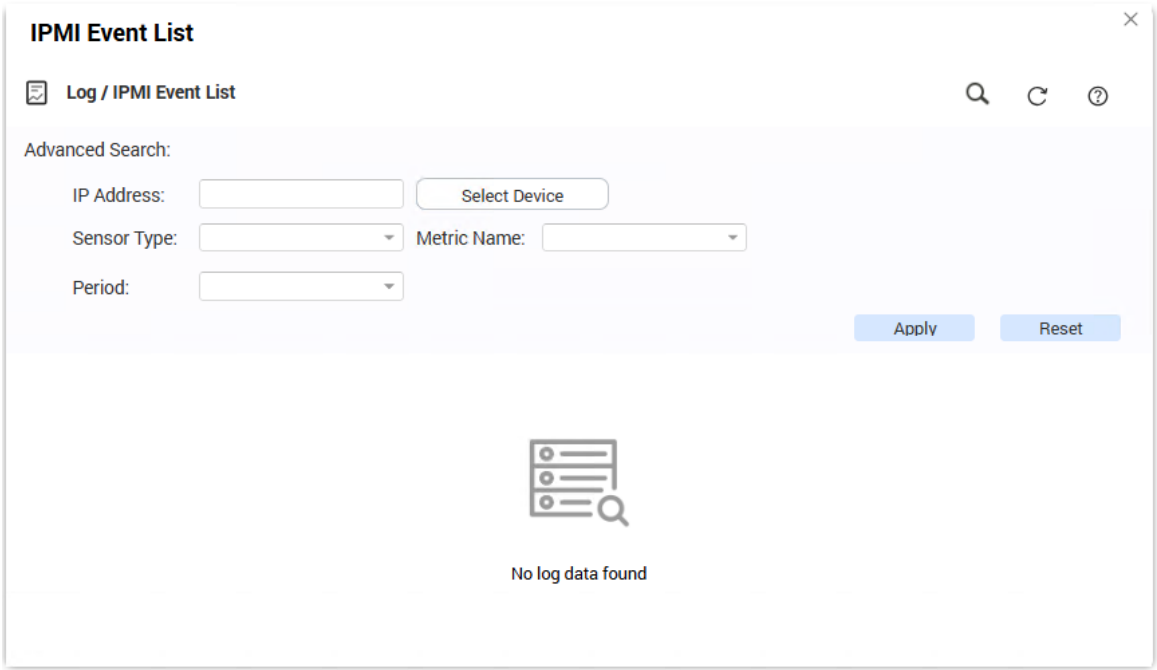
The **More >>** button at the bottom of the window opens the full **Notifications/Events** list page, allowing users to further **view**, **filter**, and **analyze** historical records.



- **IPMI Event**

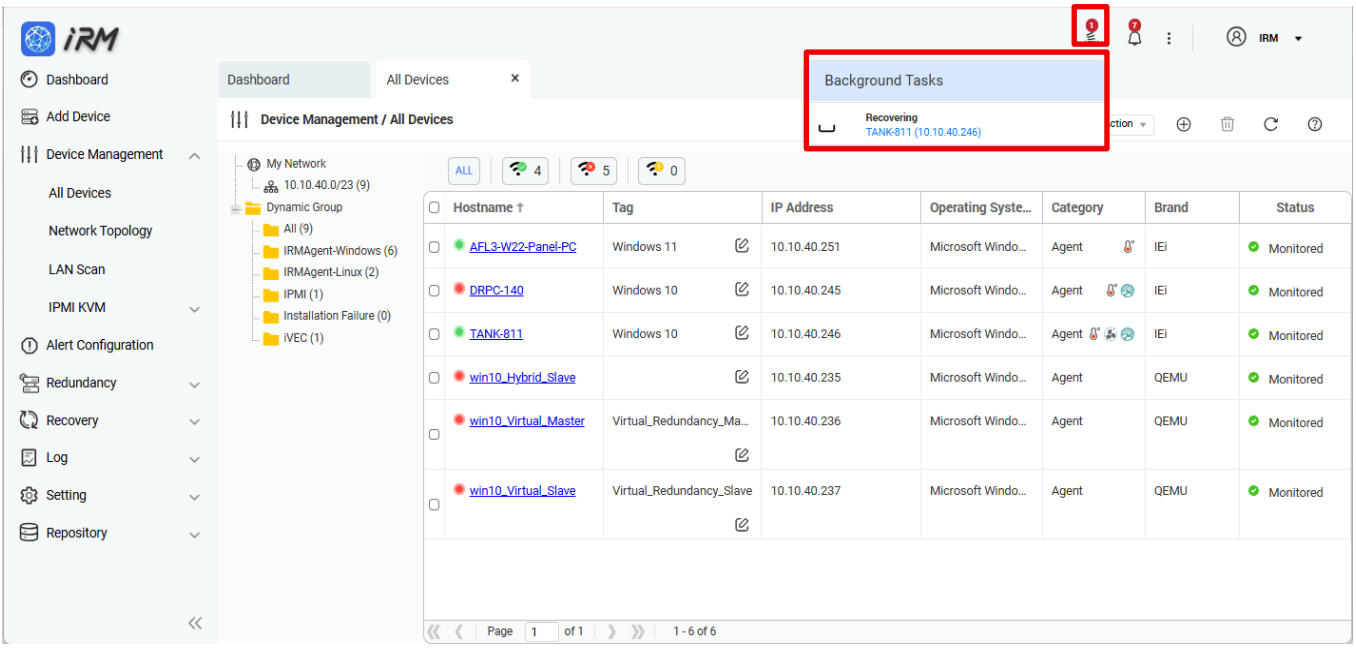
  Displays general event logs reported by the IPMI device, such as power on/off, reboot operations, or sensor reading changes.

  The More >> button at the bottom of the window opens the full Notifications/Events list page, allowing users to further view, filter, and analyze historical records.



1.6 4 Background Task Status

In the upper-right corner of the IRM interface, click to open the Background Tasks window. This window shows whether any background tasks are currently running in IRM.

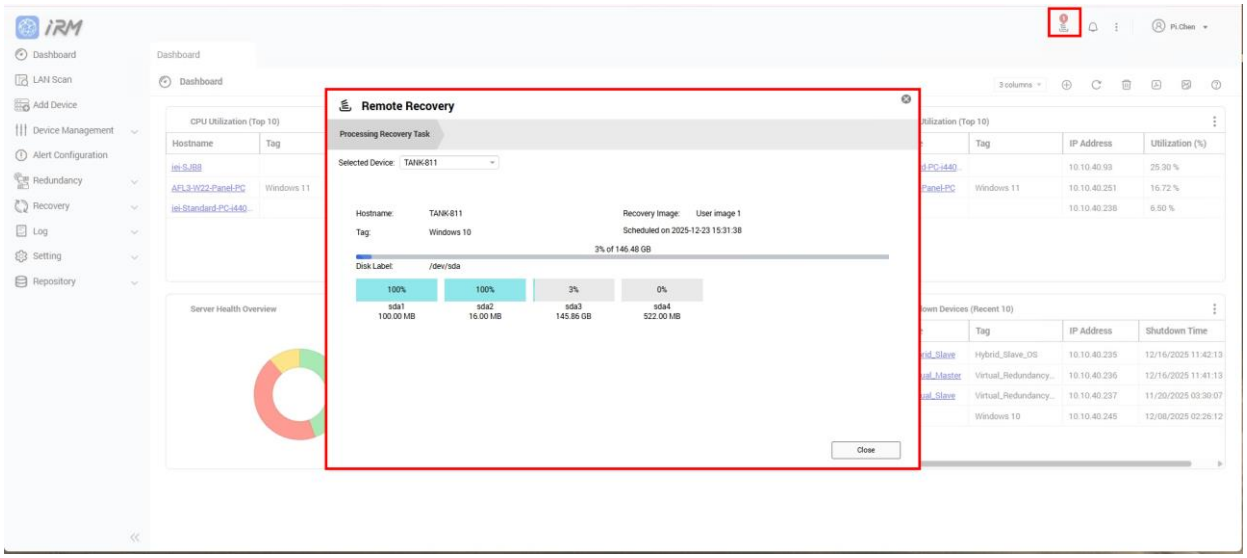


Status indicators:

- If a red number badge appears in the upper-right corner of the icon, it indicates that one or more background tasks are currently running.
- If no number badge is displayed, it indicates that there are no background tasks running.

Viewing Background Tasks

- Click the Background Tasks icon to open the Background Tasks window in the upper-right corner of the page.
- The window lists all running or recently triggered background tasks, for example:
  - *Recovering – TANK-811 (10.10.40.246)*：
    Indicates that IRM is performing a remote recovery operation on host TANK-811 (IP: 10.10.40.246).
- Users can click a task item (for example, the host name link) to open the corresponding function page—such as Remote Recovery—to view real-time task details, including progress and partition recovery status.


iRM
Dashboard
LAN Scan
Add Device
Device Management
Alert Configuration
Redundancy
Recovery
Log
Setting
Repository
Remote Recovery
Processing Recovery Task
Selected Device: TANK-811
Hostname: TANK-811
Tag: Windows 10
Recovery Image: User image 1
Scheduled on 2025-12-23 15:31:38
3% of 146.48 GB
Disk Label: /dev/sda
100%
100%
3%
0%
sda1
100.00 MB
sda2
16.00 MB
sda3
145.86 GB
sda4
522.00 MB
Close

Chapter

2

2 Main Dashboard

The Dashboard is the main page of IRM. In the Dashboard, you can add multiple widgets to monitor the health of your device or server. This page allows users to add, remove, reorganize or choose layout, export as PDF, email current view and update widgets.

Note: Devices need to be added to IRM before they can be monitored using gadgets in the dashboard.

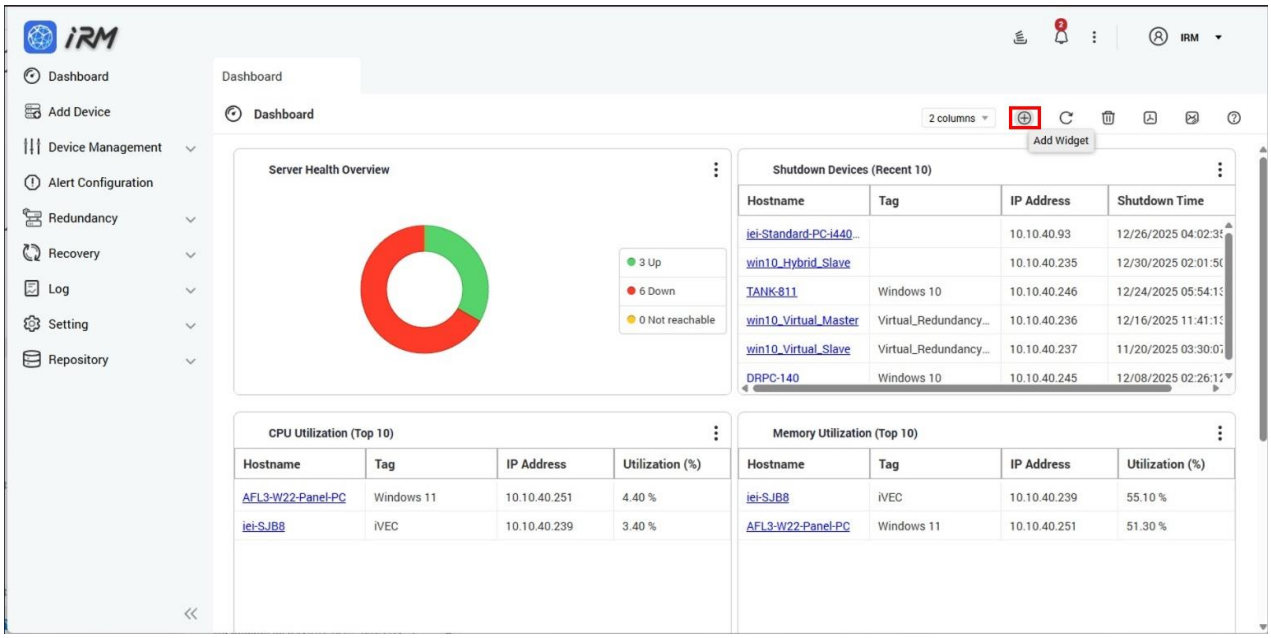
2.1 Add Widget

Users can add gadgets to the dashboard to continuously monitor the health of the device or server. The following information can be monitored:

1. CPU usage
2. Memory usage
3. Disk usage
4. Network usage
5. General health status
6. IPMI monitor
7. Hardware sensor

Users can customize their own Dashboard to monitor multiple devices at the same time. Setup steps are described below:

Step 1: Go to the Dashboard page and click the "Add Widget" button.

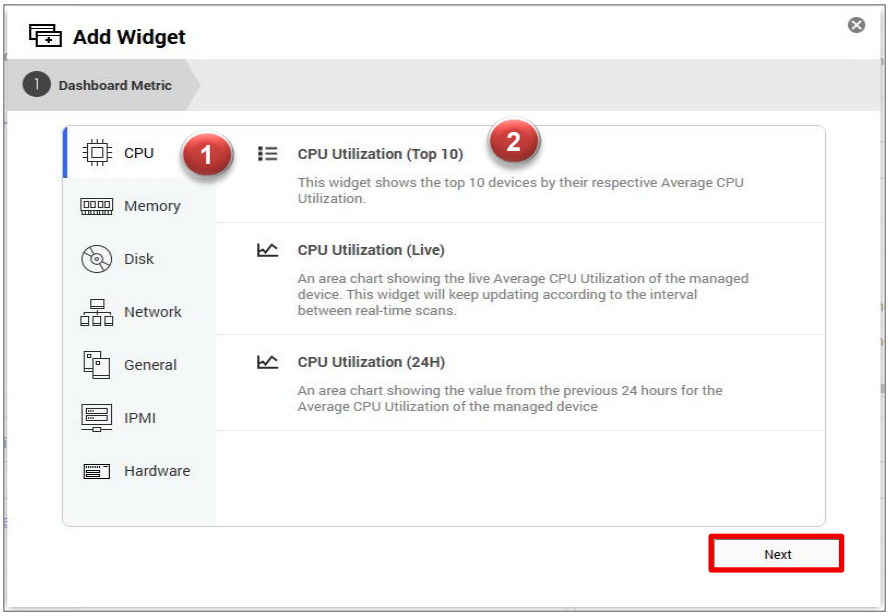


Step 2: Select the type of data you want to monitor:

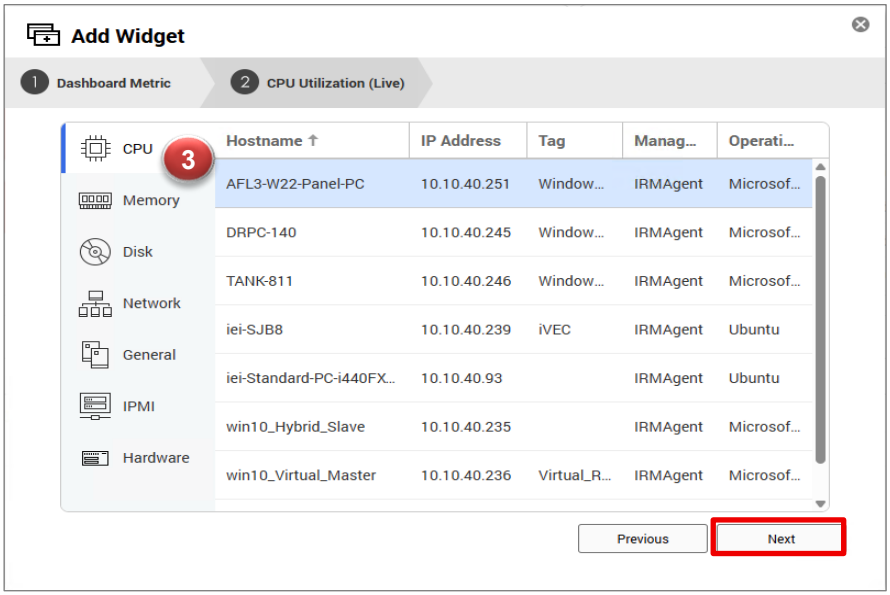
(1) Select the data type you want to monitor in the left column. There are seven types: CPU usage, memory usage, disk usage, network usage, general health status, IPMI monitor and Hardware Sensor.

(2) Select the method of data presentation that matches your needs.

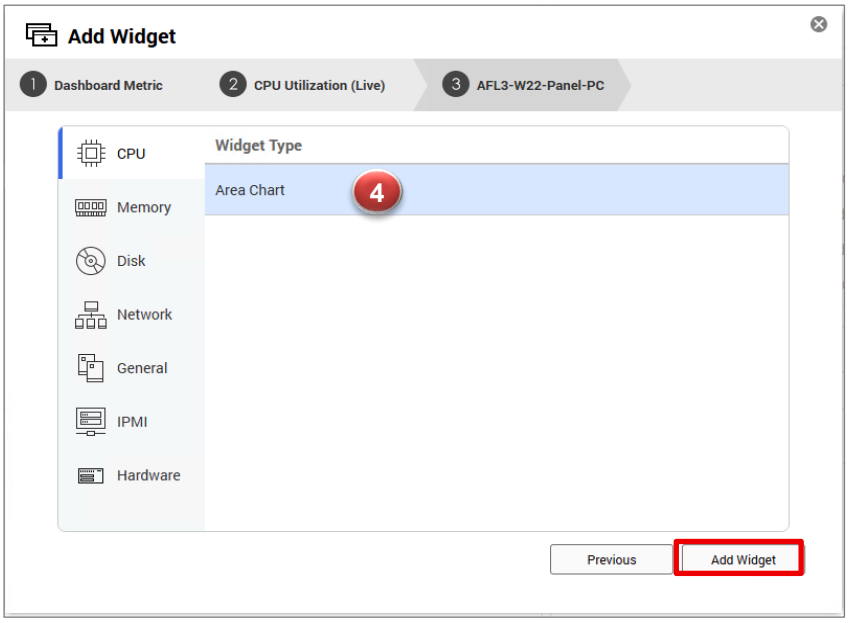
(3) Click "Next".



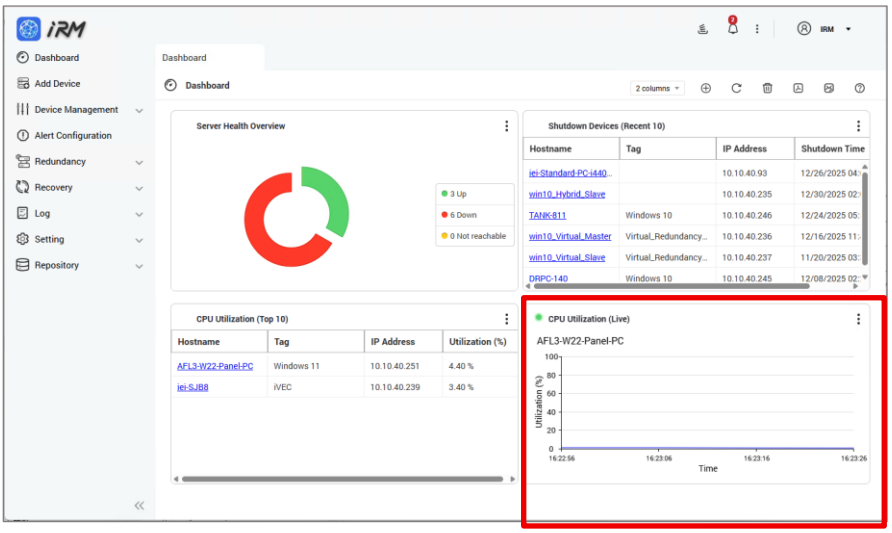
Step 3: After selecting the device, you want to monitor, click "Next".



Step 4: After selecting the type of chart, click the "Add Widget" button to complete the operation.



Step 5: When the setup is complete, the widget will be added to the last position in the Dashboard



Step 6: IPMI Monitor

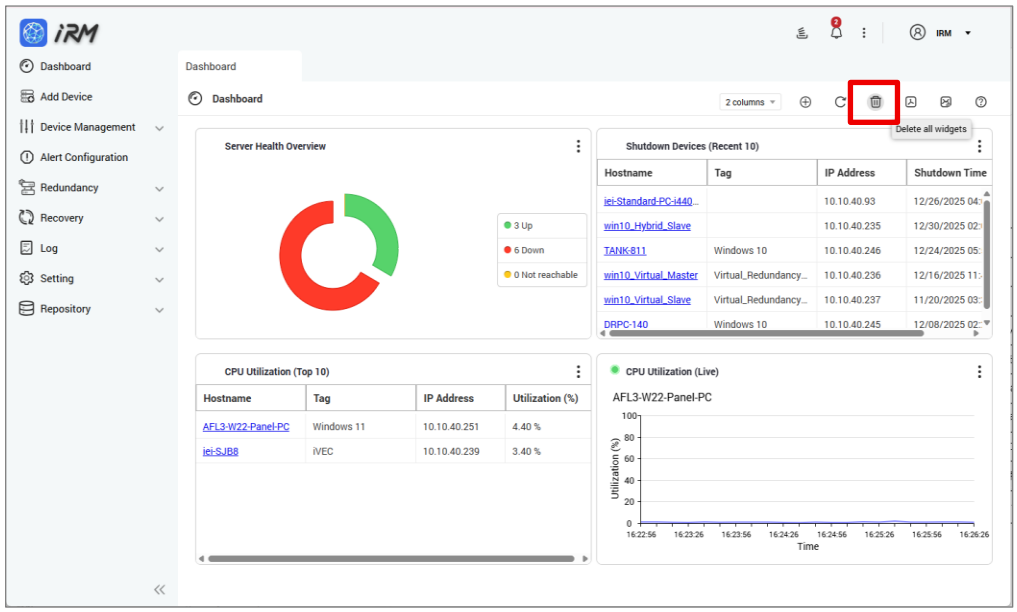
To display IPMI monitoring information on the Main Dashboard, refer to Section 4.4.3, IPMI Add Widget.

Step 7: Hardware Sensor

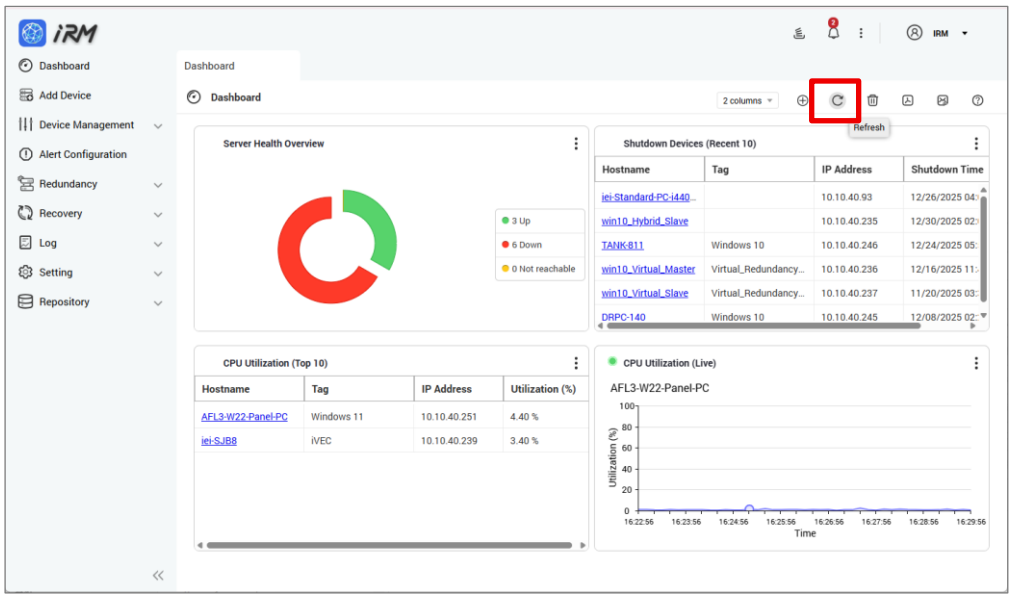
To display Hardware Sensor monitoring information on the Main Dashboard, refer to Section 4.1.11.1, Hardware Sensor Add Widget.

2.2 Delete All Widgets in the Dashboard

Setup steps: Go to the Dashboard page and click the "Delete All Widgets" button.



2.3 Refresh All Widgets in the Dashboard



Setup steps: Go to the Dashboard page and click the Refresh button.

2.4 Select the Layout Mode

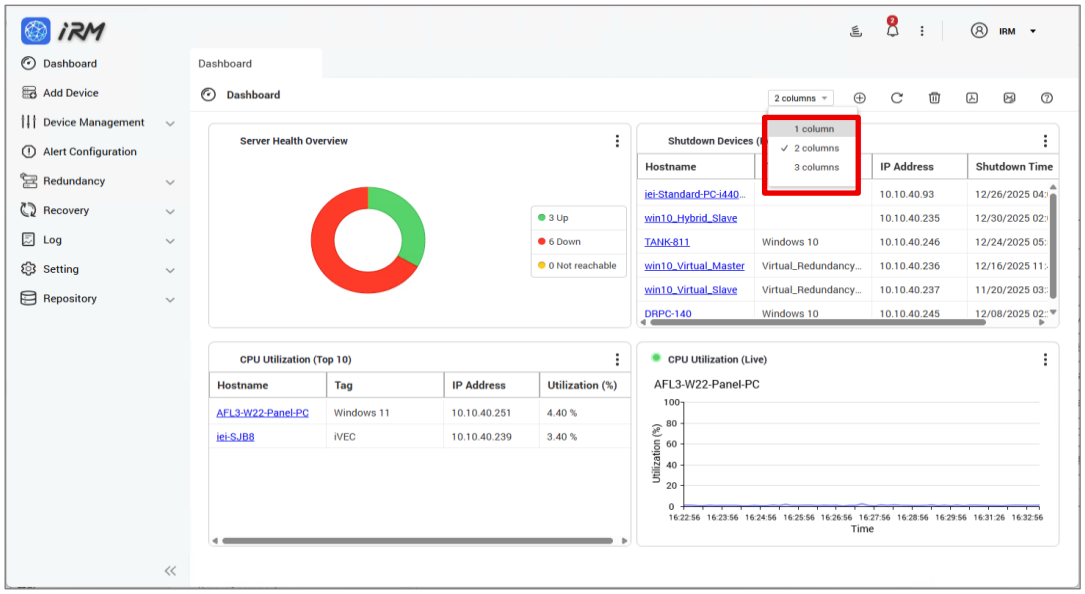
User can adjust the layout of the main Dashboard according to their requirements. IRM Dashboard provides:

- 1 column display
- 2 columns display
- 3 columns display

After selecting one of the three layout modes, all widgets will be adjusted accordingly. Setup steps are described below:

Step 1: Go to the Dashboard page and click the select layout menu.

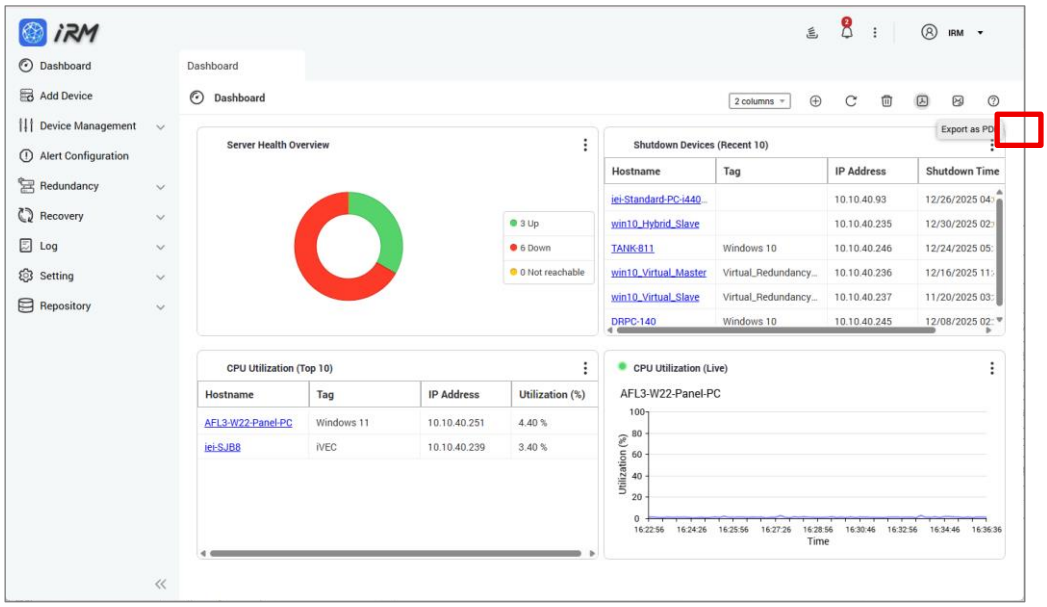
Step 2: Select "1 column", "2 columns" or "3 columns" from the dropdown list.



2.5 Export as PDF File

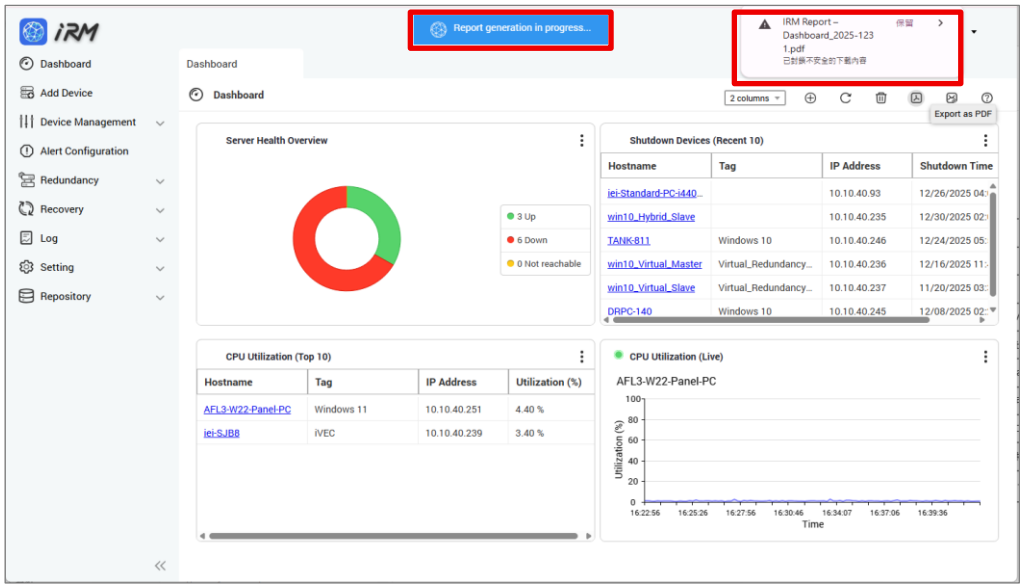
You can export view from the current dashboard as PDF files and download them to your local computer. Setup steps are described below:

Step 1: Go to the Dashboard page and click the Export as PDF File button.



Step 2: Showing "Generating View as PDF".

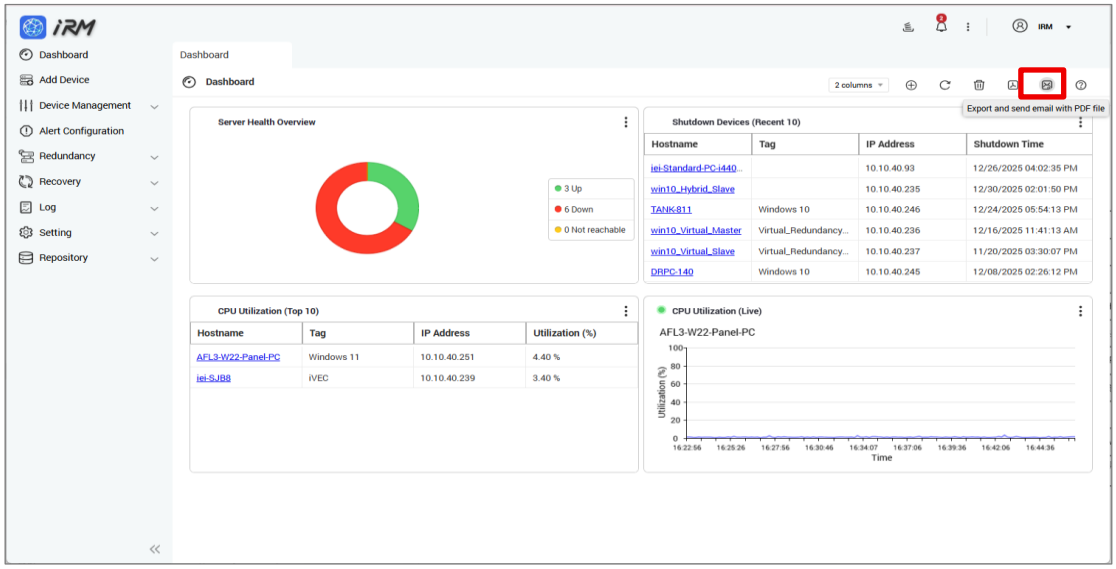
Step 3: Download the view to the local computer.



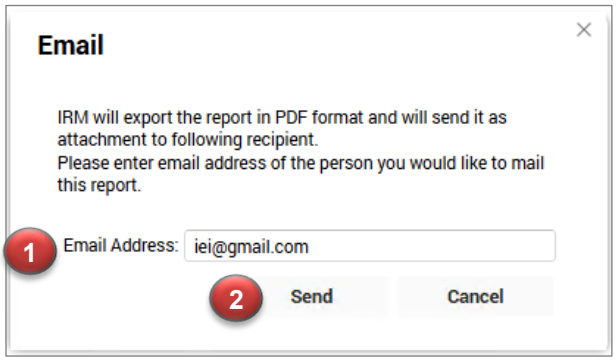
2.6 Email Current View

You can export the view from your current dashboard as PDF files and email them to a custom Email address. (Note: This function requires SMTP-related settings to be set up in the "Settings" page). Setup steps are described below:

Step 1: Go to the Dashboard page and click the "Email current view" button.

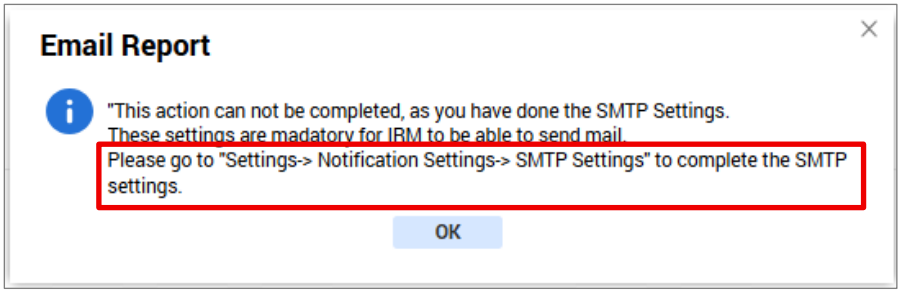


Step 2: After entering the mail address, click the "Send" button.

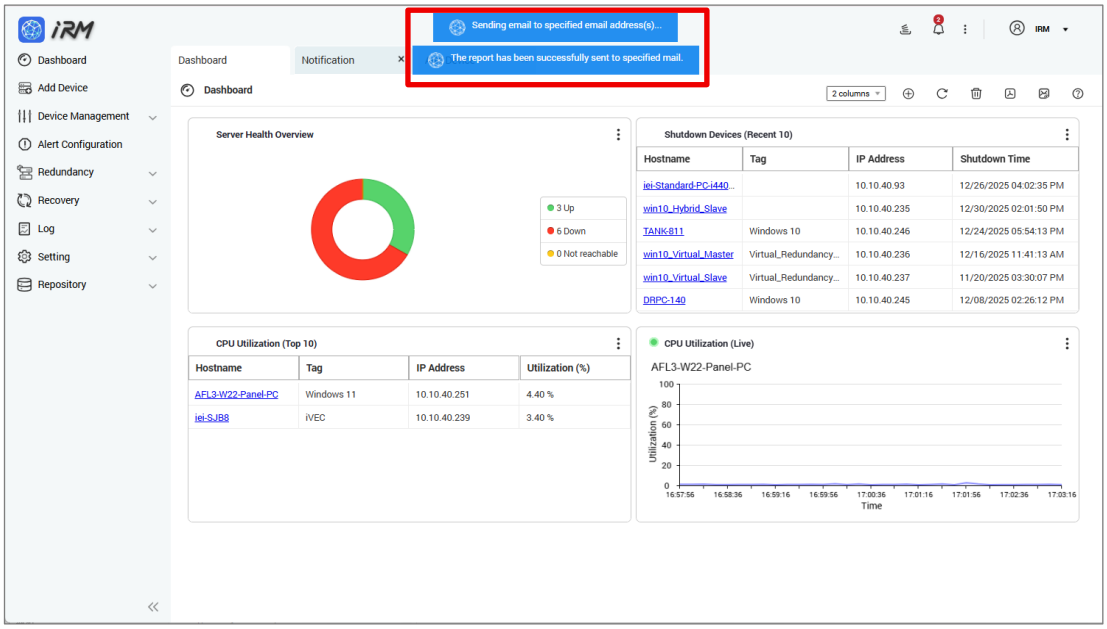


If the SMTP settings have not been configured, the system displays an Email Report pop-up indicating that the email cannot be sent, and guides you to the SMTP configuration path. Click OK to close the message.

Please refer to Section 10.2, "Notification Settings," for setup instructions.



Step 3: When "Sending email..." message appears, the mail is being sent in the background.



2.7 Real-time and Historical Data Presentation

IRM provides both real-time and historical data presentation:

1. Real-time Data Widget: Updates your data every 10 seconds after you have added the widget.
2. 24 Hours Data Widget: displays historical data trends of the last 24 hours at any time, updated once every 60 seconds.

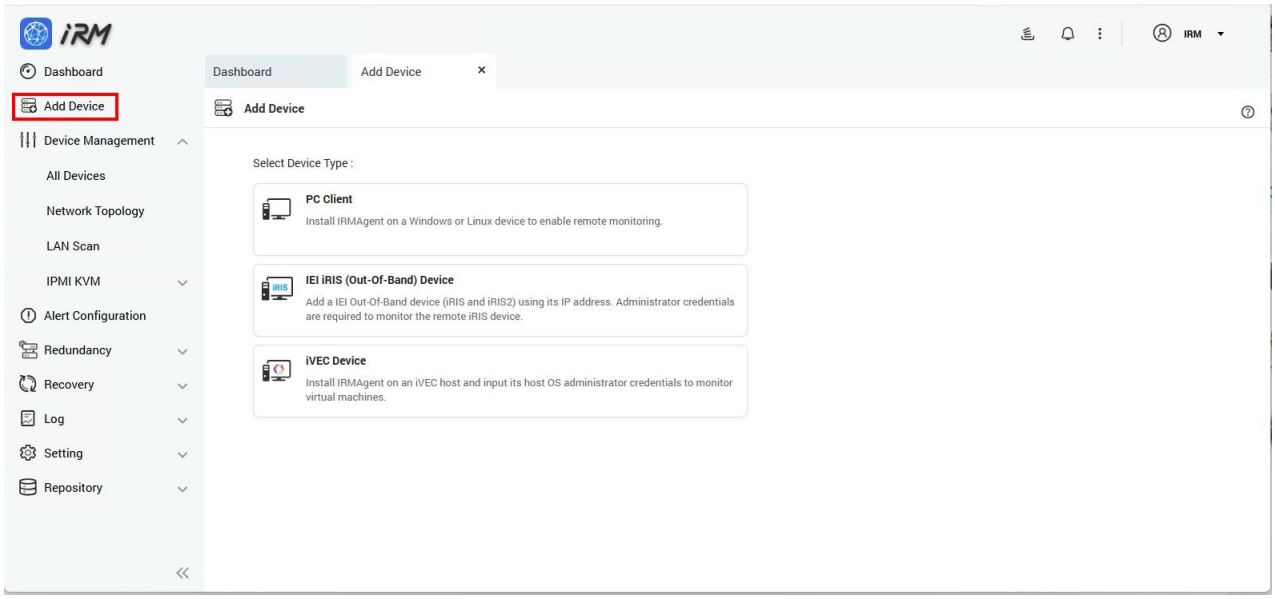
Note: All widgets can be dragged and moved within the Dashboard.

Chapter

3

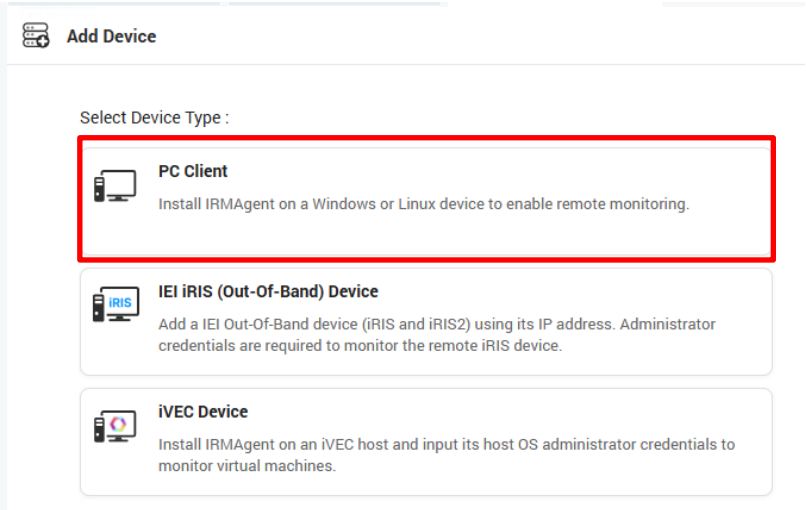
3 Add Device

The **Add Device** function is used to add devices to IRM for subsequent monitoring, alert notifications, and remote management. IRM provides different add methods and required settings depending on the device type. After a device is added, administrators can view its status in the device list and use the related management functions.



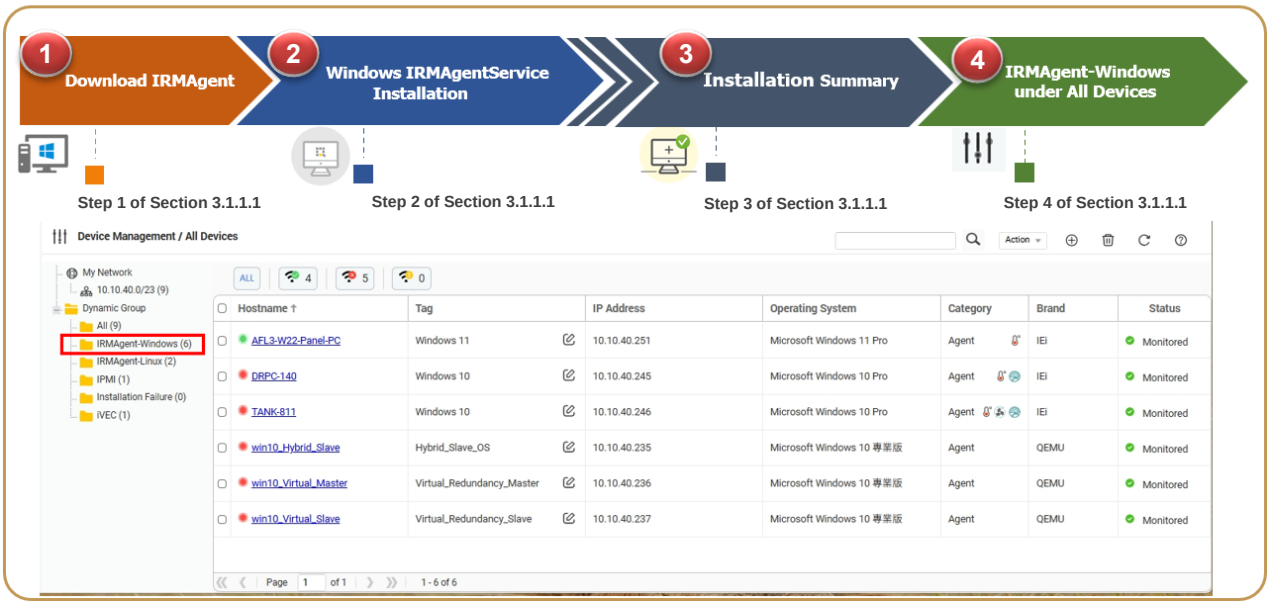
IRM supports three device types that can be added for management. On the **Add Device** page, first select the device type you want to add:

1. **PC Client**: Install the **IRM Agent** on a Windows or Linux device to enable endpoint monitoring.



3.1 Add Windows Devices

Add Windows Devices to the IRM Workflow



Install the **IRM Agent** on a Windows or Linux device to enable remote monitoring. After you click this option, the system displays the **"Add Device to IRM (PC Client)"** window.

Download IRM Agent: You must install the IRM Agent before the device can be added.
If the download and installation are not completed within **10 minutes**, the operation will time out.

(1). Download Windows IRM Agent: Click Download, then select 32-bit or 64-bit to download the installer to your local computer.
(2). Download and install Microsoft .NET Framework (for Windows 7): Click Download to open the official Microsoft .NET Framework 4 (Standalone Installer) page, then select the appropriate language version and download it to your local computer.
(3). Download Linux IRM Agent: Click Download, then select Ubuntu, Debian, or CentOS to download the package to your local computer.

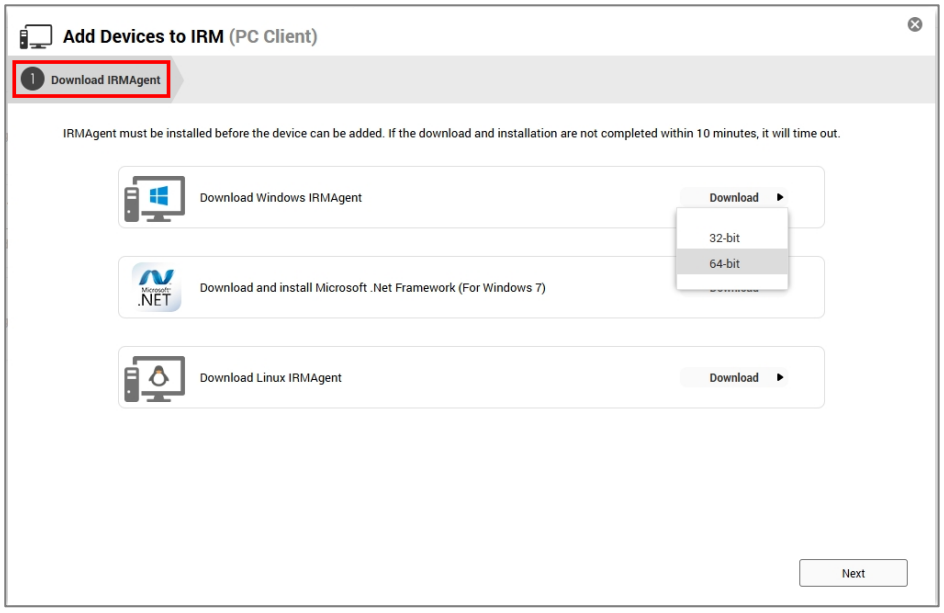
Copy the IRM Agent package to the device you want to manage. After extracting and running the installer, you can view the installation status in the device list.

3.1.1 Windows Devices

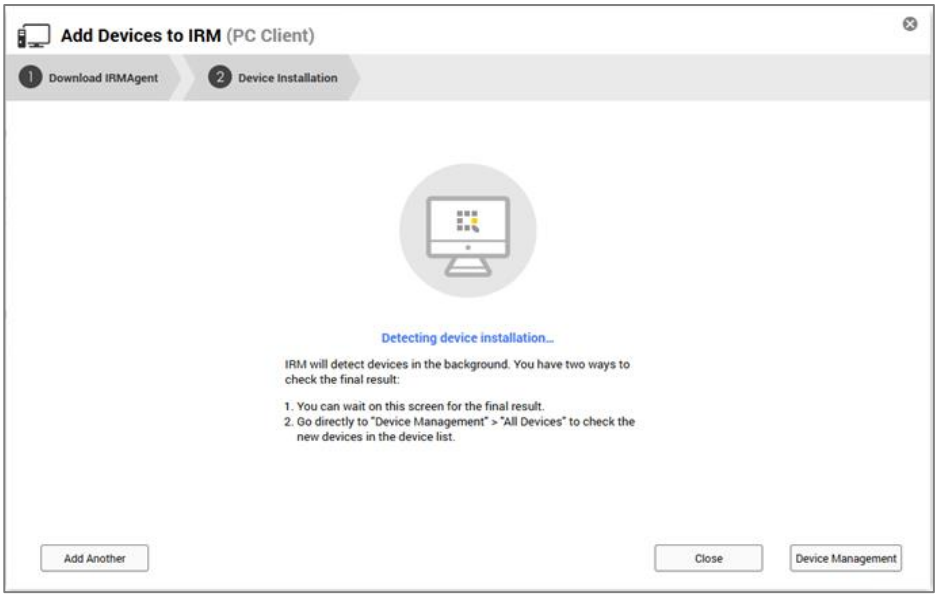
Users of MS Windows device must download IRMAgent to the machine to be installed and extract the IRMAgent archive on the machine to run the installation program. After successful installation, IRM will be able to monitor and manage the device.

Step 1: Download IRM Agent

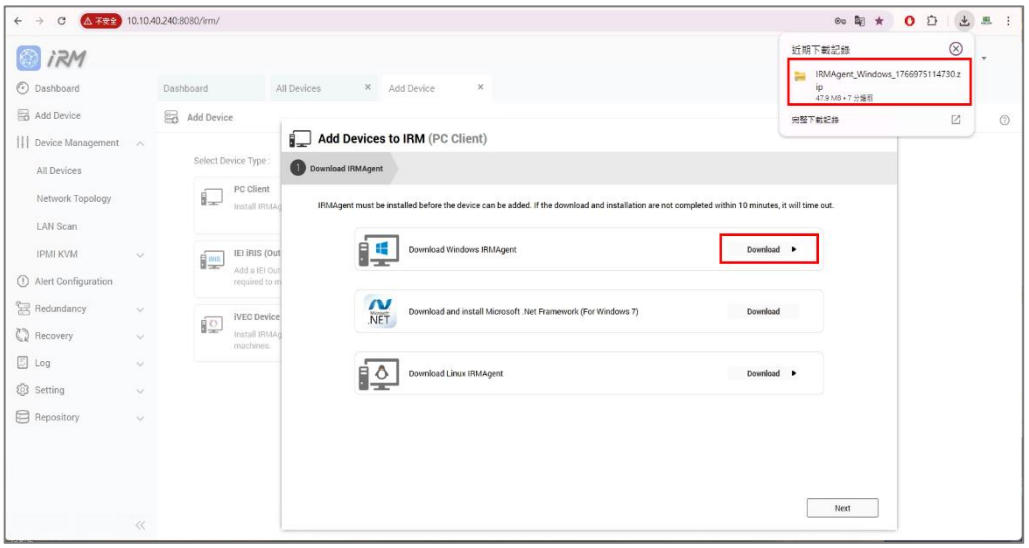
1). Users can select the appropriate IRMAgent installation package.



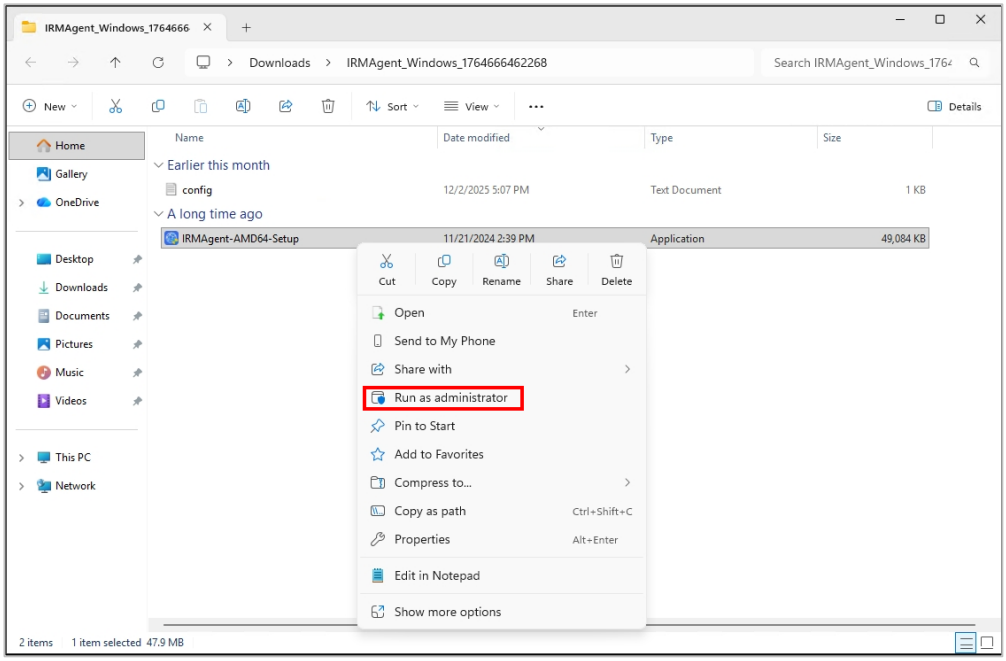
Step 2: Device Installation



1). Copy the installation package to the device to be managed.

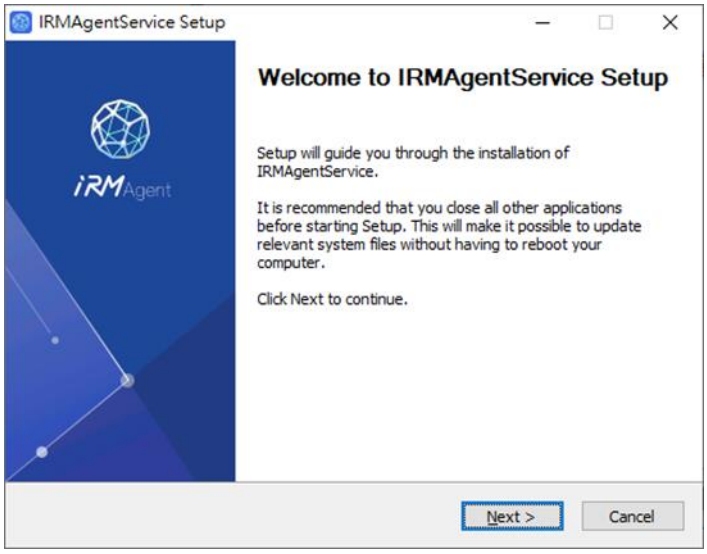


2). Unzip the installer, right click on the installer and select "Run as administrator".

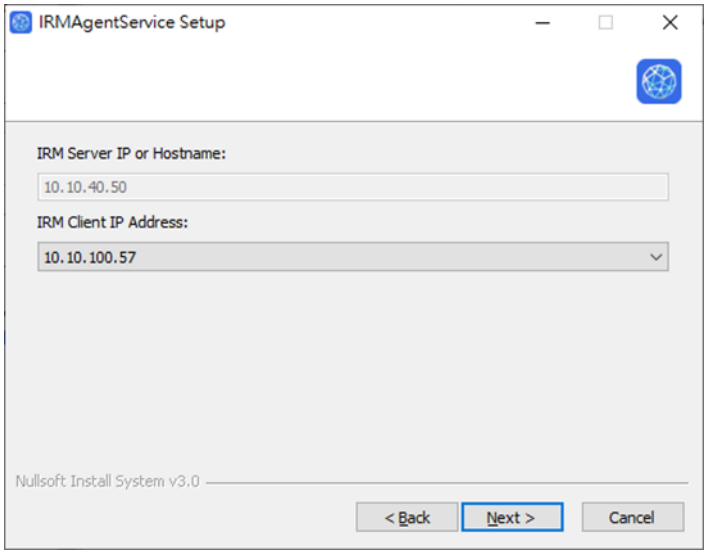


3). Click "Yes" to allow the installer to make changes to your device.

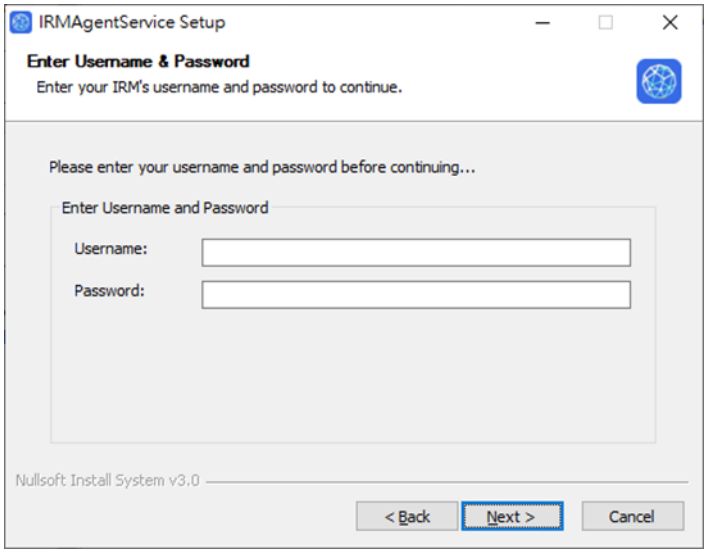
4). Click "Next".



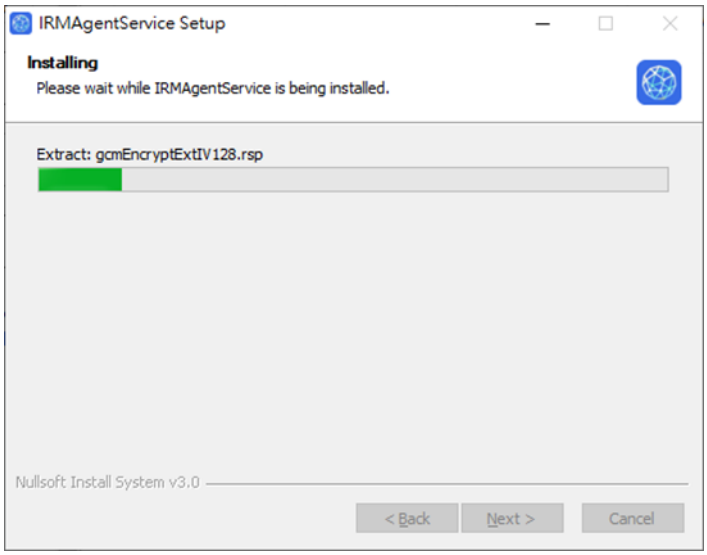
5). Choose the IP address and click "Next".



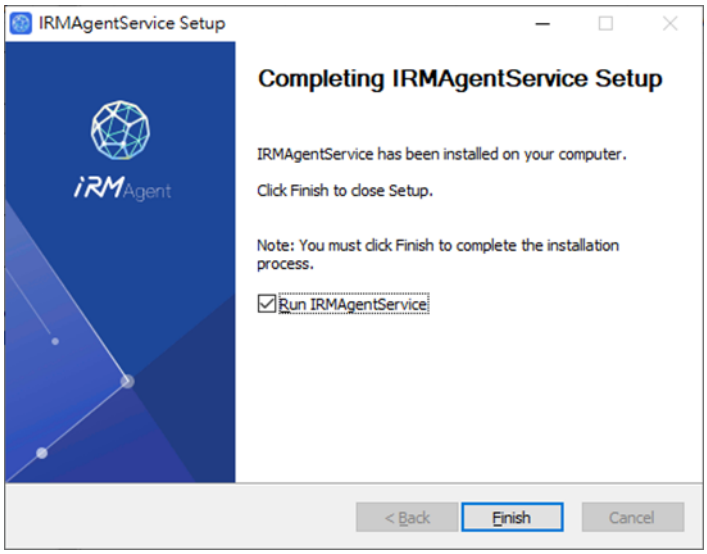
6). Enter the Username and Password of IRM.



7). The IRMAgentService will be installed.

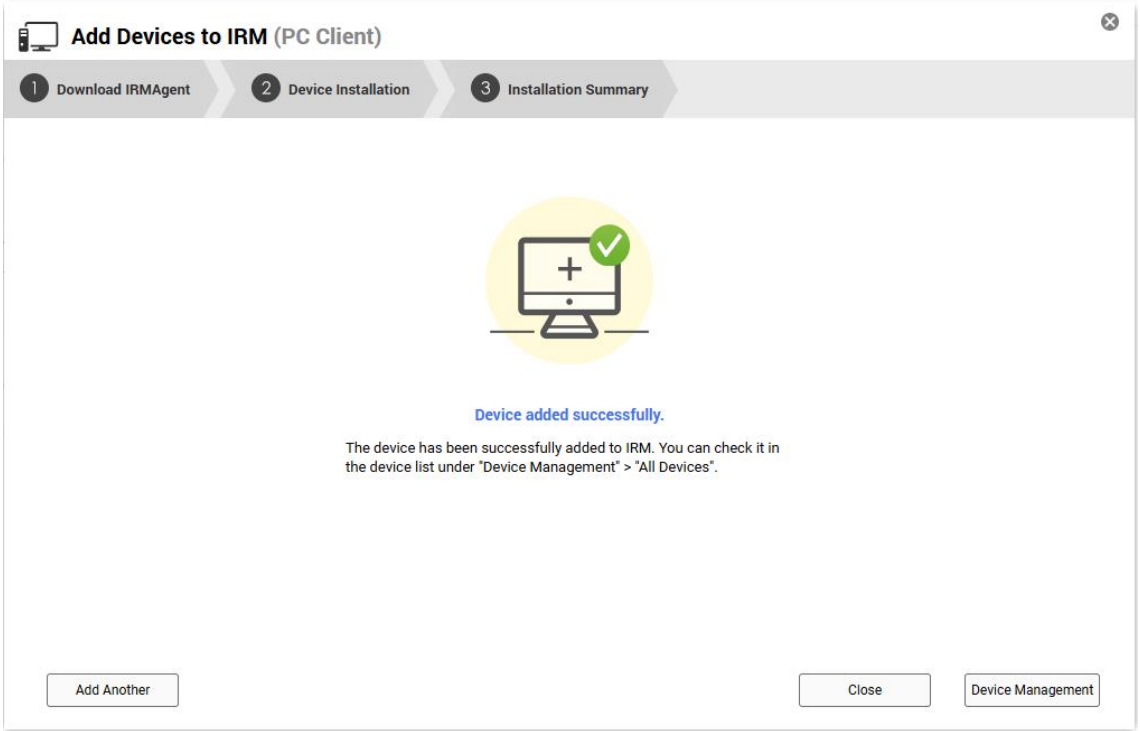


8). Click "Finish" and you will see the installation status in the device list.



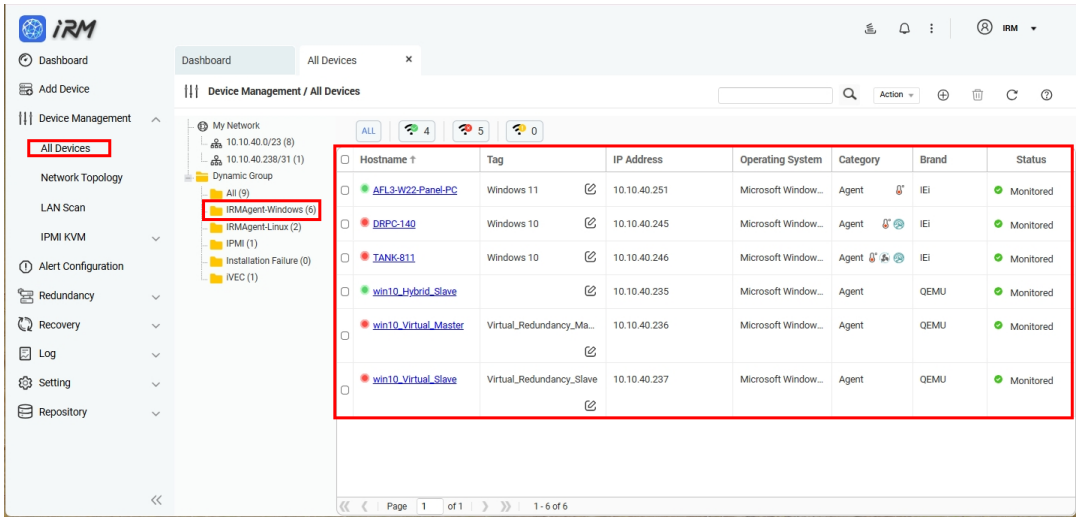
Step 3: Installation Summary

Device added successfully. The device has been successfully added to IRM. You can find it in the device list under [Device Management] > [All Devices].



Step 4: Windows Device added successfully.

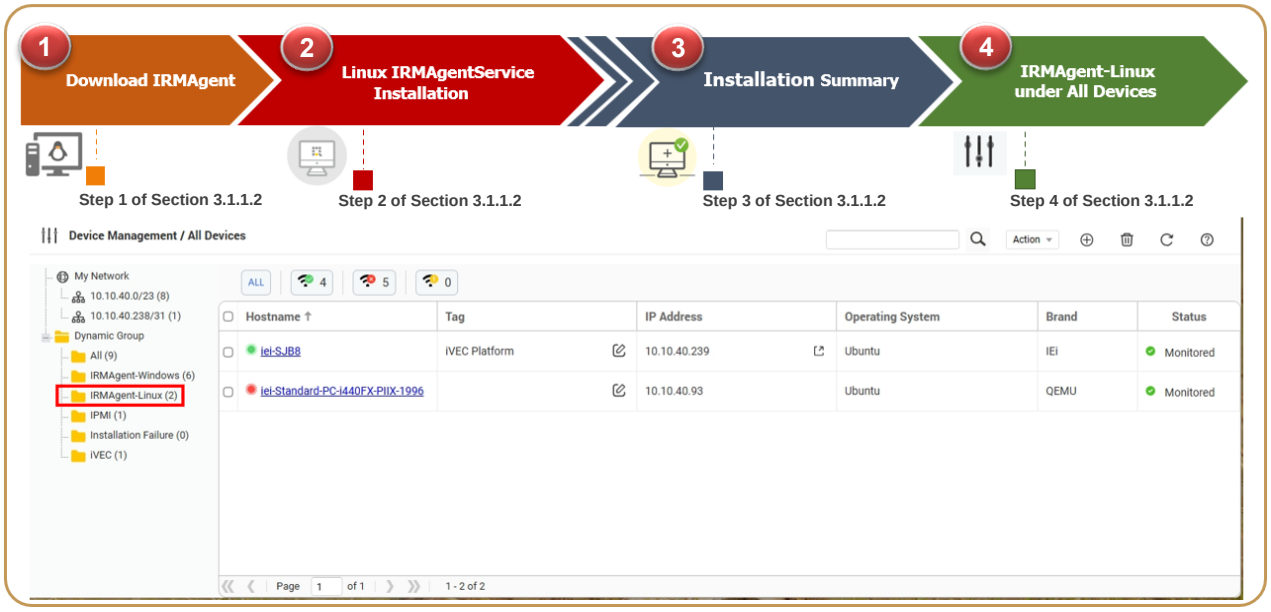
The device has been successfully added to IRM. You can check it in the device list under "Device Management" > "All Devices" or "IRMAgent-Windows".



3.1.2 Linux Devices

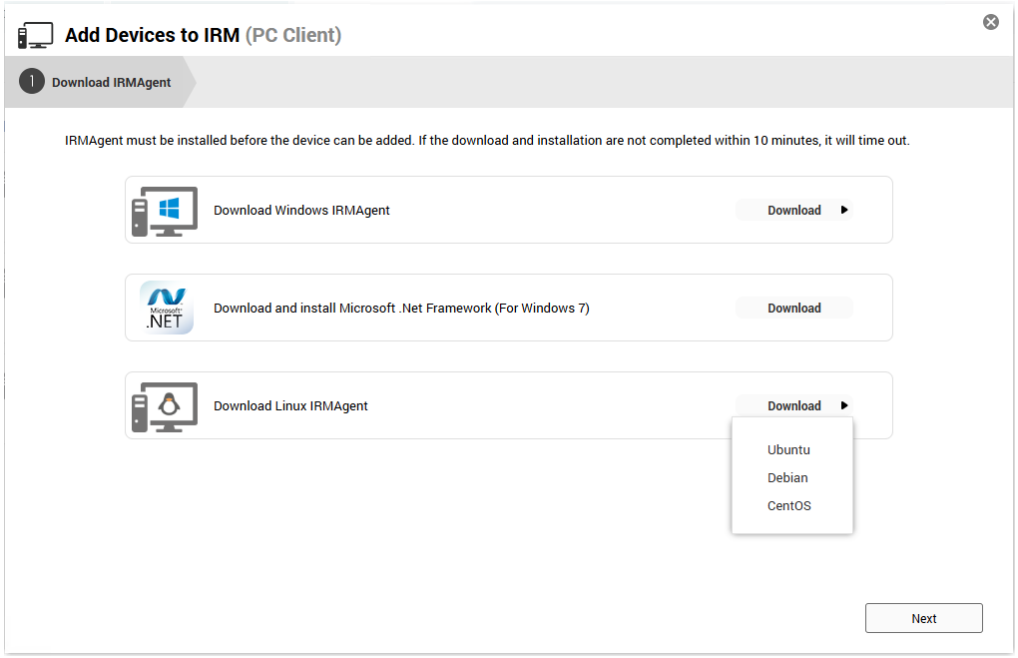
Users of Linux device must provide administrator account and password to allow IRM to install the IRMAgent on the remote device. After successful installation, IRM will be able to monitor and manage the device.

Add Linux Devices to the IRM Workflow



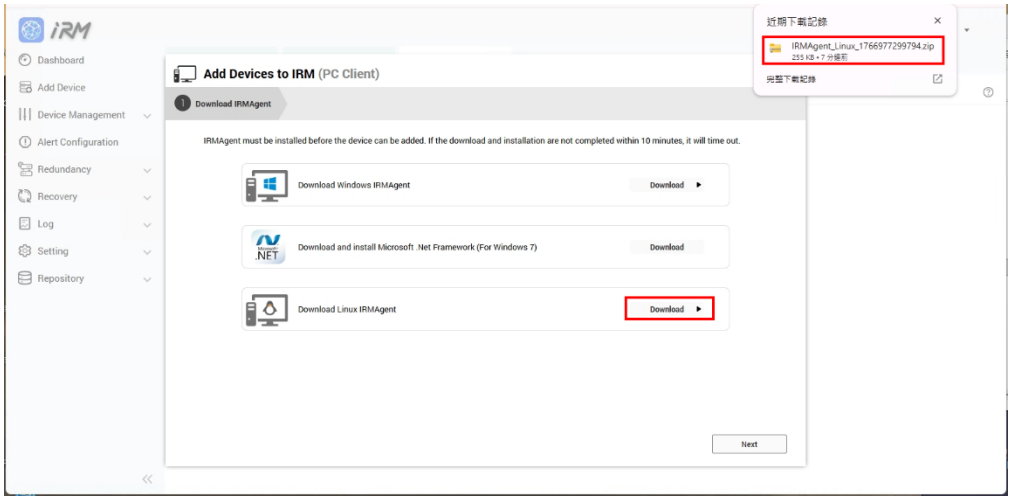
Step 1: Download IRM Agent

1). Users can select the appropriate IRMA gent installation package.



Step 2: Device Installation

1). After the IRMAgent installation package has been downloaded, copy it to the Linux device to be managed.



2). In the Linux shell, unzip the IRMAgent installation package.

```
iei@iei-SJB8:~$ unzip IRMAgent_Linux_1766977299794.zip
Archive:  IRMAgent_Linux_1766977299794.zip
 extracting: config.txt
 extracting: InstallUbuntuIRMAgent.sh
 extracting: UninstallUbuntuIRMAgent.sh
 extracting: ReinstallUbuntuIRMAgent.sh
 extracting: RedirectUbuntuIRMAgent.sh
 extracting: data/CreateRemoveUbuntuIRMAgentService.sh
 extracting: data/RemoveUbuntuIRMAgent.sh
 extracting: data/CreateRedirectUbuntuIRMAgentService.sh
 extracting: data/RedirectUbuntuIRMAgentRegister.sh
```

3). Use the following command to run the IRMAgent installation program:
"sudo ./InstallUbuntuIRMAgent.sh <Client IP Address>"

```
iei@iei-SJB8:~$
iei@iei-SJB8:~$ sudo ./InstallUbuntuIRMAgent.sh 10.10.40.239
 *  INFO:   PYTHON_PATH:          /usr/bin/python3
 *  INFO:   PYTHON_VERSION:       3.10.12

 *  INFO: System Information:
 *  INFO:   CPU:                  GenuineIntel
 *  INFO:   CPU Arch:             x86_64
 *  INFO:   OS Name:              Linux
 *  INFO:   OS Version:           5.15.0-1075-intel-iotg
 *  INFO:   Distribution:         Ubuntu 22.04

 *  INFO:   DISTRO_MAJOR_VERSION: 22
 *  INFO:   DISTRO_MINOR_VERSION: 04
 *  INFO:   DISTRO_CODENAME:      jammy
The following NEW packages will be installed on system:
  salt-common-iei_1.0.1
  salt-minion-iei_1.0.0
Do you want to continue? [Y/n]
y
```

4). Enter the IRM Username and Password.

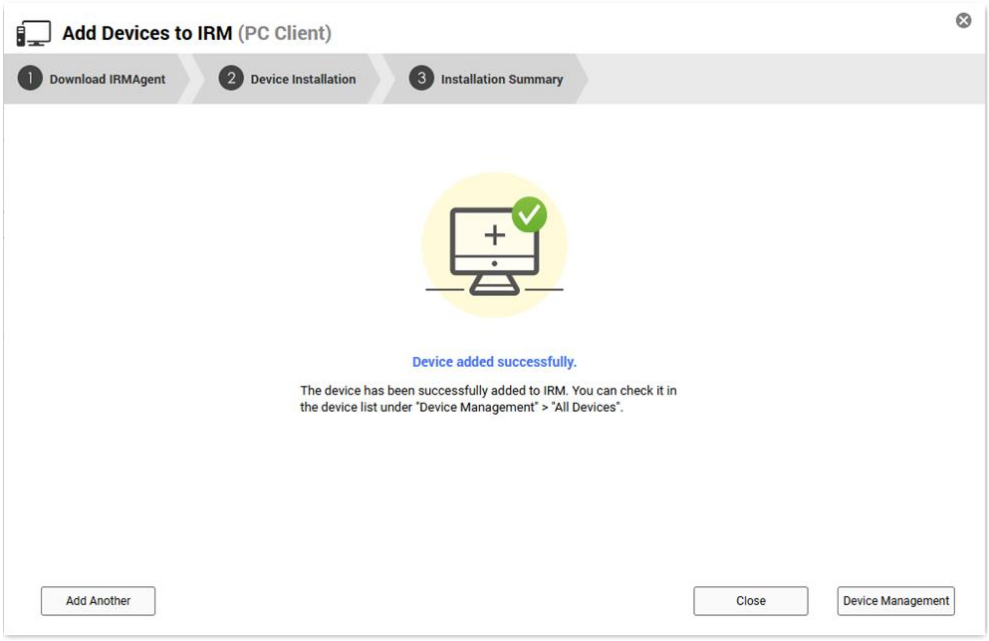
```
Please enter your IRM's usename and password to continue.
Please enter your IRM's usename:
IRM
Please enter your IRM's password:
1234qwer
```

5). The installation process will be displayed.

```
kill: (223923): No such process
http://10.10.40.240:8080/irm/resources/IRMAgentPack/Ubuntu/22/IRMAgent-Ubuntu-22-64.tgz
download QAgent and copy files
--2025-12-29 11:27:22--  http://10.10.40.240:8080/irm/resources/IRMAgentPack/Ubuntu/22/IRMAgent-Ubuntu-22-64.tgz
Connecting to 10.10.40.240:8080... connected.
HTTP request sent, awaiting response... 200 OK
Length: 12247040 (12M) [application/x-tar]
Saving to: 'IRMAgent-Ubuntu-22-64.tgz'

IRMAgent-Ubuntu-22-64.tgz               100%[=======================================================================================>]  11.68M  --.-KB/s    in 0.1

2025-12-29 11:27:22 (107 MB/s) - 'IRMAgent-Ubuntu-22-64.tgz' saved [12247040/12247040]

copy file
set version config success
disabled
Created symlink /etc/systemd/system/multi-user.target.wants/salt-minion.service → /lib/systemd/system/salt-minion.service.
kill: (224298): No such process
```

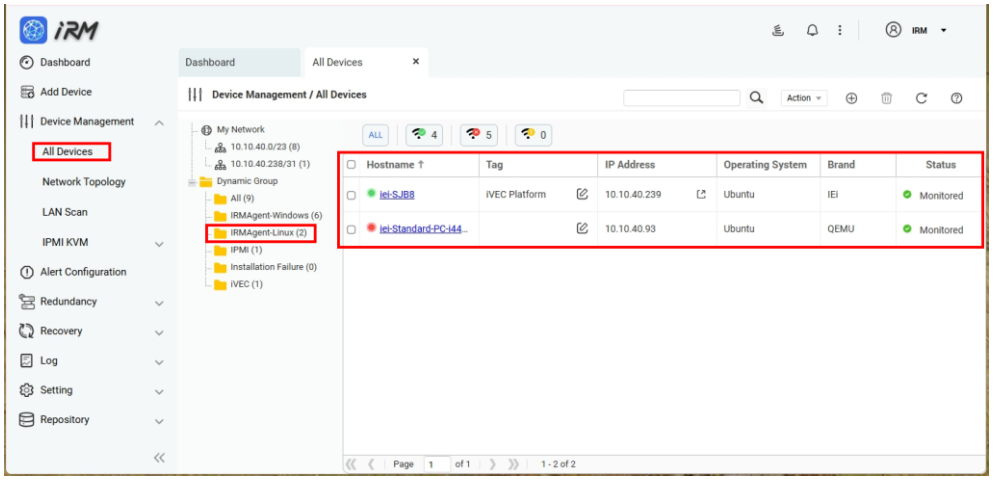
Step 3: Installation Summary

Device added successfully. The device has been successfully added to IRM. You can find it in the device list under [Device Management] > [All Devices].

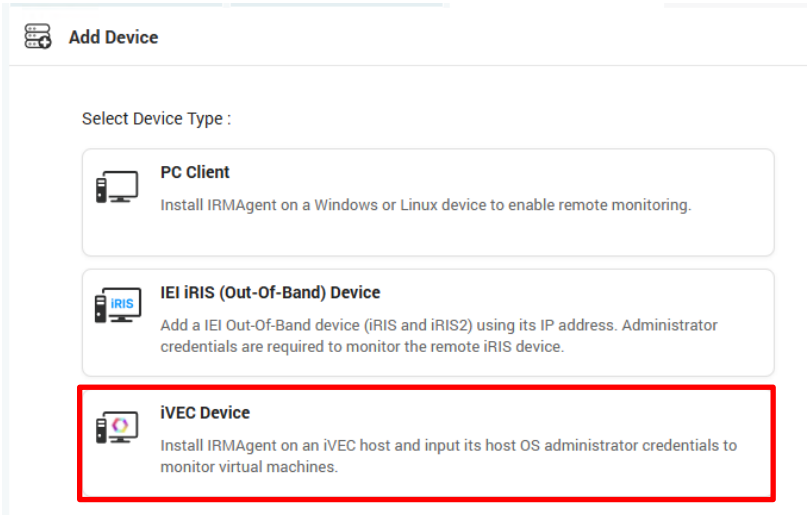


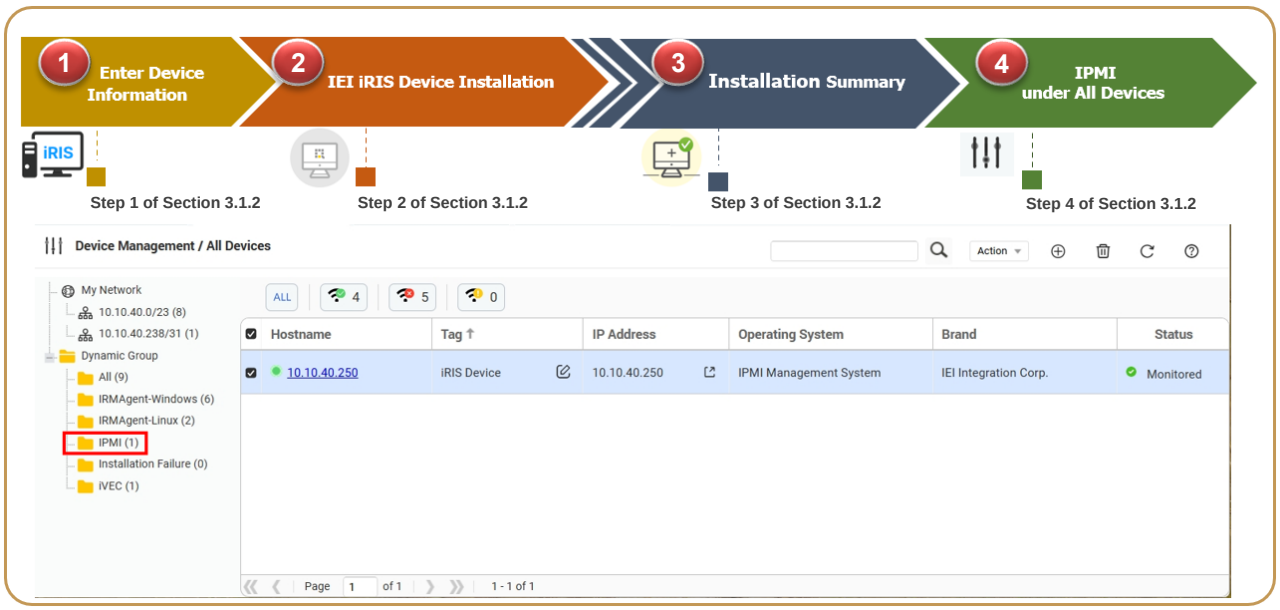
Step 4: Linux Device added successfully.

The device has been successfully added to IRM. You can check it in the device list under "Device Management" > "All Devices" or "IRMAgent-Linux".

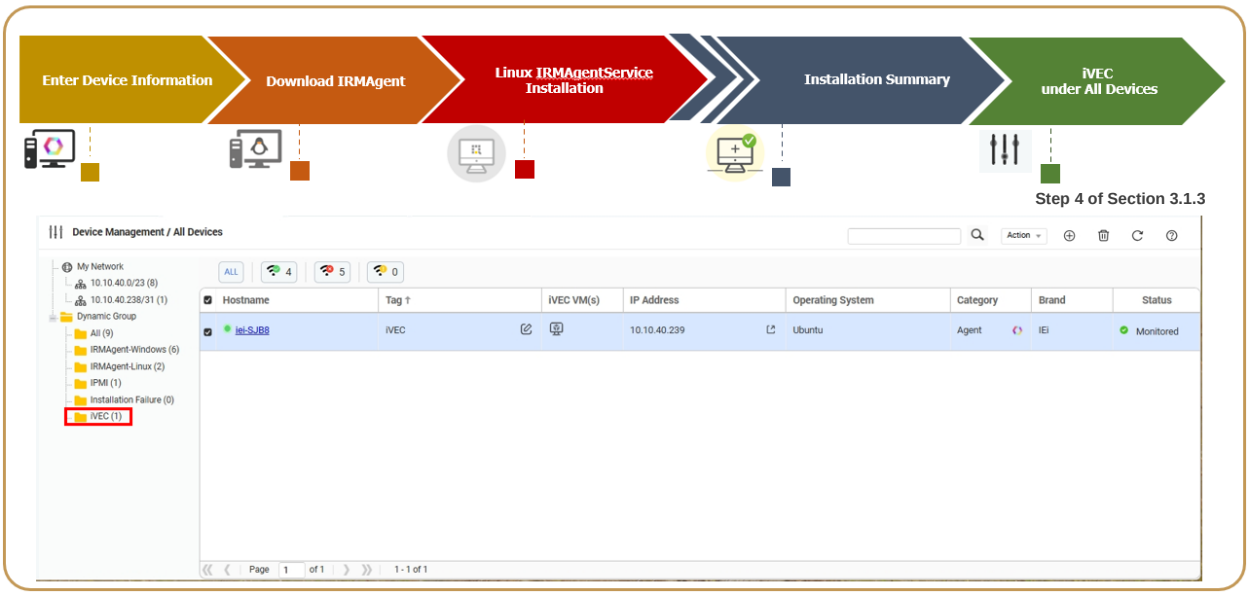


- **IEI iRIS (Out-of-Band Management) Device**: Add an IEI out-of-band management device (**iRIS / iRIS2**) using its IP address, and provide an account with administrative privileges for monitoring.





- **iVEC Device**: Install the **IRM Agent** on the iVEC host and enter an account with administrative privileges to monitor **iVEC devices**.



3.2 IEI out-of-band management device

Add an IEI out-of-band management device (**iRIS / iRIS2**) using its IP address. You must provide an account and password with administrative privileges to monitor the remote iRIS device. After you click this option, the system displays the **"Add Device to IEI iRIS (Out-of-Band Management) Device"** window.

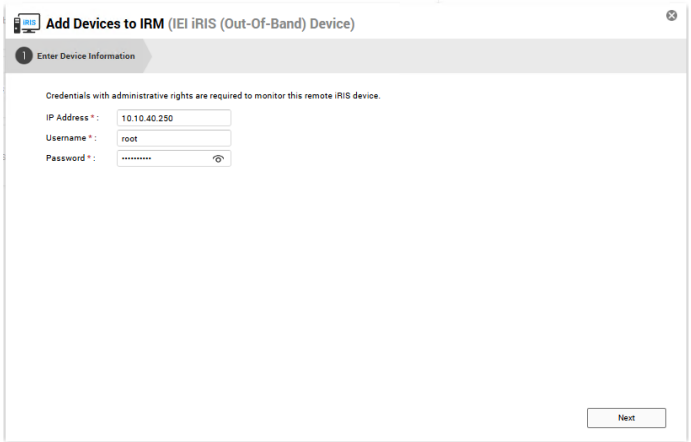
Step 1: Enter Device Information

You must have administrator privileges to monitor a remote iRIS device.

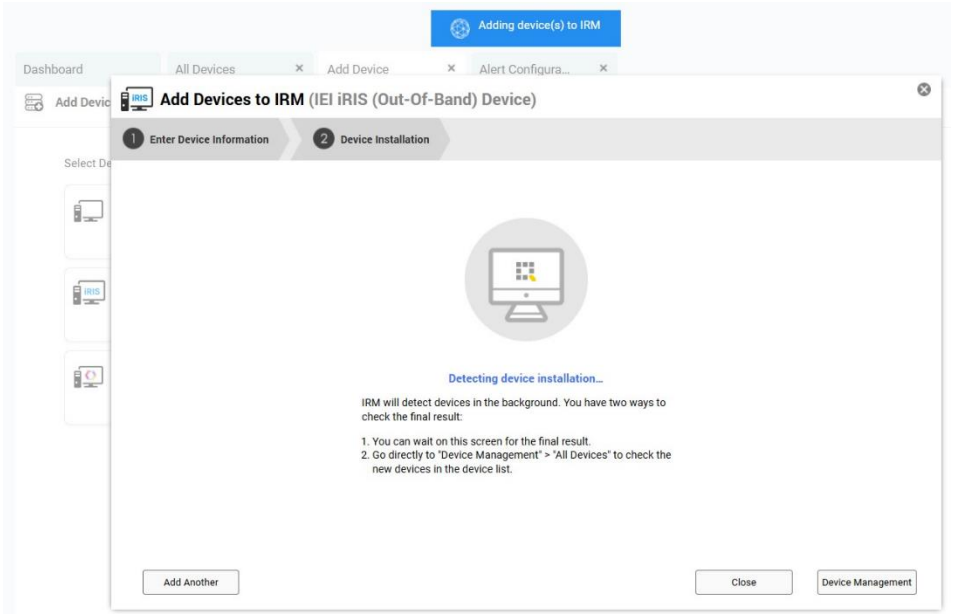
(1). **IP Address***: Enter the iRIS IP address.

(2). **Username***: Enter the iRIS user account.

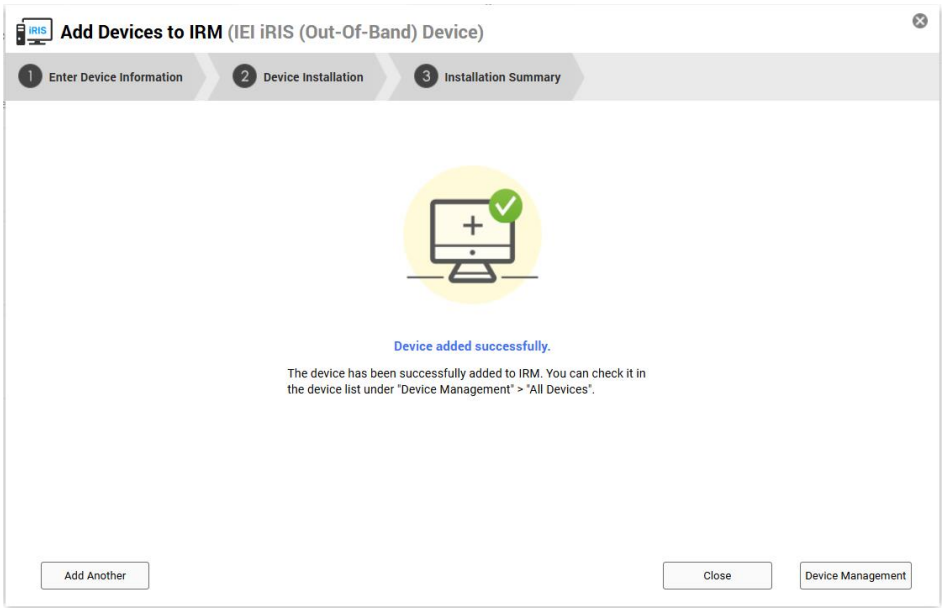
(3). **Password***: Enter the iRIS user password.



Step 2: Device Installation

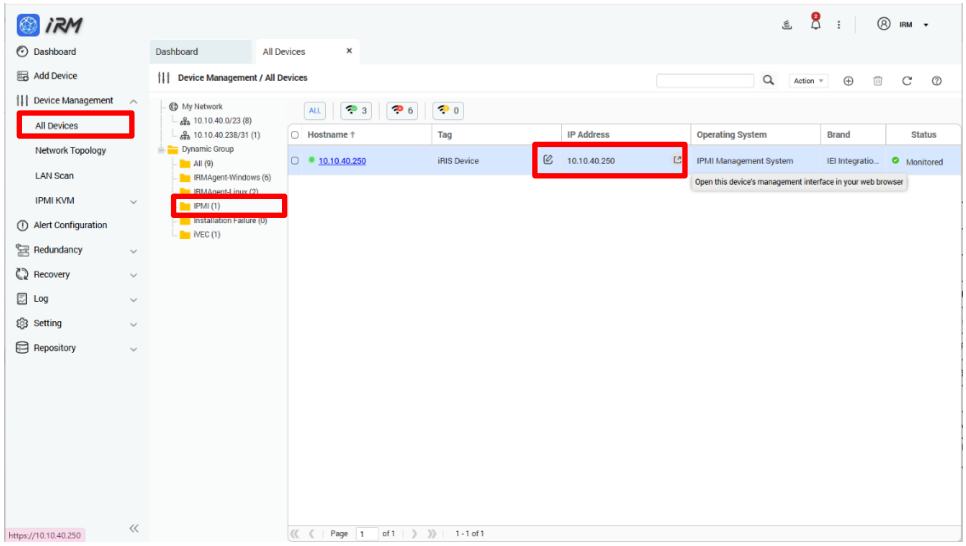


Step 3: Installation Summary



Step 4: IEI iRIS Device added successfully.

The device has been successfully added to IRM. You can check it in the device list under "Device Management" > "All Devices" or "IPMI".

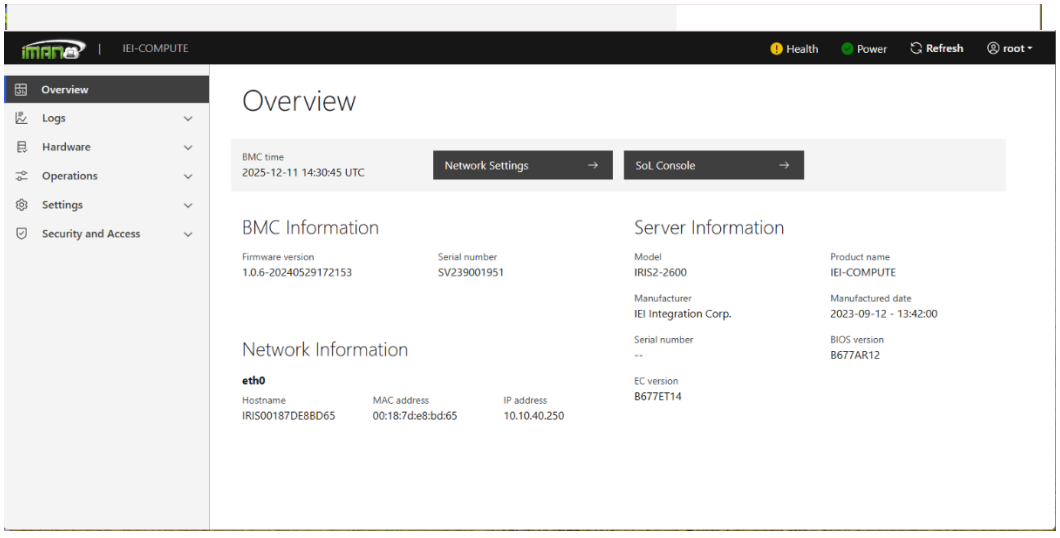


IPMI Device List

The **IPMI Device List** is the main entry point in IRM for managing IPMI (out-of-band management) devices. From this list, administrators can centrally view information for IPMI devices that have been added to IRM (such as **Hostname**, **IP address**, **Tag**, **Brand/Model**, and **Status**) and quickly open the device's **IPMI Web UI** for further operations.

Step 5:

- Open this IPMI device's management interface in your web browser
  Click  icon, it will go to IPMI management interface.



3.3 iVEC devices

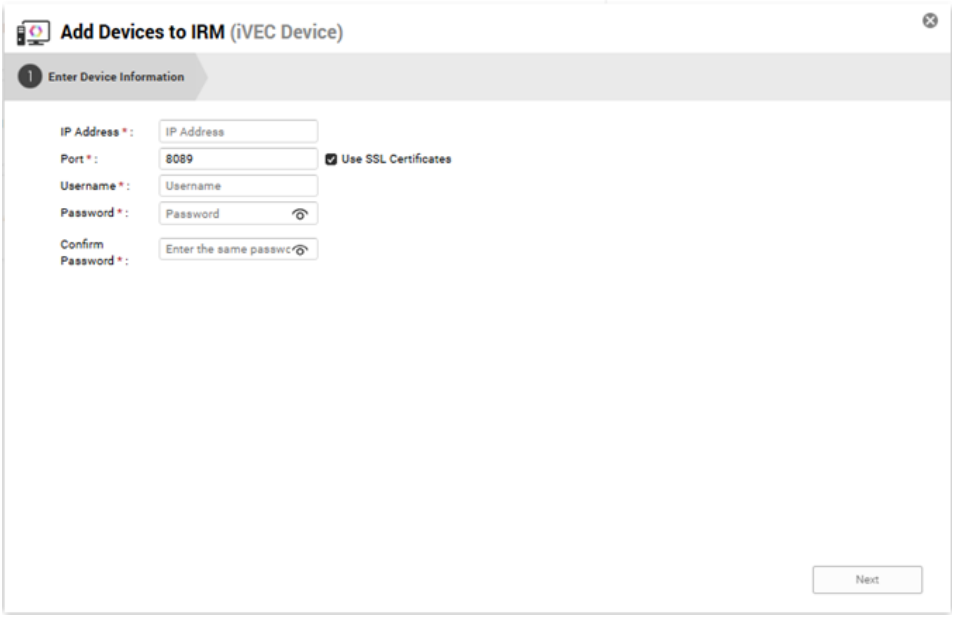
Install the **IRM Agent** on the iVEC host, then enter the **port** and an account/password with administrative privileges to monitor **iVEC devices**. After you click this option, the system displays the **"Add Device to IRM (iVEC Device)"** window.

Step 1: Enter Device Information

You must have administrator privileges to monitor a remote iVEC device.

(1). **IP Address***: Enter the iVEC IP address.
(2). **Port***: The default port for the iVEC host is 8089, using an SSL certificate.
(3). **Username***: Enter the login username for the iVEC host.
(4). **Password***: Enter the login password for the iVEC host.
(5). **Confirm Password***: Re-enter the login password for the iVEC host.

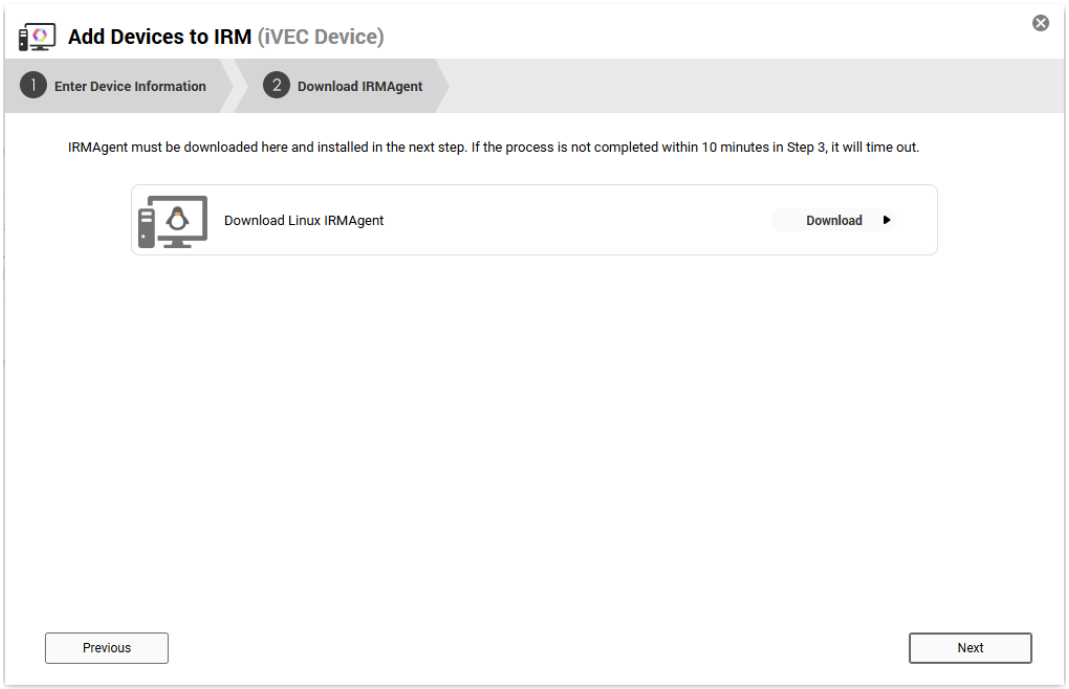
After verifying the information is correct, click **Next**.



Step 2: Download IRMAgent

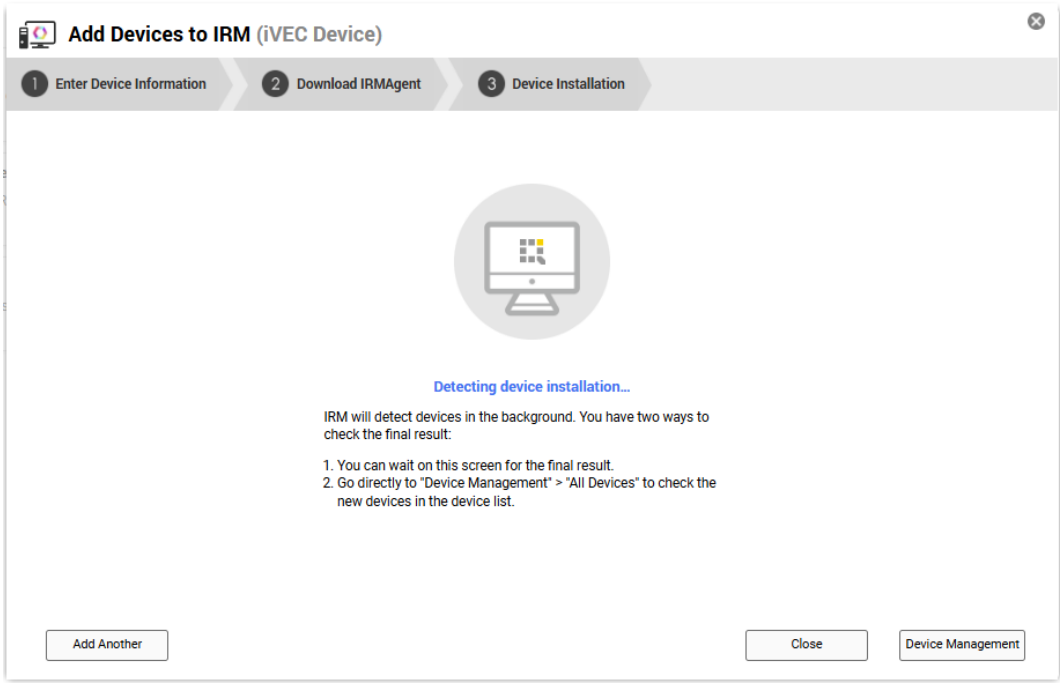
IRMAgent must be downloaded here and installed in the next step. If the process is not completed within 10 minutes in Step 3, it will time out.

Please refer to **Step 1 in Section 3.1.1.2, "Device Installation of Linux Devices,"** for installation instructions.

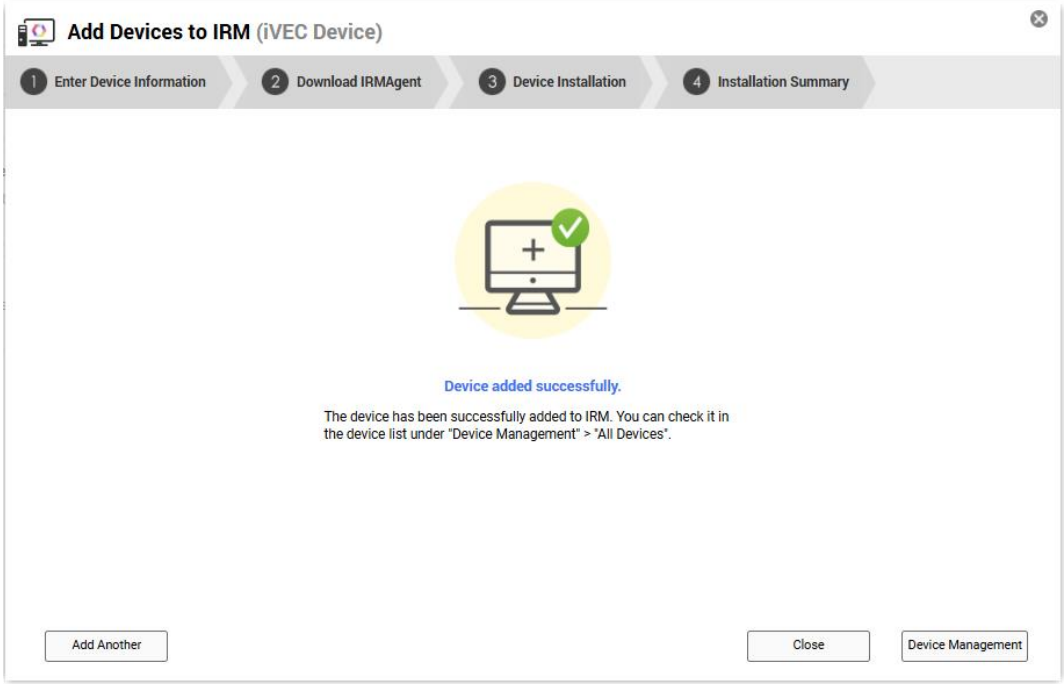


Step 3: Device Installation

Please refer to Step 2 in Section 4.1.1.2, “Device Installation of Linux Devices,” for installation instructions.

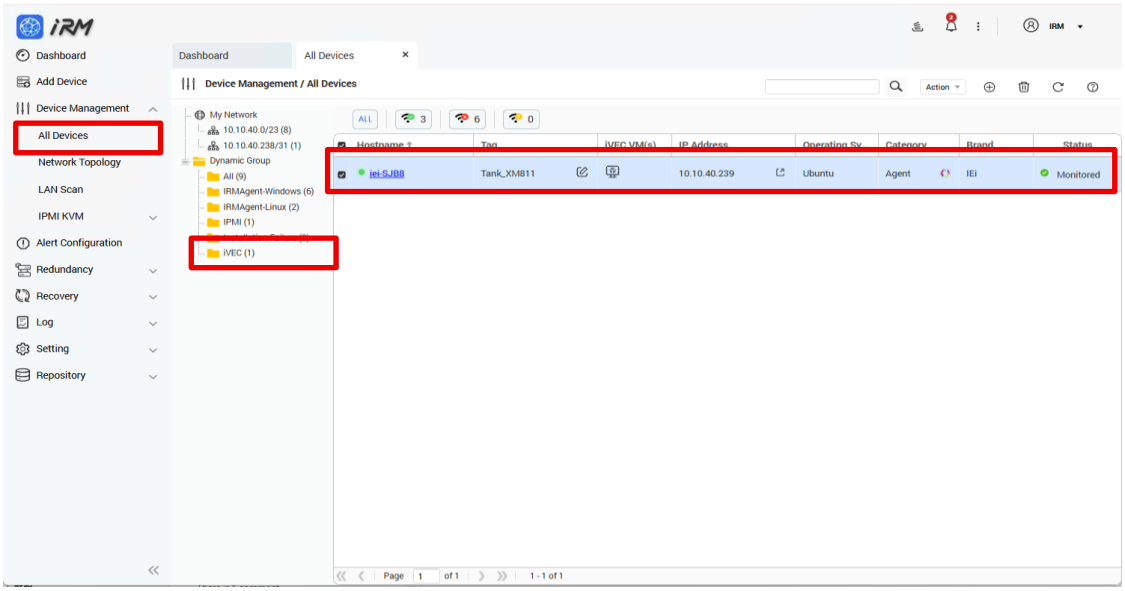


Step 4: Installation Summary



Step 5: iVEC Device added successfully

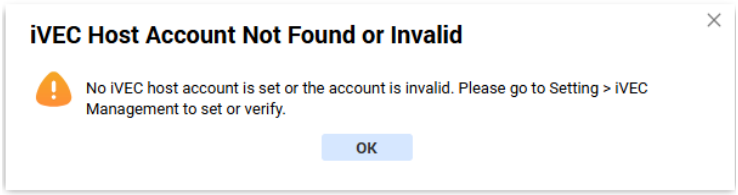
The device has been successfully added to IRM. You can check it in the device list under "Device Management" > "All Devices" or "iVEC".



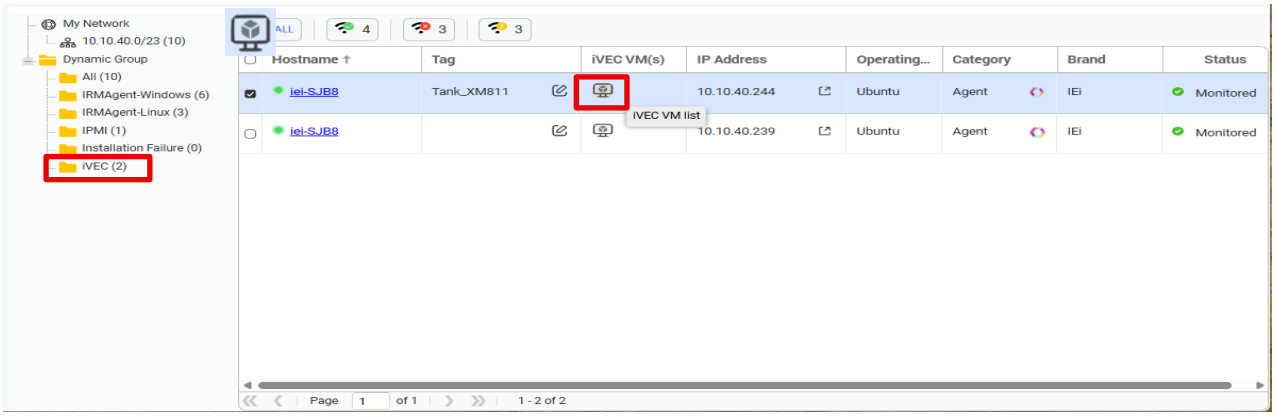
Step 6: iVEC VM List

The **iVEC VM List** provides a centralized view of virtual machines managed by the iVEC host. On this page, administrators can view basic VM information such as **power status**, **VM Name**, **Tag**, and **MAC Address**, and quickly open the VM management interface via the available entry points in the list.

Note: To use the iVEC VM List, go to **Settings > iVEC Management** to configure or verify the iVEC host account.
If no account has been configured or the account information is invalid, the system will display a prompt message:



Please refer to Section 10.5, “iVEC Management,” for setup instructions.

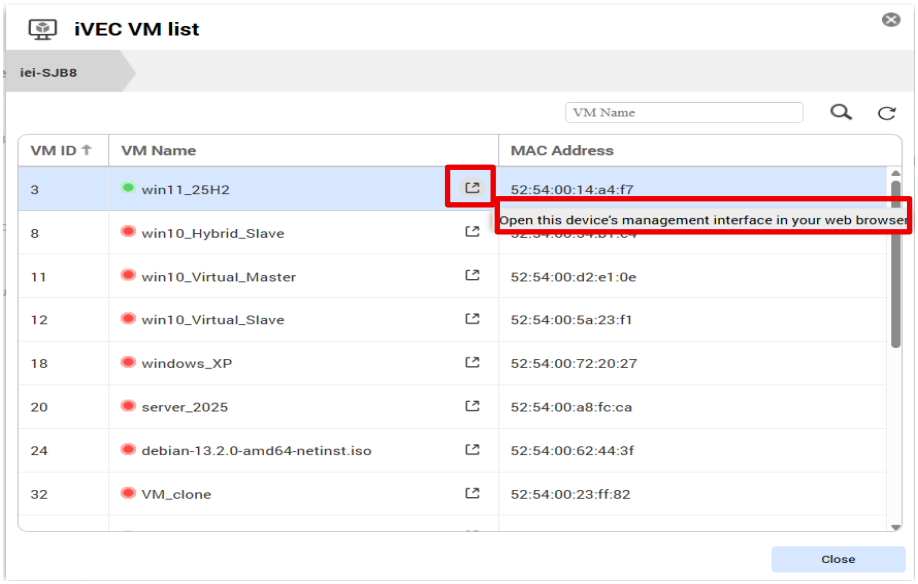


Step 7:

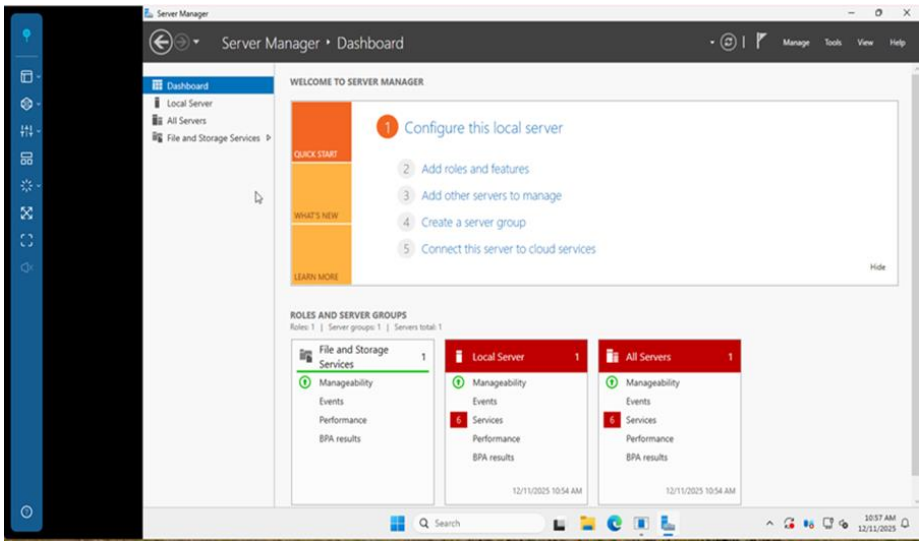
Click the **iVEC VM(s)** icon to open the **iVEC VM List** window. This window lists the VMs under the iVEC host, including **VM ID**, **VM Name**, and **MAC Address**.

To access the management interface for a specific VM, click the **external link** icon (⧉) on the right side of the VM (tooltip: “Open this device’s management interface in your web browser”). The system will open the VM’s **VM Console** in your web browser, allowing the administrator to log in and operate the VM

Open this VM interface in your web browser: Click ⧉ icon, it go to VM Console.



Open this VM interface in your web browser: Click icon, it go to VM Console.

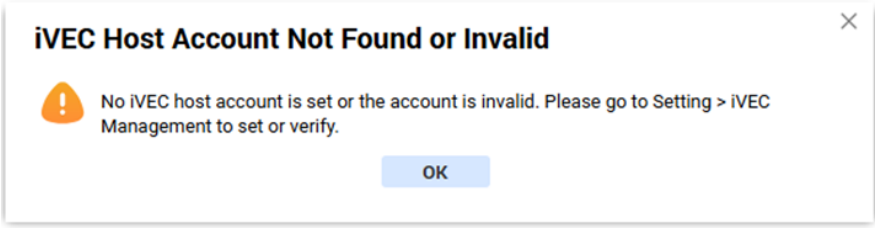


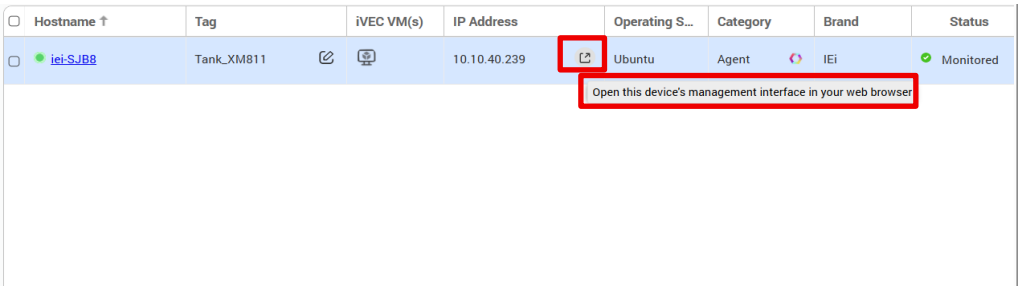
Step 8: iVEC management console.

The **iVEC Management Console** is the web-based management console of the iVEC host, providing a centralized entry point for VM management. From this entry point, users can log in directly to the iVEC Management Console and centrally manage and operate all VMs under the iVEC host.

Note: To use the iVEC Management Console, go to **Settings > iVEC Management** to configure or verify the iVEC host account.

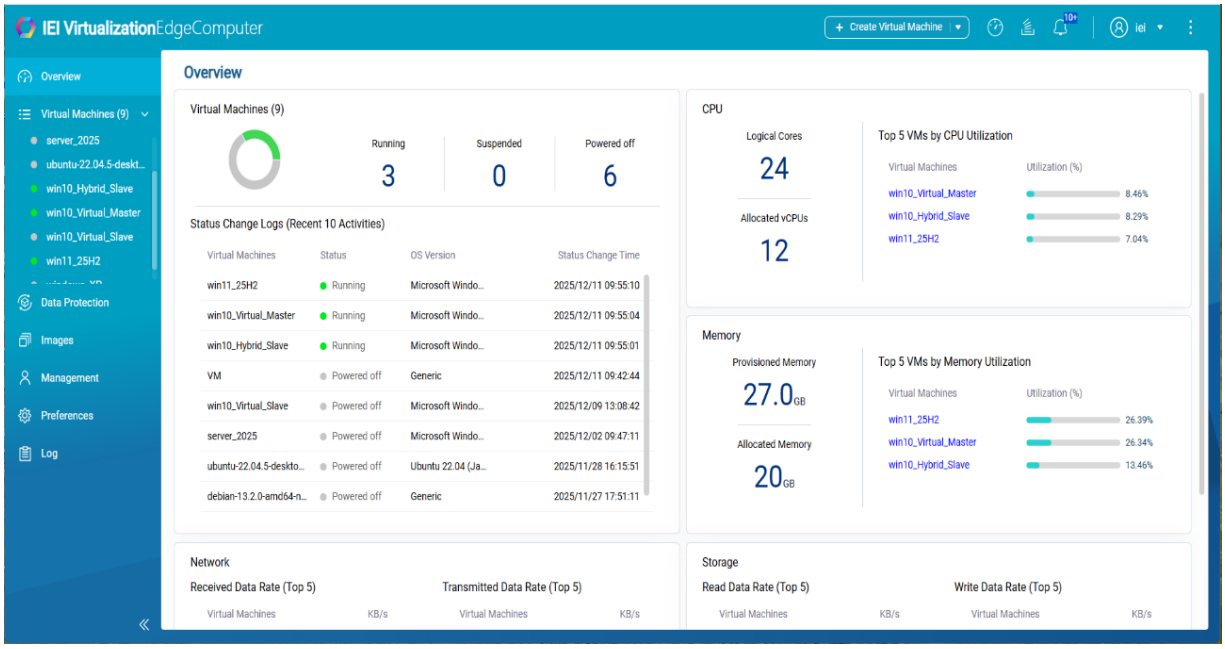
If no account has been configured or the account information is invalid, the system will display a prompt message:：





Step 9:

Open this device's management interface in your web browser: Click icon, it go to iVEC management console.



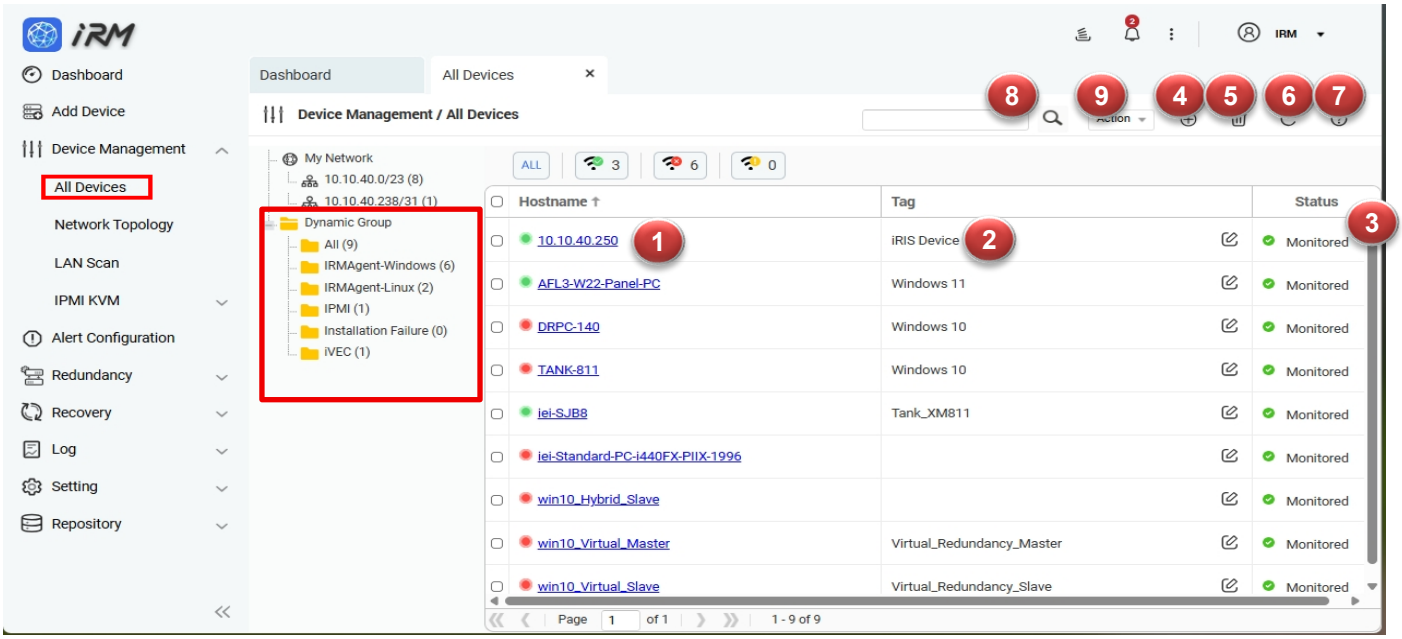
Chapter

4

4 Device Management

4.1 All Devices

The Device Management page provides a list of all the devices currently managed by IRM, along with their brief information and associated status. Users can quickly find the device and find out their current status using the Device Management page.



4.1.1 Host Name

The Host name not only distinguishes different devices through Dynamic Group, but also displays the current connection status with the IRM through different indicator light colors.

4.1.2 Tag

The Tag column displays device classification information to help users quickly identify device.

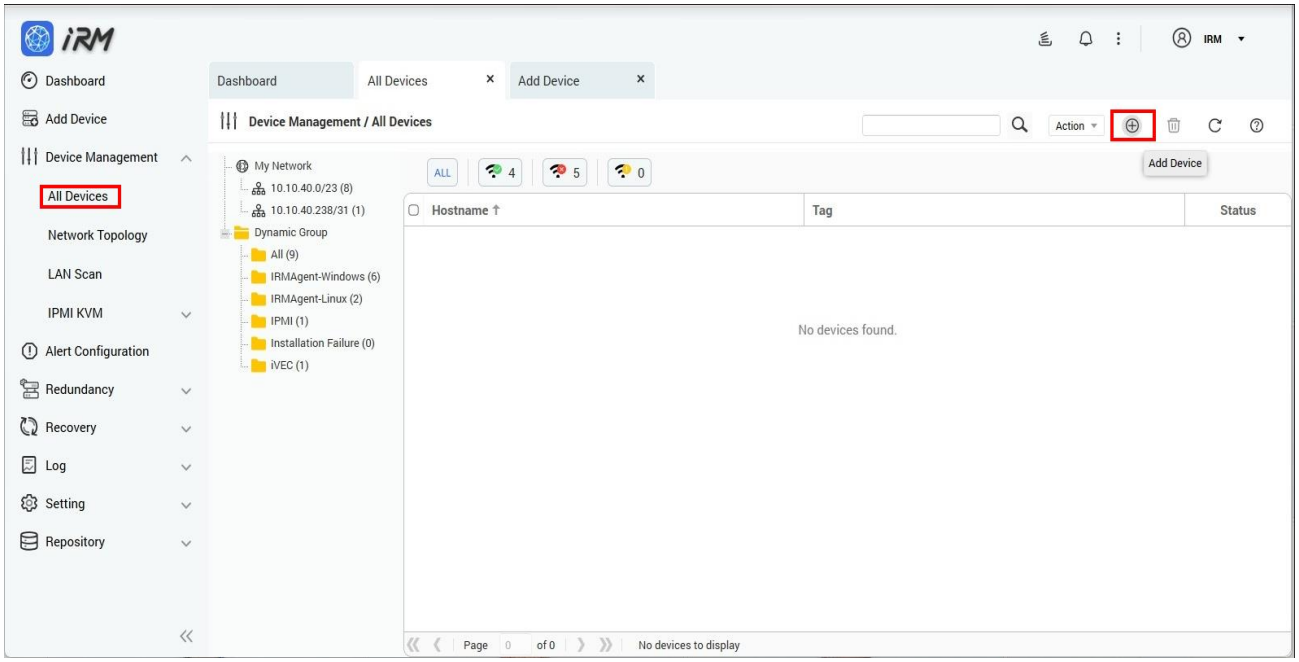
4.1.3 Status

Users will know whether the device is currently being monitored by IRM by looking at the Status column. Additional IRMAgent must be installed for it to be monitored via IRM.

4.1.4 Add Device

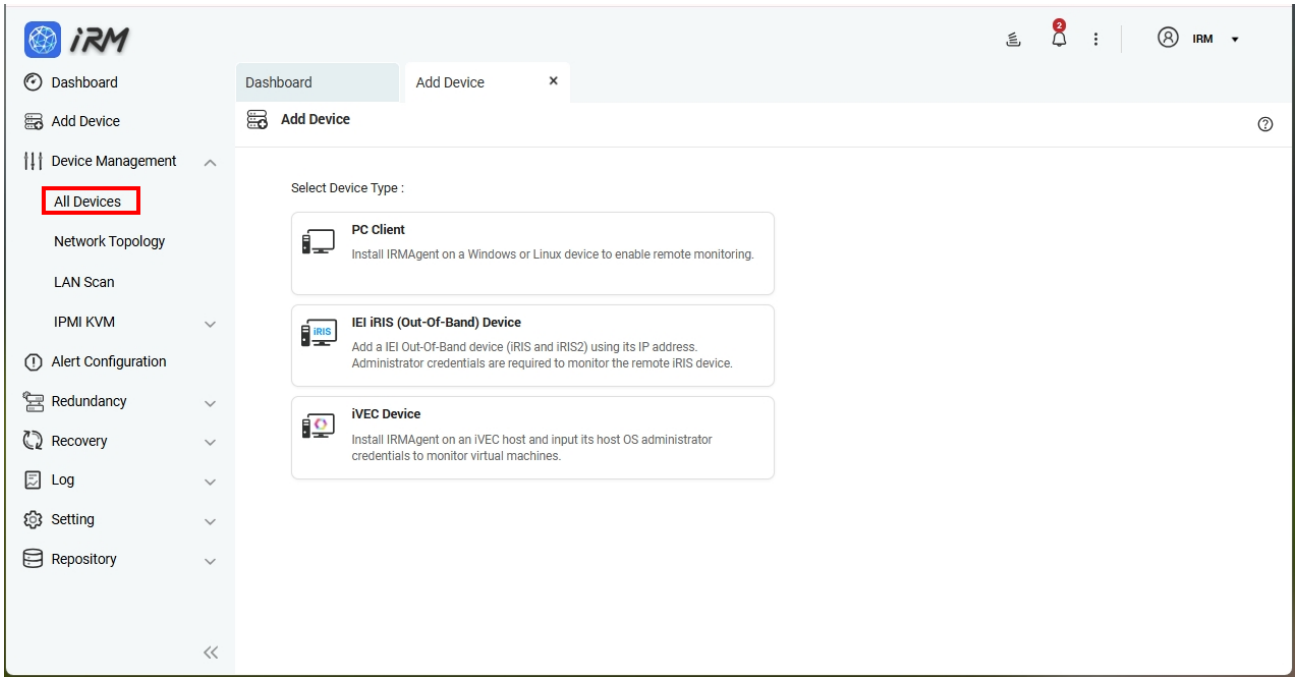
Users can add devices to IRM management via the Add Device feature. To add devices, follow the steps below:

Step 1: Click the "Add Device" button.



Step 2: IRM will redirect you to the Add Device Page.

Refer to Section 3.1 錯誤! 找不到參照來源。**.**



4.1.5 Remove Device

Users can use the Delete Device button to remove devices from the list of IRM managed devices, and remove the related data as well.

4.1.6 Refresh

Refresh is used to update the device list and displayed information on the All Devices page. When device status changes (e.g., connection or monitoring status) or after adding/removing devices, users can click Refresh to retrieve the latest data.

4.1.7 Help

Click the Help (?) icon in the upper right corner of the All Devices page. The system will automatically open the online user manual and redirect you to the corresponding instruction page to help you quickly understand how to use the functions.

4.1.8 Search

The Search field at the top-right of the All-Devices page allows users to quickly filter the device list by keywords. Supported search keys include Hostname, IP address, and Device tag. (Placeholder: Hostname, IP address, Device tag)

4.1.9 Action

The Action dropdown (top-right of All Devices) provides operations for the selected device(s). Select one or more devices in the list, then choose an operation from Action. Available actions may vary depending on device type, current status, and user permissions.

4.1.9.1 Power Control:

You can power control the remote unit, such as performing power-off or restart. Click the "Action" button and select "Power Control" to perform the action.

Power Off：Shuts down the selected device.

Restart：Restarts the selected device.

4.1.9.2 Remote Access:

Provides remote access entry points for the selected device(s) (options depend on device capability and system configuration).

RDP: Connect to a Windows device via Remote Desktop (requires device support/enabled).

VNC: Connect via VNC (requires device support/enabled).

SSH: Connect to a Linux device via SSH (requires device support/enabled).

Note: If an option is grayed out, it indicates the device does not support it or it is not enabled.

4.1.9.3 Export as PDF:

Exports the selected devices/list information as a PDF for archiving and sharing.

4.1.9.4 Email as PDF:

Sends the PDF report via email (SMTP/notification settings are required).

Note: If all devices show turned off, the default gateway may have changed. Confirm the network settings on the IRM Server.

Step 1: Log in to IRM Server Management Console and open "Network & Virtual Switch".

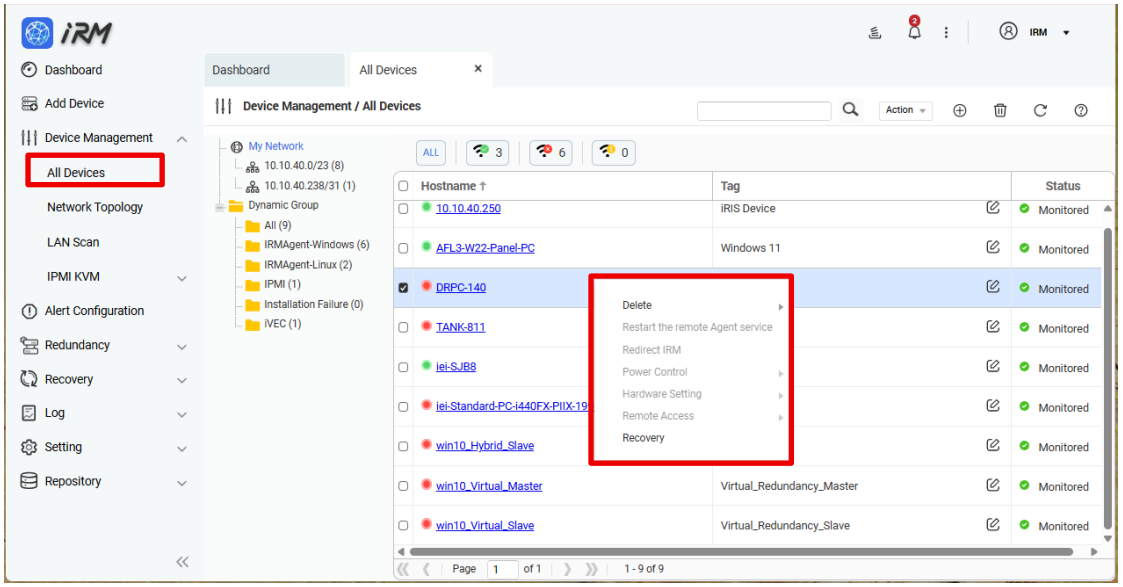
Step 2: Check the network ports that can reach the Internet.

Step 3: Manually select the network port that can reach the Internet.

4.1.10 Quick Menu

On the Device Management page, users can select a target host in the device list and right-click to open the quick menu.

The context menu provides multiple actions, including Delete, Restart Remote Agent Service, Redirect to IRM, Power Control, Hardware Settings, Remote Login Control, and Recovery.



4.1.10.1 Delete

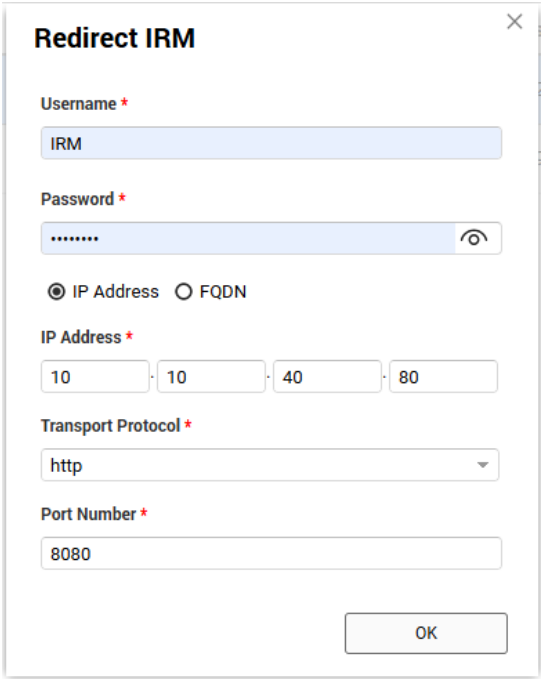
User can use the quick menu to delete any device and remove it from management, or delete the remote Agent and remove the device from management.

4.1.10.2 Restart the remote Agent service

Users can use the quick menu to restart the remote Agent service (Linux devices only).

4.1.10.3 Redirect

Users can use the quick menu to redirect to IRM (Linux devices only).



1. Username*: Enter the IRM username for redirection.
2. Password*: Enter the password for the IRM username.
3. IP Address or FQDN*: Enter the target IRM IP address or FQDN.
4. Transport Protocol*: The default protocol is HTTP. You can select HTTPS if needed.
5. Port Number*: Enter the port number (HTTP: 8080, HTTPS: 443).

After verifying the information, click Confirm. The device will be redirected to the specified IRM host and added for management.

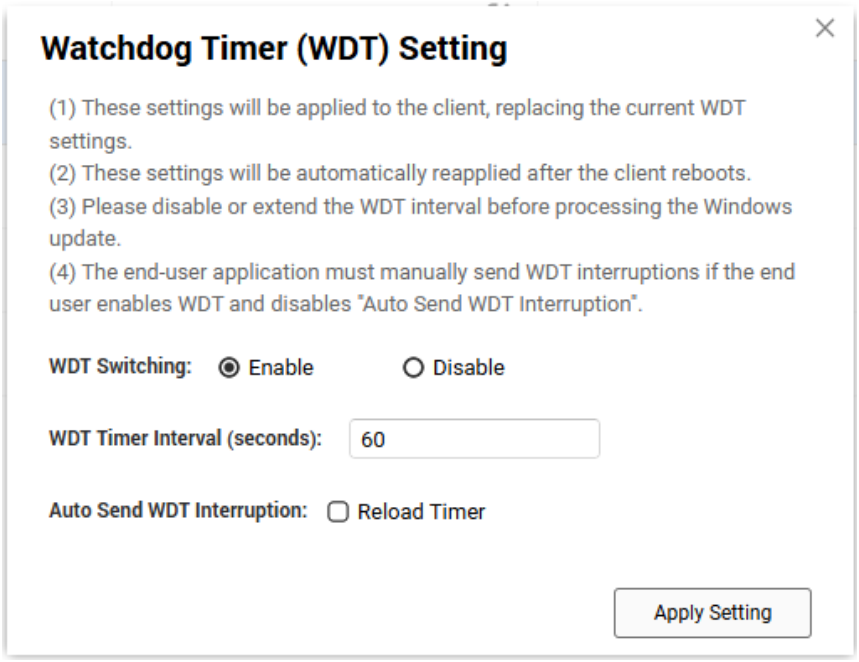
4.1.10.4 Power Control

Users can use the quick menu to power off or reboot any device.

4.1.10.5 Hardware Setting (Watchdog Timer)

Hardware Setting (Watchdog Timer) is used to configure the device Watchdog Timer. A watchdog timer is a hardware/system protection mechanism that can automatically trigger a recovery action (such as a reboot) when the system becomes abnormal or unresponsive, improving device stability and availability. user can configure watchdog-related parameters here and apply them to target devices.

Note: Watchdog Timer (Physical Windows devices only), Users can configure it through the quickt menu.



WDT Switch:

- **Enable:** Enables the Watchdog Timer. Enable it only when you need to test system stability or prevent the system from hanging without automatically rebooting.
- **Disable**: Disables the Watchdog Timer. For general testing or while performing OS/driver installation or updates, it is recommended to temporarily disable it.
- **WDT Timer Interval (seconds):** In WDT Timer Interval (seconds), enter the time value. The range 0 ~ xx specifies the allowed watchdog timeout period. If no “reload timer” signal is received within the specified seconds, the Watchdog will determine that the system is unresponsive and trigger the default action (usually a reboot). Click Apply Settings to start the countdown.
- **Auto Send WDT Interruption:** Automatically sends WDT interrupts.
- **Enable:** Select Reload Timer. The Agent will periodically send WDT signals to automatically reload the timer.
- **Disable:** Clear Reload Timer. The Agent will not send WDT signals automatically. In this case, your application must send WDT interruptions periodically; otherwise, the WDT will reboot the system when the timer expires.

4.1.10.6 Remote Access

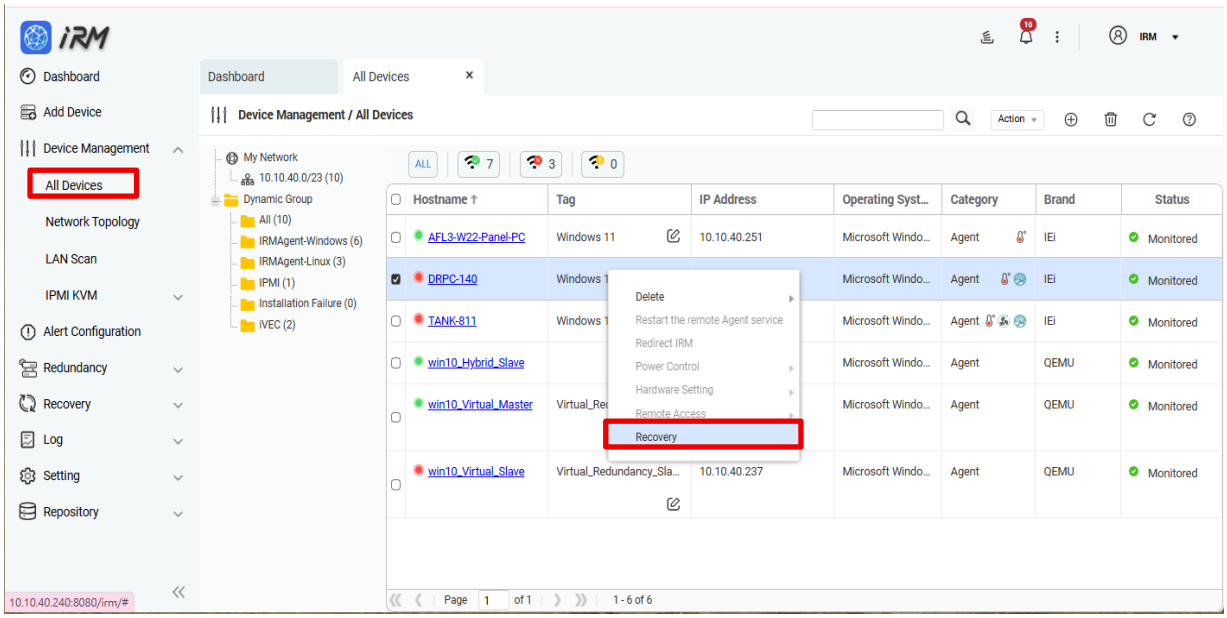
Users can use the quick menu to remotely access Windows devices (supports RDP and VNC) and Linux devices (supports VNC and SSH).

Note: VNC software must be installed separately.

4.1.10.7 Recovery

IRM supports recovery for IEI physical hosts. The host to be recovered must have **OKR2** installed in advance.

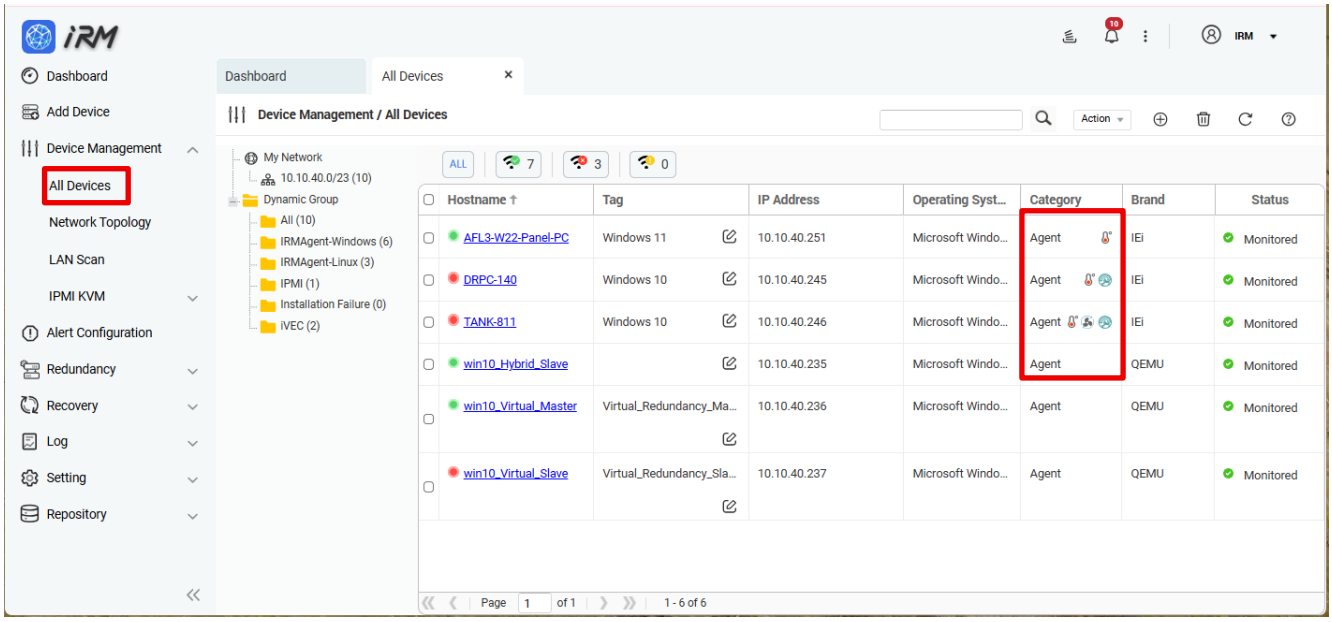
Please refer to **Section 8.1, "Remote Recovery**," for installation instructions.



IEI System Monitoring Module

The IEI Intelligent System Management Module (iSMM) is a system health supervision application which utilizes sensor chips on IEI motherboards to track CPU and system temperatures, fan speed, watchdog timer, digital I/O status and system event.

Users can add gadgets to the dashboard to continuously monitor the health of the H/W device.



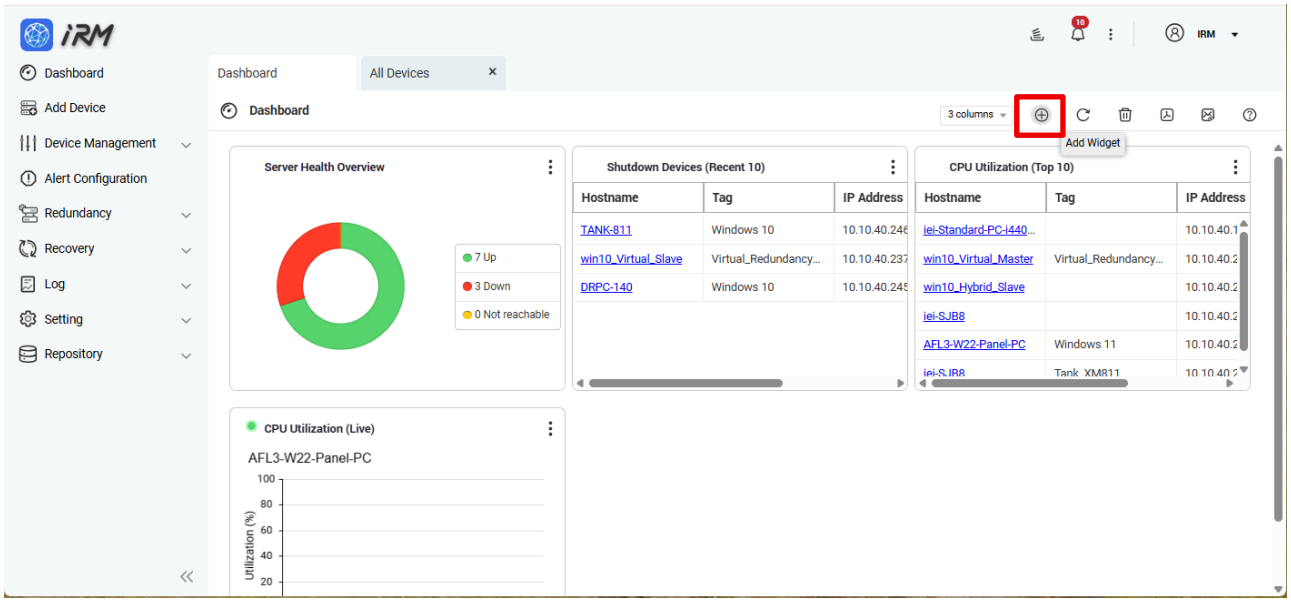
Go to Sensor ICO

Go to Device Management > All Devices > Dynamic Group > IRMAgent-Windows.

Icon	Module Name	Description	H/W Monitoring	Notes
	Temperature Sensor	Indicates that this IEI physical host supports hardware temperature sensor monitoring by IRM. The actual available items vary by model, but CPU Temp and SYS Temp are common items.	- CPU temperature - System temperature - Power temperature	only support IEI PCs for Windows system
	Fan Speed Monitoring	Indicates that this IEI physical host supports fan speed monitoring by IRM, which can be used to observe cooling performance and verify whether the fans are operating properly.	- CPU Fan - Sys Fan	only support IEI PCs for Windows system
	OKR2 Remote Recovery	Indicates that OKR2 has been installed and enabled on this IEI physical host. Remote recovery can be performed via IRM → Remote Recovery.	- OKR2 installed and enabled on the host	only support IEI PCs for Windows system

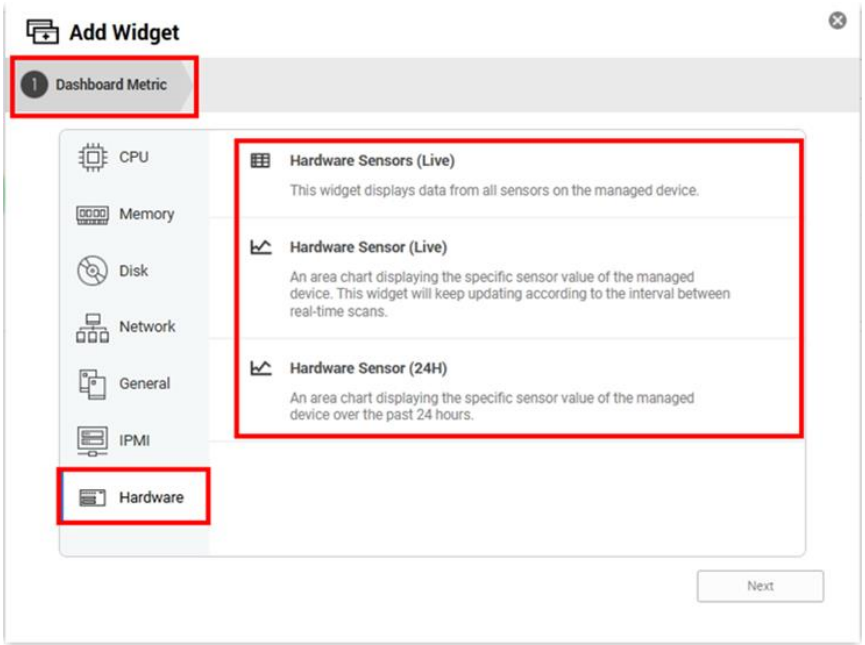
4.1.11.1 Hardware Sensor Add Widget

Go to the Dashboard page and click the "Add Widget" button.



4.1.11.2 Dashboard Metric

After adding the widget, you can use Dashboard Metrics to configure which hardware sensor metrics to display on the dashboard. In the Dashboard Metrics window, click Hardware on the left side.



4.1.11.3 Hardware Sensors (Live)

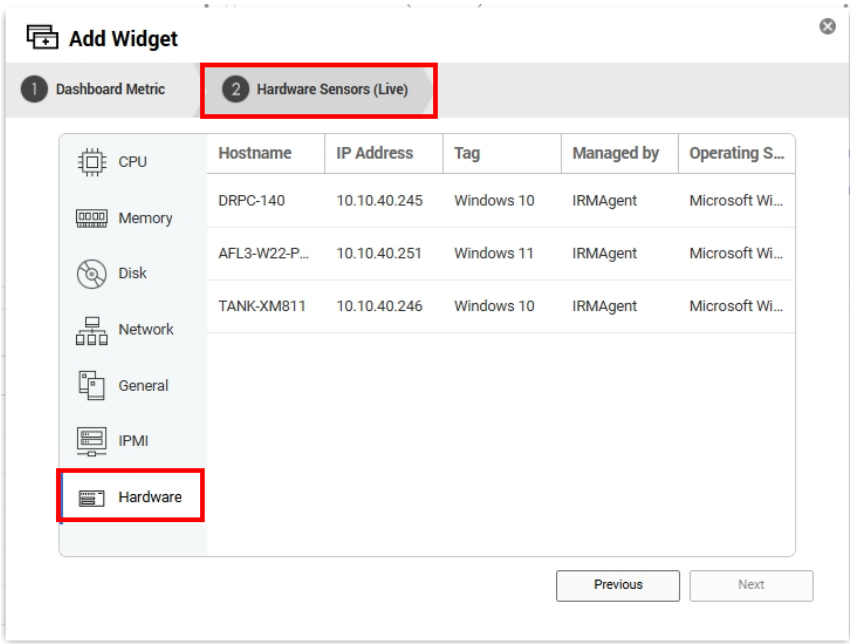
Step 3: In the **Add Widget** window, after selecting the **Hardware** category, you can choose one of the following three **H/W Sensor** widgets as needed:：

- **Hardware Sensors (Live):** Displays real-time values of all supported hardware sensors on the managed device in a table view. By default, all supported sensors and the layout are preloaded, and users cannot customize which sensors (information) are displayed.
- **Hardware Sensor (Live)**: Displays the real-time value of a single hardware sensor in an area chart and updates automatically based on the scan interval.
  Users must customize the sensor (information) to be displayed and the layout.
- **Hardware Sensor (24H):** Displays the historical trend of a single hardware sensor over the past 24 hours in an area chart. Users must customize the sensor (information) to be displayed and the layout.

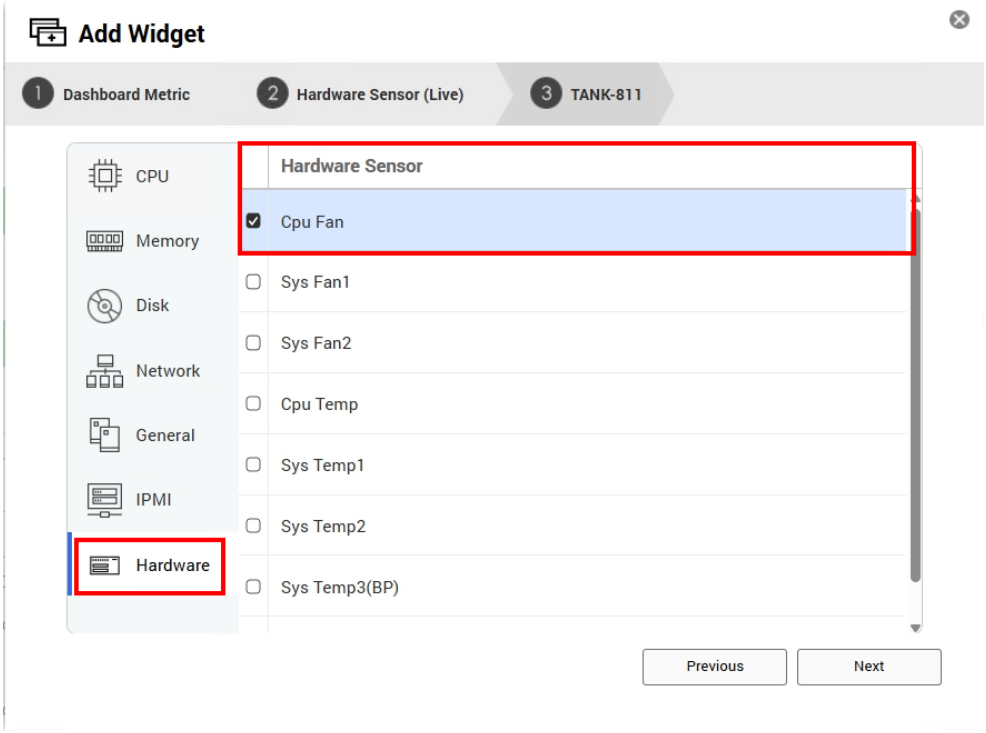
Note 1:

The hardware sensors supported by **Hardware Sensor** may vary across different IEI IPC models. However, the **CPU Temp** and **SYS Temp** sensors are common to all supported models. These sensors are available **only on IEI physical IPC hosts**; **virtual machines (VMs) do not support hardware sensor display**.

The system lists IEI physical hosts that support iSMM. Select the host you want to monitor, and then click Next.

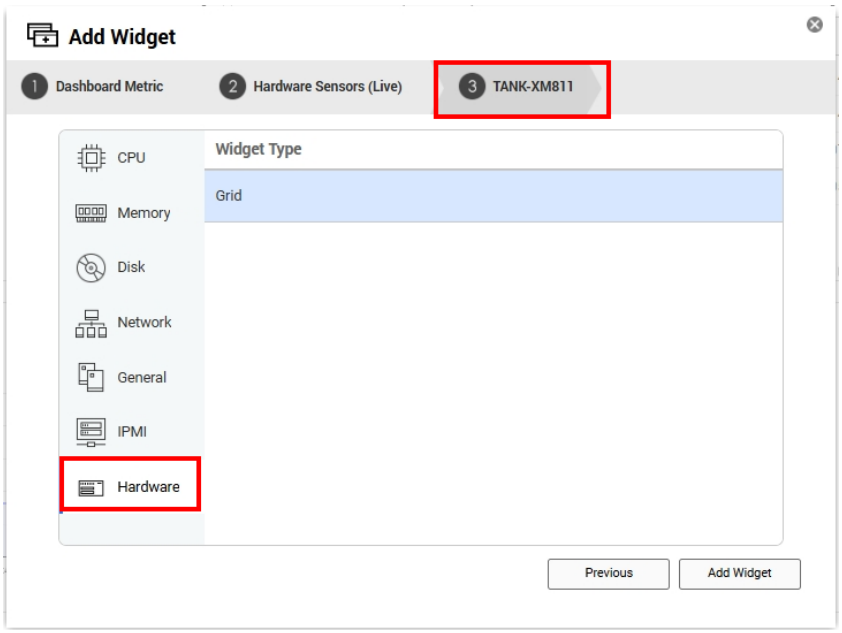


4.1.11.4 IPC Hardware Sensors (specific sensor)



1. After entering the Hardware Sensor list, the system automatically displays all hardware sensors reported by iSMM for the selected host.
2. Select a single sensor item to monitor from the list, for example, “CPU Fan”.
3. After confirming your selection, click Next to continue with the layout configuration and complete the addition.

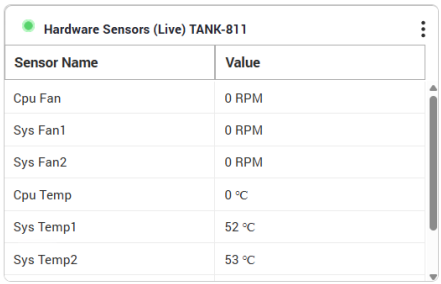
4.1.11.5 Widget Type

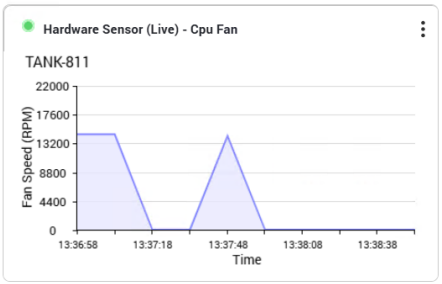


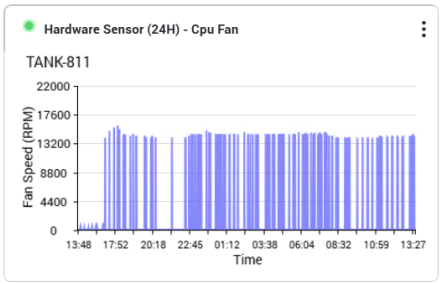
After selecting the type of chart, click the "Add Widget" button to complete the operation.

This section describes the available widget types for iSMM.

Type	Description	Scenario	Limitation
Hardware Sensors (Live) – Table	Displays real-time values and status of all supported hardware sensors on the device in a table.。	Routine inspection of multiple sensors (CPU/system temperature, fans, voltage, etc.).	No trend chart and no historical data
Hardware Sensor (Live) – Single-line Area Chart	Plots a real-time trend chart for a single sensor.	Observing short-term fluctuations of a single sensor and early warning signs before an alert.	Supports only one sensor at a time
Hardware Sensor (Last 24 Hours) – Single-line Area Chart	Displays the historical trend of a single sensor over the past 24 hours.	Reviewing daily peaks/lows, offline periods, and cooling effectiveness.	Single sensor only; the time window is fixed at 24 hours.

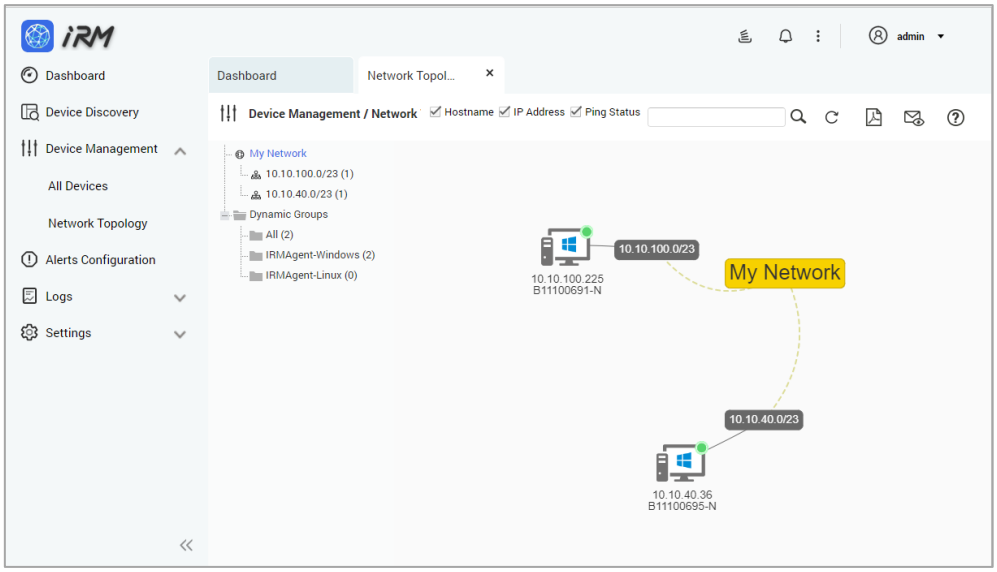






4.2 Network Topology

IRM provides visual network topology to quickly present the managed device's network structure, automatically groups devices based on device information, and changes status icons according to the current real-time status.

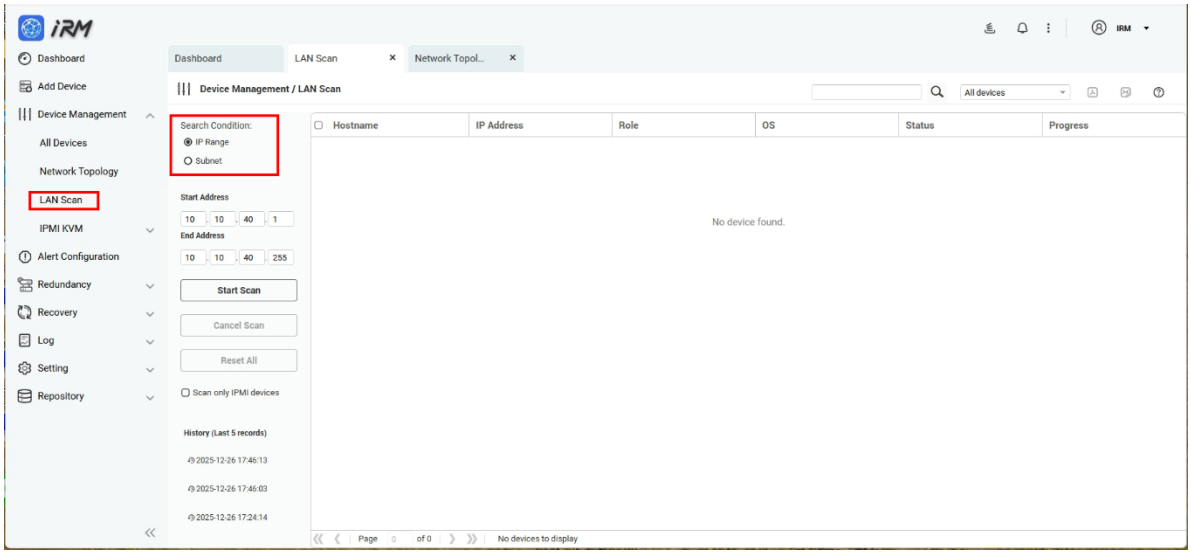


1. My network shows different subnet groups
2. Dynamic Groups will automatically sub-group according to subnet, operating system and other information
3. Device Name
4. IP address of the device
5. Current status of the managed device (Power On, Power Down, or network outage)
6. Device Discovery

With IRM, you can use the Lan Scan feature to discover the network you're in. Lan Scan allow users to discover computer devices on the current network based on the scan range they set up and quickly. On the Lan Scan page, users can start scan, stop scan, reset, query scan history, filter scan results, generate scan result reports, and send current view as Email.

IRM supports the following two search types:

- IP range
- Subnet



4.2.1.1 Start Scan

If the user clicks the "Start Scan" button, IRM will start scanning all the devices within the IP range or in the subnet. During the scan, discovered devices are placed in order from the top down.

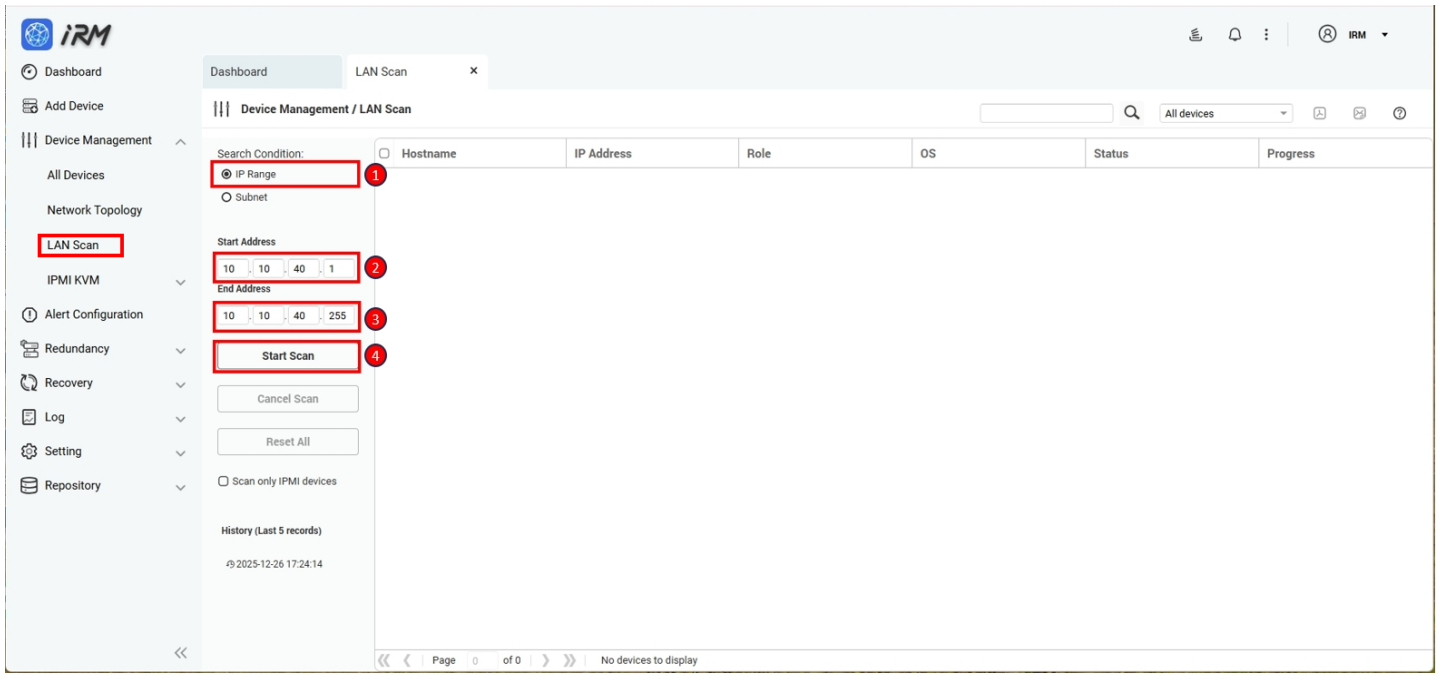
To scan a specific IP range, follow the steps below:

Step 1: Select the IP range.

Step 2: Enter the starting IP address.

Step 3: Enter the ending IP address.

Step 4: Click "Start Scan".

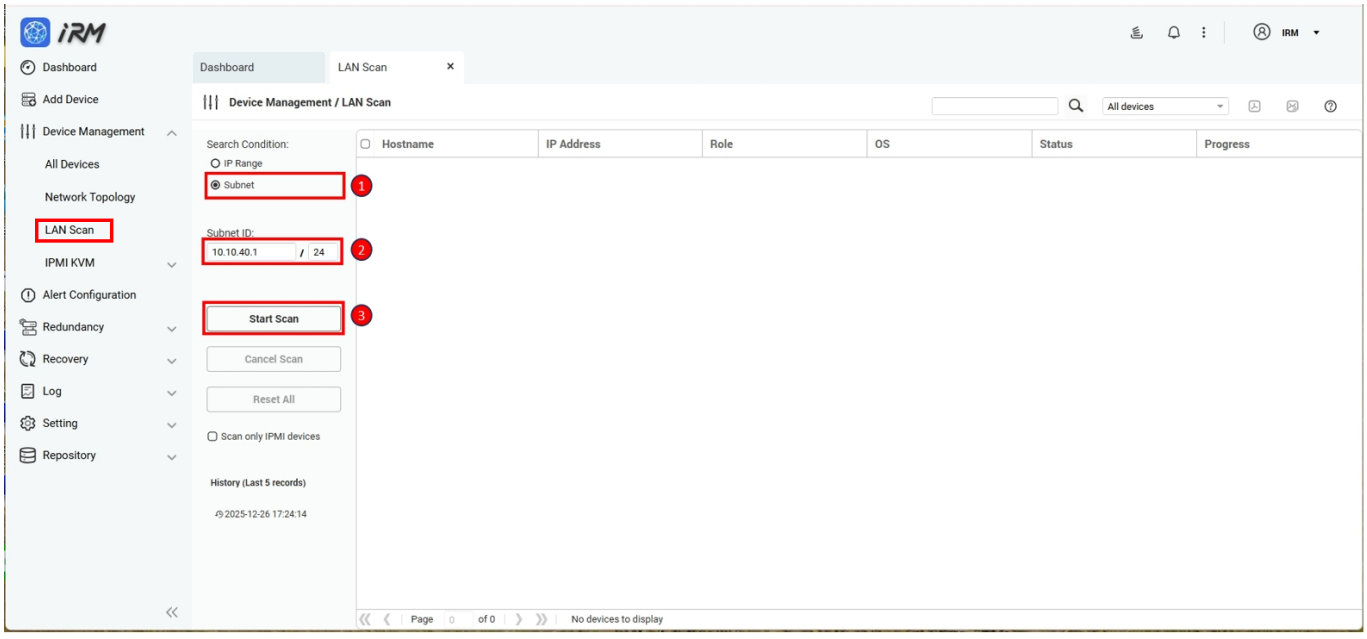


To scan a specific subnet range, follow the steps below:

Step 1: Set the subnet.

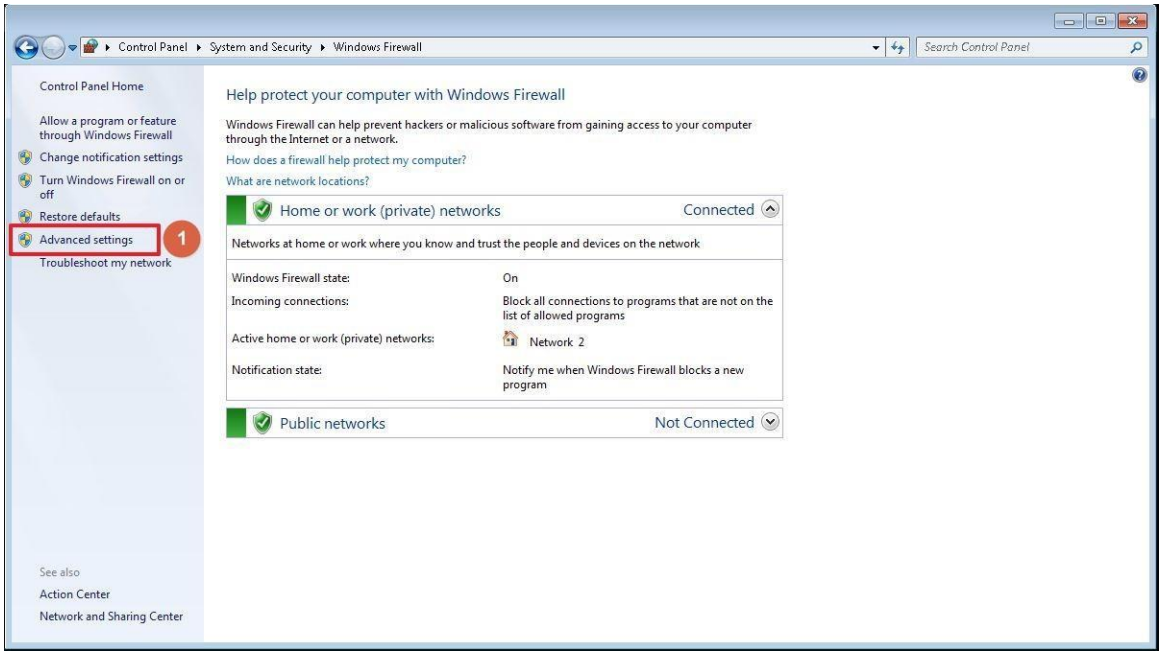
Step 2: Enter the CIDR, default is 24.

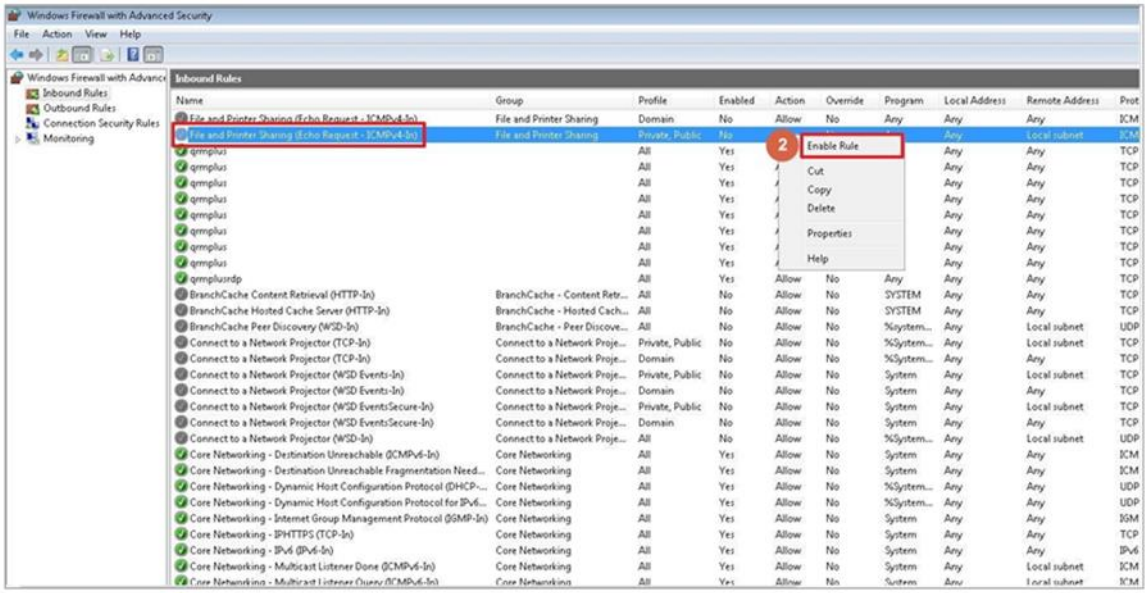
Step 3: Click "Start Scan".



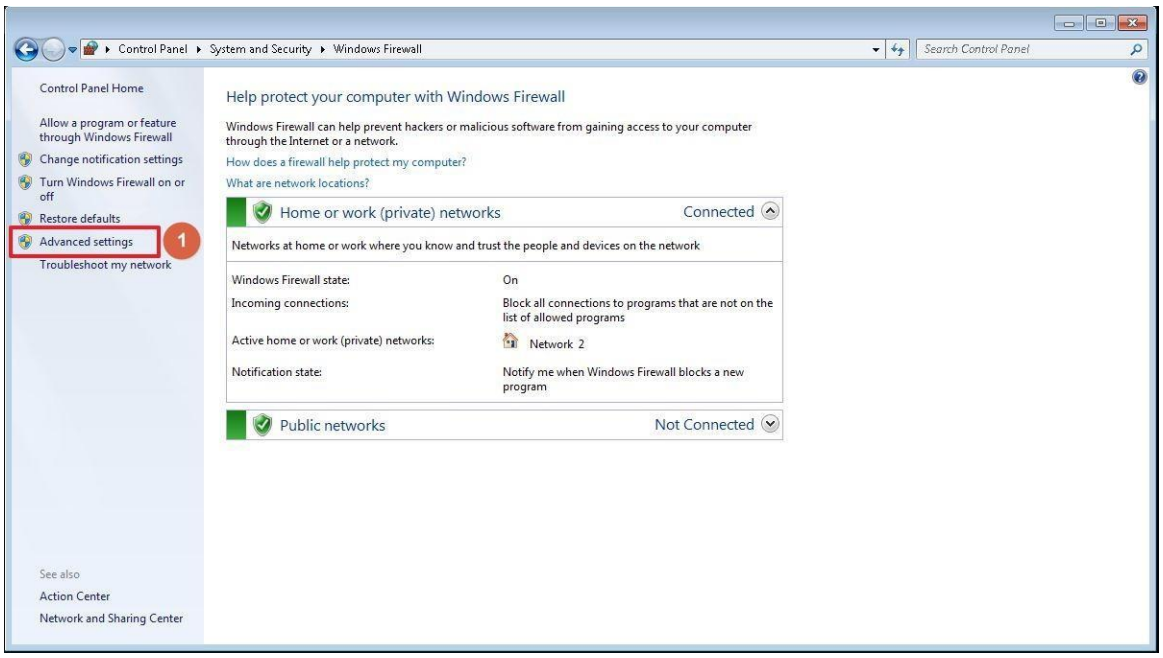
NOTE: IRM uses ICMP protocol to search for devices within a specified IP address range. If the target

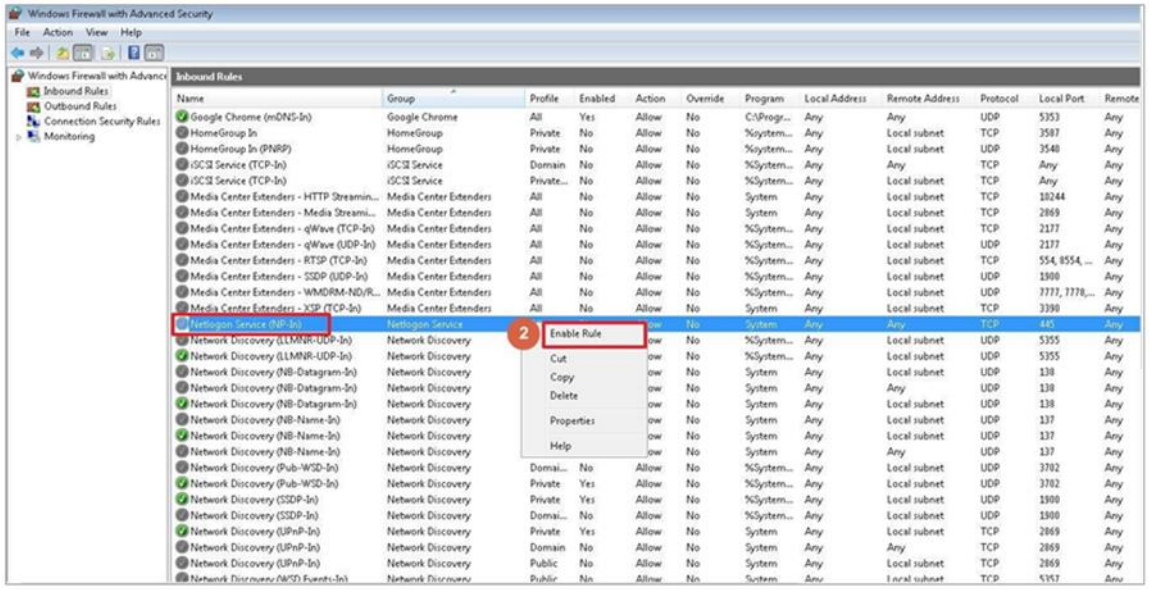
device does not allow ICMP requests, IRM will not be able to find the target device. To support IRM search, enable ICMP requests on the target device.





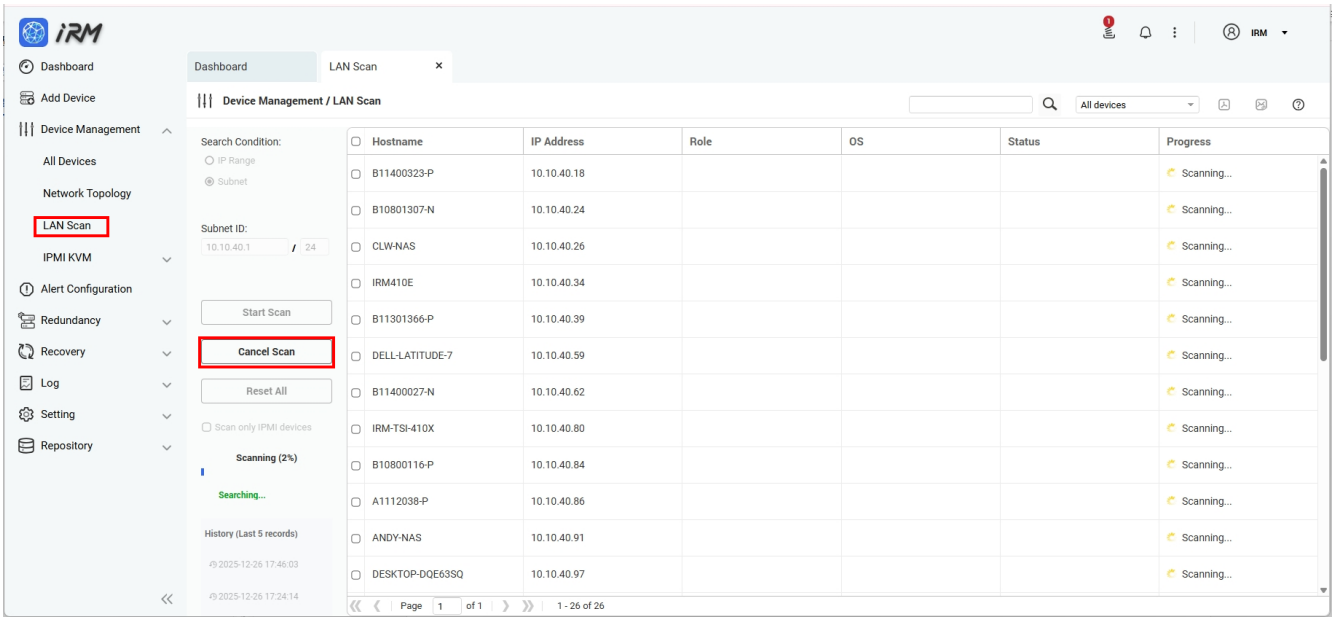
NOTE: MS Windows firewall rules will also affect IRM and treat target device as unsupported device. To solve the problem, go to Control Panel> System & Security> Windows Firewall. Click the "Advanced Settings" button to set up (as shown below).


Control Panel ▸ System and Security ▸ Windows Firewall
Search Control Panel
Control Panel Home
Allow a program or feature through Windows Firewall
Change notification settings
Turn Windows Firewall on or off
Restore defaults
Advanced settings
1
Troubleshoot my network
See also
Action Center
Network and Sharing Center
Help protect your computer with Windows Firewall
Windows Firewall can help prevent hackers or malicious software from gaining access to your computer through the Internet or a network.
How does a firewall help protect my computer?
What are network locations?
Home or work (private) networks
Connected
Networks at home or work where you know and trust the people and devices on the network
Windows Firewall state:
On
Incoming connections:
Block all connections to programs that are not on the list of allowed programs
Active home or work (private) networks:
Network 2
Notification state:
Notify me when Windows Firewall blocks a new program
Public networks
Not Connected


Windows Firewall with Advanced Security
File Action View Help
Windows Firewall with Advanc
Inbound Rules
Outbound Rules
Connection Security Rules
Monitoring
Inbound Rules
Name
Group
Profile
Enabled
Action
Override
Program
Local Address
Remote Address
Protocol
Local Port
Remote
Netlogon Service (NP-In)
2
Enable Rule
Cut
Copy
Delete
Properties
Help

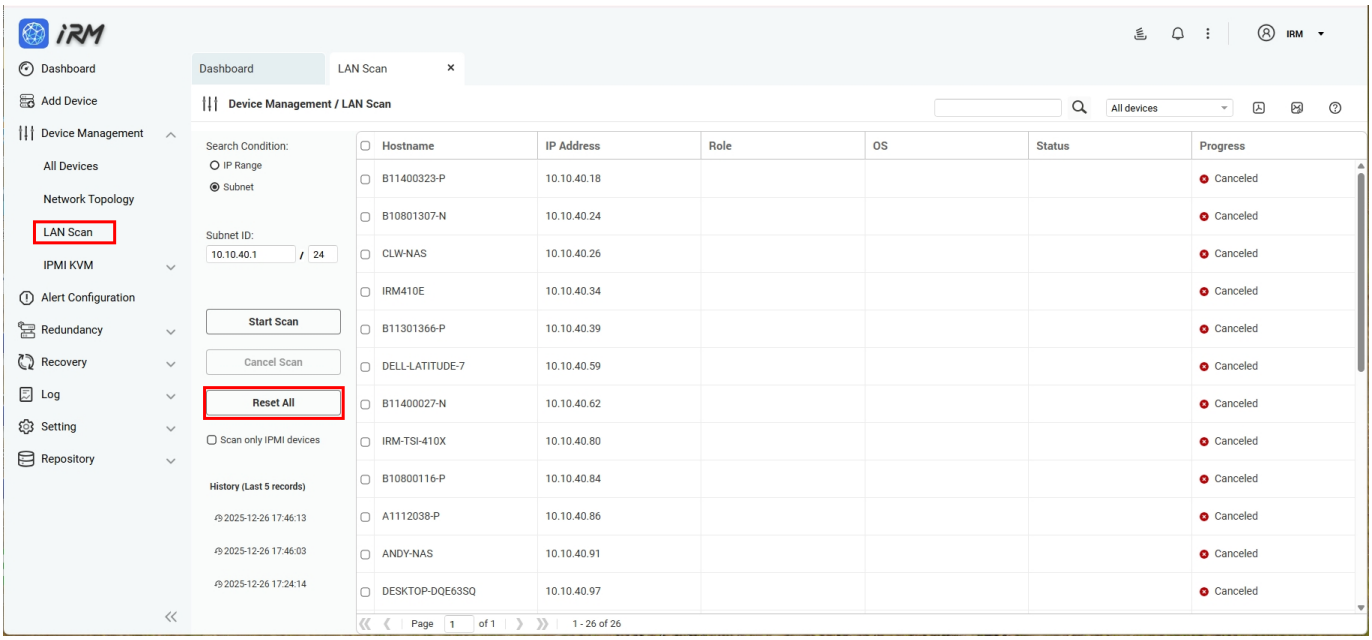
4.2.1.2 Stop Scanning

During a scan, the user can click the Cancel Scan button to stop the scan.



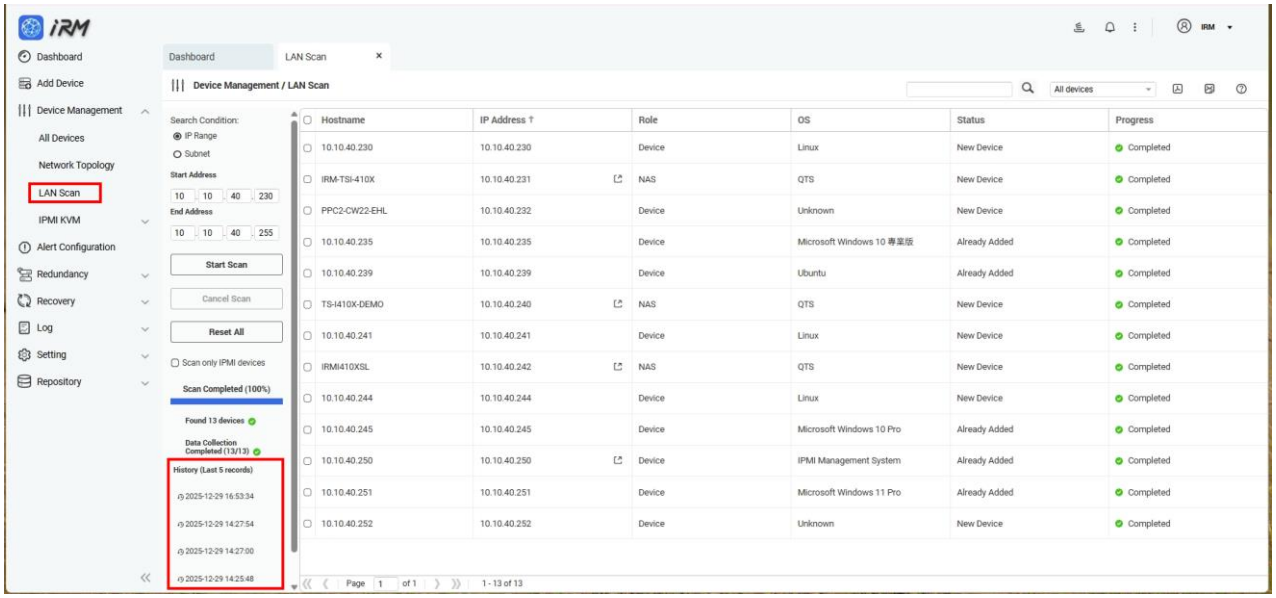
4.2.1.3 Resetting

The user can reset the settings after the scan is completed or after having clicked on the scan history. When the Reset All button is clicked, the contents of the table on the right side of the screen will be cleared.



4.2.1.4 Scan History

IRM maintains a scan history. Users can view the last 5 scans in the history pane of the left column



4.3 IPMI KVM

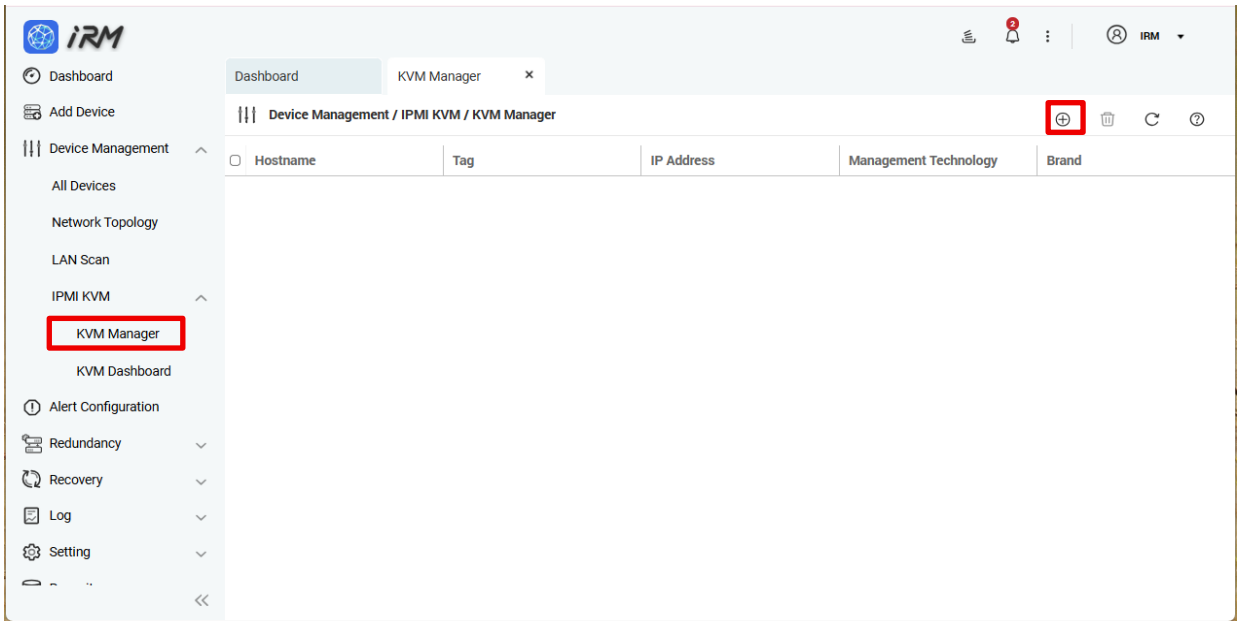
IPMI KVM allows administrators to centrally manage devices that support IPMI (iRIS) in IRM and view the remote host's screen through a web browser. Even if the operating system is unresponsive and RDP/VNC/SSH cannot be used, administrators can still perform basic viewing and maintenance operations via IPMI KVM, improving remote maintenance efficiency.

4.3.1 KVM Manager

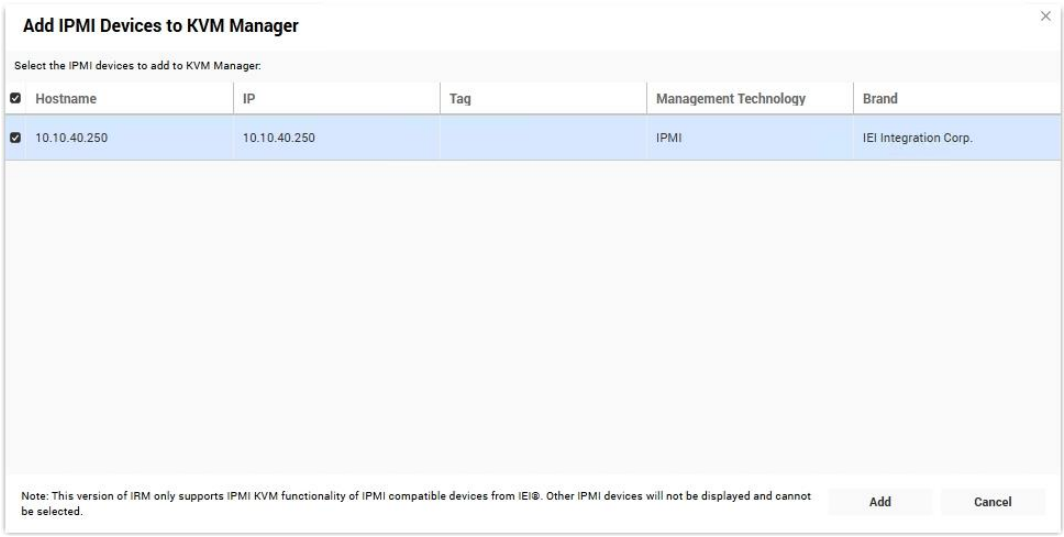
The KVM Manager is used to centrally manage the list of devices that can be accessed via IPMI KVM. On this page, administrators can add/remove IPMI (iRIS) devices and view basic device information (such as hostname, IP address, tag, management method, and brand), so they can later monitor devices as thumbnails in the KVM Dashboard and launch remote KVM connections.

4.3.1.1 Add an IPMI device to the KVM Manager

Step 1: Go to the KVM Manager page and click the "Add Device" button.

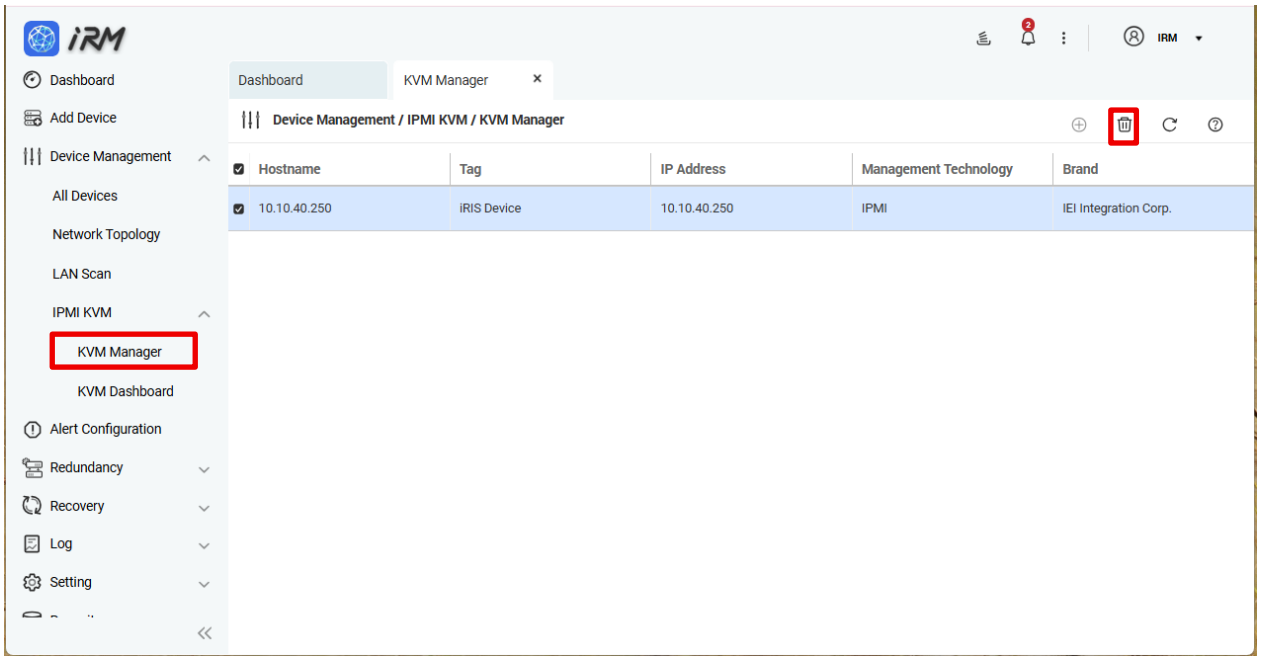


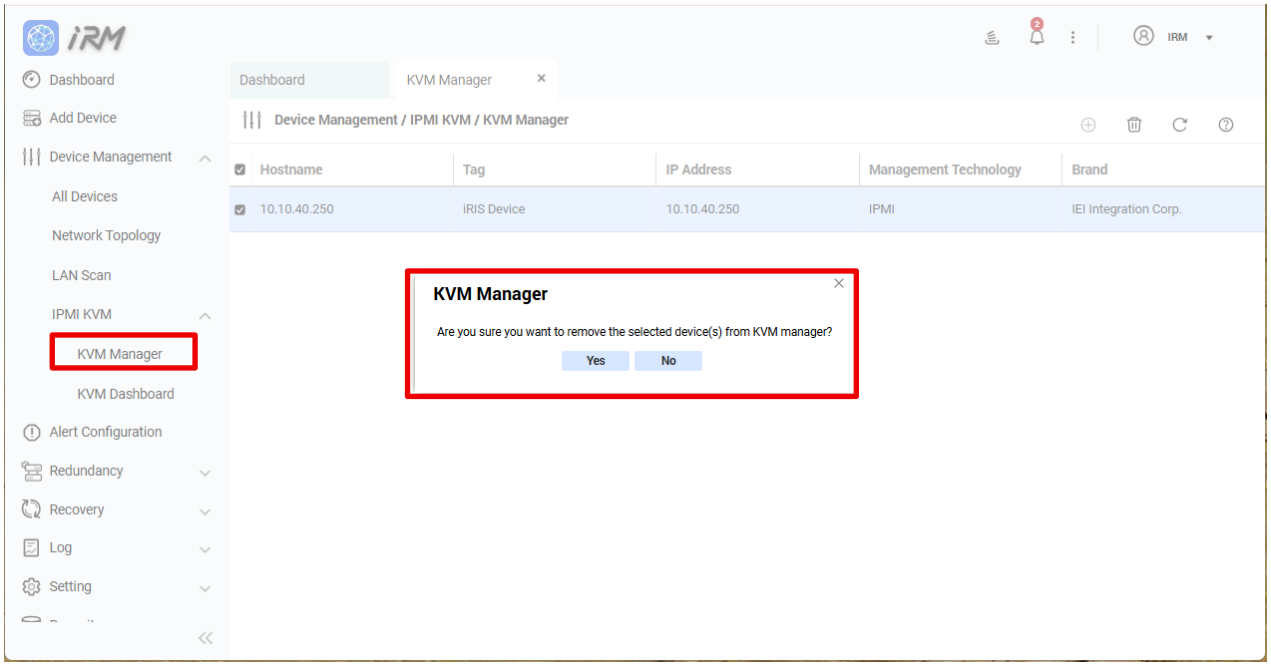
Step 2: The system displays the “Add IPMI Device to Manager” window. To add an IPMI device to the KVM Manager, select the IPMI device you want to add, confirm the selection, and then click Add.



4.3.1.2 Remove IPMI Device

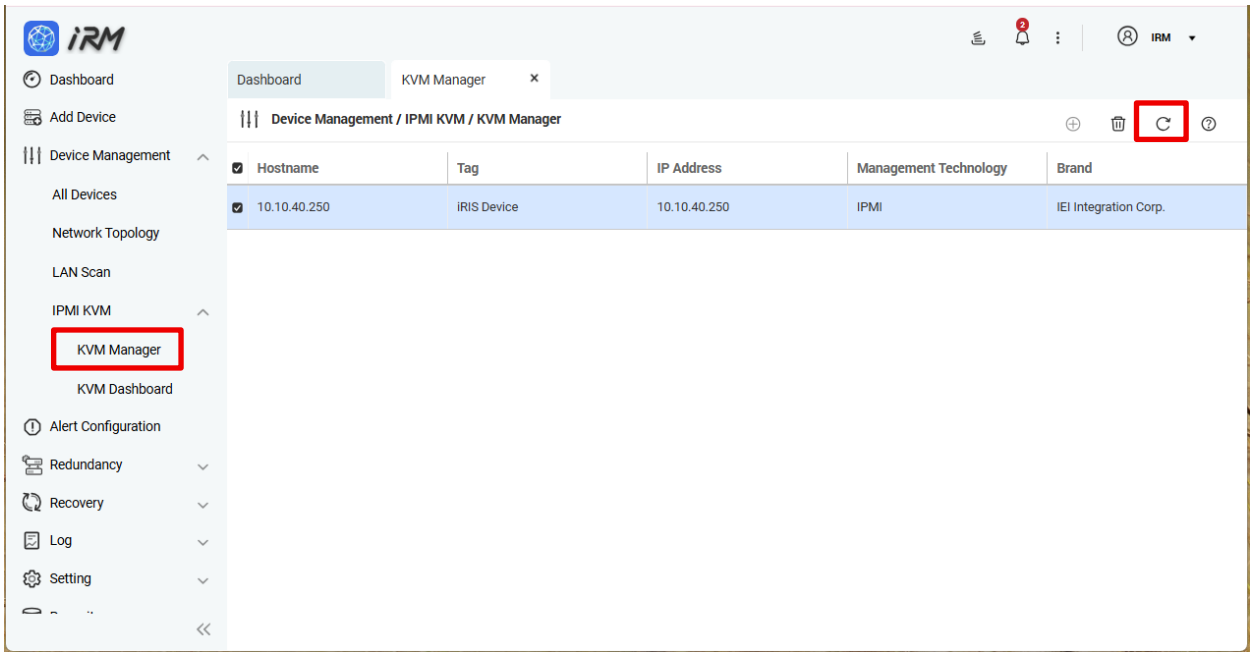
Go to the KVM Manager page and click the "Remove Device" button.





4.3.1.3 更新 IPMI 裝置

Step 1: Go to the KVM Manager page and click the "Refresh" button.

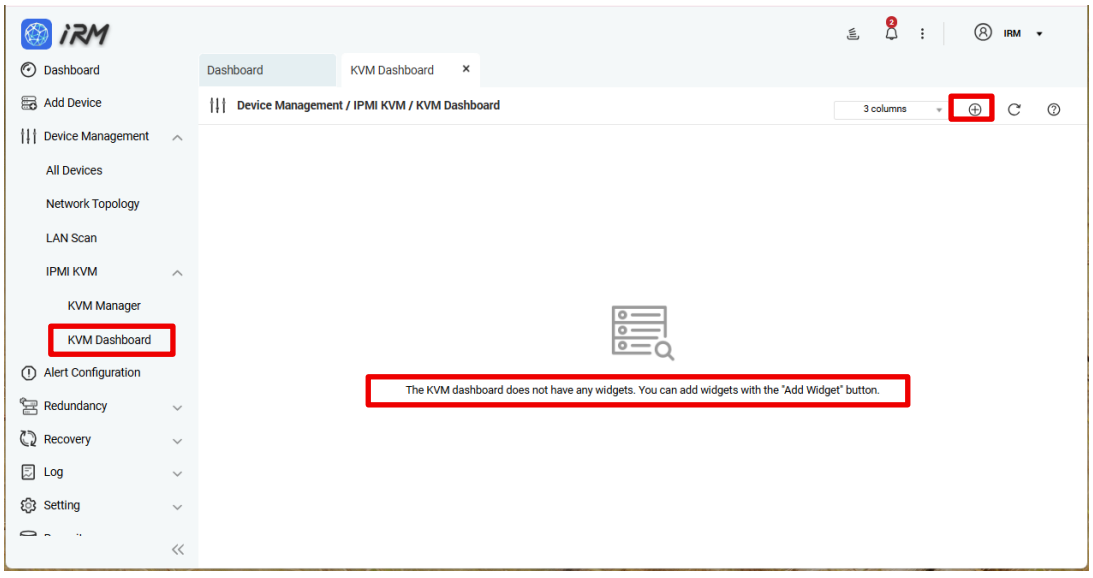


4.3.2 KVM Dashboard

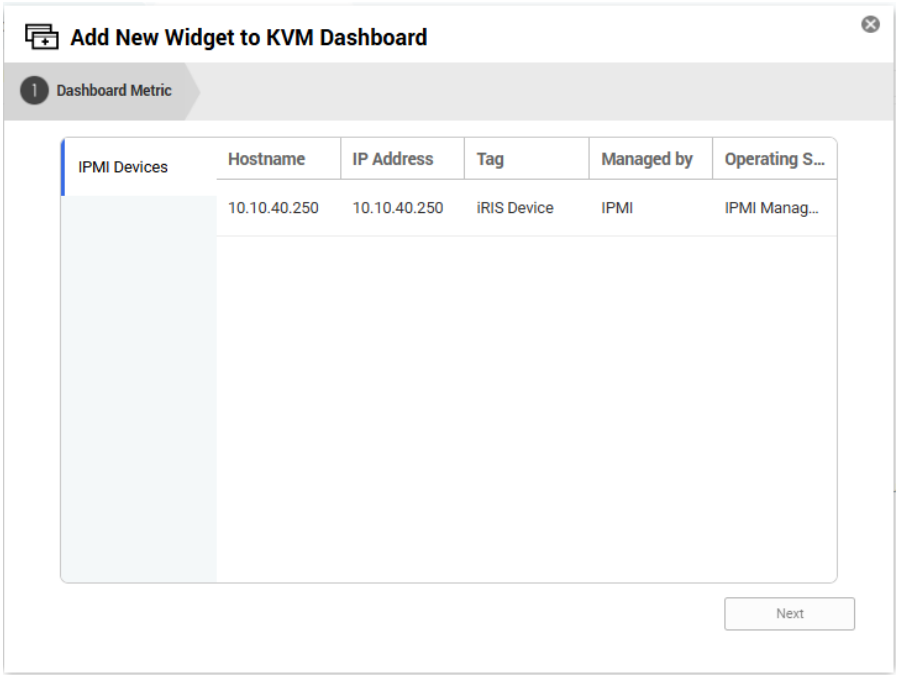
The KVM Dashboard provides a centralized preview of the remote screen images of managed IPMI (iRIS) devices. Users can quickly view the current screen of each device and launch a Remote KVM session from the preview to perform remote maintenance tasks (such as viewing the BIOS/boot screen, operating the OS, and troubleshooting).

4.3.3 Add widget to the KVM Dashboard

Step 1: Go to the KVM Dashboard page and click the "Add Widget" button.

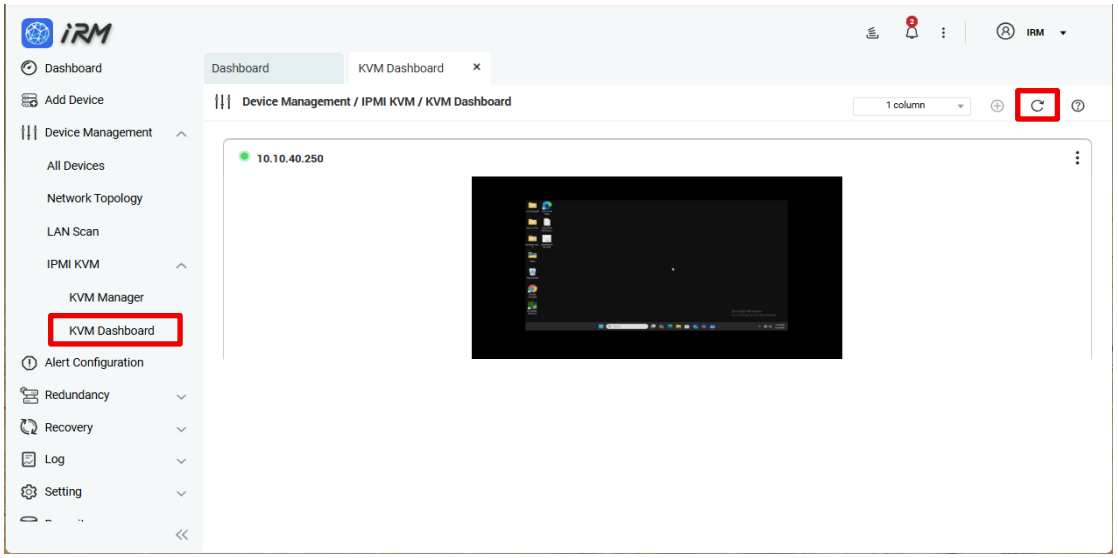


The “Add Widget to KVM Dashboard” window appears. Select the IPMI device you want to add, and then click Next.



4.3.4 Refresh KVM Dashboard

Step 1: Go to the KVM Dashboard page and click the "Refresh" button.



4.3.5 Select the Layout Mode

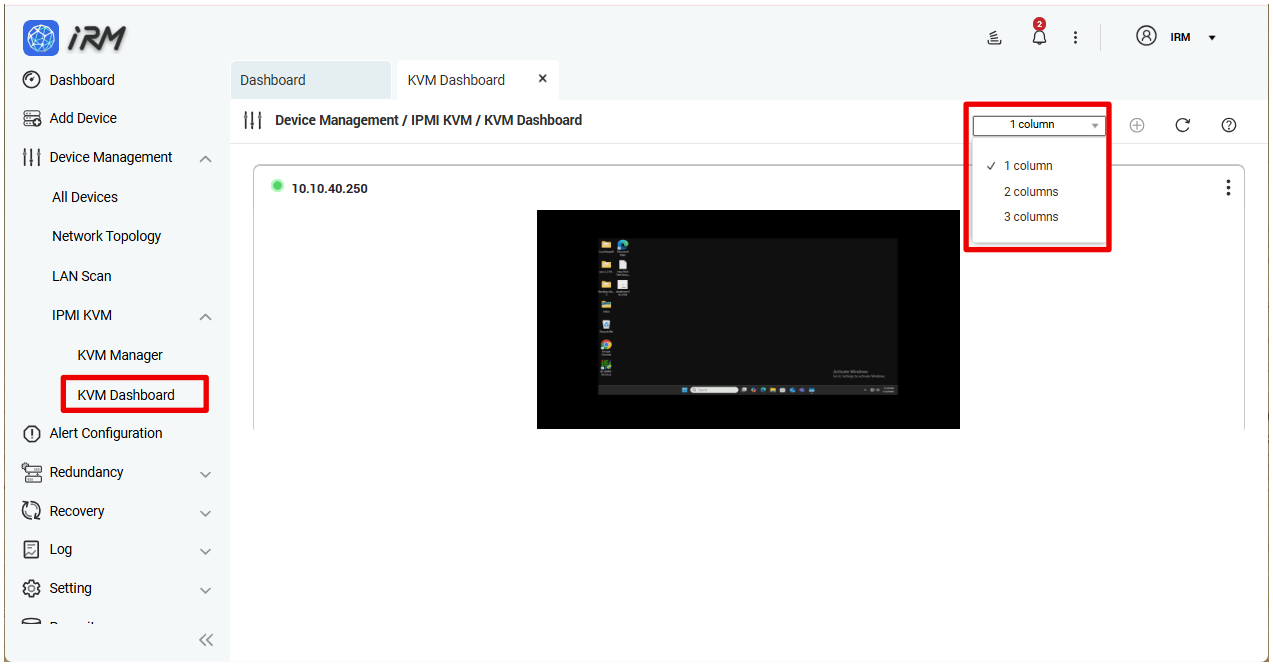
User can adjust the layout of the main KVM Dashboard according to their requirements. KVM Dashboard provides:

- 1 column display
- 2 columns display
- 3 columns display

After selecting one of the three layout modes, all widgets will be adjusted accordingly. Setup steps are described below:

Step 2: Go to the KVM Dashboard page and click the select layout menu.

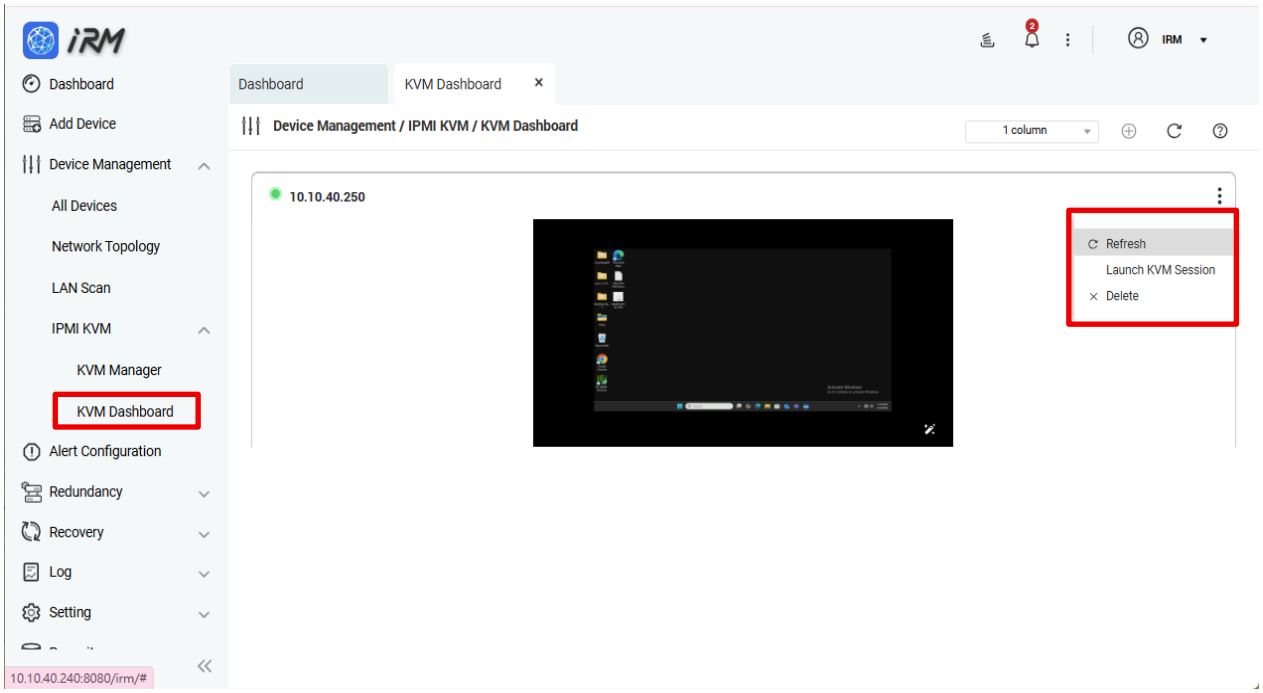
Step 3: Select "1 column", "2 columns" or "3 columns" from the dropdown list.



4.3.6 More Options

After adding a widget to the KVM Dashboard, you can perform the following actions for any KVM session: Refresh, Open Remote Desktop, or Delete.

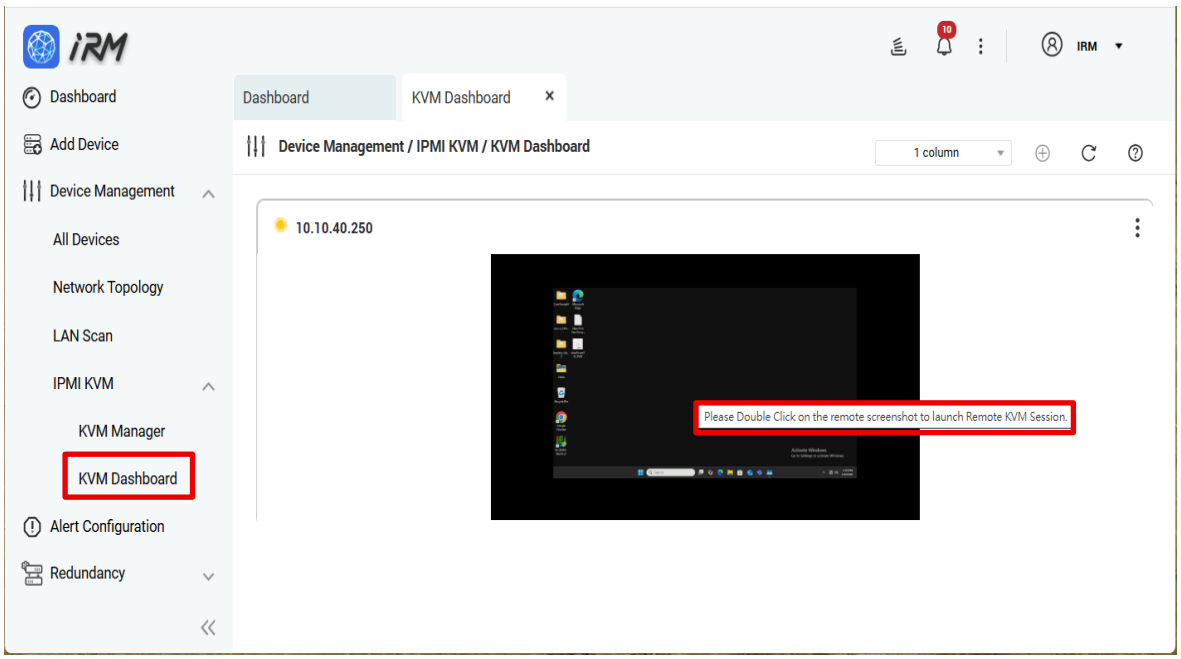
1. Refresh: Immediately refresh the current screen/screenshot of this KVM widget.
2. Launch KVM Session: Open a remote KVM connection directly to enter the KVM console of the IPMI device.
3. Delete: Remove this widget from the KVM Dashboard.

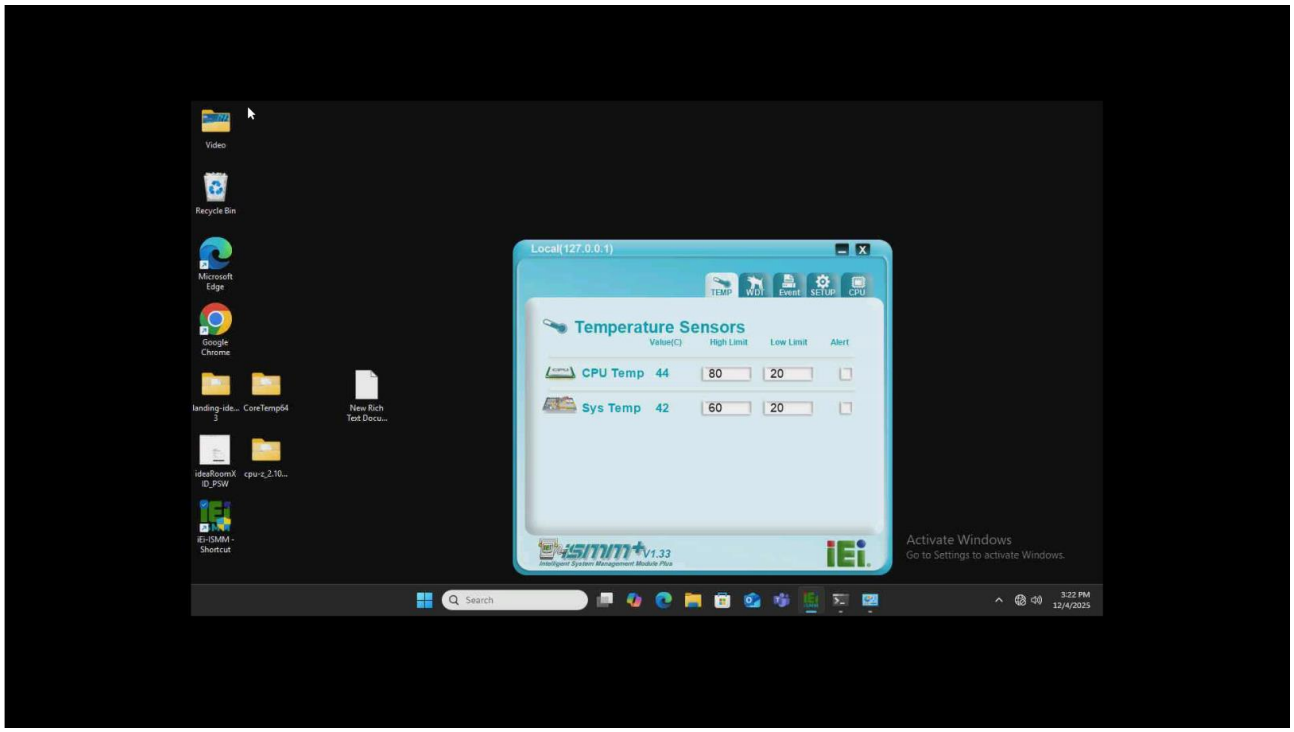


Step 4: 開啟遠端桌面：

1.For any KVM session, click Open Remote Desktop. The system will automatically open a new browser tab and start the remote KVM connection.

2.Alternatively, double-click the thumbnail of the remote screen preview to launch the remote KVM connection.





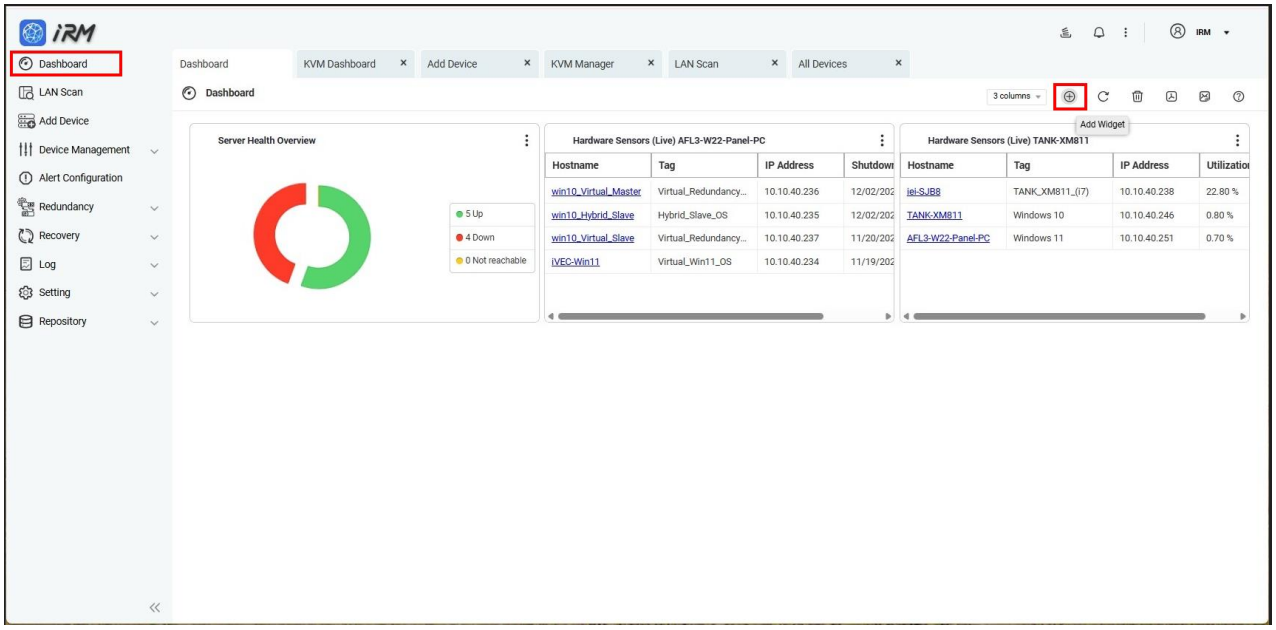
4.3.7 IPMI Add Widget

Users can add widget to the dashboard to continuously monitor the health of the IEI iRIS device. The following information can be monitored:

1. CPU TEMP0
2. SYS TEMP1
3. 3V3
4. 3V3SB
5. 12V
6. CPU CORE0
7. DDR
8. Power status

Users can customize their own Dashboard to monitor IEI iRIS devices at the same time. Setup steps are described below:

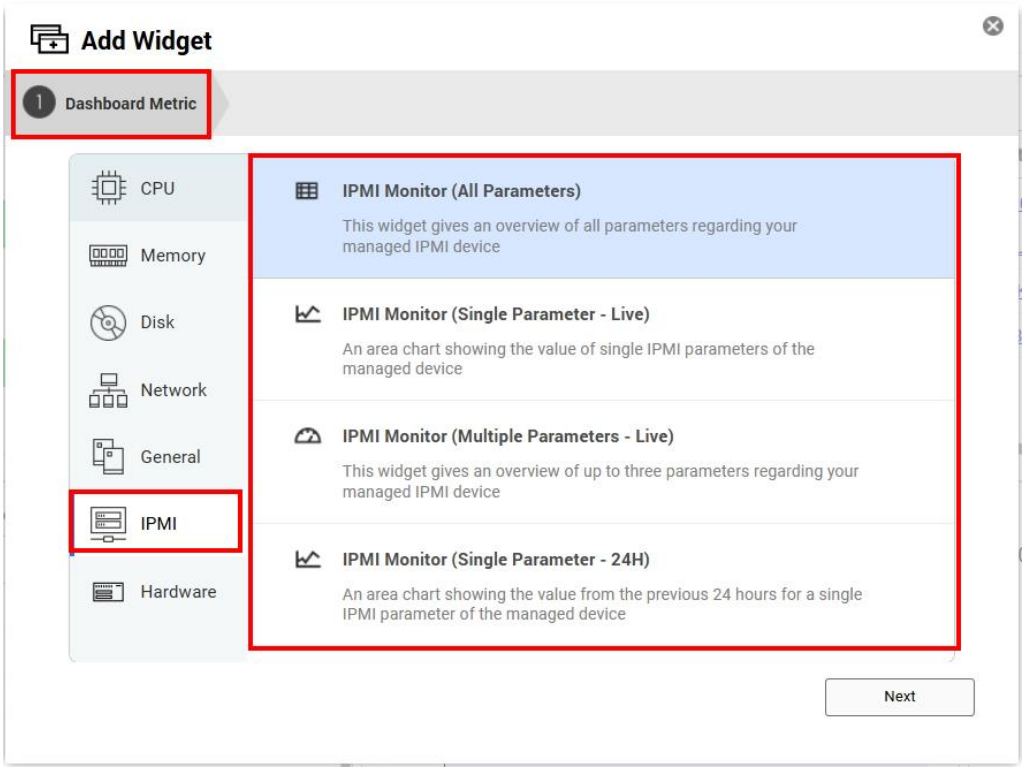
Step 5: Go to the Dashboard page and click the "Add Widget" button.



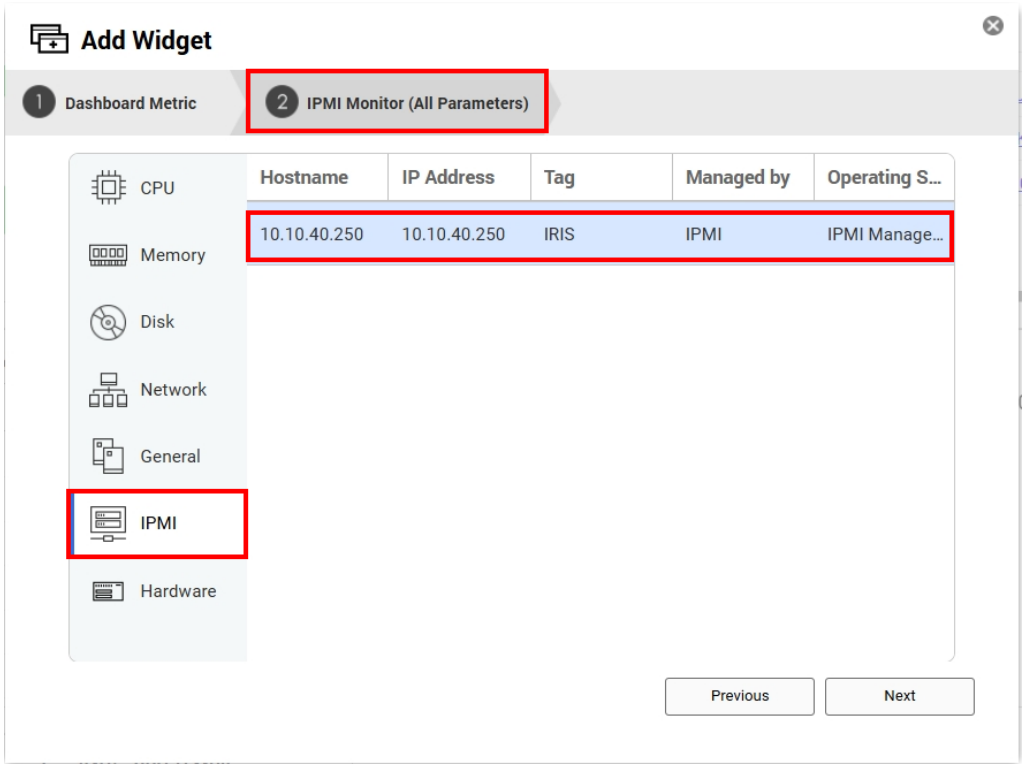
Step 6: Select the type of data you want to monitor:

Select the data type you want to monitor in the right column. There are four types: IPMI Monitor (All Parameters) Grid displays, IPMI Monitor (Single Parameter - Live) Area Chart display, IPMI Monitor (Multiple Parameters - Live) Gauge display and IPMI Monitor (Single Parameter - 24H) Area Chart display.

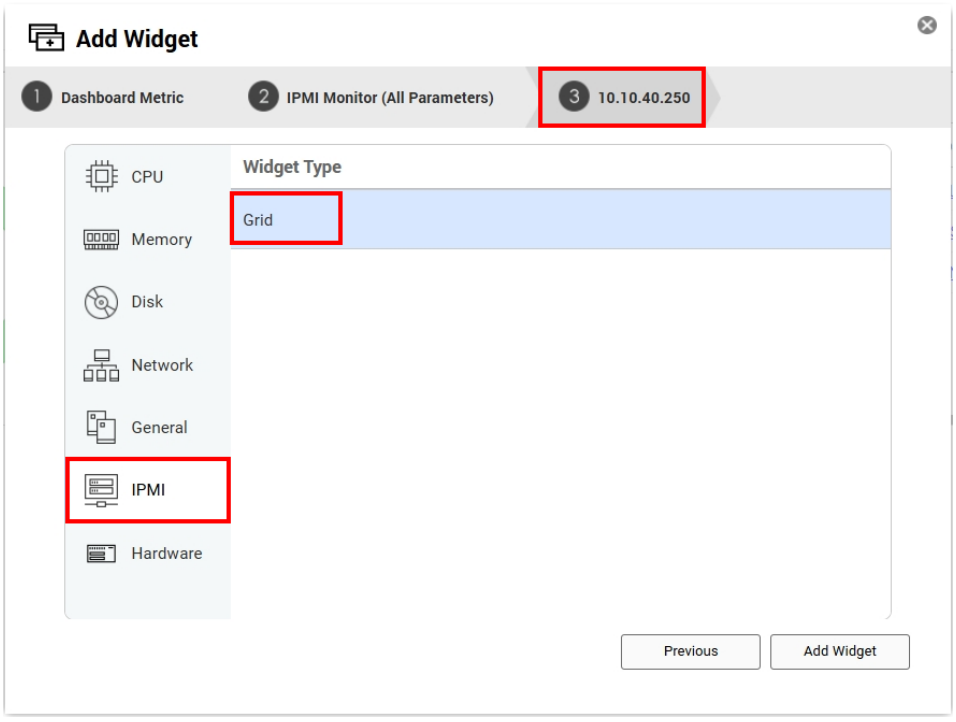
(2) Select the method of data presentation that matches your needs.



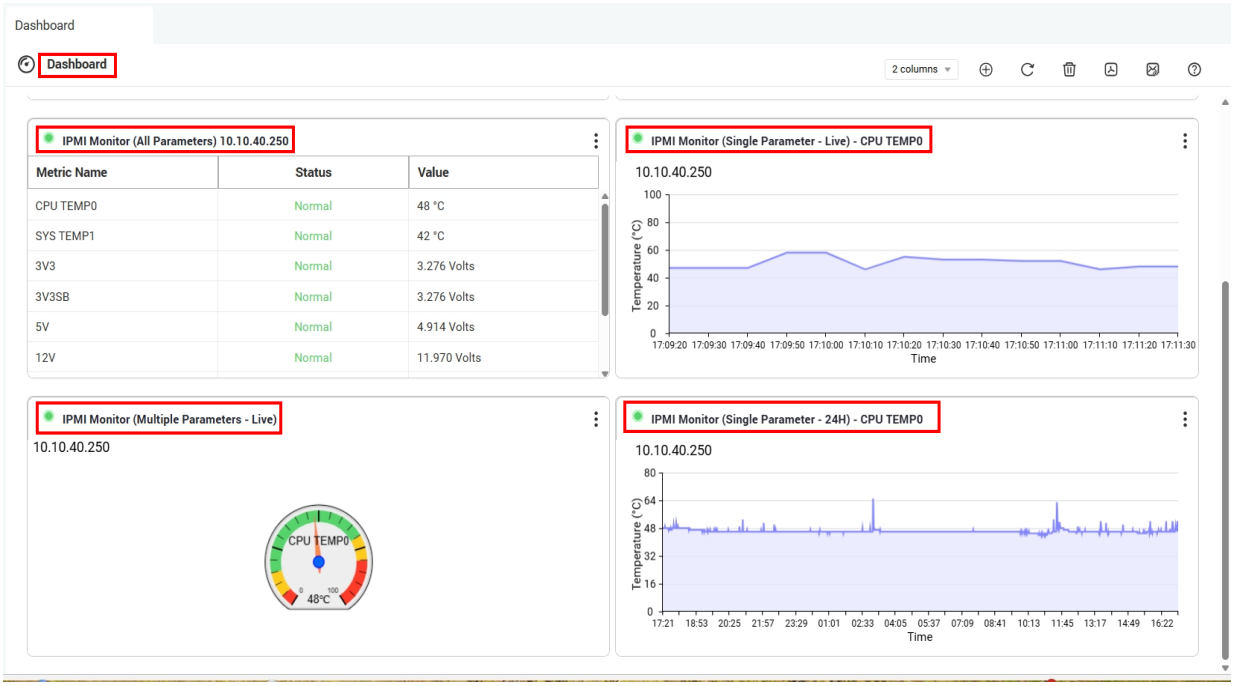
Step 7: After selecting the iRIS device, you want to monitor, click "Next".



Step 8: After selecting the type of chart, click the "Add Widget" button to complete the operation.



Step 9: When the setup is complete, the widget will be added to the last position in the Dashboard.



Chapter

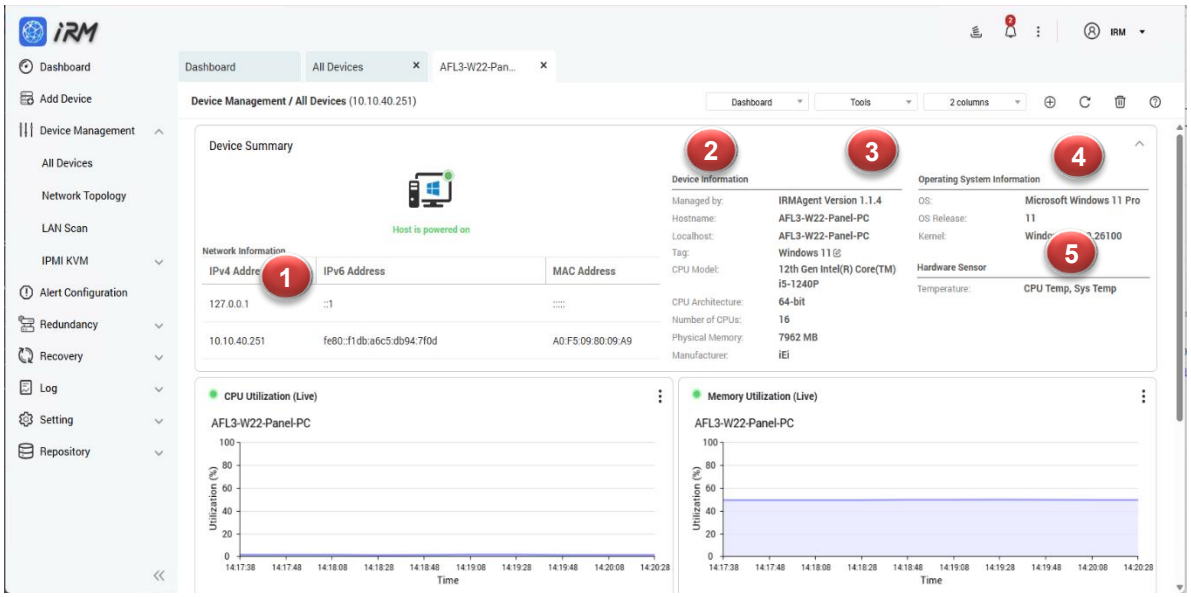
5

5 Single Device Management

5.1 Single Device Dashboard

Single Device Dashboard provides detailed information about a specific managed device, including:

1. Network information
2. Device Information
3. IRMAgent version
4. Operating system information
5. Hardware Sensor

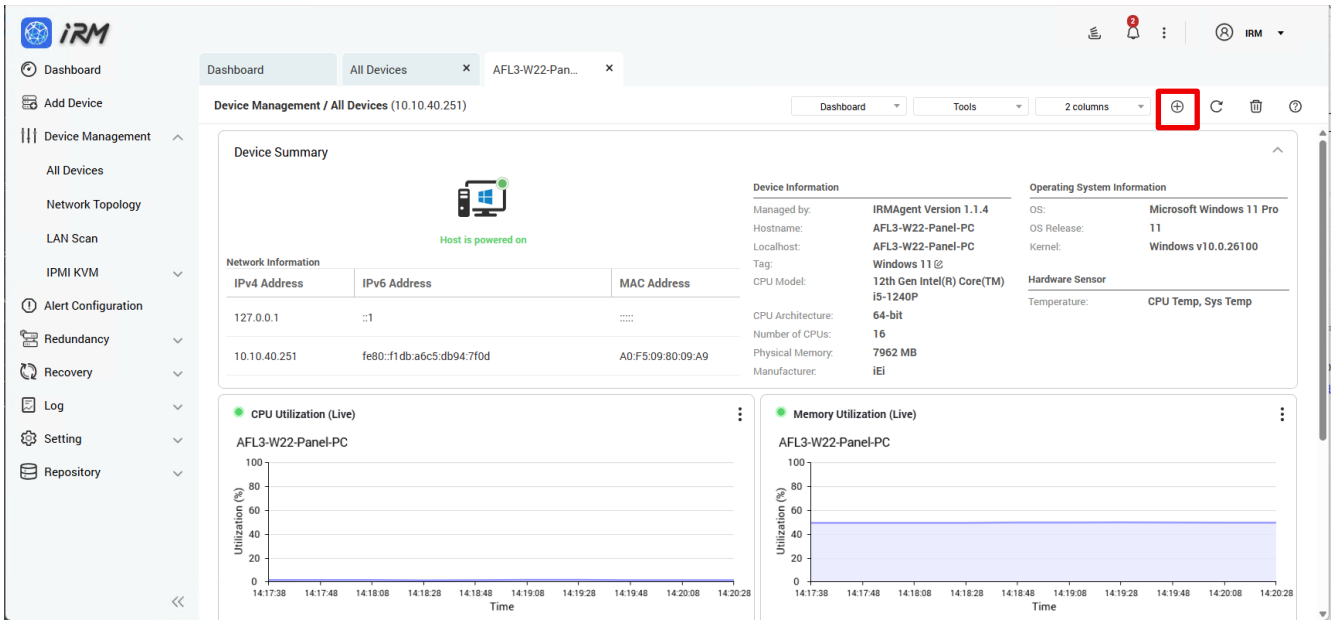


In Single Device Dashboard, users can add or remove widgets, select layout modes, and use the tools in the tool set to manage IRMAgent devices.

5.2 Add Widget

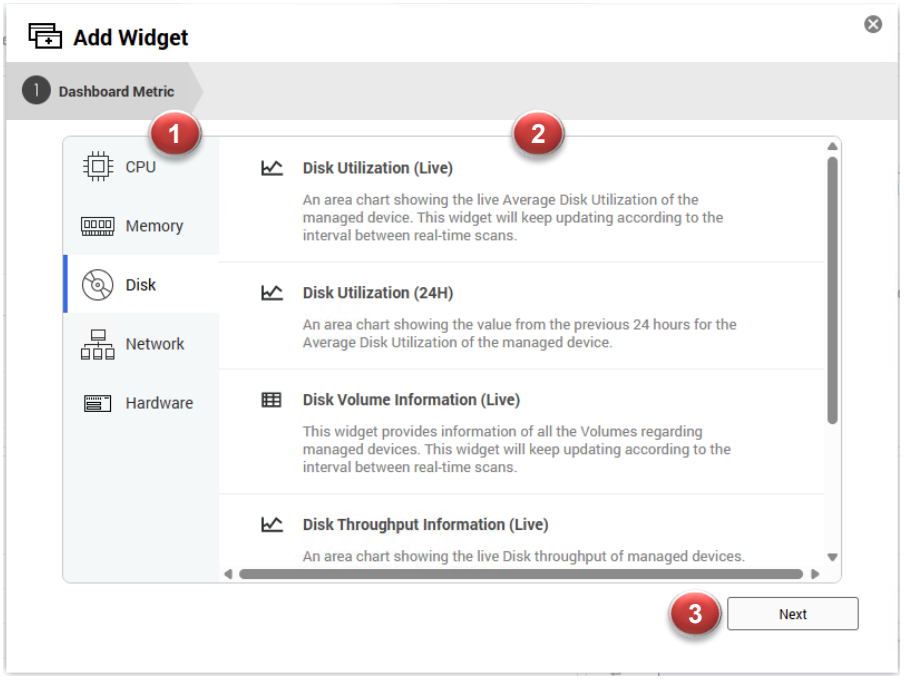
Users can add multiple widgets to customize Single Device Dashboard to monitor CPU usage, memory usage, disk usage, network usage and more, there are also multiple chart types at the user's disposition. Setup steps are described below:

Step 1: Go to Single Device Dashboard page and click the "Add Widget" button.



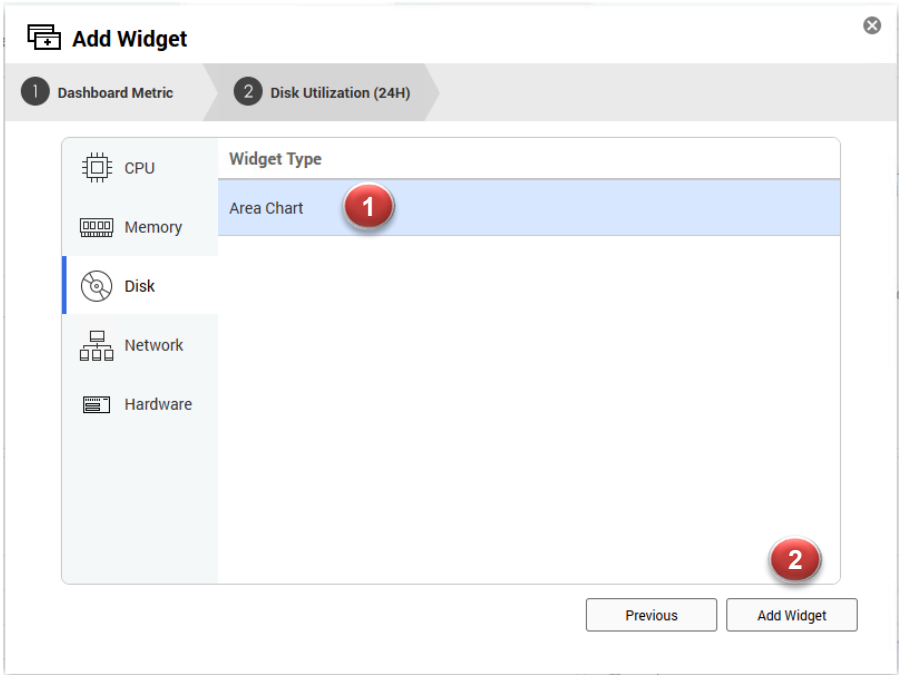
Step 1: Complete the settings of data type and data range to be monitored:

1. Select the type of data you want to monitor. There are four types: CPU usage, memory usage, disk usage, and network usage.
2. Select the data range (real-time data or last 24 hours of historical data).
3. Click "Next".

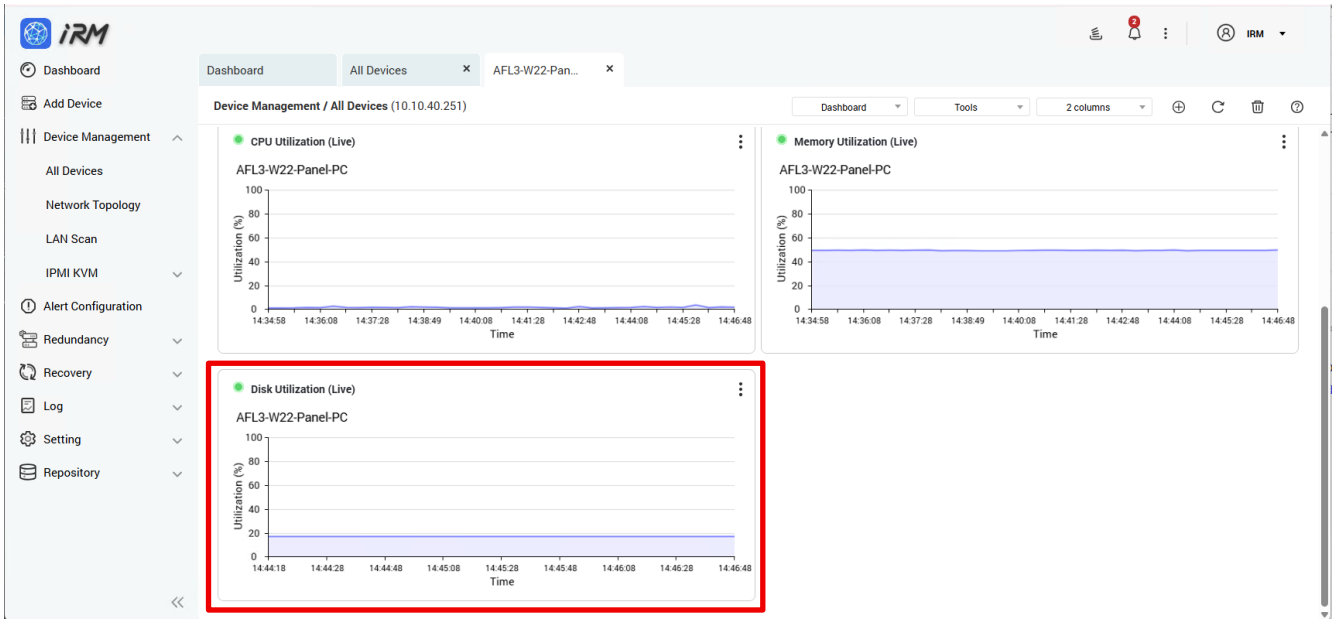


Step 2: Complete the chart type setting:

1. Select the type of chart.
2. Click the "Add Widget" button to complete the operation.

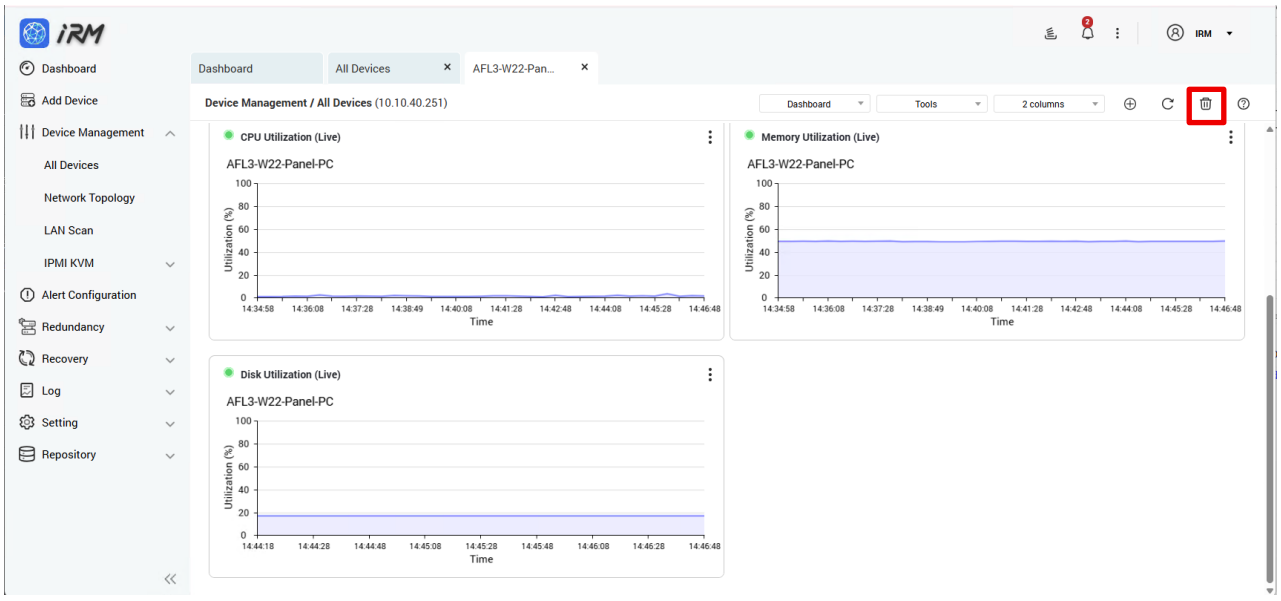


Step 3: When the setup is complete, the widget will be added to the last position in the Dashboard



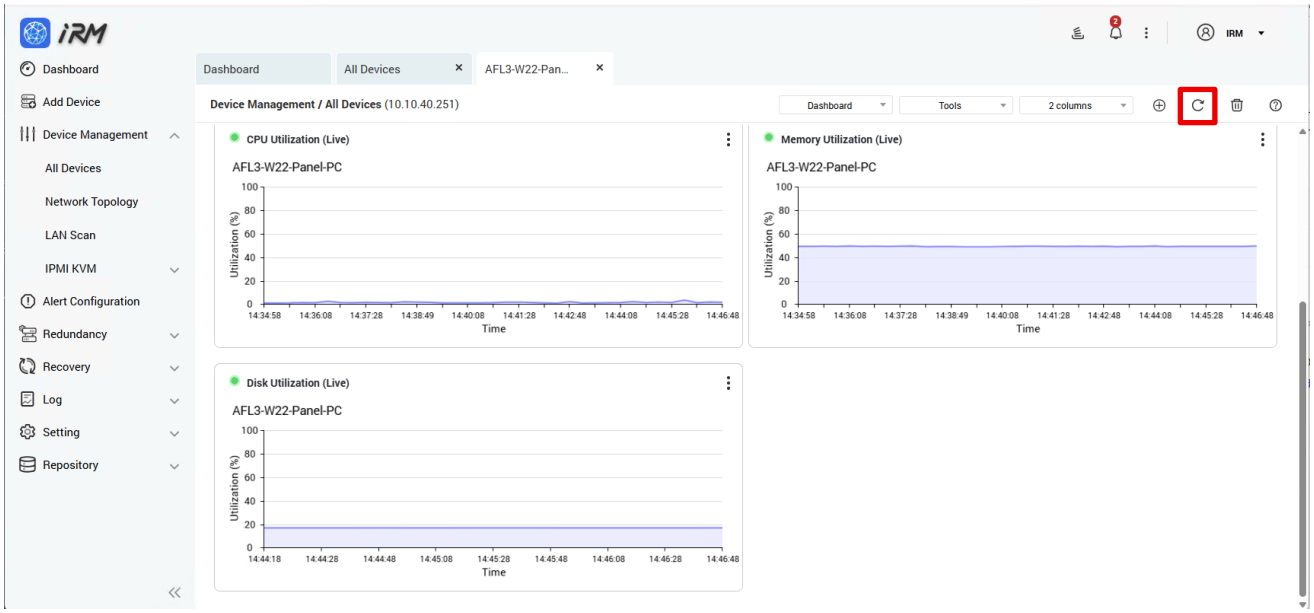
5.3 Delete All Widgets in the Single Device Dashboard

Setup steps: Go to the Single Device Dashboard page and click the "Delete All Widgets" button.



5.4 Refresh All Widgets Information in the Dashboard

Setup steps: Go to the Single Device Dashboard page and click the "Refresh" button.



5.5 Select the Layout Mode

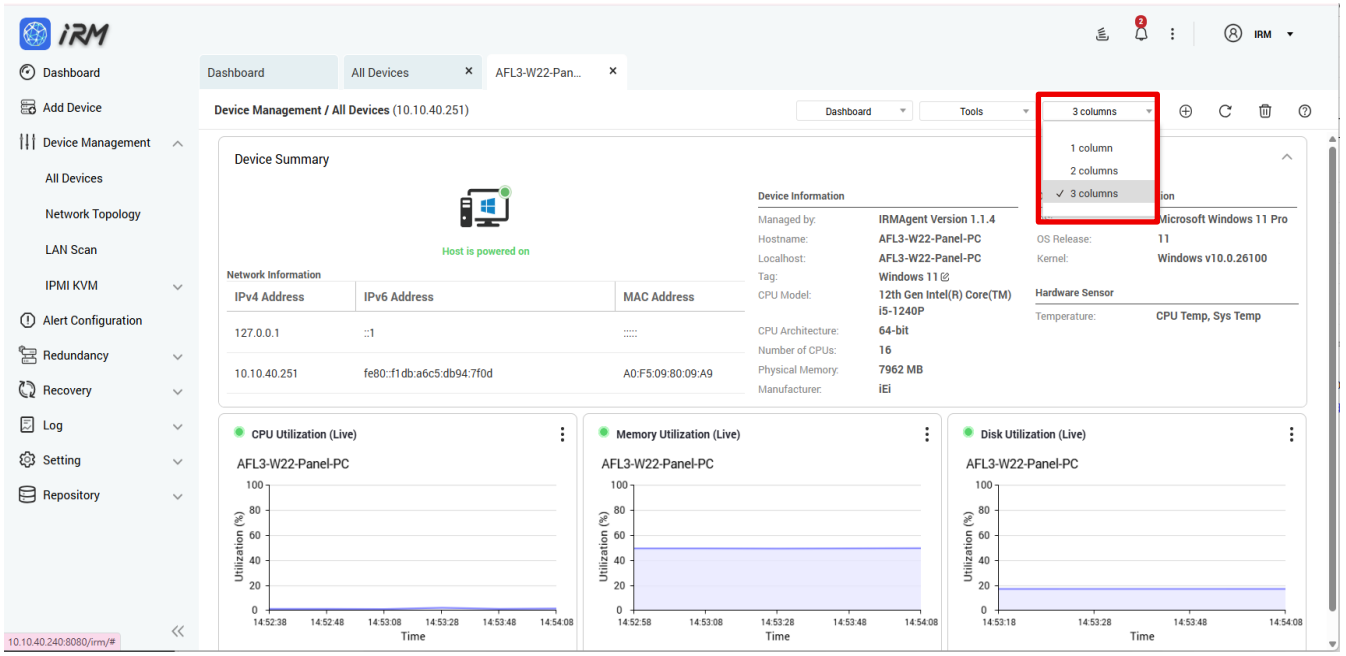
Users can customize the layout of Single Device Dashboard, and the widgets will re-arrange themselves accordingly.

- 1 column display
- 2 columns display
- 3 columns display

Setup steps are described below:

Step 1: Go to the Single Device Dashboard page and click the select layout menu.

Step 2: Select "1 column", "2 columns" or "3 columns" from the dropdown list.



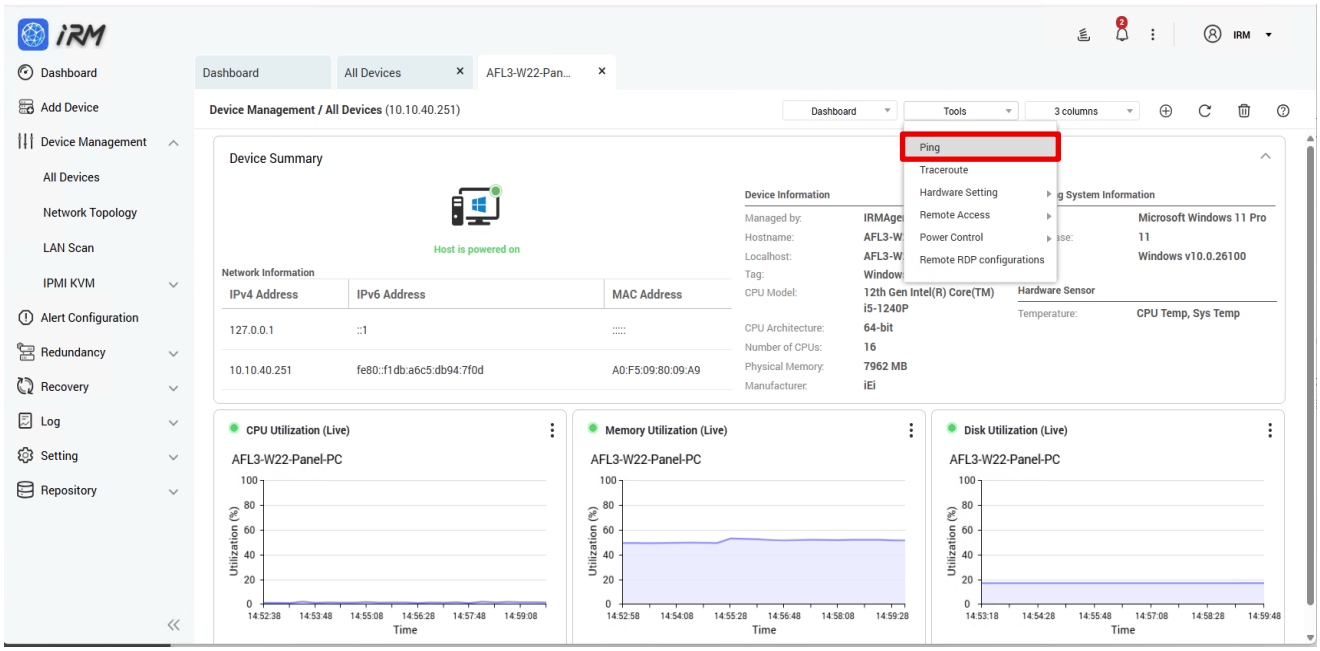
5.6 Tools - Ping

IRM provides Ping monitoring function to test whether a packet can reach a specific device through IP protocol and to view the connection status of IRM with the device.

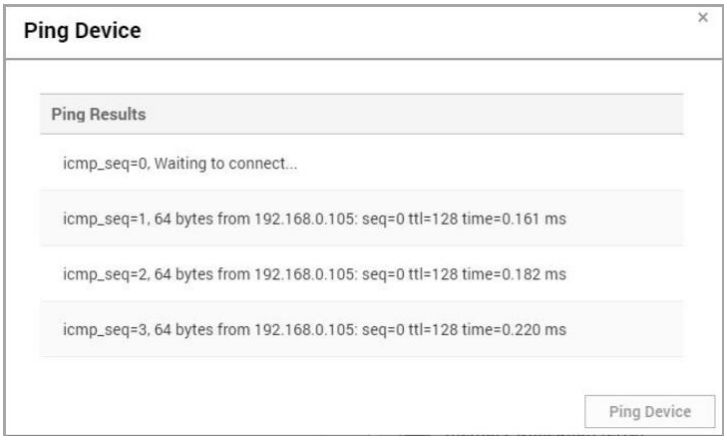
Setup steps are described below:

Step 1: Go to IRMAgent Single Device Dashboard page and click the "Tools" button.

Step 2: Select "Ping".



Step 3: A window pops up and displays the Ping command execution result.



Step 4: Click the Ping Device button to Ping again.

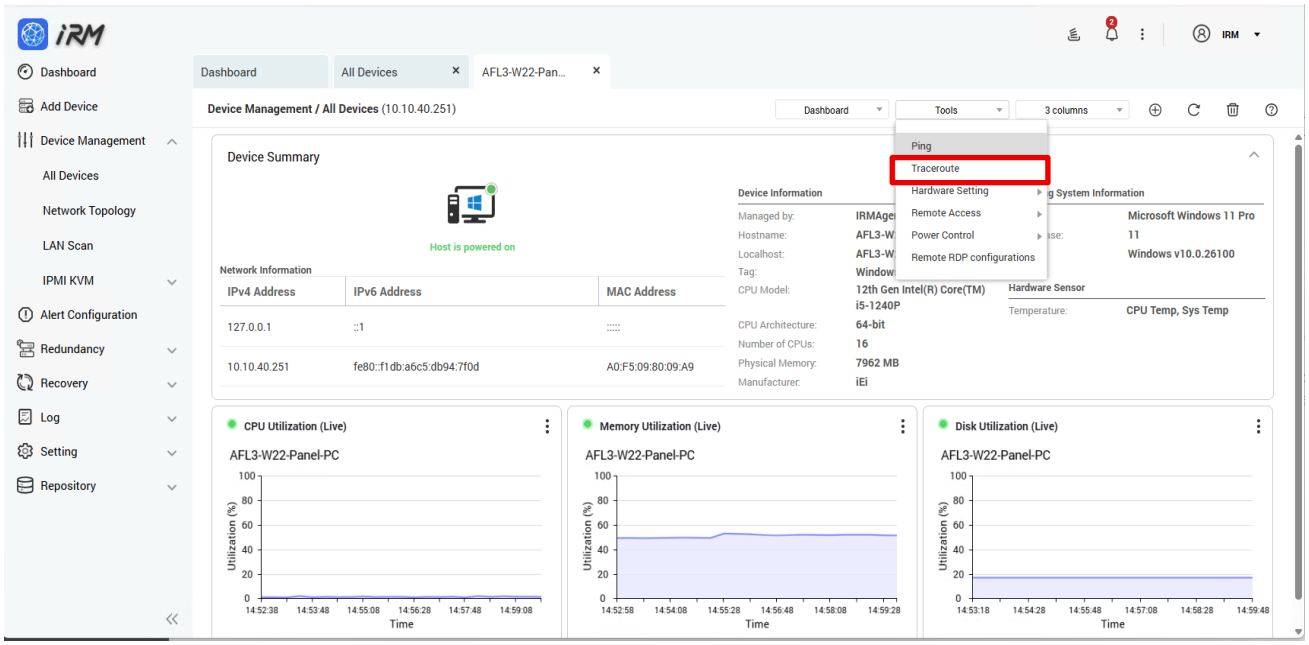
5.7 Tools – Traceroute

IRM provides Tracerout monitoring, which displays the IP addresses of the routers throughout the IP network in a new window.

Setup steps are described below:

Step 1: Go to IRMAgent Single Device Dashboard page and click the "Tools" button.

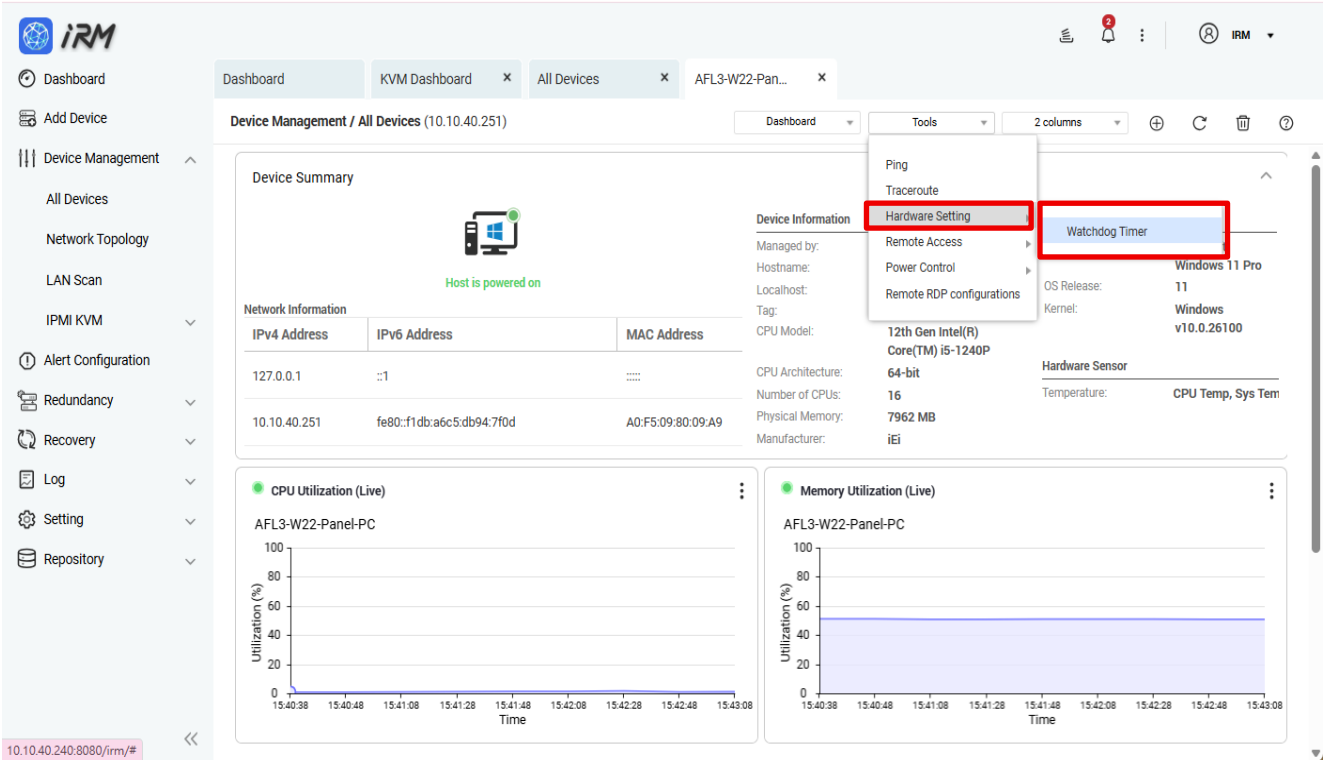
Step 2: Select "Traceroute".



Step 3: A window pops up and displays the Traceroute command execution result.

5.8 Tools - Hardware Setting (Watchdog Timer)

This section is the same as **4.1.10.5 Hardware Setting (Watchdog Timer)**. Please refer to **Section 4.1.10.5** for the complete description, including support scope, WDT switch, timer interval, and Auto Send WDT Interruption / Reload Timer settings.



5.9 Tools - Remote Desktop

IRM provides integrated remote desktop functionality, you can select the appropriate remote access method according to different device types:

1. Windows device: RDP or VNC remote desktop
2. Linux device: VNC remote desktop or SSH connection (no need to install SSH client program)

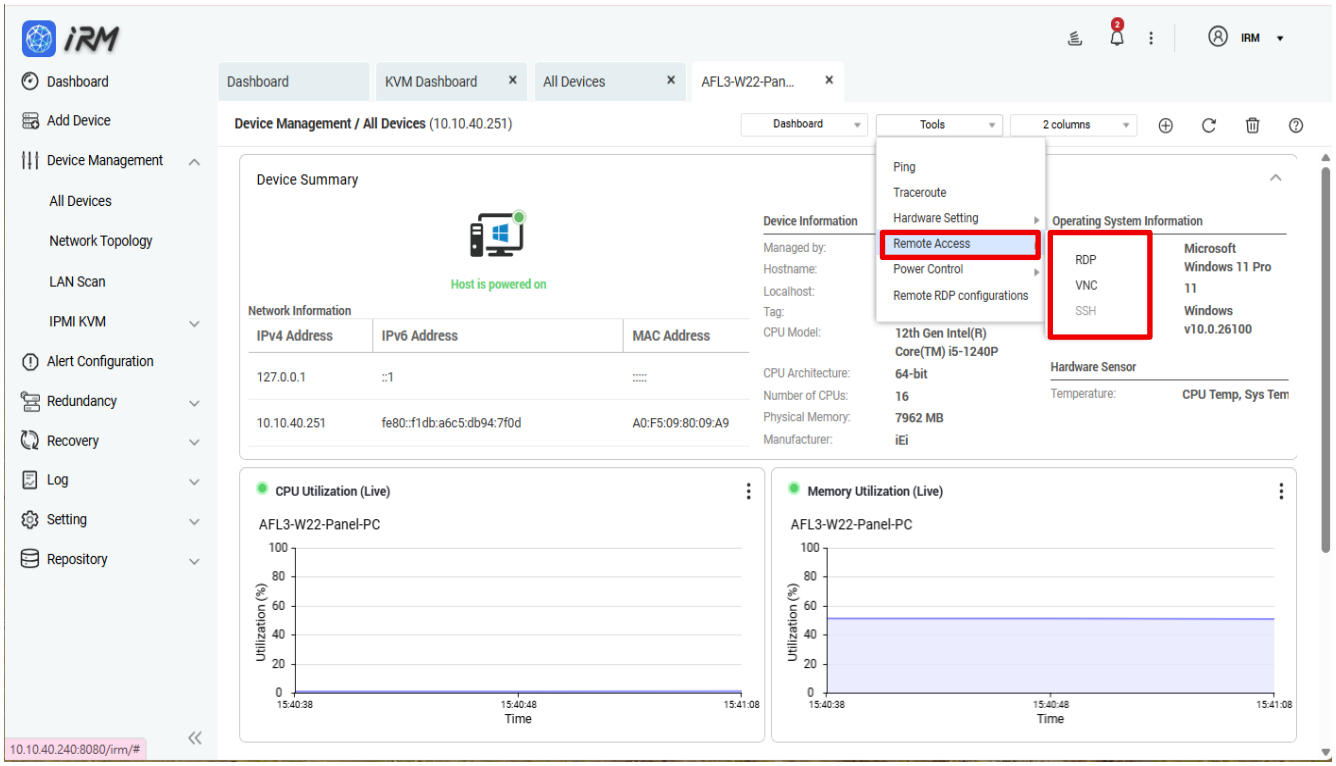
Note: The remote device must enable the option to allow users to connect to the computer Setup steps are described below:

Step 1: Go to IRMAgent Single Device Dashboard page and click the "Tools" button.

Step 2: Select "Remote Desktop".

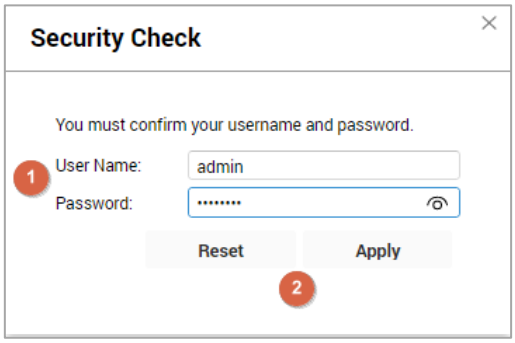
Step 3: Select the appropriate remote access method according to different device types.

1. Windows device: RDP or VNC Remote Desktop (users need to install VNC server program on Windows device)
2. Linux device: VNC remote desktop or SSH connection (no need to install SSH client program)



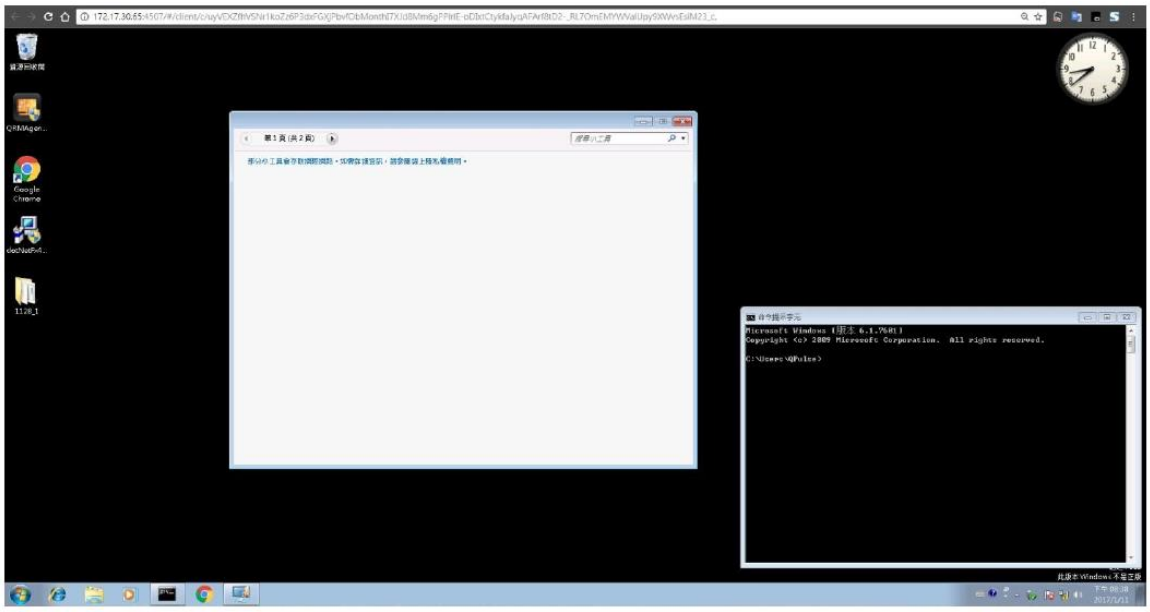
Step 4: A security check window will pop up, asking the user to enter the remote device account number and password.

Step 5: Select the "Apply" button, or click the "Reset" button to re-enter.

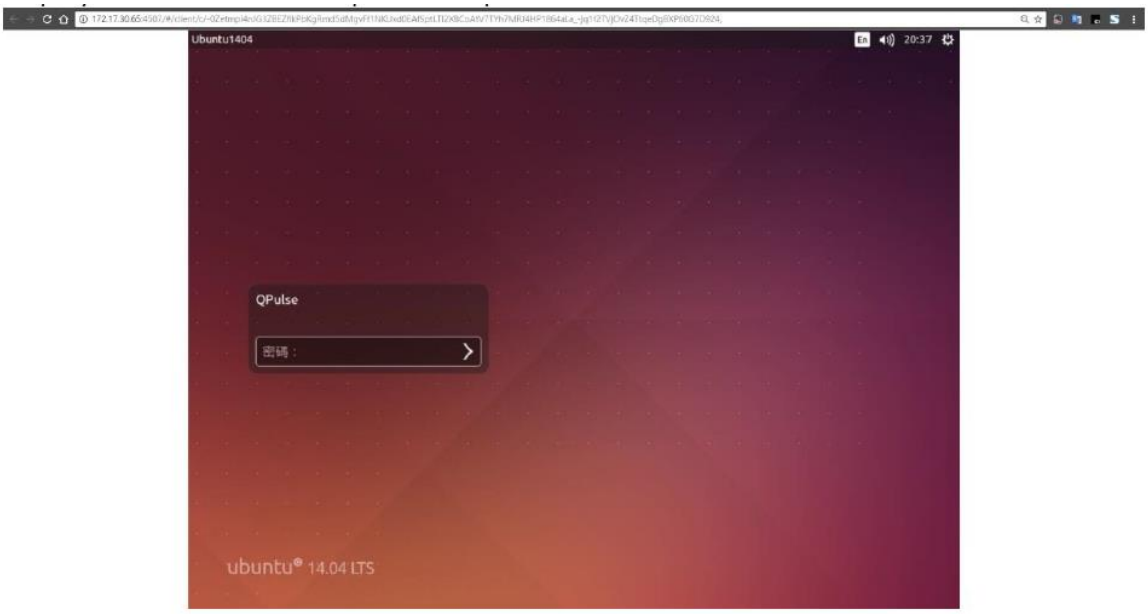


Step 6: The browser opens a new page to display the remote desktop. If the connection is successful, the remote desktop will be displayed. If the connection fails, an error message will be displayed and the user can try to reconnect.

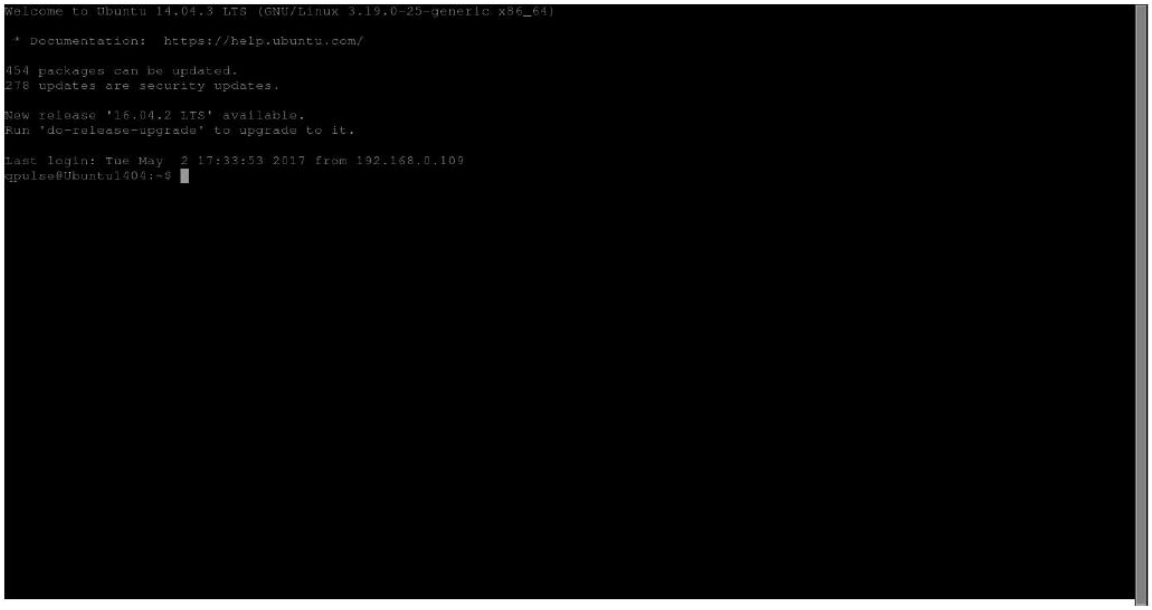
Displays the remote desktop screen upon successful RDP connection



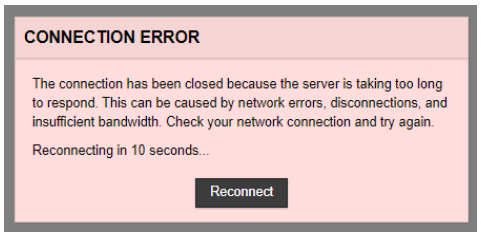
Displays the remote desktop screen upon successful VNC connection



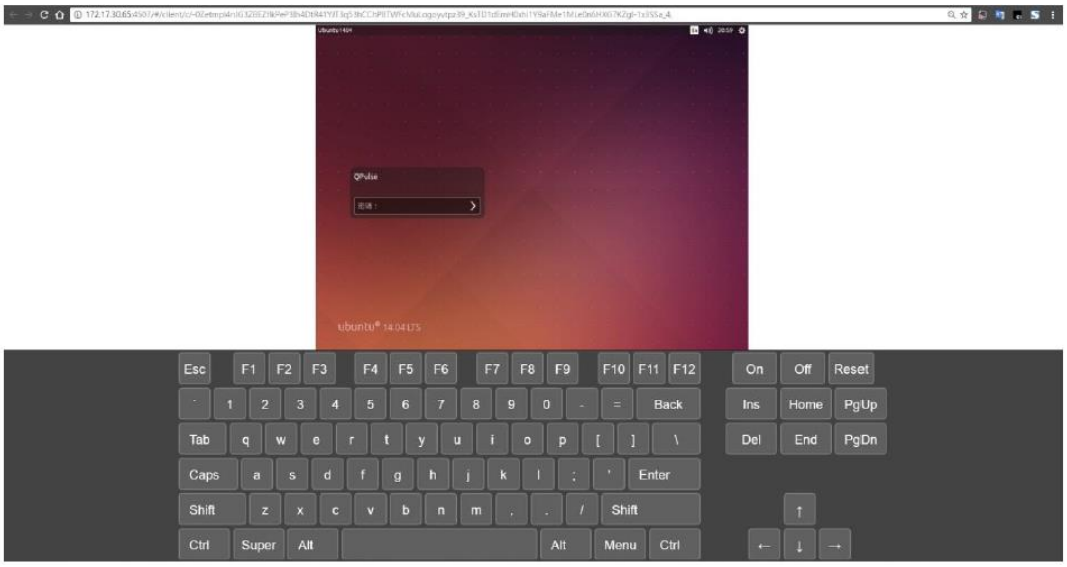
Displays the remote desktop screen upon successful SSH connection



If the connection fails, an error message will be displayed and the user can try to reconnect.



Step 7: Press CTRL + SHIFT + ALT in the new browser tab to open the on-screen keypad



5.10 Tools - Power Control

There are two control modes for device power control via IRMAgent:

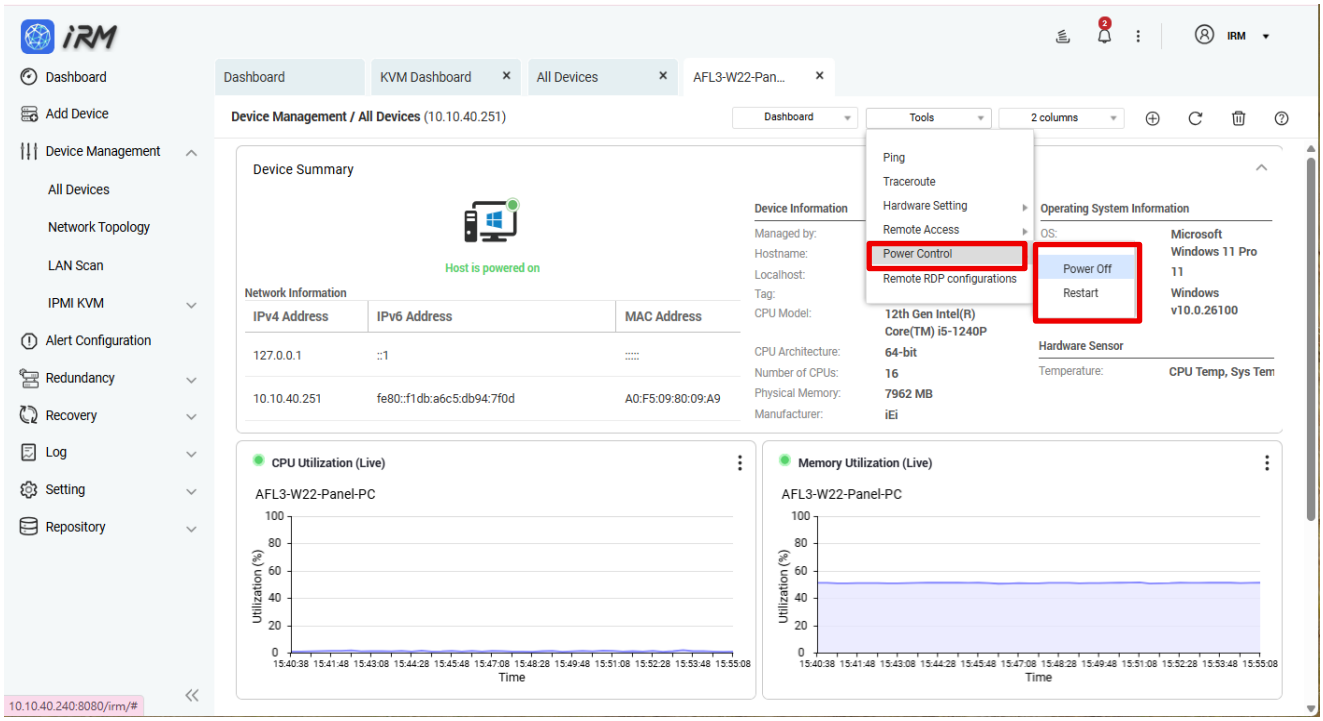
1. Power Off
2. Restart

Setup steps are described below:

Step 1: Go to IRMAgent Single Device Dashboard page and click the "Tools" button

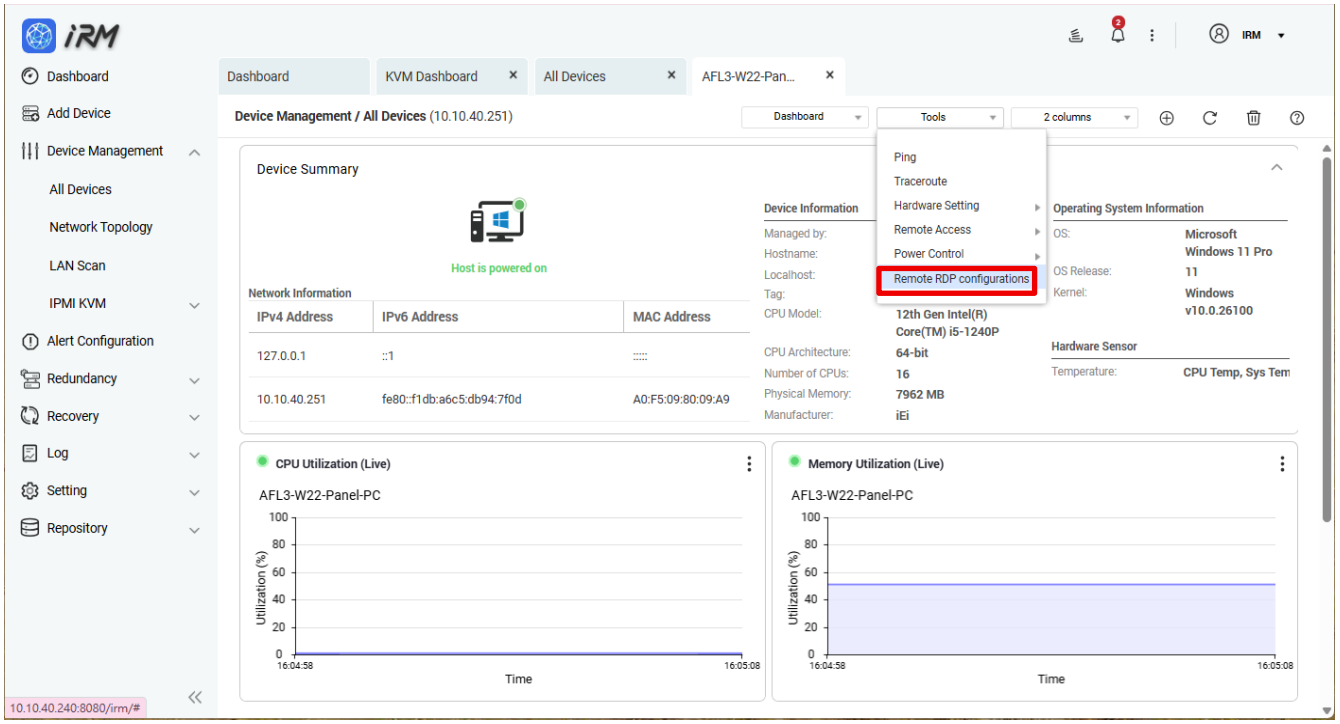
Step 2: Select "Power Control"

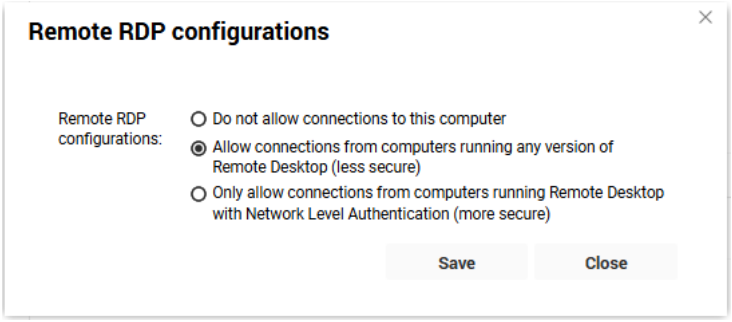
Step 3: Select "Power Off" or "Restart"



5.11 Tools - Remote RDP configurations

This configures Remote Desktop (RDP) connection settings on the target Windows device. You can choose whether to allow RDP connections and whether to require Network Level Authentication (NLA) for better security. Click Save to apply changes, or Close to exit without changes.





Chapter

6

6 Alert Configuration

In IRM, you can set different alert configurations for different device types. When the set alert condition is met, an alert will appear in the upper right notification window of IRM management page, so that administrators will know the current situation and solve the problem immediately; you can set up SMTP in advanced settings / notification settings, and set up notification policy for alert to be sent via e-mail to administrators to facilitate problem solving. On this page, users can add, delete, edit, deactivate, and enable alert configurations.

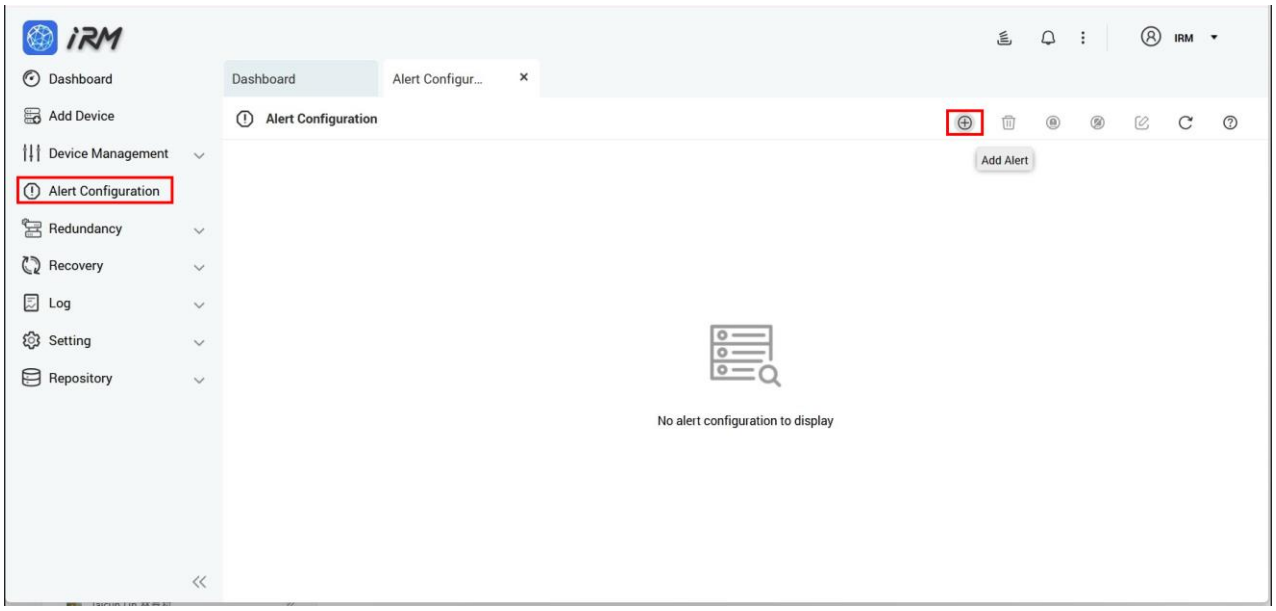
IRM Alert Types

- Agent Alert: Applies to Windows/Linux devices with the IRM Agent installed.
- Hardware Sensor: Applies to hardware sensor monitoring on Windows devices (depending on iSMM-supported items).
- IPMI Alert: Applies to IPMI sensors on iRIS devices (Temperature / Voltage / Power).

6.1 Add Agent Alert

Users can click the Add Alert button to add a new alert. Setup steps are described below:

Enter the Alert Configuration page and click the "Add Alert" button.



IRM Add Alert Steps:

Step 1: In the Add Alert window, complete the alert type setting:

1. Set Alert Name
2. Set Alert Type: **IRM Alert**
3. Metric: There are four types of IRM alerts: CPU utilization, memory utilization, disk utilization and power status.
4. Condition: Available alert conditions include:

   CPU utilization: > / < 0–100 (%)

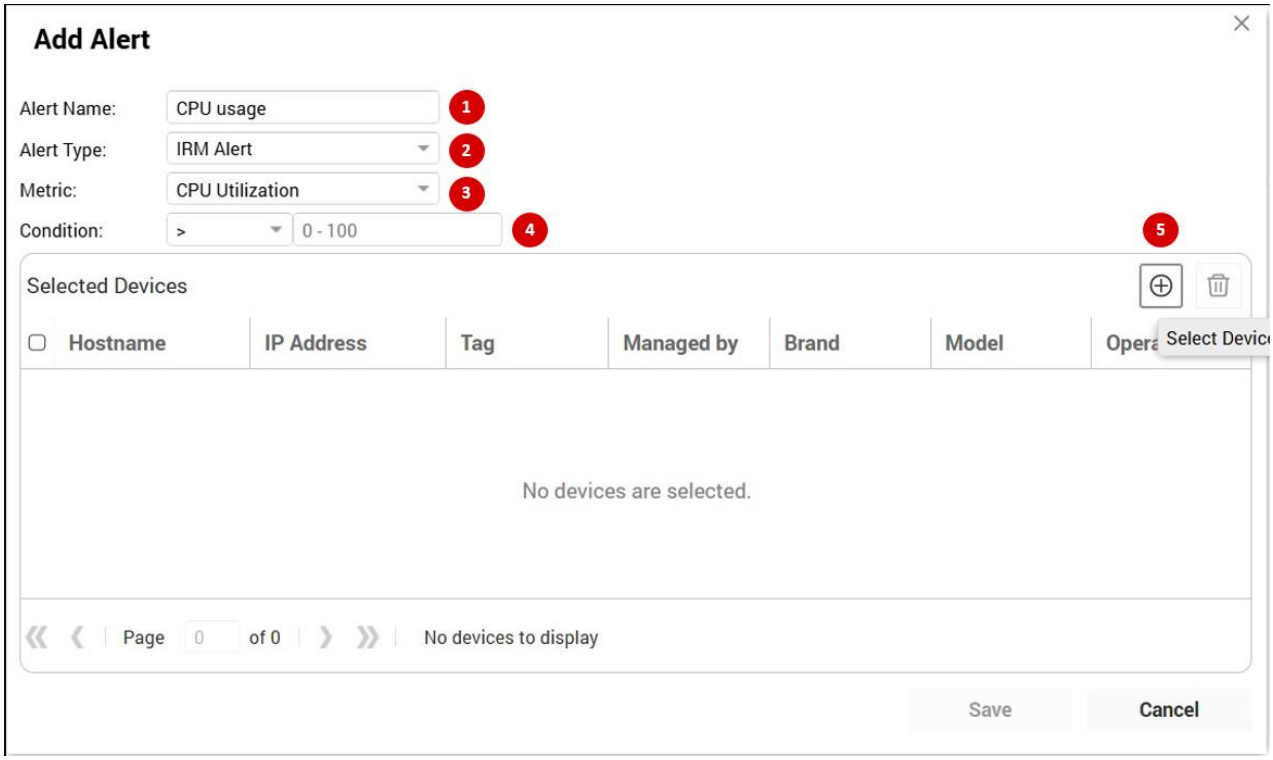
   Memory utilization: > / < 0–100 (%)

   Disk utilization: > / < 0–100 (%)

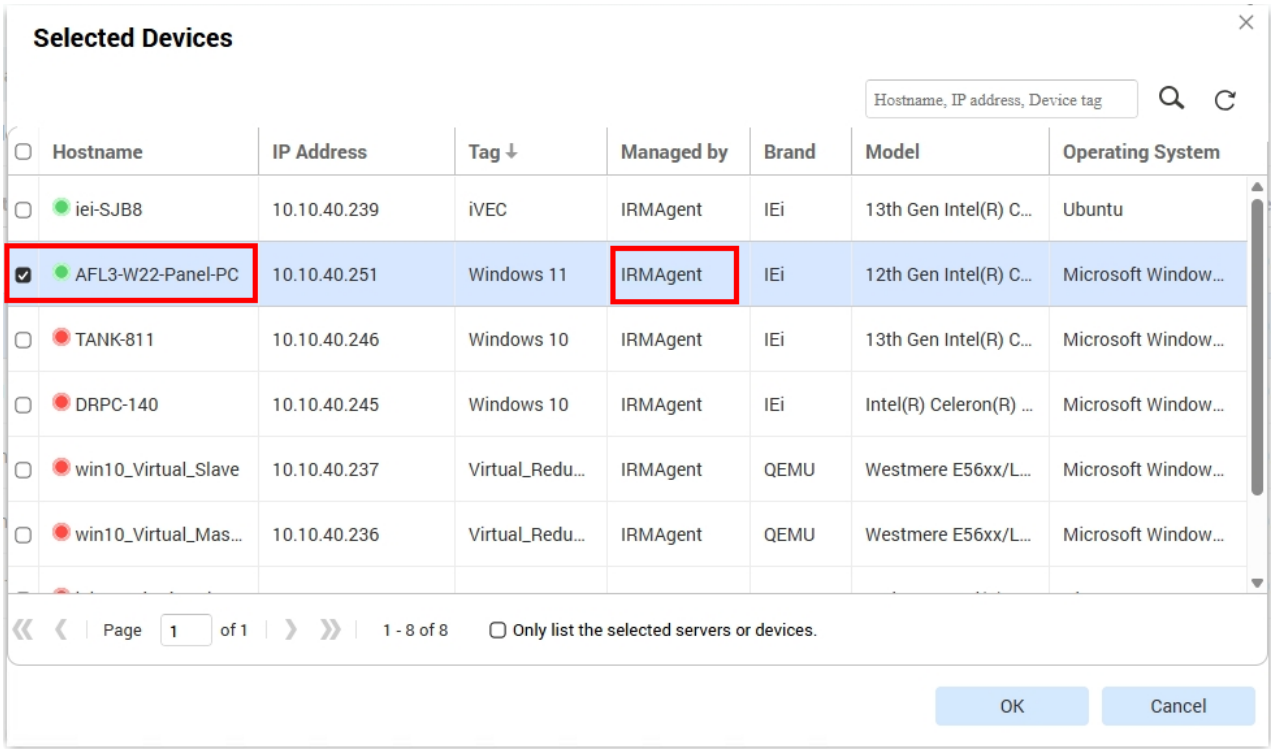
   Power status: State transition conditions:

   Power Off → Power On

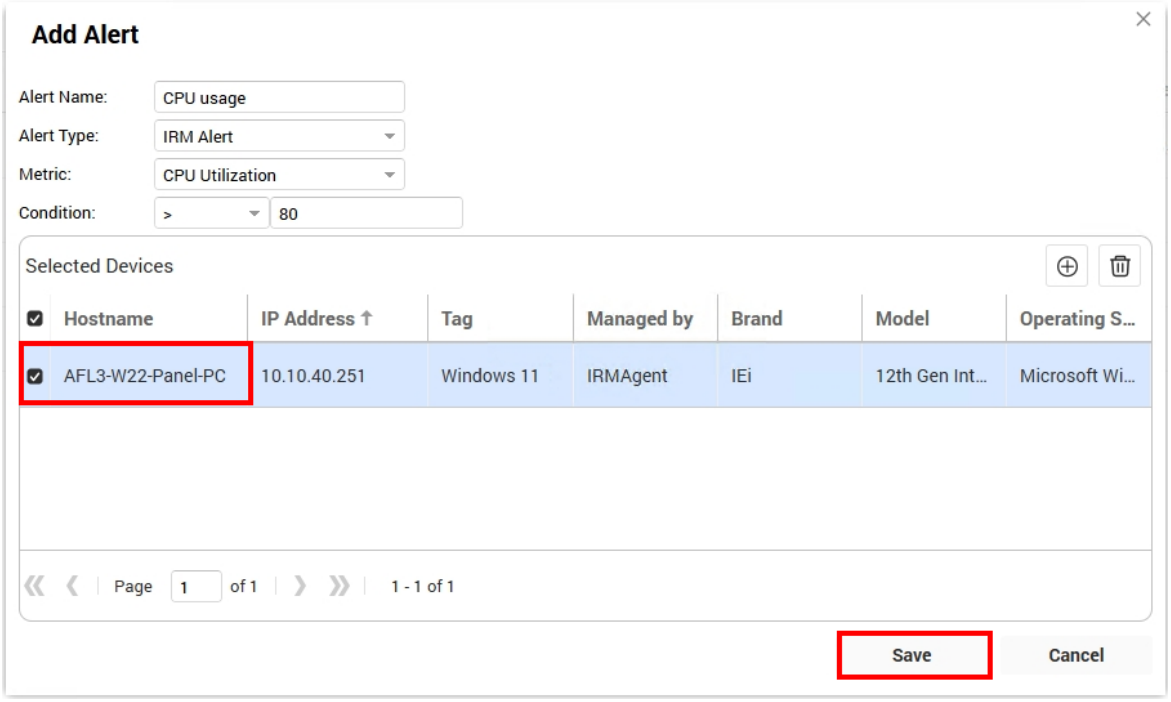
   Power On → Power Off



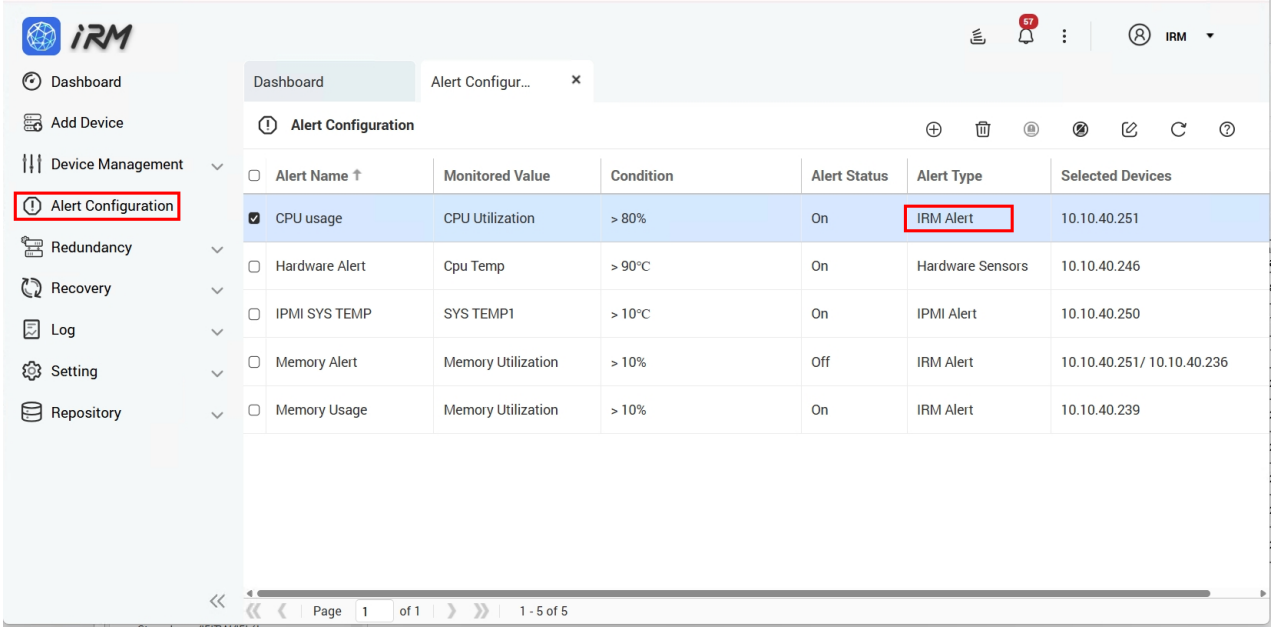
Step 2: Select the device you want to set the alert, you can select one or multiple devices, then click the OK button.



Step 3: Click the Save button to complete the new alert (Note: If the Save button is grayed out, it means that there are errors in alert name, alert type, or selected device).



Step 4: The IRM alert has been successfully added to Alert Configuration. You can find the alert name in the Alert Configuration list.



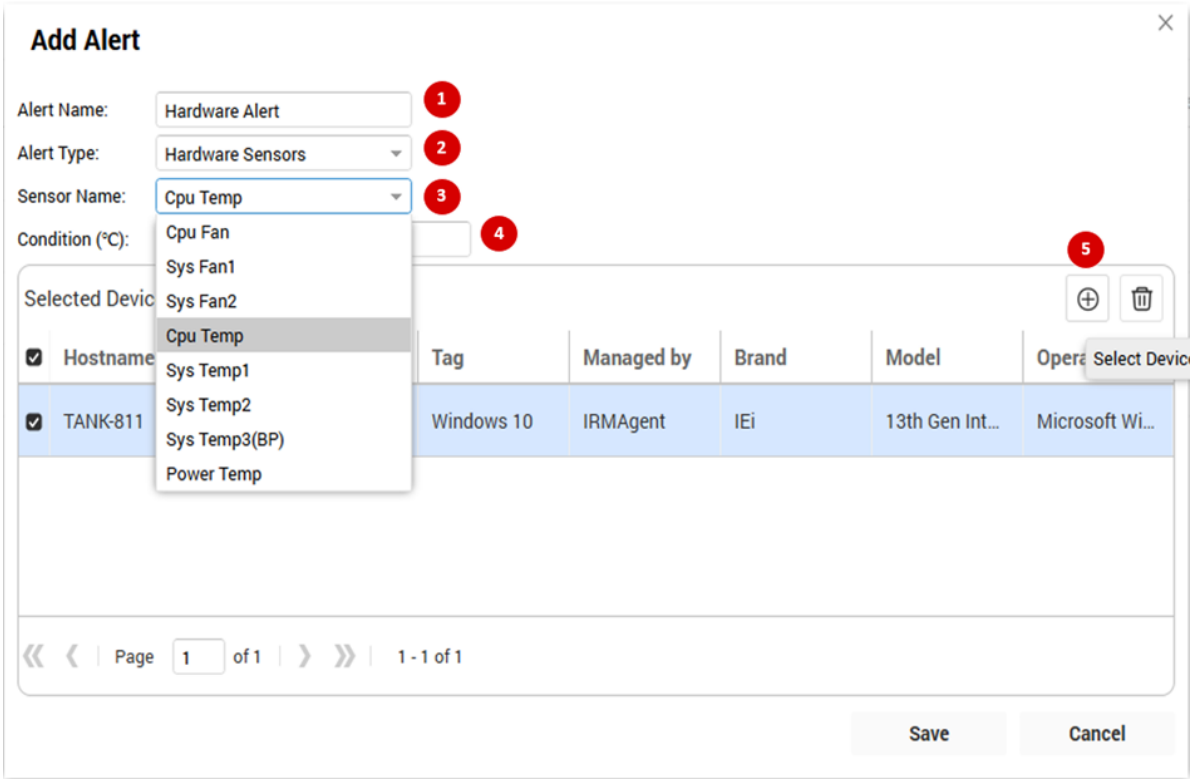
6.2 Add Hardware Sensors Alert

Step 1: In the Add Alert window, complete the alert type setting:

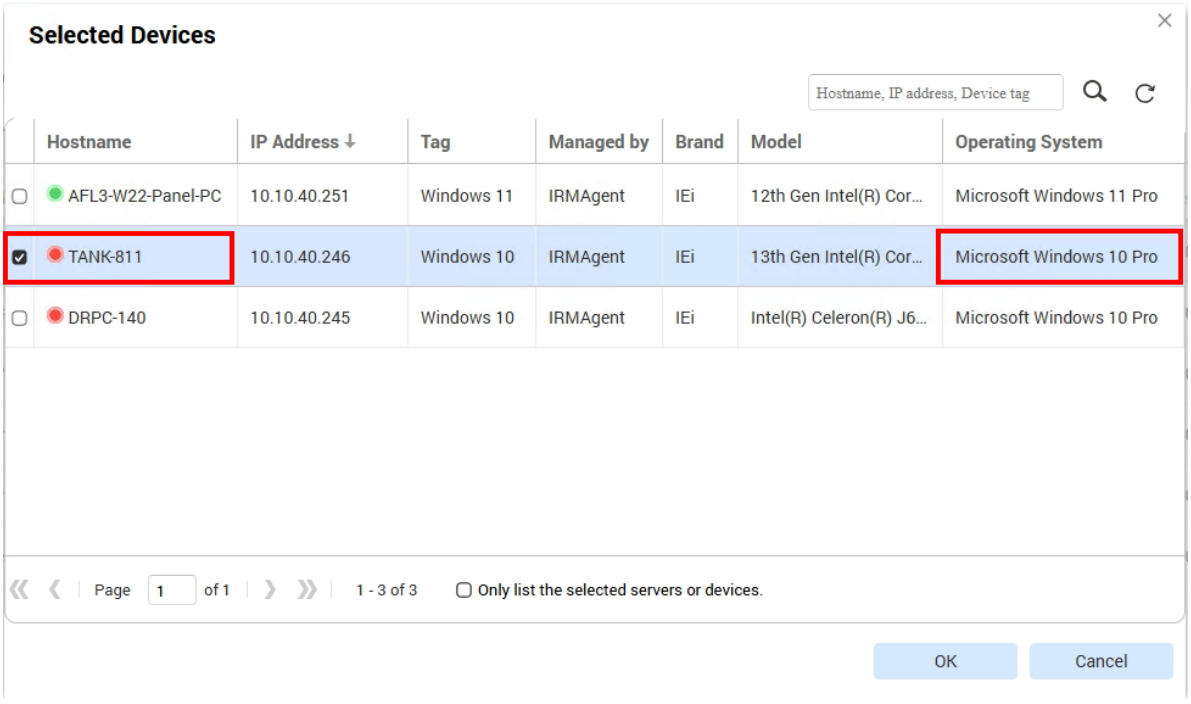
1. Set Alert Name
2. Set Alert Type: **Hardware Sensors**
3. Sensor Name: There are sensor follow 4.1.8 IEI System Monitoring Module.
4. Condition: Available Hardware Sensors conditions depend on the sensor unit: include:

- Temperature (°C)：Configure > / < 0–120 (e.g., CPU Temp).
- Fan Speed (RPM)：Configure > / < 0–22000 (e.g., CPU Fan).

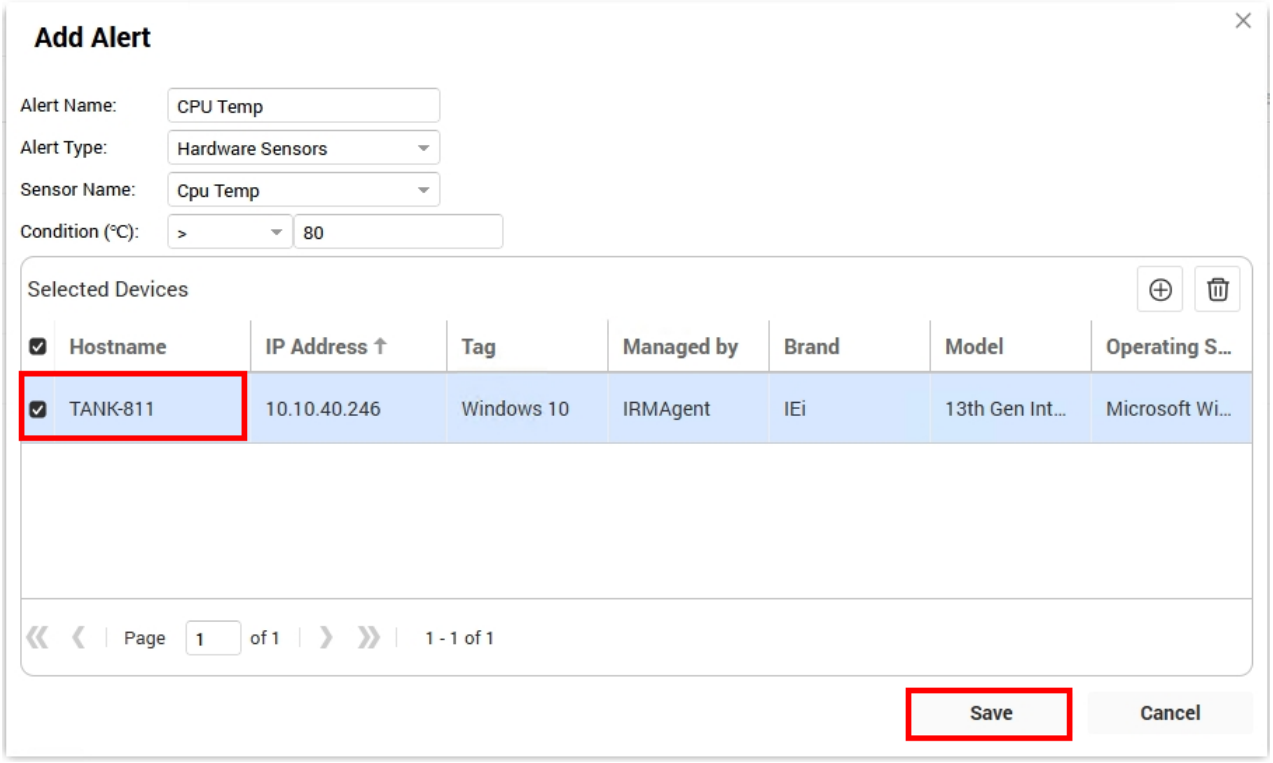
Note：The available sensor names, condition fields, and ranges may vary depending on the sensors supported by the device. Supported sensor items differ across IEI IPC models; however, CPU Temp and SYS Temp are common to all supported models. These sensors are available only on IEI physical IPC hosts. Virtual machines (VMs) do not support hardware sensor display.



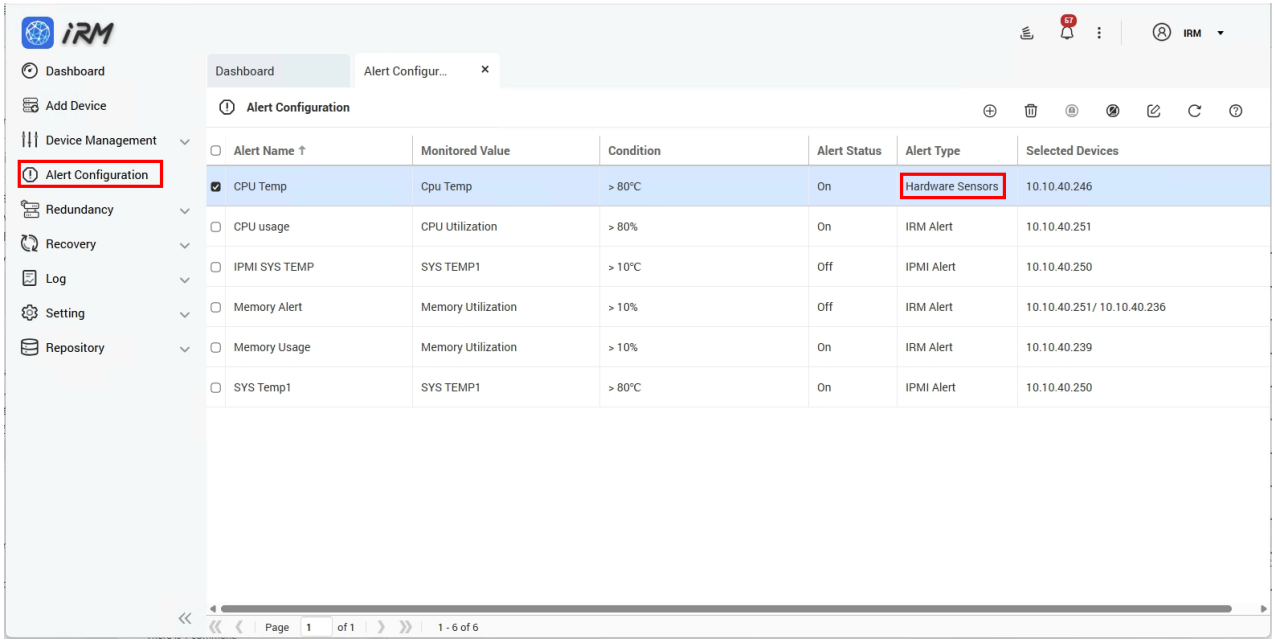
Step 2: Select the device you want to set the alert, you can select one or multiple devices, then click the OK button.



Step 3: Click the Save button to complete the new alert (Note: If the Save button is grayed out, it means that there are errors in alert name, alert type, or selected device).



Step 4: The Hardware Sensor alert has been successfully added to Alert Configuration. You can find the alert name in the Alert Configuration list.



6.3 Add IPMI (iRIS2) Alert

Step 1: In the Add Alert window, complete the alert type setting:

1. Set Alert Name
2. Set Alert Type: **IPMI Alert**
3. Sensor Type: The following sensors are available for IEI iRIS devices. You can select Temperature, Voltage, or Power.
4. Metric Name: Available options are displayed dynamically based on the selected Sensor Type.

- Temperature：e.g., TEMP1、CPU TEMP0
- Voltage：e.g., DDR、CPU CORE0、5V、12V、3V3SB、3V3.
- Temperature (°C)：Configure < / > 0–120 (e.g., CPU TEMP0).
- Voltage（V）：

  DDR: Configure < / > and a threshold value (range 0–12.6).

  CPU CORE0: Configure < / > and a threshold value (range 0–12.6).

  5V: Configure < / > and a threshold value (range 4.75–5.25).

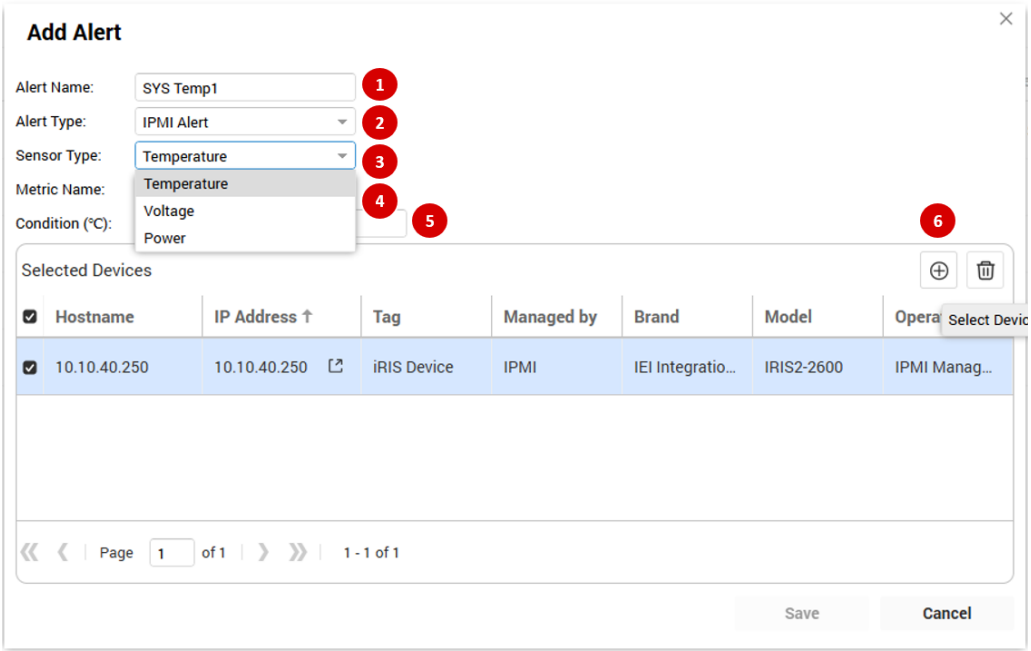
  12V: Configure < / > and a threshold value (range 11.4–12.6).

  3V3SB: Configure < / > and a threshold value (range 3.135.4–3.465).

  3V3: Configure < / > and a threshold value (range 3.135.4–3.465).
- Power：State transition conditions:

  Power Off → Power On

  Power On → Power Off



Note: Temperature Sensors

CPU TEMP0: Monitors the core temperature of the primary processor.

SYS TEMP1: Measures the ambient temperature of the system board (motherboard) or the internal temperature of the chassis.

5V: Monitors the +5V power rail, which typically supplies power to peripherals and onboard circuits.

12V: Monitors the +12V power rail, the primary power source for high-draw components like CPU voltage regulators, cooling fans, and storage drives.

3V3: Monitors the +3.3V power rail, which typically powers lower-power components.

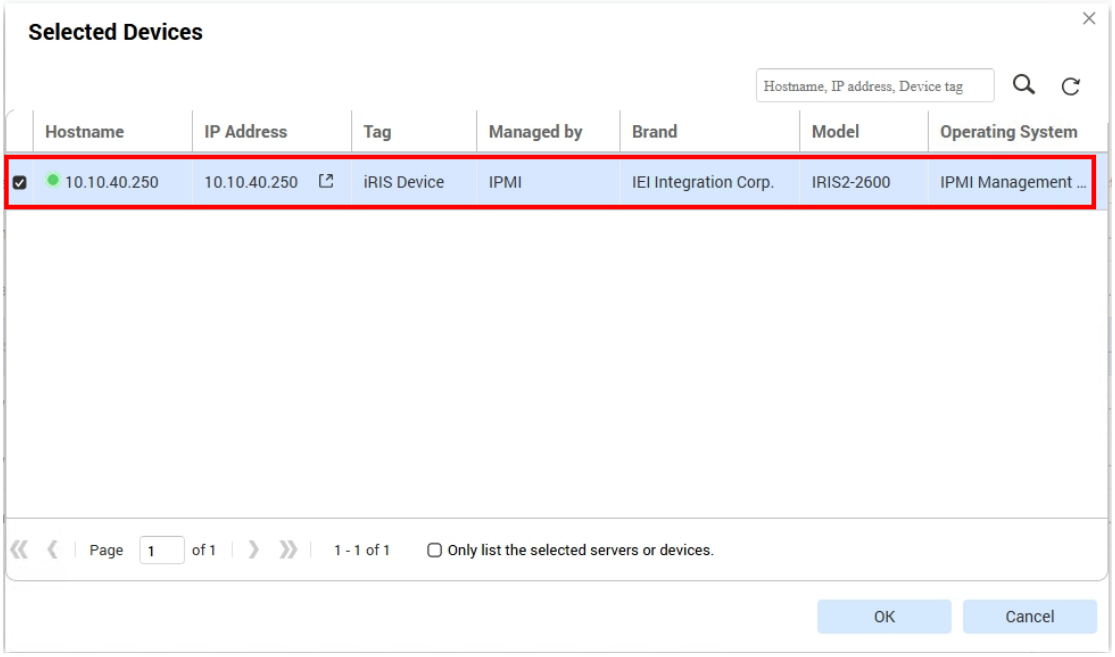
3V3SB: Monitors the +3.3V Standby power.

CPU CORE0: Monitors the Vcore voltage supplied directly to the CPU cores.

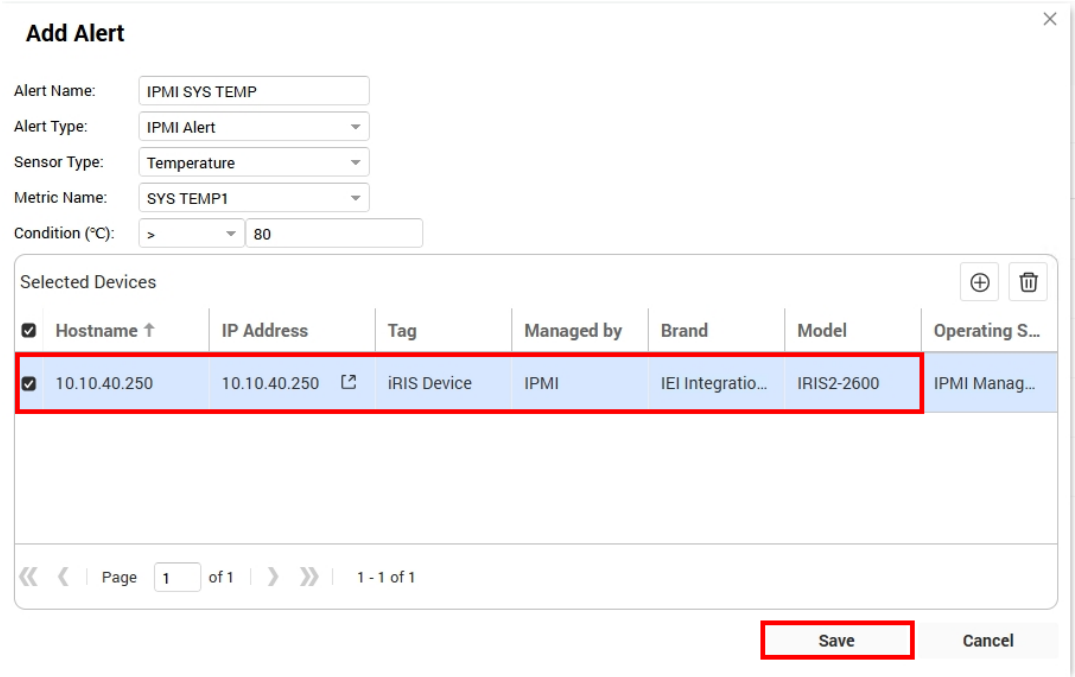
DDR: Tracks the status or voltage of the System Memory (RAM).

Sensor Name	Unit	Lower Non-Recoverable	Low Critical	Lower Non Critical (Lower warning)	Upper Non Critical (Upper warning)	Upper Critical	Upper Non Recoverable
CPU_TEMP0	degrees c	0	5	15	70	80	100
CPU_TEMP1	degrees c	0	5	15	70	80	100
SYS_TEMP1	degrees c	0	5	15	70	80	100
SYS_TEMP2	degrees c	0	5	15	70	80	100
SYS_TEMP3	degrees c	0	5	15	70	80	100
CPU_FAN1	RPM	0	260	510	-	-	-
CPU_FAN2	RPM	0	260	510	-	-	-
SYS_FAN1	RPM	0	260	510	-	-	-
SYS_FAN2	RPM	0	260	510	-	-	-
SYS_FAN3	RPM	0	260	510	-	-	-
CPU_CORE0	Volts	0.45	0.51	0.68	2.195	2298	2.383
CPU_CORE1	Volts	0.45	0.51	0.68	2.195	2298	2.383
5V	Volts	4.495	4.624	4.76	5.304	5.44	5.5
12V	Volts	10.511	10.88	11.2	12.8	13.44	14.751
DDR	Volts	0.45	0.51	0.68	1.632	1.855	2.063
5VSB	Volts	4.495	4.624	4.76	5.304	5.44	5.5
3V3	Volts	2.703	2.822	2.988	3.569	3.818	3.983
3V3SB	Volts	2.703	2.822	2.988	3.569	3.818	3.983

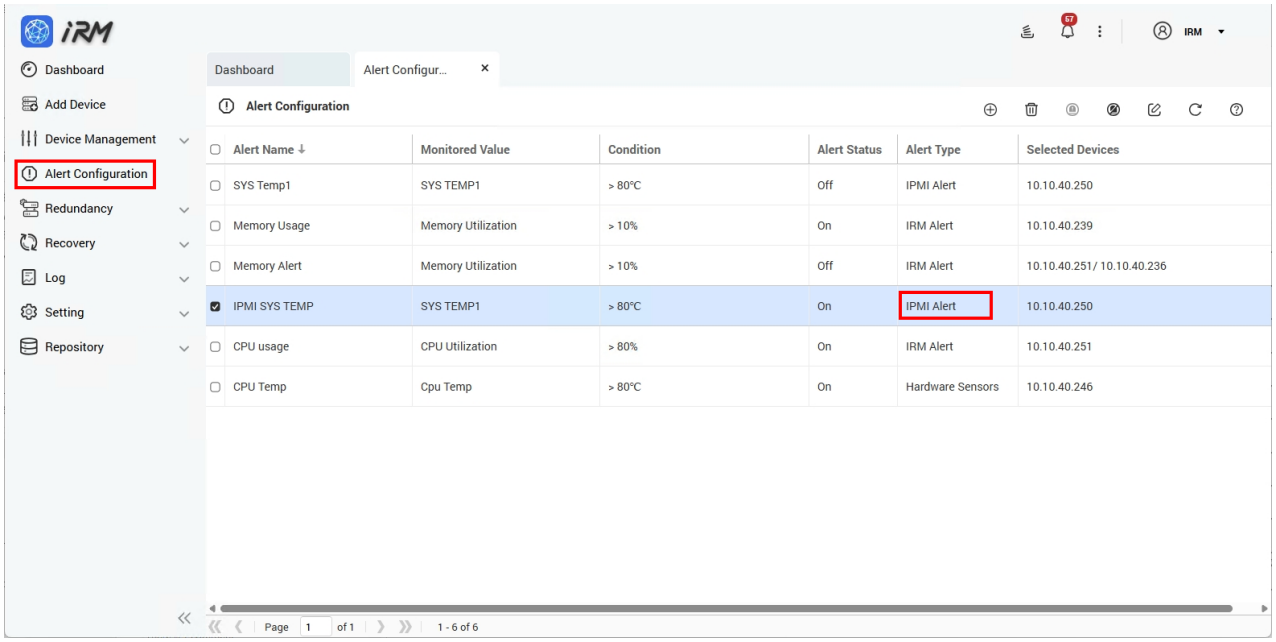
Step 2: Select the device you want to set the alert, you can select one or multiple devices, then click the OK button.



Step 3: Click the Save button to complete the new alert (Note: If the Save button is grayed out, it means that there are errors in alert name, alert type, or selected device).



Step 4: IPMI Alert 成功新增至 Alert Configuration 。您可以在 Alert Configuration 列表中查詢該 Alert Name。

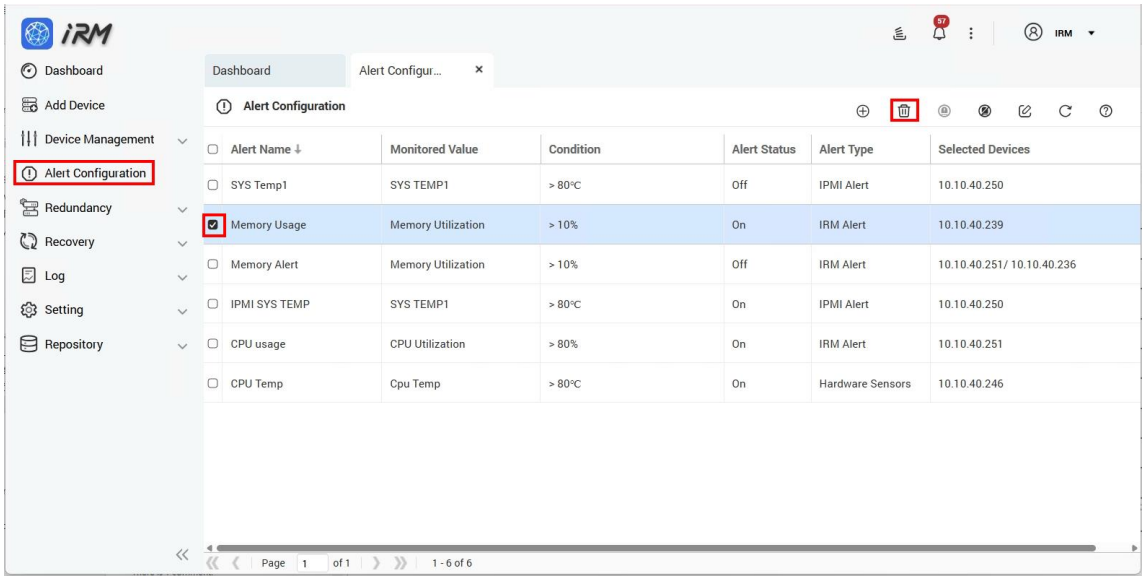


6.4 Delete Alert

Users can click the "Delete Alert" button to remove one or more alerts at once. Setup steps are described below:

Step 1: Enter the Alert Configuration page and select the alert configuration you want to delete.

Step 2: Click the "Delete Alert" button.



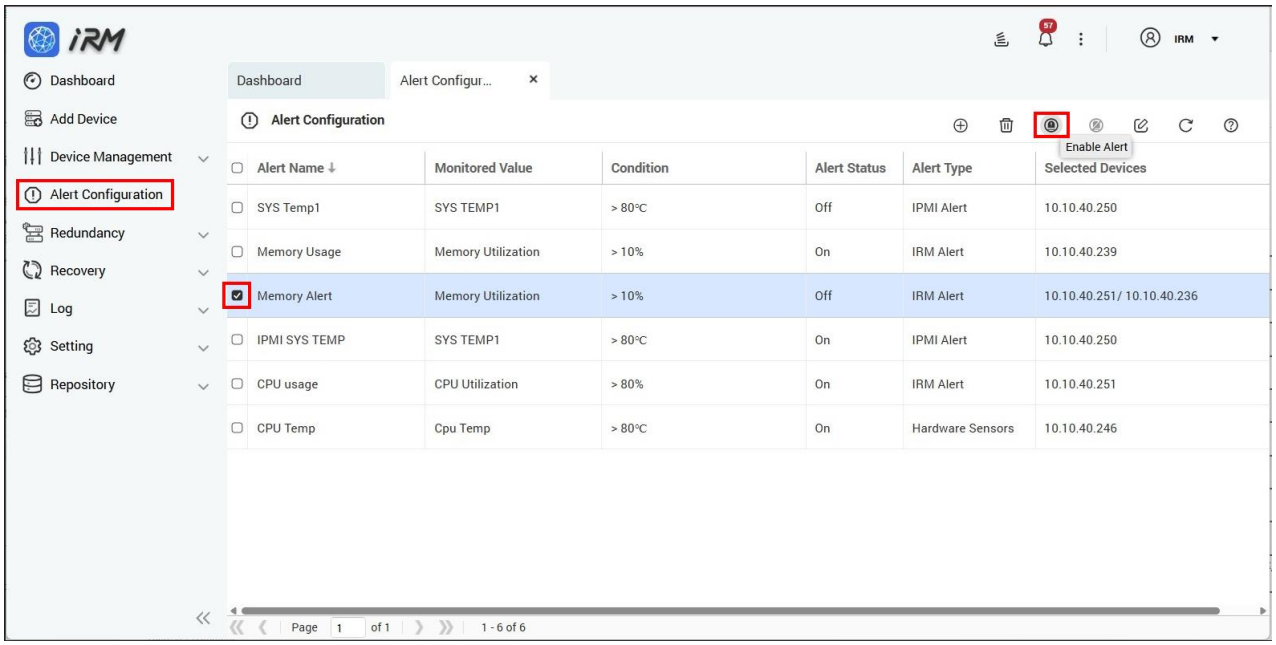
Step 3: Click the "Yes" button to complete the operation.

6.5 Enable Alert

Users can click the "Enable Alert" button to enable one or more alerts at once. Setup steps are described below:

Step 1: Enter the Alert Configuration page and select the alert configuration you want to enable.

Step 2: Click the "Enable Alert" button to complete the operation.

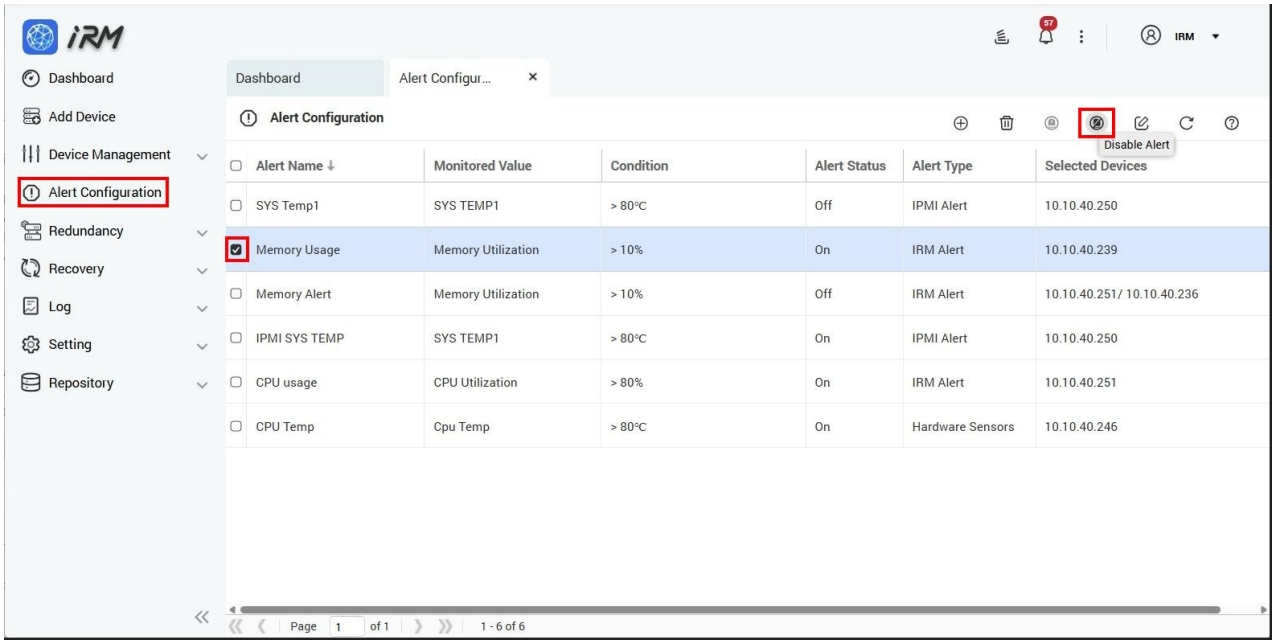


6.6 Disable Alert

Users can click the "Disable Alert" button to disable one or more alerts at once. Setup steps are described below:

Step 1: Enter the Alert Configuration page and select the alert configuration you want to disable.

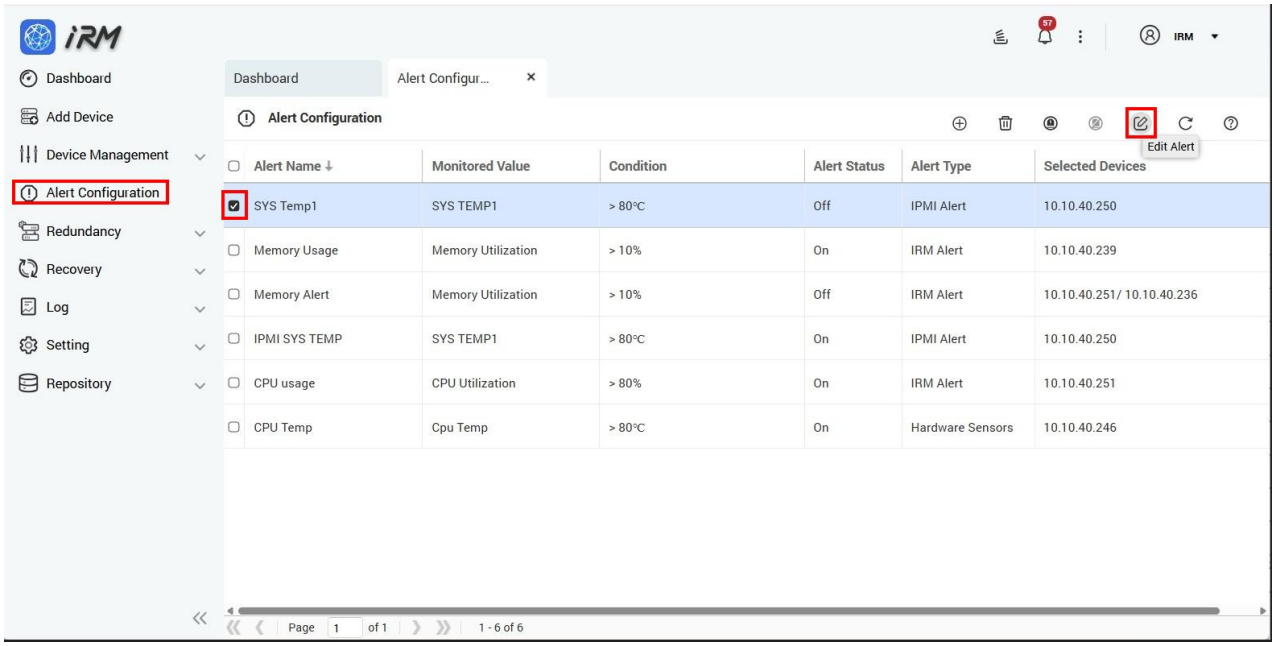
Step 2: Click the "Disable Alert" button to disable the alert.



6.7 Edit Alert

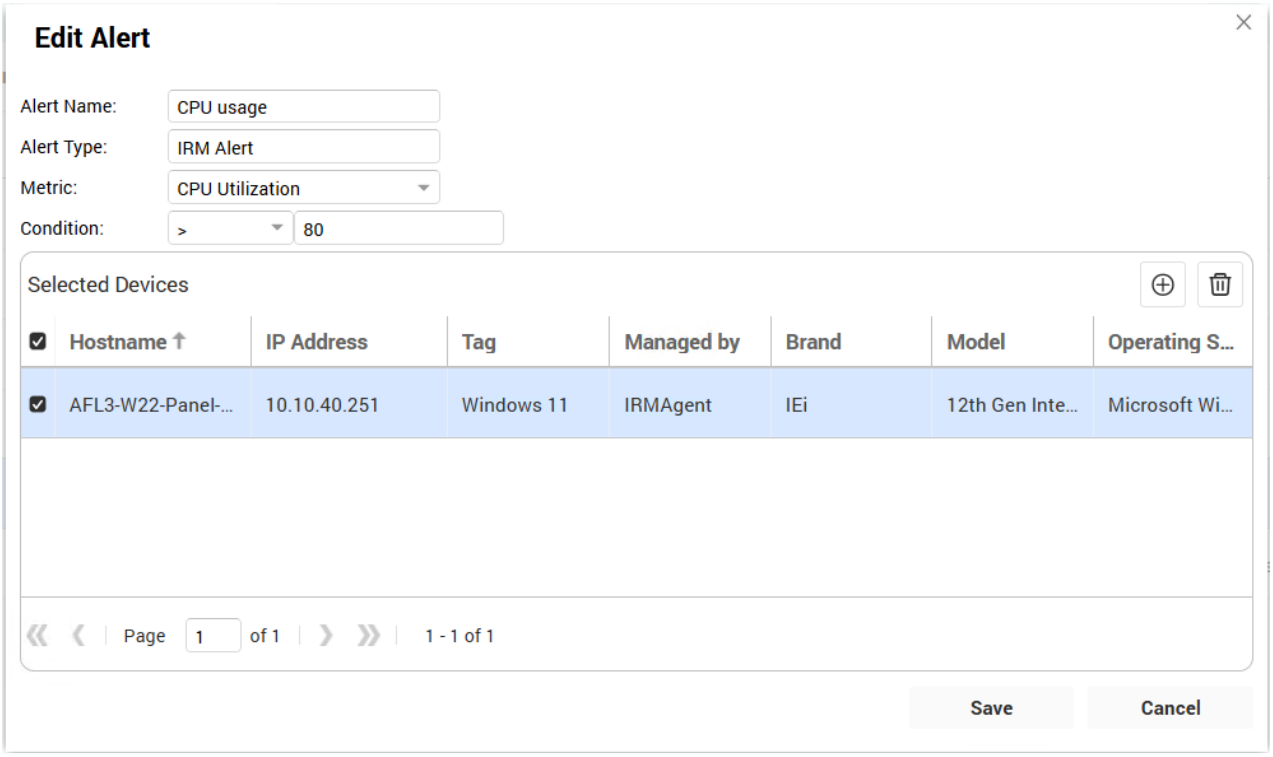
The user can click the Edit Alert button to edit the alert. Only one alert can be edited at a time. Setup steps are described below:

Step 1: Enter the Alert Configuration page, select the alert you want to edit, and click the "Edit Alert" button.



Step 2: Edit the item you want to modify (please note: the alert type cannot be modified)

Step 3: Click the "Save" button to finish editing.



Chapter

7

7 Redundancy

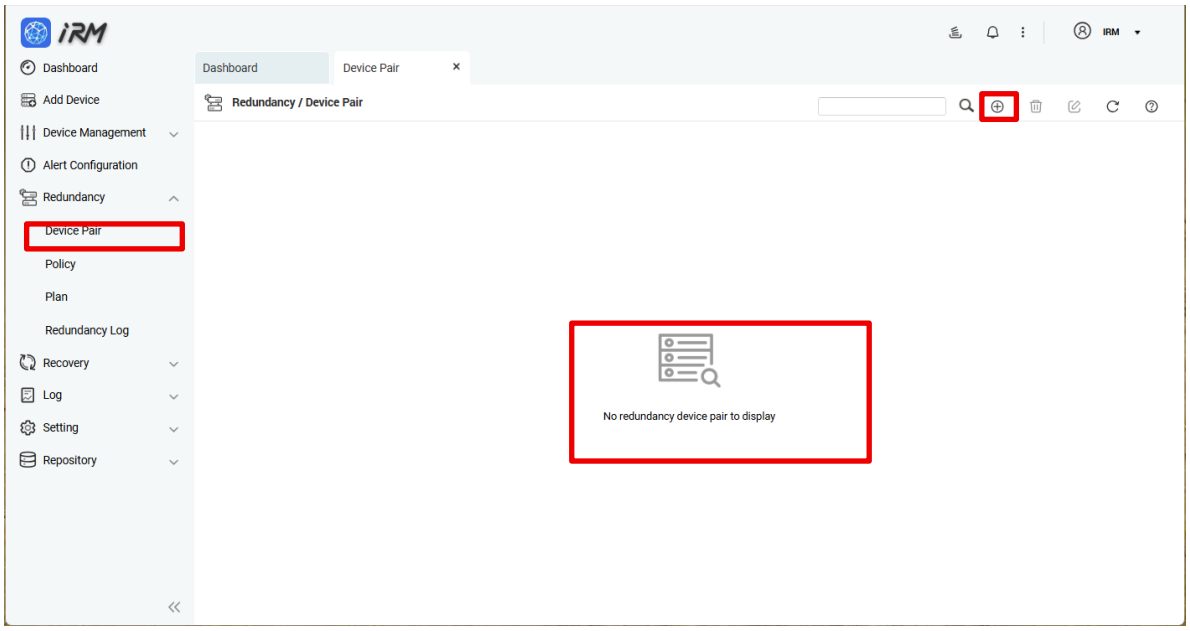
The Redundancy feature provides a OS Level Redundancy mechanism for primary/secondary devices. It helps reduce service interruption risk by switching or performing recovery actions according to predefined rules when the primary host encounters an issue. Users can create a Device Pair, configure a Policy, create a Redundancy Plan, and review execution results through the Redundancy Log. The Policy can be reused by different Plan.

Steps to setup an redundancy monitoring agent:

7.1 Device Pair

A Device Pair is used to establish a redundancy pairing relationship between a Primary Host and a Secondary Host. After creating a device pair, it can be applied to a redundancy Policy and Plan for subsequent monitoring and failover/recovery operations.

Note: A device pair should typically consist of two devices with the same or compatible roles to ensure service continuity after failover.



Step 1: Go to Redundancy > Device Pair, and click ⊕ to create a new device pairing. The system first displays the Select Device Pairing step. Select the redundancy pairing type. IRM supports three redundancy modes:

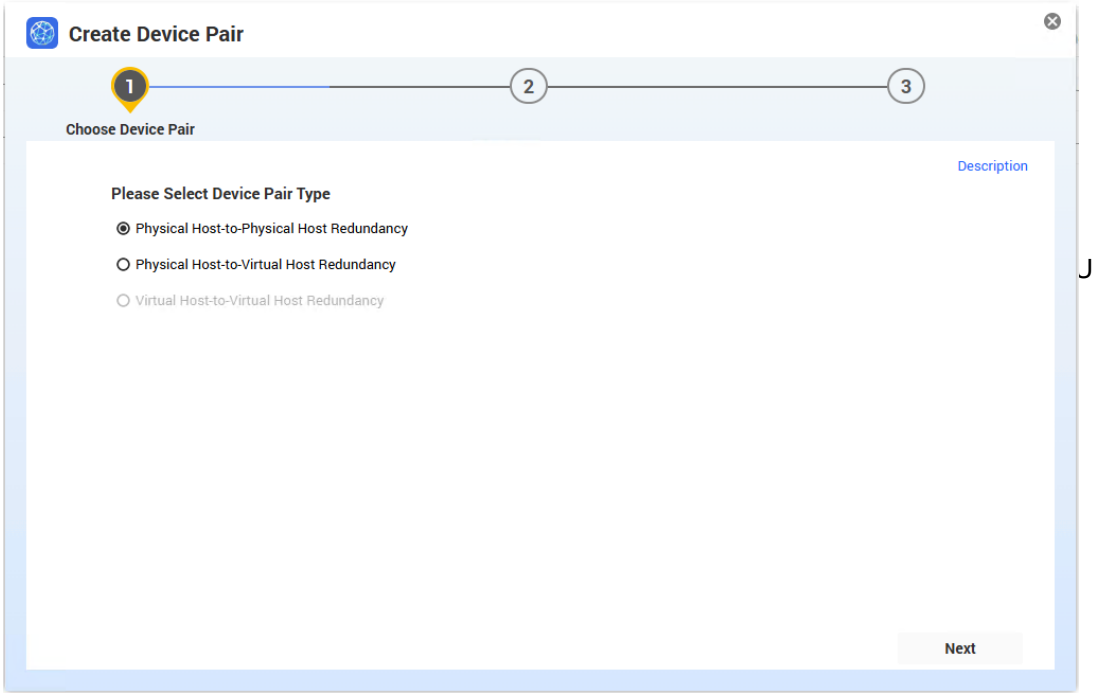
1. Physical-to-Physical
2. Physical-to-Virtual
3. Virtual-to-Virtual

After making your selection, click Next to proceed to Step 2: Set Up Device Pairing.

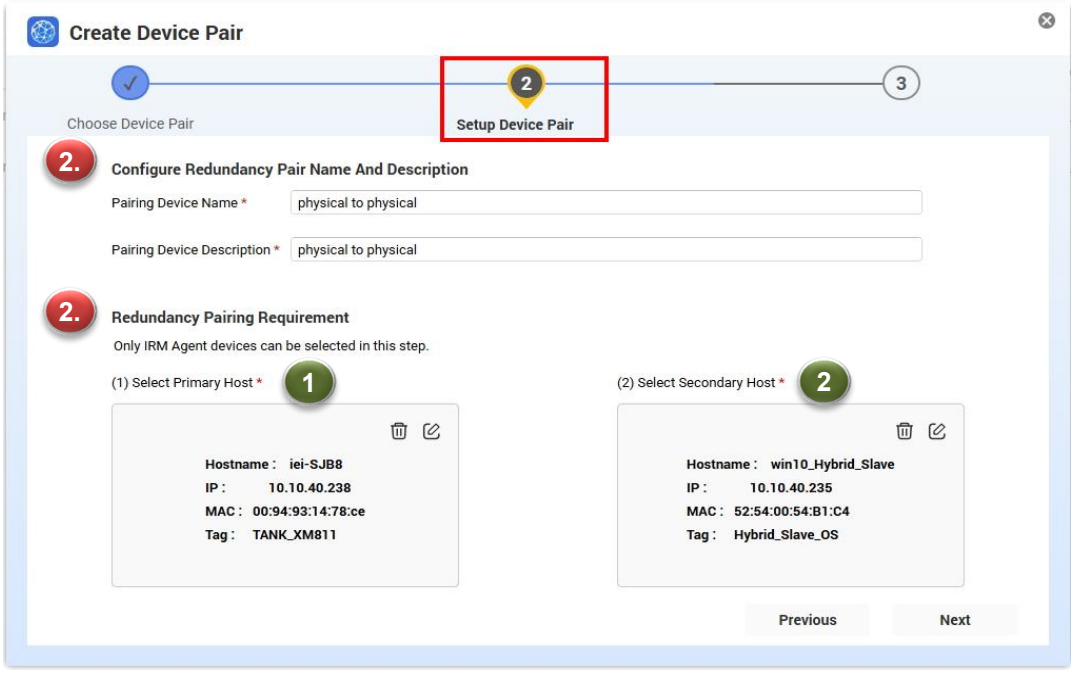
Create device pairing instructions

Before you begin, make sure the following requirements are met and connectivity between the two hosts is available：

1. The IRM Agent version is the same on both hosts.
2. Both hosts are connected to the IRM server.
3. Both hosts are on the same LAN, and the network supports the UDP protocol.
4. Wake-on-LAN (WOL) is enabled on the standby (backup) host.
5. The standby host has completed all network settings and application auto-start is enabled.
6. The standby host can take over your services after it boots.
7. After the redundancy cluster is enabled, the standby host will enter standby mode and power off.



Jp Device



Step 3: Set the Pair Name and Description

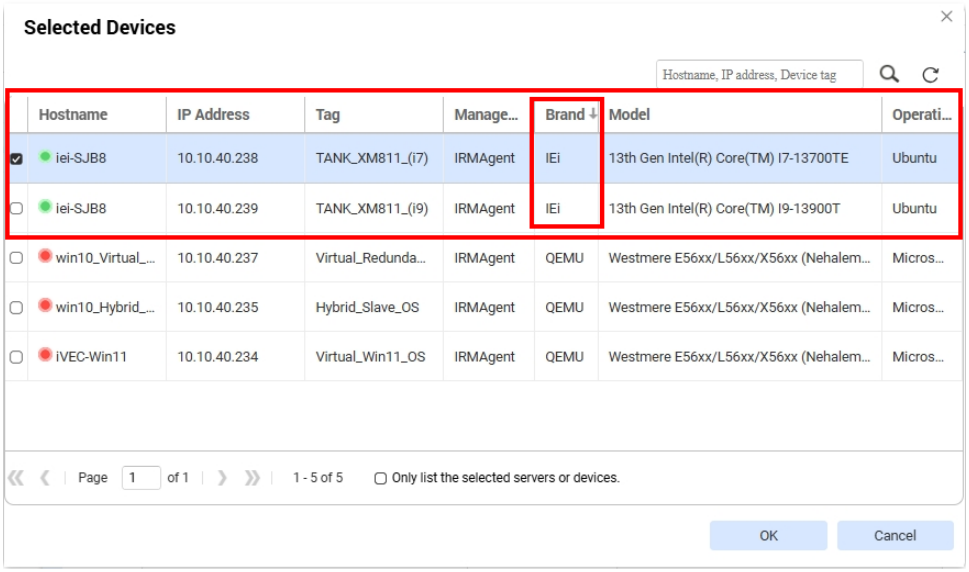
Pair Name*: Enter the device pairing name.

Pair Description*: Enter the device pairing description.

Step 4: Pairing Host Selection

Only IRM Agent devices can be selected in this step.

1. Select Primary Host* → Click Select Host → the Select Device window appears. In the window, select the primary
2. physical host to be paired, and click Confirm.
3. Select Secondary Host*→ Click Select → the Select Device window appears. In the window, select the secondary physical host to be paired, and click Confirm.
4. After completing the selections, click Next to proceed to Step 3: Confirm Device Pairing.



Pairing Types Notes:

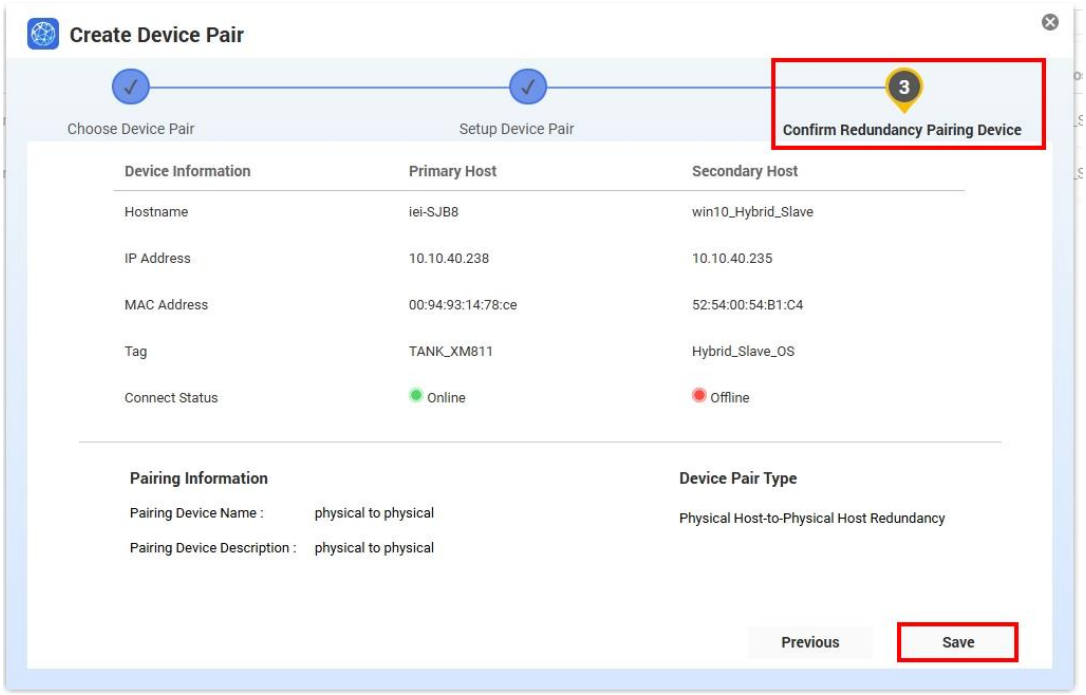
- Physical-to-Physical：Both the primary and secondary hosts are physical devices.
- Physical-to-Virtual：
  - The primary host is a physical device.
  - The secondary host is an iVEC VM.
- Virtual-to-Virtual: Both the primary and secondary hosts are iVEC VMs.

Step 5: Confirm Device Pairing

After completing Step 2: Set Up Device Pairing, click Next to proceed to Step 3: Confirm Device Pairing. Verify that the pairing information is correct, including:

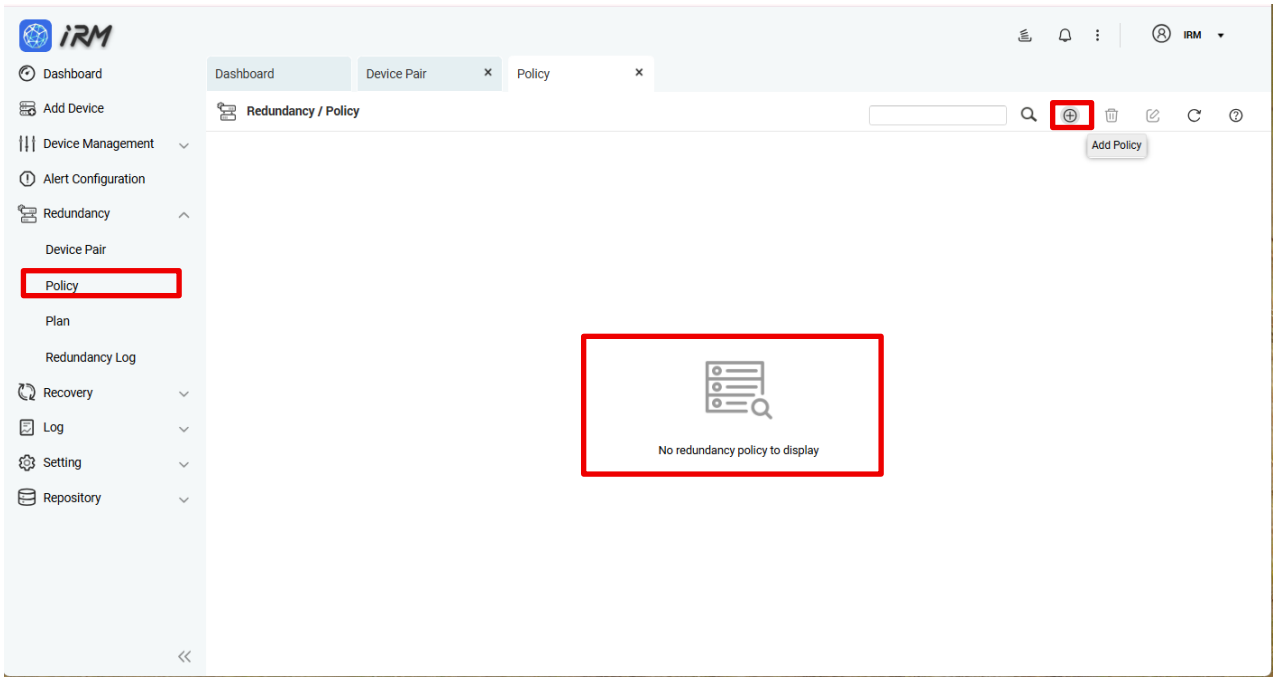
- Device Pair Type
- Pairing Device Name / Description
- Primary Host / Secondary Host

After confirming everything is correct, click Save to complete the device pairing. If you need to make changes, go back to the previous step and modify the settings.



7.2 Policy

A Policy defines the monitoring criteria and decision rules used by a Redundancy Plan. Users can create a policy by specifying the protection type, sensor/monitoring item, trigger condition, how long the condition must persist to be considered valid (Stay Duration), and the retry timer.

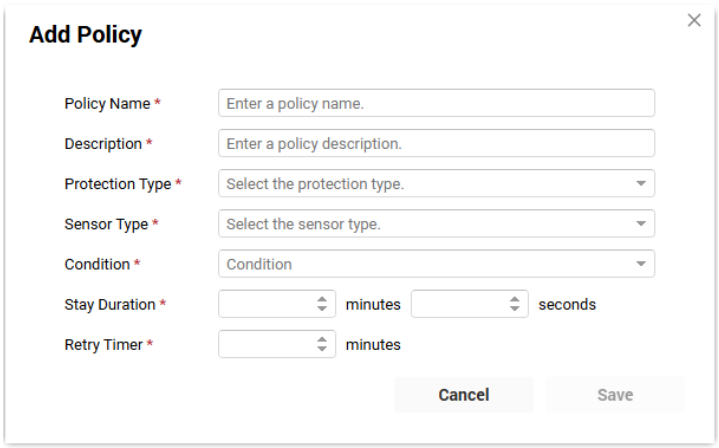


Step 1: Add Policy

Go to Redundancy > Policy and click Add Policy . The system opens the Add Policy window. Configure the following fields in order.

1. Policy Name: Enter the policy name.
2. Description: Enter the policy description.
3. Protection Type: Select the protection type (host-level protection) for host level accessible detection. This system adds different levels of protection modes in the future.
4. Sensor Type: Select the sensor type (power status). This system adds different sensor type of protection modes in the future.
5. Condition: Select the condition (Power On → Power Off).
6. Duration: Enter 0–60 minutes and 10–59 seconds.
7. Retry Time: Enter 2–10 minutes for fail to enable the secondary node and iRM retry again in this duration.

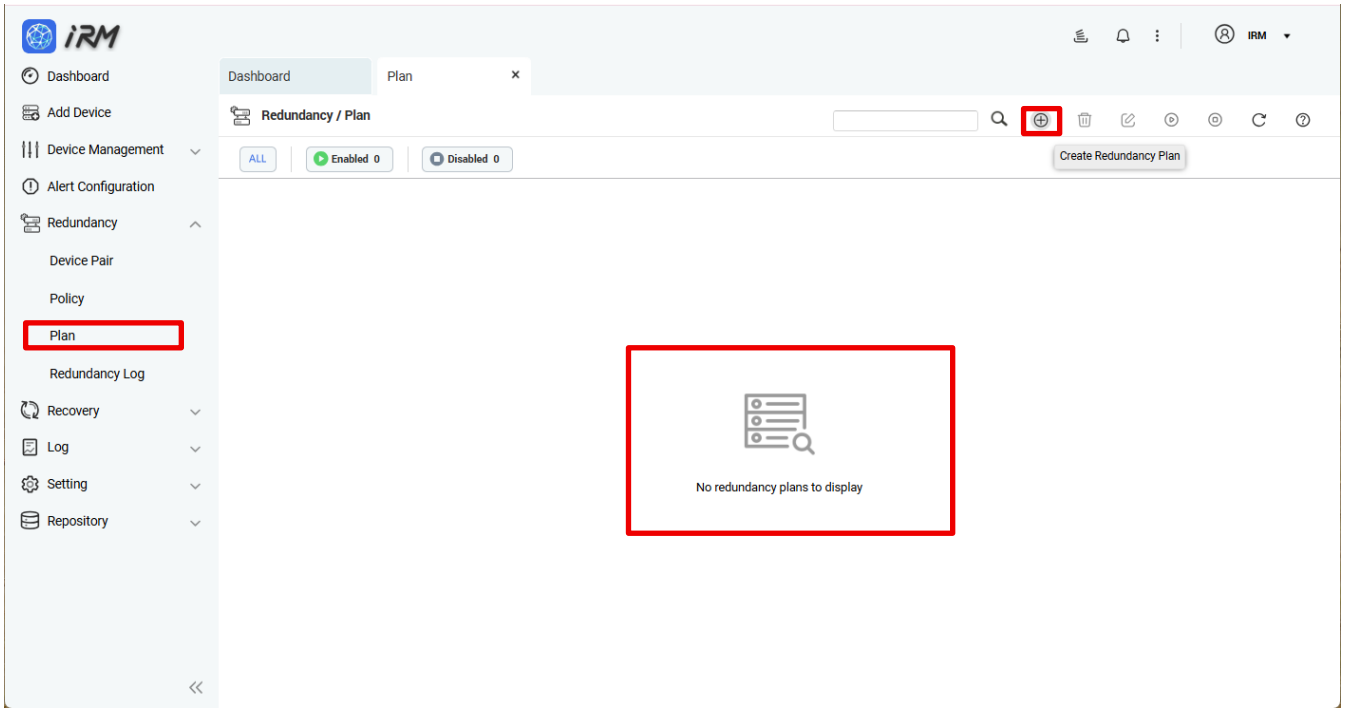
After confirming the settings, click Save to add the policy. To exit without adding, click Cancel.



Note: After a policy is created, it can be selected and applied when creating a **Plan**.

7.3 Plan

A **Plan** combines a **Device Pair** and a **Policy** into an executable redundancy configuration. After a plan is created, the system monitors the primary host based on the selected policy. When the condition is met, the plan performs redundancy handling, and the event/results can be reviewed in the **Redundancy Log**. Users can also manage the plan by enabling or disabling it.

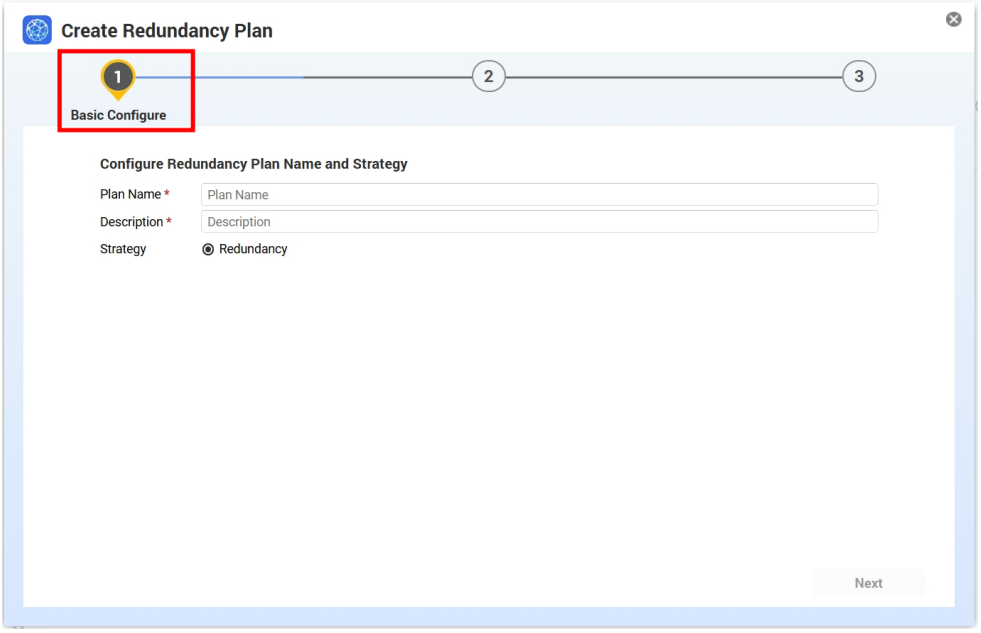


Step 1: Basic Settings

Go to Redundancy > Plan, and select Add to create a new backup plan. The system will open the plan creation wizard page. Please complete the basic information settings for the plan in Step 1: Basic Settings, including:

1. Plan Name*: Enter the backup plan name.
2. Description: Enter the plan description (optional).
3. Strategy: Select the strategy type. The default here is Redundancy.

Once finished, click Next to proceed to the next setting; to return to the previous page, click Previous.

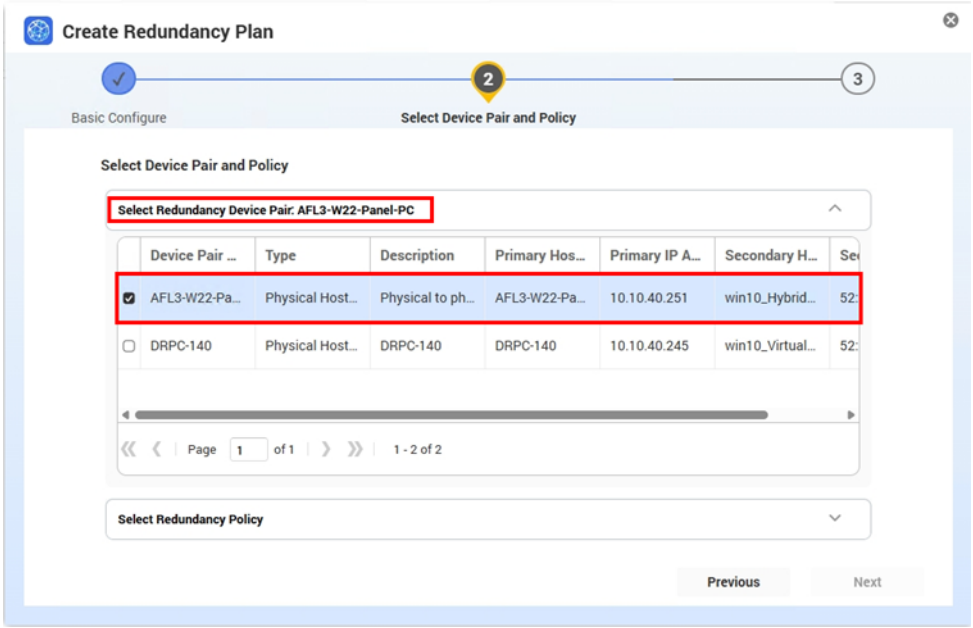


Step 2: Select Device Pair and Policy

After completing Step 1: Basic Configuration, click Next to proceed to Step 2: Select Device Pair and Policy. In this step, specify the Device Pair and Policy to be applied to this redundancy plan.

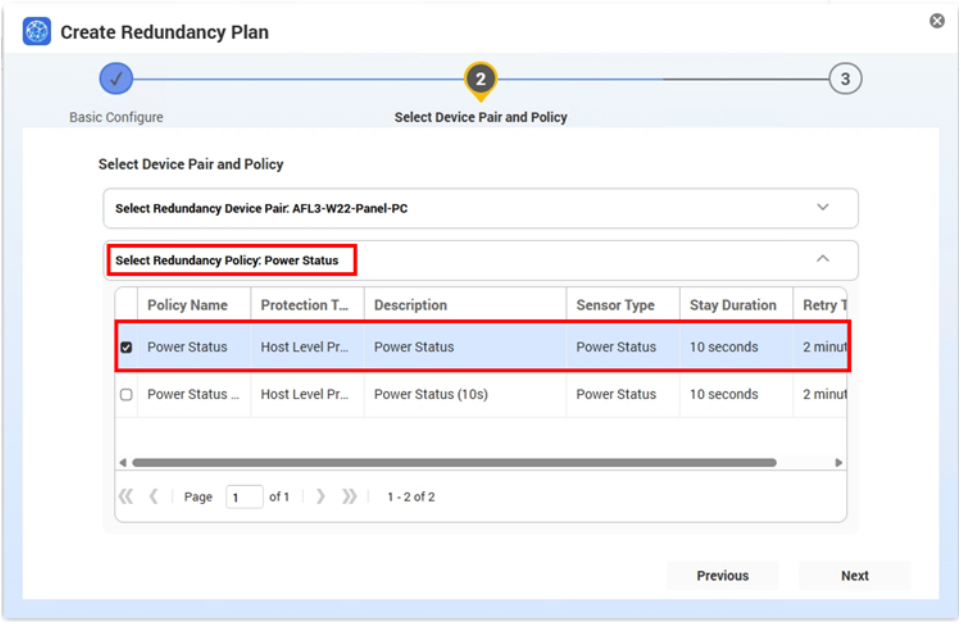
- **Select Redundancy Device Pair**

1. In the Select Redundancy Device Pair section, click the drop-down list to expand the pairing list.
2. Select the device pair to apply. The list displays pairing details for verification, such as Type, Description, Primary Hostname/IP, and Secondary Hostname.



- **Select Redundancy Policy**

1. In the Select Redundancy Policy section, click the drop-down list to expand the policy list.
2. Select the policy to apply. The list displays policy details for verification, such as Policy Name, Protection Type, Sensor Type, Stay Duration, and Retry Timer.



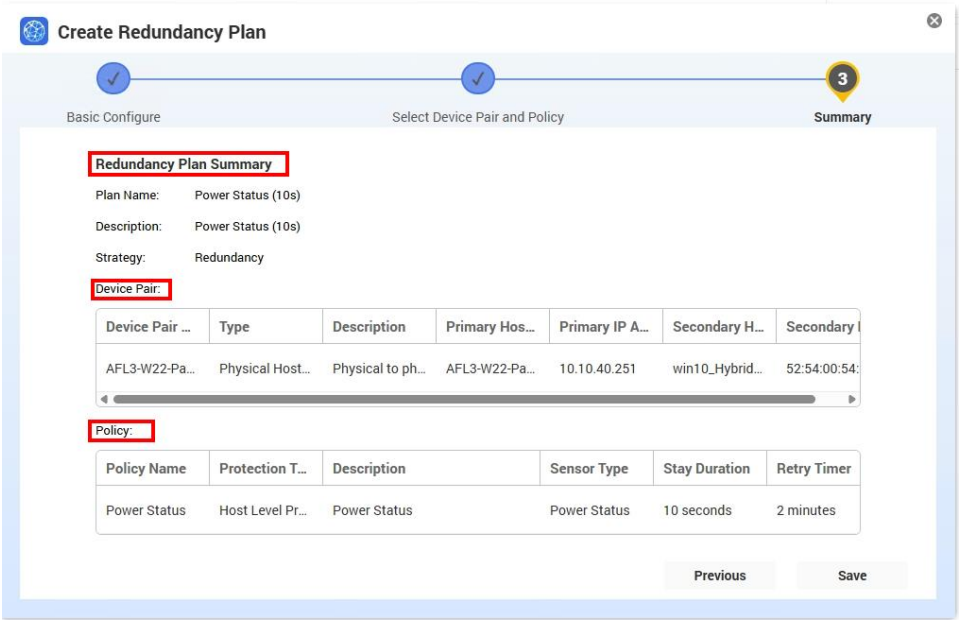
完成 Device Pair 與 Policy 選擇後，點選 Next 進入 Step 3；若需返回上一頁，點選 Previous。

Step 3: Summary

After completing Step 2: Select Device Pair and Policy, click Next to open Step 3: Summary. Verify that the following information is correct:

- Redundancy Plan Summary: Plan Name / Description / Strategy
- Device Pair: The primary/secondary host pairing information applied to this plan
- Policy: The policy information applied to this plan (e.g., Policy Name, Sensor Type, Stay Duration, Retry Timer)

After confirming everything is correct, click Save to create the redundancy plan. If changes are needed, click Previous to go back and modify the settings.



Step 4: Enable/Disable Redundancy Plan

On the Redundancy/Plan page, users can enable or disable existing redundancy plans to control whether the redundancy mechanism is active.

Step 5: Steps

1). Click Redundancy -> Plan in the left menu to enter the Redundancy Plan list page.

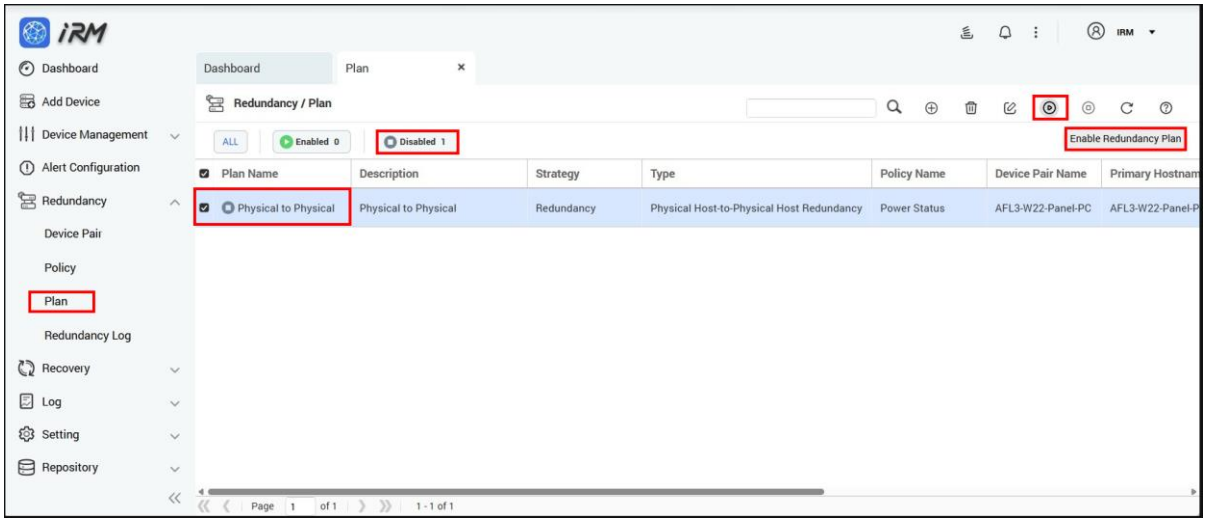
2). Select the redundancy plan you want to manage from the list.

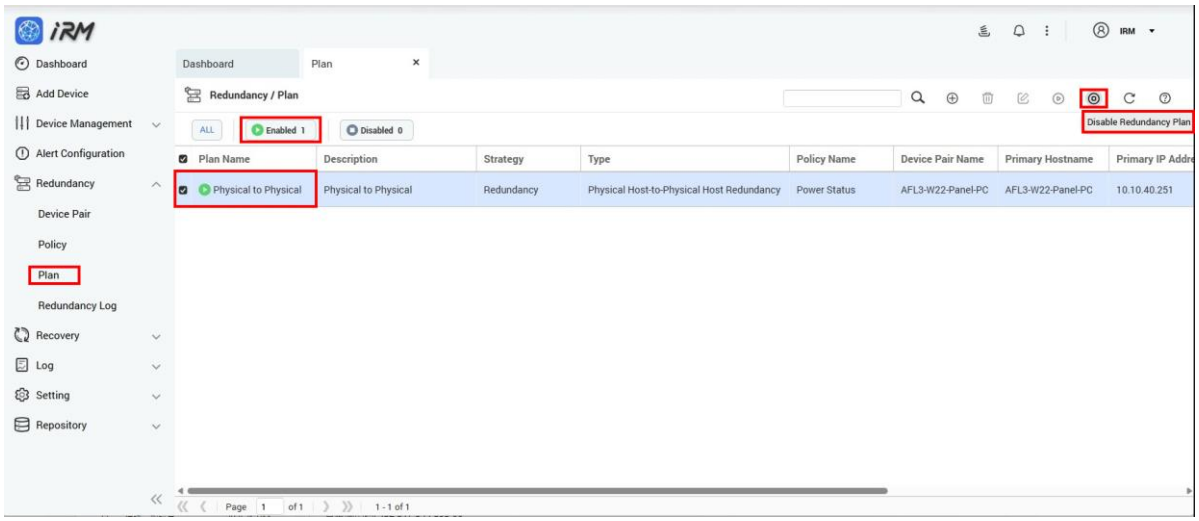
3). Enable: Click the Enable Redundancy Plan button on the toolbar.

After the plan is enabled, its status will be displayed as Enabled, and you can view it by selecting Enabled / Disabled at the top.

4). Disable: Click the Disable Redundancy Plan button on the toolbar.

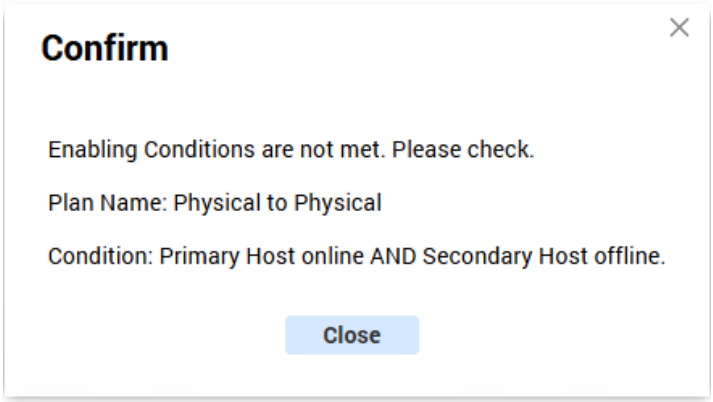
After the plan is disabled, its status will be displayed as Disabled, and you can view it by selecting Enabled / Disabled at the top.





Note:

1. When you click Enable Redundancy Plan, if the activation conditions are not met, the system will display a prompt message explaining the reason.
2. It will only execute automatically once, and will only re-enter the running state after being restarted by the user manually.
3. **Enable conditions:** The primary host must be powered on, and the secondary host must be powered off. Please go to Device Management to confirm that the secondary host is powered off, and then return to enable the redundancy plan.

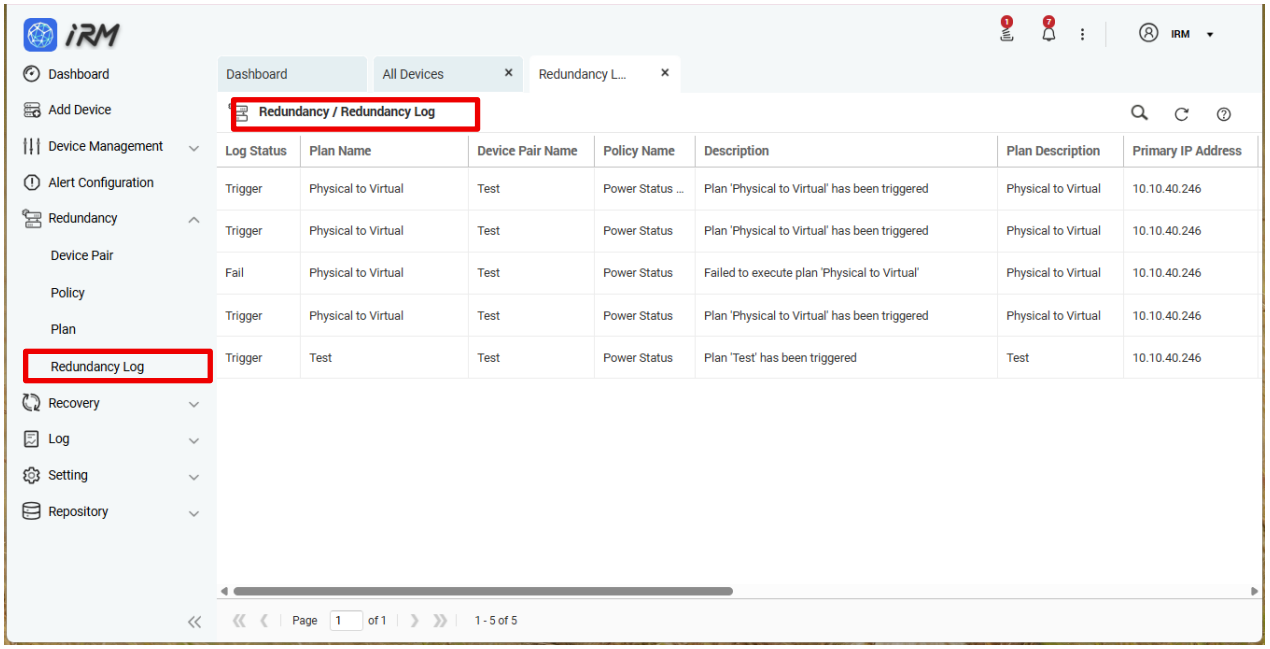


7.4 Redundancy Log

The Redundancy Log is used to view and track records of redundancy operations. After a Plan is enabled, the system monitors the primary host status based on the Policy. When a trigger event occurs or a redundancy action is executed, the related information is recorded in the Redundancy Log, allowing administrators to perform auditing, troubleshooting, and status tracking.

The Redundancy Log typically includes (as shown on the screen): the trigger time, plan name, device pair, primary/secondary host information, trigger condition, and the processing result/status.

How to access the Redundancy Log: On the Redundancy page, select Redundancy Log.



Chapter

8

8 Recovery

8.1 Remote Recovery

IRM provides remote recovery for IEI physical hosts via **OneKey Recovery 2 (OKR2)**. When a target host encounters an issue or requires rapid OS restoration, administrators can trigger the OS recovery process through the IRM interface to reduce downtime and improve system availability. One IEI physical host can backup Max 3 copies OS backup image in same storage with the OS. IRM can let end user remote trigger and selection one of 3 copies OS backup image to process OS restoration.

Before you begin, make sure the target host has **OKR2** properly installed and enabled, and that the **OKR2 Support icon** is displayed in the IRM device list.

- **Prerequisites**

1. **Supported Scope**

   IRM supports remote recovery only for **IEI physical hosts (IPCs)** running **Windows**. Remote recovery is not supported on non-IEI platforms or on devices running **Linux OS**.

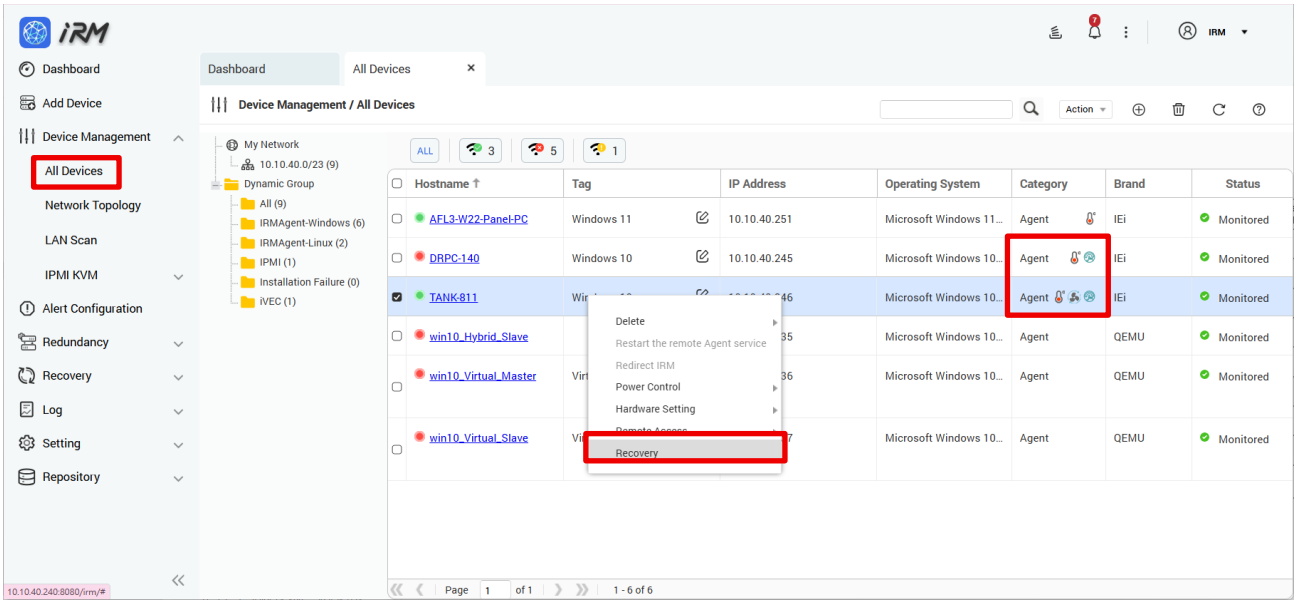
2. **Confirm OKR2 Installation Status**

   Before using Remote Recovery, go to Device Management > All Devices > IRMAgent-Windows and confirm that the target host shows the OKR2 Support icon. If the icon is not displayed, IRM cannot perform remote recovery on the host.

   **OKR2 Support ICO  **：Indicates that OKR2 has been installed on the IEI host.

3. **OKR2 Installation and Image Creation**

   For OKR2 installation steps and how to create a recovery image, refer to the《OneKey Recovery2 User Manual》.

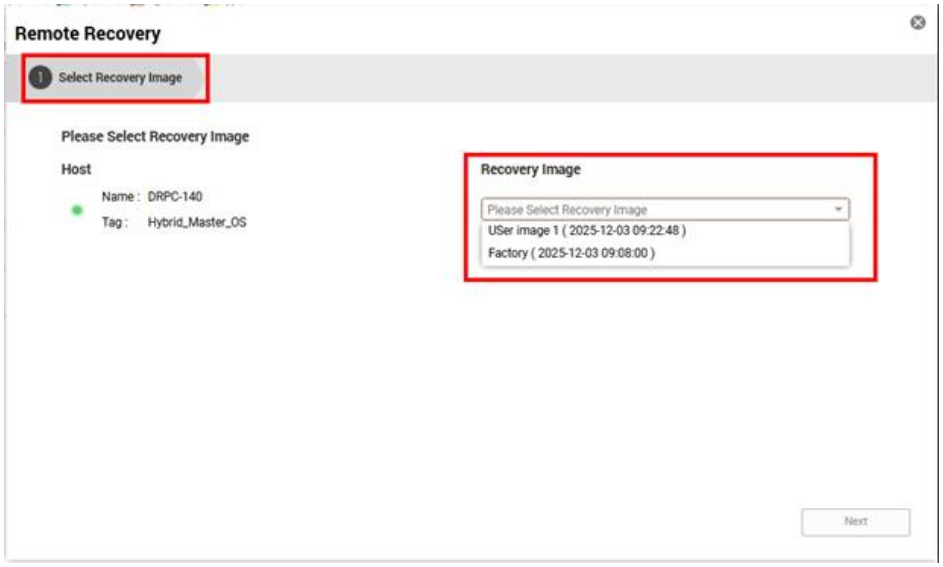


Step 1: Open the Device List and Start Recovery

1. Go to **Device Management > All Devices**. In the left-side group list, switch to **IRMAgent-Windows** to quickly locate Windows hosts that support OKR2.
2. In the device list, confirm that the target host displays the **OKR2 Support** icon.
3. Right-click the target host row, then select **Recovery** from the context menu to start the remote recovery process.

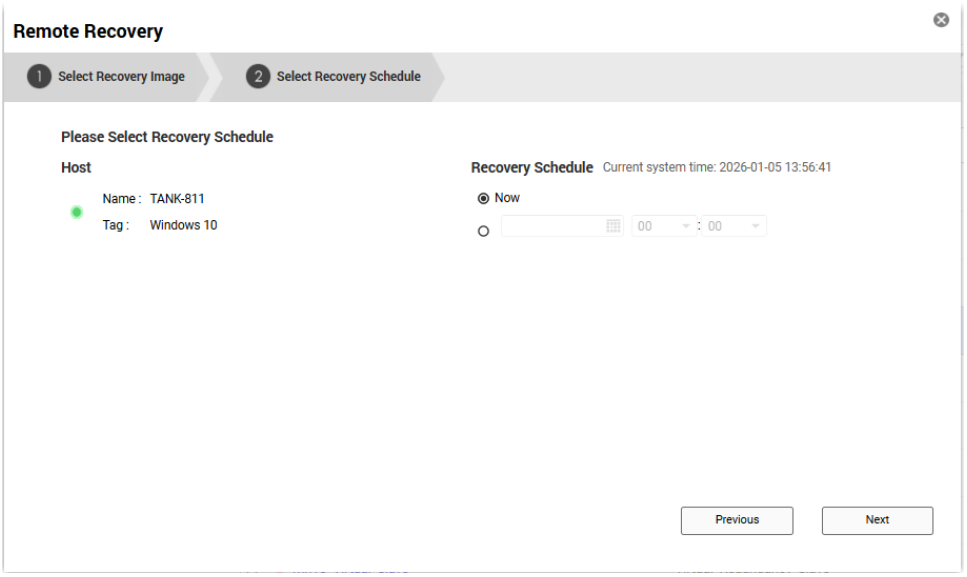
Step 2: Before Start Recovery

1. The system displays the Before Start Recovery window and checks whether the target device has an available recovery image.
2. Under Selected Device, confirm that the device status shows Recoverable.
3. Click Next to proceed to the next step.



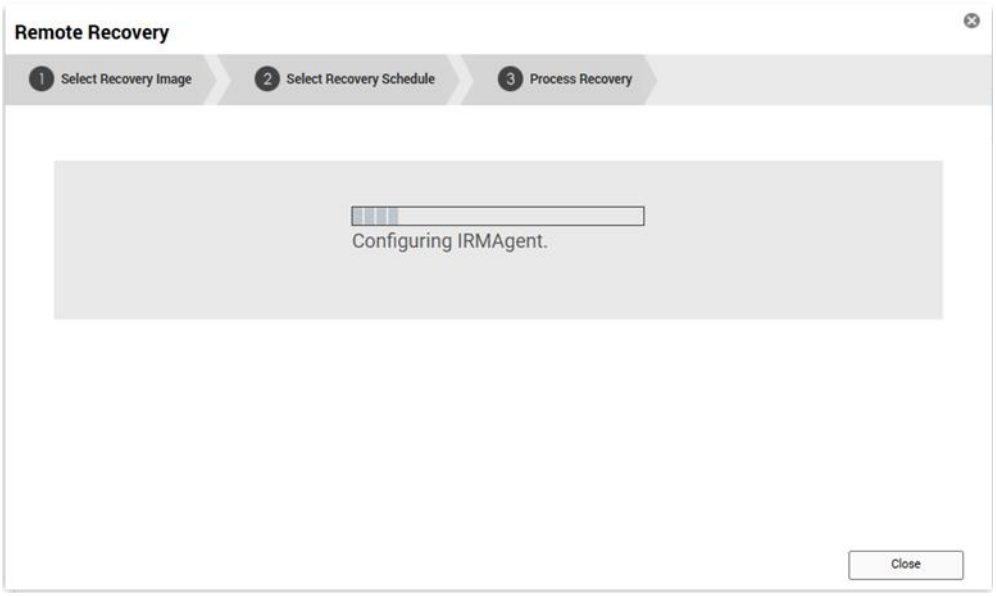
Step 3: Select Recovery Image

1. From the Recovery Image drop-down list, select the image to apply (for example, User image 1 or Factory).
2. Click Next to proceed to the next step.



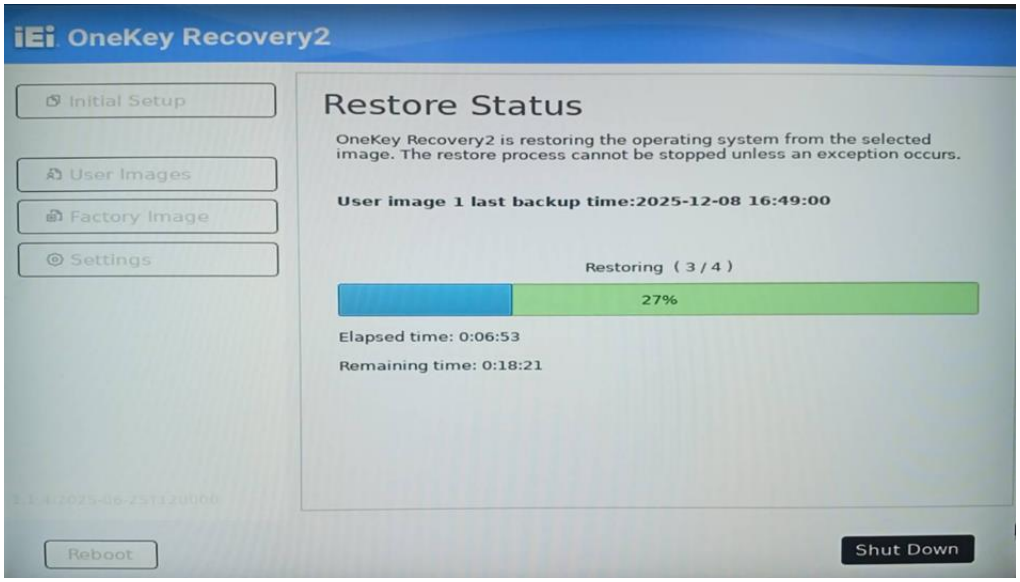
Step 4: Select a Recovery Schedule

1. Under **Recovery Schedule**, choose how to run the recovery:
   - **Now:** Run recovery immediately.
   - **Scheduled:** Run recovery at a specified date and time (the **Current system time** is shown on the right for reference).
2. After completing the settings, click Next to start the process.

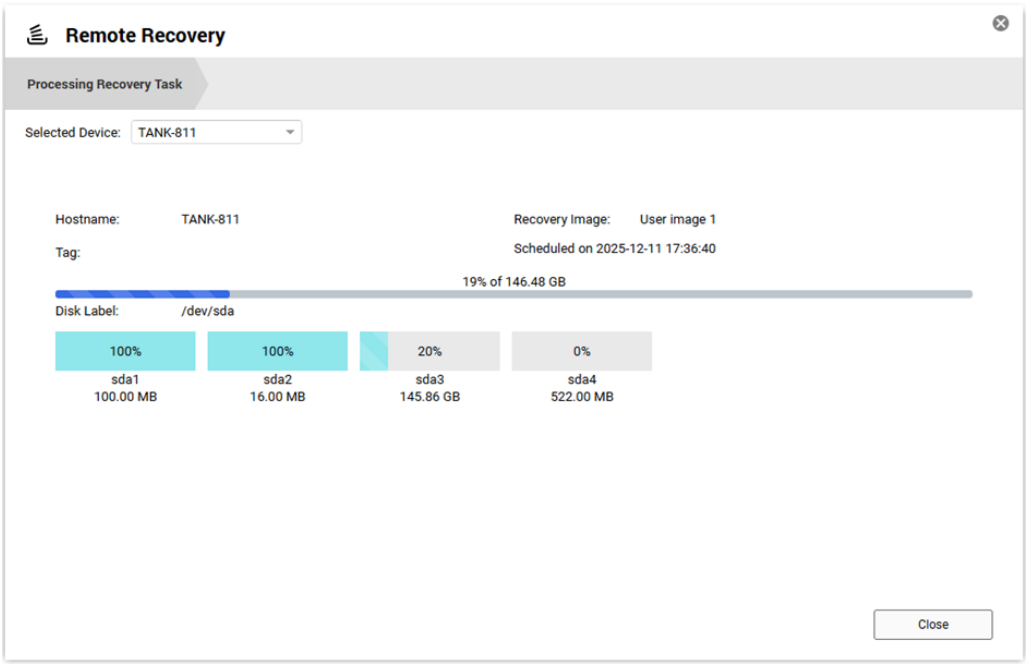


Step 5: Process Recovery

1. The system enters **Process Recovery** and displays status messages (for example, **Configuring IRMAgent**), indicating that IRM is configuring the IRM Agent and preparing to trigger the recovery task.
2. After the recovery is triggered, the target host will reboot automatically and start the **OneKey Recovery 2 (OKR2)** recovery process, restoring the selected image to the system disk.



Step 6: Processing Recovery Task



During recovery, you can view detailed information on the **Processing Recovery Task** page:

- **Selected Device:** The device currently performing recovery
- **Hostname / Tag:** Device identification information
- **Recovery Image / Scheduled on:** The image used for this recovery and the scheduled time
- **Overall Progress:** Percentage and data volume (e.g., **19% of 146.48 GB**)

- **Disk Label:** Target disk (e.g., **/dev/sda**)
- **Partition Progress:** Recovery progress for each partition (**sda1 / sda2 / sda3 / sda4**)

At the same time, the target host will display the **OKR2 Restore Status** screen, where you can view the restoring progress, **Elapsed time**, **Remaining time**, and other details.

After the recovery is completed, click **Close** to close the window and return to IRM.

Note:

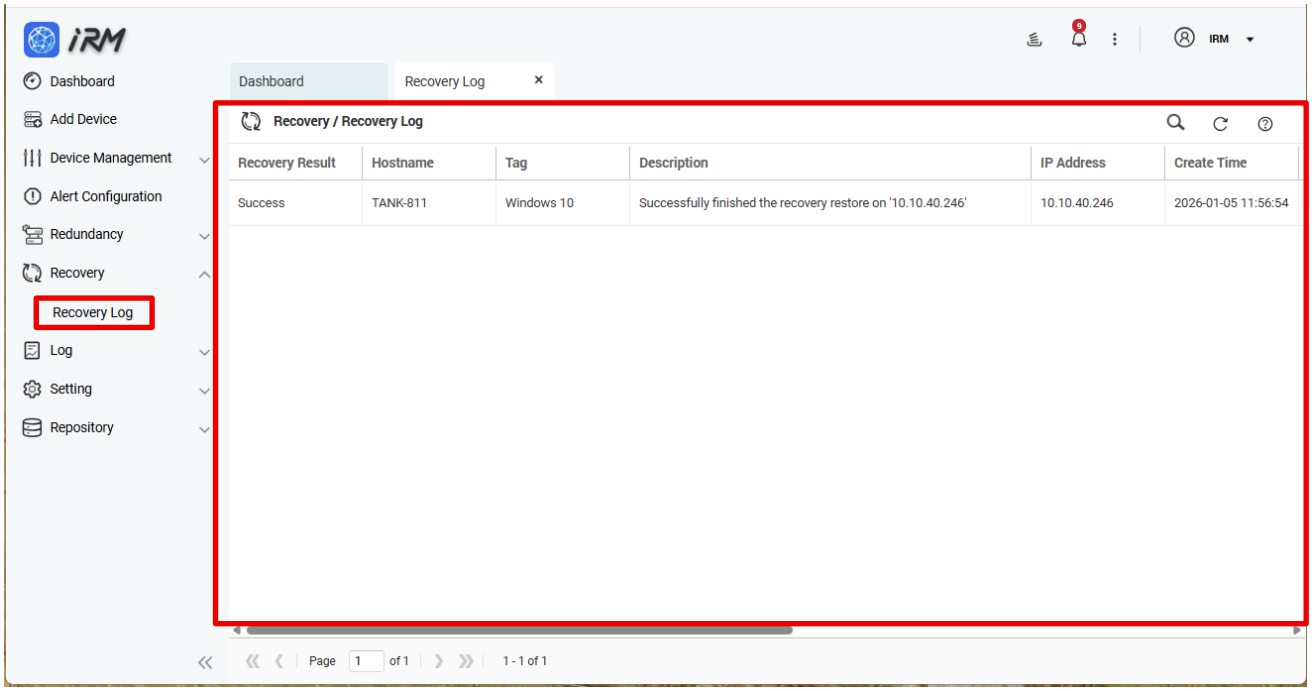
1. After you click Confirm and Set Recovery, the target device will reboot automatically and enter the OKR2 recovery process. If a schedule time is set, the device will automatically enter recovery mode at the specified time and start the recovery.
2. After the user logs in to the system, it is recommended to pause or disable Windows Update to avoid affecting the recovery process and reporting time.
3. If the client device does not report the OKR2 execution status/report for a period of time, IRM may consider the OKR2 recovery to have failed. Prolonged Windows updates may delay status reporting and cause IRM to misjudge the recovery result.

8.2 Recovery Log

The **Recovery Log** is used to record and query the execution history and results of **remote recovery (OKR2 Remote Recovery)**. After an administrator initiates a recovery task, IRM writes key task information to the log, making it easier to track recovery status, confirm whether it succeeded, and troubleshoot issues later.

The Recovery Log typically includes (as shown on the screen):

- Device information: Hostname, Tag, IP, etc.
- Recovery details: The applied Recovery Image (User image / Factory) and the schedule option (Now / Scheduled)
- Task status: Start/end time, execution result (Success / Failed), and error reason/messages (if any)
- How to access the Recovery Log: On the Recovery page, select Recovery Log.


iRM
IRM
Dashboard
Add Device
Device Management
Alert Configuration
Redundancy
Recovery
Recovery Log
Log
Setting
Repository
Dashboard
Recovery Log
Recovery / Recovery Log
Recovery Result
Hostname
Tag
Description
IP Address
Create Time
Success
TANK-811
Windows 10
Successfully finished the recovery restore on '10.10.40.246'
10.10.40.246
2026-01-05 11:56:54
Page 1 of 1
1 - 1 of 1

Chapter

9

9 Logs

Logs provides centralized access to system, device, and event records, helping administrators troubleshoot issues, track events, and perform audits. This feature includes the following log types:

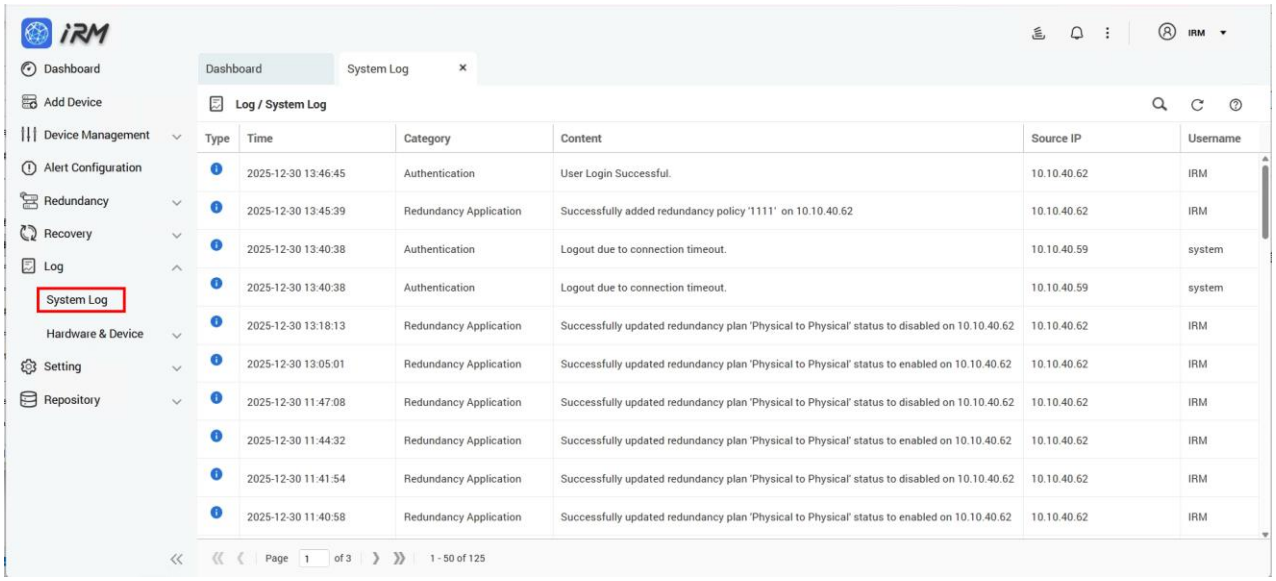
- **System Log:** Records system-level events and operating status.
- **Agent Alert Log:** Aggregates alert events reported to IRM by Agents on managed devices.
- **IPMI Alert Log:** Records alert events triggered by IPMI (IEI iRIS) monitoring items.
- **IPMI Event List:** Displays event logs reported by IPMI devices.
- **Historical Data Log:** Stores historical records of monitored values or system-collected data.

This page is an advanced application. The user sets the corresponding alert type on the Alert Configuration page. Once an event occurs, you will be able to view the results in the Alert Log on the Logs page (the alert log generation time needs to be set in the Alert Notification setting in the Settings / Notification Settings).

9.1 System Log

System Log shows the messages, alerts, errors, and other events logged by IRM as well as the user's activities.

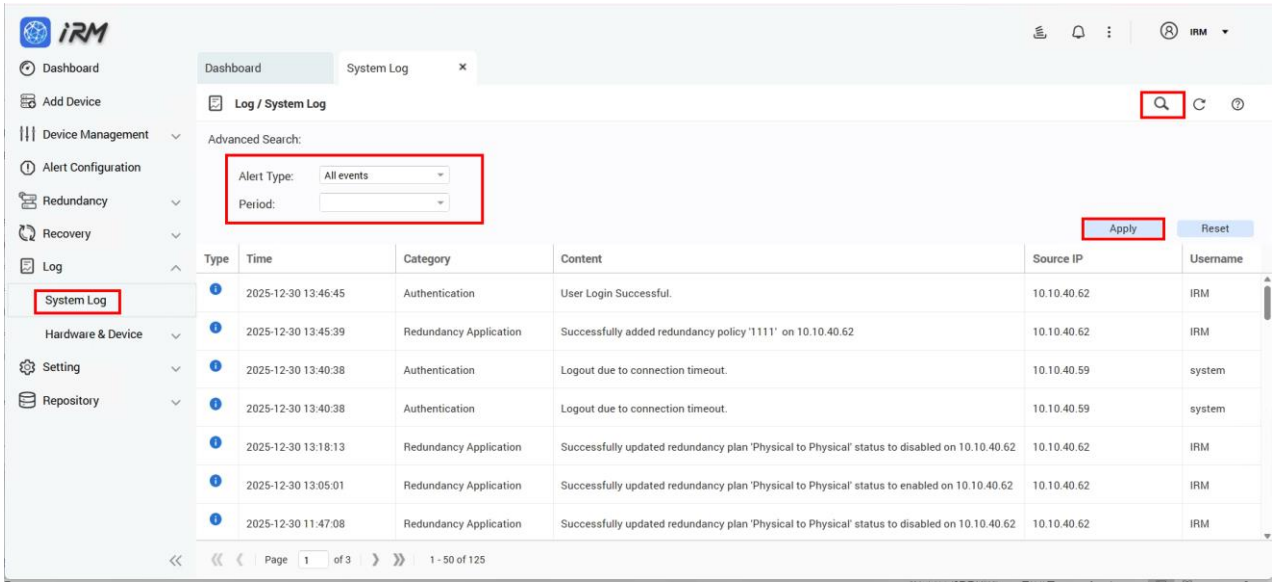
How to access the System Log: In the Logs page, select "System Log".



System Log provides advanced search options that allow users to search according to different alert types:

Step 1: Select the alert type.

Step 2: After selecting the period, press "Apply" to complete the operation.



9.2 Hardware & Device

9.1.1 Agent Alerts Log

IRM Alerts Log page displays alerts for all Windows or Linux devices. Users need to select IRM Alerts from the Alert Configuration page and add one of the four types: CPU usage, memory usage, power status, or disk usage. Once an event occurs, you will be able to view the details of the alert on this page after the event has lasted for 5 minutes.

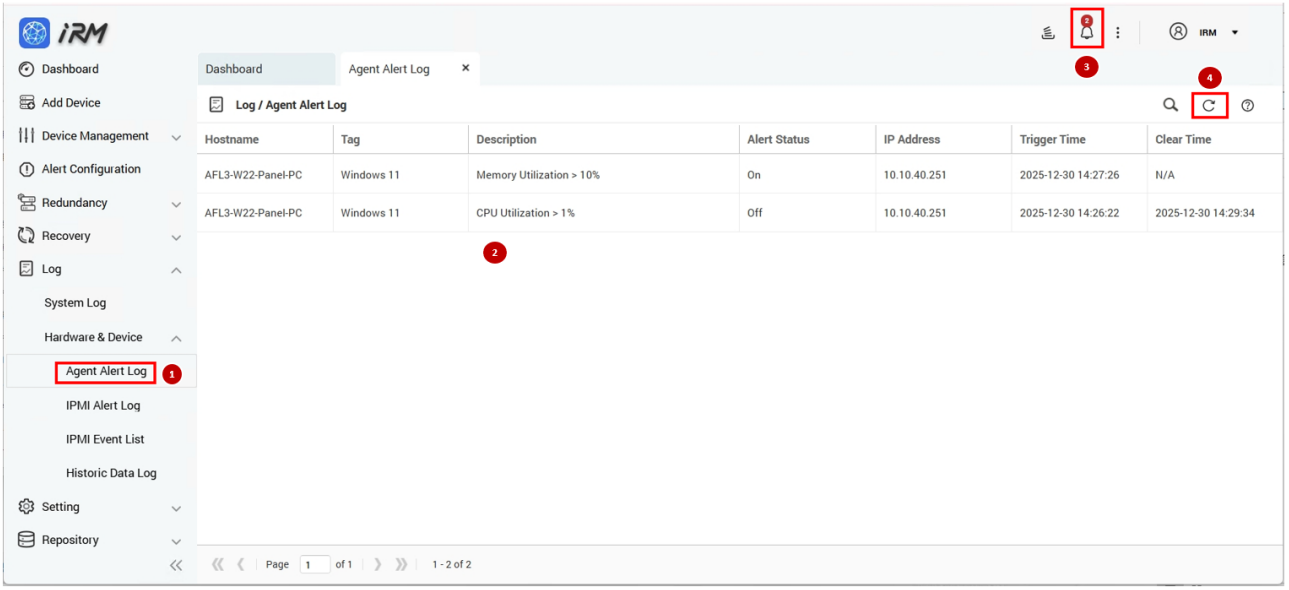
The basic steps are:

Step 1: Select Agent Alerts Log in the Logs page.

Step 2: View the agent alert info, including the Hostname, Tag, Description and Alert Status etc.

Step 3: View the current number of alerts.

Step 4: Click the "Refresh" button at any time to get the latest alert message.

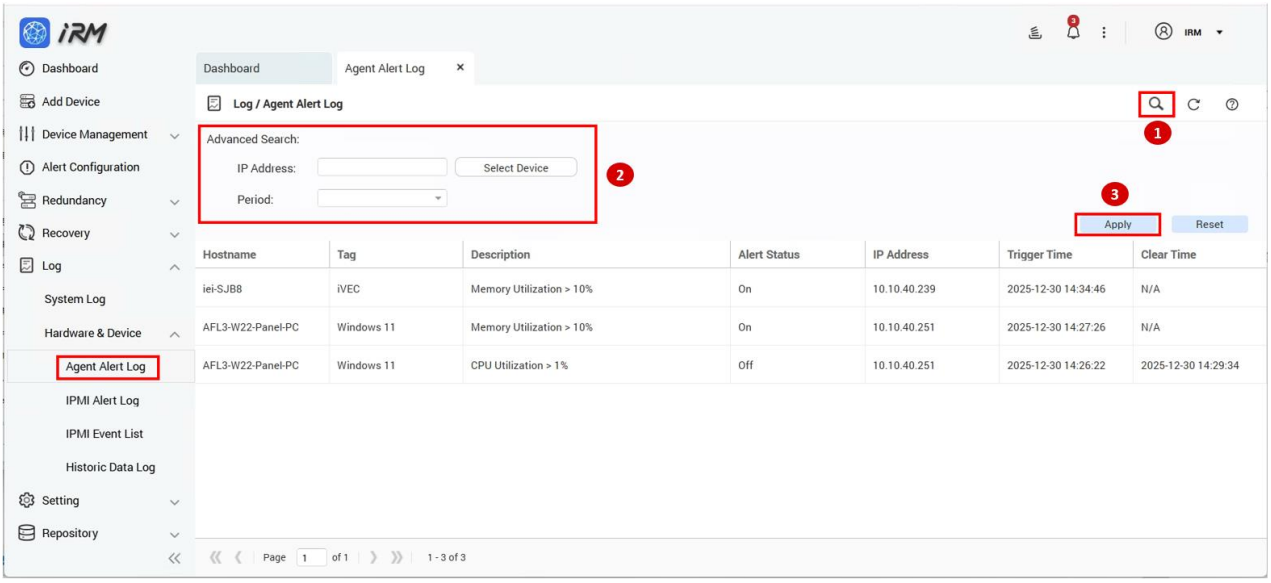


The Agent Alerts Log has advanced search features:

Step 1: Click the "Search Device" button on the Agent Alerts Log page

Step 2: Click Select Device and select a device (can only select one).

Step 3: Click the "Apply" button to search for all alerts on the target device.



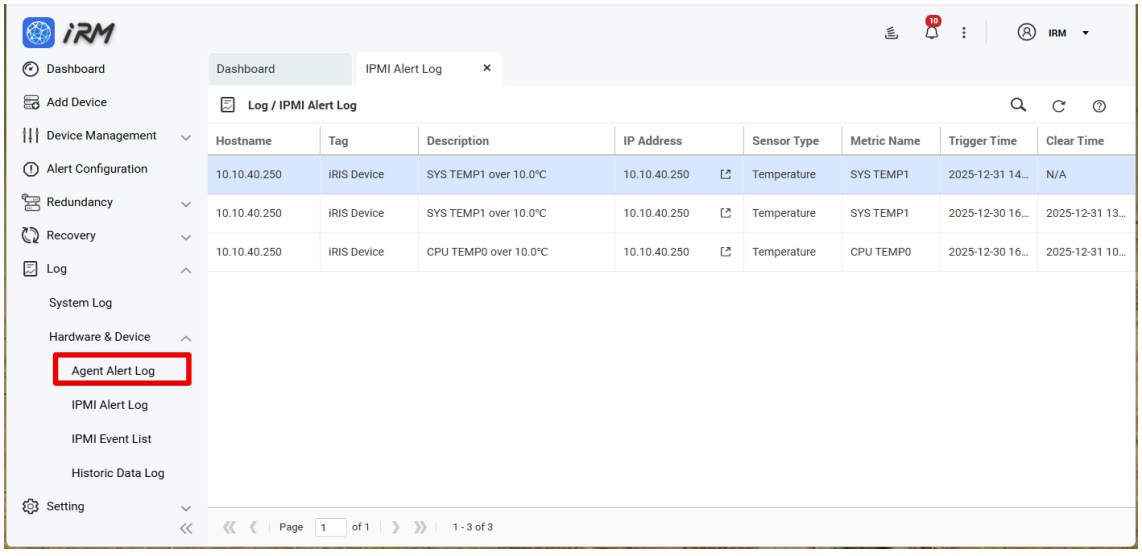
IRM provides Log Retention Settings feature, which can be set for periodic viewing. The default alert log retention period is 1 week. Logs older than one week will be deleted by the system. Users can adjust the length of period according to their needs. See 10.3 Application Settings.

9.1.2 IPMI Alert Log

The **IPMI Alert Log** page displays IPMI sensor alert events (such as temperature, voltage, or power status) for all managed **iRIS** devices. You must first create and enable an **IPMI Alert** rule in **Alert Configuration**. After an event is triggered, you can view the alert details on this page.

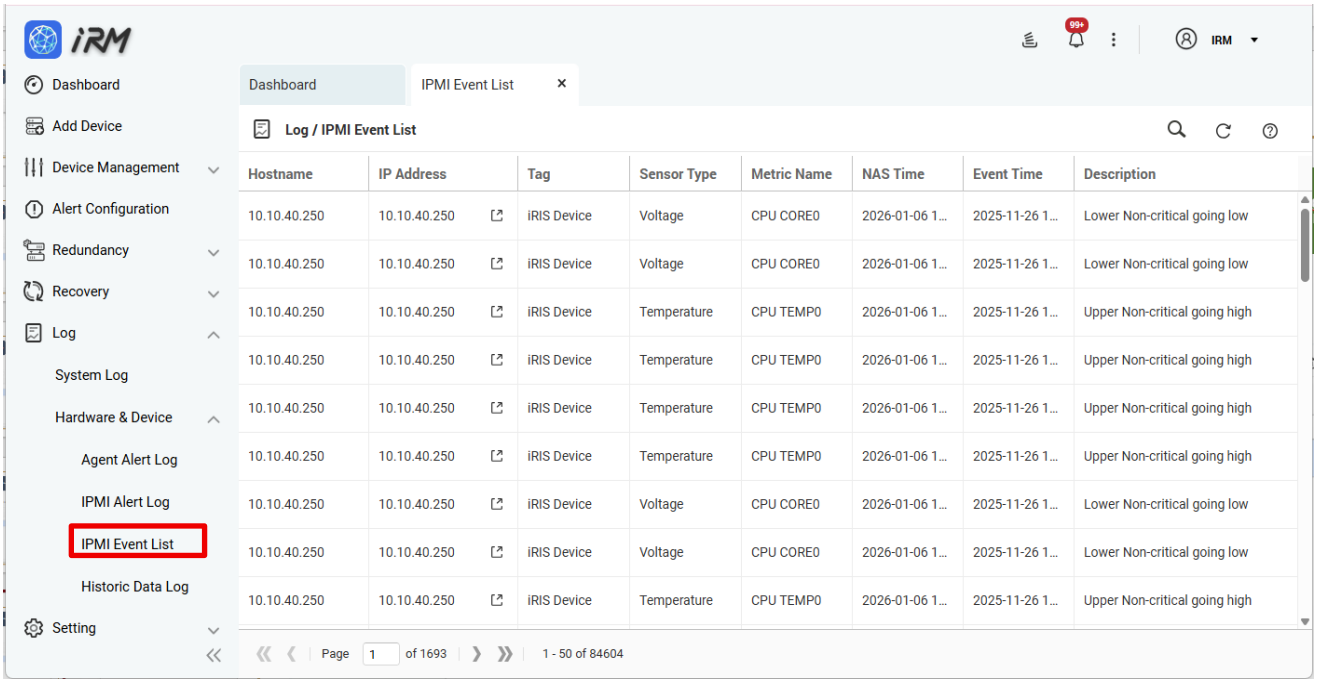
Before records can appear in **IPMI Alert Log**, complete the following setup:

1. Add the iRIS device to IRM management：Go to **Add Device**, select **IEI iRIS Device**, add it by **IP address**, and configure the management account.
2. Go to **Alert Configuration**, click **Add (+)**, create an **IPMI Alert**, and apply it to the target iRIS device after configuring the following items:
    - Alert Name
    - Sensor Type：Temperature / Voltage / Power
    - Sensor Name：Displayed dynamically based on the selected Sensor Type
        - Temperature：例如 SYS TEMP1、CPU TEMP0
        - Voltage：例如 DDR、CPU CORE0、5V、12V、3V3SB、3V3
    - Condition：
        - Temperature：Condition (°C). Set the comparison operator and threshold (range: 0–120).
        - Condition (V). Set < / > and the threshold (range: 0–12.6).
        - Power：Condition (e.g., Power On → Power On / Power On → Power Off)
3. Records are generated only after an event is triggered:
   An entry will appear in IPMI Alert Log only after the device status meets the alert condition and triggers an event.



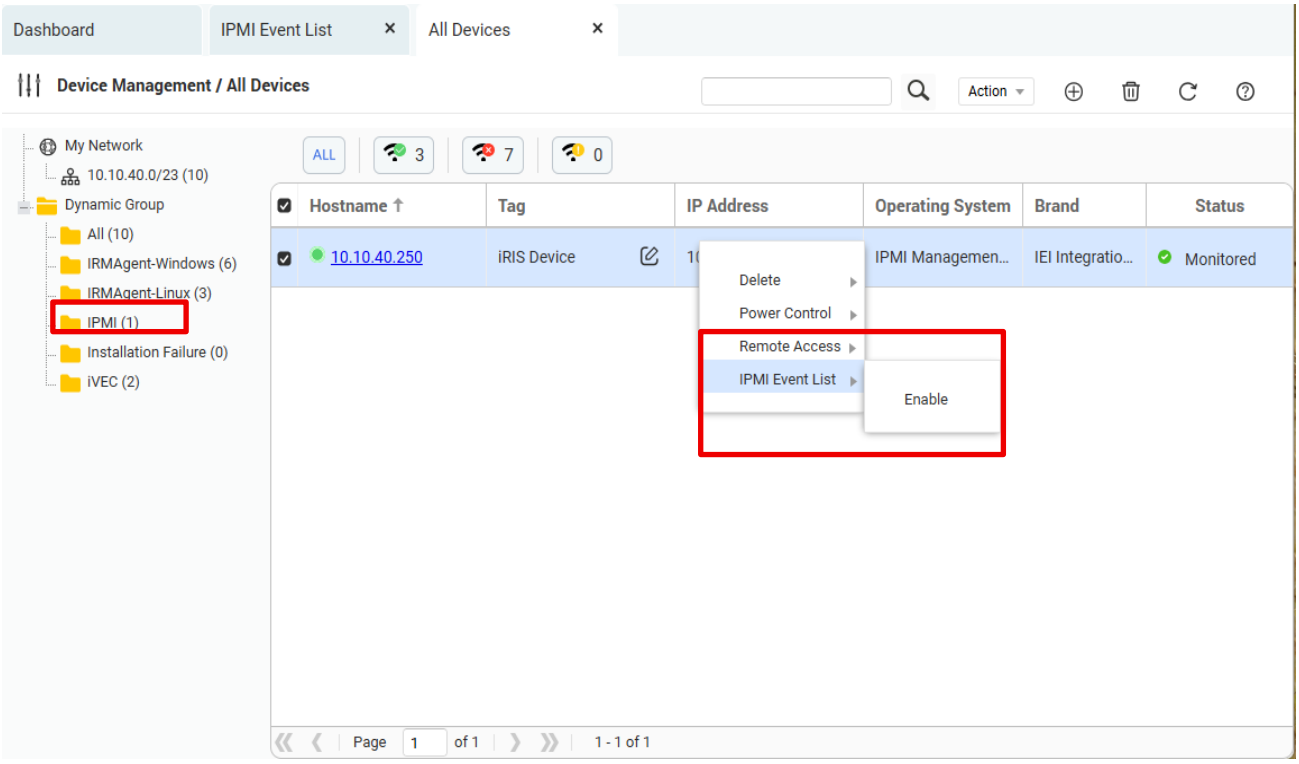
9.1.3 IPMI Event List

The IPMI Event List provides a centralized view of event logs (Events) reported to IRM by IEI iRIS (IPMI) devices. On this page, administrators can quickly identify abnormal events and threshold status changes for monitored items such as temperature and voltage (for example, Upper Non-critical going high or Lower Non-critical going low) to support tracking and troubleshooting.



Notes

- The target device must be added to IRM and must be a manageable IPMI (iRIS) device.
- Before using the IPMI Event List, make sure IPMI Event reporting for the device is enabled. If it is Disabled, the event list will not be displayed or updated.
- If the event list is not displayed or not updating, go to Device Management > IPMI:
  Right-click the target IPMI device → IPMI Event List > Enable.
  If event reporting is not required, you can select Disable to turn it off.



9.1.4 Historic Data Log

IRM provides historical data obtained by a specific sensor type of a specific device over a specific time frame. For example, a user can select a device, set the period as one day or one week, select the sensor type as CPU usage, then IRM will present the CPU Utilization as a line chart. This feature is useful for analyzing the values of different sensor types over a specific time frame in order to take actions for improvement.

Notes

The maximum query range is 3 months (the longest Period is Three months; Custom is also limited to a maximum of 3 months).

To display the historical data as a line chart in IRM, follow the steps below:

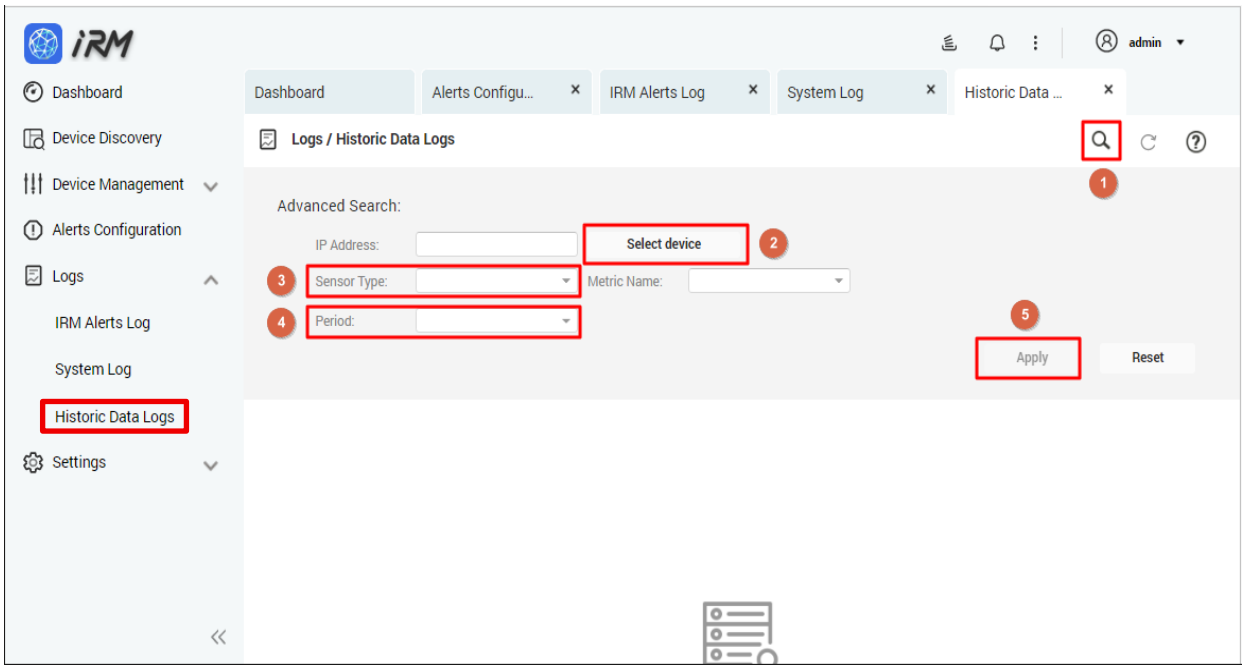
Step 1: Click the “Search Device” button.

Step 2: Select the target device (required).

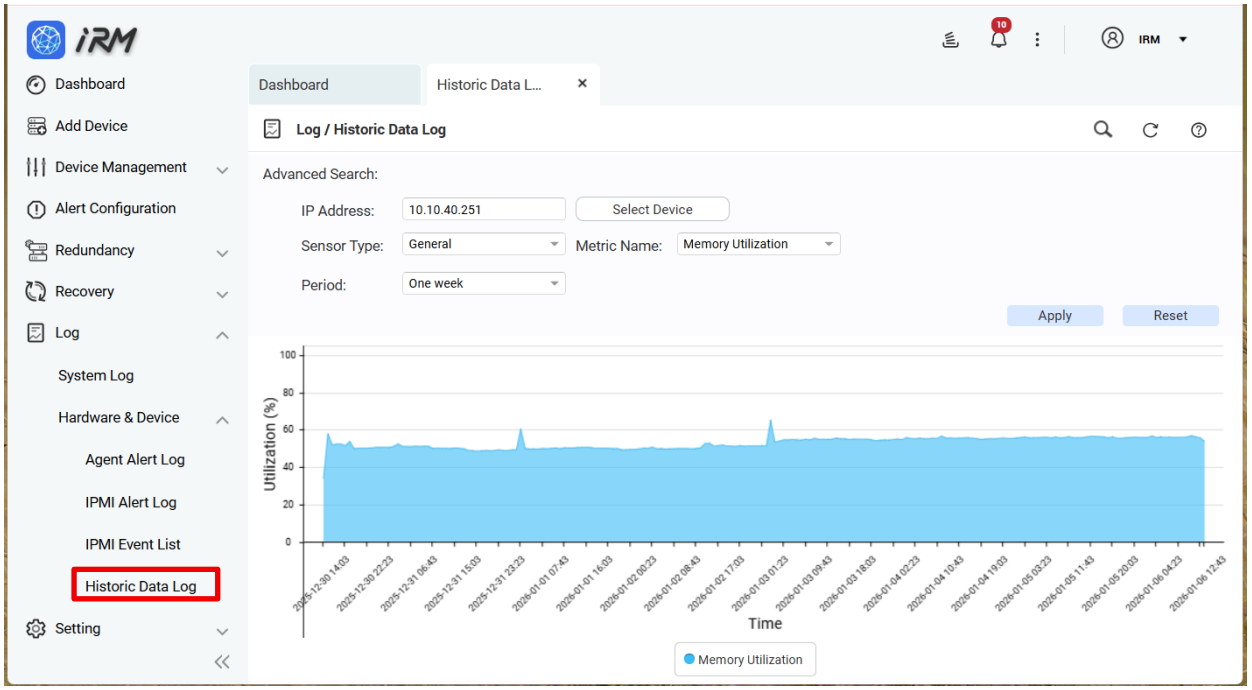
Step 3: Select Metric Name (required).

Step 4: Select the Period (required).

Step 5: Click “Apply” button to complete the operation.



The line chart for a specific device is shown below.



IRM provides Log Retention Settings feature, which can be set for periodic viewing. The default Historic Data Log retention period is 1 week. Logs older than one week will be deleted by the system. Users can adjust the length of period according to their needs. See **9.3.1 Log Retention Period.**

Chapter

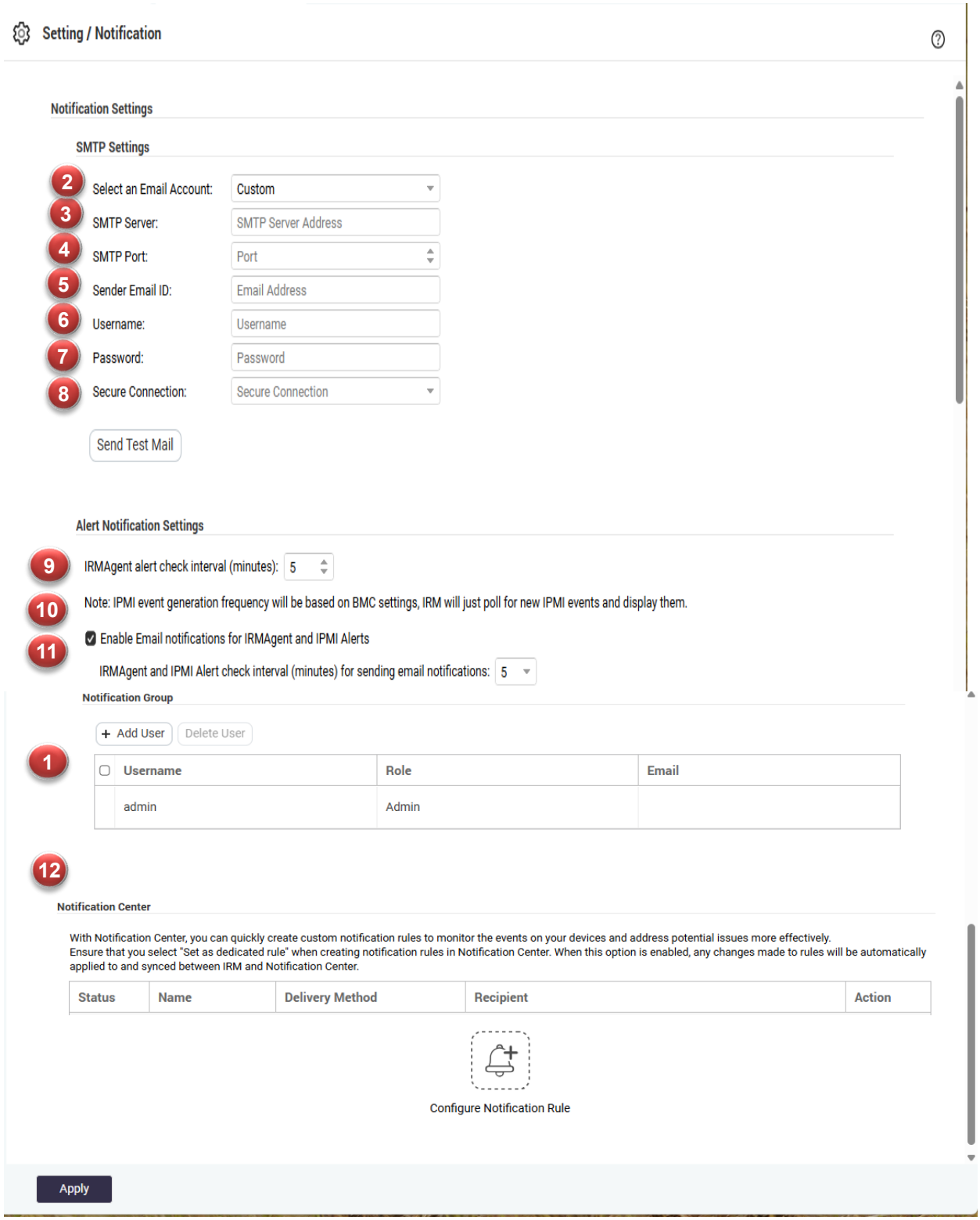
10

10 Settings

The Settings page contains the system user account and permissions management; **only the user with administrator permissions can enter this page.**

10.1 Notification Settings

The notification settings allow users to be notified immediately when an event occurs, thus improving emergency response capabilities. Detailed setup instructions are as follows:


Setting / Notification
Notification Settings
SMTP Settings
2
Select an Email Account:
Custom
3
SMTP Server:
SMTP Server Address
4
SMTP Port:
Port
5
Sender Email ID:
Email Address
6
Username:
Username
7
Password:
Password
8
Secure Connection:
Secure Connection
Send Test Mail
Alert Notification Settings
9
IRMAgent alert check interval (minutes):
5
10
Note: IPMI event generation frequency will be based on BMC settings, IRM will just poll for new IPMI events and display them.
11
Enable Email notifications for IRMAgent and IPMI Alerts
IRMAgent and IPMI Alert check interval (minutes) for sending email notifications:
5
Notification Group
1
+ Add User
Delete User
Username
Role
Email
admin
Admin
12
Notification Center
With Notification Center, you can quickly create custom notification rules to monitor the events on your devices and address potential issues more effectively.
Ensure that you select "Set as dedicated rule" when creating notification rules in Notification Center. When this option is enabled, any changes made to rules will be automatically applied to and synced between IRM and Notification Center.
Status
Name
Delivery Method
Recipient
Action
Configure Notification Rule
Apply

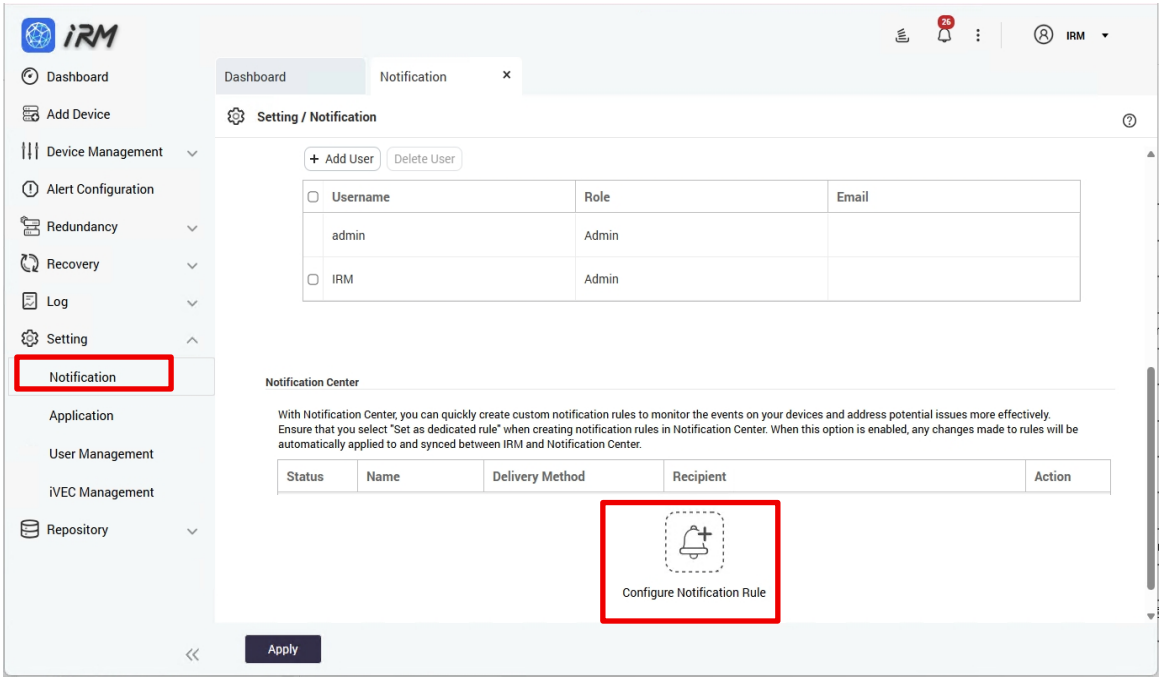
1. The list of accounts that need to be notified
2. SMTP type
3. SMTP server location
4. SMTP server port
5. Email Address
6. E-mail account
7. E-mail password
8. Secure connection mode
9. Sets how often IRM checks alert status at a fixed interval.
10. Whether to enable e-mail sent Agent alert
11. Time interval for sending repeat alerts
12. Notification Center

Notification Center

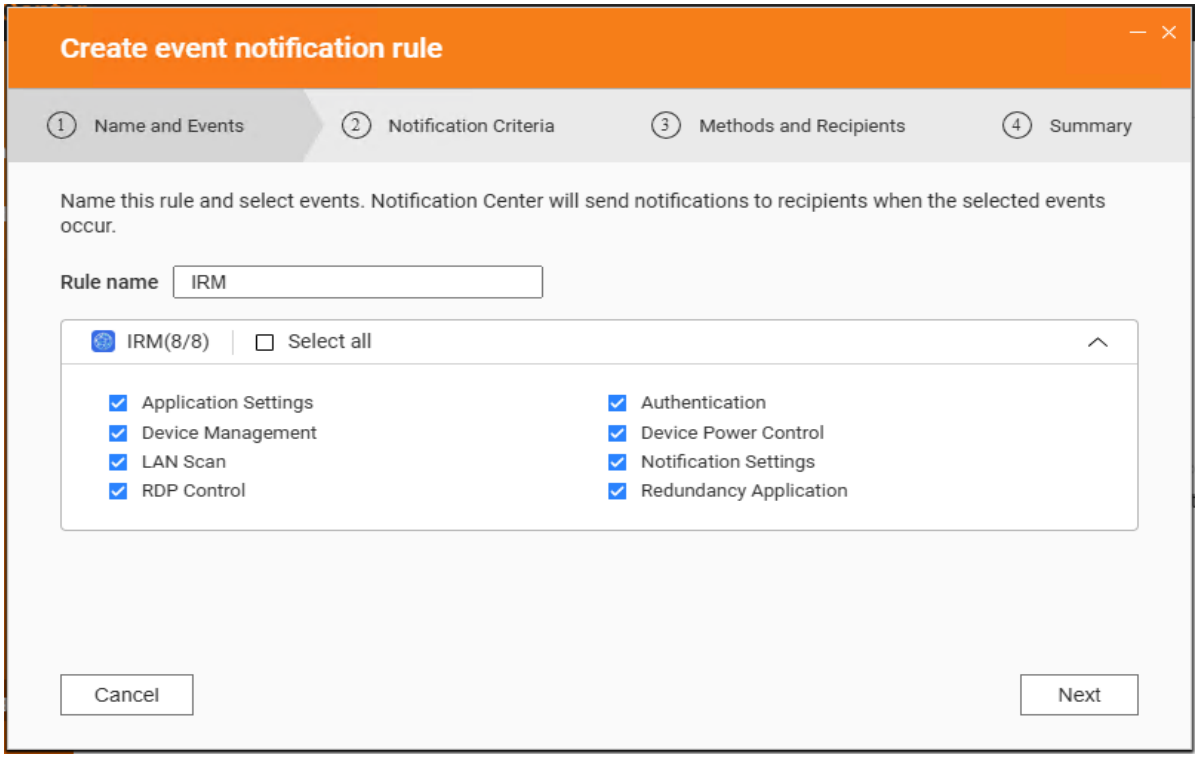
The **Notification Center** is used to manage IRM's notification mechanism. Administrators can create and maintain notification rules here. This feature integrates with **QTS** on the IRM Server to provide notification services. When the system detects an **Event Notification**, it can automatically send notifications to designated recipients based on the configured **severity level**, **keywords**, and **time range**, using the specified delivery method. Through the Notification Center, administrators can track system operation logs and monitoring/alert status in real time, improving event tracking and troubleshooting efficiency.

Supported type：Event Notification.

Notification methods: Supports Email, and can also enable SMS, Push Service, and Qmix notification channels depending on system settings.

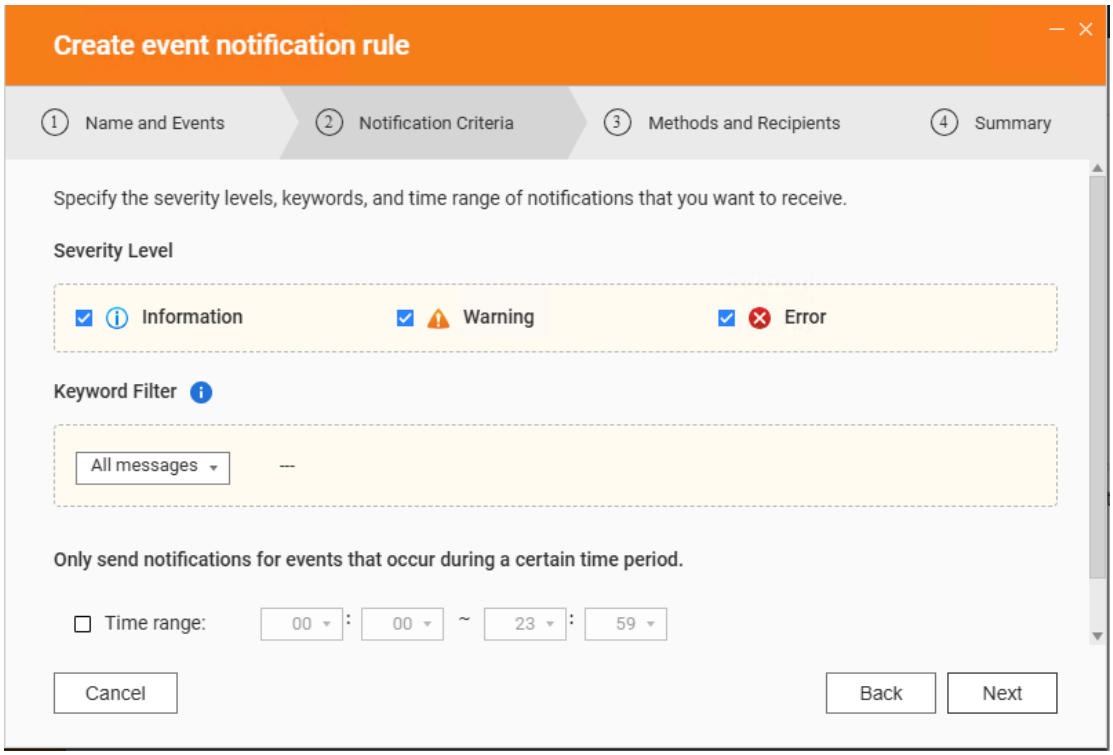


After clicking**「Configure Notification Rules」**, the system automatically opens your browser and redirects you to the Notification Center page to create event notification rules.



On the ① **Name and Events** page, enter a rule name (for example, **IRM**) and select the event categories you want to receive notifications for.

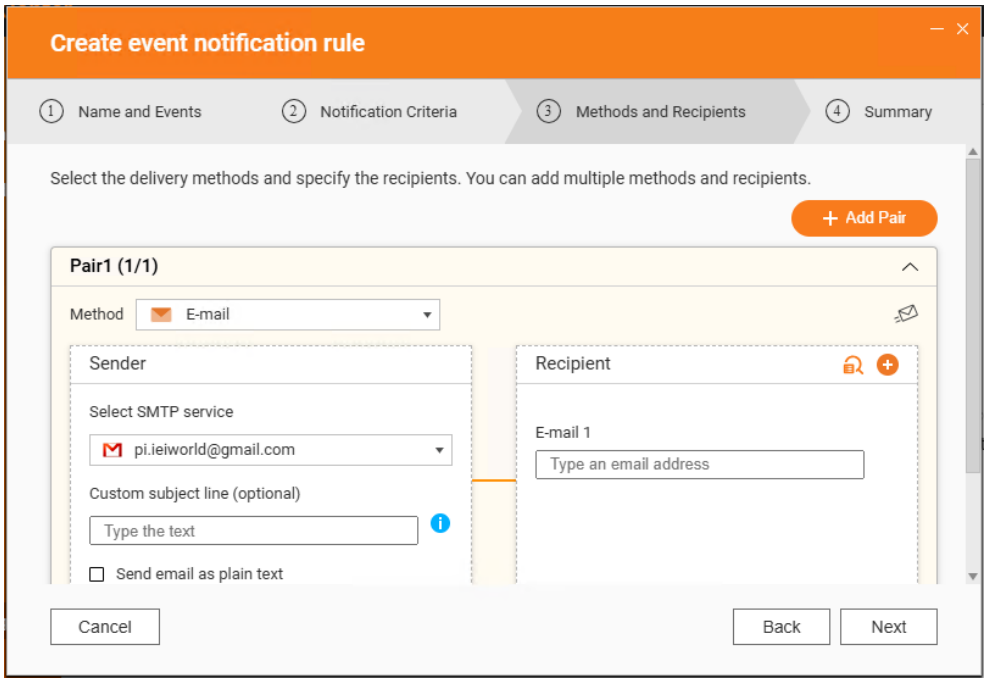
After finishing, click **Next** to proceed to ② **Notification Criteria.**



On the ② **Notification Criteria** page, configure the notification trigger conditions, including the severity level, keywords, and time range:

1. **Severity Level:** Select the levels you want to receive notifications for (**Information / Warning / Error**).
2. **Keyword Filter:** Select **All messages**, or configure keyword conditions as needed.
3. **Time Range:** If you only want to receive notifications during specific periods, select **Time Range** and set the start and end time.

After finishing, click **Next** to proceed to ③ **Method and Recipients.**



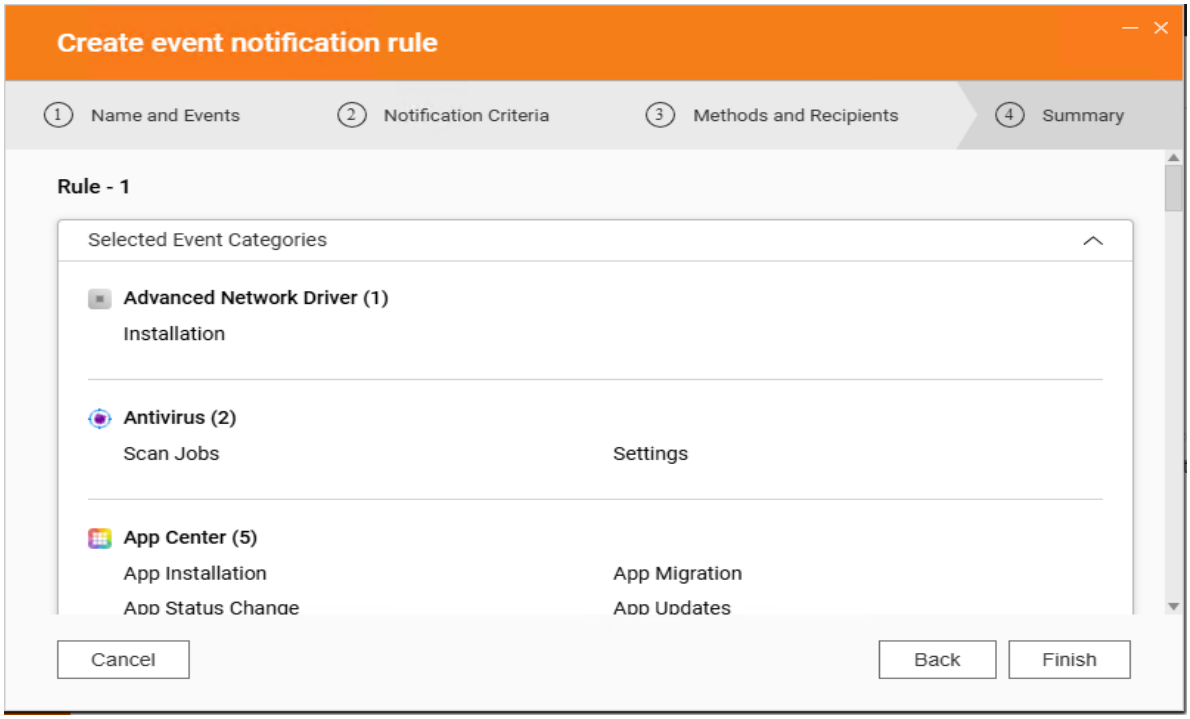
Step 1: ③ Method and Recipients

In this step, select the notification delivery method and configure the recipient information. The system supports multiple notification channels, including Email, SMS, Push Service, and Qmix. Depending on the selected method, you must complete the corresponding service settings (for example, Email requires selecting an SMTP sender account; SMS requires configuring an SMSC service; Push Service requires signing in to myQNAPcloud; and Qmix requires QNAP ID pairing).

You can also click「＋Add Pair」to add multiple delivery methods and recipient sets, allowing the same rule to send notifications to different recipient groups.

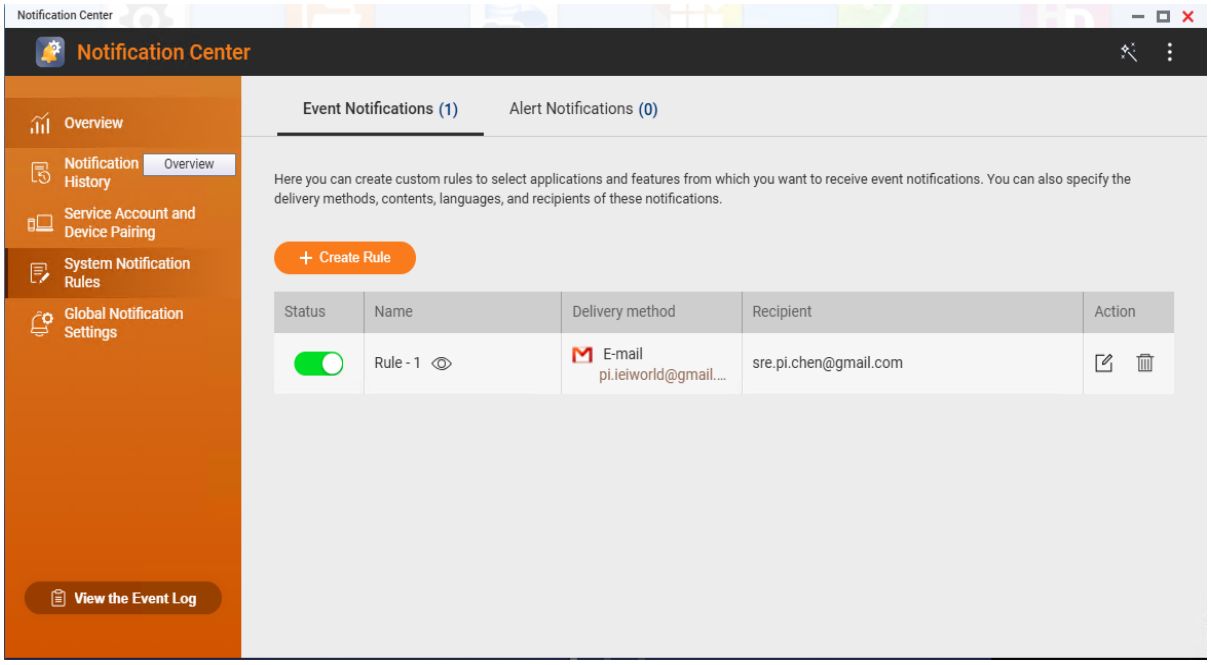
- **Email:** Gmail, Yahoo, QQ/QQ VIP, NetEase 126 / NetEase 163, Yahoo Kimo, Outlook.com
- **SMSC:** Clickatell, Nexmo, Twilio
- Push Service: myQNAPcloud: https://www.myqnapcloud.com/
- Qmix: https://www.qnap.com/zh-tw/software/qmiix

After completing the settings, click Next to proceed to ④ **Summary**.



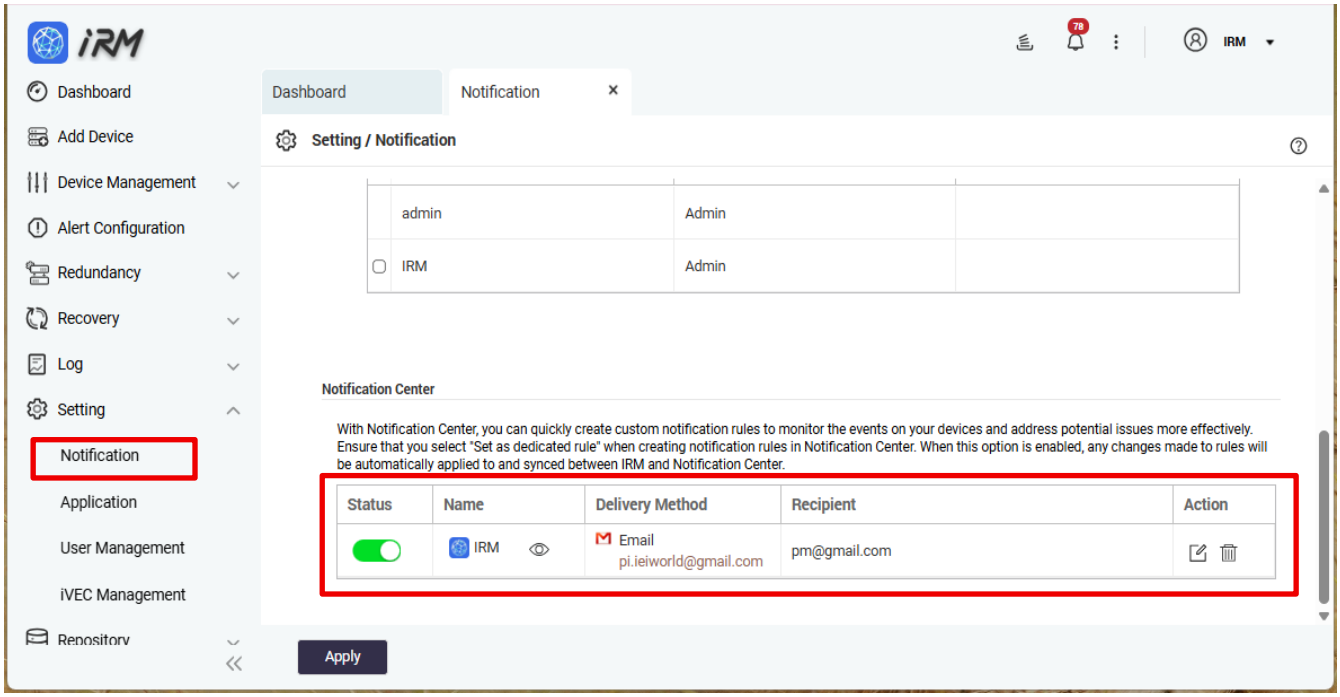
Step 2: ④ Summary。

On the ④ **Summary** page, the system summarizes the settings of the event notification rule (including the rule name and the selected event categories/items). Verify that the information is correct. If changes are needed, click **Back** to revise the settings. After confirmation, click **Finish** to create the event notification rule.



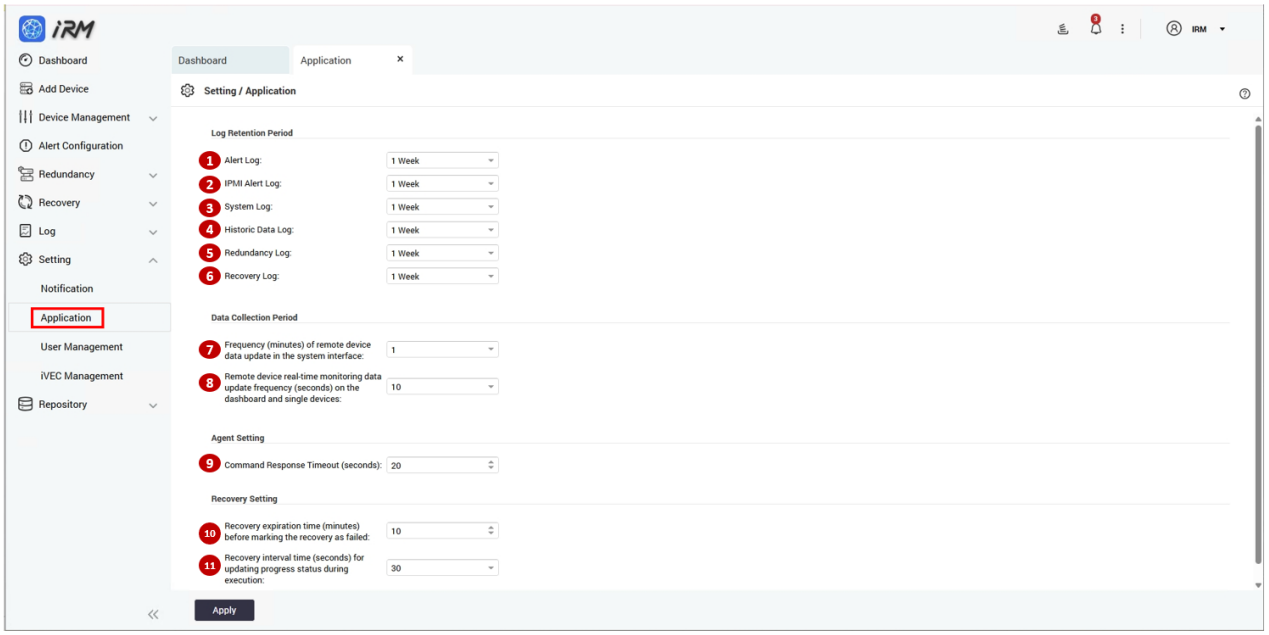
Step 3: Confirm the System Notification Rule Is Created and Enabled

After creation, go back to IRM Settings > Notification > Notification Center. You should see the newly created rule (for example, IRM) in the rule list. Confirm that the Status switch on the left is Enabled (green), and verify that the Delivery method (for example, E-mail) and Recipient information are correct.



10.2 Application Settings

Application Settings let users adjust the system log files and video retention settings according to their needs, users can also adjust real-time data and automatic device scan period based on performance.



10.2.1 Log Retention Period

You can configure how long each type of log is retained in the system (via a drop-down list). Available options are **1 Week**, **1 Month**, and **3 Months**.

1. Alert log retention period
2. IPMI alert log retention period
3. System log retention period
4. Historical data log retention period
5. Redundancy log retention period
6. Recovery log retention period

Note：: A longer retention period may consume more storage space.

10.2.2 Data Collection Period

Configure the update frequency for device data on the interface/dashboard.

1. Frequency (minutes) of remote device data update in the system interface
2. Remote device real-time monitoring data update frequency (seconds) on the dashboard and single devices

Note：A higher update frequency may increase system and network load.

10.2.3 Agent Setting

1. Command Response Timeout (seconds)

The maximum time IRM waits for an agent response after sending a command.

10.2.4 Recovery Setting

1. Recovery expiration time (minutes) before marking the recovery as failed
2. Recovery interval time (seconds) for updating progress status during execution

10.3 User Management

User Management provides the functions for setting up user permissions, adding or deleting users. IRM account must be bundled with a QTS account. Only QTS accounts can be added as IRM accounts. If a QTS account is deleted, the associated IRM will become unavailable.

10.3.1 Default User

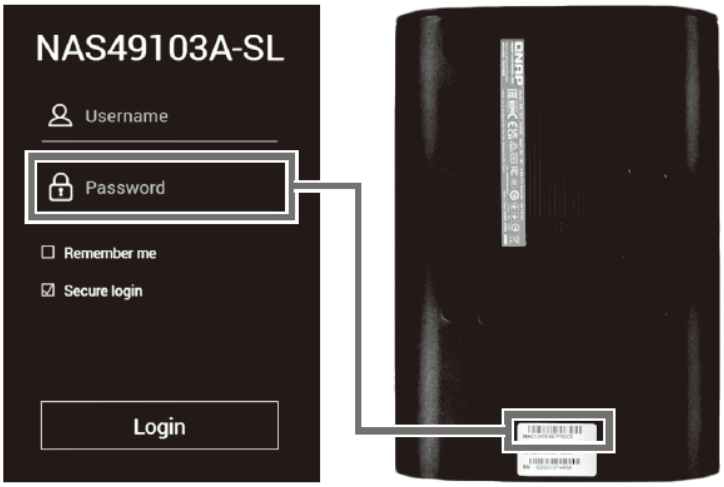
The default ID is "IRM" and the password is "Irm" followed by the last six letters of the hardware's first MAC address (in uppercase and without special characters).

Note: *The ID and password are case-sensitive.*

Example:

MAC1 address: 00-08-9B-F6-15-75

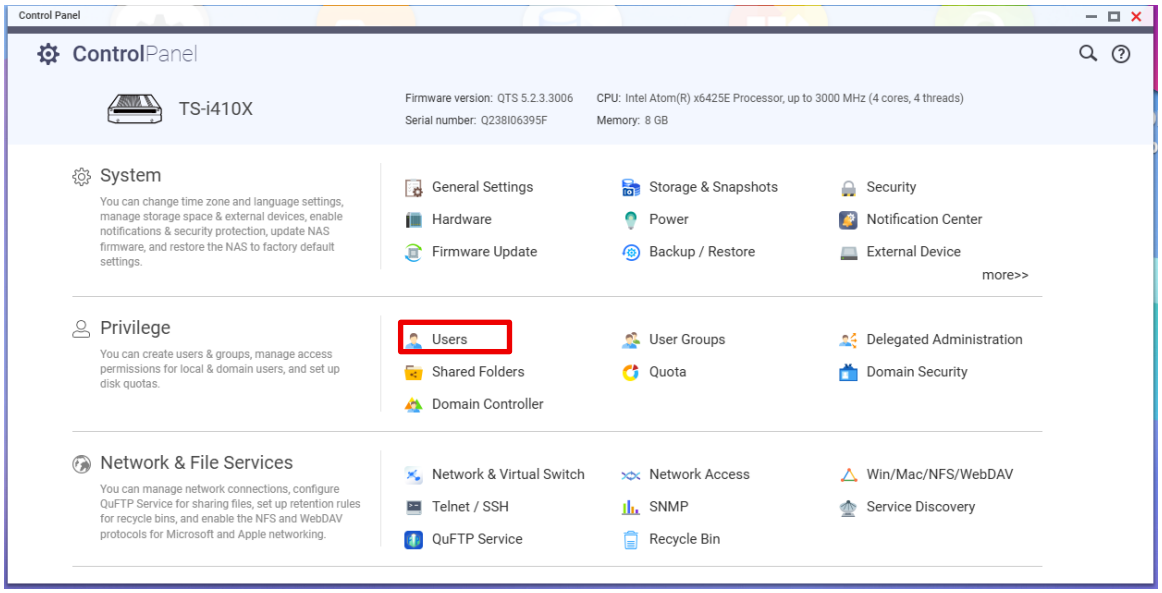
Username: IRM
Password: IrmF61575



10.3.2 Create New User

To create a new user other than using the default user account, you need to create a local user in the QTS by following the steps below.

Step 1: Go to **Control Panel** > **Privilege** > **Users**.



Step 2: Click **Create** > **Create a User**.
The **Create a User** window appears.

Step 3: Specify the following information.

Field	Description
Profile photo	Optional: Upload a profile photo for the user.
User Description (optional)	Specify a user description that contains a maximum of 50 characters.
Username	Specify a username that contains 1 to 32 characters from any of the following groups: • Letters: A to Z, a to z • Numbers: 0 to 9 • Multi-byte characters: Chinese, Japanese, Korean, and Russian • The username cannot contain the following special characters: grave accent (`), asterisk (*), equal sign (=), plus sign (+), square brackets ([ ]), curly brackets ({}), slash (\), vertical bar (|), semicolon (;), colon (:), apostrophe ('), quotation mark ("), comma (,), less than sign (<), greater than sign (>), backslash (/), question

	mark (?), percent sign (%), dollar sign ($), and the space character.
Password	Specify a password that contains a maximum of 64 ASCII characters.
Verify Password	Enter the password again.
Mobile phone (optional)	Specify a phone number that will receive SMS notifications from QTS. ***Note:*** *Other NAS users might be able to see this information. If you do not want to share this information, leave the field blank.*
Email (optional)	Specify an email address that will receive notifications from QTS. ***Note:*** *Other NAS users might be able to see this information. If you do not want to share this information, leave the field blank.*
UID	A UID is automatically generated for the user. You can also click  to specify a custom UID.
User must change password at first logon	When selected, the user must change the password when logging in for the first time.
Send a notification mail to the newly created user (optional)	When selected, QTS sends a message that contains the following information to the specified email address: • Username and password • URLs for connecting to the NAS ***Tip:*** *You can edit the notification message.*

Step 4: **Optional**: Add the user to one or more user groups.
a. Under **User Group**, click **Edit**.
b. Select one or more user groups.

Step 5: **Optional**: Specify shared folder permissions for the user.
a. Under **Shared Folder Permission**, click **Edit**.
b. Select the shared folder permissions for the user.
c. **Optional**: Select **Apply changes to subfolders**.

Step 6: **Optional**: Specify application privileges for the user.
a. Under **Edit Application Privilege**, click **Edit**.
b. Select application permissions for the user.

Tip:

QNAP recommends denying access to applications and network services that the user does not require. Users without privileges to specific applications will not see it on their main menu.

Step 7: **Optional:** Set a quota for the user.

Note:

This option is only available when quotas are enabled.

a. Under **Quota**, click **Edit**.
b. Set the quota.

- **No Limit**: Quota settings do not apply to the user.
- **Limit disk space to**: Specify a quota for the user.
- **Use group quotas**: Group quota settings apply to the user.

Note:

Individual quotas may override group quotas. For details, see Quota conflicts.

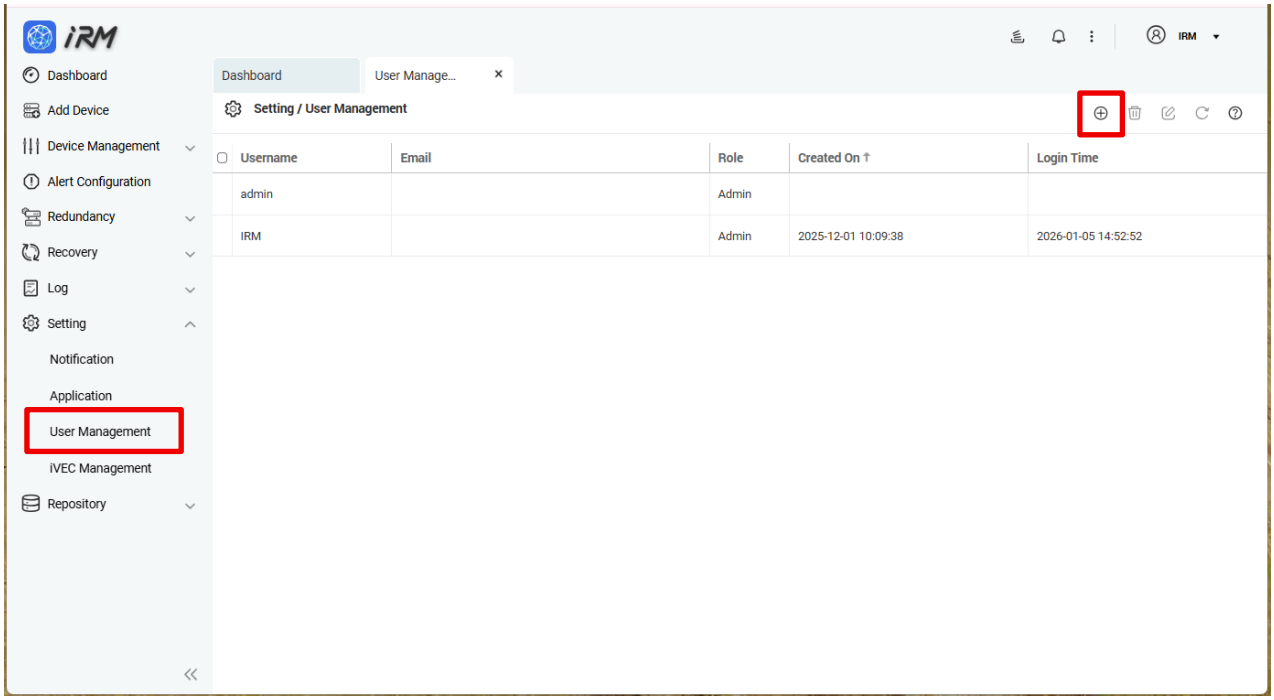
Step 8: Click **Create**.

NOTE:

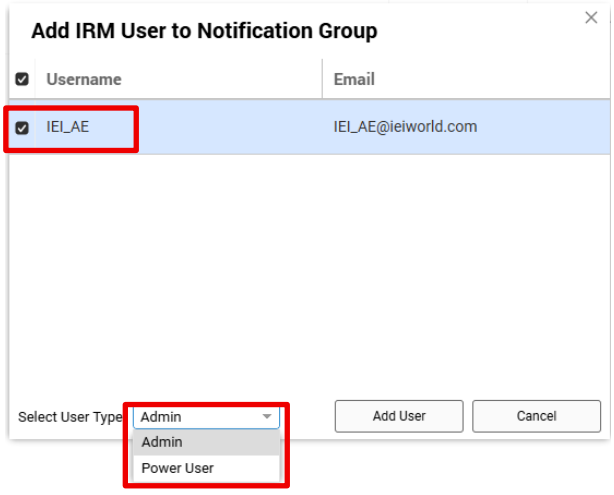
For more information on QTS related topics, please see the QTS online user manual.

10.3.3 Add User

Step 1: Select "User Management" from the Settings page and click the "Add User" button.



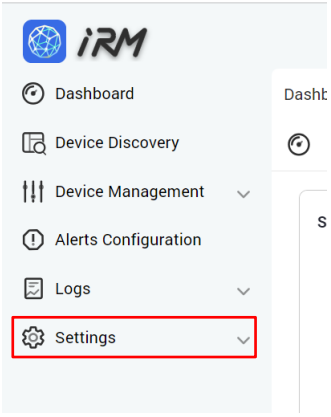
Step 1: After select the user and the permissions that you want to add, click "Add User" to finish.



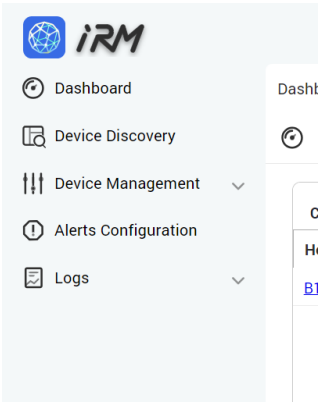
NOTE: 1. The difference in permissions between Admin and Power User is that only Admin can access

Settings. Power User has no authority to modify or change system settings.

Administrator's UI

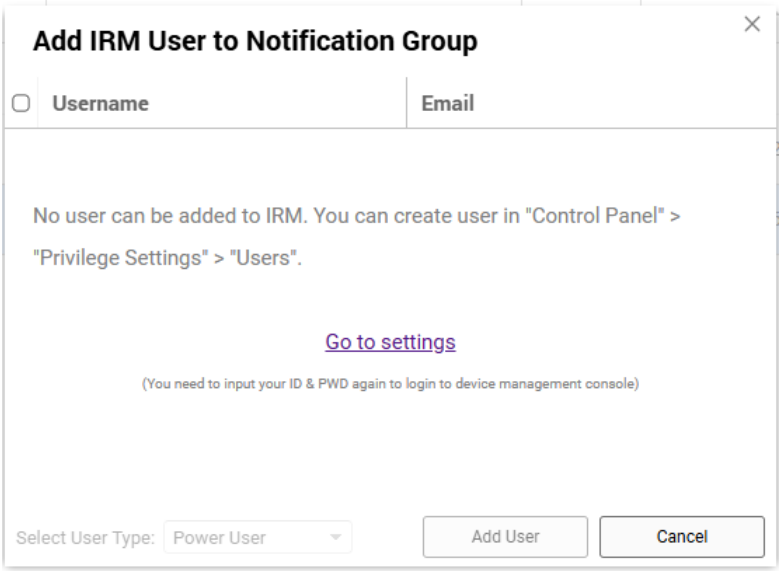


Power User's UI



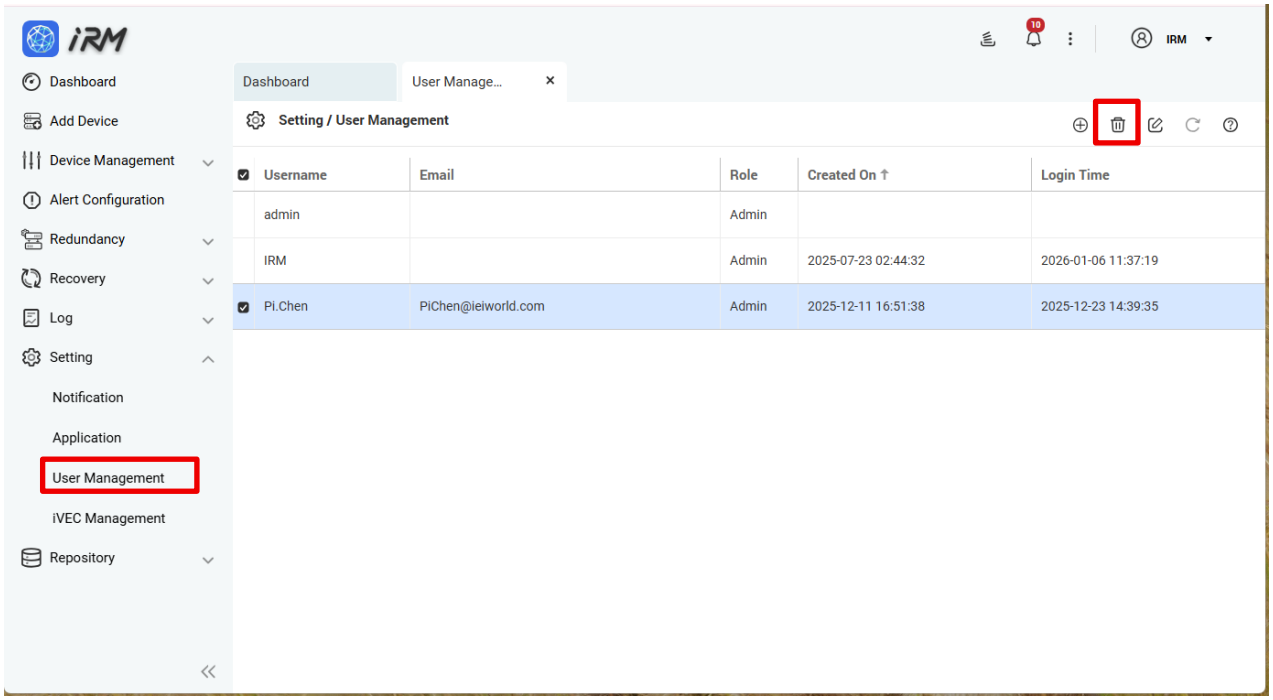
2. When the **Add IRM User to Notification Group** window appears and shows **"No user can be added to IRM…"**, it means that no IRM users have been created in the system that can be added to a notification group. Therefore, the list will be empty and you will not be able to select or add any users.

Please refer to **Section 10.1.2, "Create New User."**



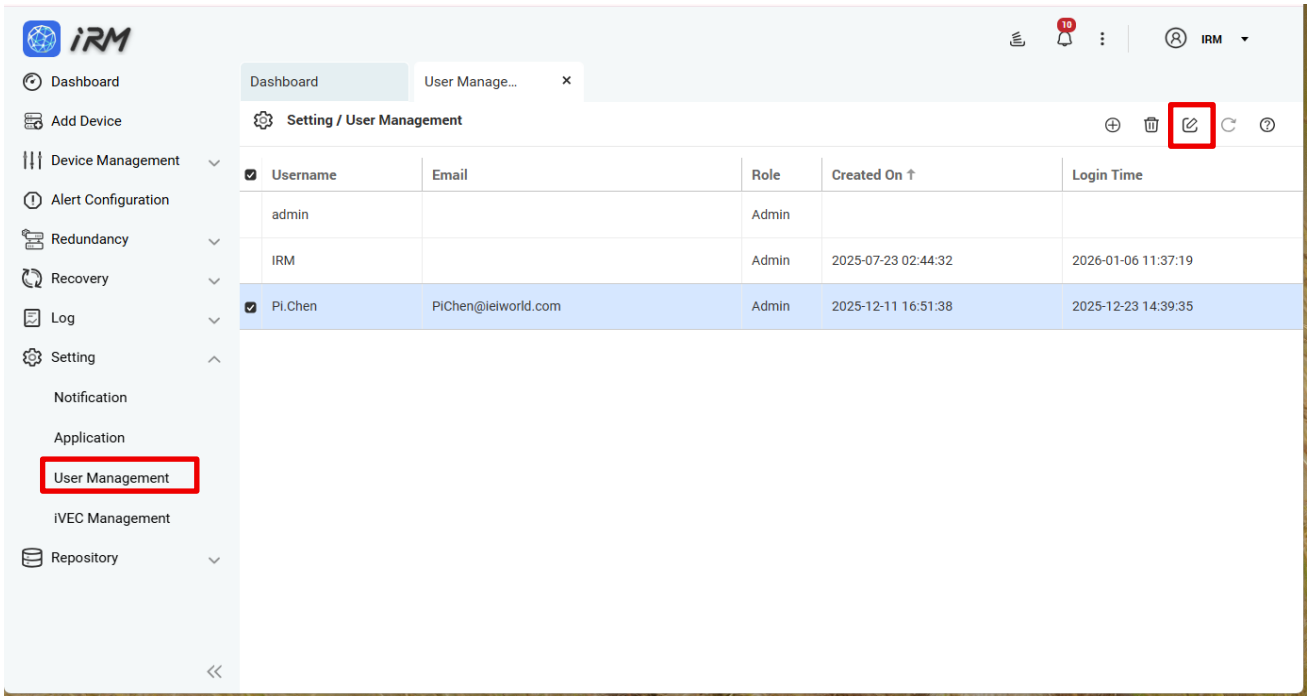
10.3.4 Deleting Users

Select "User Management" in the Settings page, select the user you want to delete and click the "Delete User" button.

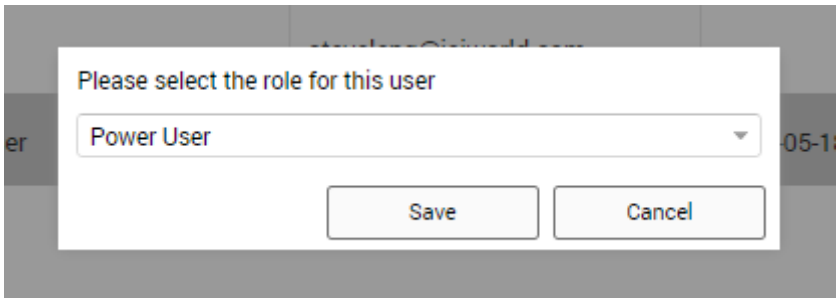


10.3.5 Editing Permissions

Step 1: Select "User Management" from the Settings page, select the user you want to edit and click the "Edit User" button.



Step 2: Select the permission level you want to change from the drop-down menu and click the "Save" button to complete the operation.

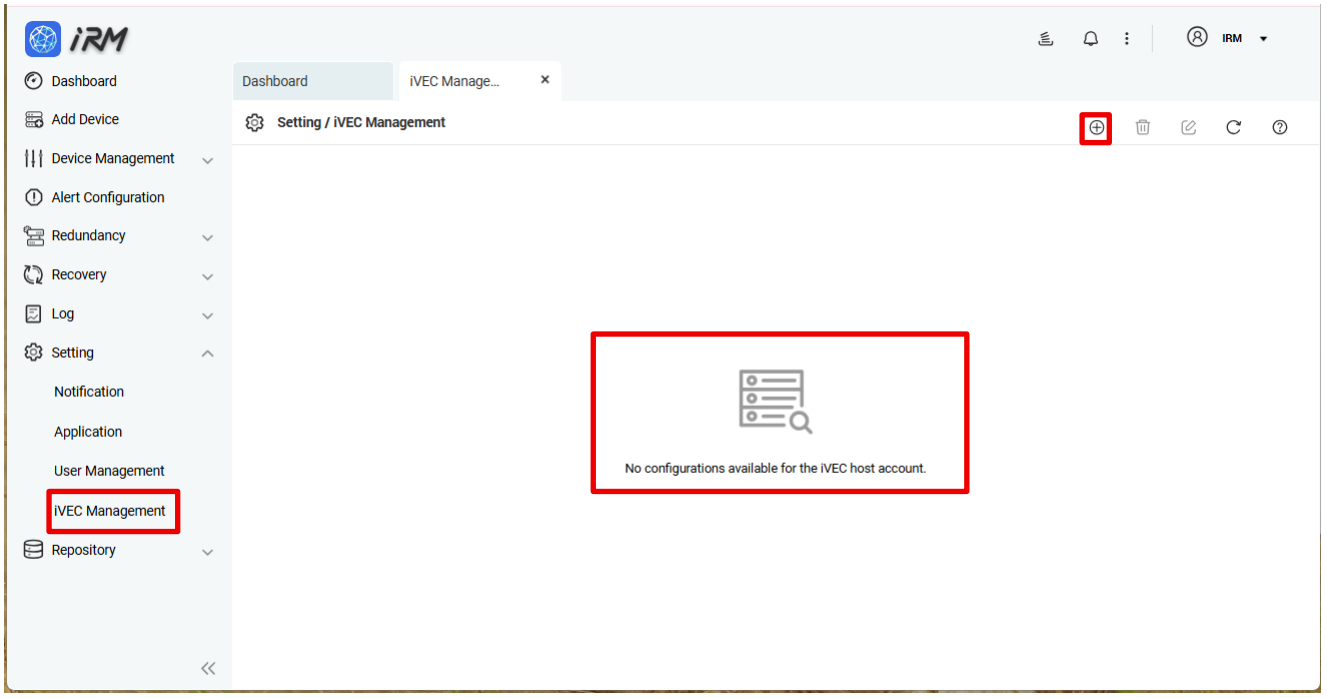


10.4 iVEC Management

iVEC Management provides a centralized entry in IRM for administrators to manage iVEC environments. After an iVEC device is added and managed by IRM, administrators can use VM via iVEC VM list and iVEC management console by your browser to view iVEC-related information, check iVEC host status, and perform necessary management operations for monitoring, maintenance, and troubleshooting.

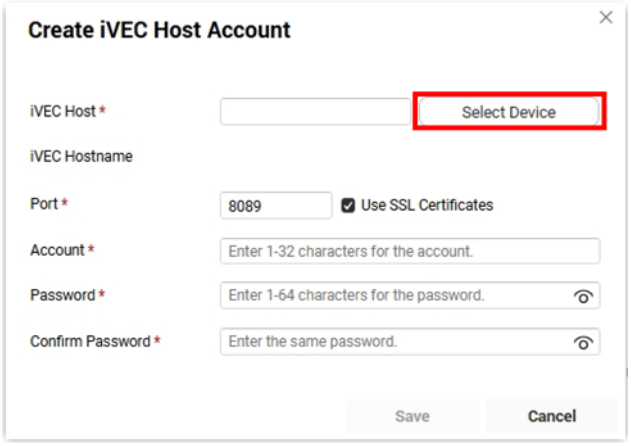
- iVEC VM List：View the list of virtual machines on the iVEC host.
- iVEC management console (by your browser)：Open the iVEC management console in your web browser.

If no iVEC host configuration has been created, the page displays: **No configurations available for the iVEC host account**.



Step 1: Create iVEC Host Account

1.Go to the iVEC Management page and click the "Create iVEC Host Account" button.



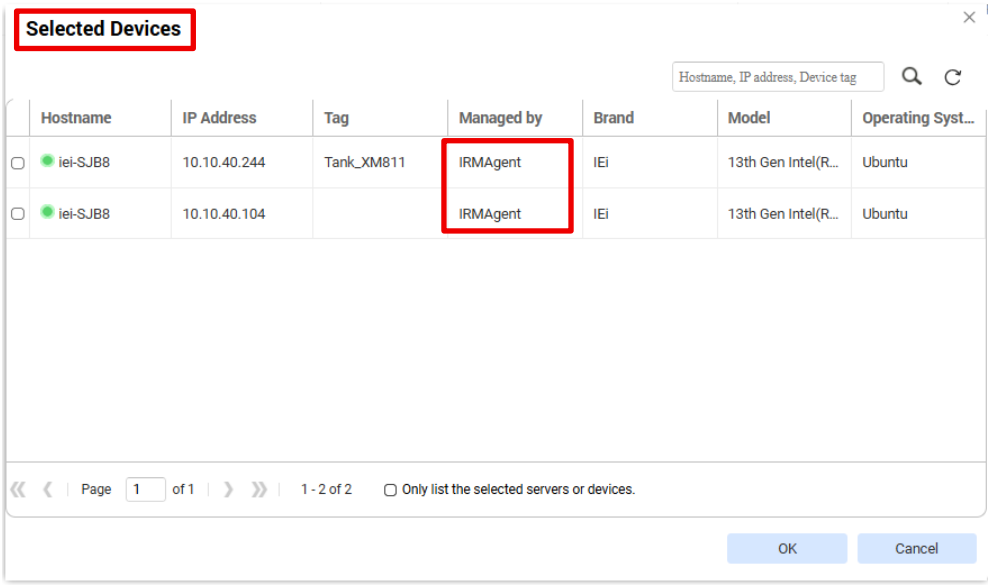
iVEC Host*: Click Select Device. The system displays the Selected Device window. Select the iVEC host you want to add for management from the list (the iVEC host must have the IRM Agent installed), and then click OK button.

Port*: The default port for the iVEC host is 8089, using an SSL certificate.

Account*: Enter the login account for the iVEC host.

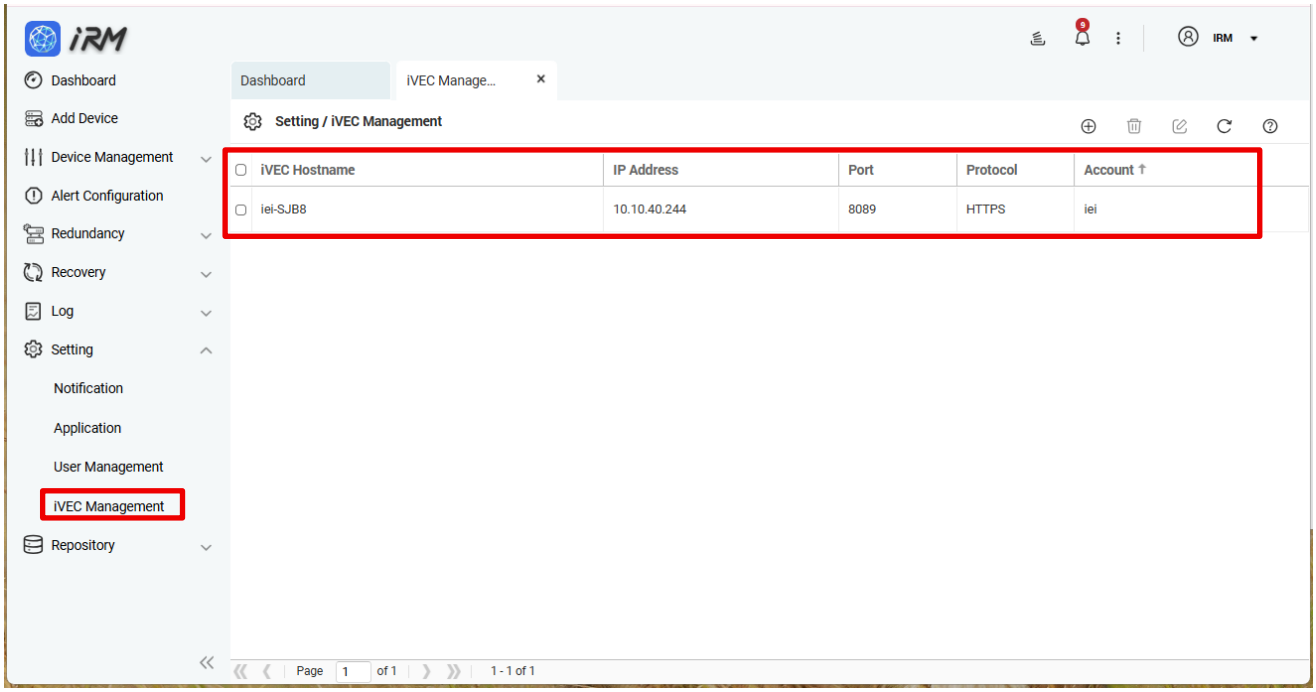
Password*: Enter the login password for the iVEC host.

Confirm Password*: Re-enter the login password for the iVEC host.



After the settings are saved successfully, the iVEC host configuration will appear in the list, and you can view the following information: iVEC Hostname, IP Address, Port, Protocol, and Account.

Note: After completing the iVEC host configuration, you can use features such as iVEC VM List and iVEC Management Console (by your browser).



Chapter

11

11 Repository

The Repository is used to centrally manage the installation packages and related resources required by IRM.

From this page, administrators can download the IRM Agent installer for the corresponding operating system.

After deploying the agent on the device, the device can then be added to IRM for monitoring and management.

11.1 IRMAgent download

IRMAgent Download provides IRMAgent installer packages for different operating systems. Administrators can download the correct package based on the target device OS and architecture (32-bit/64-bit), then install it to enroll devices into IRM for monitoring and management.

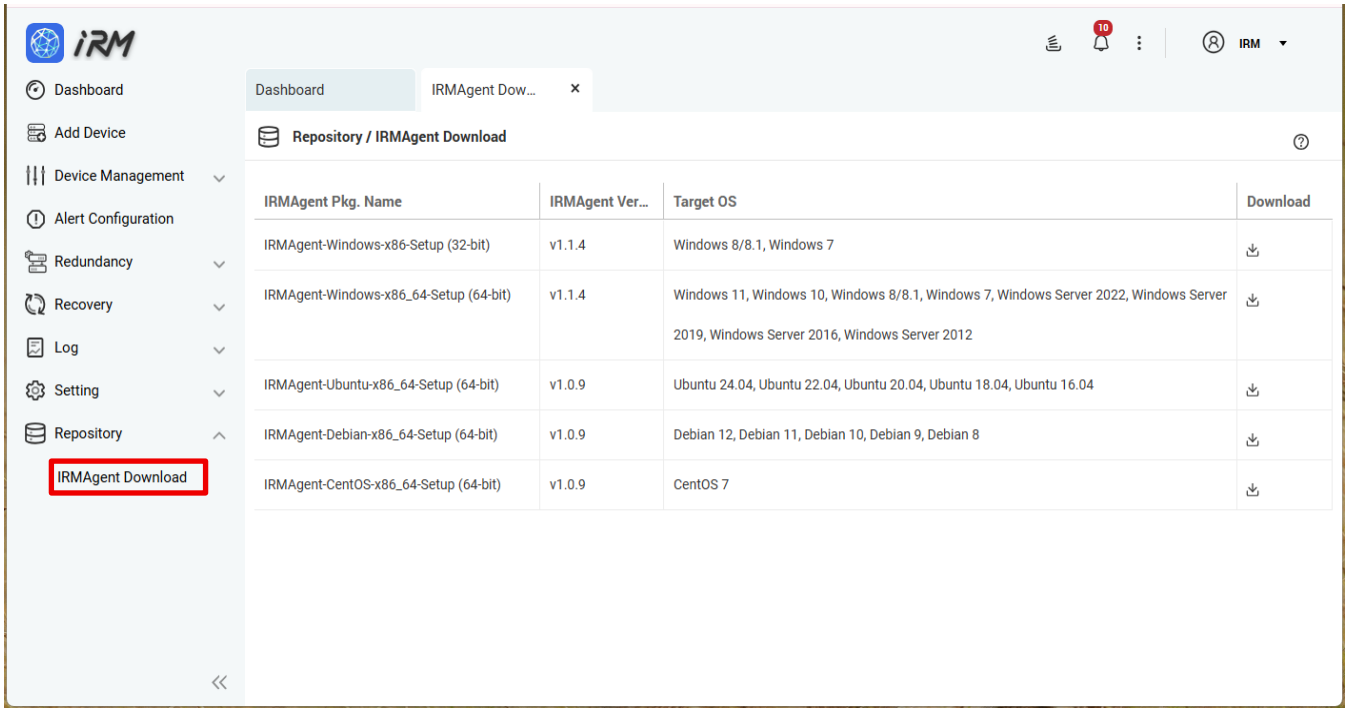
Basic Steps:

Step 2: Go to Repository > IRMAgent Download.

Step 3: Identify the correct package for the target device OS and architecture (32/64-bit).

Step 4: Click the Download icon to download the installer.

Step 5: Deploy and install the package on the target device to enable device enrollment.



Chapter

12

12 Licenses

12.1 License Portals and Utility

IEI and QNAP (initially an IEI subsidiary) form a dynamic alliance to offer the iRM solution. QNAP's secure platforms is utilized for license management of IEI IRM. These QNAP's license platforms are as the followings:

Portal	Description
License Center	The License Center is an app in the IRM Mini Server, serving as a proxy of the License Manager for monitoring and managing IRM license.
License Manager https://license.qnap.com	The License Manager is a web site hosted by QNAP. It allows you to remotely activate and manage licenses under your QNAP ID.
QNAP Software Store https://software.qnap.com	The QNAP Software Store is a one-stop shop where you can purchase software licenses such as IRM.
QNAP Account / QNAP ID (QID) https://account.qnap.com	The QNAP Account is a portal that lets you manage your QNAP ID and access the Cloud SSO function for various QNAP Cloud Services and devices. QNAP ID (QID) is a unique identifier for end users that allows them to manage their cloud services and devices through QNAP Account. End users can create their own QID using their email address.

12.2 IRM Perpetual License

The IRM Perpetual License has 8 different SKUs, each supporting a specific number of client devices. You can also use the free version, which supports up to 10 client devices without requiring a license.

SKU ID	Description
SKU 1	IRM V1.* Perpetual License for 20 devices
SKU 2	IRM V1.* Perpetual License for 50 devices
SKU 3	IRM V1.* Perpetual License for 80 devices
SKU 4	IRM V1.* Perpetual License for 100 devices
SKU 5	IRM V1.* Perpetual License for 150 devices
SKU 6	IRM V1.* Perpetual License for 200 devices
SKU 7	IRM V1.* Perpetual License for 250 devices
SKU 8	IRM V1.* Perpetual License for 300 devices

Note: The license quantity will be added up, and the IRM will display the total count.

12.3 License Activation

To use the features of IRM, you need to buy a license from IEI sales or QNAP Software Store, and activate the license. The process of license activation includes the following key steps that should be taken:

1. Apply your QNAP ID
2. Sign in the IRM mini server with your QNAP ID, and set up the myQNAPcloud service
3. Active your license through License Center or License Manager by using product key bundled with your QID
4. Check your IRM license in IRM's About page

IRM only accepts licenses that are valid and active. IEI advises users to activate their licenses from the license center using a product key bundled with your QID. The product key provided by IEI is not bundle with the QID and requires the setup of the QID in the IRM Mini Server before activation.

Activation of an IRM license can be done using either a product key or a license key. The product key is obtained through IEI's sales channel, while the license key is from the QNAP Software Store. When end users purchase a license key from the QNAP Software Store, it will be bundled with their QID. However, the product key will not be bundled with any QID during the purchase stage. Both the product key and the license key will be finally bundled with the end user's QID when the user activates the license.

Difference between Product Key and License Key:

	Product Key	**License Key**
Buy from	IEI	QNAP Software Store (online)
Bundled with QID	No	Yes
Payment	Depend on IEI	Online via credit card
License Activation	Online	Online

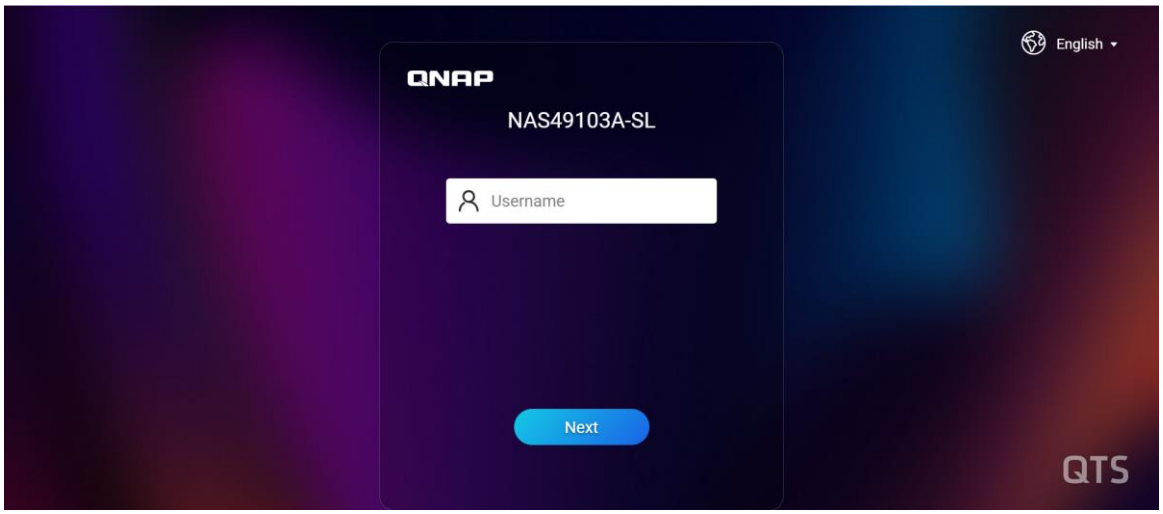
12.3.1 Activation Methods

Activation Method	Description
Using a product key	<Online activation> Licenses purchased from IEI sales must be activated through the 25-character product key. For license activation instructions, see **Section 12.3.3**
Using a license key	<Online activation> You can generate the 25-character license key after purchasing licenses through the QNAP Software Store. For details, see Generating a License Key. For license activation instructions, see **Section 12.3.4**
Using QNAP ID (QID)	<Online activation> Licenses purchased through QNAP Software Store are stored in your QNAP ID account. They can be accessed through both License Center and the QNAP License Manager website. For license activation instructions, see **Section 12.3.5**
Offline	<Offline activation> Use this method when connecting the IRM mini server to the internet may not be feasible or advisable in certain industrial settings. Offline activation is more complicated and involves more steps. See Activating a License Offline for step-by-step instruction.

12.3.2 Setting up myQNAPcloud for Your IRM Mini Server

Before activating IRM license, you should first sign in the IRM mini server with your QNAP ID and then set up the myQNAPcloud service. To do so, follow the steps below.

Step 1: Login IRM Mini Server Management Desktop. Ensure the mini server is connected to the internet.

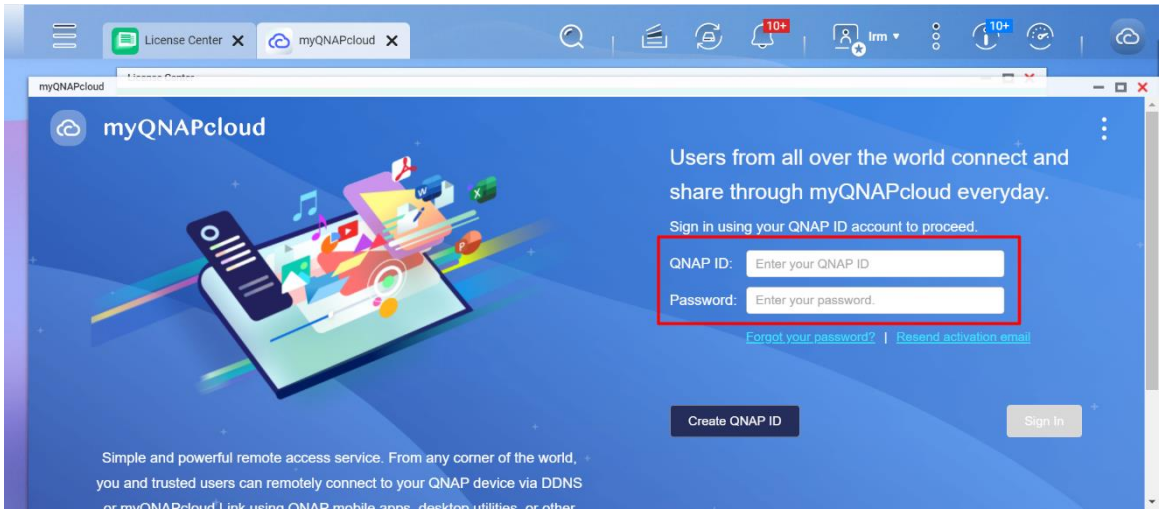


Step 2: Launch the **myQNAPcloud Link**.

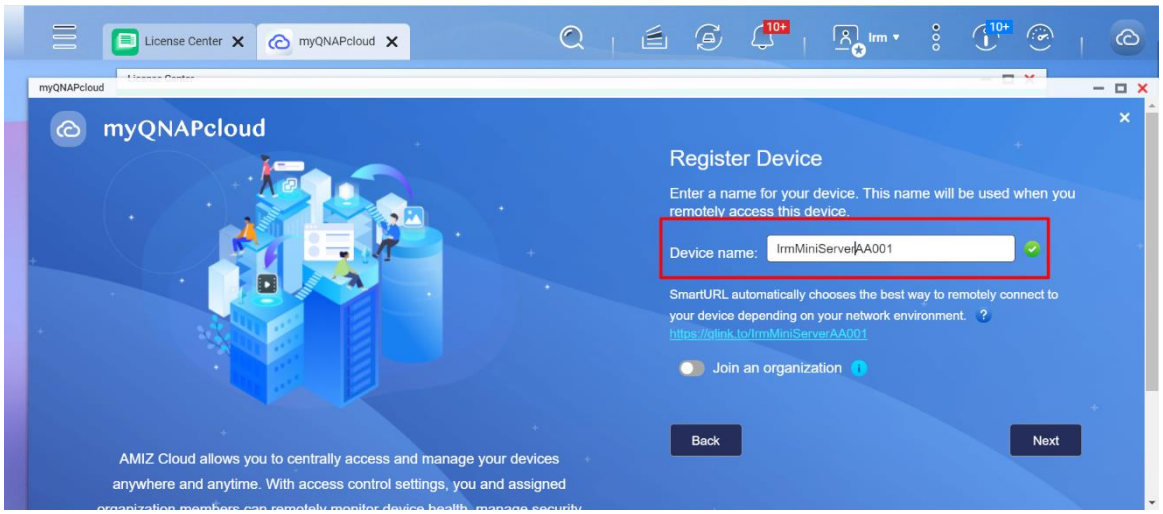
Step 3: Enter your QNAP ID and password, and click **Sign In**.

NOTE:

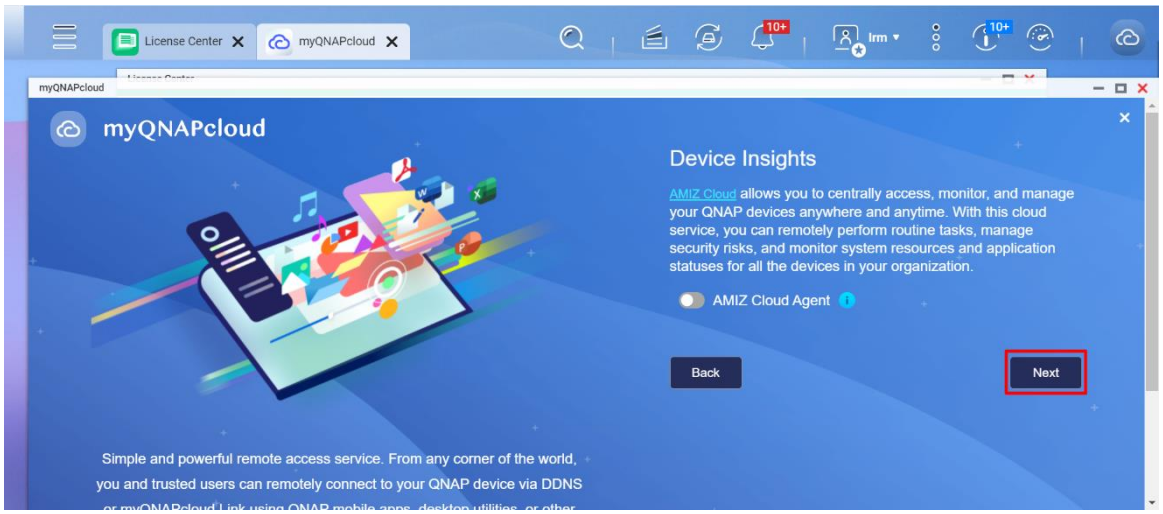
- End user can apply QID from https://account.qnap.com/
- To manage the license effectively, we recommend entering the QID of the license owner. A system integrator (SI) can use their own QID to buy and activate the license for their customer on the IRM mini server. This way, the SI can assist the end user with license management in the future.



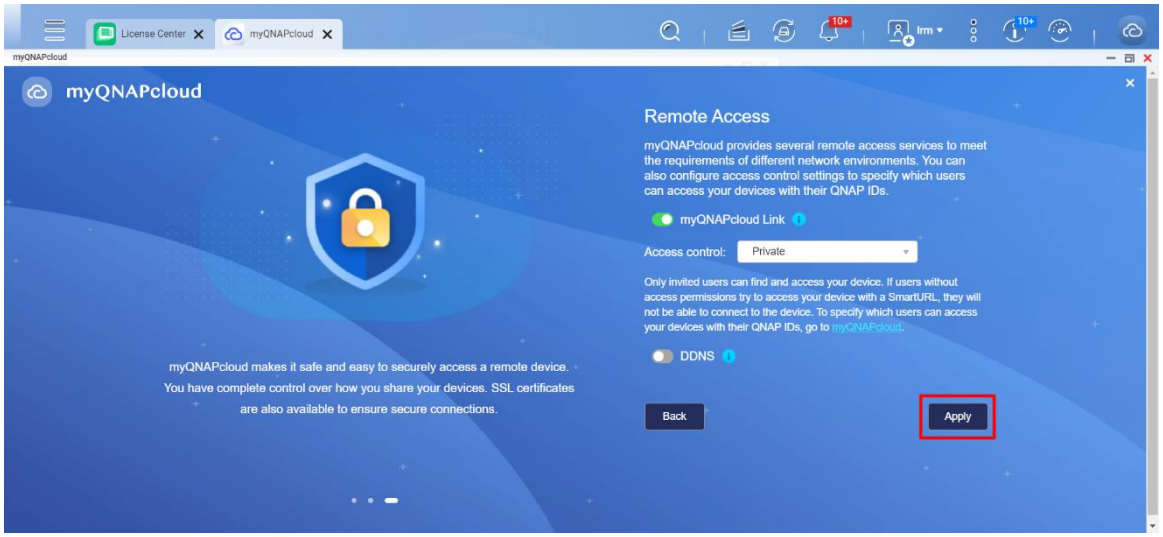
Step 4: Specify a device name. Click **Next**.



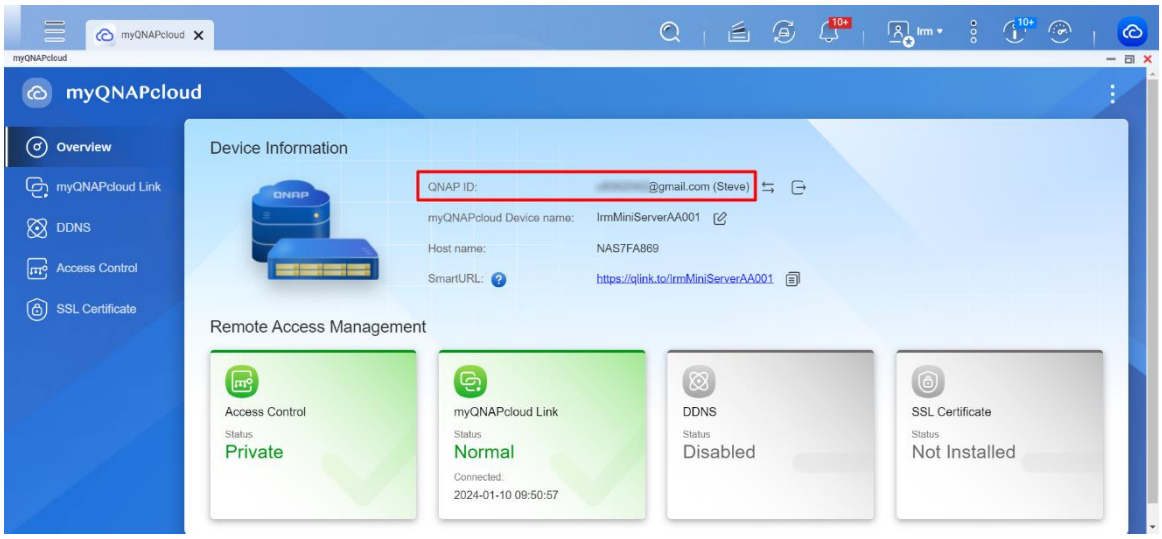
Step 5: Click **Next**.



Step 6: Click **Apply** to apply the settings.



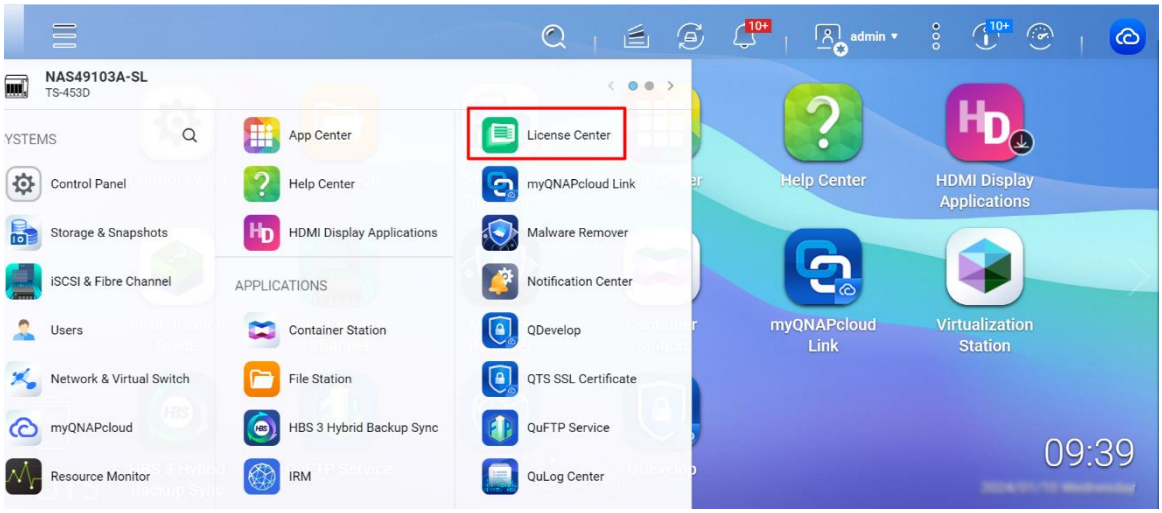
Step 7: The system configure the mini server according to your settings.



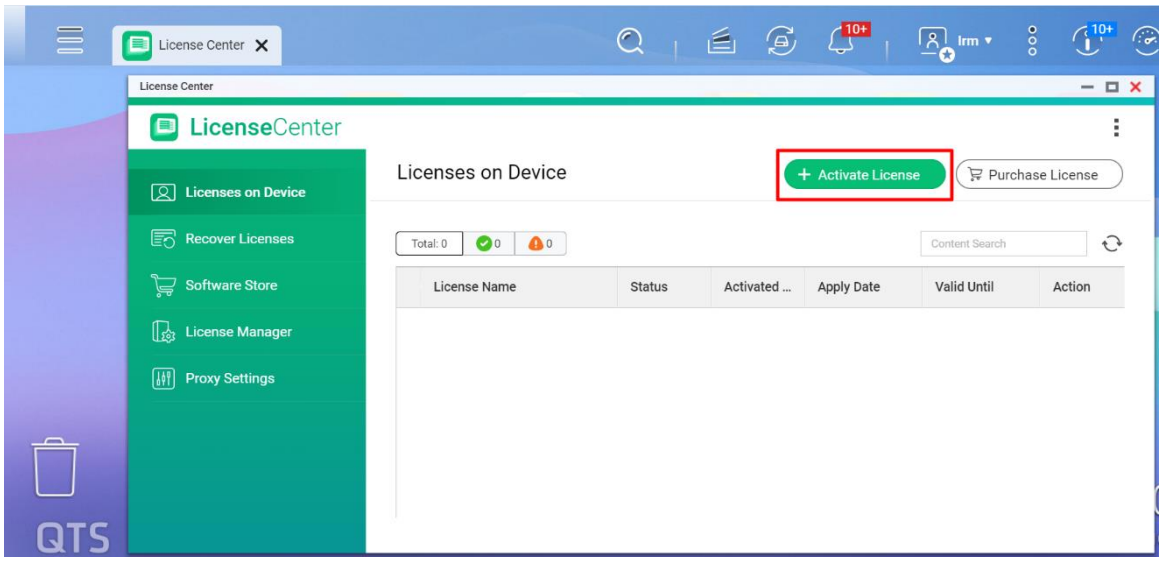
12.3.3 Activating a License Using a Product Key

Before activating your license, ensure that your device is connected to the internet and you have signed in with your QNAP ID. To activate a license using a product key, follow the steps below.

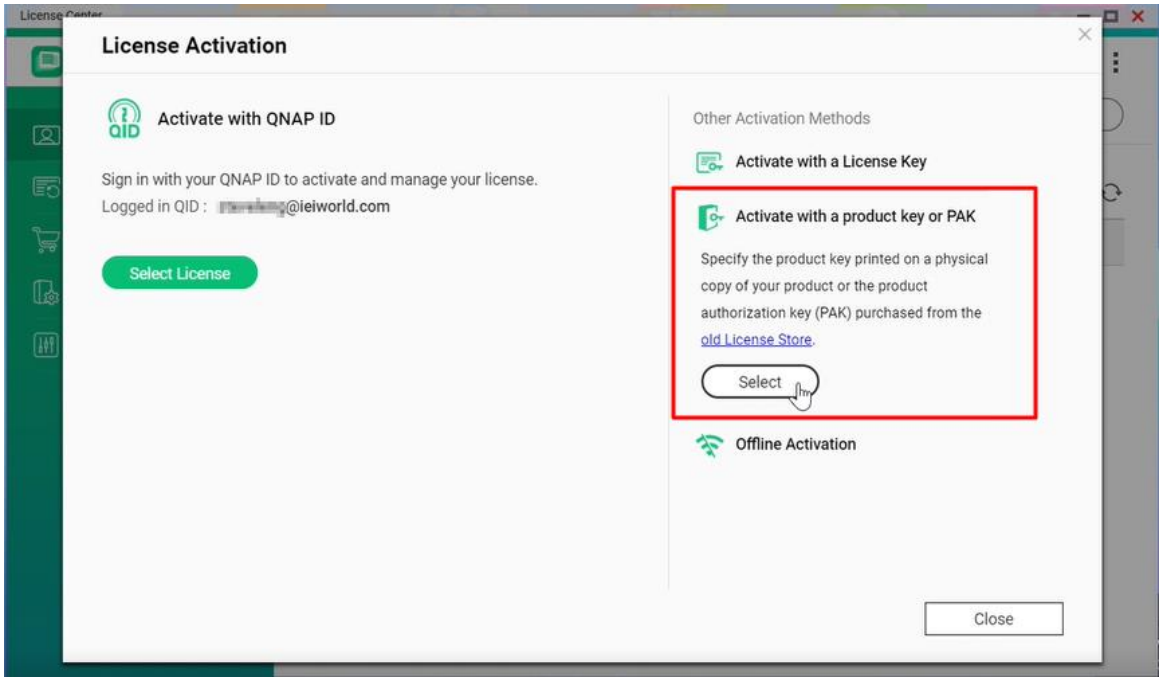
Step 1: Open **License Center**.



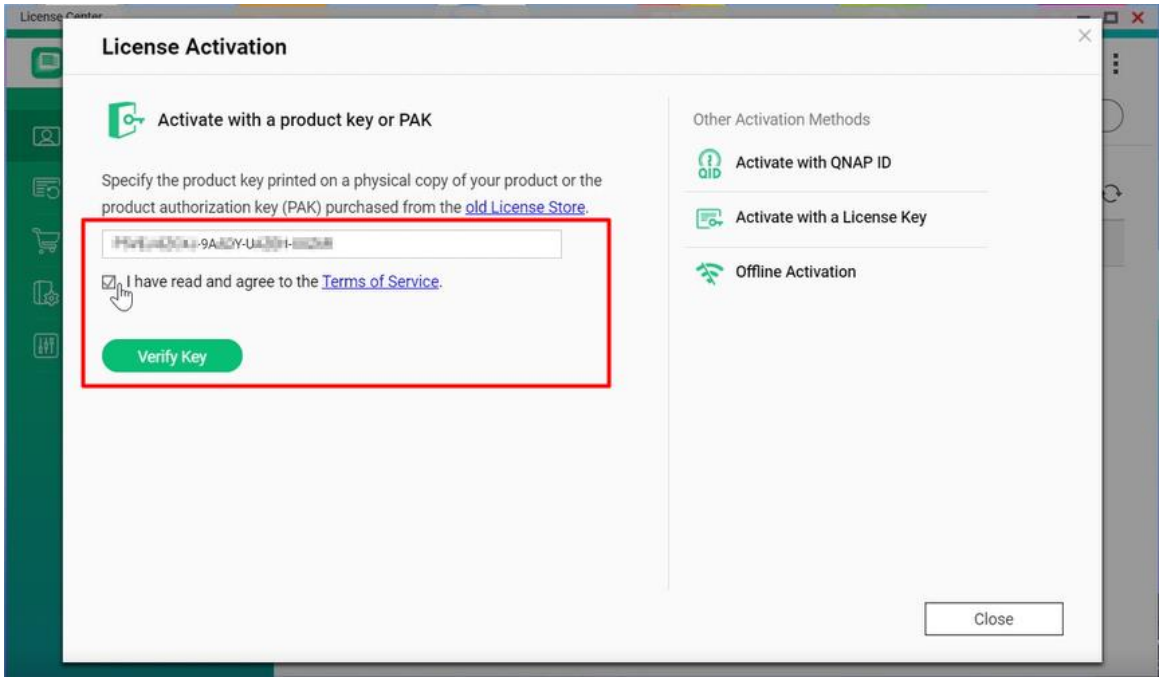
Step 2: Click **Activate License**.



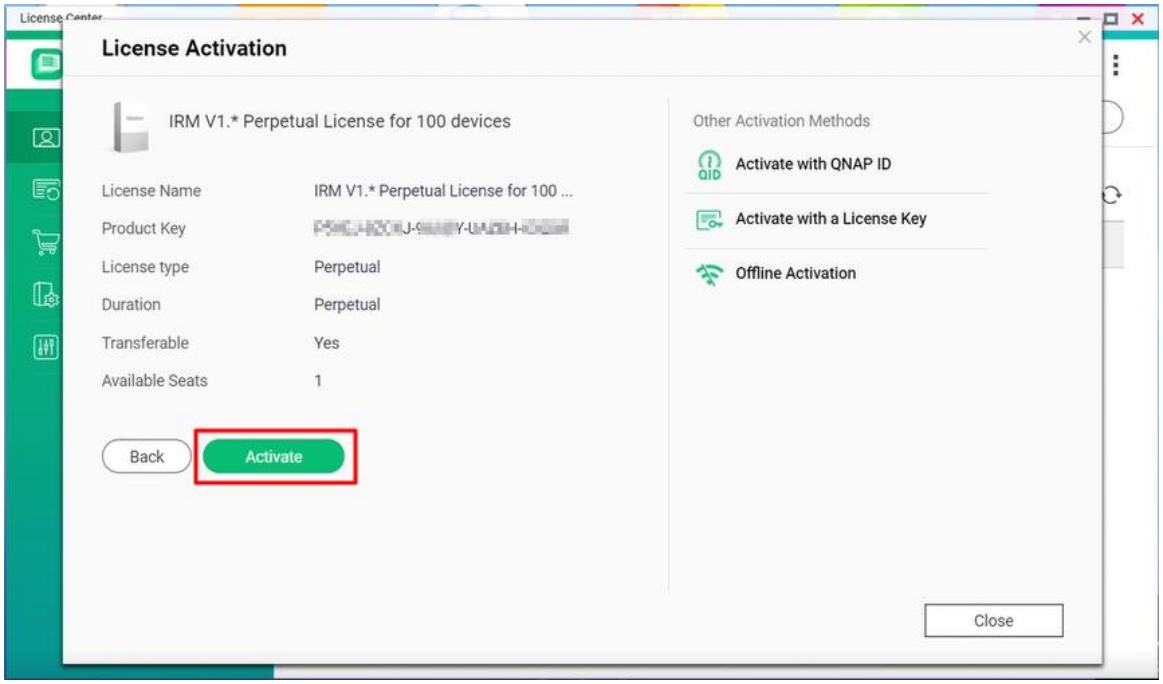
Step 3: The License Activation window appears. Select **Activate with a product key or PAK**.



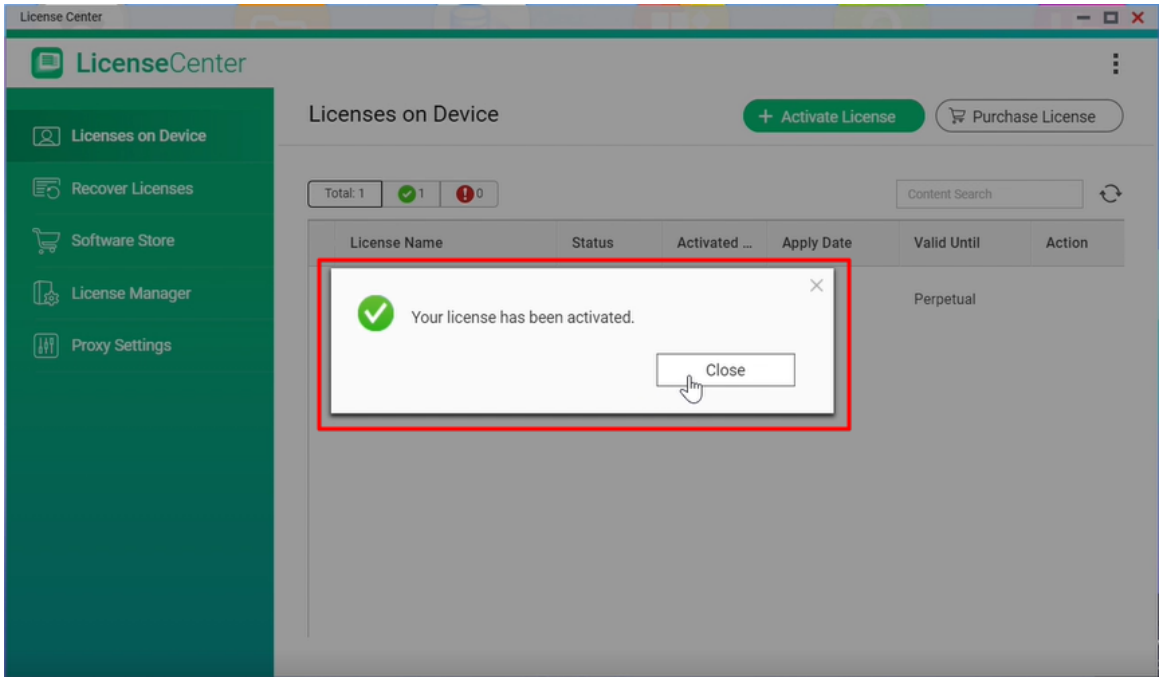
Step 4: Specify the key. Read and agree to the terms of service. Click **Verify Key**.



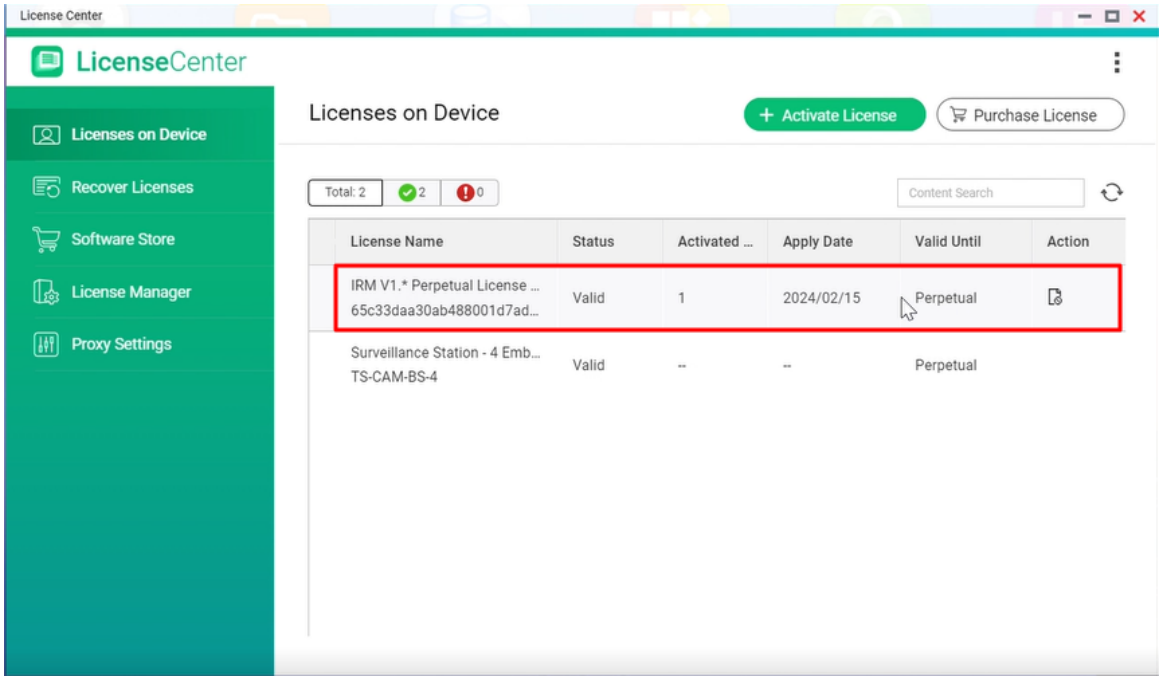
Step 5: Verify the license information, and click **Activate**.



Step 6: The license is activated. A confirmation message appears. Click **Close**.



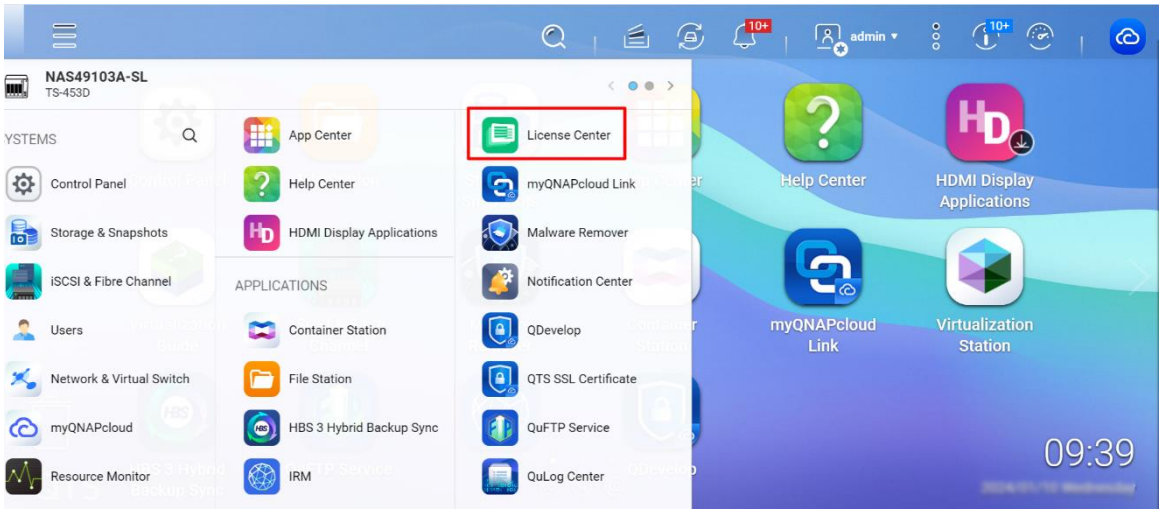
Step 7: The license appears on the list of active licenses.



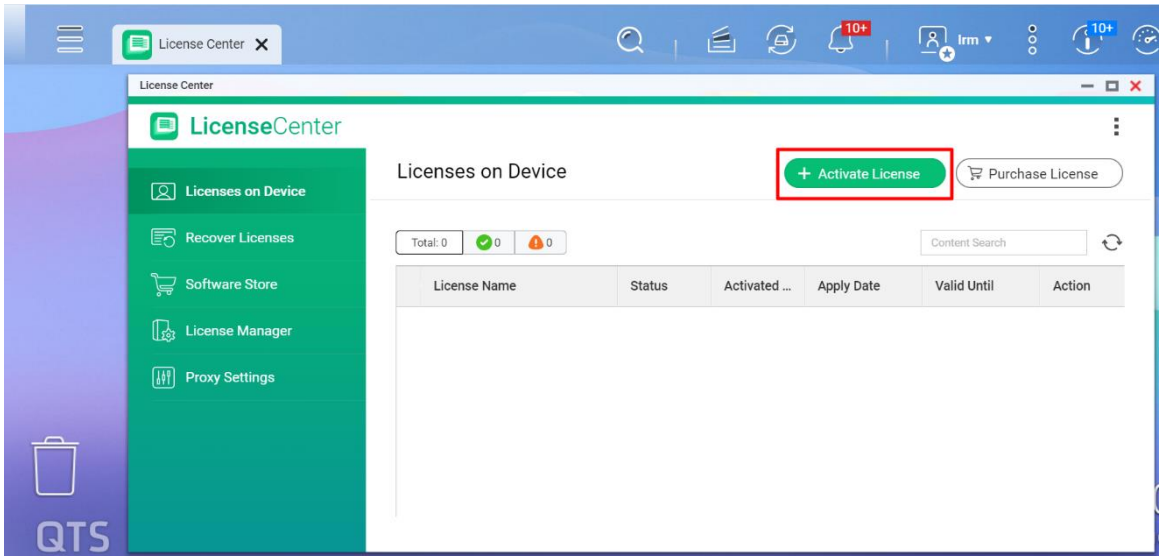
12.3.4 Activating a License Using a License Key

Before activating your license, ensure that your device is connected to the internet and you have signed in with your QNAP ID. To activate a license using a license key, follow the steps below.

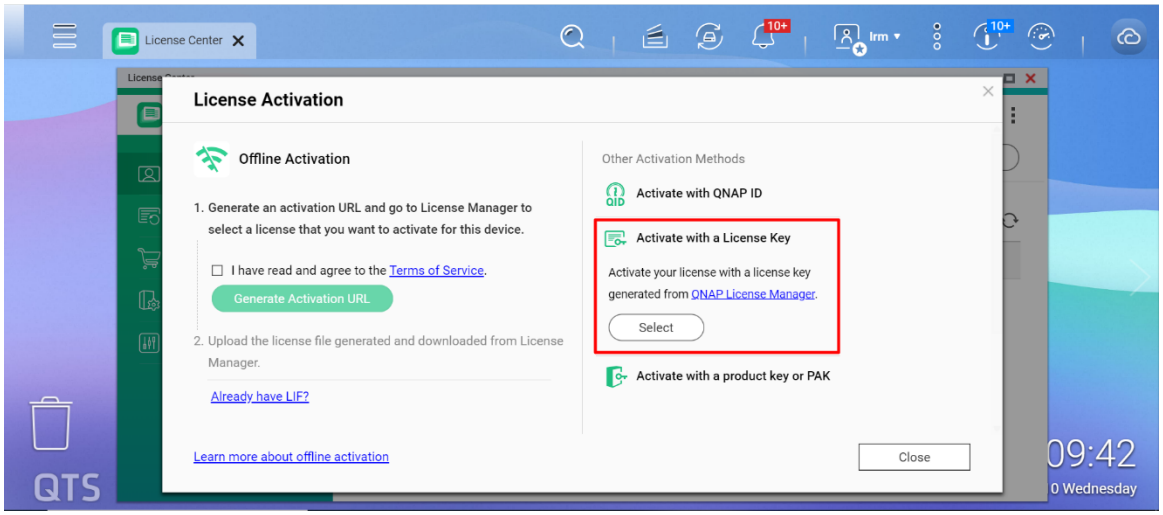
Step 1: Open **License Center**.



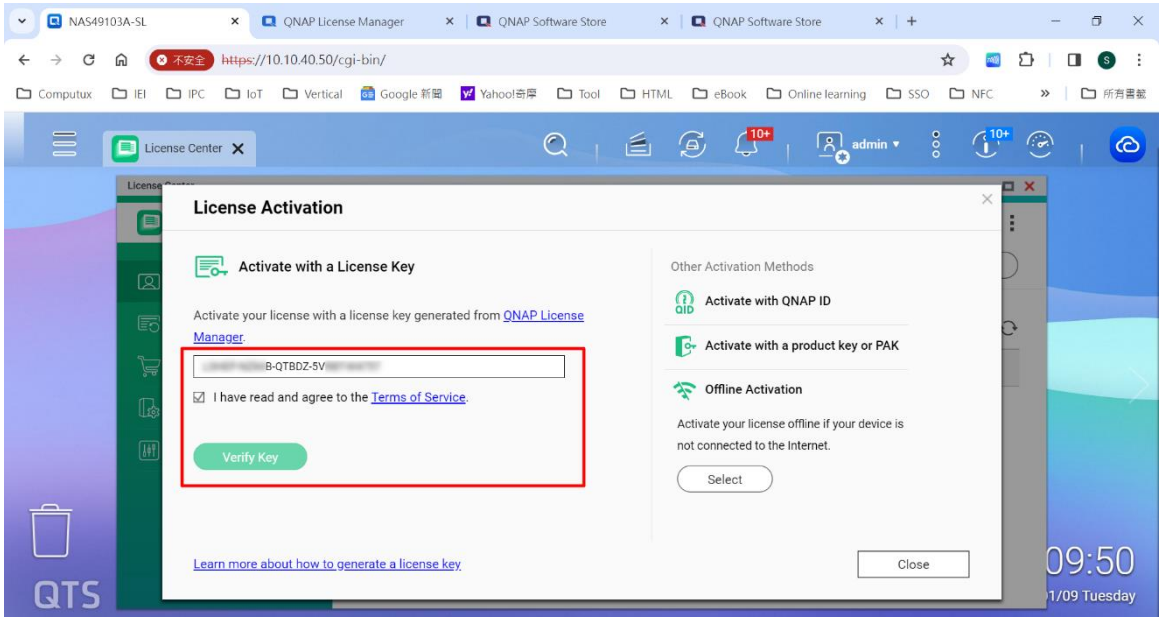
Step 2: Click **Activate License**.



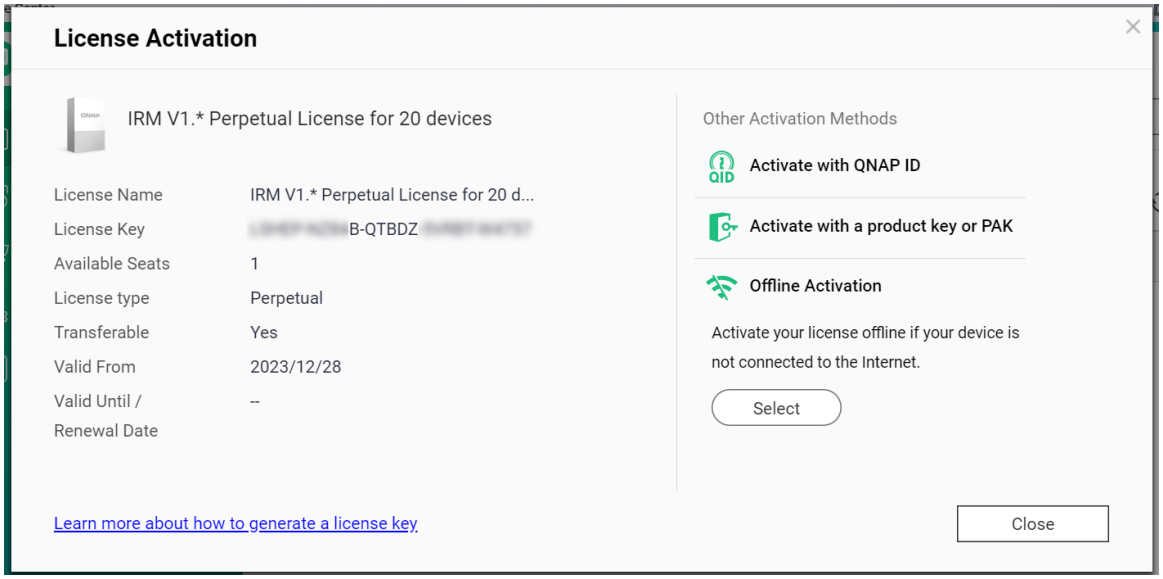
Step 3: The License Activation window appears. Select **Activate with a License Key**.

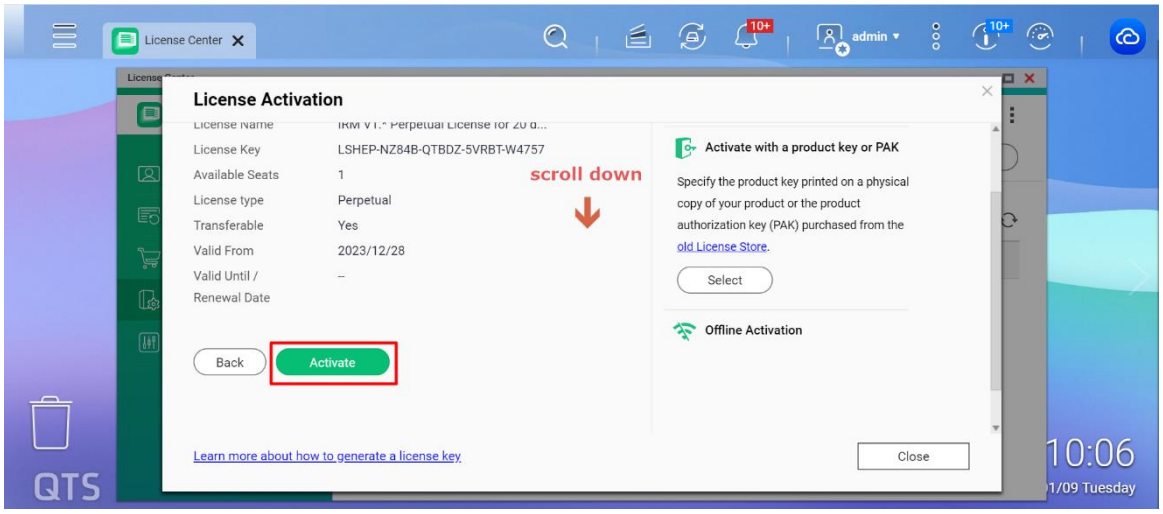


Step 4: Specify the key. Read and agree to the terms of service. Click **Verify Key**.

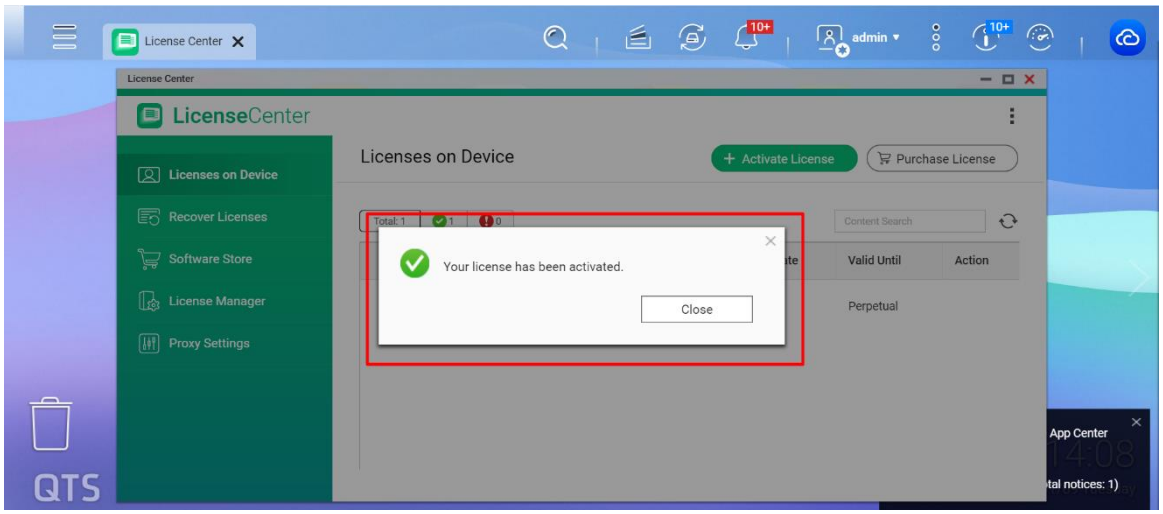


Step 5: Verify the license information. Scroll down to the bottom, and click **Activate**.

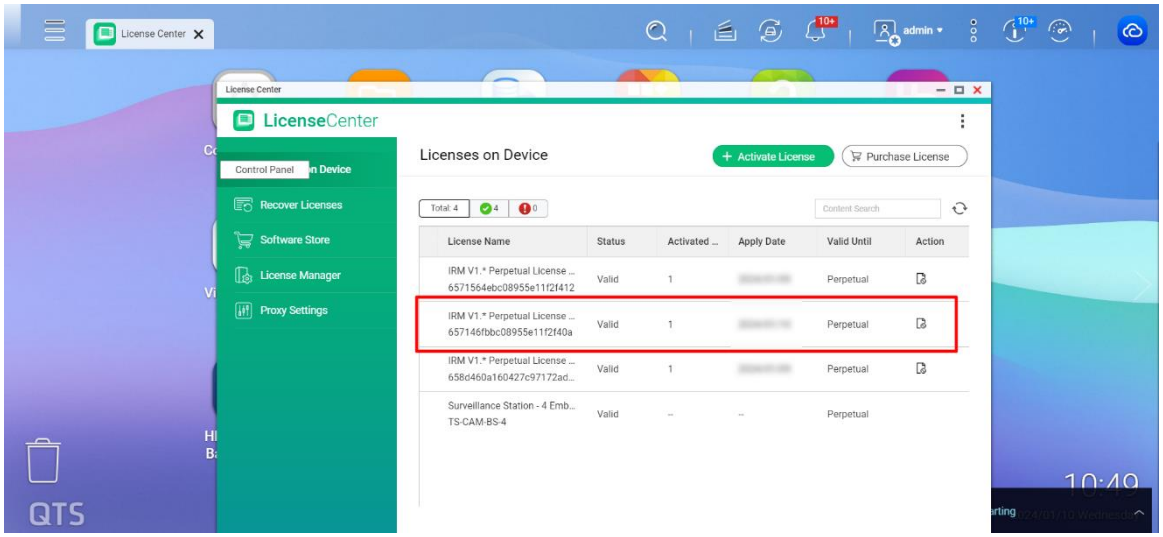




Step 6: The license is activated. A confirmation message appears. Click **Close**.



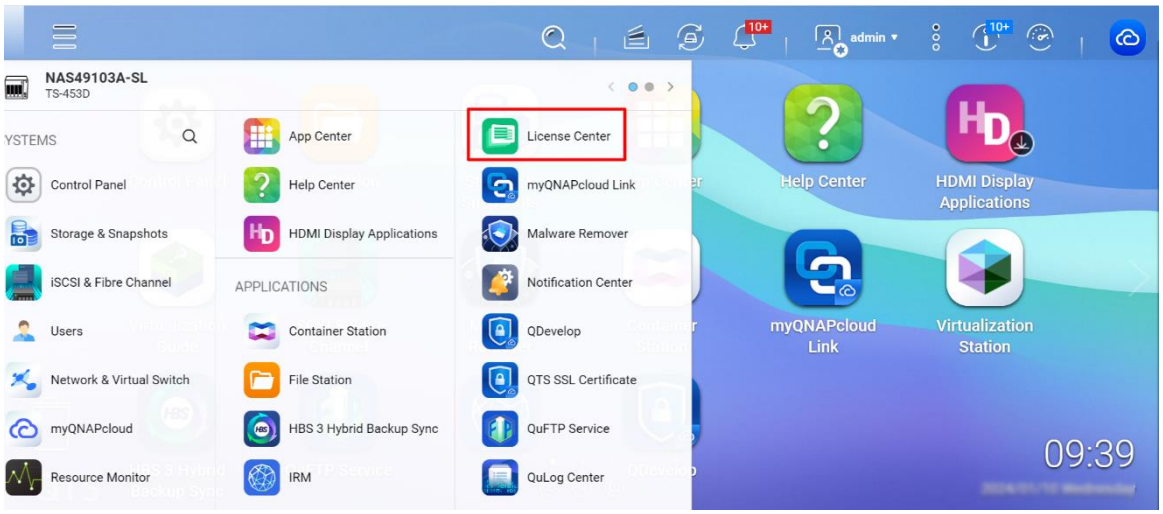
Step 7: The license appears on the list of active licenses.



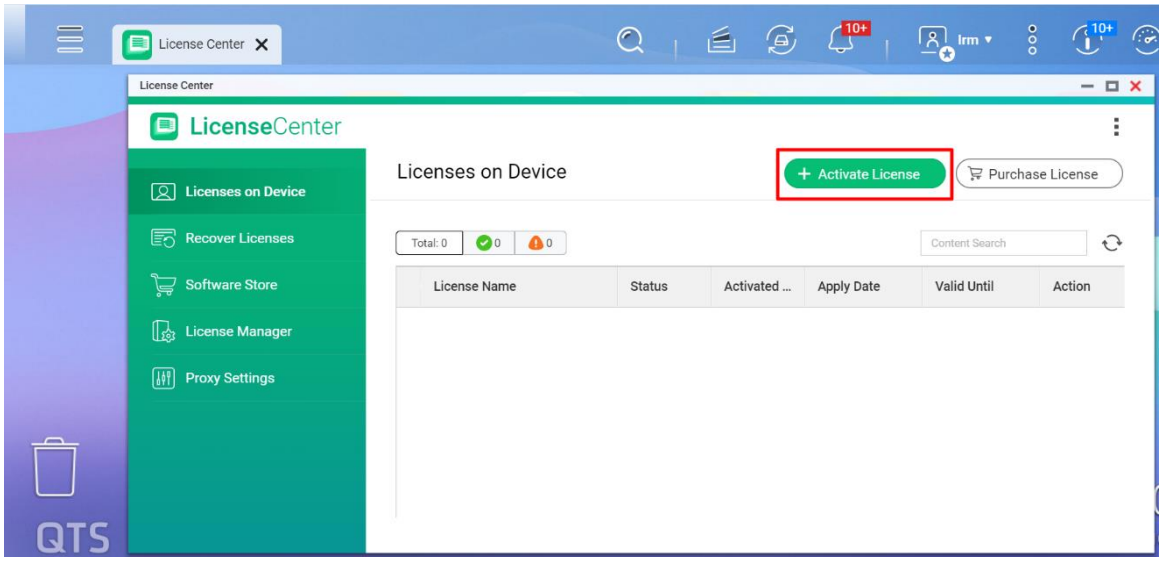
12.3.5 Activating a License Using QNAP ID

Before activating your license, ensure that your device is connected to the internet and you have signed in with your QNAP ID. To activate a license using QNAP ID, follow the steps below.

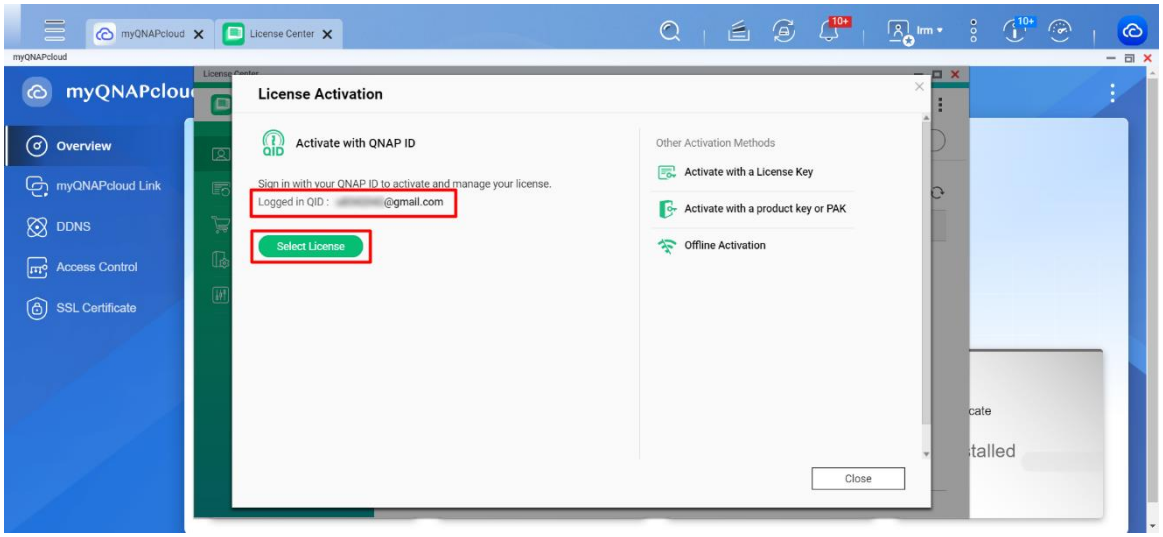
Step 1: Open **License Center**.



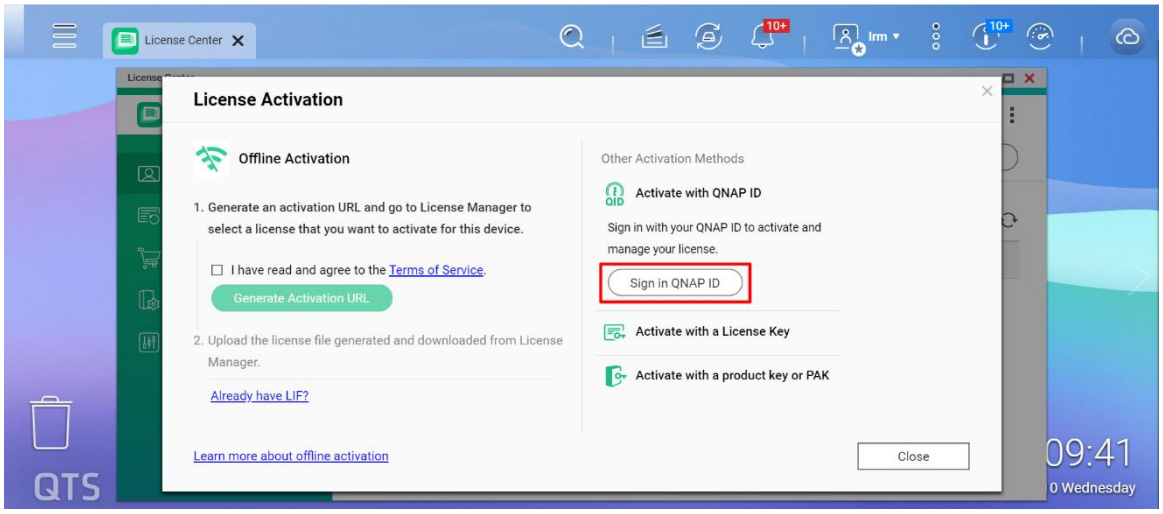
Step 2: Click **Activate License**.



Step 3: The License Activation window appears. In **Activate with QNAP ID**, make sure that the QID you are logged in with belongs to the license owner. Click **Select License**.



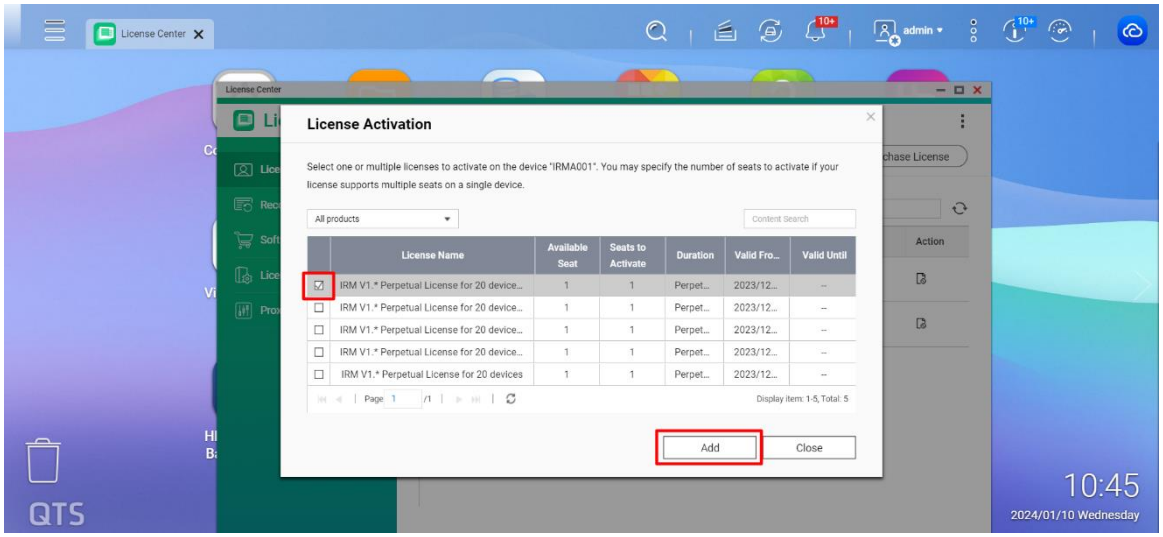
Note: You need to sign in with your QID if it is not already set to the IRM mini server. See below.



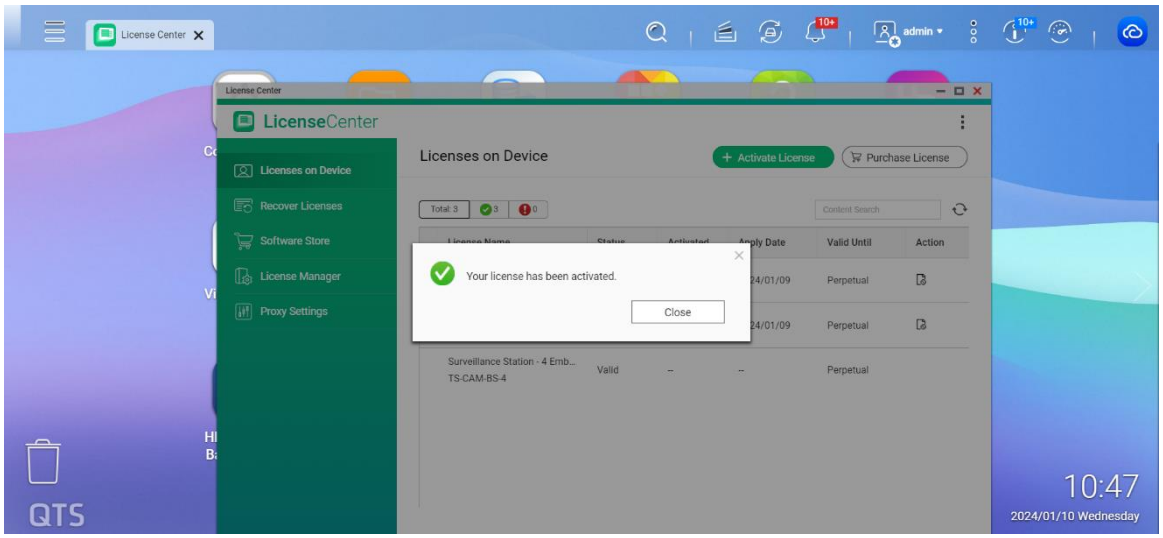
Step 4: Select a license from the list, and click **Add**.

Tip:

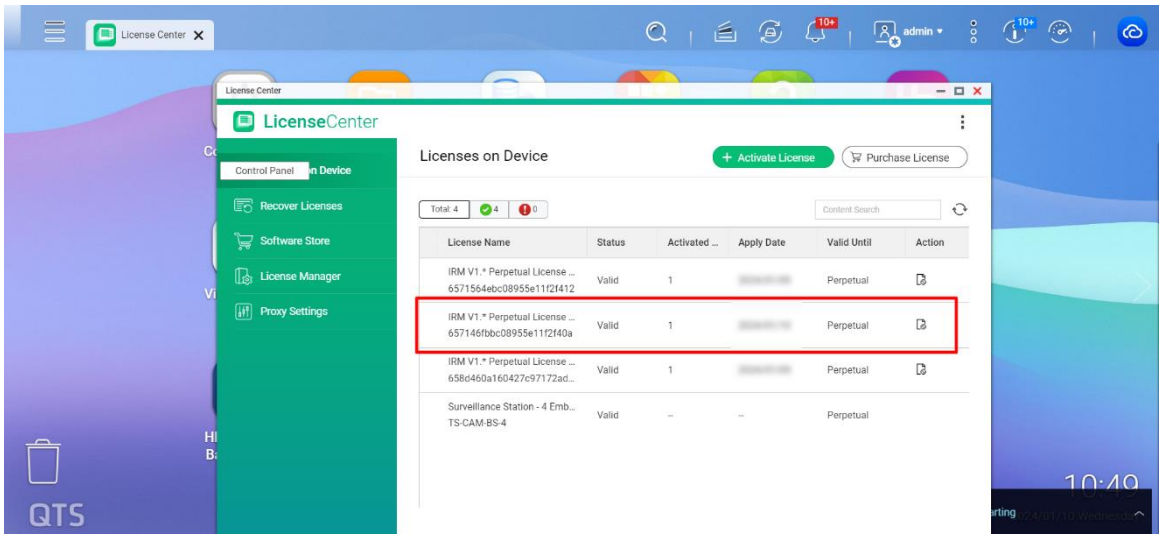
If you select a multi-seat license, you can specify the number of seats that you want to activate.



Step 5: License Center activates the license. A confirmation message appears. Click **Close**.



Step 6: The license appears on the list of active licenses.



12.3.6 License Activation Email

When an end user activates a license through the license manager or license center in the IRM Mini Server, the QID owner's mailbox will receive the following email.

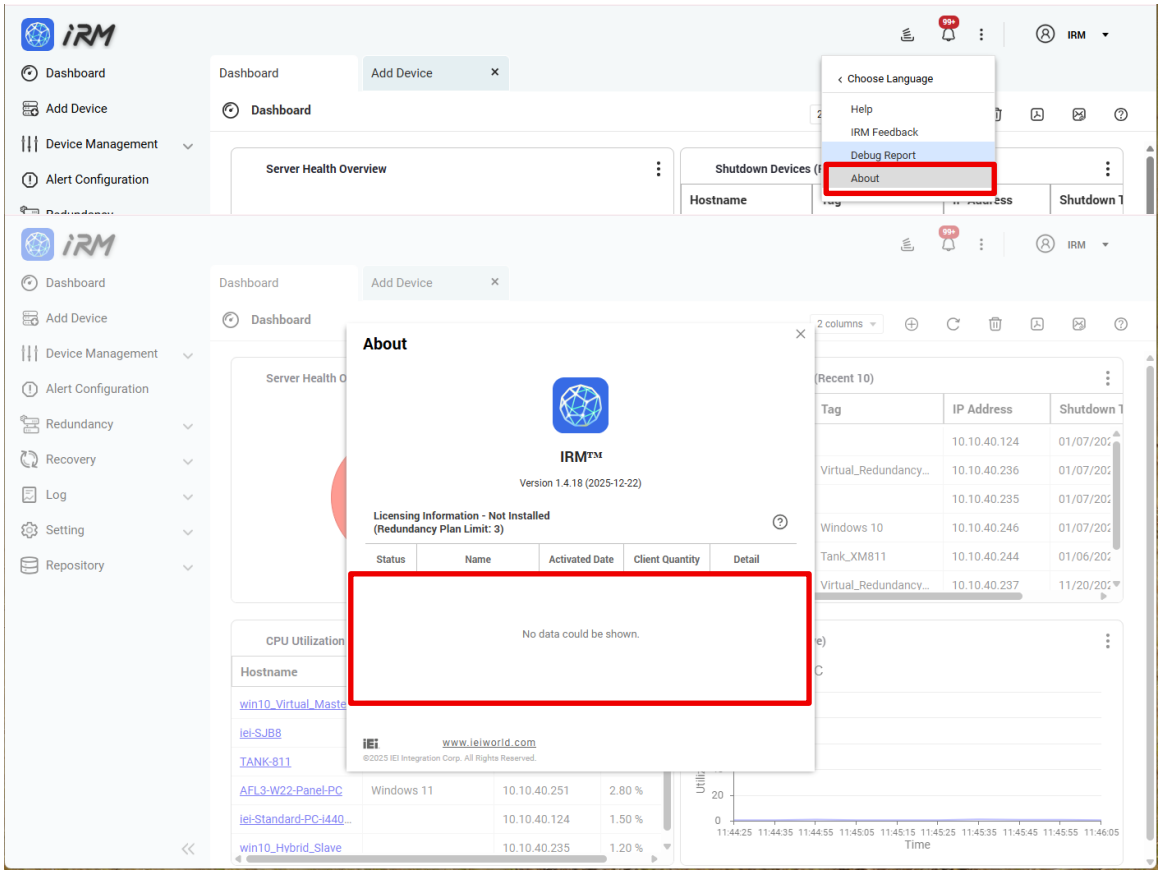
Dear Sir/Madam,

Congratulations! You have successfully activated your IRM V1.* Perpetual License for 20 devices (5) license.

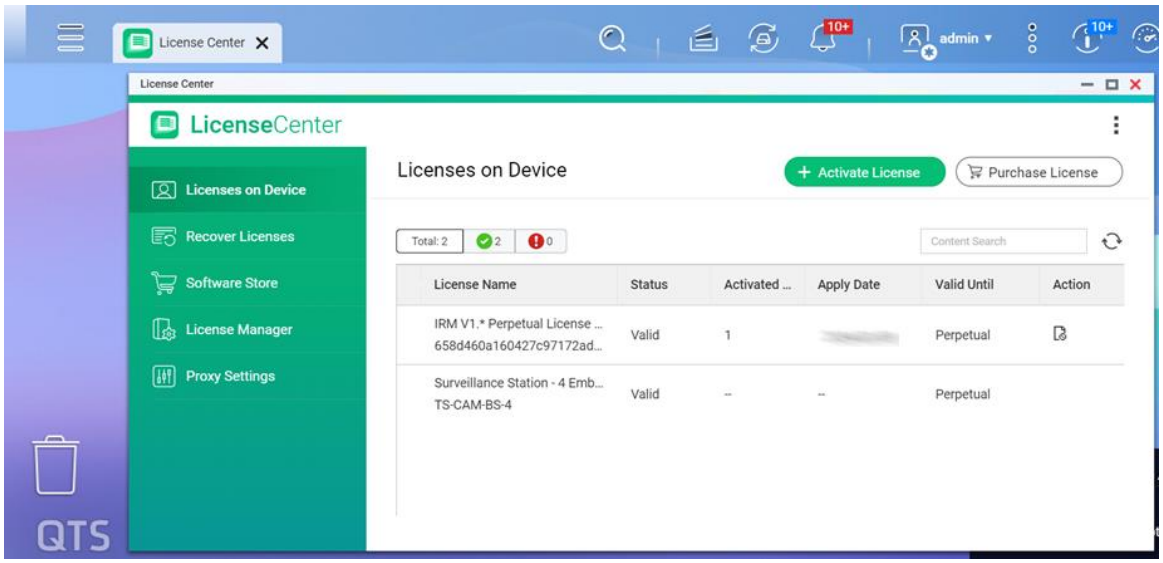
Product	IRM V1.* Perpetual License for 20 devices (5)
License ID	658d460a160427c97172ad0e
License Key	[redacted]-QTBDZ-5[redacted]
Valid until	Perpetual
Activated by	[redacted]

12.3.7 How to Check Your Activated IRM License

You can check your activated IRM license from **IRM → About**.



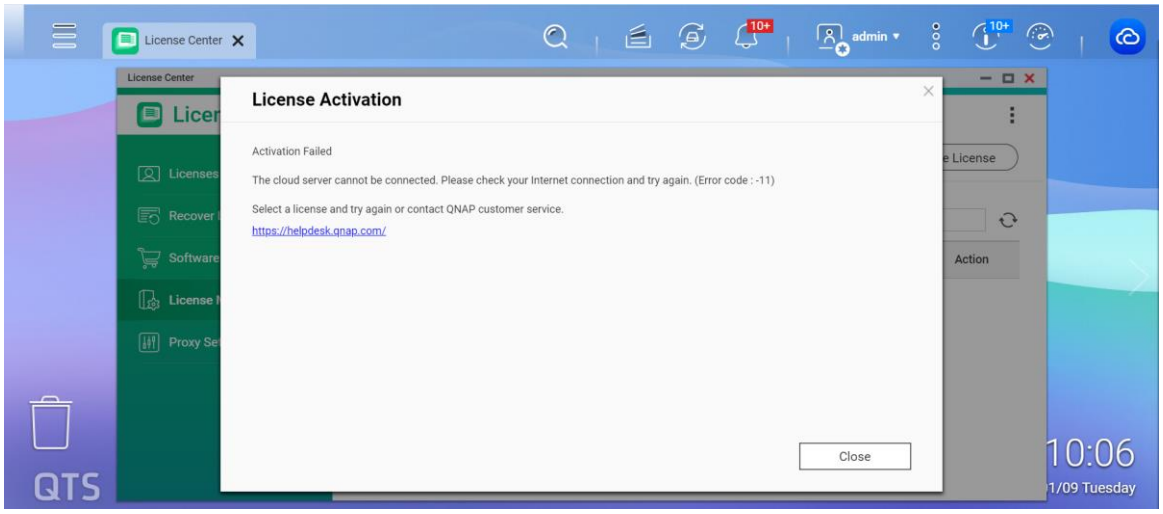
You can also check your activated IRM license in the License Center.



12.3.8 Activation Failed

If you fail to activate your license, please

1. contact with IEI if your license is bought from IEI
2. contact with QNAP helpdesk if your license is bought from QNAP Software Store



12.4 Checking and Buy License

Step 1: Go to IRM landing page to select your license and ordering from your IEI account sales.

Step 2: IEI account sales will send your License to let you to import to your License Center APP in IRM Server and your can check your license detail from License Manager (https://license.qnap.com/) website.

Step 3: Login License Manager (https://license.qnap.com/) website and Sign in with your QNAP ID.

Step 4: Locate the product on the list, and then click **SUBSCRIPTION**.

Step 5: The license details appear.

Step 6: You can activate your license right after the purchase or at a later time. For details, see **Section 12.3 License Activation**.

12.5 Deactivating a License for License Migration

12.5.1 Migrating an Activated License

If the license is already activated on an IRM mini server, the license should be deactivated online or offline before applying the license to a new IRM mini server.

If you can still access your old device

Step 1: Deactivate a license by following the instructions on License Deactivation

Step 2: Activate the license on the new IRM mini server by following the instructions on License Activation

If you cannot access your old device, or it is not functioning.

Step 3: Go to QNAP Customer Service and submit a support ticket for license deactivation. Our customer support team may ask you to provide further information before the process.

Step 4: Once the license is deactivated, activate the license on the new IRM mini server by following the instructions on License Activation

12.5.2 License Deactivation

You can deactivate IRM licenses using the following methods

Activation Method	Description
Using QNAP ID (QID)	Licenses purchased through Software Store are stored in your QNAP ID account, and can be accessed through both License Center and the QNAP License Manager website To deactivate this type of license, see Deactivating a License Using QNAP ID.
Offline	Use this method when the device is not connected to the internet. For details, see Deactivating a License Offline.