QRM+

QNAP's Remote Server Management Solution

Tutorials

rev 20170922

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How to use QRM+ to manage your devices?

QRM+ is a centralized remote device management solution from QNAP designed for IT teams, home users, production line managers, or anyone who wants to monitor and manage computer devices (such as: computers, servers, etc).
QRM+ is a web-based solution that provides basic device management capabilities such as device discovery, mapping, monitoring, or management of all critical computing devices on the network, such as servers, computers, embedded computers, or compact computers.
Centralized management of QRM+ improves the manageability of IT infrastructure and computer equipment, and reduces the time required to troubleshoot and analyze system resource performance.

Browser support

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

- Safari
- Microsoft Edge
- Firefox

Requirements for installing QRM+

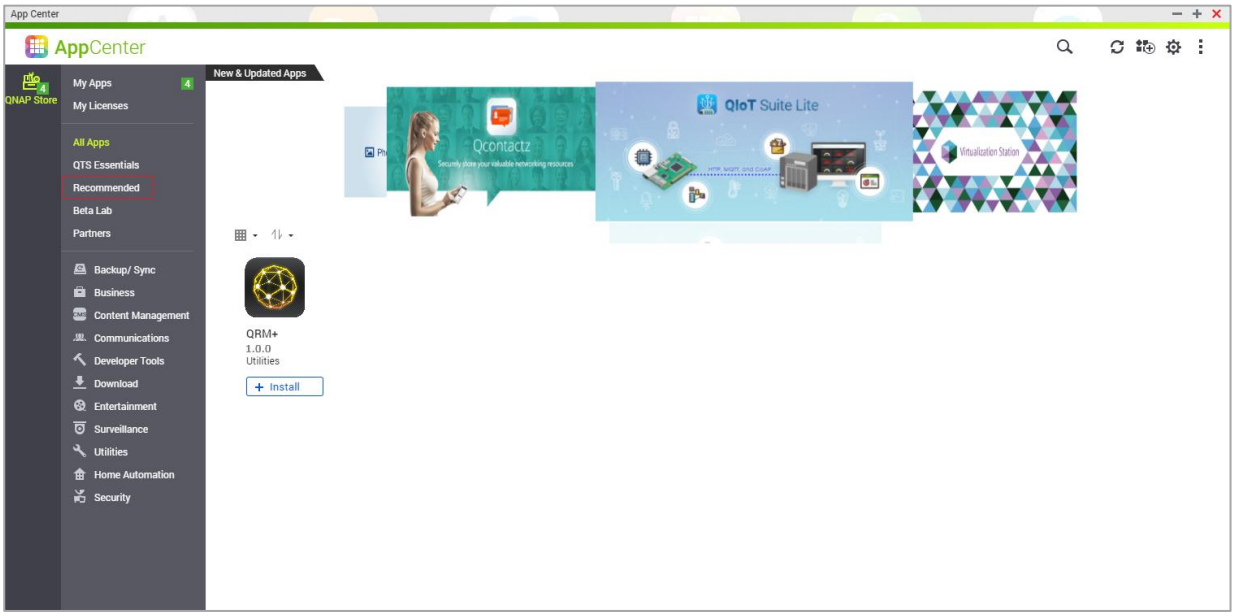
Supported hardware:

- QNAP NAS that support QTS 4.3.0 (or later): TS-x53B, TVS-x73, TS-x85
- QNAP NAS that support QTS 4.2.2 (or later): SS-x53, TES-x85U , TS-x53U, TS-x53A, TS-x51U, TS-x51A, TS-x51+, TS-x51, TS-x80, TVS-x63+, TVS-x63, TS-x63U, TS-x70, TS-X89U, TVS-x71, TVS-x82, TVS-x82T, TVS-x82ST, X51 , X53, X63, X70 , X70U , X71 , X80 , X80U , X82 , X82T , X82ST , X82U ,TS-x79 Pro, TS-x79U-RP, TS-ECx79U-RP, TS-ECx79U-SAS-RP, SS-ECx79U-SAS-RP
- IEI QGW Series that support QTS 4.2.1 (or later): TANK-860-QGW, TANK-760-QGW
- The NAS/QGW must have at least 4GB RAM.

Container Station and QRMAgentPack must be installed before using QRM+.

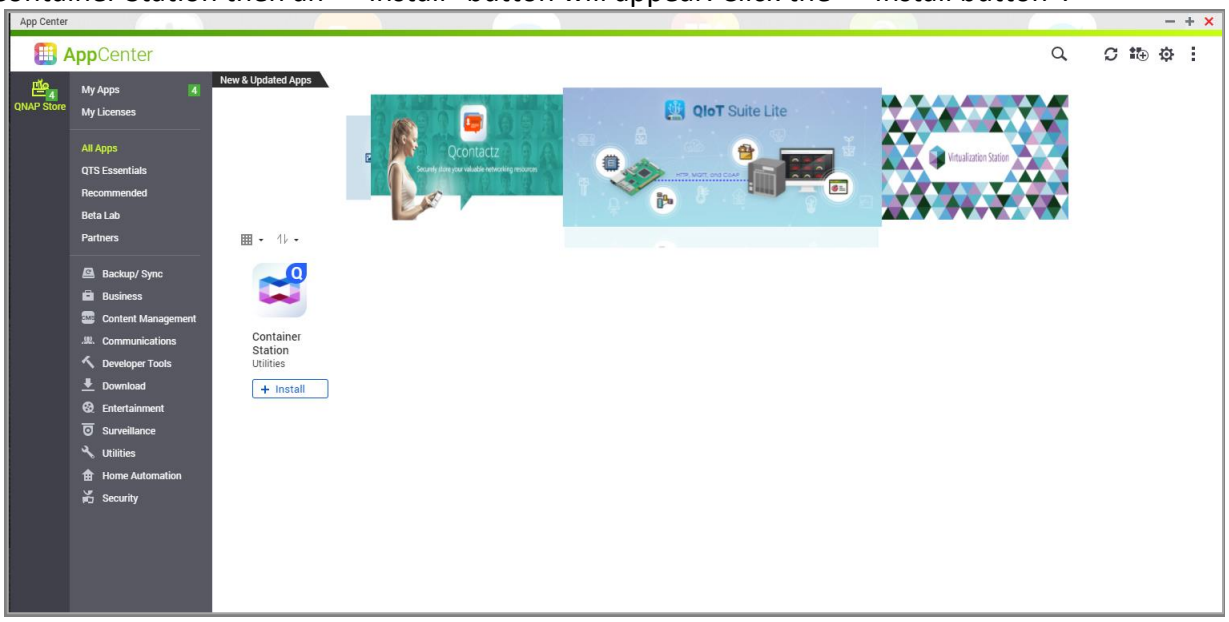
Installing Container Station, QRMAgentPack and QRM+:

Step 1: Open the App Center, go to "Recommended" and download "QRM+". Container Station and QRMAgentPack will be automatically downloaded as well.

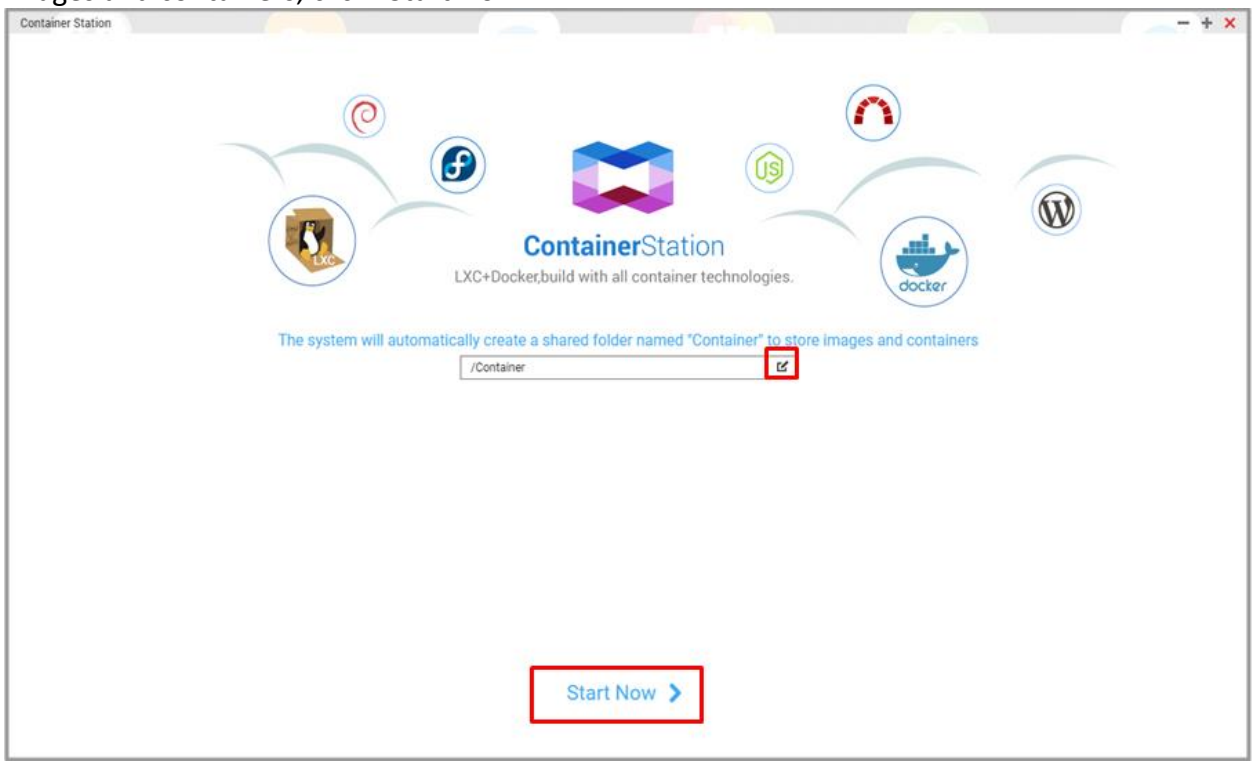


Separately installing Container Station, QRMAgentPack and QRM+:

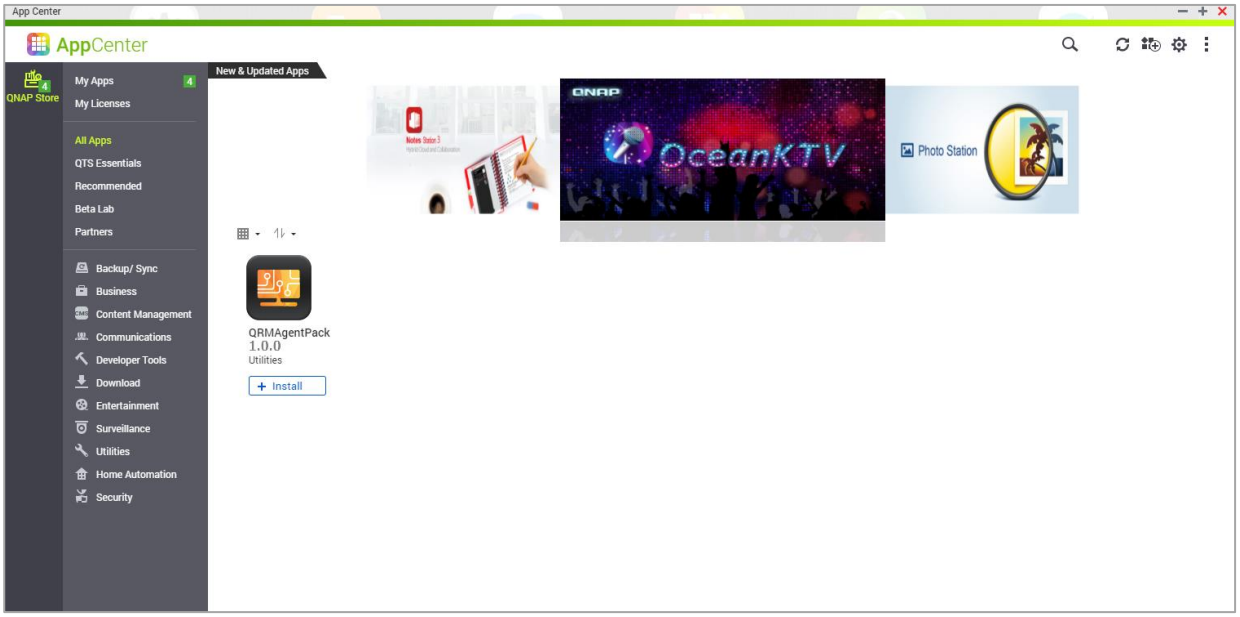
Step 1: Open the App Center and search for "Container Station". If you have not installed Container Station then an "+ Install" button will appear. Click the "+ Install button".



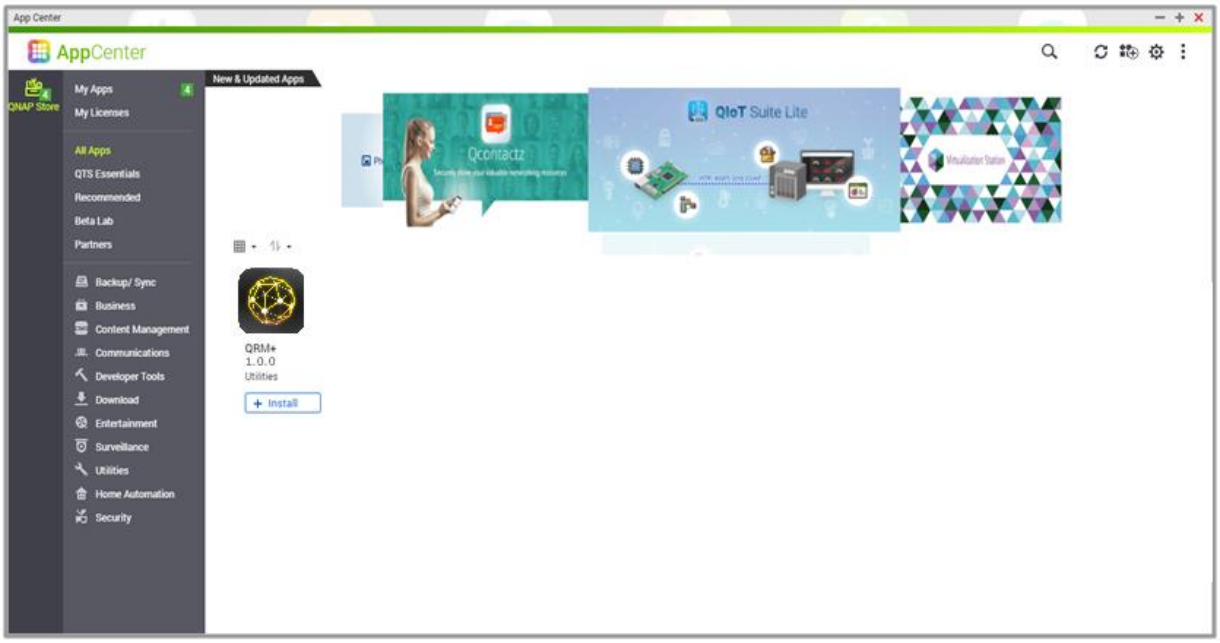
Step 2: Open Container Station and follow the installation wizard. After selecting a folder to store images and containers, click “Start Now”.



Step 3: Return to the App Center and search for "QRMAgentPack". If you have not installed QRMAgentPack then an "+ Install" button will appear. Click the "+ Install button".



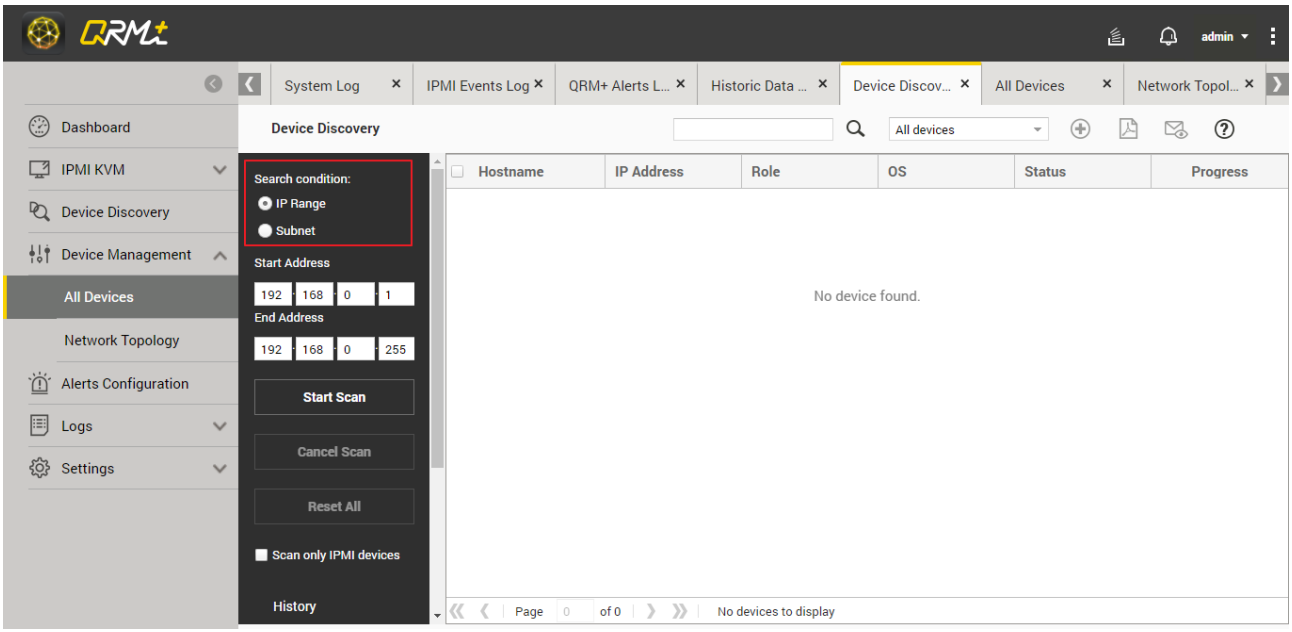
Step 4: Return to the App Center and search for "QRM+". An app called "QRM+ " will be listed. If you have not installed QRM+ then an "+ Install" button will appear. Click the "+ Install button".



1. Device Discovery

With QRM+, you can use the Device Discovery feature to discover the network you're in. Device Discovery allow users to discover computer devices on the current network based on the scan range they set up and quickly incorporate them into QRM+ Management.On the Device Discovery page, users can start scan, stop scan, reset, query scan history, filter scan results, add devices, generate scan result reports, and send current view as Email.
QRM+ supports the following two search types:

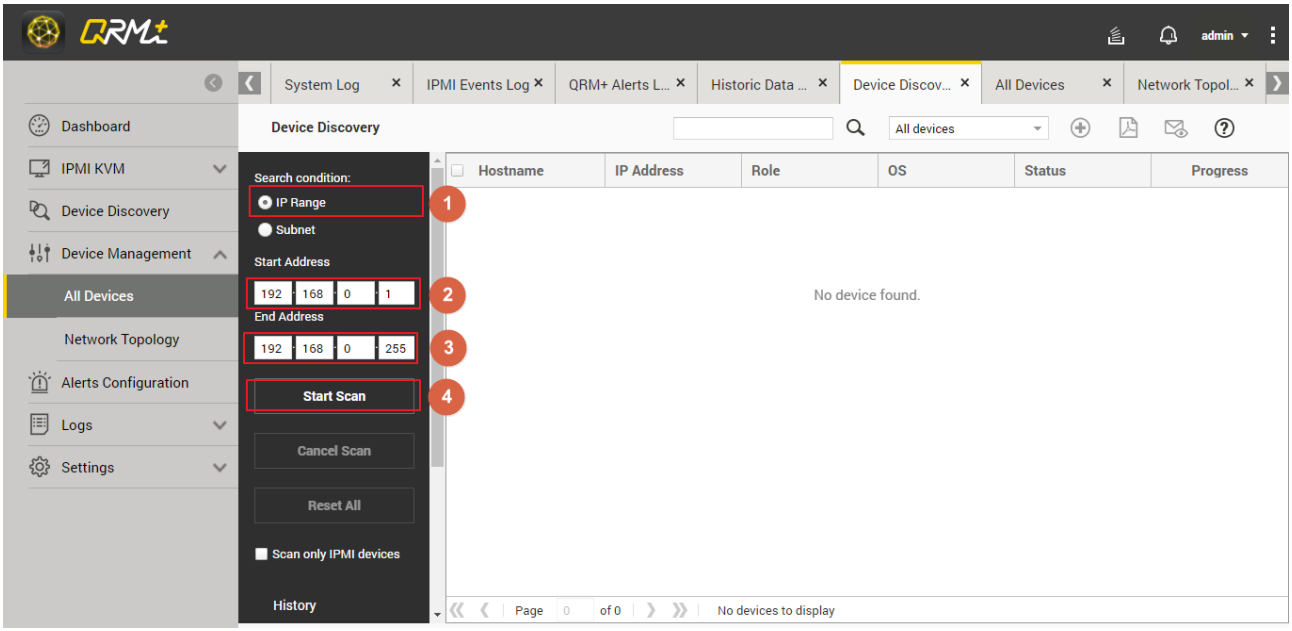
1. IP range
2. Subnet



1.1 Start Scan

If the user clicks the "Start Scan" button, QRM+ 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, and the user can add the discovered device to QRM+ without waiting for the scan to finish. Details are described in the section "Adding a Device to a QRM+ During Scan".

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"

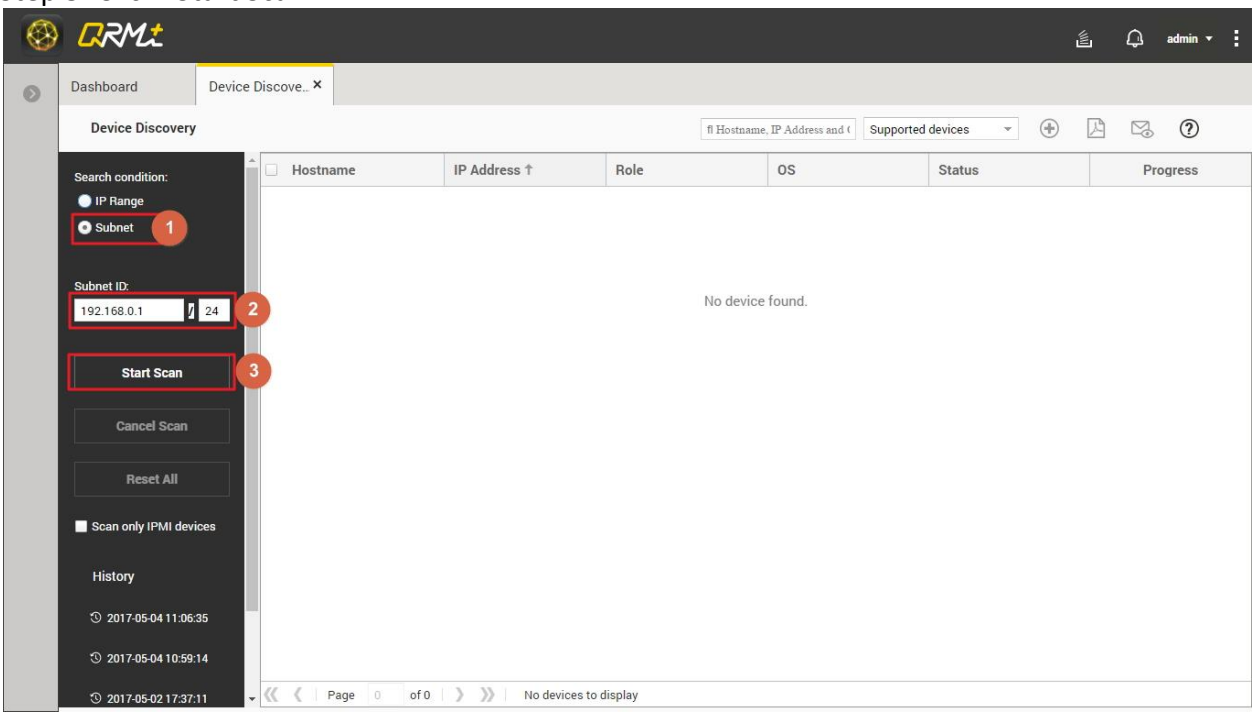


To scan a specific subnet range, follow the steps below:

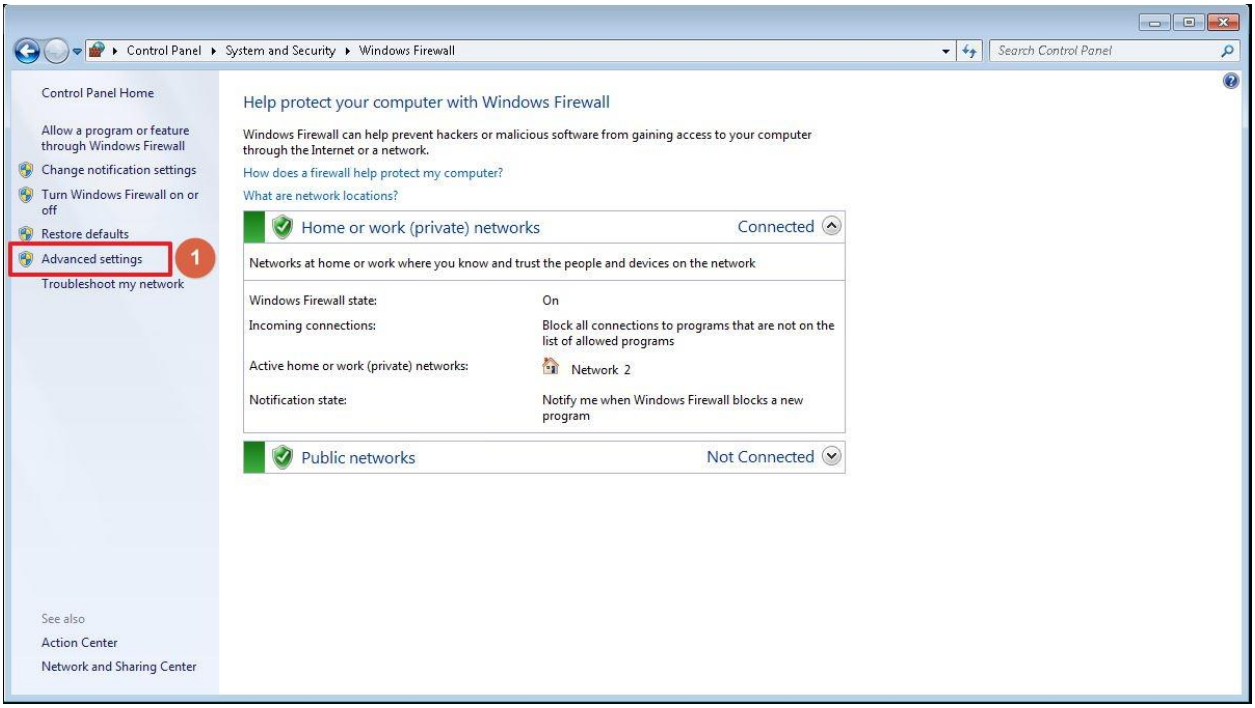
Step 1: Set the subnet

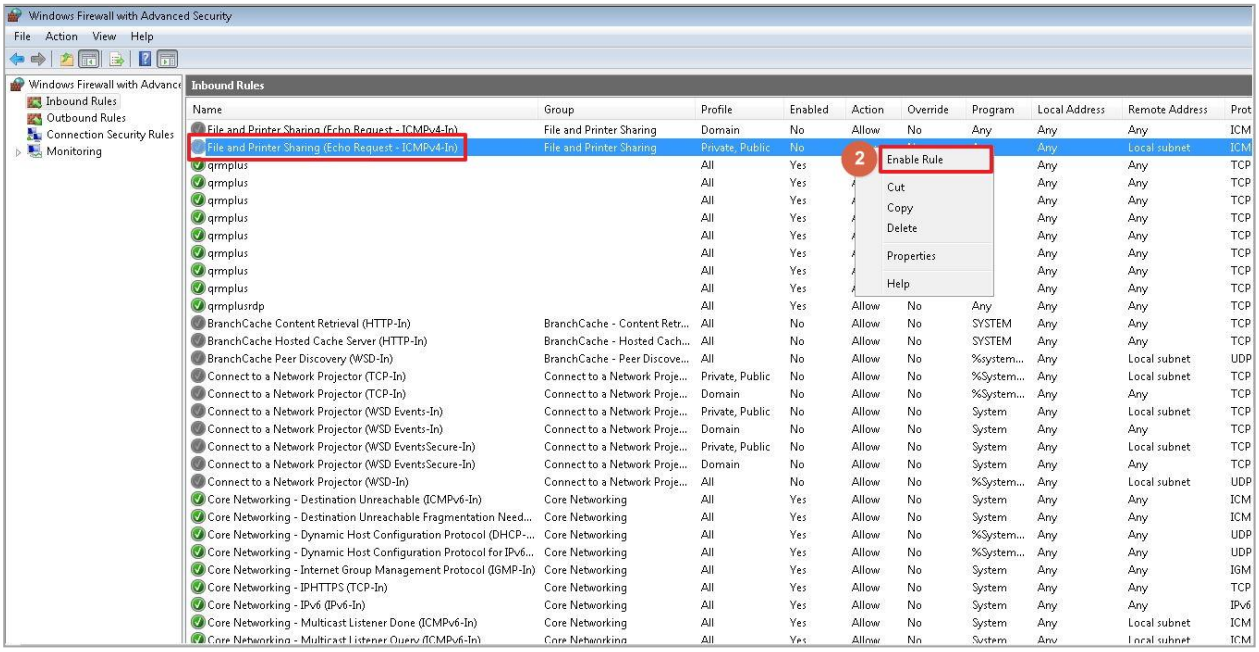
Step 2: Enter the CIDR, default is 24

Step 3: Click "Start Scan"

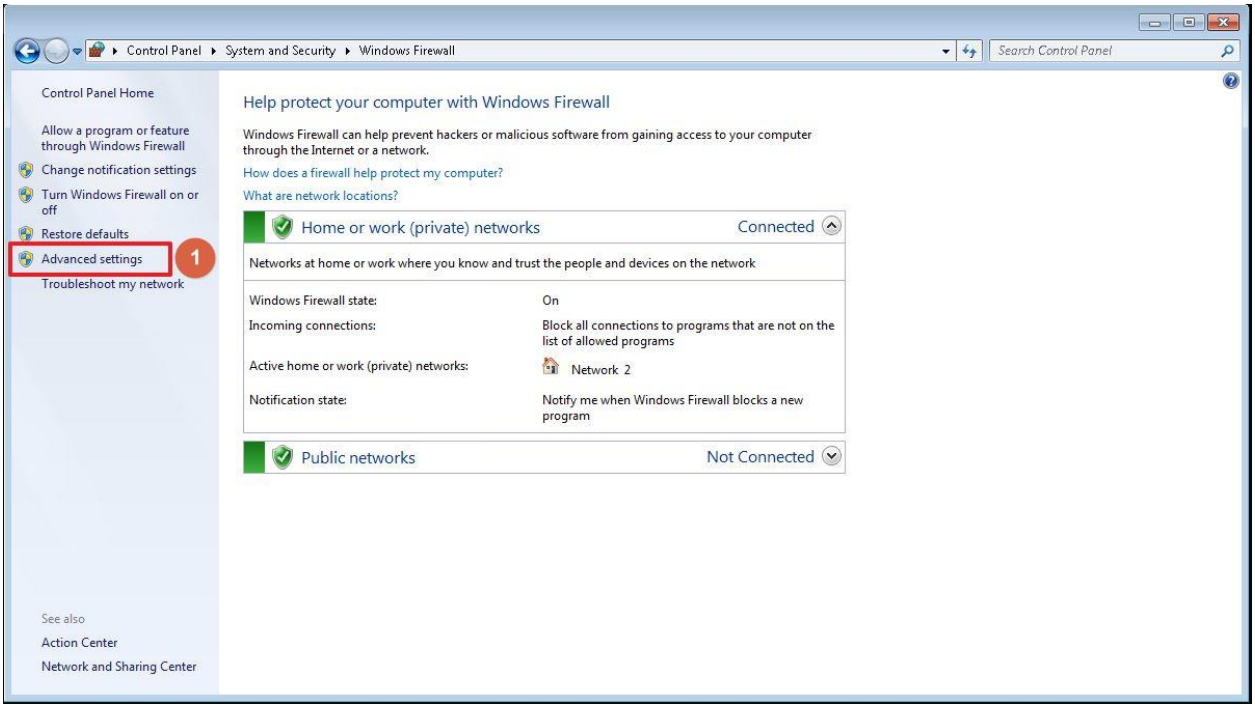


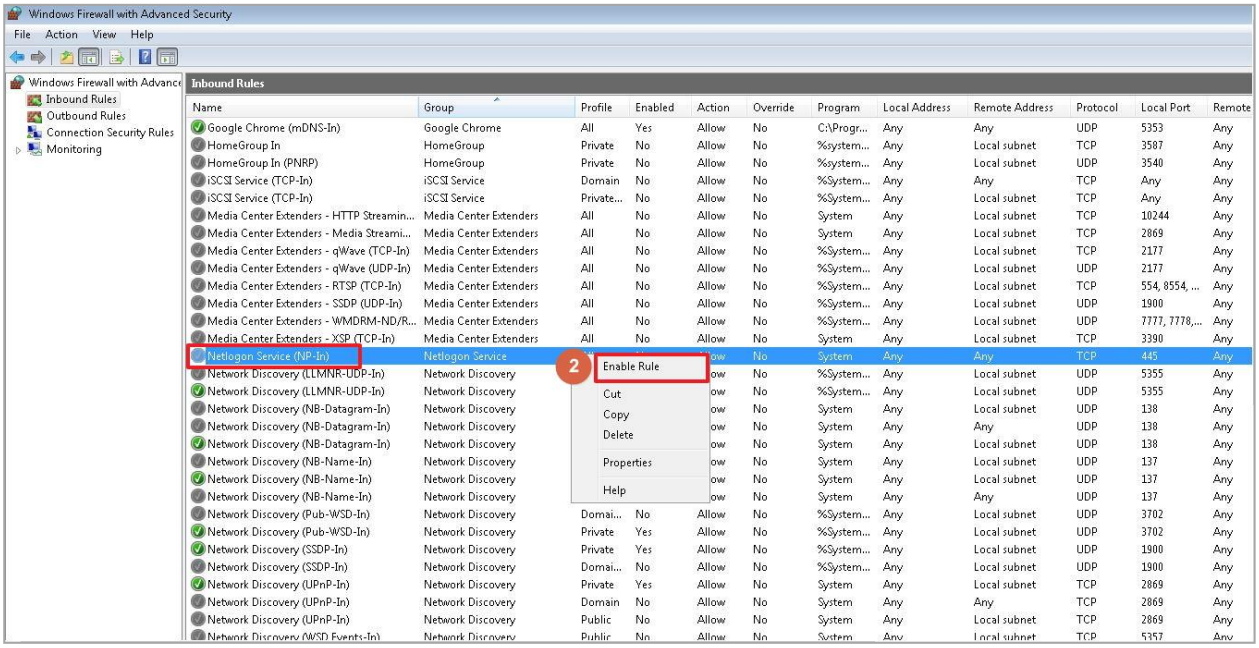
Note: QRM+ uses ICMP protocol to search for devices within a specified IP address range. If the target device does not allow ICMP requests, QRM+ will not be able to find the target device.To support QRM+ search, enable ICMP requests on the target device.





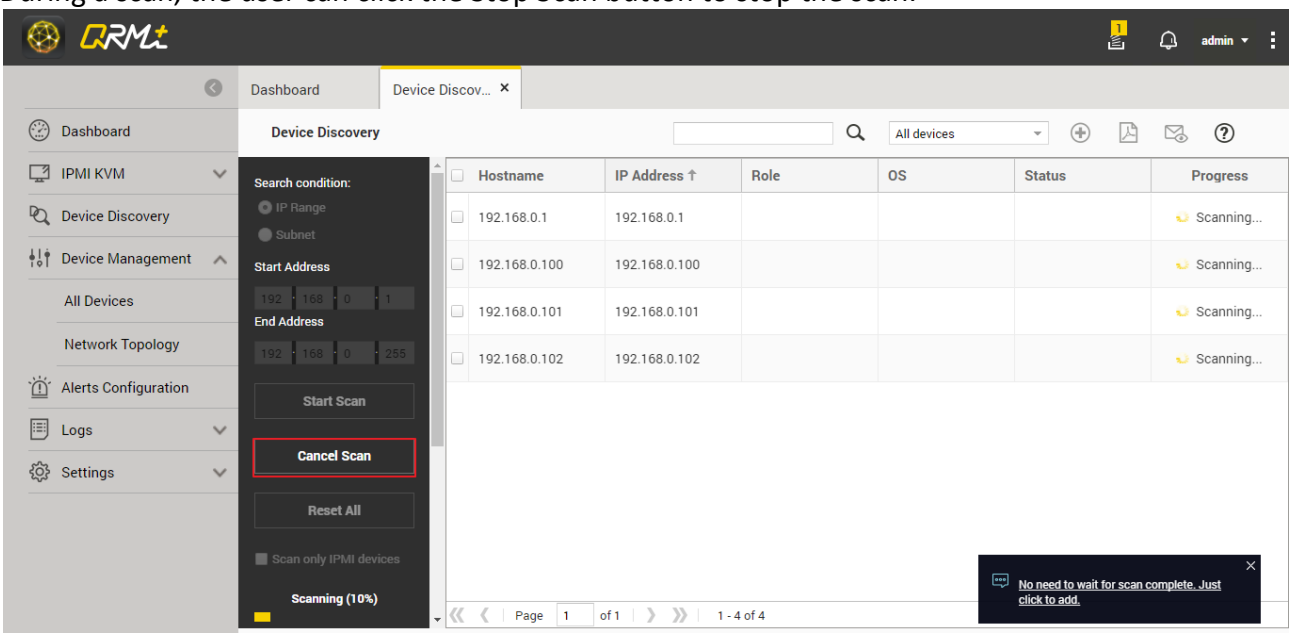
Note: MS Windows firewall rules will also affect QRM+ and treat target device as unsupported device. To solve the problem, go to Control Panel> System & Security> Windows Firewall. Click the "Advanced Settings" button to set up (as shown below).


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
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
See also
Action Center
Network and Sharing Center


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
Google Chrome (mDNS-In)
HomeGroup In
HomeGroup In (PNRP)
iSCSI Service (TCP-In)
Media Center Extenders - HTTP Streamin...
Media Center Extenders - Media Streami...
Media Center Extenders - qWave (TCP-In)
Media Center Extenders - qWave (UDP-In)
Media Center Extenders - RTSP (TCP-In)
Media Center Extenders - SSDP (UDP-In)
Media Center Extenders - WMDRM-ND/R...
Media Center Extenders - XSP (TCP-In)
Netlogon Service (NP-In)
Network Discovery (LLMNR-UDP-In)
Network Discovery (NB-Datagram-In)
Network Discovery (NB-Name-In)
Network Discovery (Pub-WSD-In)
Network Discovery (SSDP-In)
Network Discovery (UPnP-In)
Network Discovery (WSD Events-In)
2
Enable Rule
Cut
Copy
Delete
Properties
Help

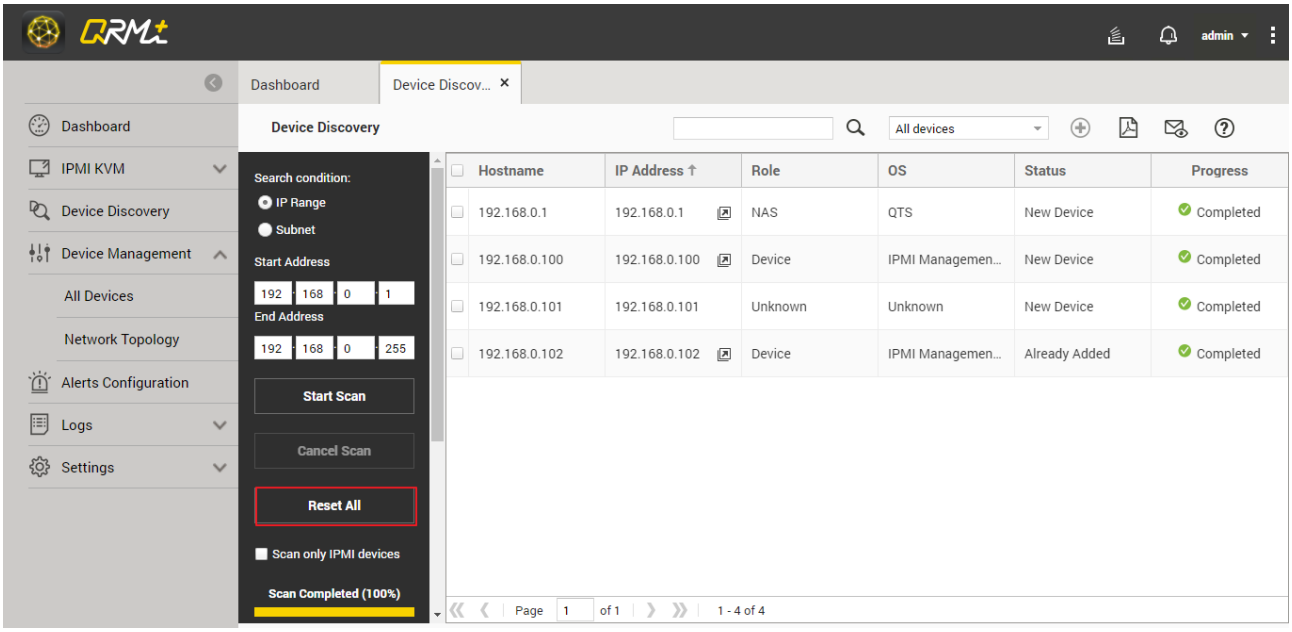
1.2 Stop scanning

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



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 button is clicked, the contents of the table on the right side of the screen will be cleared.

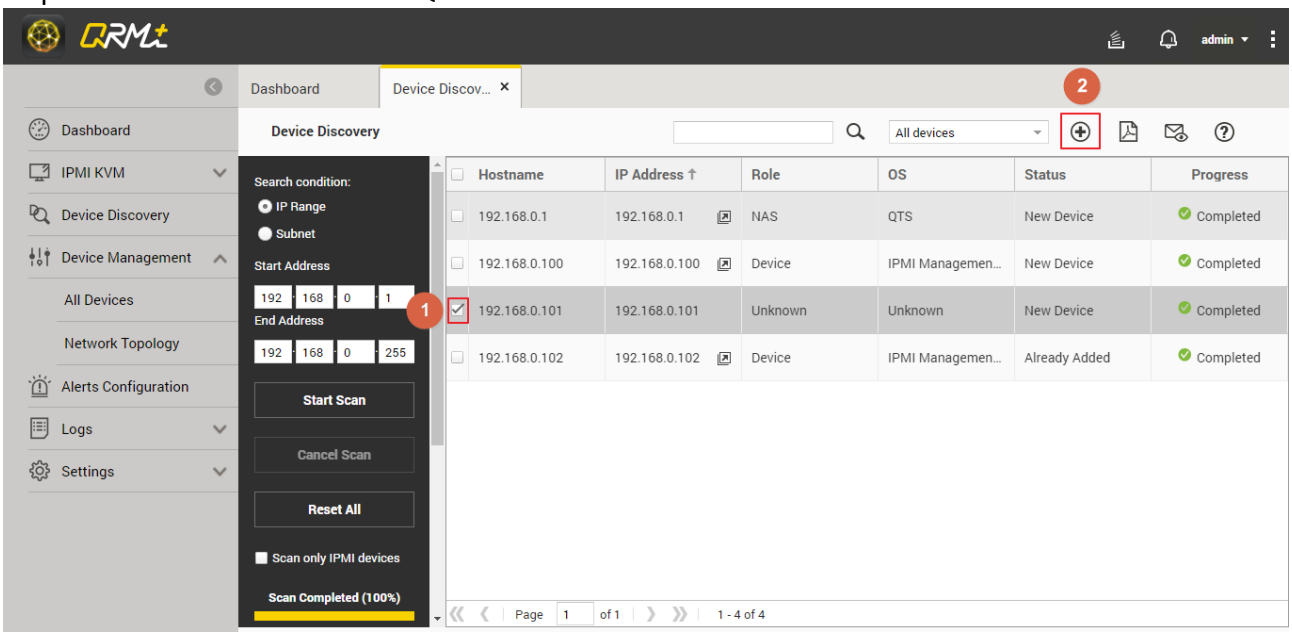


1.4 Steps to add the device to QRM+

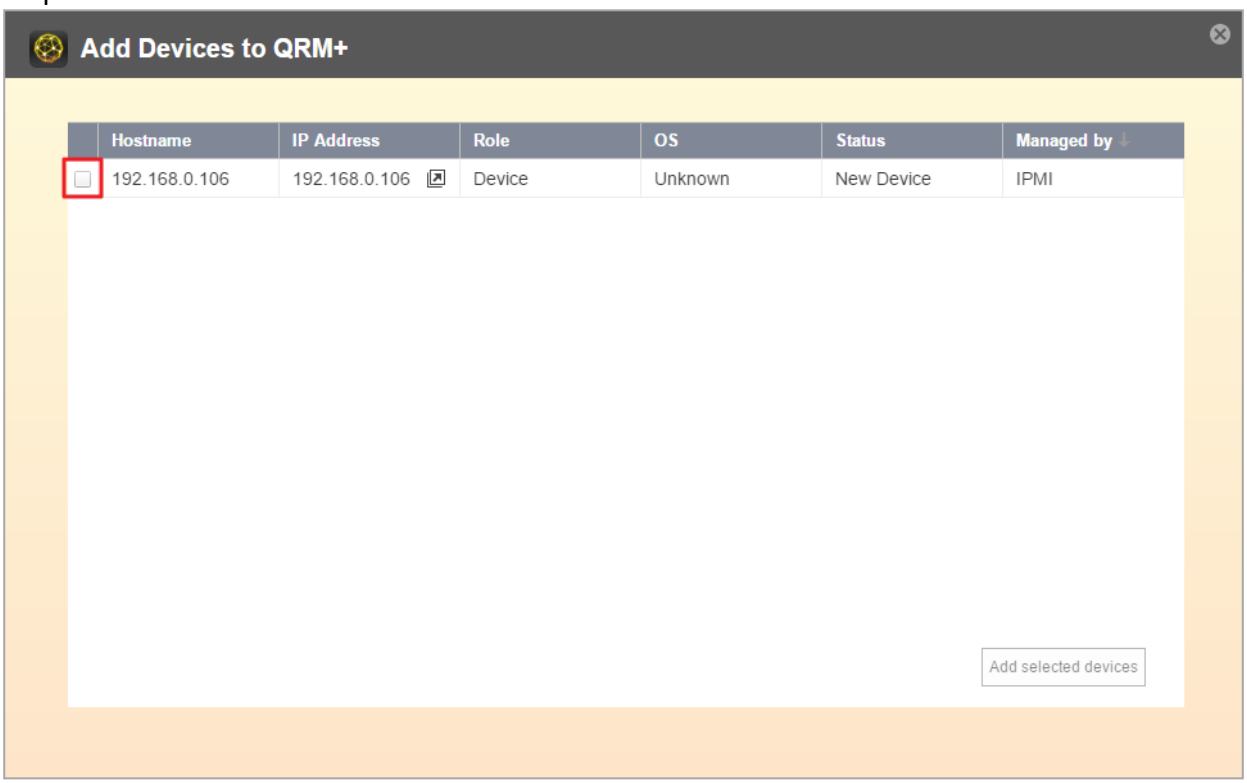
Users can select a device from the list of discovered devices and click "Add Device to QRM+" button to add one or more devices to QRM+. Different types of devices have different add methods:

1. Users of IPMI device must provide administrator account and password to allow QRM+ to establish IPMI connection. After successful installation, QRM+ will be able to monitor and manage the device.
2. Users of Linux device must provide administrator account and password to allow QRM+ to install the QRMAgent on the remote device. After successful installation, QRM+ will be able to monitor and manage the device.
3. Users of MS Windows device must download QRMAgent to the machine to be installed and extract the QRMAgent archive on the machine to run the installation program. After successful installation, QRM+ will be able to monitor and manage the device.

Step 1: Select the device you want to add from the list of discovered devices, you can select multiple devices.
Step 2: Click the "Add device to QRM+" button.



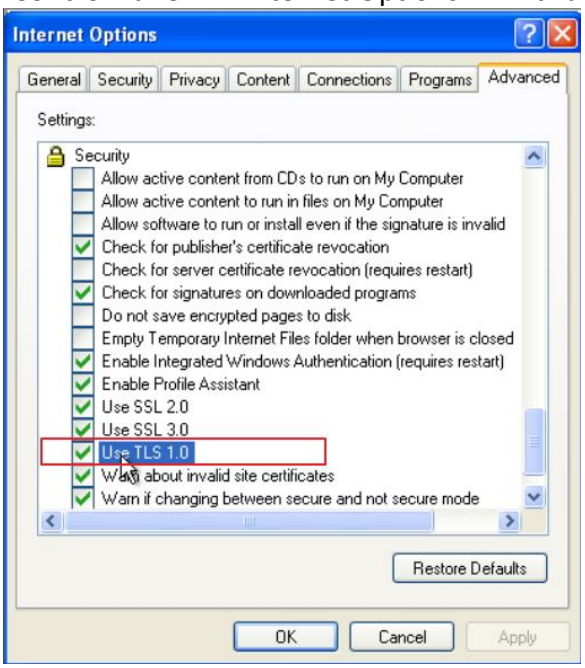
Step 3: Select the devices to be added in the device list screen.



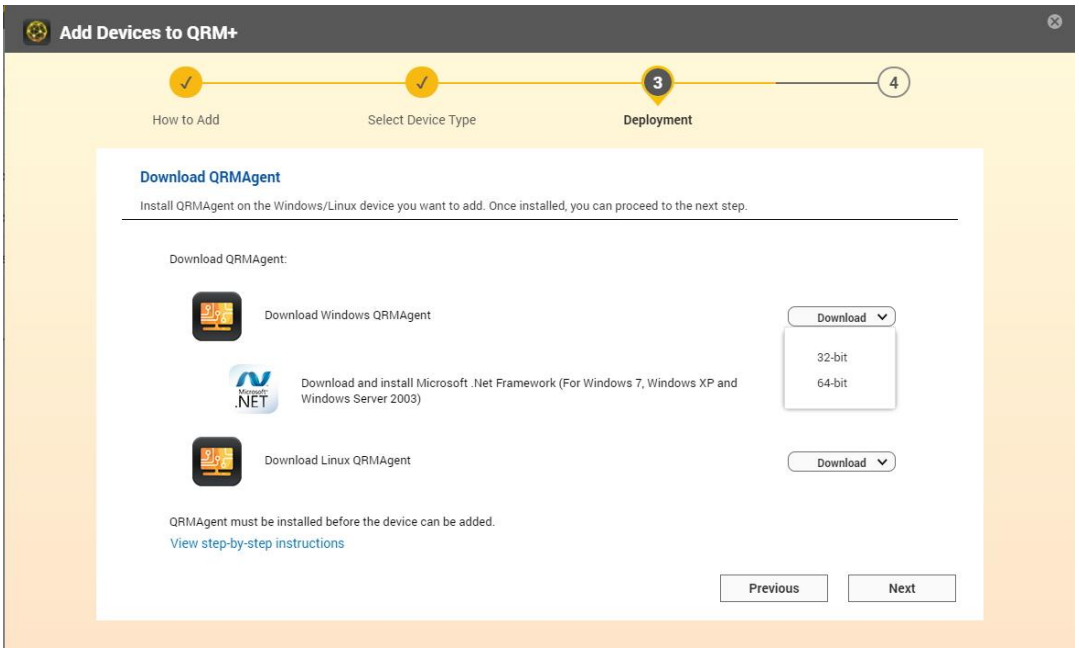
Step 4: Different device types (Windows device, Linux device, or IPMI device) have different installation methods:

Step 4-1: If Windows device is selected in Step 3, a QRMAgent download window will be displayed. Click "Download Windows QRMAgent" button to download the installation package.

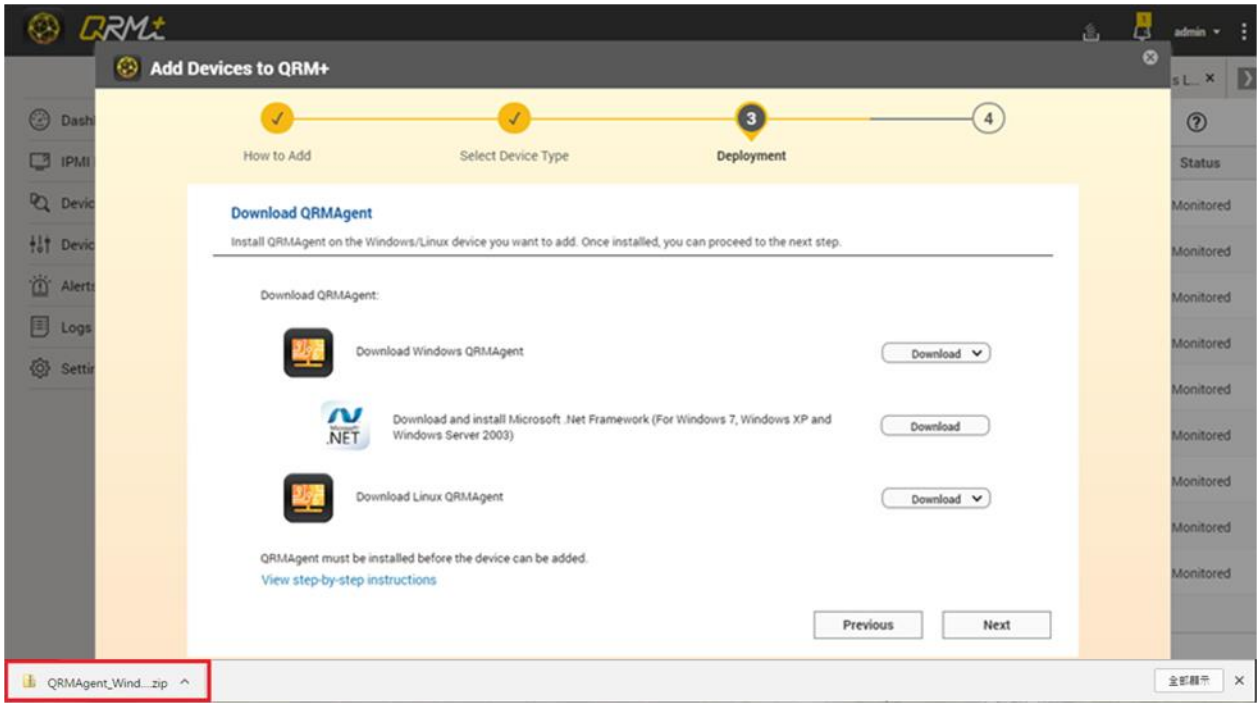
If you have enforced secure connections in your QTS settings and want to install QRMAgent on a device with a 64-bit version of Windows XP or Windows Server 2003, follow these steps: Go to "Control Panel" > "Internet Options" > "Advanced" and ensure that "Use TLS 1.0" is enabled.



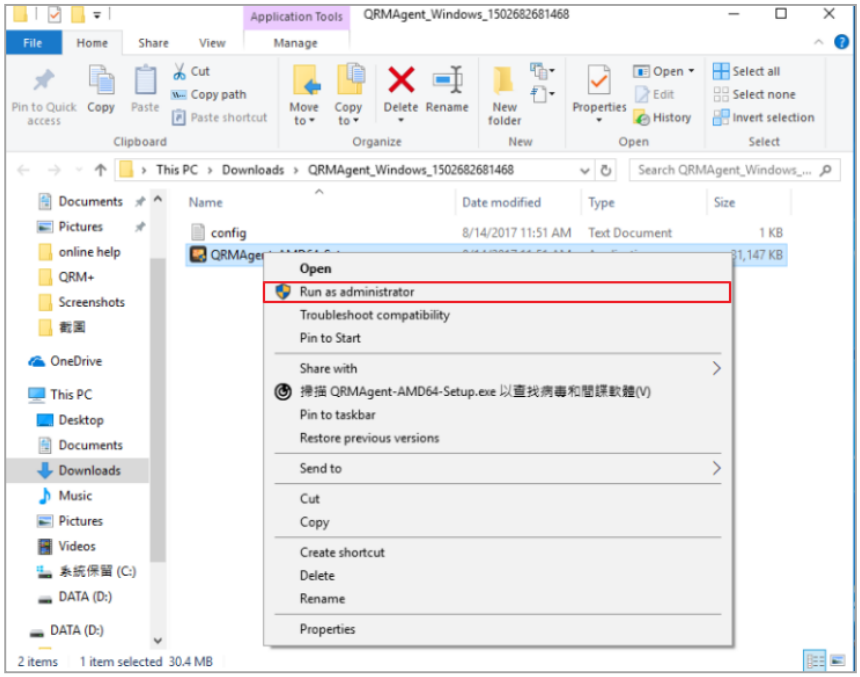
Step 4-1-1：Users can select the appropriate QRMAgent installation package.



Step 4-1-2：Copy the installation package to the device to be managed.



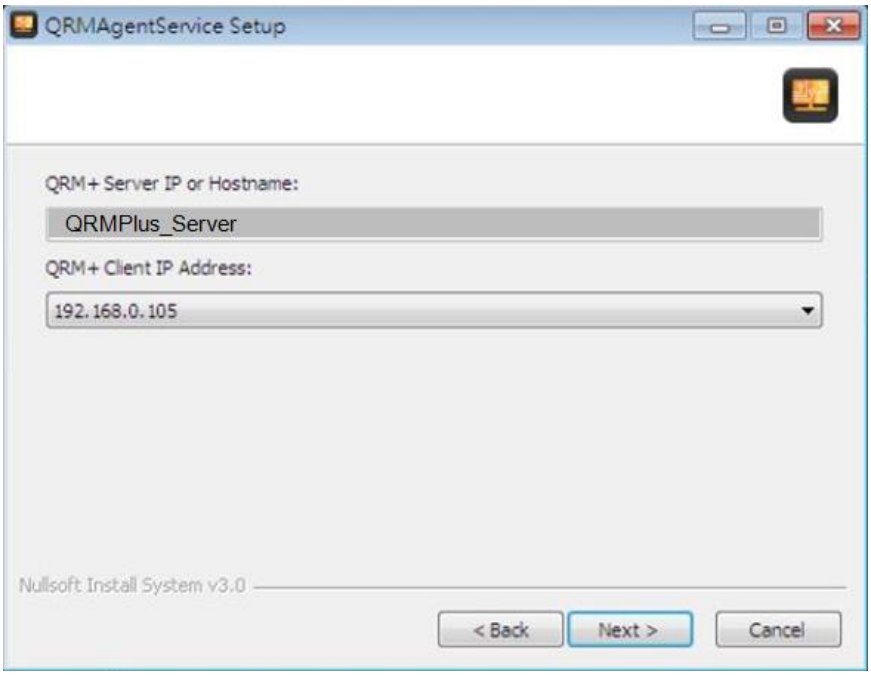
Step 4-1-3：Unzip the installer, right click on the installer and select "Run as administrator".



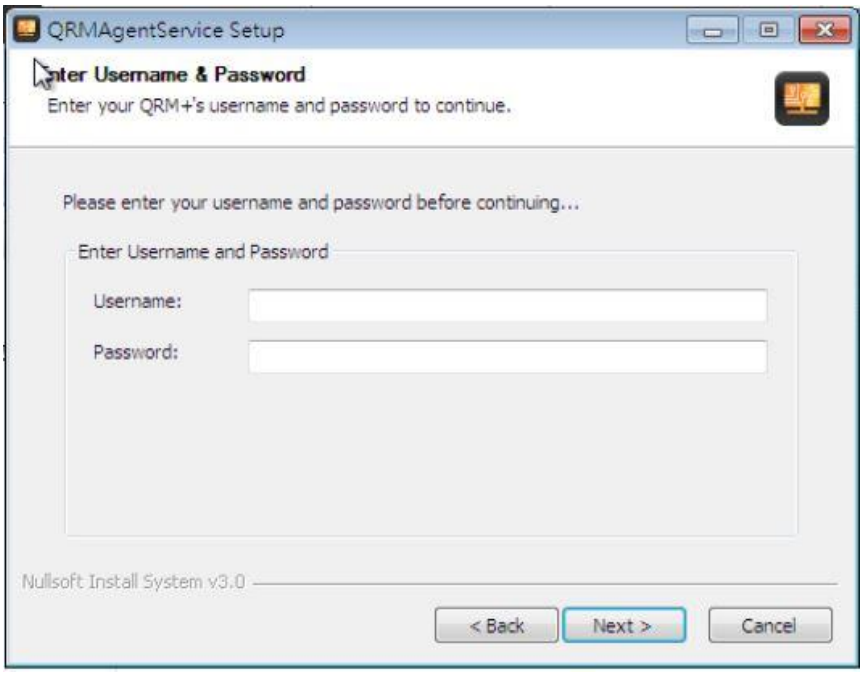
Step 4-1-4：Click "Yes" to allow the installer to make changes to your device.

Step 4-1-5：Click "Next".

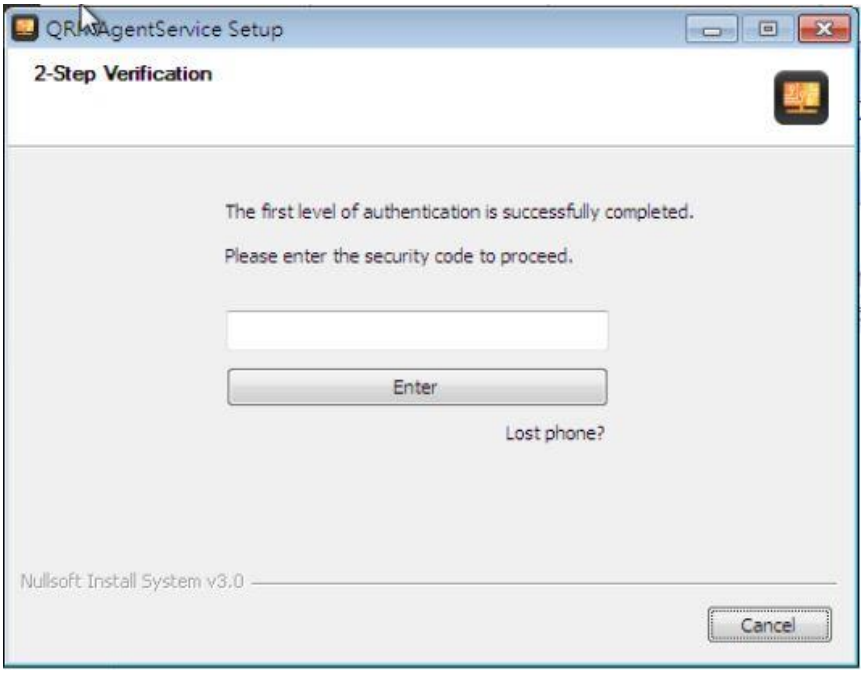
Step 4-1-6：Choose the IP address and click "Next".



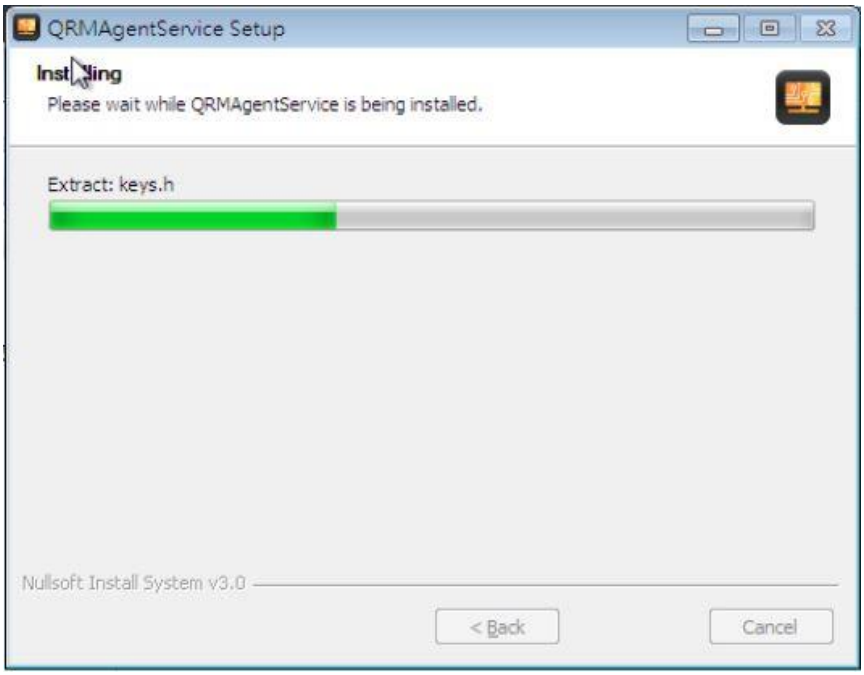
Step 4-1-7：Enter the Username and Password of QRM+.



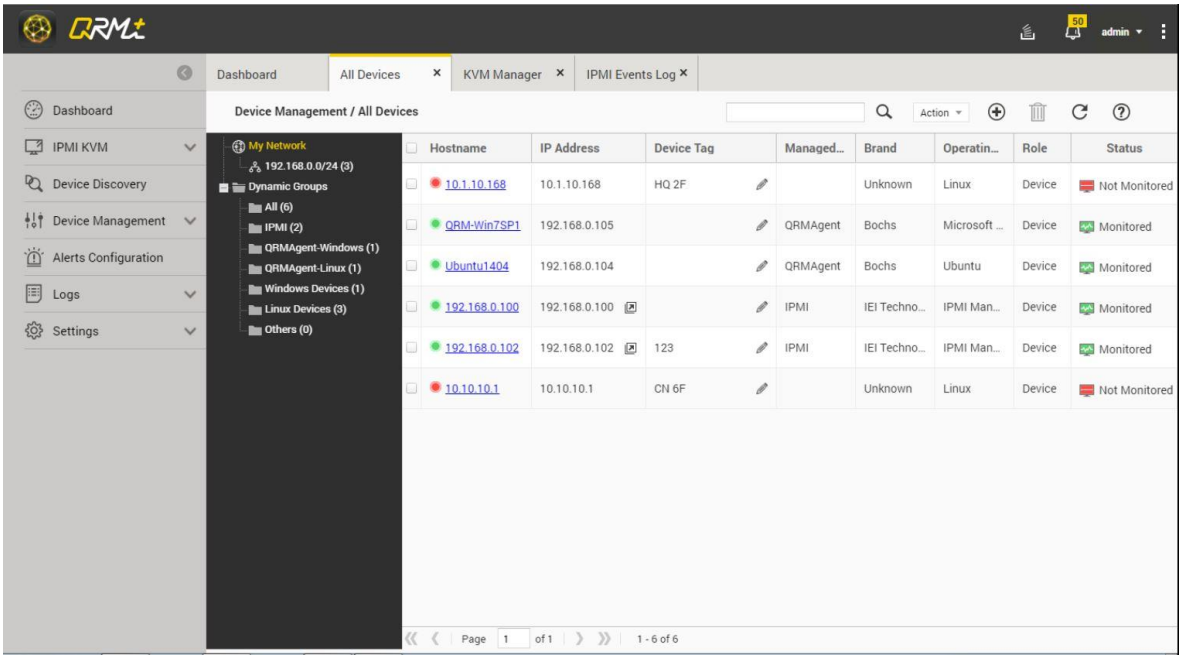
Step 4-1-8：If 2-step Verification is enabled then you must enter the security code.



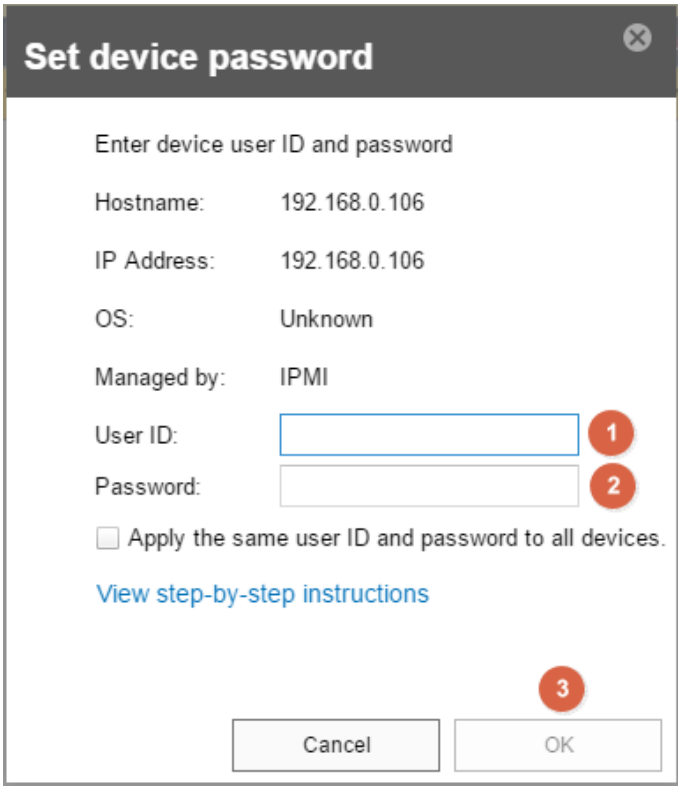
Step 4-1-9：The QRMAgentService will be installed.



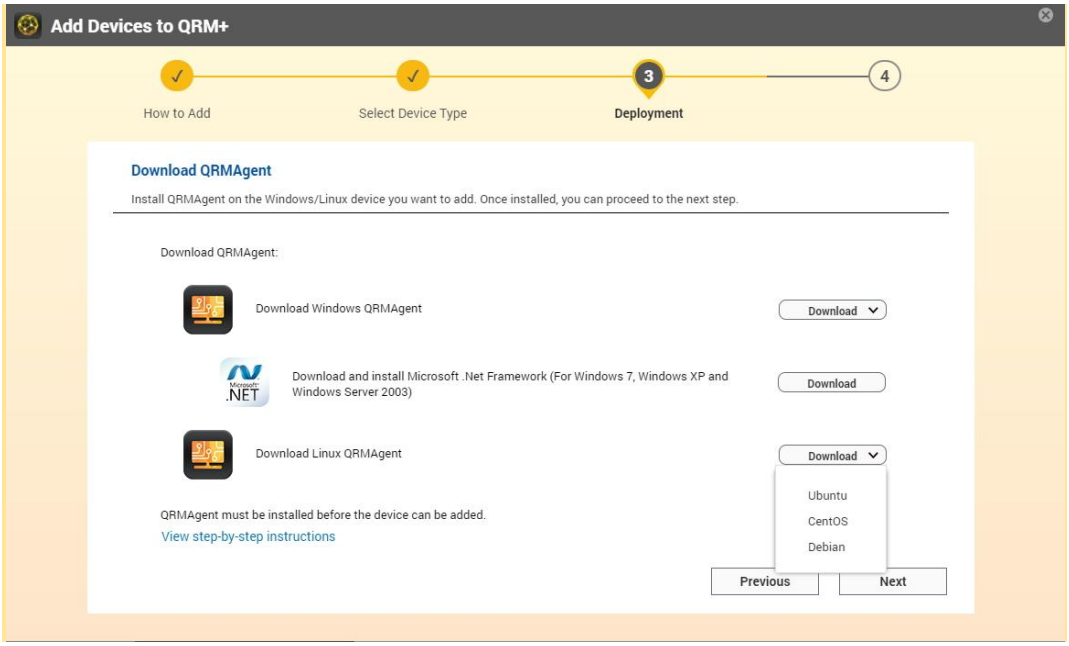
Step 4-1-10：Click "Finish" and you will see the installation status in the device list.



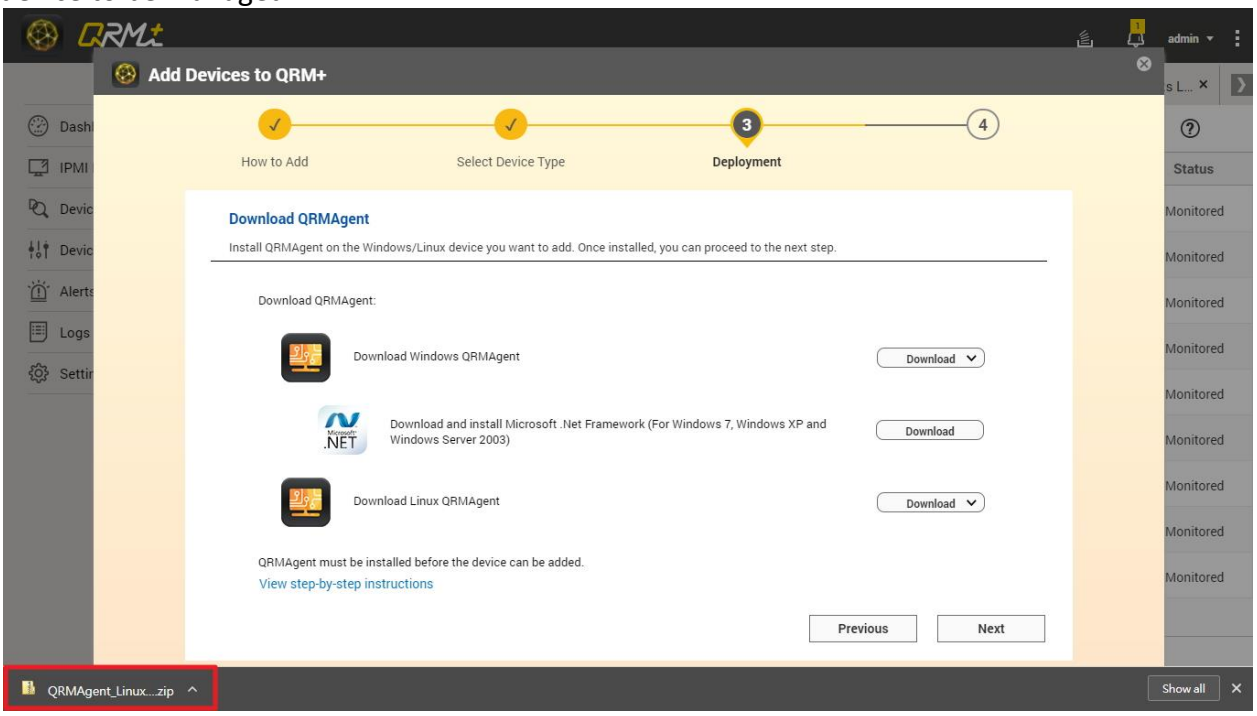
Step 4-2： If IPMI device is selected in Step 3, you must enter the administrator's User ID and Password then click "OK".



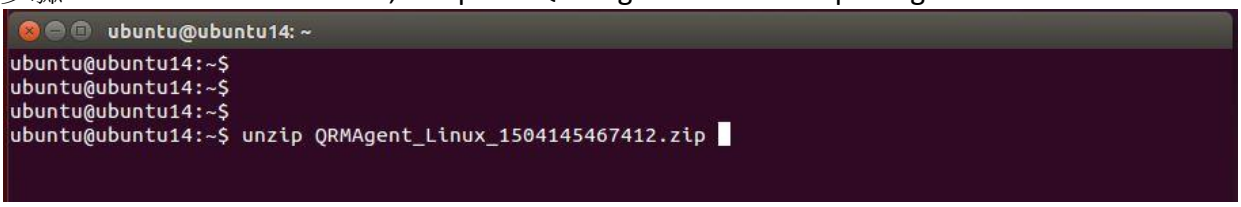
Step 4-3：If Linux device is selected in Step 3, you will be prompted to download QRMAgent for Linux. Click "Download" next to "Download Linux QRMAgent".



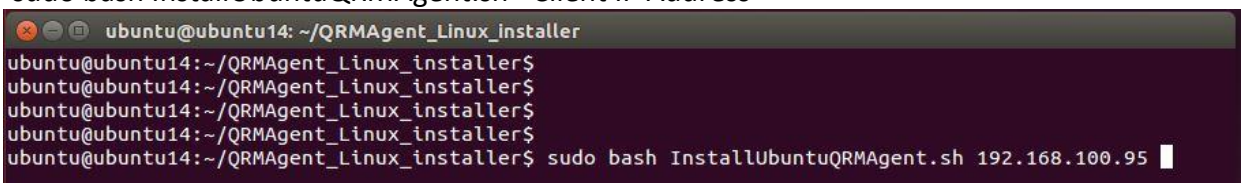
步驟 4-3-1：After the QRMAgent installation package has been downloaded, copy it to the Linux device to be managed.



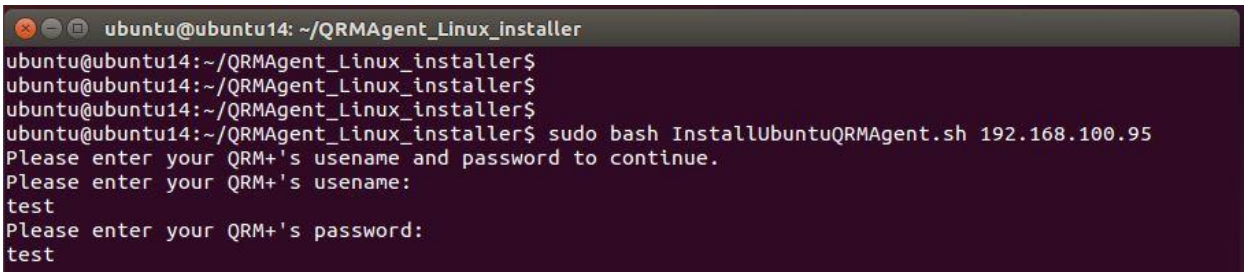
步驟 4-3-2：In the Linux shell, unzip the QRMAgent installation package.



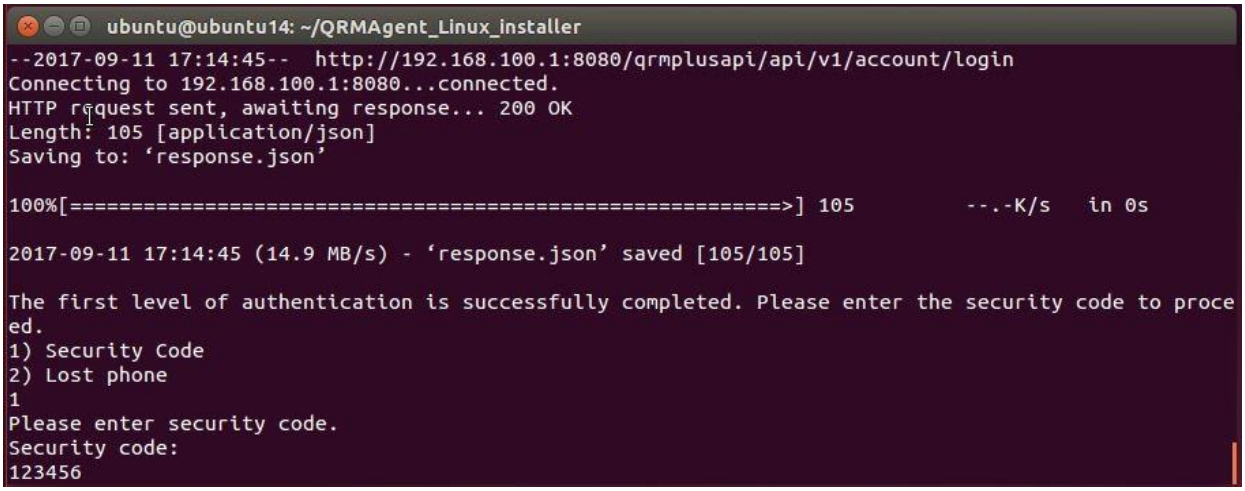
Use the following command to run the QRMAgent installation program:
“sudo bash InstallUbuntuQRMAgent.sh <Client IP Address>”



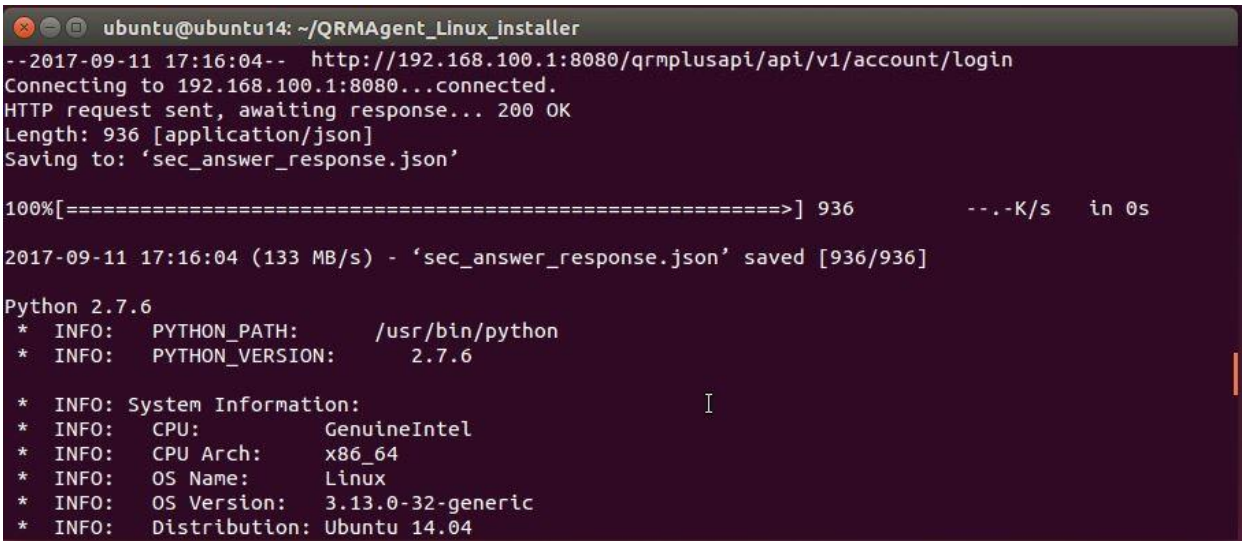
步驟 4-3-3：Enter the QRM+ Username and Password.



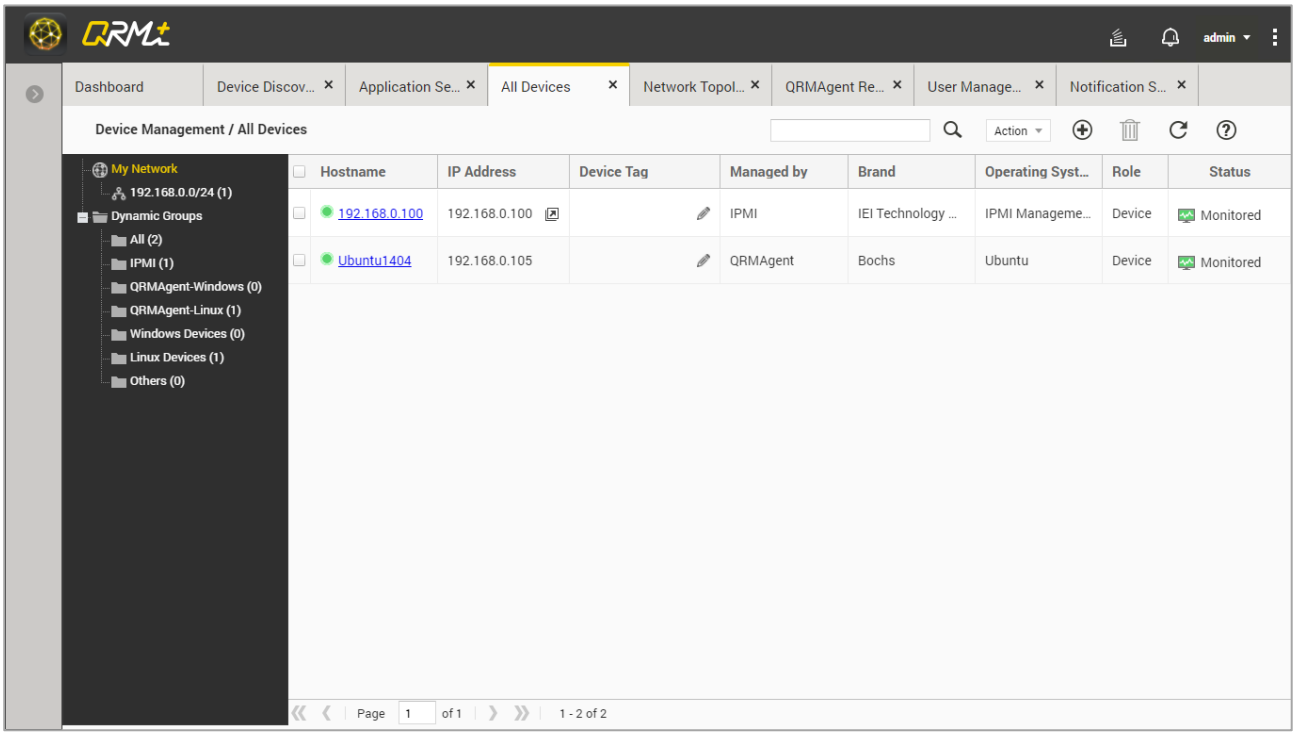
步驟 4-3-4：Confirm your sign in with 2-step Verification (if enabled).



步驟 4-3-5：The installation process will be displayed.

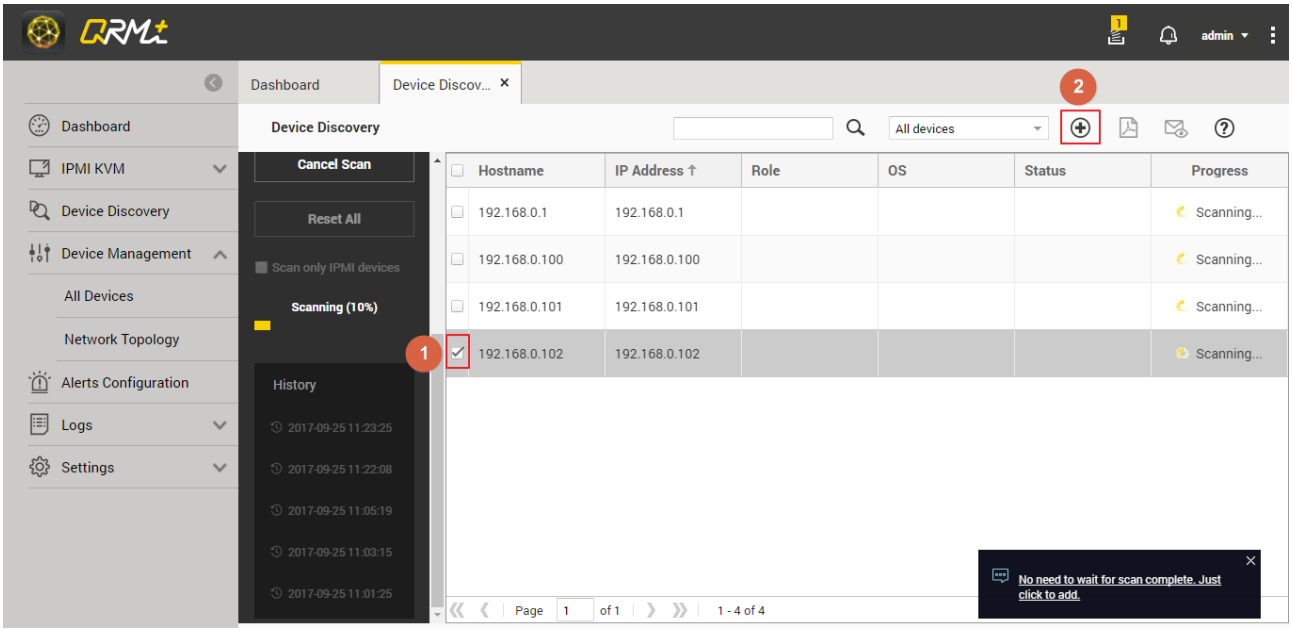


步驟 4-3-6：You will see the device status in the list.



1.5 Add device to QRM+ during the scan

Step 1: During the scanning process, select the device to be added as labeled 1 and click the button "Add device to QRM+" as labeled 2.



Step 2: Refer to "Add device to QRM+ Step 3"

1.6 Scan History

QRM+ maintains a scan history. Users can view the last 5 scans in the history pane of the left column and select the device to install in QRM+ from the list of discovered devices. Just follow the "Add device to QRM+" tutorial step by step.

2. Main Dashboard

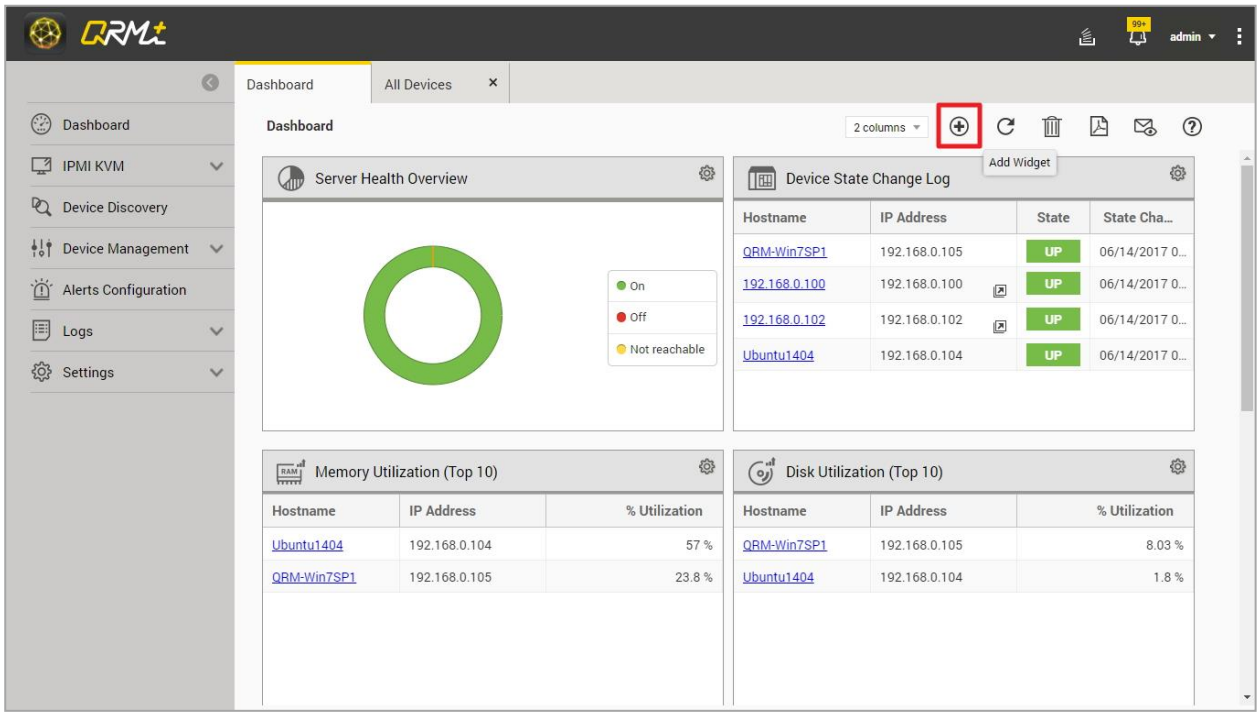
The Main Dashboard is the main page of QRM+. In the Main Dashboard, you can add multiple widgets to monitor the health of your device or server. This page allows users to add, remove, reorganize, choose layout, export as PDF, email current view and update widgets.
Note: Devices need to be added to QRM+ before they can be monitored using gadgets in the dashboard

2.1 Add Widget

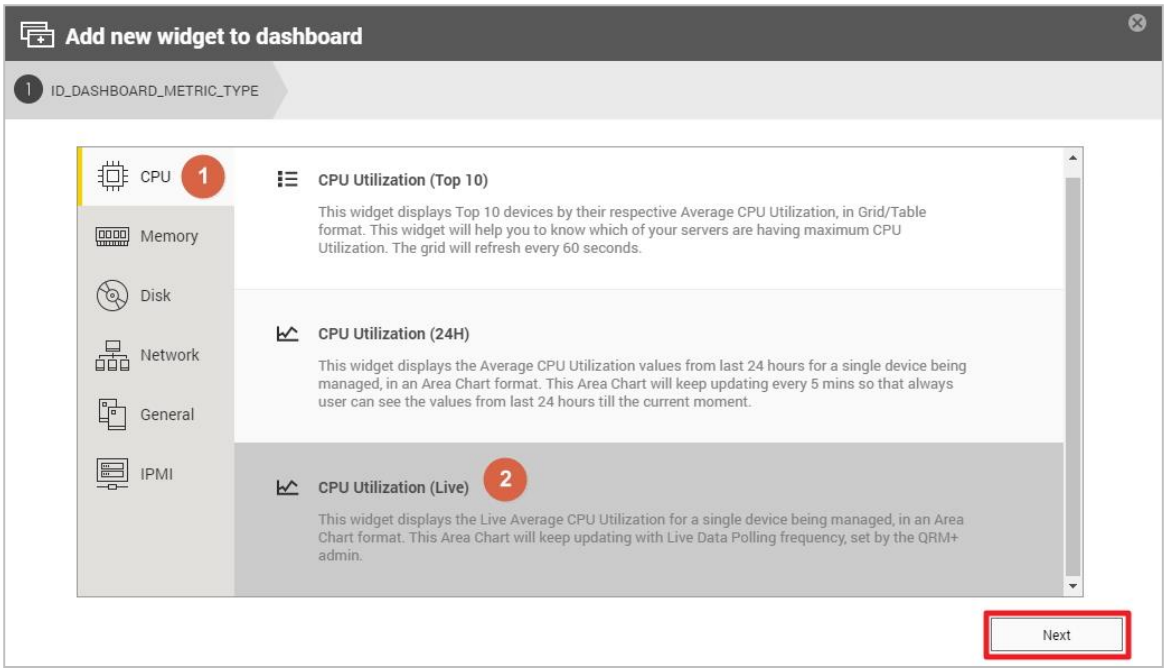
Watch the video
Users can add gadgets to the dashboard to continuously monitor the health of the device or server. The following information can be monitored:

1. CPU Usage
2. Memory Usage
3. Disk Usage
4. Network Usage
5. Health Status
6. IPMI system information and more

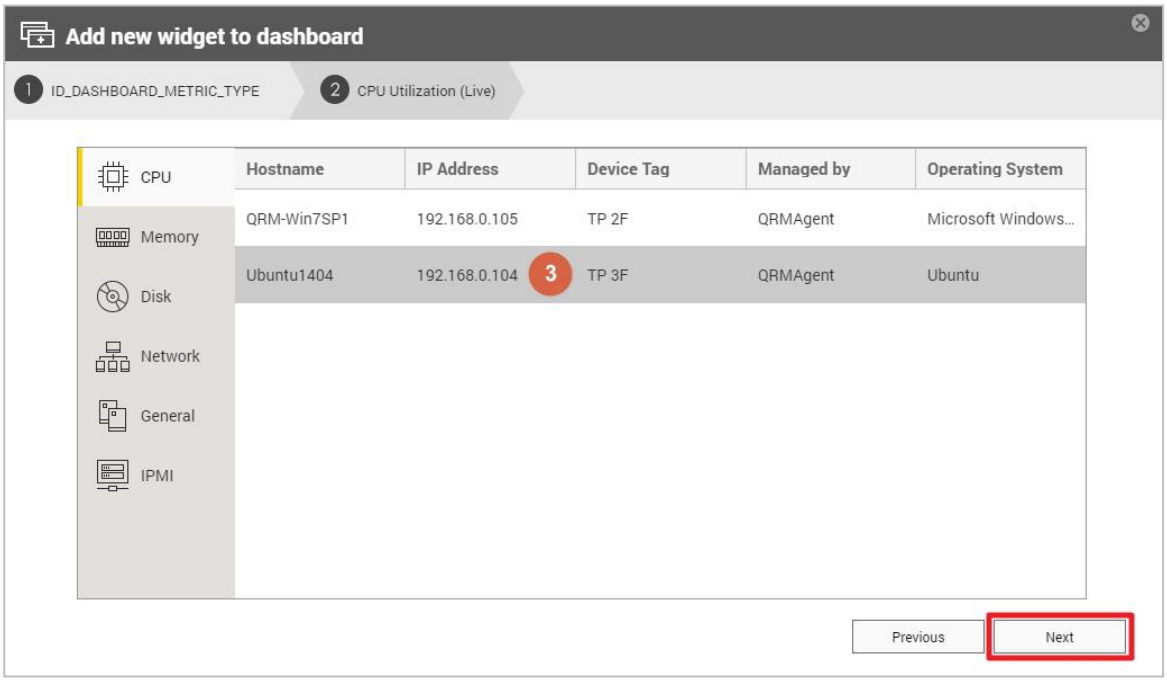
Users can customize their own Master Dashboard to monitor multiple devices at the same time.
Setup steps:
Step 1: Go to the Dashboard page and click the "Add Widget" button



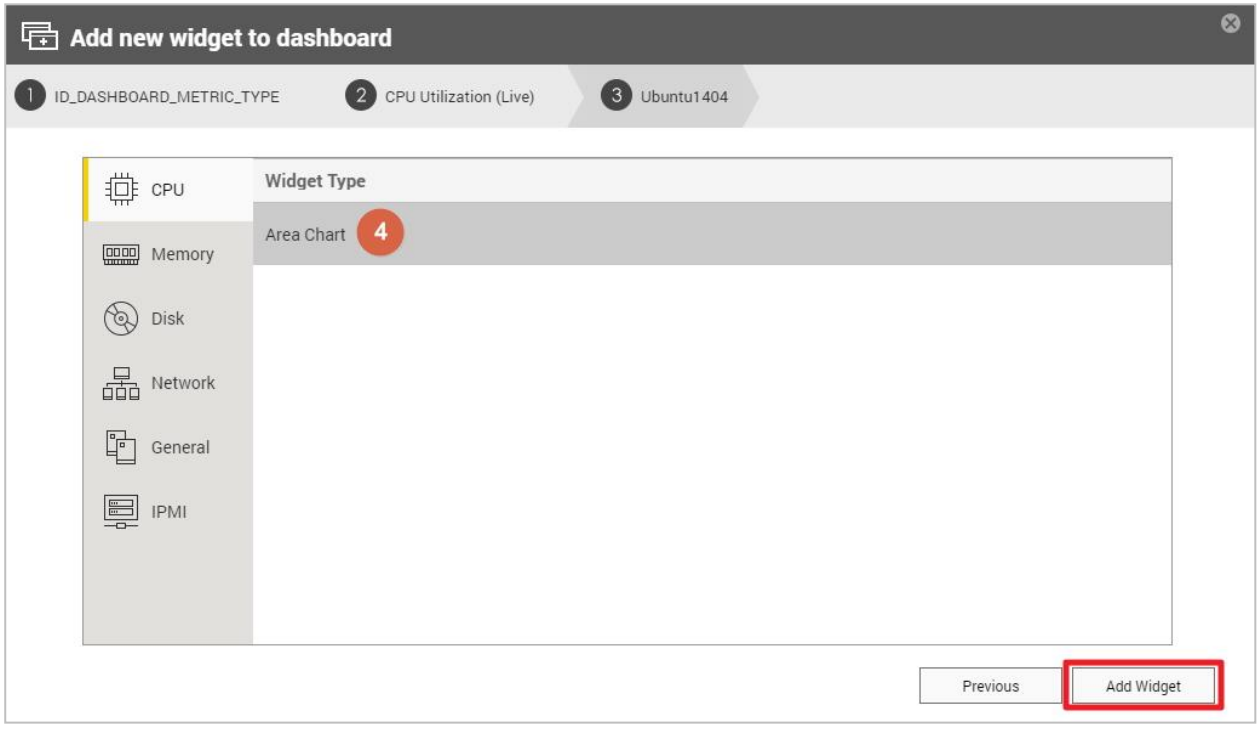
Step 2: Select the type of data you want to monitor:
Step 2-1: Select the data type you want to monitor in the left column. There are six types: CPU usage, memory usage, disk usage, network usage, health status and IPMI system information.
Step 2-2: Select the method of data presentation that matches your needs
Step 2-3: Click "Next"



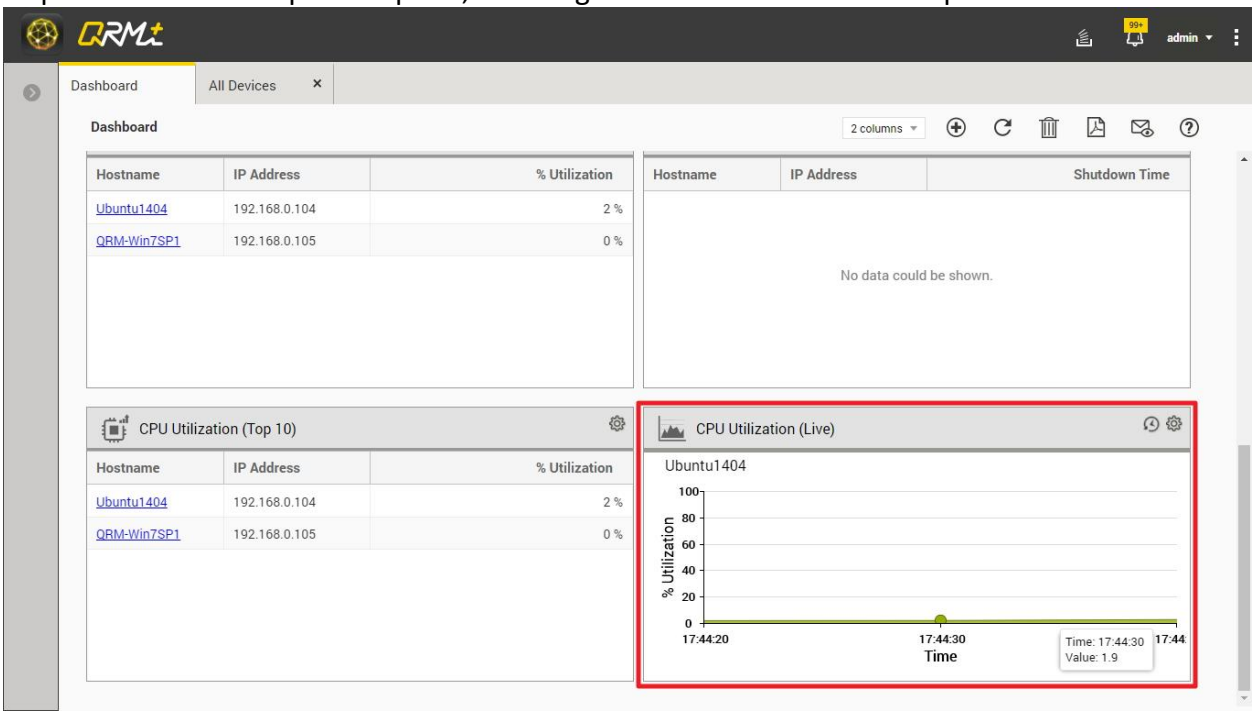
Step 3: After selecting the device you want to monitor, click "Next"



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

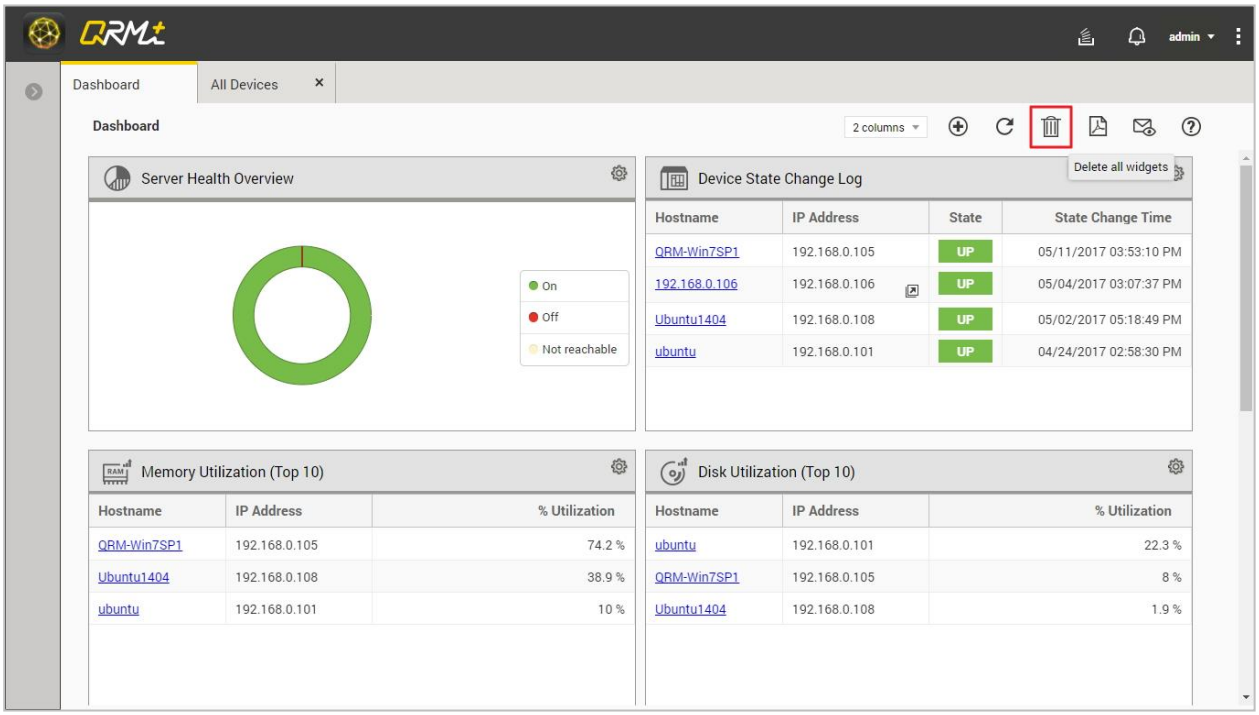


2.2 Delete all widgets in the Dashboard

Watch the video

Setup steps:

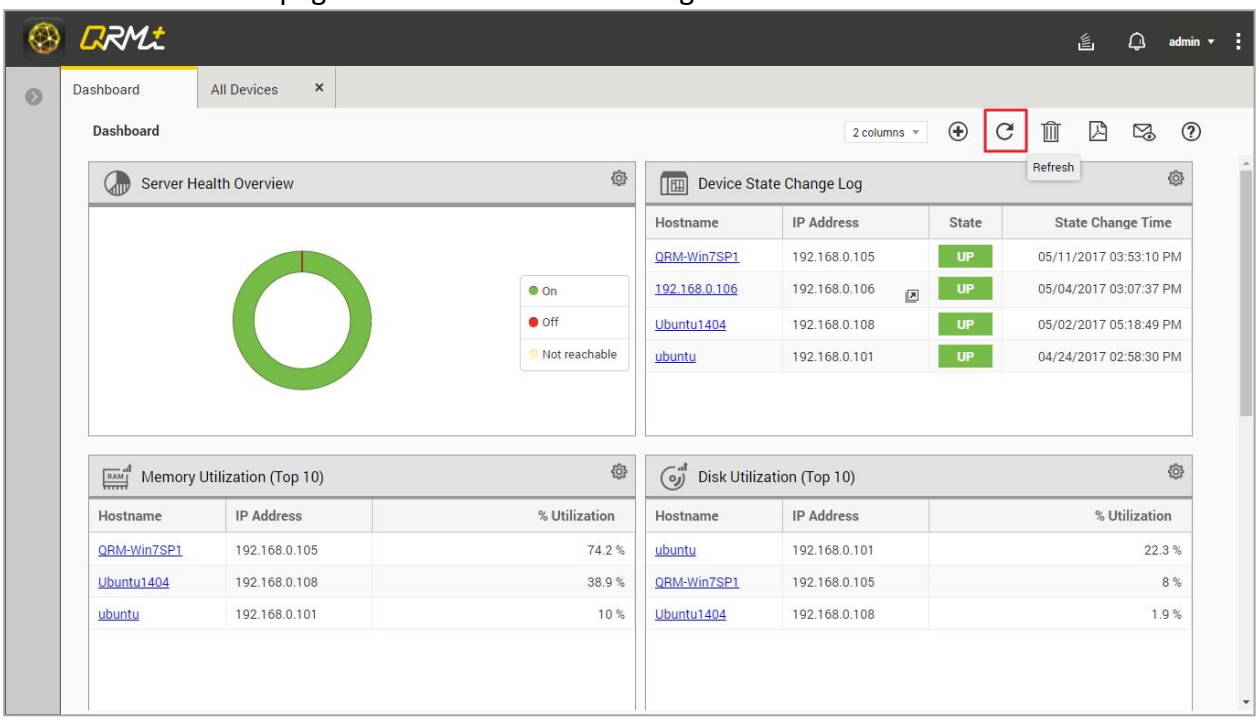
Go to the Dashboard page and click the "Delete All Widgets" button



2.3 Refresh all widgets in the Dashboard

Setup steps:

Go to the Dashboard page and click the Refresh Widgets button

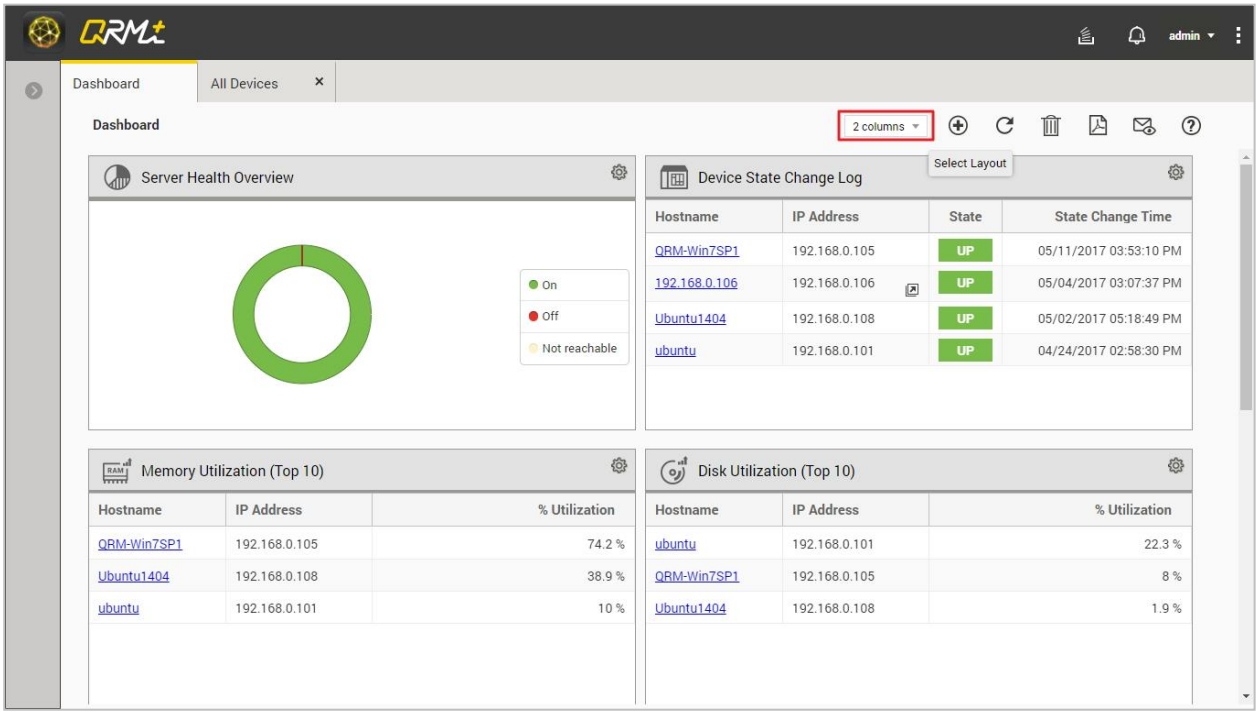


2.4 Select the layout mode

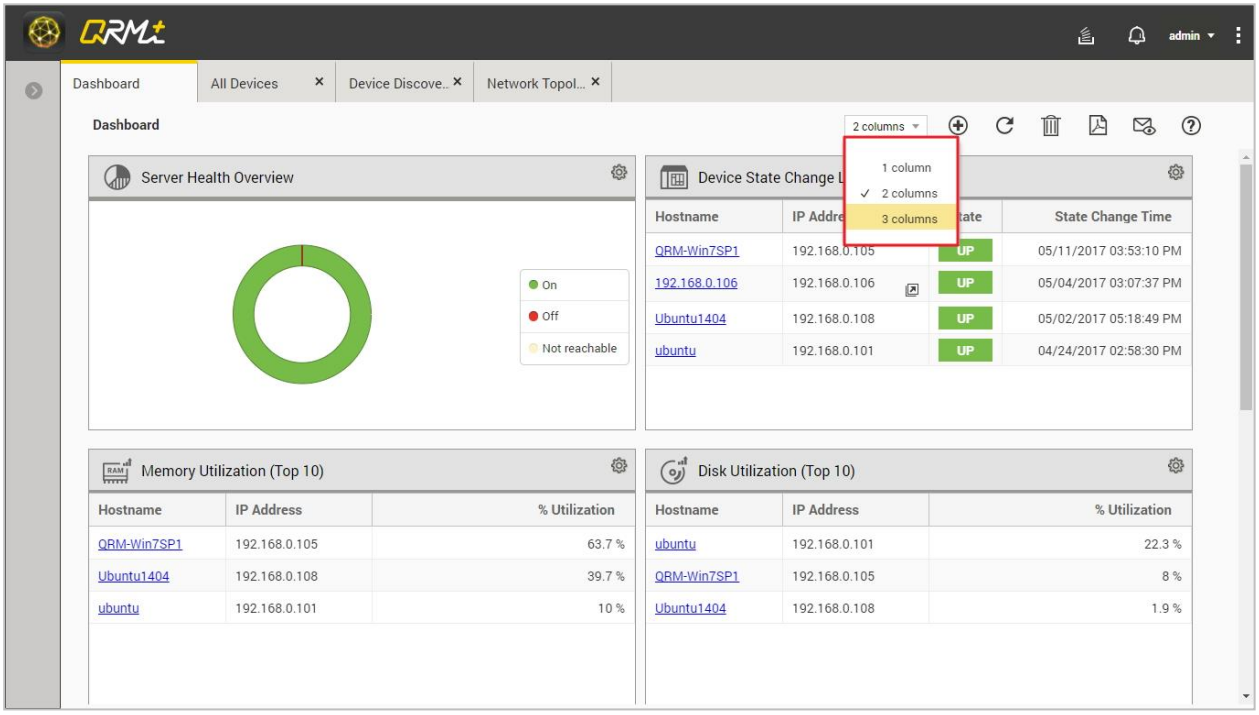
Watch the video
User can adjust the layout of the Main Dashboard according to their requirements. QRM+ Main Dashboard provides:

- 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:
Step 1: Go to the Dashboard page and click the Layout Mode button



Step 2: Select "1 column", "2 columns" or "3 columns"



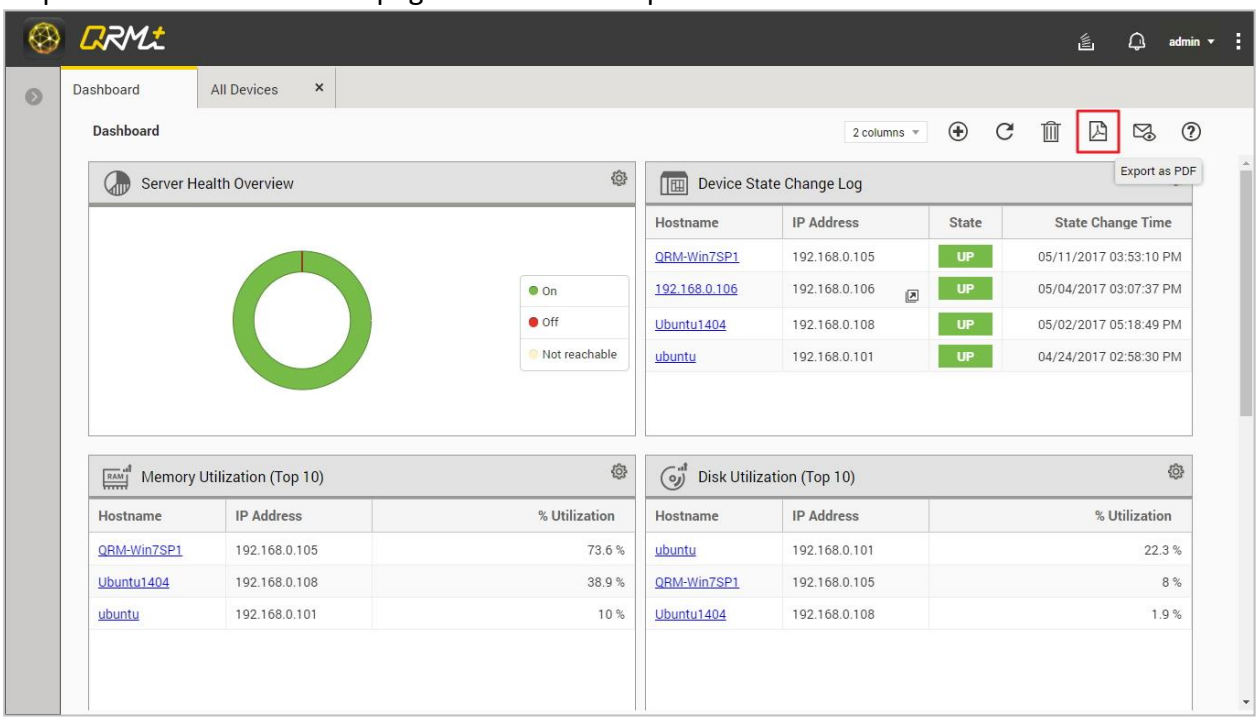
2.5 Export as PDF file

Watch the video

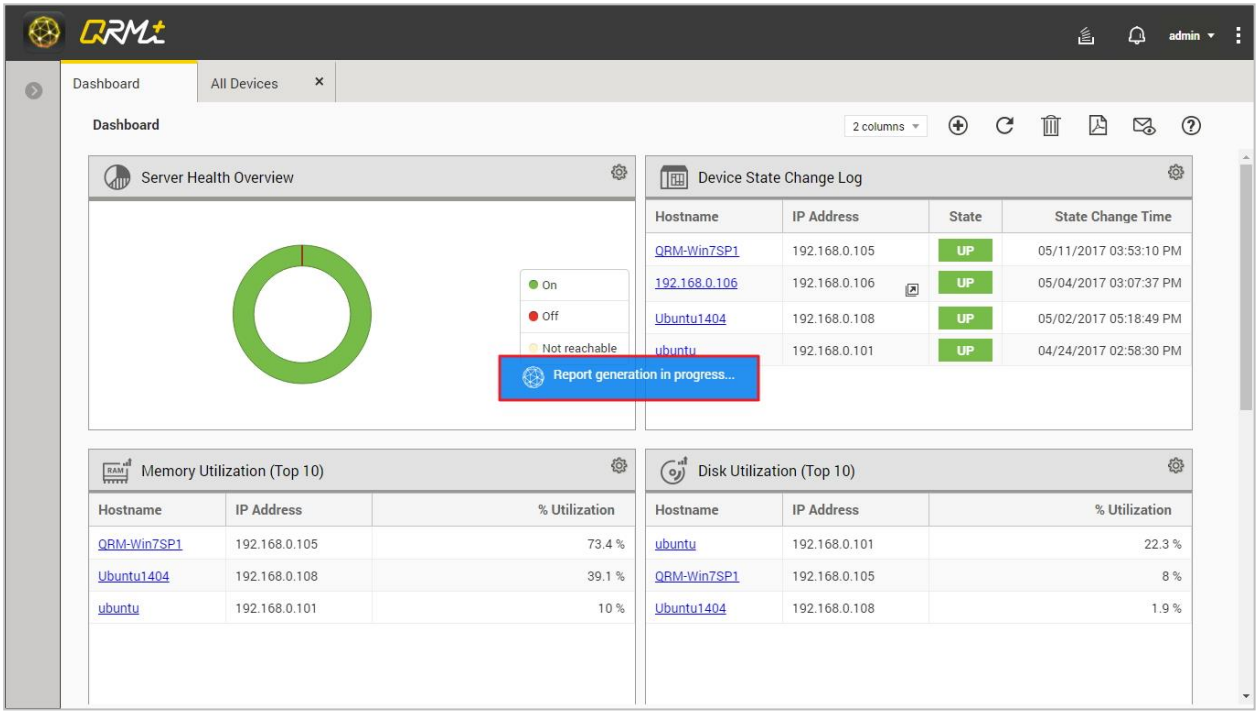
You can export view from the current dashboard as PDF files and download them to your local computer.

Setup steps:

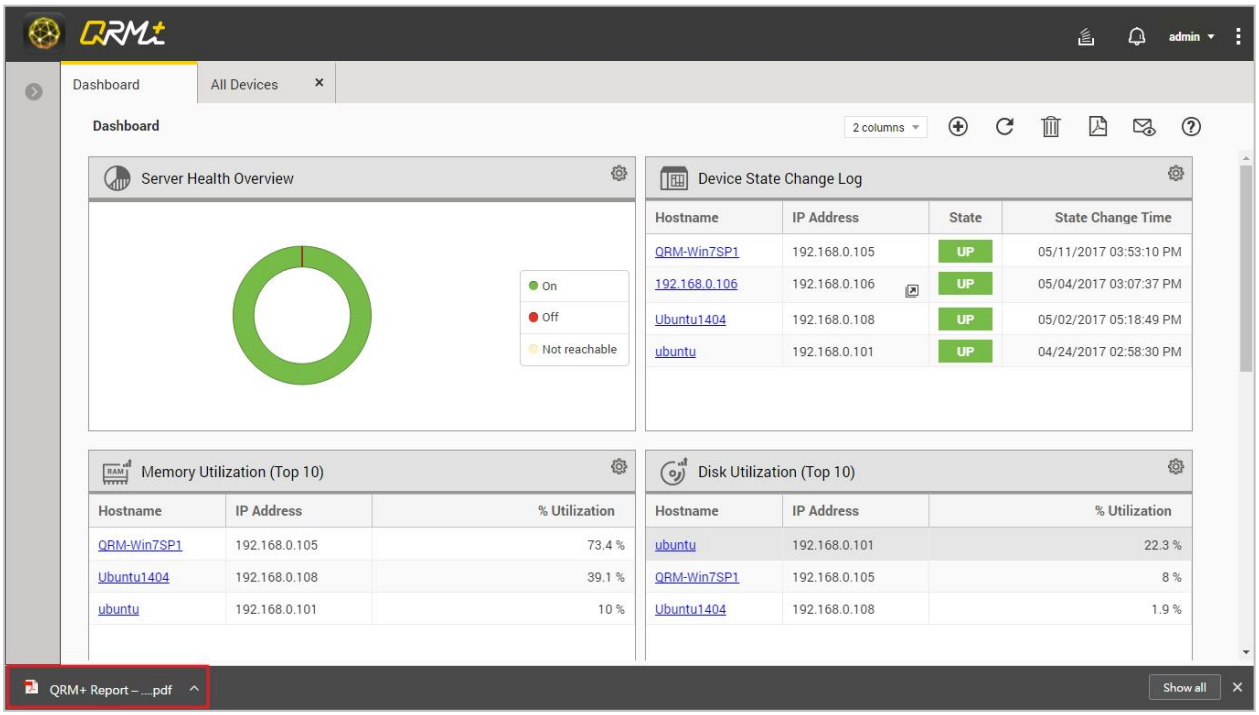
Step 1: Go to the Dashboard page and click the Export as PDF File button



Step 2: Showing "Generating View as PDF"



Step 3: Download the view to the local computer



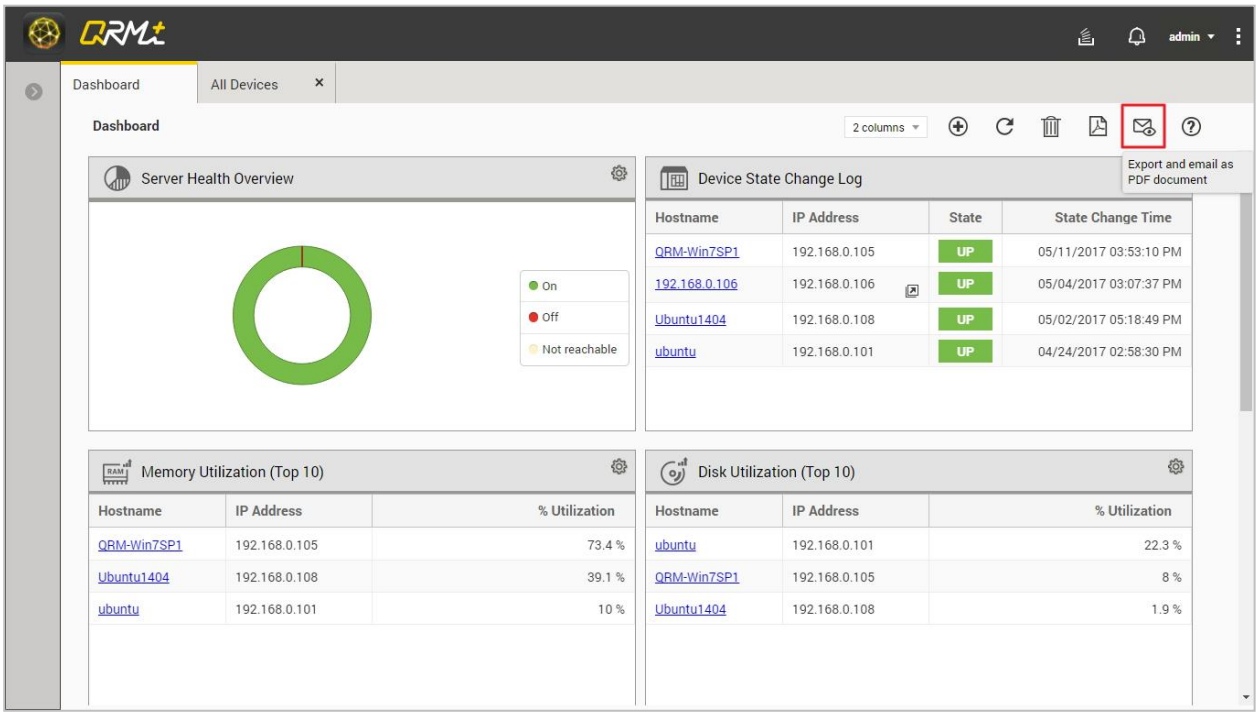
2.6 Email current view

Watch the video

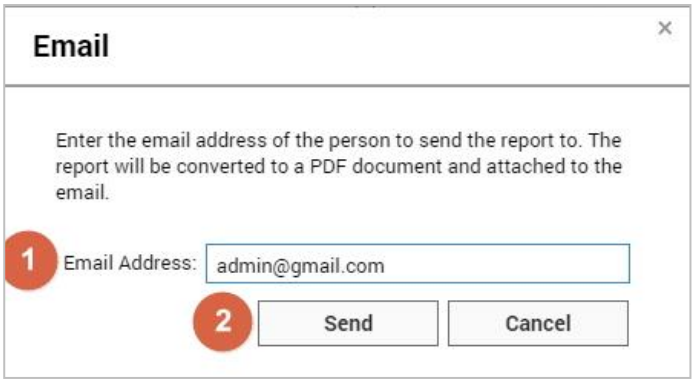
You can export the view from your current dashboard as PDF files and email them to a custom Email address.(Note: This function requires SMTP-related settings to be set up in the "Settings" page)

Setup steps:

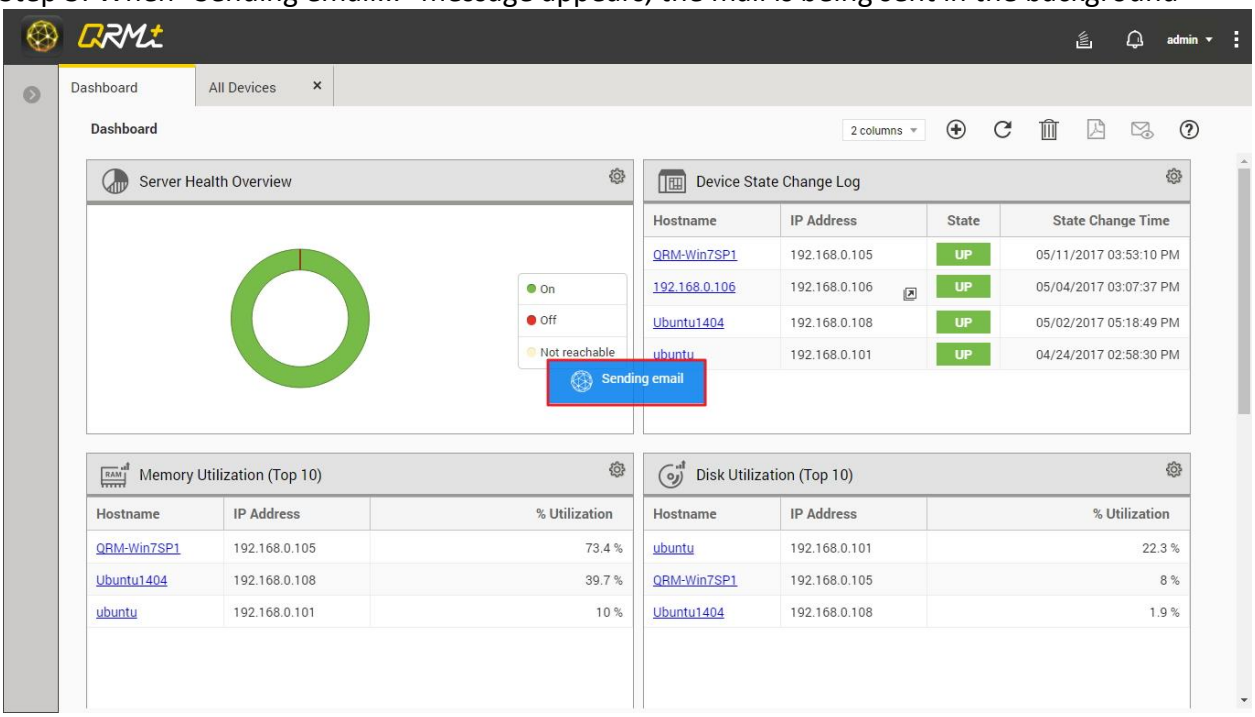
Step 1: Go to the Dashboard page and click the "Email current view" button



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



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



2.7 QRM+ provides both real-time and historical data presentation

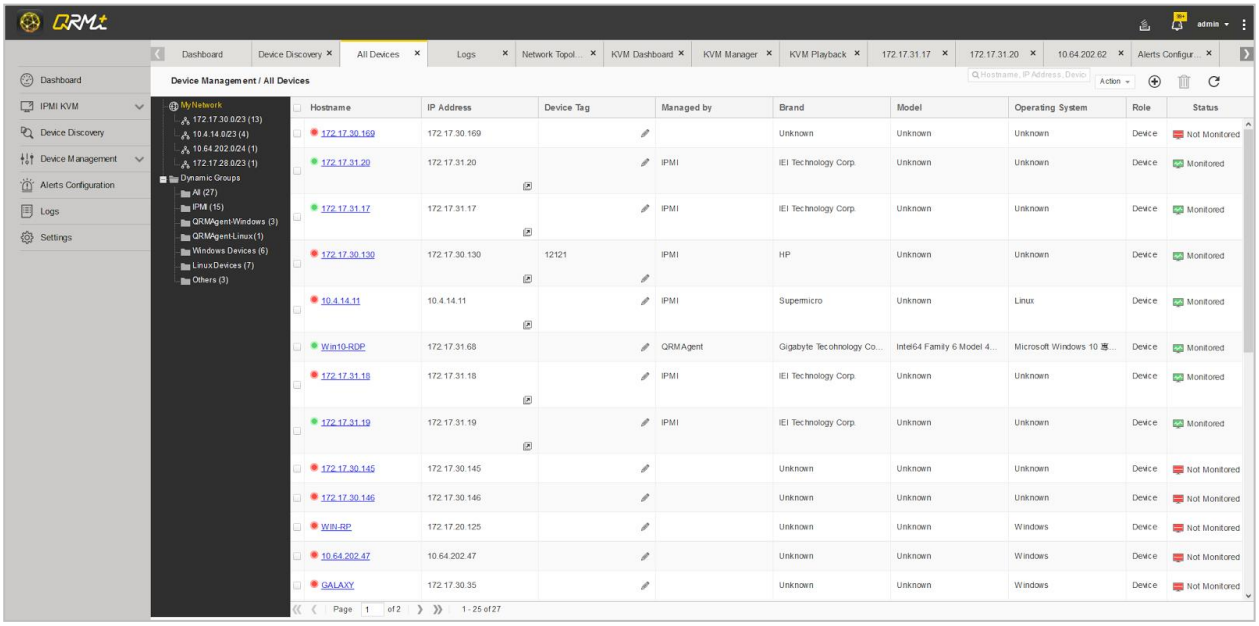
1. Real-time Data Widget: Updates your data every 10 seconds after you have added the widget.
2. 24 Hours Data Widget: displays historical data trends of the last 24 hours at any time, updated once every 60 seconds.

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

3. Device Management

3.1 Device List

The Device Management page provides a list of all the devices currently managed by QRM+, 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.



Device Name:

Device Name not only differentiates the different devices, through different light colors, it also shows its current connection status with QRM+.

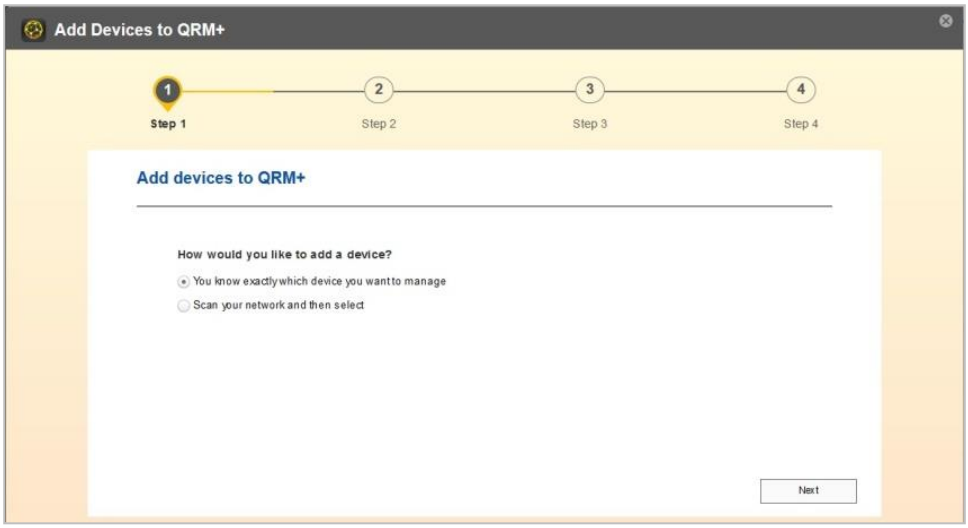
Status :

Users will know whether the device is currently being monitored by QRM+ by looking at the Status column. For a non-IPMI device, additional QRMAgent must be installed for it to be monitored via QRM+.

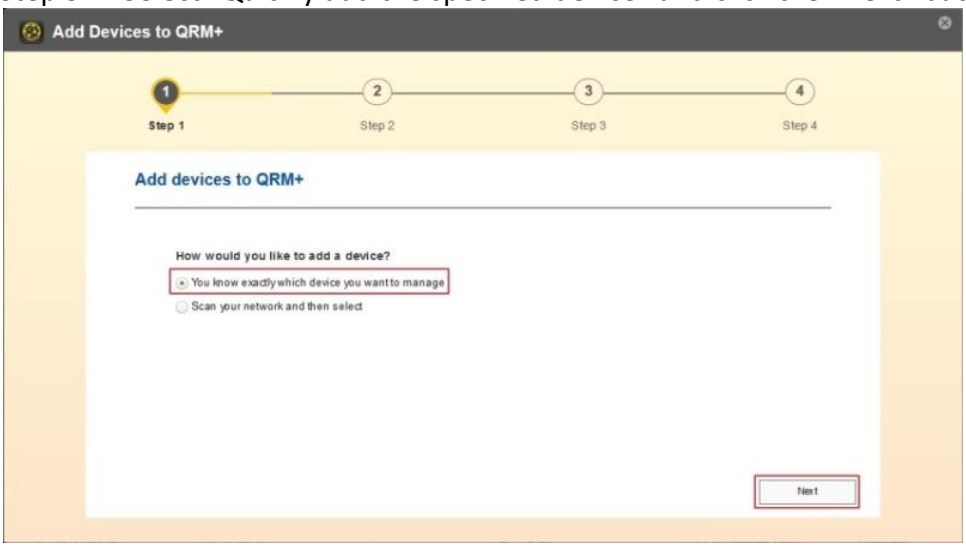
Add Device:

Users can add devices to QRM+ management via the Add Device feature
Add Device steps
Step 1: Click the "Add Device" button
Step 2: Choose how you want to add the device

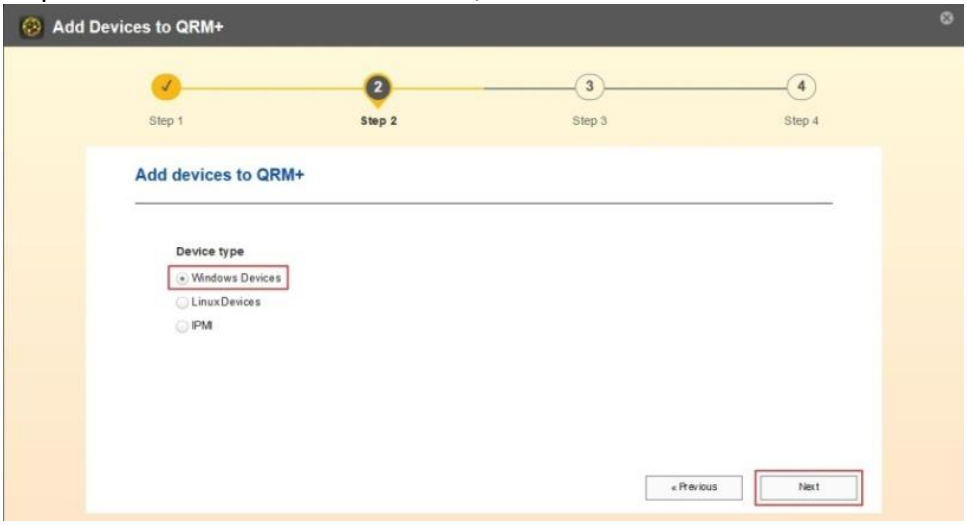
1. Quickly add the specified device
2. Search the network to help you find the install method



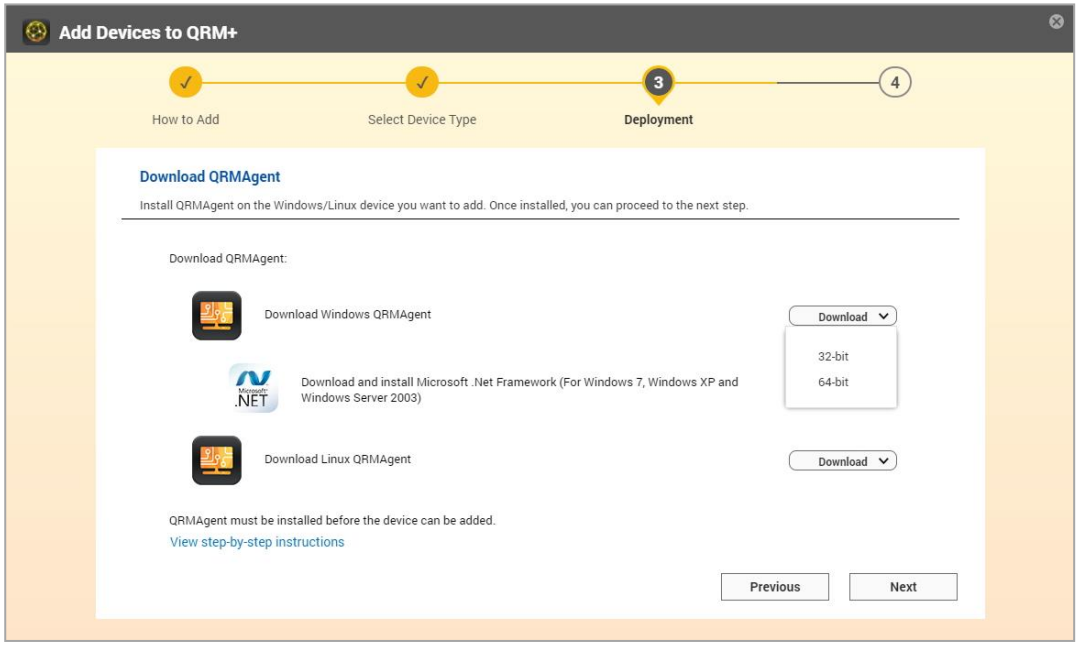
Step 3-1: Select "Quickly add the specified device" and click the "Next" button



Step 3-1-1: Select "Windows Device", and click the "Next" button

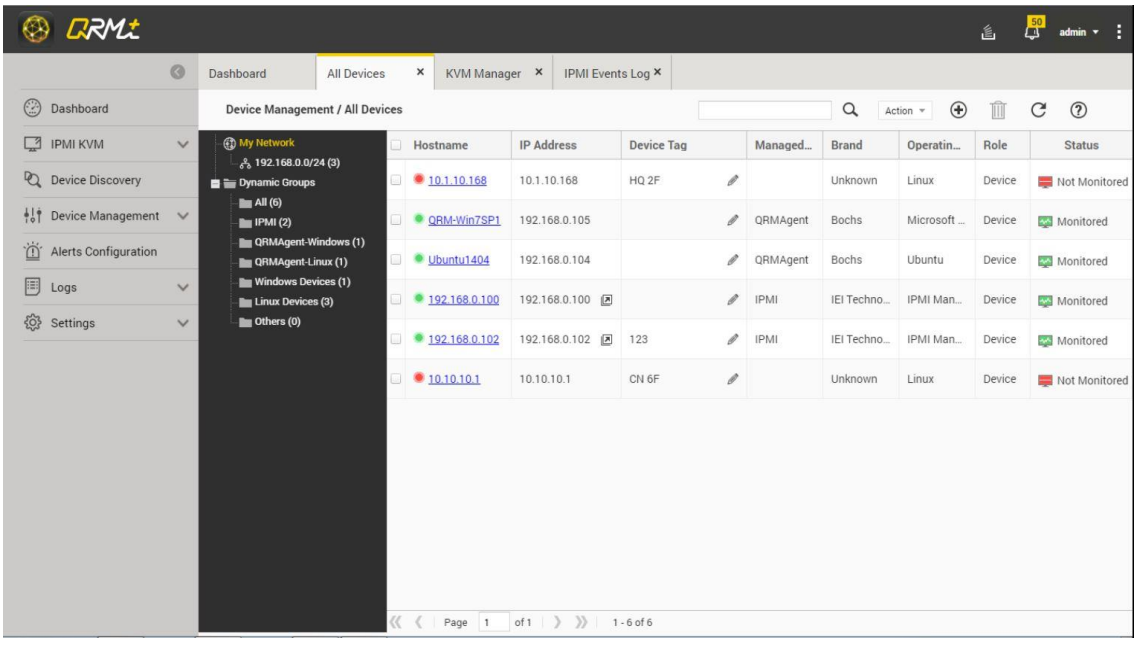


Step 3-1-2: Click the "Download Windows QRMAgent" button to download the installation package

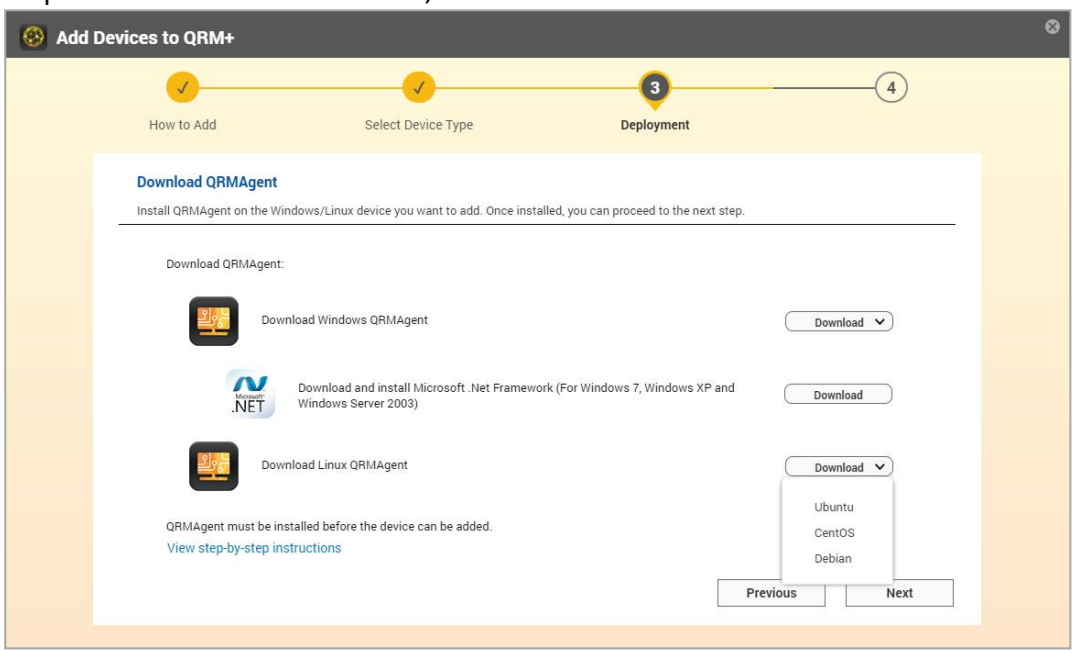


Step 3-1-3: Copy the installation package to the device you want to manage. After decompressing and running the installation program, you can check the installation status in the device list

Refer to " [Steps to add the device to QRM+](#)" to know installation instructions.

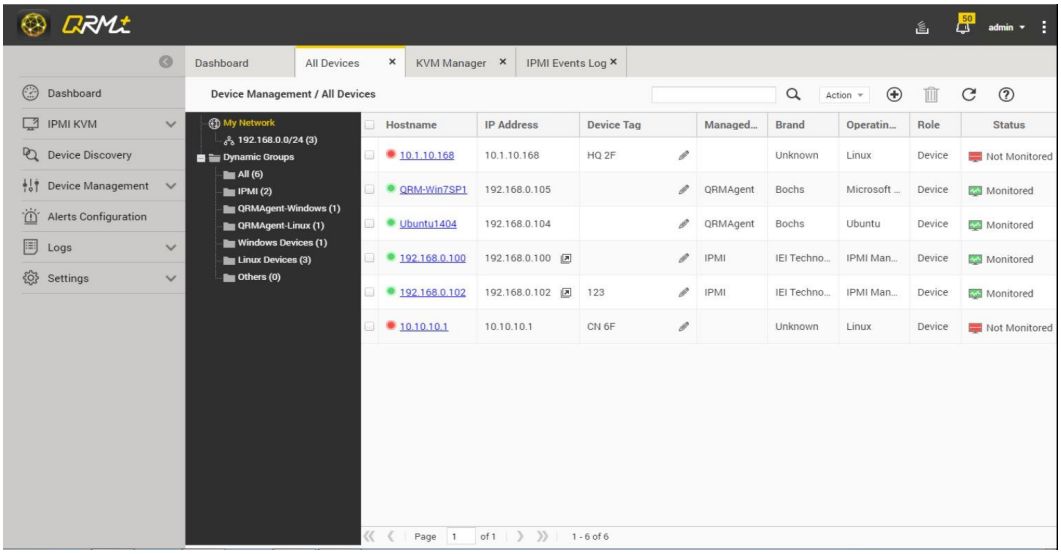


Step 3-2-1: Select "Linux Device", and click the "Next" button



Step 3-2-2: You can view the progress of installation or press the "Finish" button to go to the device list page. Subsequent results of installation status will also be displayed in the device list screen.

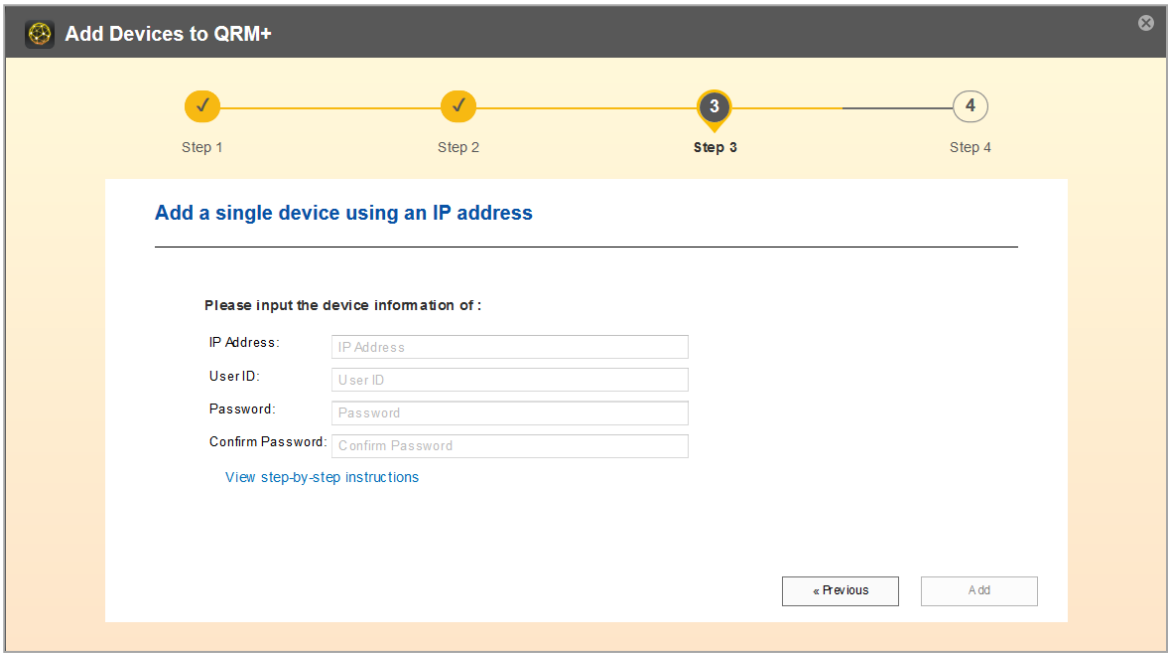
Refer to " Steps to add the device to QRM+" to know installation instructions.



Step 3-3-1: Select "IPMI Device", and click the "Next" button

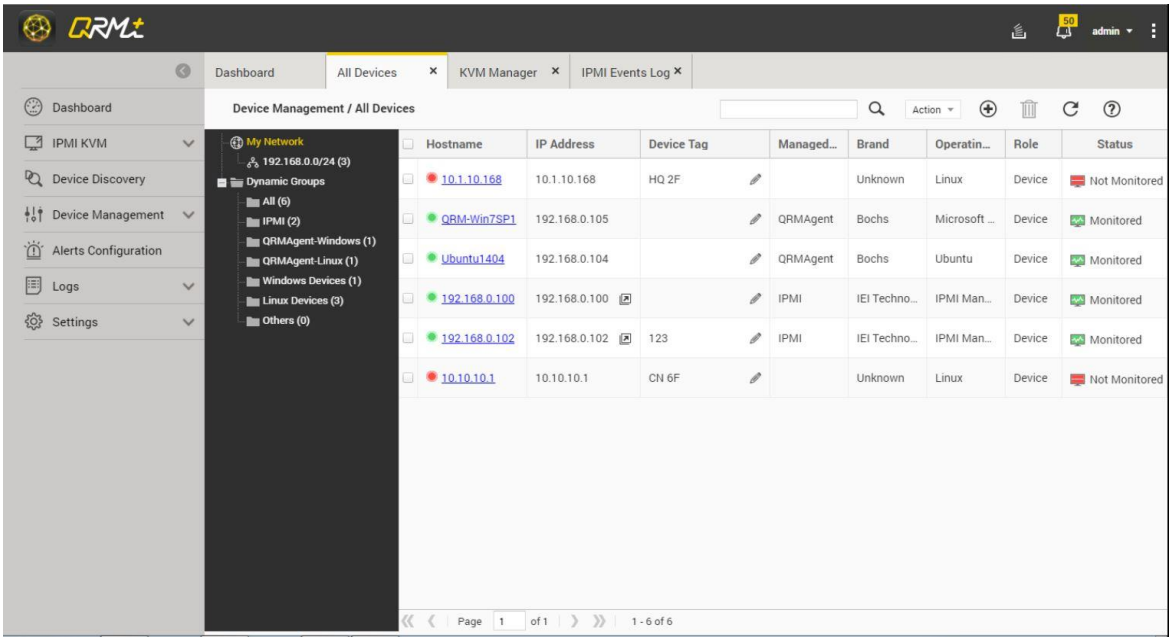
Step 3-3-2: Enter information about the target device

1. Enter the target device IP address
2. Enter the account number
3. Enter the password
4. After confirming the password, press the "Next" button



Step 3-3-3: You can view the progress of installation or press the "Finish" button to go to the device list page. Subsequent results of installation status will also be displayed in the device list screen.

Refer to " Steps to add the device to QRM+" to know installation instructions.



Remove Device:

Users can use the Remove Device function to remove devices from the list of QRM+ managed devices, **and remove the related data as well**.

Reinstall:

If a user's device fails during installation due to an unexpected error, such as a sudden network interruption, the user can click the "Reinstall" button to quickly reinstall it.

Modify remote management account:

If a user's device fails to install due to a wrong password, the user can click the "Modify Remote

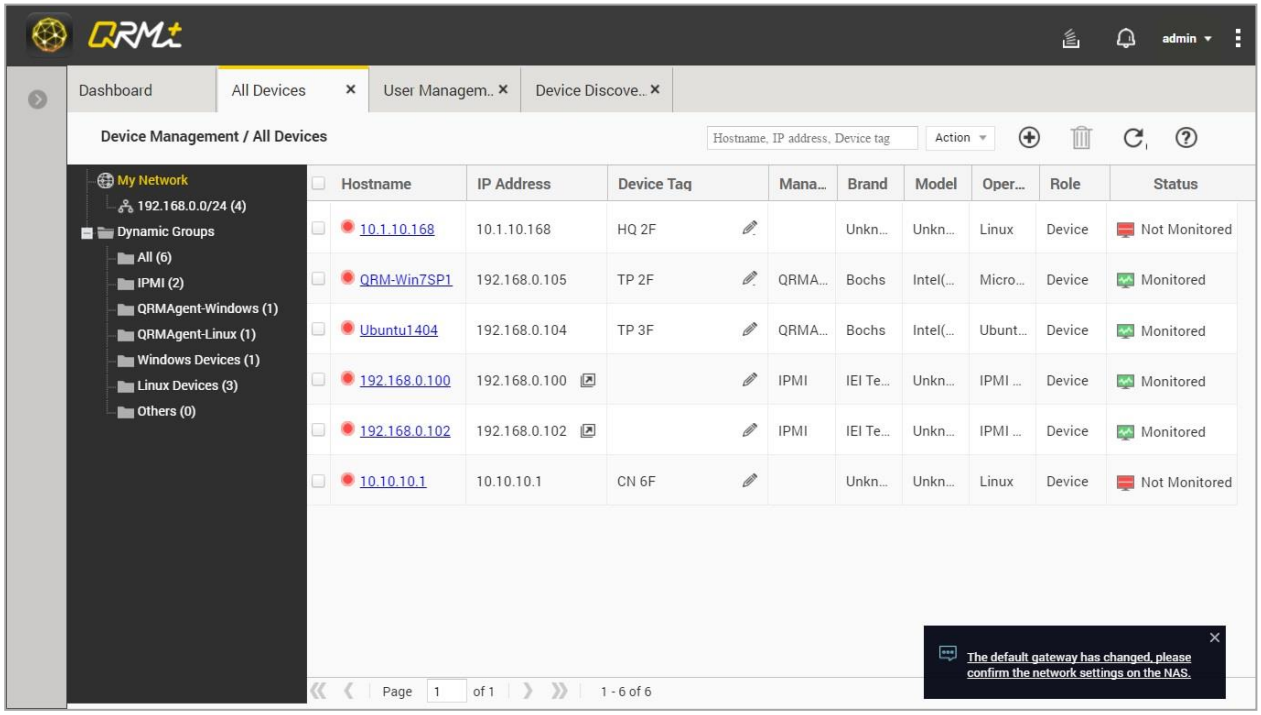
Management Account" to quickly re-set the account password.

Power Control:

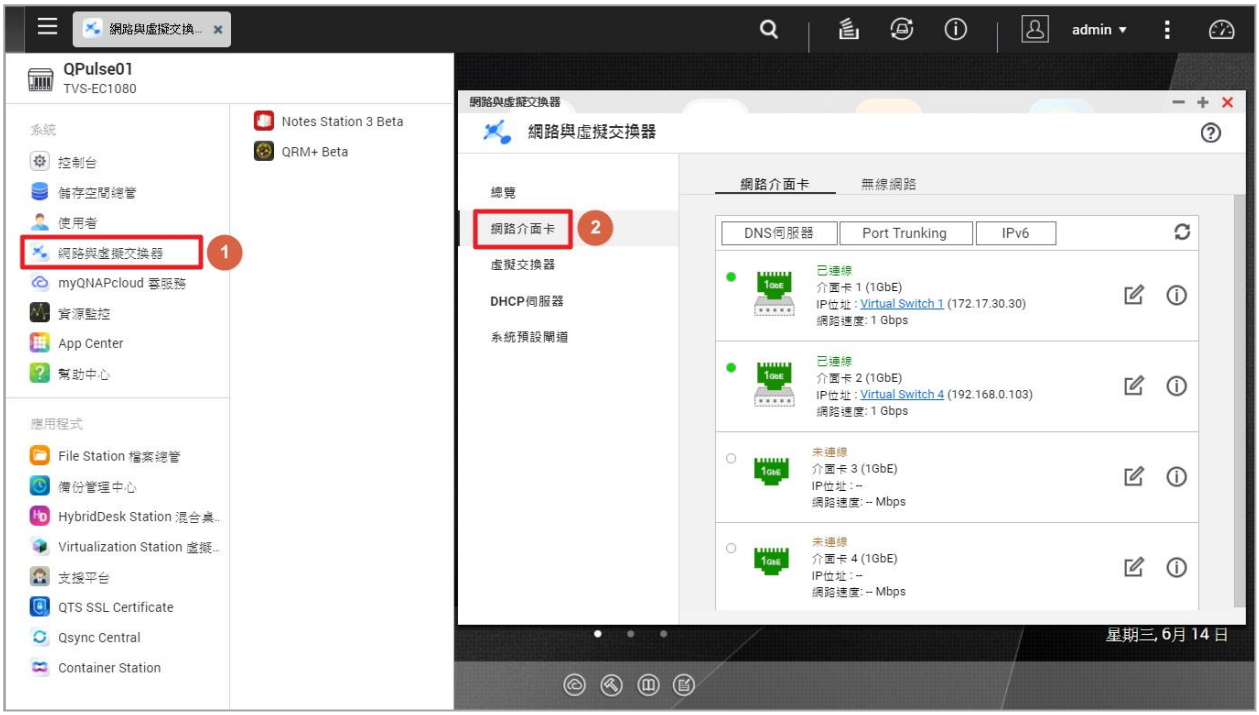
You can power control the remote unit, such as performing power-on, power-off, restart, and power cycling (only applicable to IPMI devices).

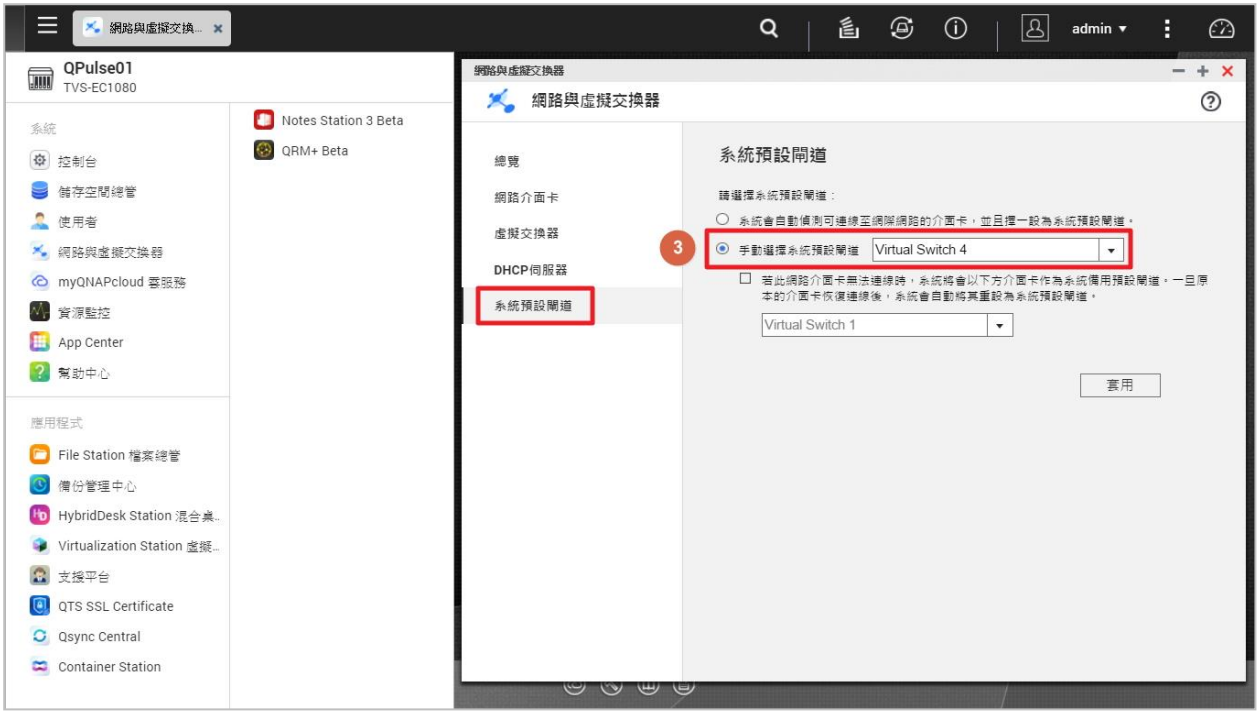
Note

If all devices show turned off, the default gateway may have changed. Confirm the network settings on the NAS.



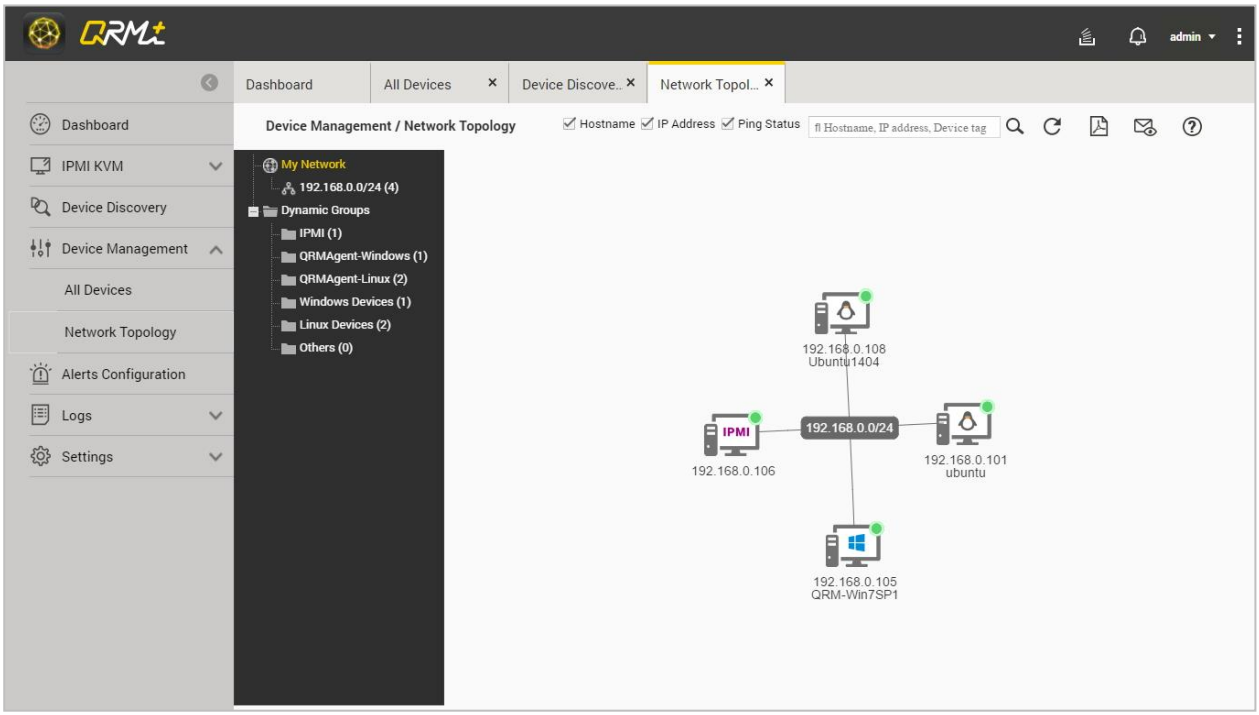
Step 1: Log in to QTS and open "Network & Virtual Switch".
Step 2: Check the network ports that can reach the Internet.
Step 3: Manually select the network port that can reach the Internet.


網路與虛擬交換...
admin
QPulse01
TVS-EC1080
系統
控制台
儲存空間總管
使用者
網路與虛擬交換器
1
myQNAPcloud 雲服務
資源監控
App Center
幫助中心
應用程式
File Station 檔案總管
備份管理中心
HybridDesk Station 混合桌...
Virtualization Station 虛擬...
支援平台
QTS SSL Certificate
Qsync Central
Container Station
Notes Station 3 Beta
QRM+ Beta
網路與虛擬交換器
網路與虛擬交換器
總覽
網路介面卡
2
虛擬交換器
DHCP伺服器
系統預設閘道
網路介面卡
無線網路
DNS伺服器
Port Trunking
IPv6
已連線
介面卡 1 (1GbE)
IP位址：Virtual Switch 1 (172.17.30.30)
網路速度: 1 Gbps
已連線
介面卡 2 (1GbE)
IP位址：Virtual Switch 4 (192.168.0.103)
網路速度: 1 Gbps
未連線
介面卡 3 (1GbE)
IP位址：--
網路速度: -- Mbps
未連線
介面卡 4 (1GbE)
IP位址：--
網路速度: -- Mbps
星期三, 6月 14 日


網路與虛擬交換...
admin
QPulse01
TVS-EC1080
系統
控制台
儲存空間總管
使用者
網路與虛擬交換器
myQNAPcloud 雲服務
資源監控
App Center
幫助中心
應用程式
File Station 檔案總管
備份管理中心
HybridDesk Station 混合桌...
Virtualization Station 虛擬...
支援平台
QTS SSL Certificate
Qsync Central
Container Station
Notes Station 3 Beta
QRM+ Beta
網路與虛擬交換器
網路與虛擬交換器
總覽
網路介面卡
虛擬交換器
DHCP伺服器
系統預設閘道
3
系統預設閘道
請選擇系統預設閘道：
系統會自動偵測可連線至網際網路的介面卡，並且擇一設為系統預設閘道。
手動選擇系統預設閘道
Virtual Switch 4
若此網路介面卡無法連線時，系統將會以下方介面卡作為系統備用預設閘道，一旦原本的介面卡恢復連線後，系統會自動將其重設為系統預設閘道。
Virtual Switch 1
套用

3.2 Network Topology

QRM+ 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

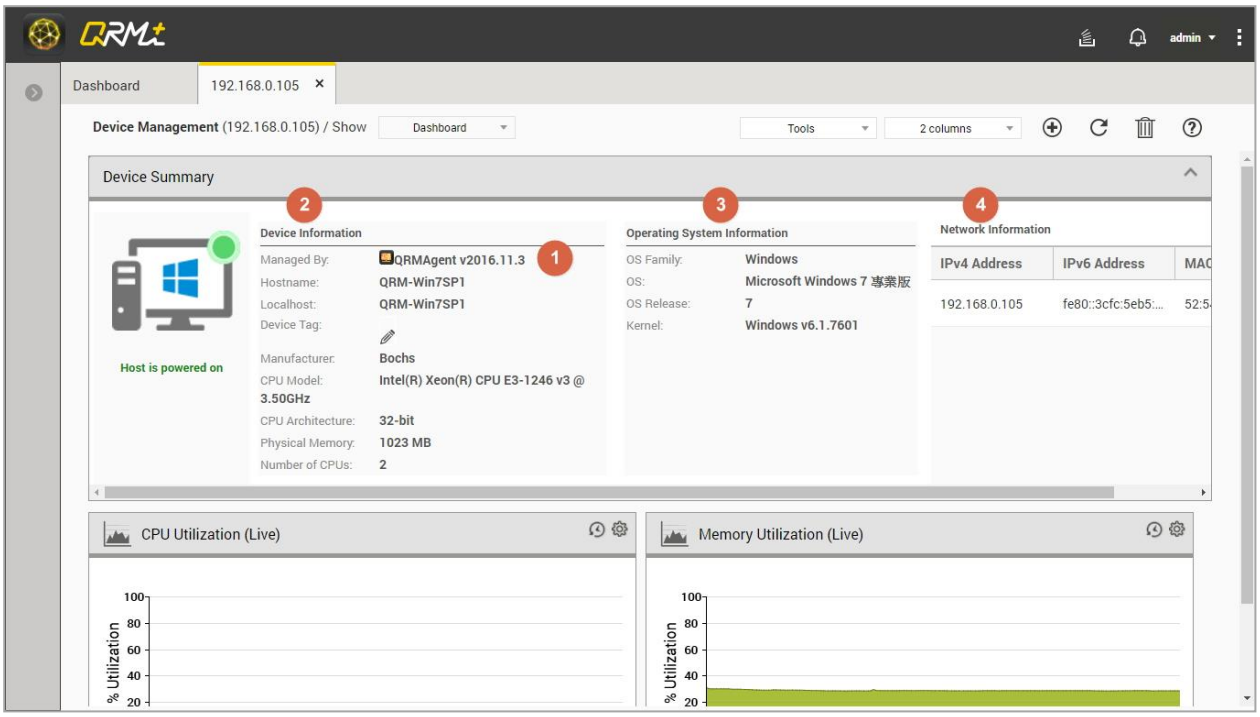
4. Single Device Management

QRM+ currently supports two types of device management:
Type 1: QRMAgent management
Type 2: IPMI protocol management
Monitoring and management functions of QRMAgent single device page is described below

4.1 QRMAgent Single Device Dashboard

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

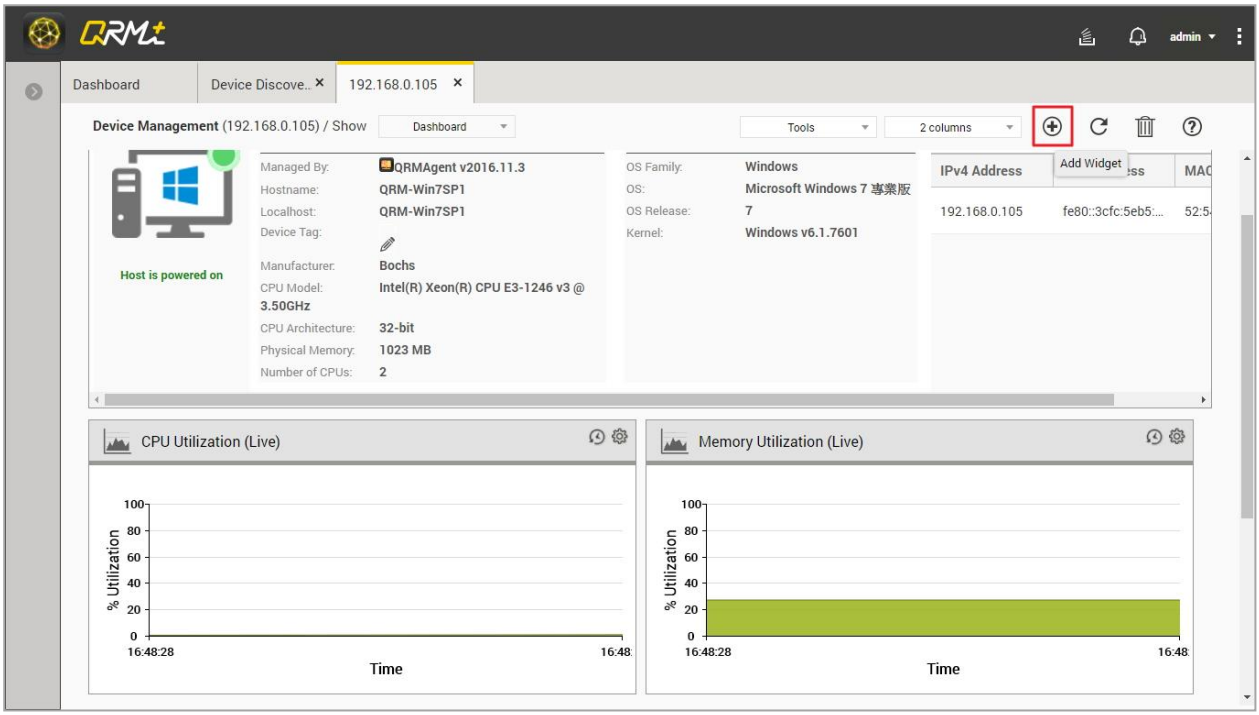
1. QRMAgent version
2. Device Information
3. Operating system information
4. Network information



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

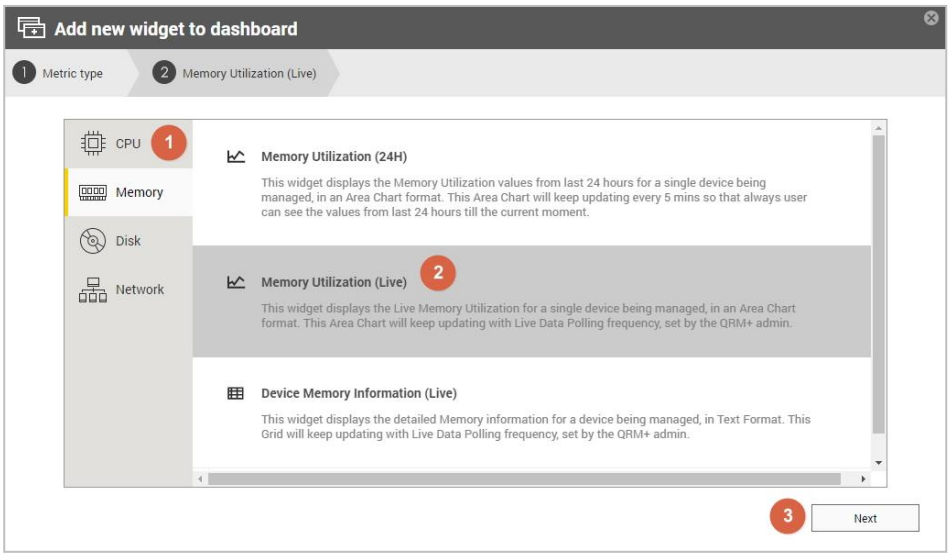
4.2 Add Widget

Watch the video
Users can add multiple widgets to customize QRMAgent 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:
Step 1: Go to QRMAgent Single Device Dashboard page and click the "Add Widget" button



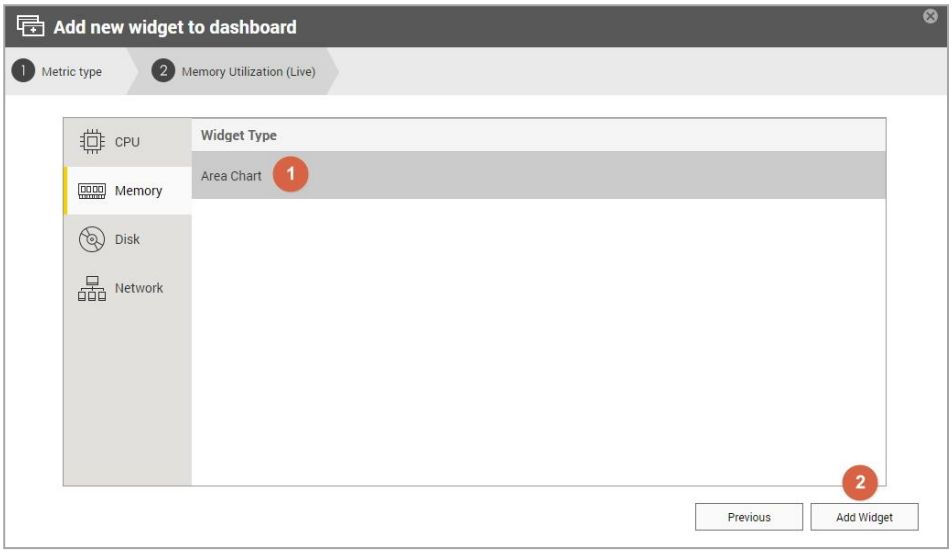
Step 2: Complete the settings of data type and data range to be monitored:

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"

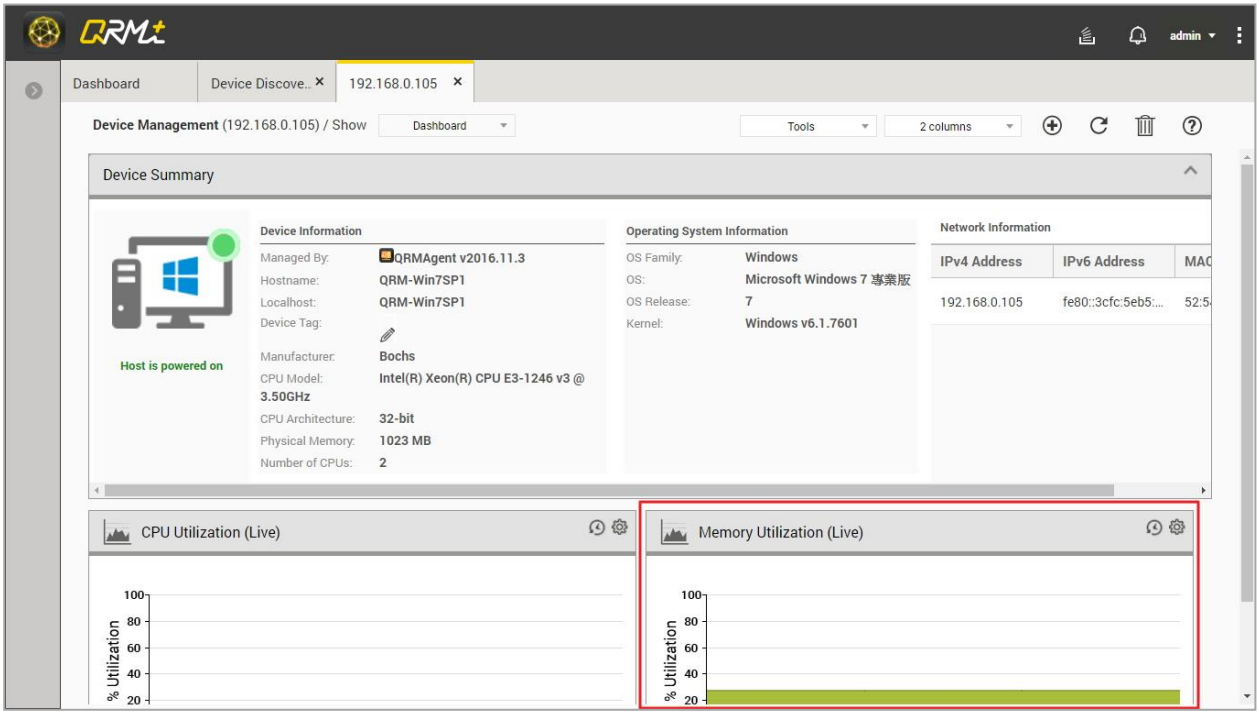


Step 3: Complete the chart type setting

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



Step 4: When the setup is complete, the widget will be added to the last position in the Dashboard

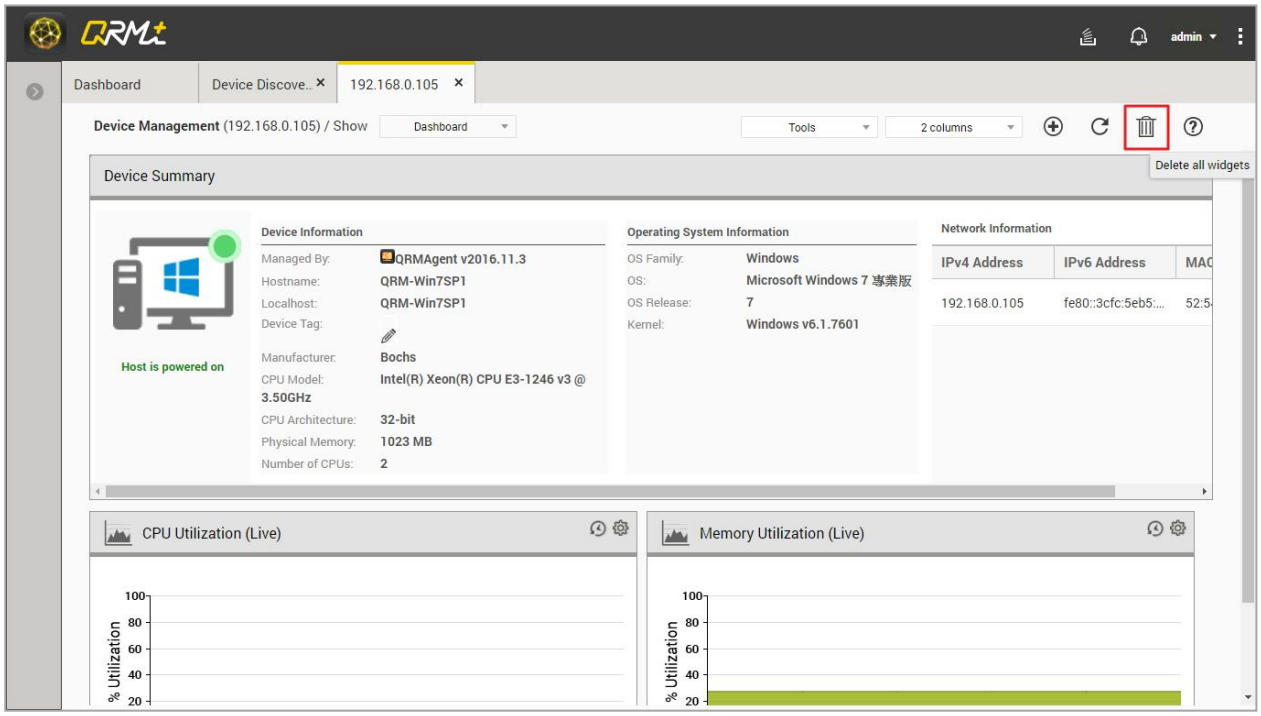


4.3 Delete all widgets in the QRMAgent Single Device Dashboard

Watch the video

Setup steps:

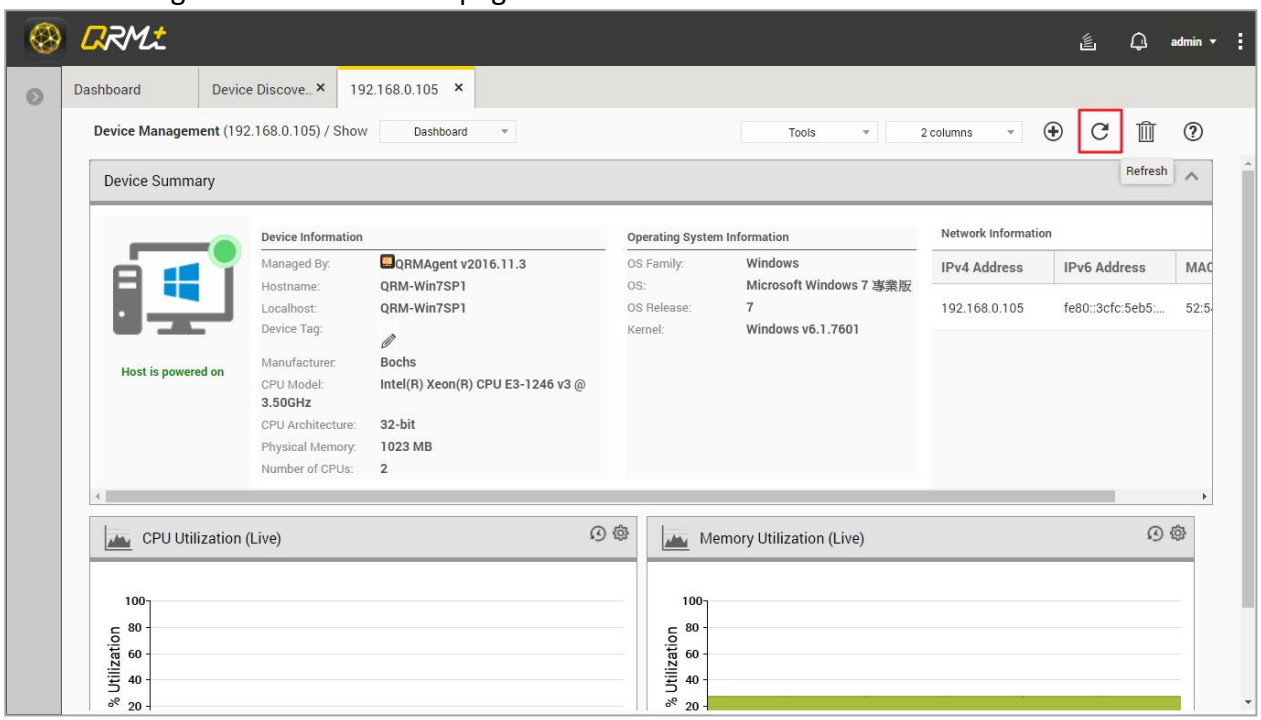
Go to the QRMAgent Single Device Dashboard page and click the "Delete All Widgets" button



4.4 Refresh all widgets information in the Dashboard

Setup steps:

Go to the Single Device Dashboard page and click the "Refresh" button



4.5 Select the layout mode

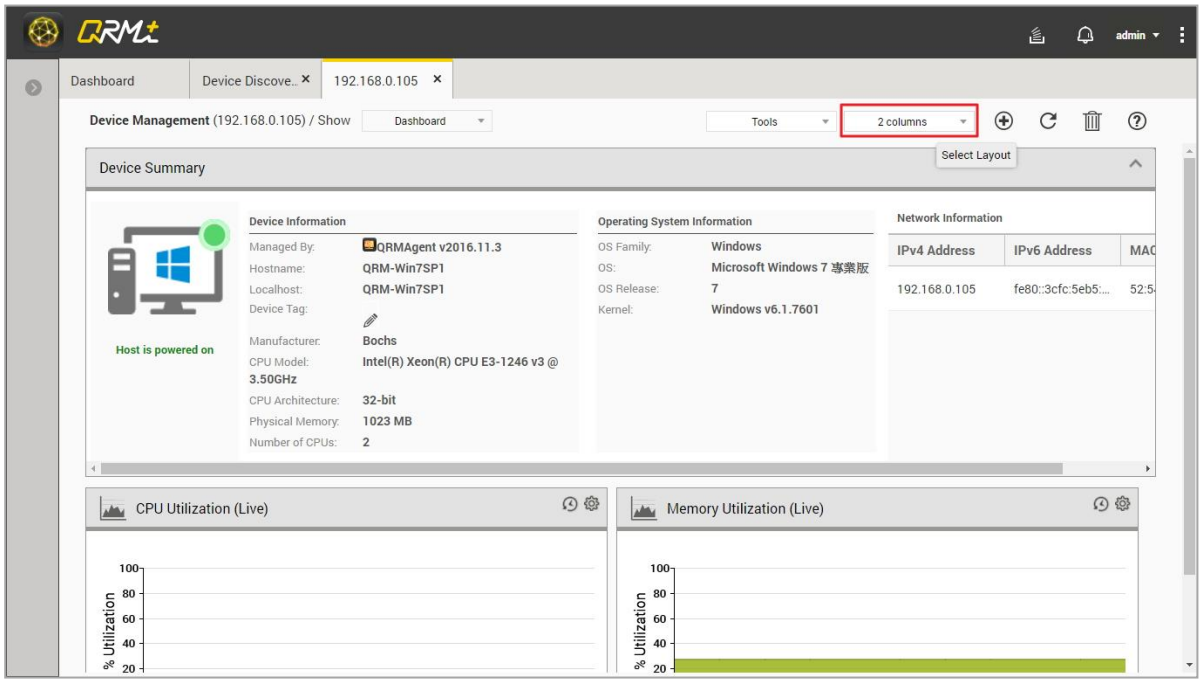
Watch the video

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

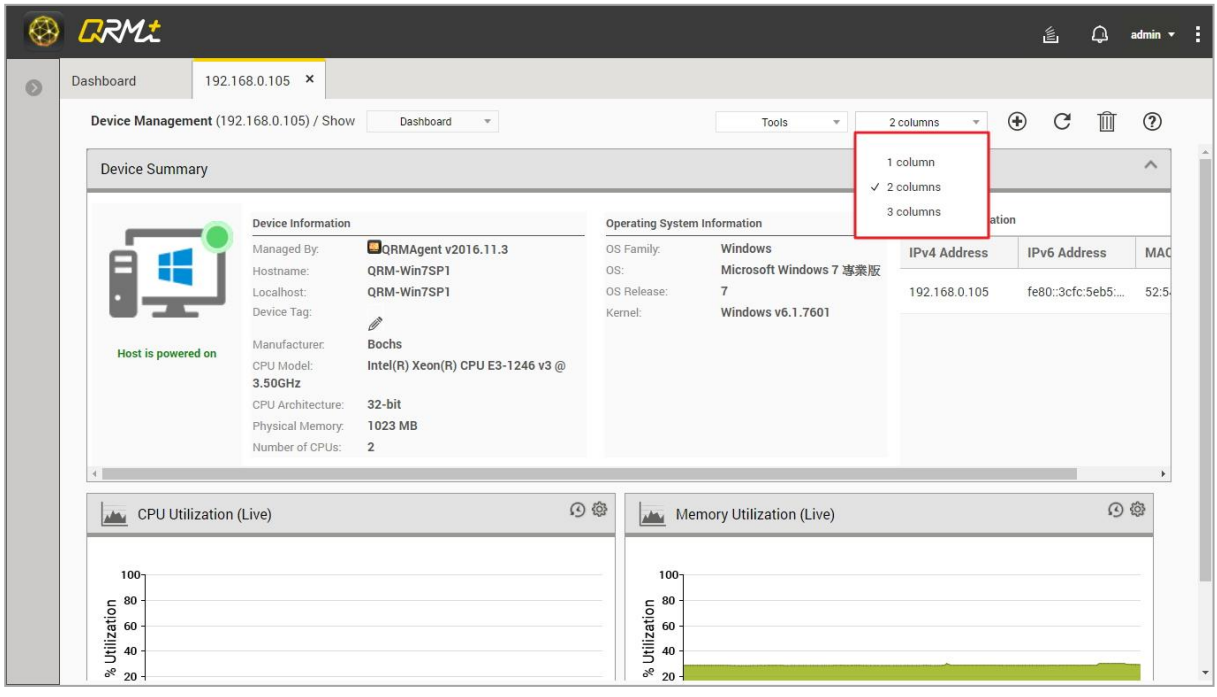
- 1 column display
- 2 columns display
- 3 columns display

Setup steps:

Step 1: Go to QRMAgent Single Device Dashboard page and Click the "Select Layout" button



Step 2: Select "1 column", "2 columns" or "3 columns"



4.6 Tools - Browse Device

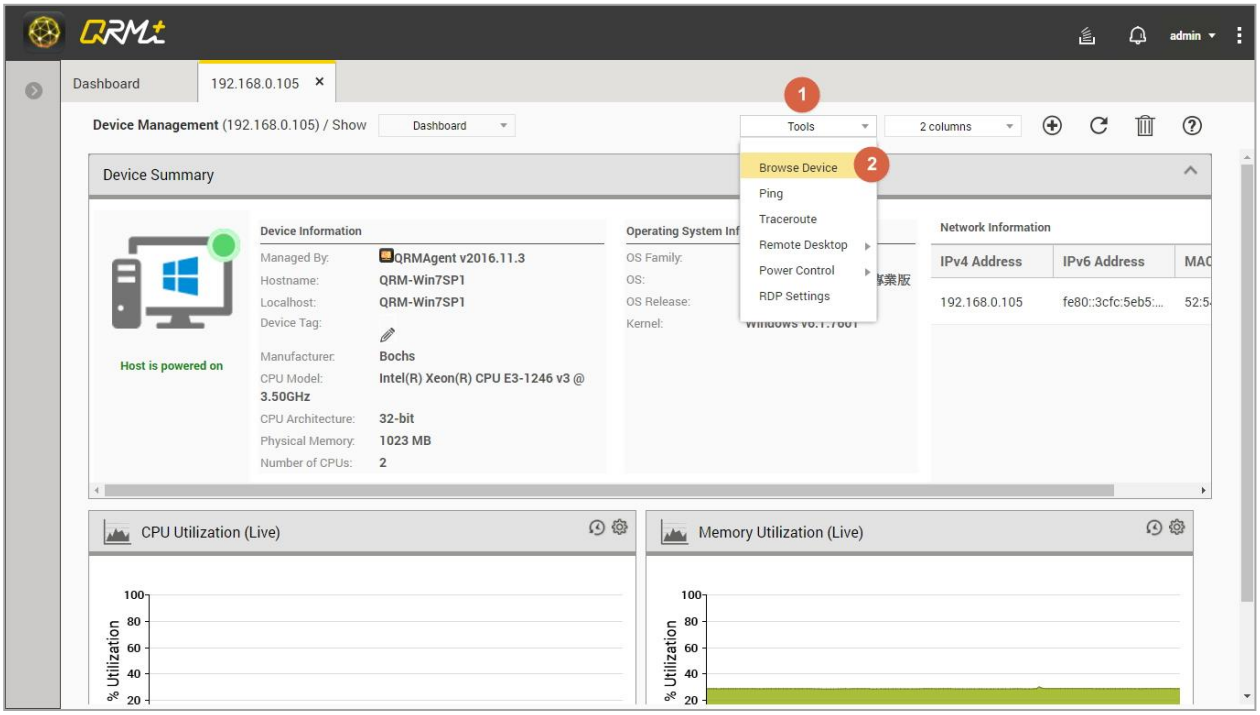
Watch the video

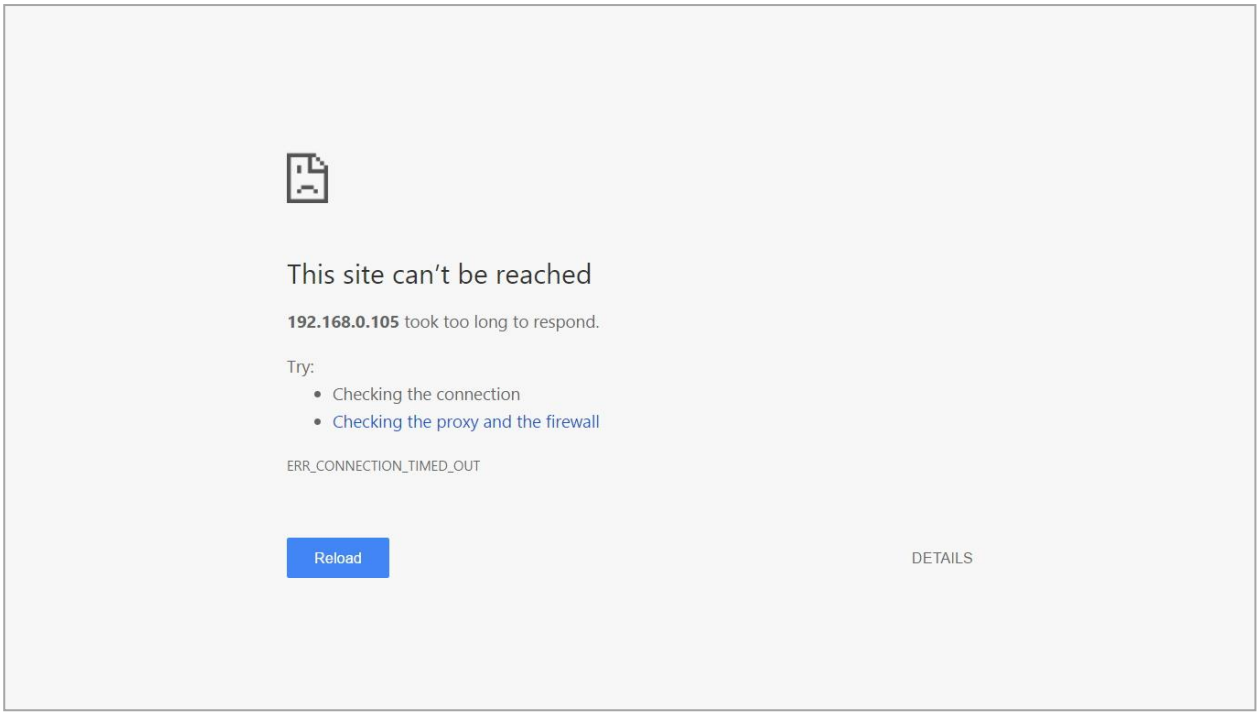
The IP address of this device is used as URL to open a new browser tab. If the device is currently Power Down or is not a web server, it will not be able to connect and a connection error message will be displayed.

Setup steps:

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

Step 2: Select "Browse Device"





4.7 Tools - ping

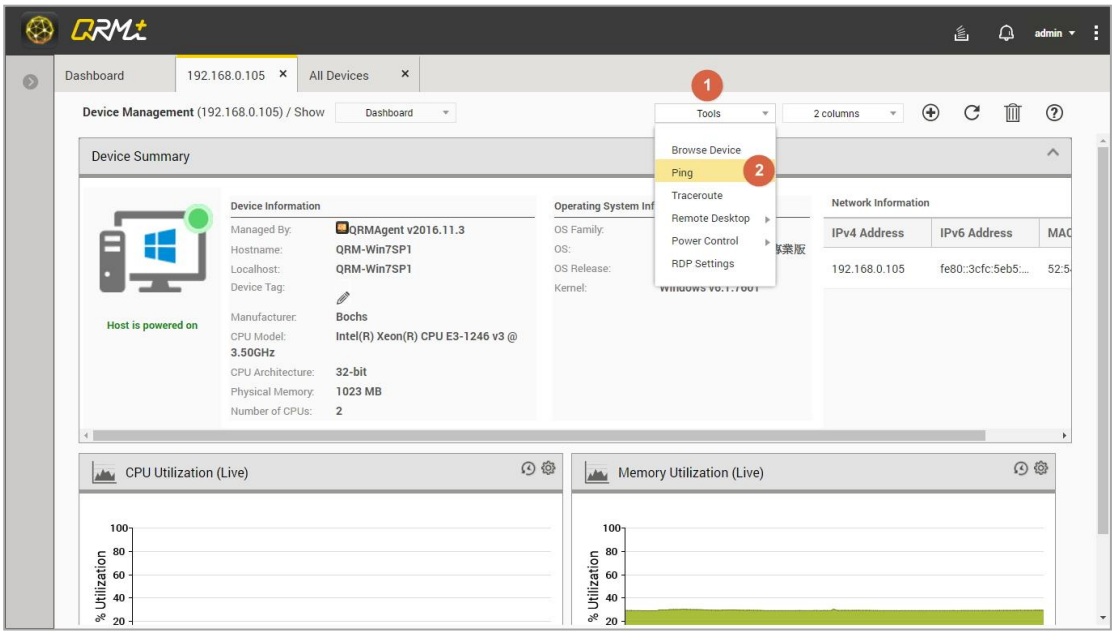
Watch the video

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

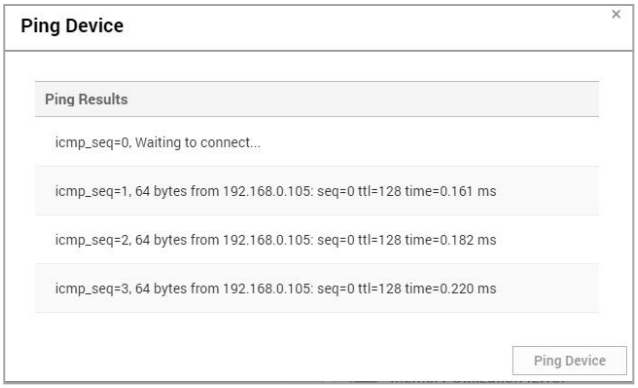
Setup steps:

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

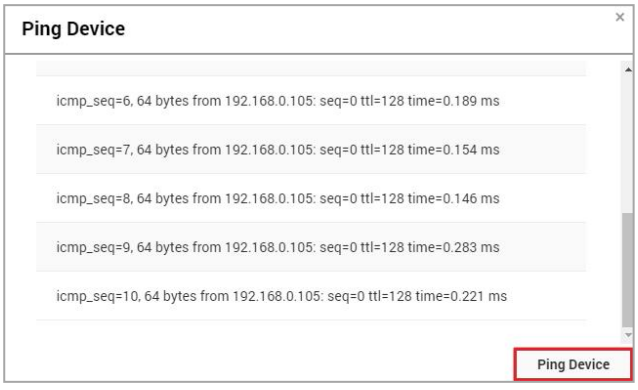
Step 2: Select "Ping"



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



Step 4: Click the Ping Device button to Ping again



4.8 Tools – traceroute

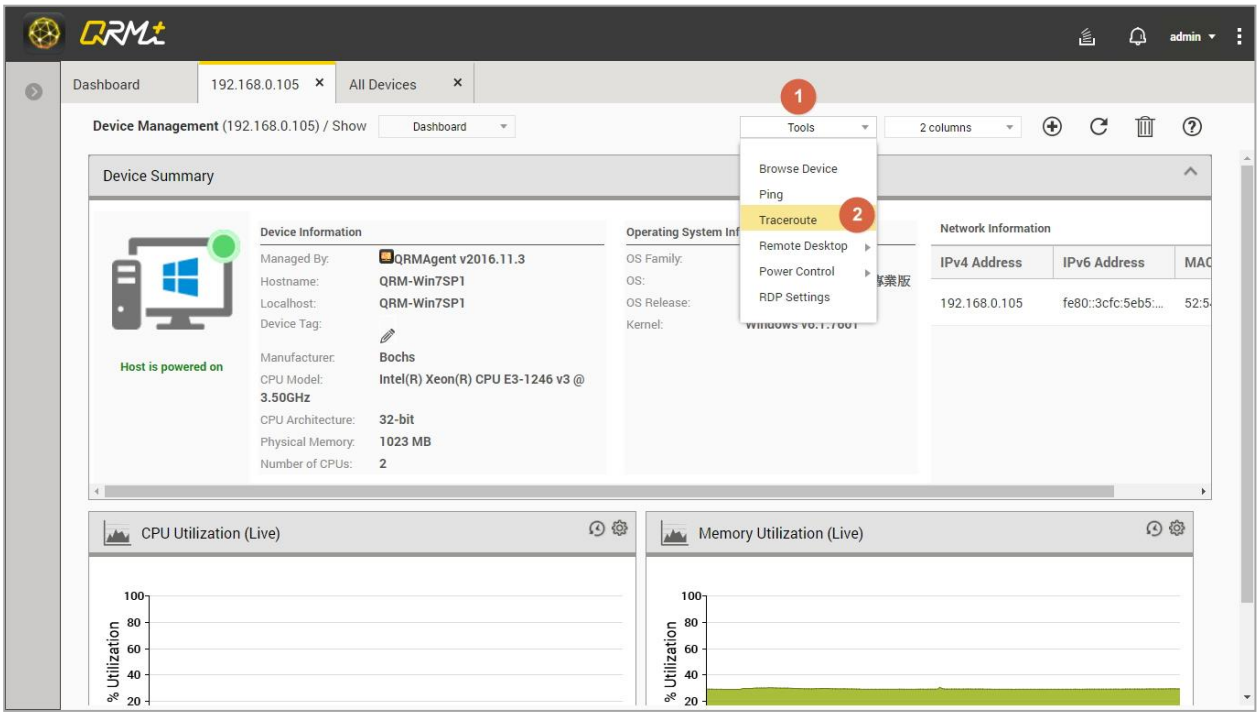
Watch the video

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

Setup steps:

Step 1: Go to QRMAgent 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

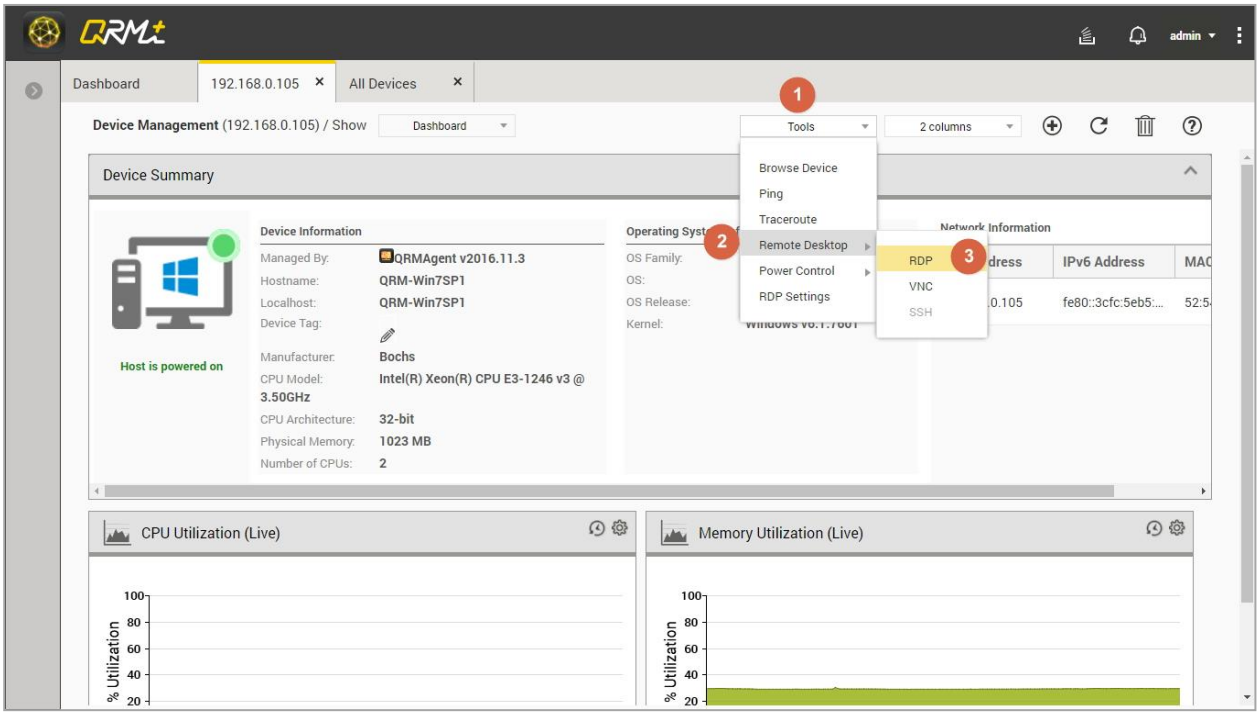
4.9 Tools - Remote Desktop

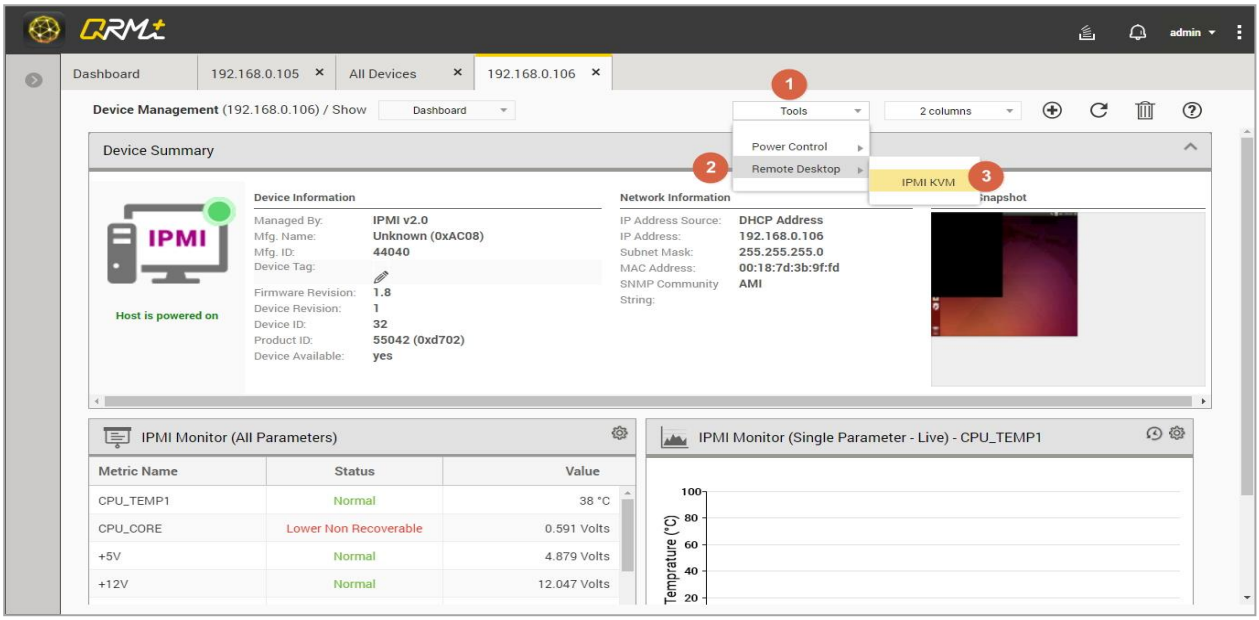
Watch the video - RDP
Watch the video - VNC
Watch the video - SSH
QRM+ provides integrated remote desktop functionality, you can select the appropriate remote access method according to different device types:

1. Windows device: RDP or VNC remote desktop
2. Linux device: VNC remote desktop or SSH connection (no need to install SSH client program)
3. IPMI device: KVM over IP remote computer management program

Note: The remote device must enable the option to allow users to connect to the computer
Setup steps:
Step 1: Go to QRMAgent 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

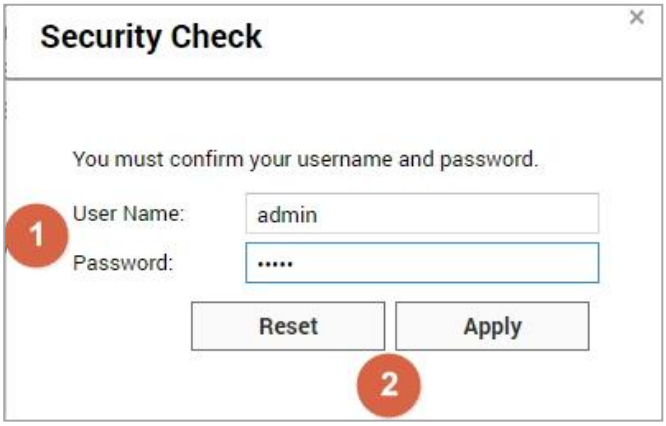
1. Windows device: RDP or VNC Remote Desktop (users need to install VNC server program on Windows device)
2. Linux device: VNC remote desktop or SSH connection (no need to install SSH client program)
3. IPMI device: KVM over IP remote computer management program





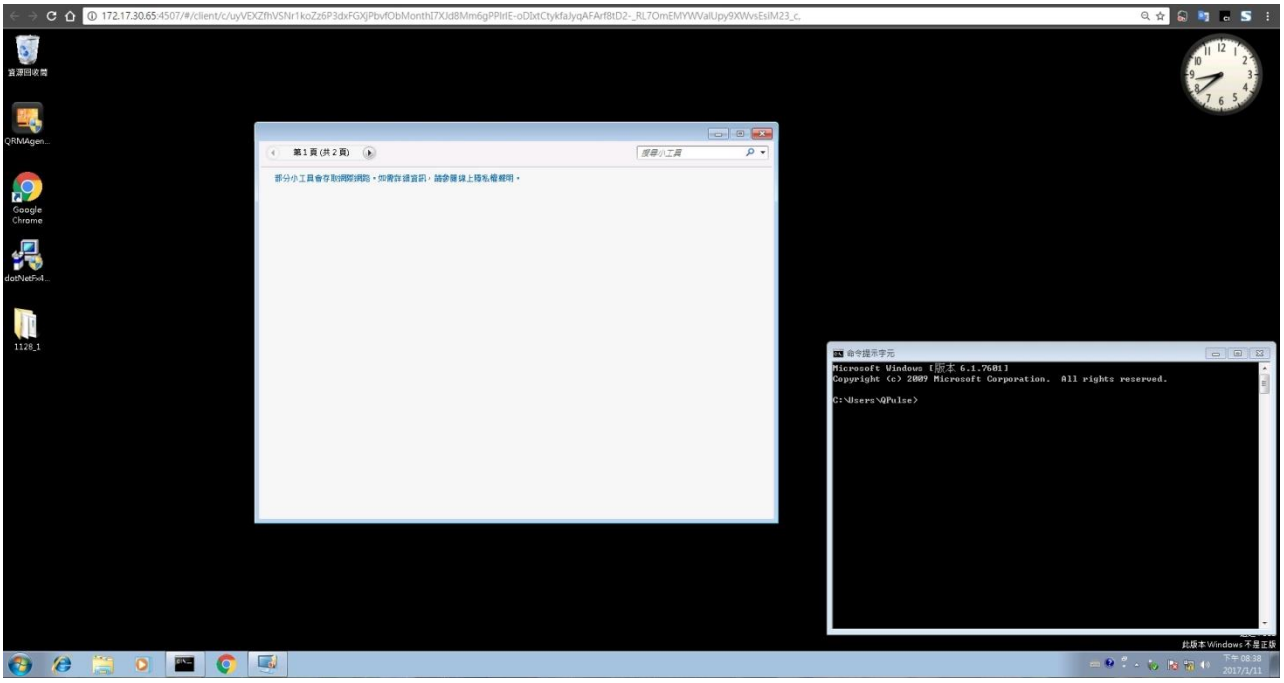
Step 4: A security check window will pop up, asking the user to enter the remote device account number and password

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

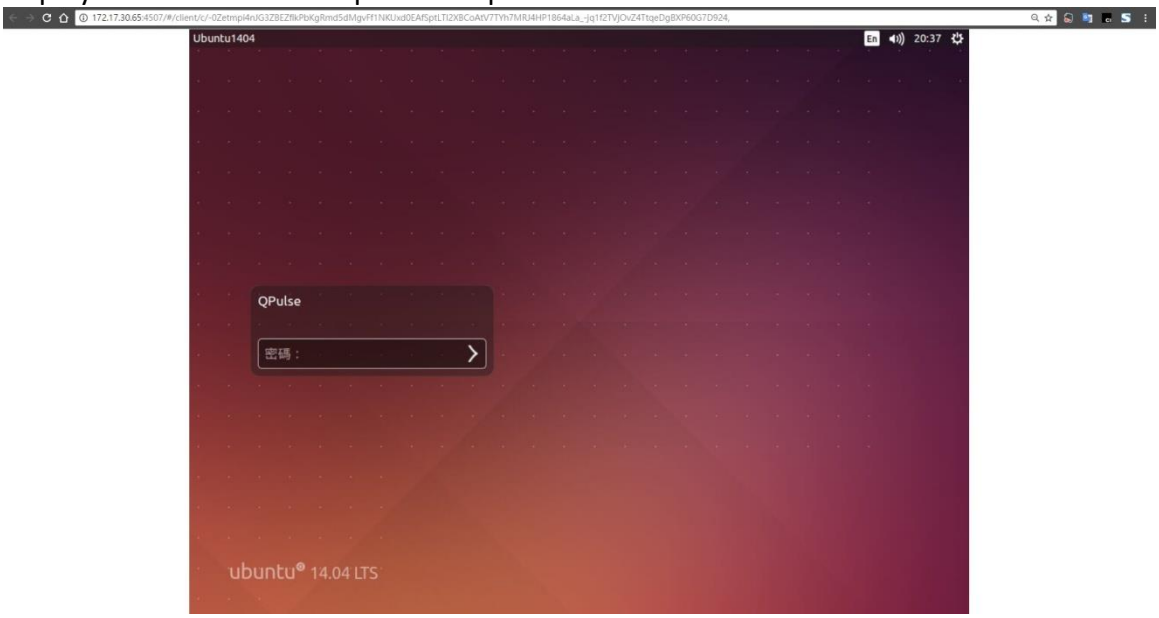


Step 6: The browser opens a new page to display the remote desktop. If the connection is successful, the remote desktop will be displayed. If the connection fails, an error message will be displayed and the user can try to reconnect.

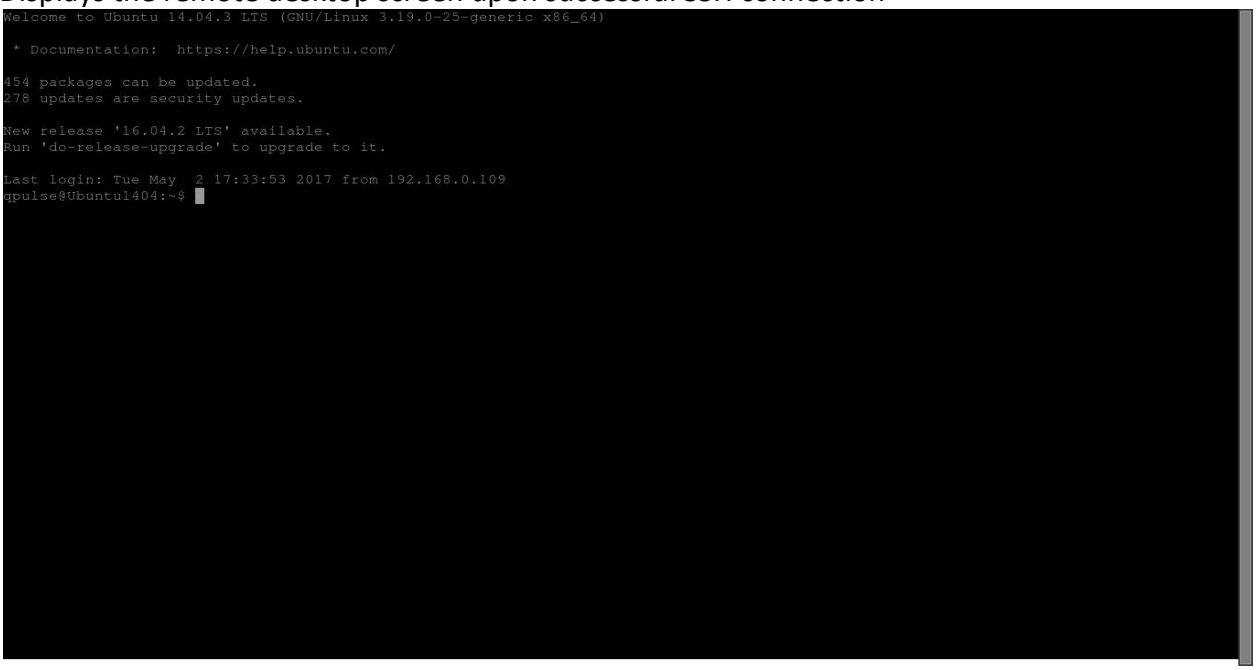
Displays the remote desktop screen upon successful RDP connection



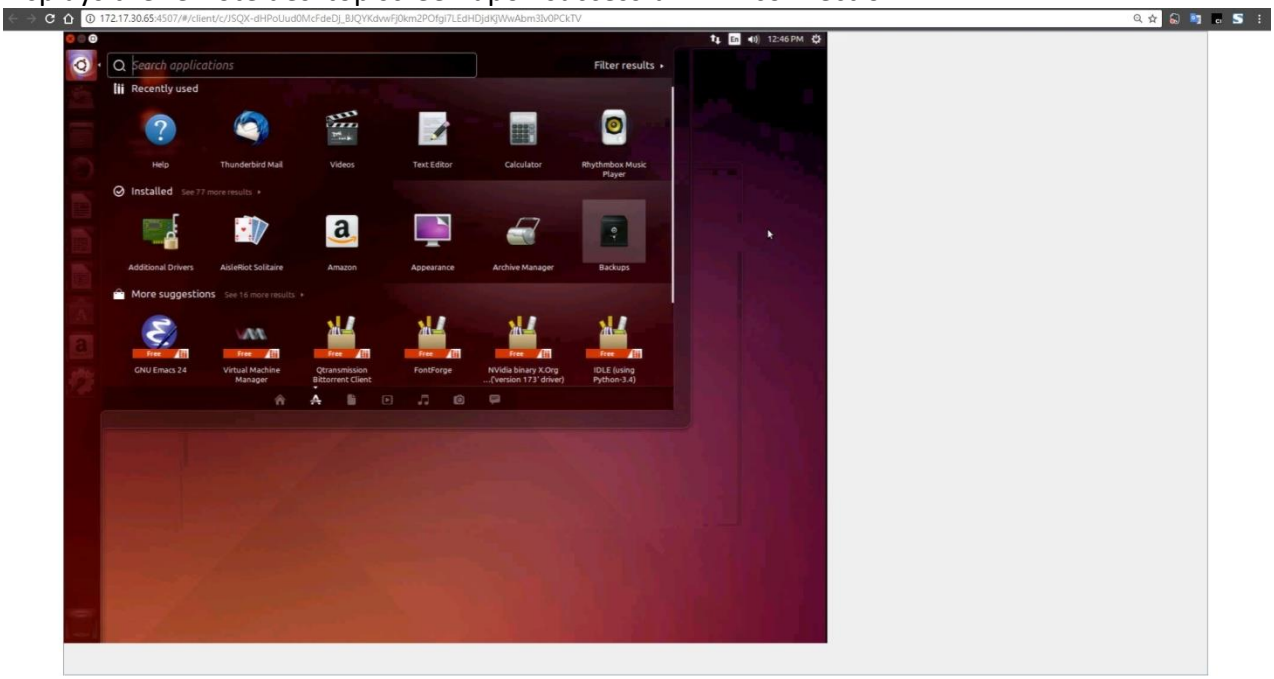
Displays the remote desktop screen upon successful VNC connection



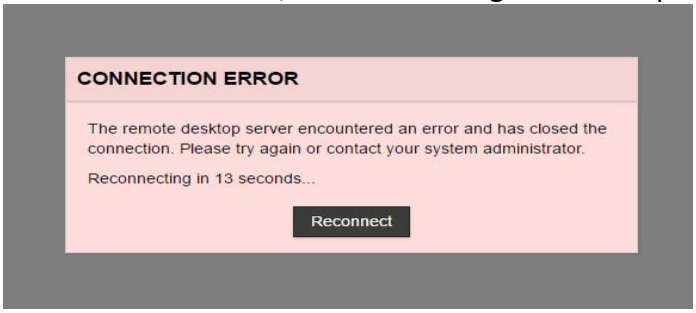
Displays the remote desktop screen upon successful SSH connection



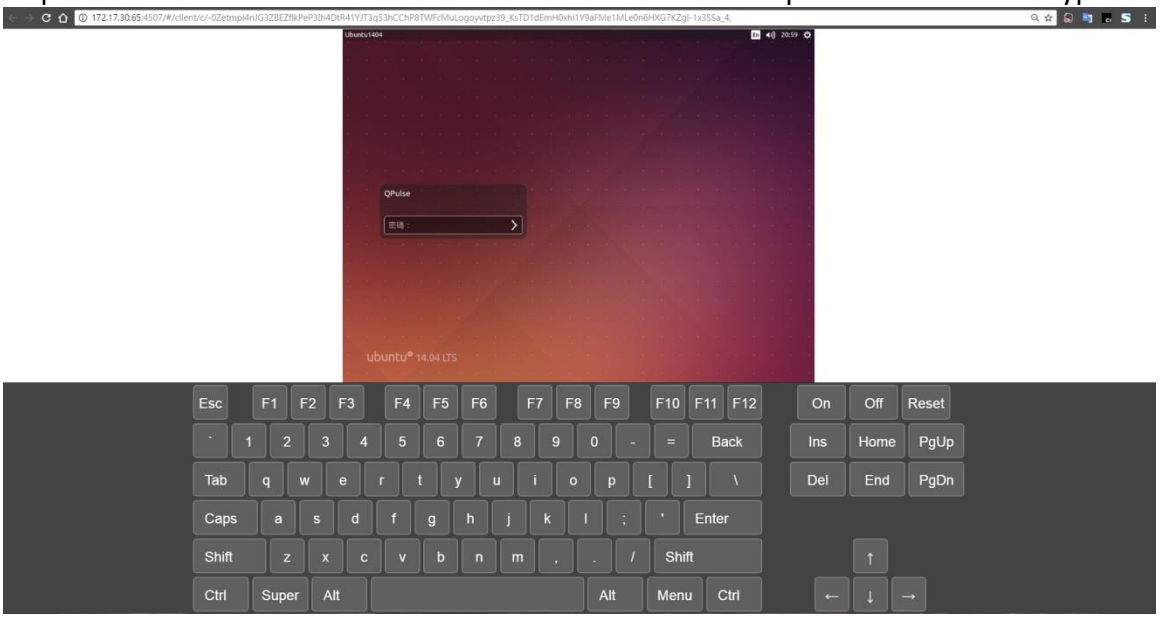
Displays the remote desktop screen upon successful KVM connection



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



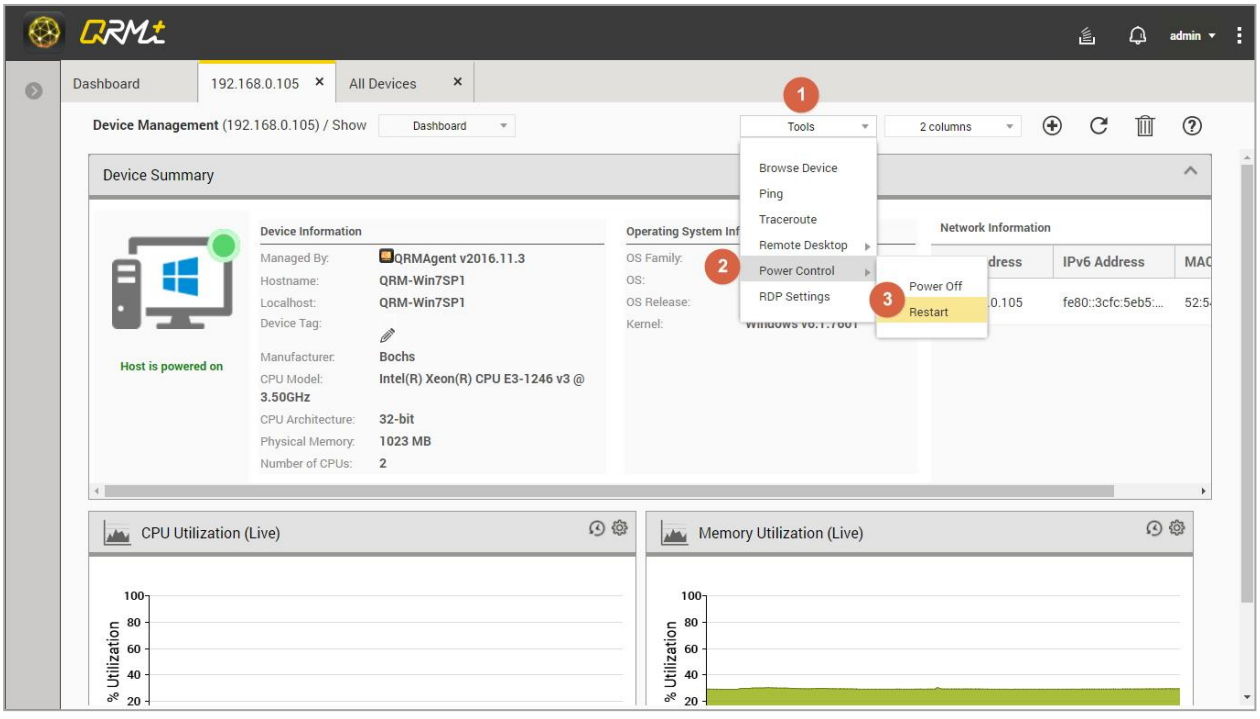
4.10 Tools - Power Control

Watch the video

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

1. Power Off
2. Restart

Setup steps:
Step 1: Go to QRMAgent Single Device Dashboard page and click the "Tools" button
Step 2: Select "Power Control"
Step 3: Select "Power Off" or "Restart"



Monitoring and management functions of IPMI single device page is described below

4.11 IPMI Single Device Dashboard

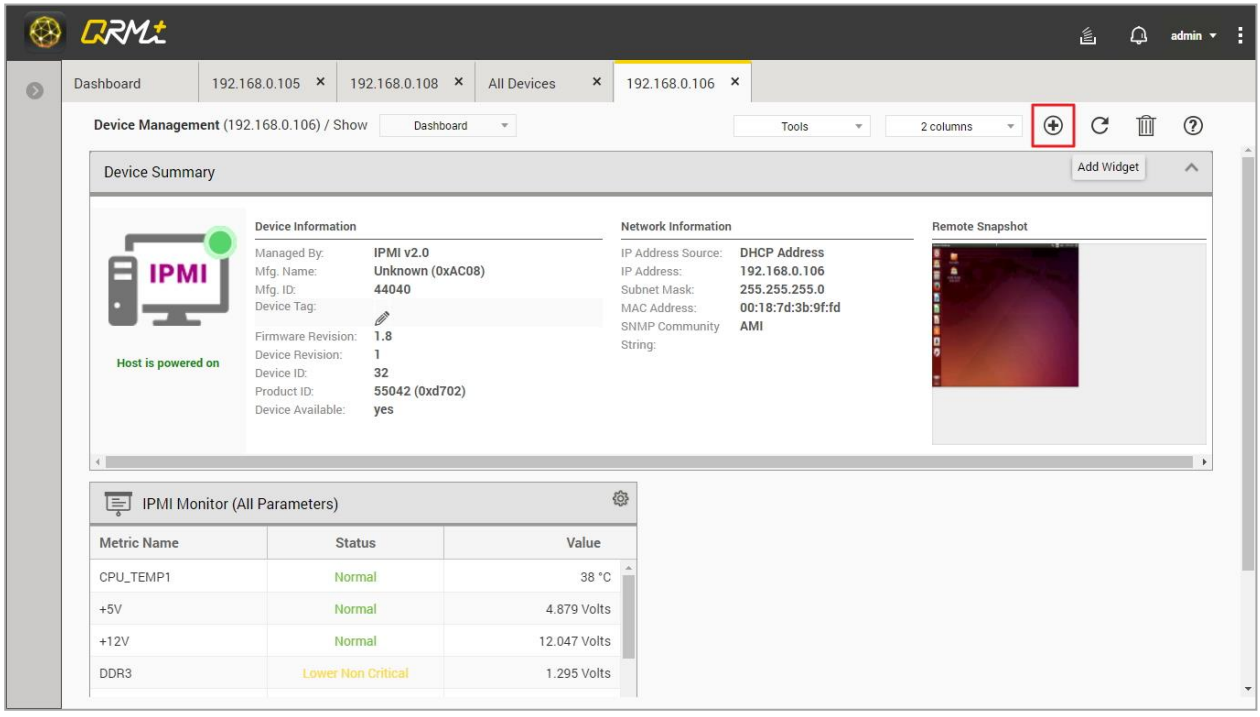
IPMI Single Device Dashboard provides detailed information about a managed device, including:

1. IPMI version
2. Device Information
3. Network information
4. Remote Snapshot

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

4.12 Add Widget

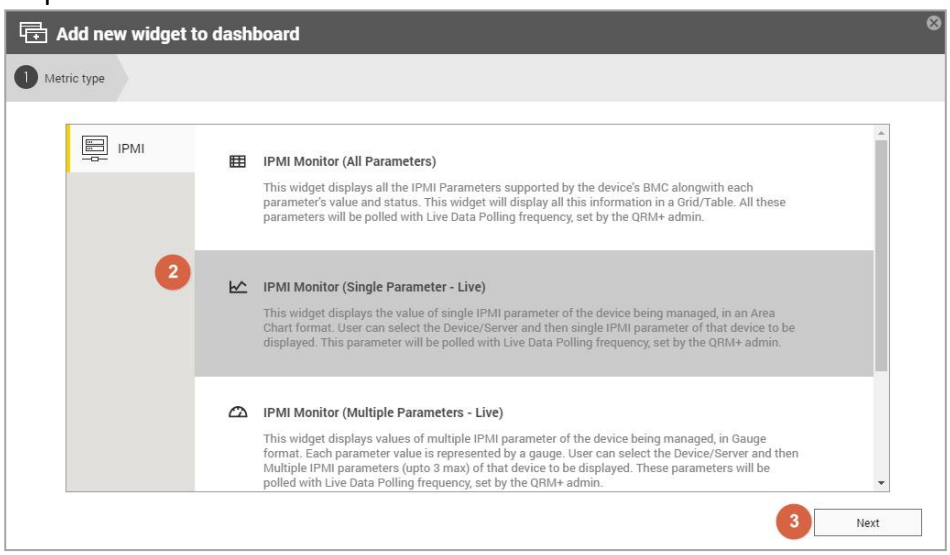
Users can add multiple widgets to monitor IPMI devices, which can assist in displaying data of the IPMI server's internal sensors
Setup steps:
Step 1: Go to IPMI Single Device Dashboard page and click the "Add Widget" button



Step 2: Select the widget type, there are four types in total, including IPMI Monitor (All Parameters)

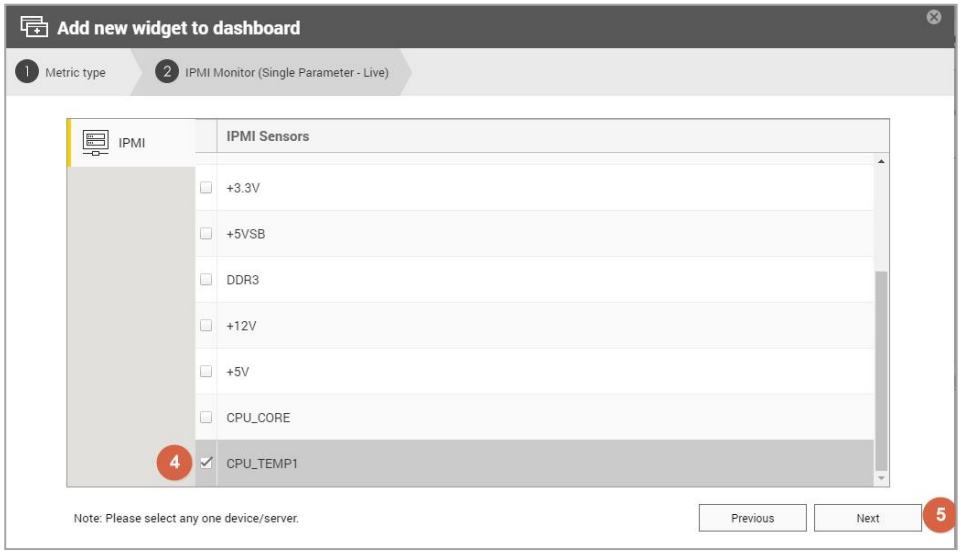
1. IPMI Monitor (All Parameters)
2. IPMI Monitor (Single Parameter - Live)
3. IPMI Monitor (Multiple Parameters - Live)
4. IPMI Monitor (Single Parameter / 24H)

Step 3: Click "Next"



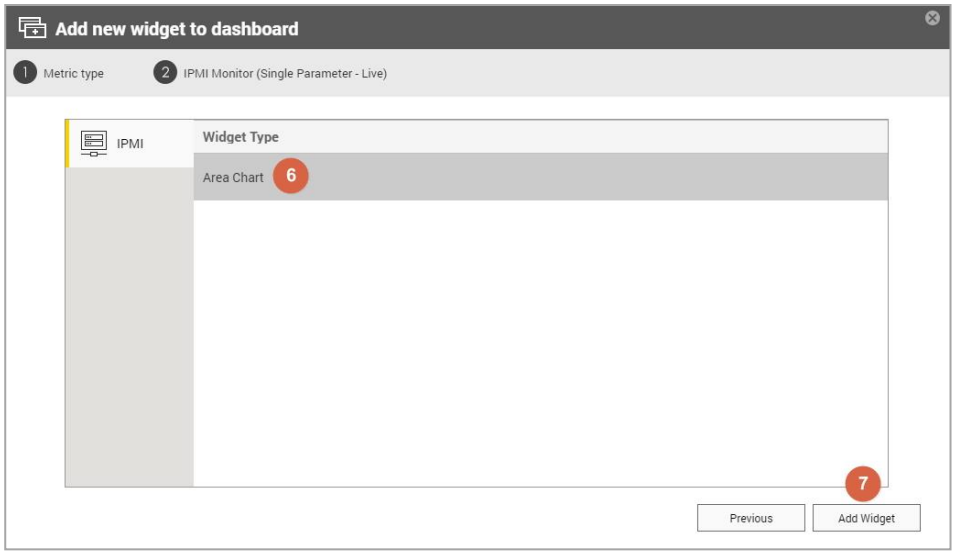
Step 4: Select the type of sensor to be monitored in the IPMI device

Step 5: Click "Next"

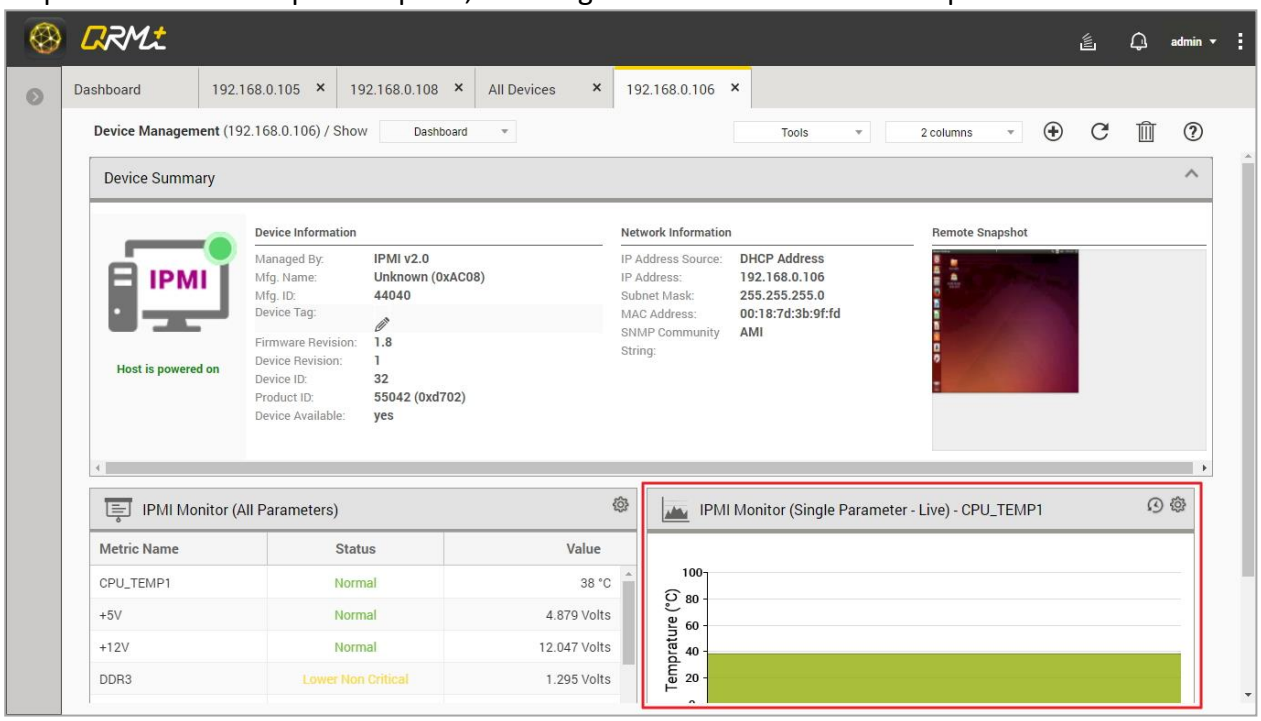


Step 6: Select the type of chart

Step 7: Click the "Add Widget" button to complete the operation

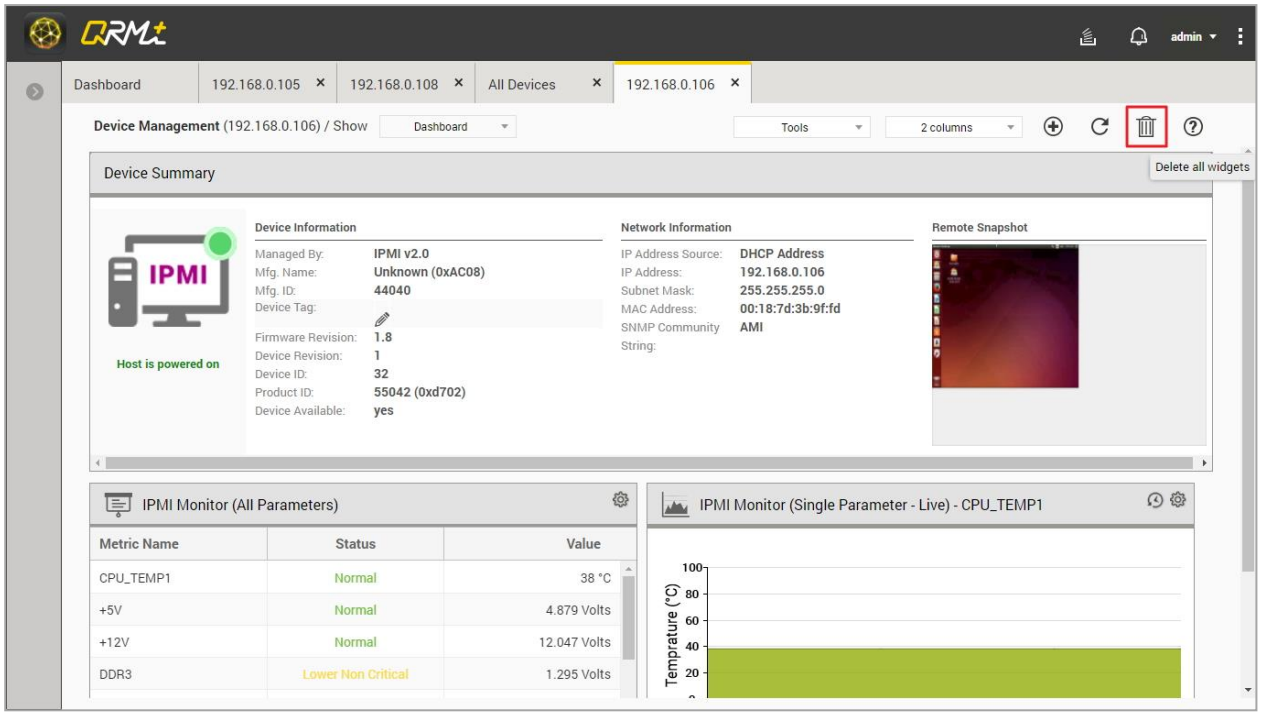


Step 8: When the setup is complete, the widget will be added to the last position in the Dashboard



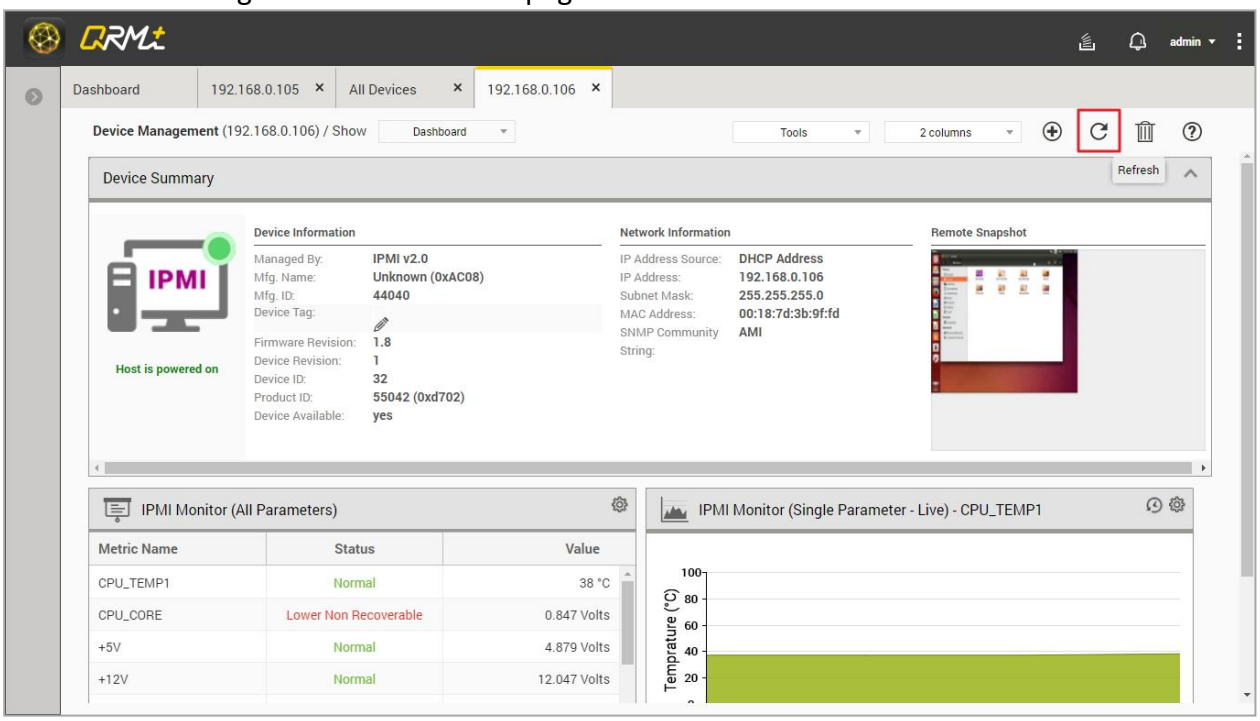
4.13 Delete all widgets in the IPMI Single Device Dashboard

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



4.14 Refresh all widgets in the IPMI Single Device Dashboard

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

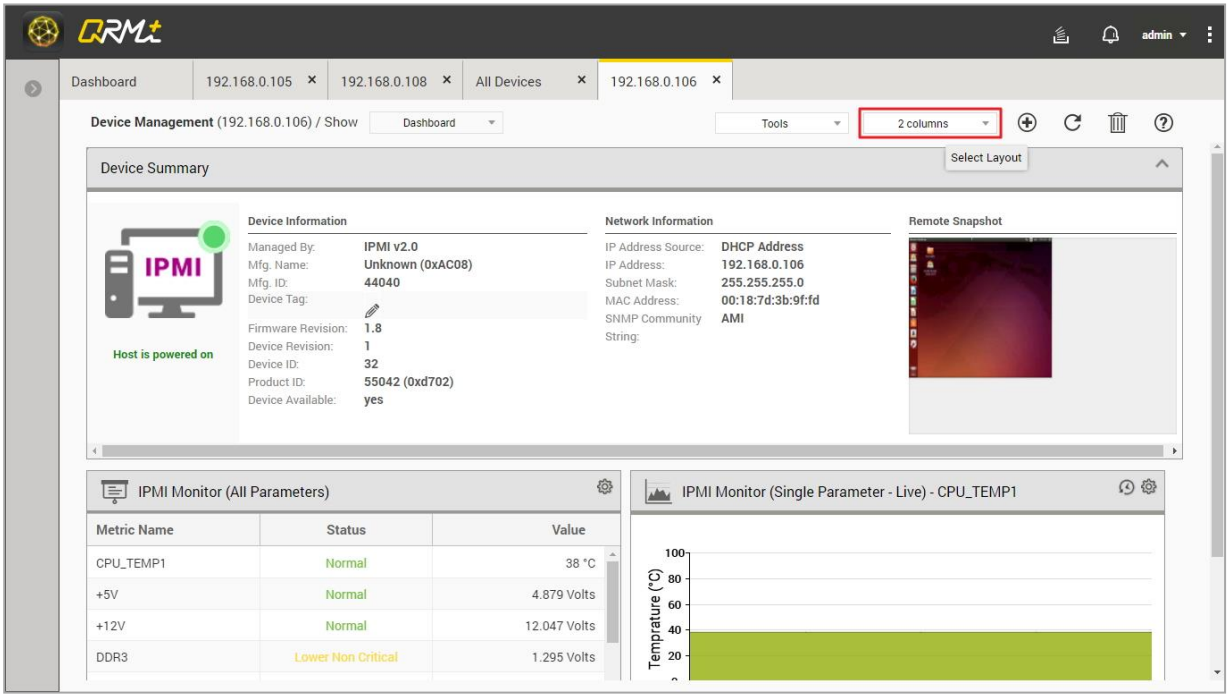


4.15 Select the layout mode

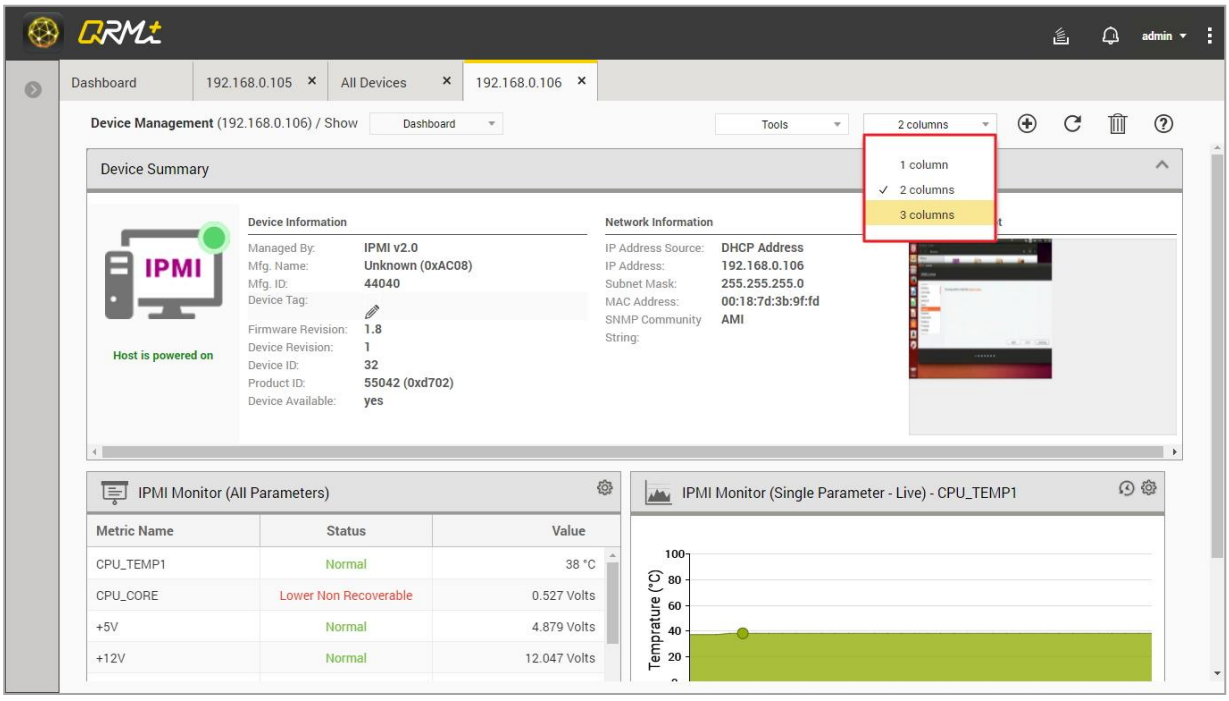
Users can customize the layout of IPMI Single Device Dashboard, and the widgets will re-arrange themselves accordingly.

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

Setup steps:
Step 1: Go to IPMI Single Device Dashboard page and Click the "Select Layout" button



Step 2: Select "1 column", "2 columns" or "3 columns"

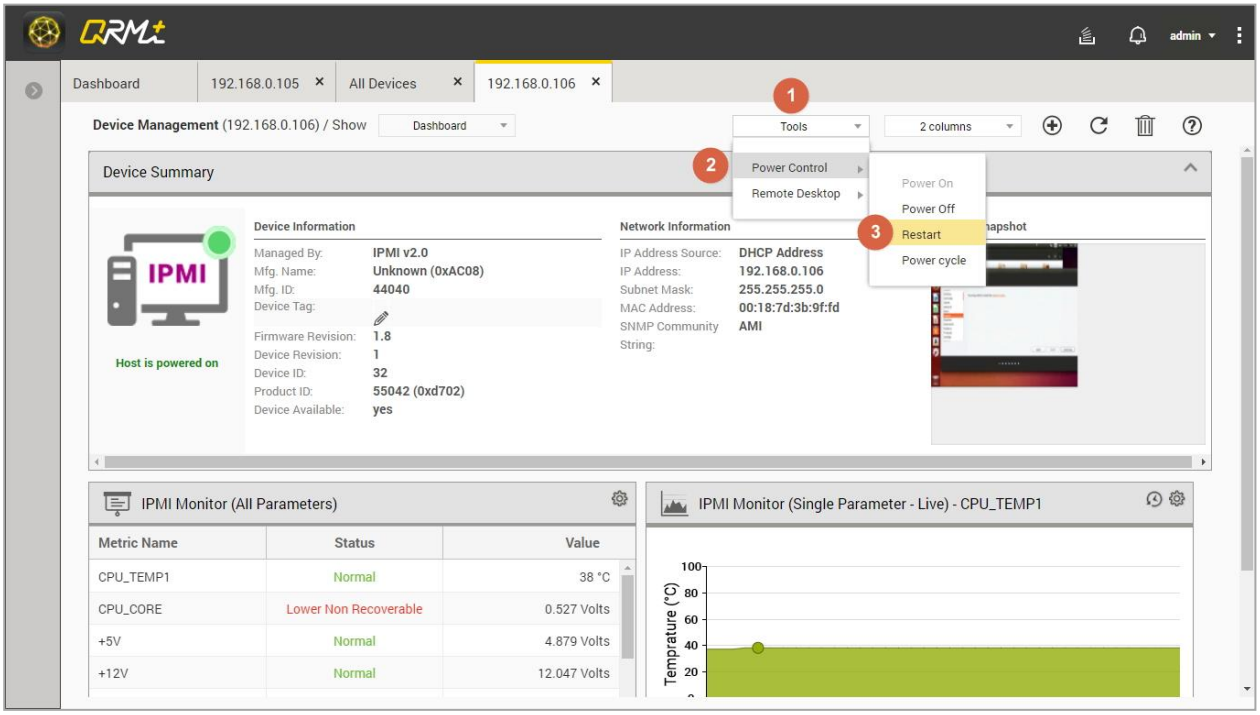


4.16 Tools - Power Control

There are four power control modes for IPMI devices:

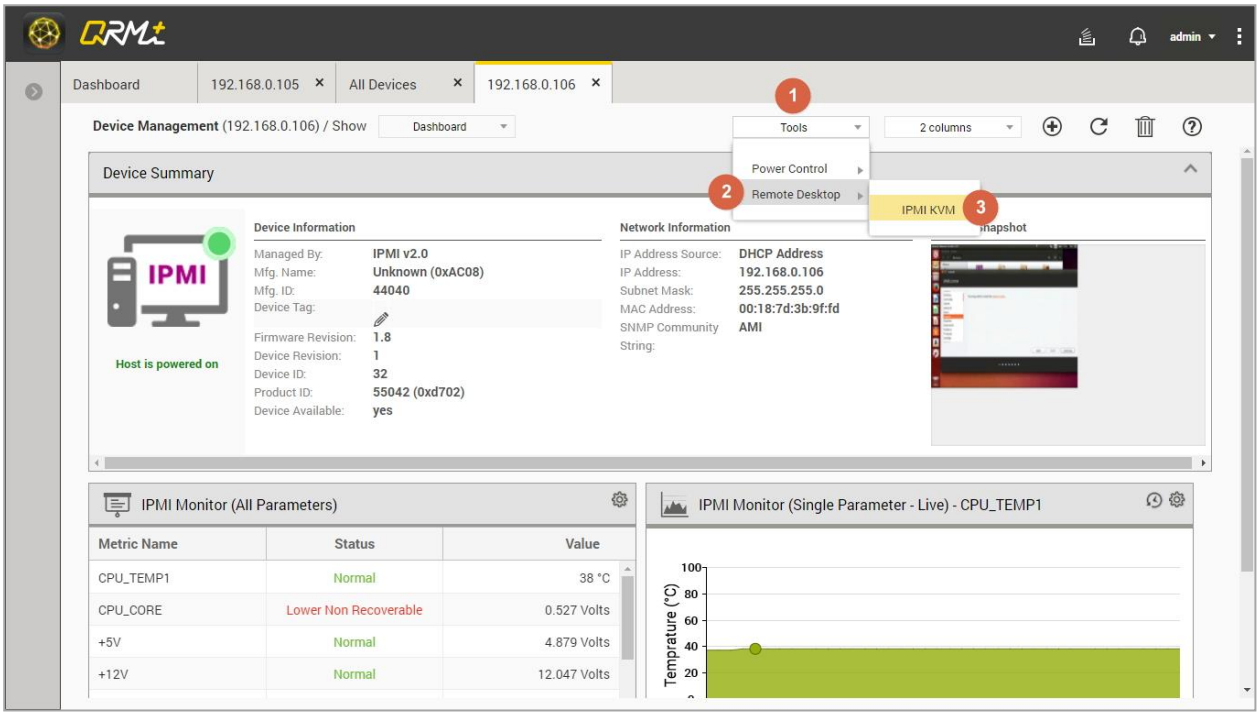
1. Power On
2. Power Down
3. Restart
4. Power Cycle

Setup steps:
Step 1: Go to IPMI Single Device Dashboard page and click the "Tools" button
Step 2: Select "Power Control"
Step 3: Select "Power On", "Power Down", "Restart", or "Power Cycle"

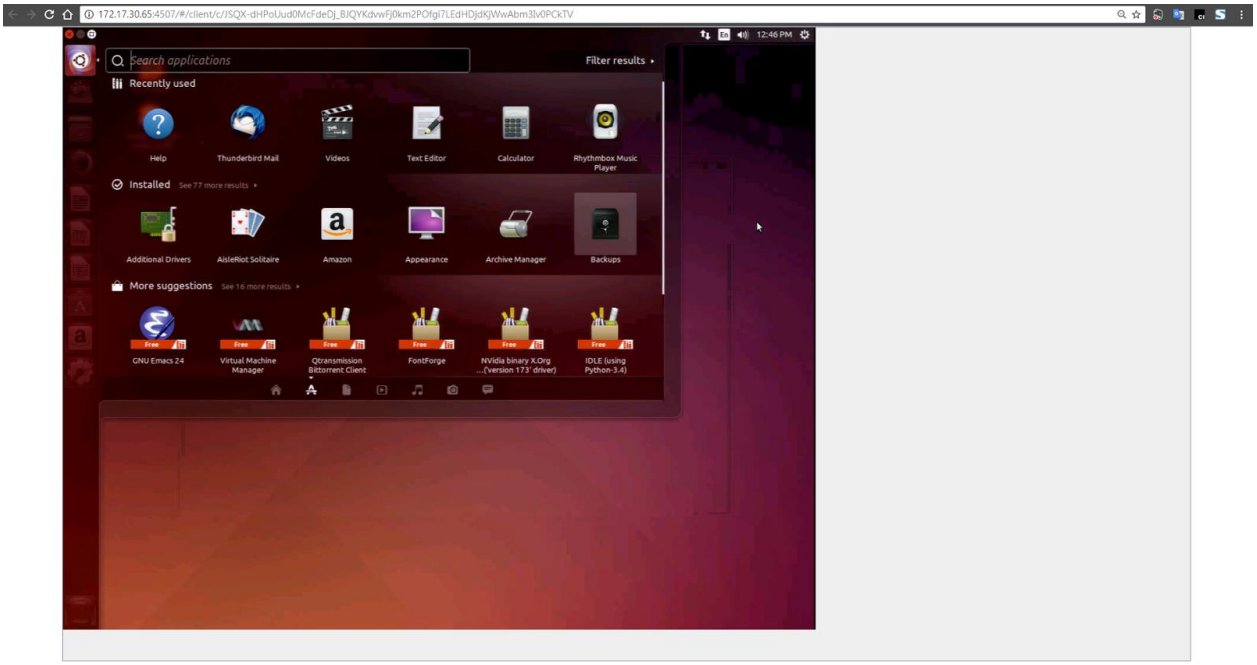


4.17 IPMI KVM Remote Desktop

The IPMI KVM feature allows the user to monitor and operate the remote IPMI device on the desktop. (Note: IPMI KVM currently only supports Supermicro and IEI Technology Inc. models)
Setup steps:
Step 1: Go to IPMI Single Device Dashboard page and click the "Tools" button
Step 2: Select "Remote Desktop"
Step 3: Select "IPMI KVM"



Step 4: When finished, the browser will open a new window to display the desktop screen of the remote IPMI device



5. KVM Dashboard

KVM Dashboard provides centralized remote monitoring, where each widget represents an IPMI KVM device that can be set up for remote control and monitoring.

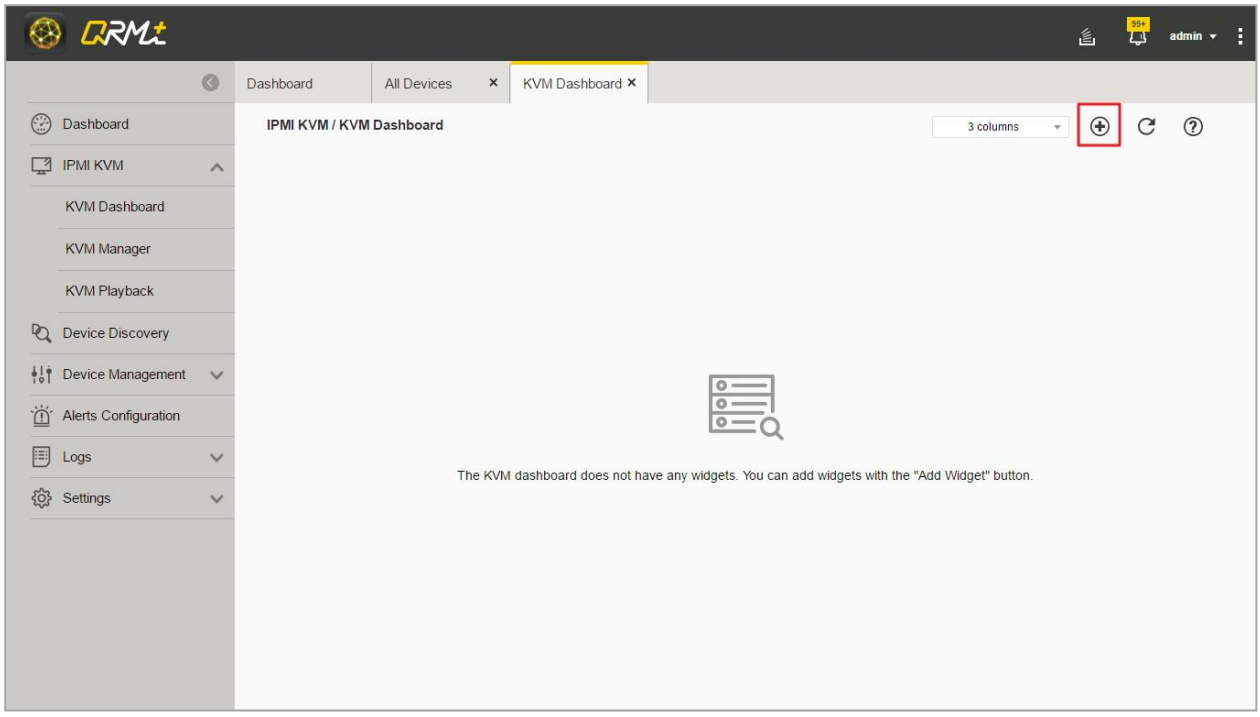
5.1 Add Widget

Watch the video

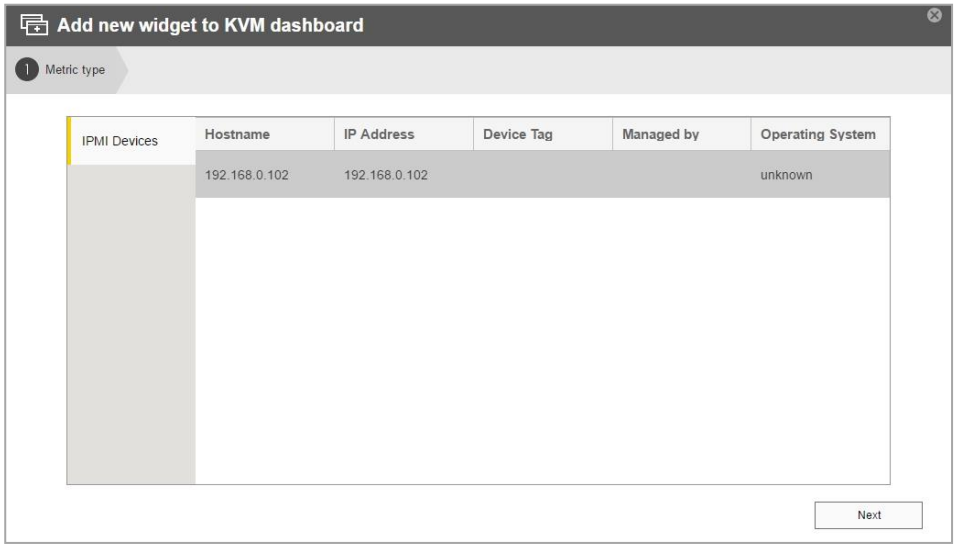
You can add KVM widget to the KVM Dashboard

Setup steps:

Step 1: Complete the steps to add a new device in the "KVM Manager" section, then click the "Add KVM Widget" button

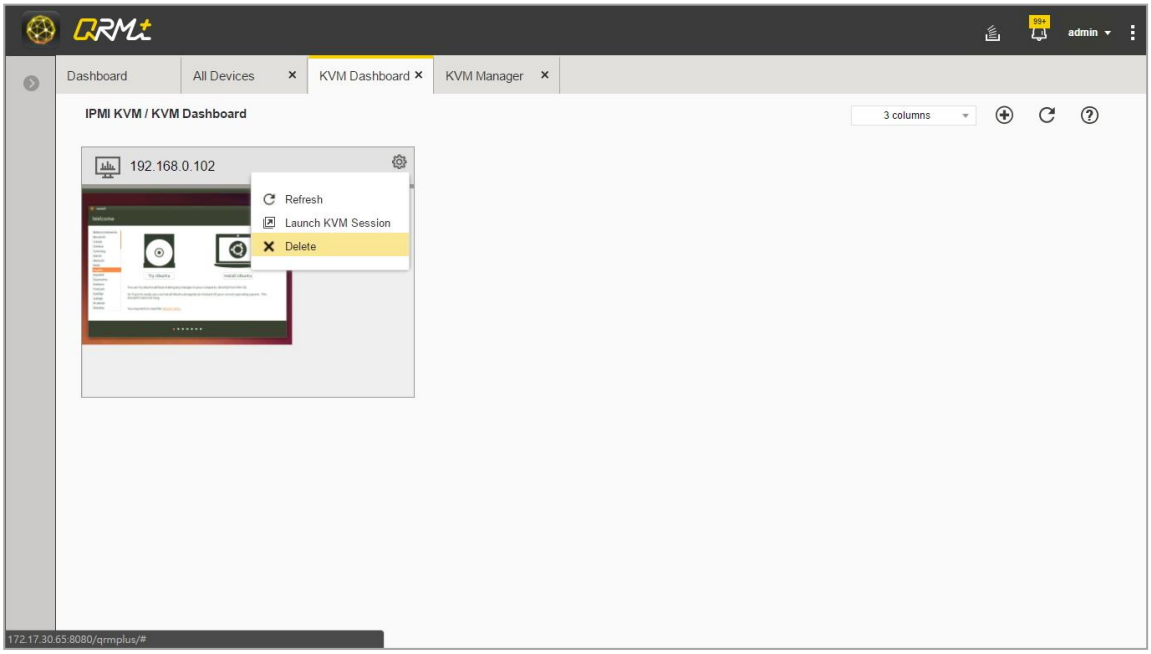


Step 2: Select the IPMI device you want to set up the KVM widget, and click the "Add" button. The new KVM widget will be displayed in the last position of the KVM Dashboard



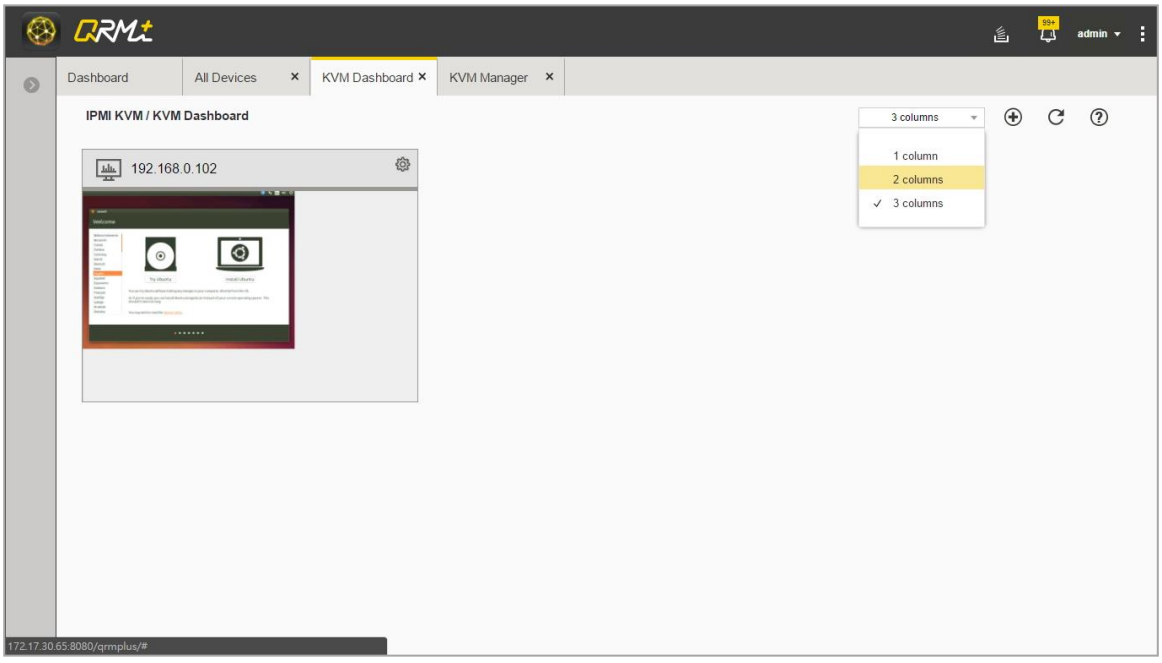
5.2 Delete Widget

Watch the video
You can delete KVM widgets from the KVM Dashboard
Setup steps:
Go to the KVM Dashboard, click the Settings button at the top right of the KVM widget, and select "Delete".



5.3 Layout mode

Users can customize the KVM Dashboard layout
Setup steps:
Go to the KVM Dashboard page, click on the "Select layout" button and select "1 Column", "2 Columns" or "3 Columns"



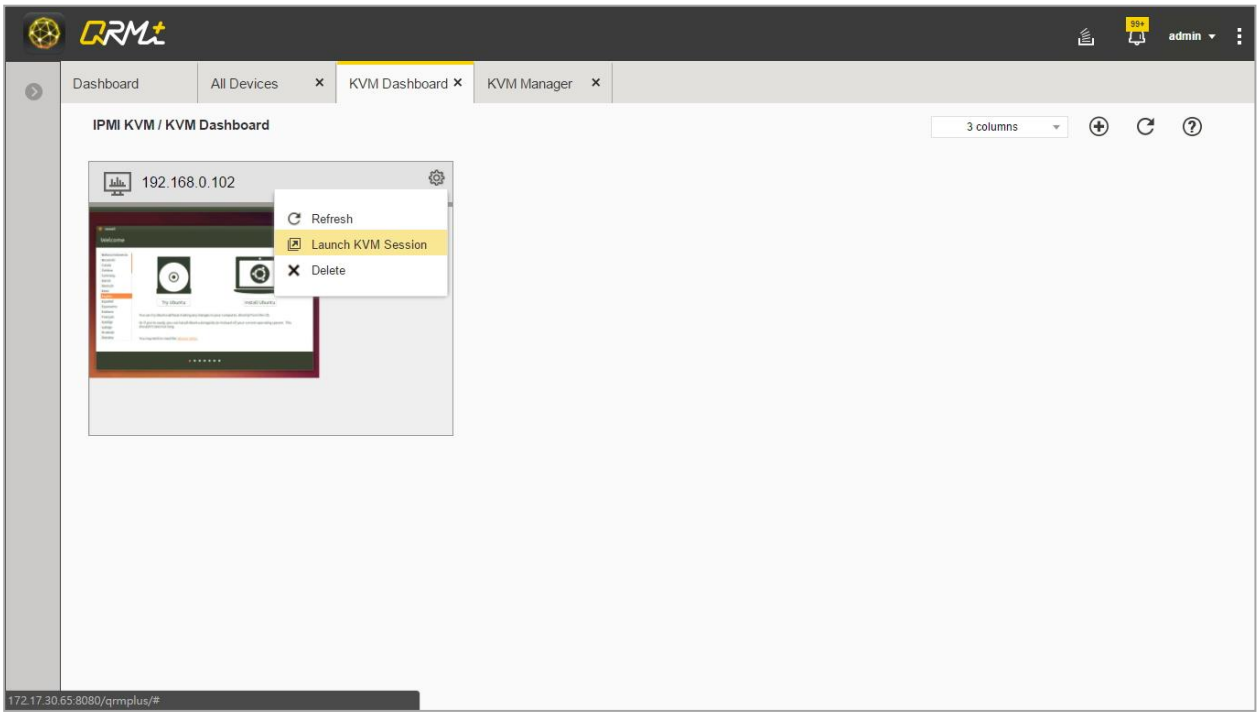
5.4 Launch KVM Remote Desktop

Watch the video

The dashboard periodically updates the screens of currently monitored devices. Users can launch a KVM Remote Desktop in a new tab for remote control and screen monitoring

Setup steps:

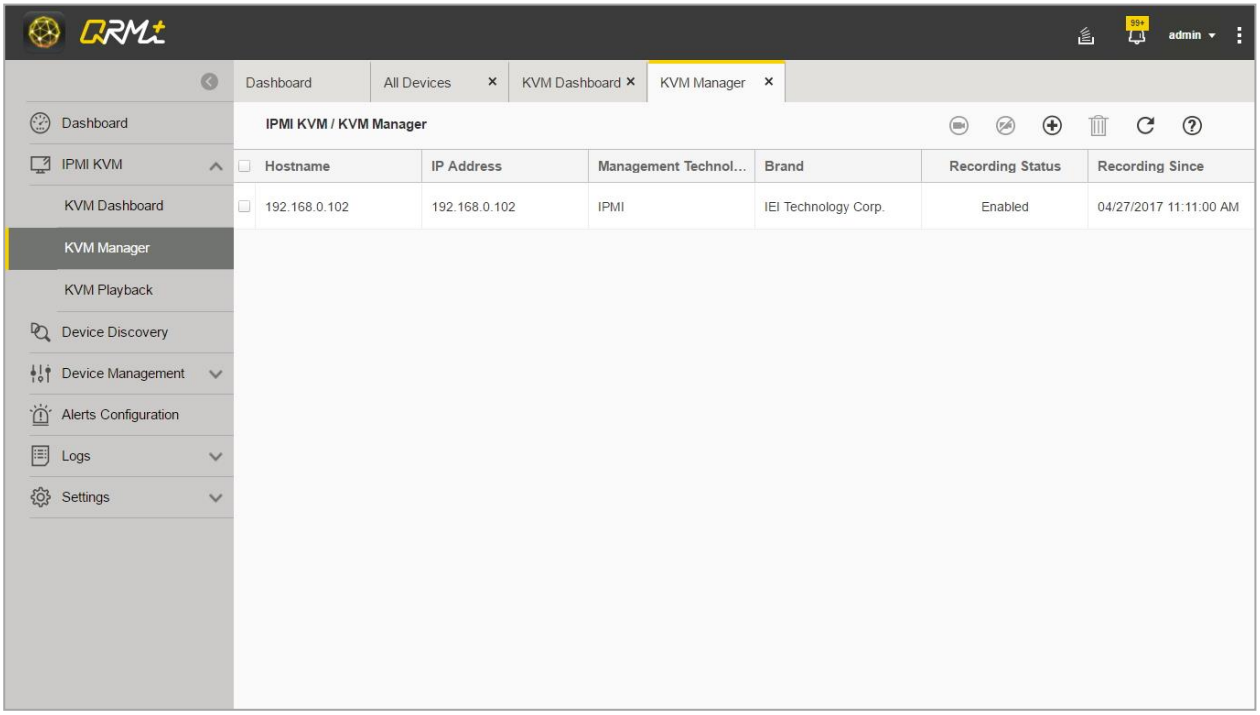
Go to the KVM Dashboard, click Settings on the KVM widget that needs to be controlled remotely, and select "Launch KVM Session"



Note: IPMI KVM currently only supports Supermicro and IEI Technology Inc. models

6. KVM Manager

KVM Manager can help manage IPMI devices that support KVM functionality, add or delete IPMI devices, and set whether or not to enable video playback.



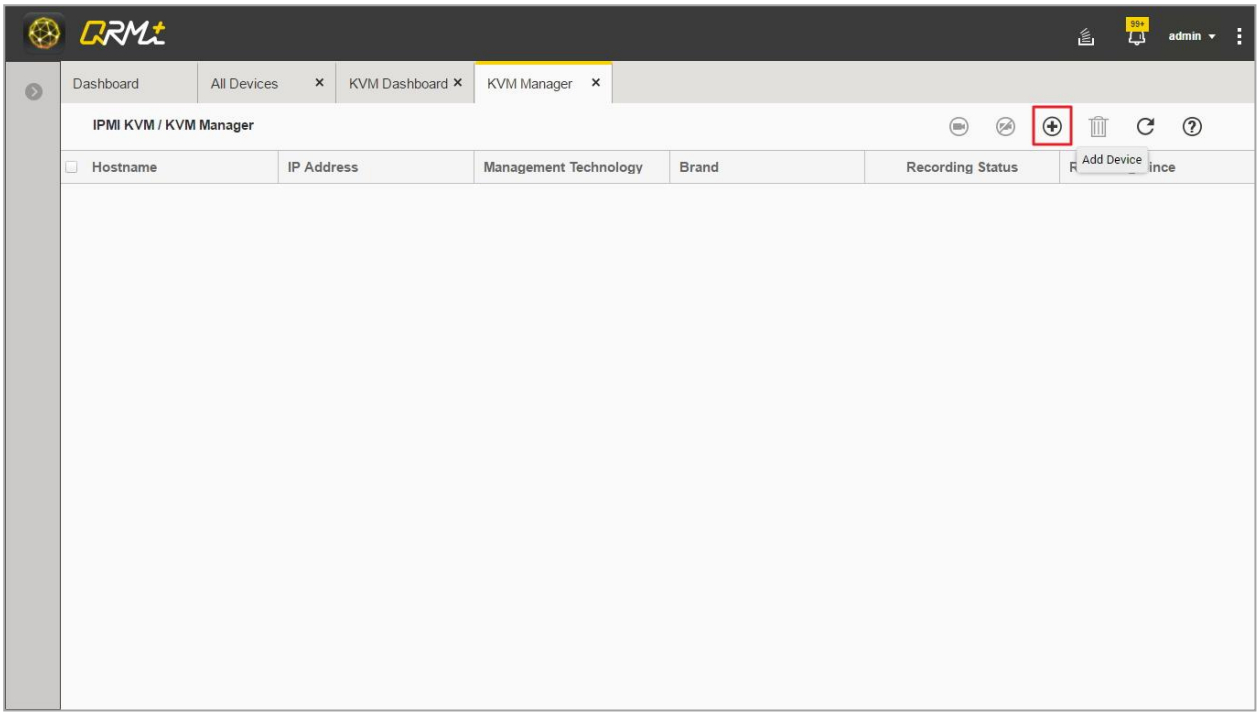
6.1 Add Device

Watch the video

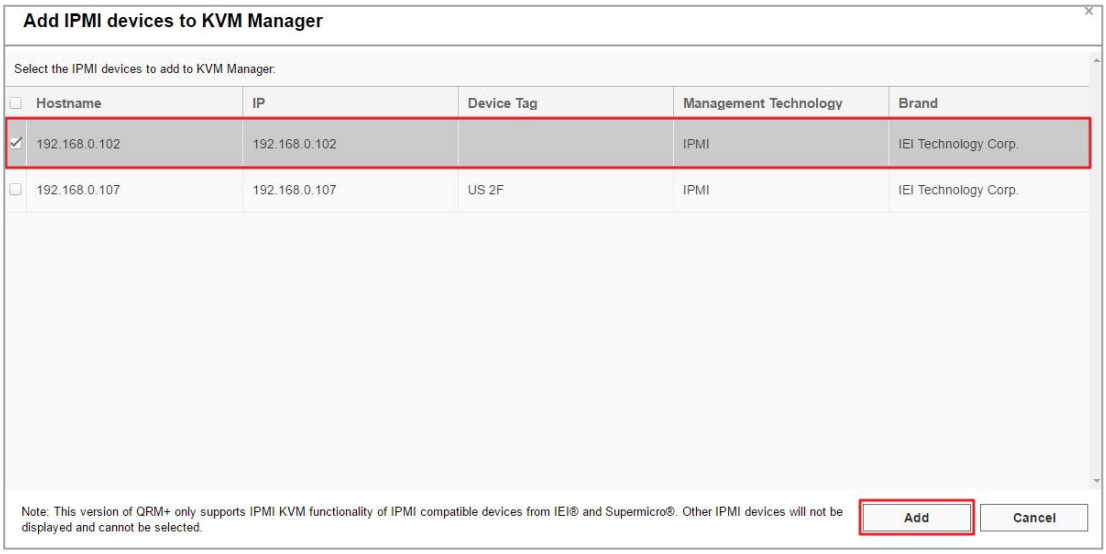
KVM devices that are not yet managed need to be added to the list of KVM managed devices to enable remote control, video playback, and KVM dashboard monitoring

Setup steps:

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



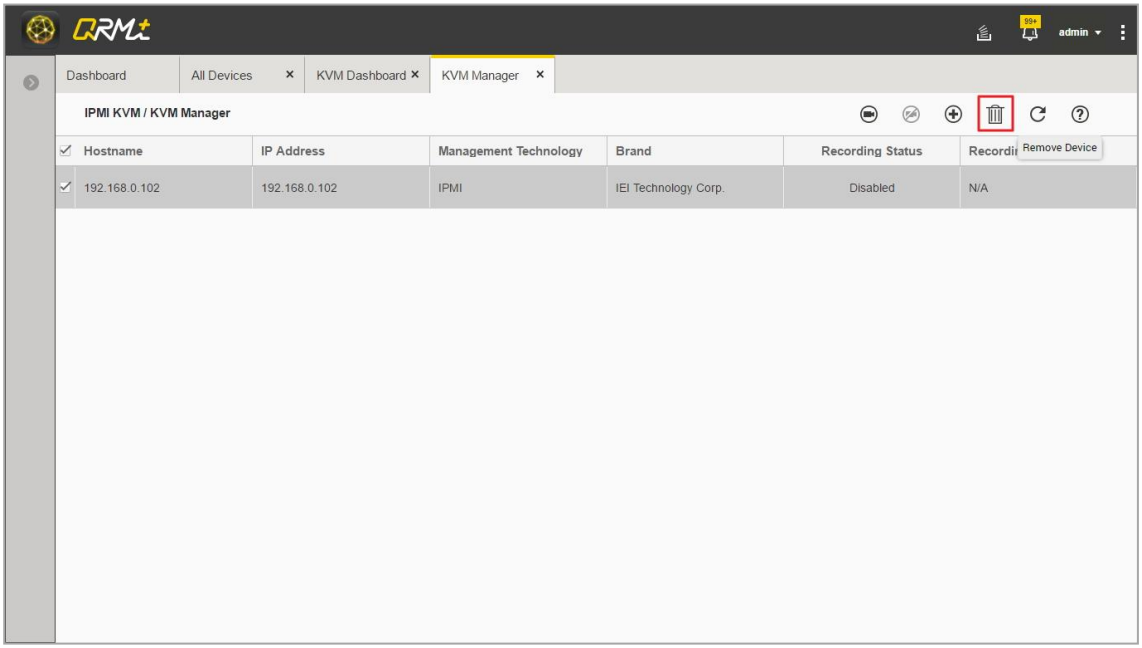
Step 2: Select the IPMI device for which you want to have the KVM management function, then click the "Add" button to complete the configuration.



6.2 Remove Device

Watch the video

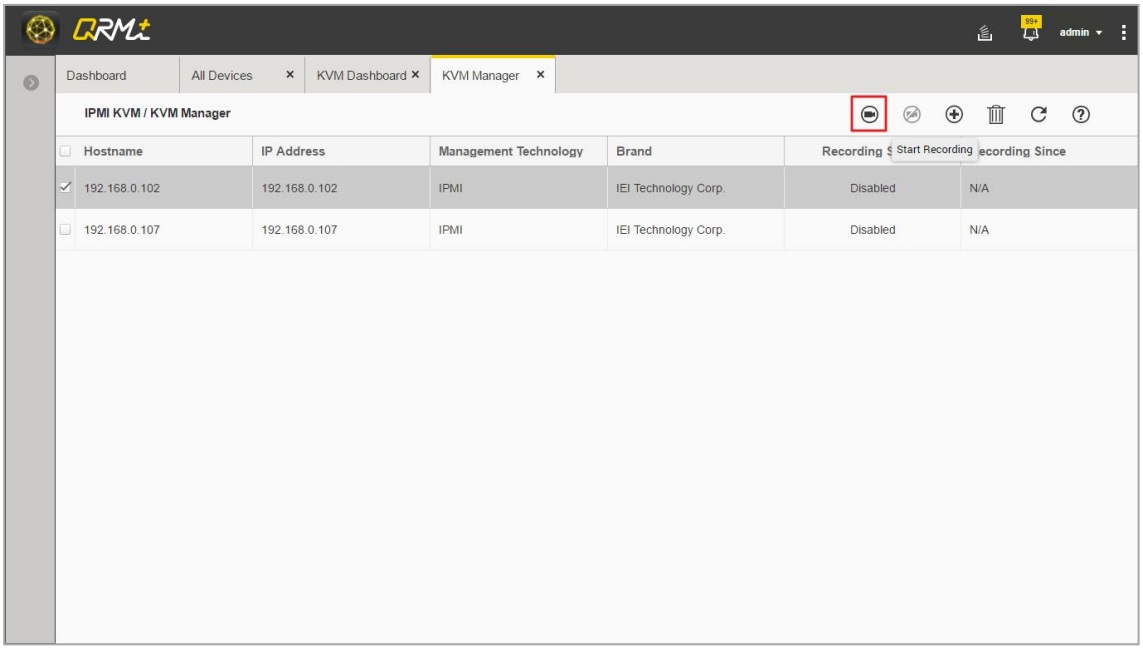
Removing the device will remove the device from the management list, and the removed device will not be able to be remotely controlled, played back, or monitored through the KVM Dashboard, and its associated video files and associated KVM dashboard will be removed as well



6.3 Start Recording

Watch the video

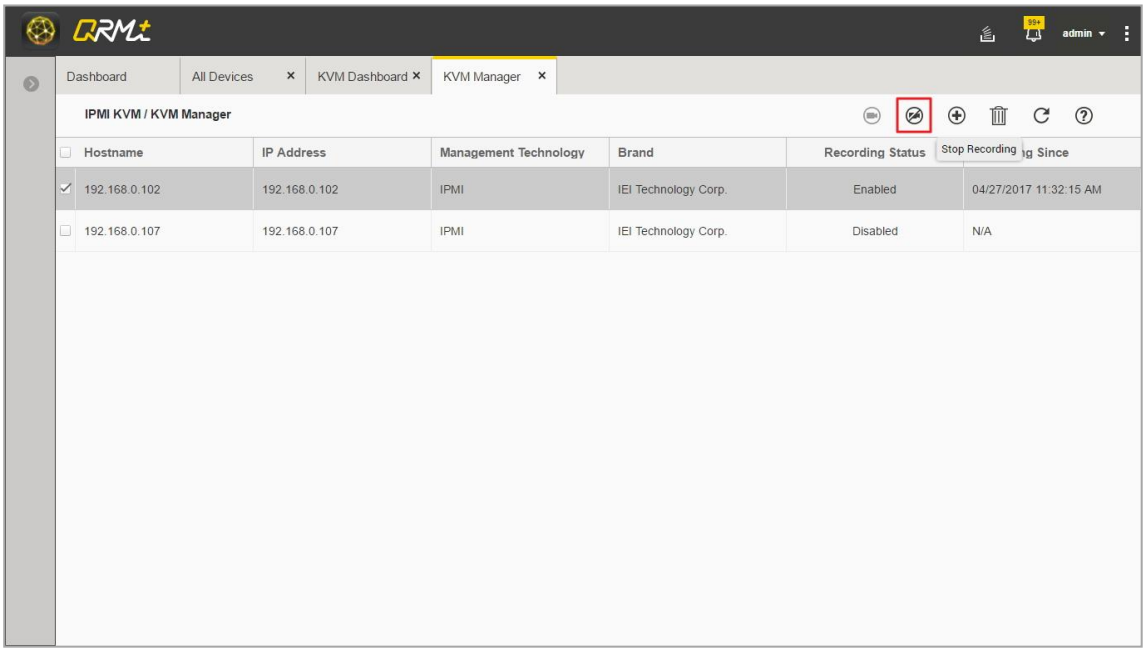
Start Recording will record the screen activities of the remote managed device and save the file for future playback.



6.4 Stop Recording

Watch the video

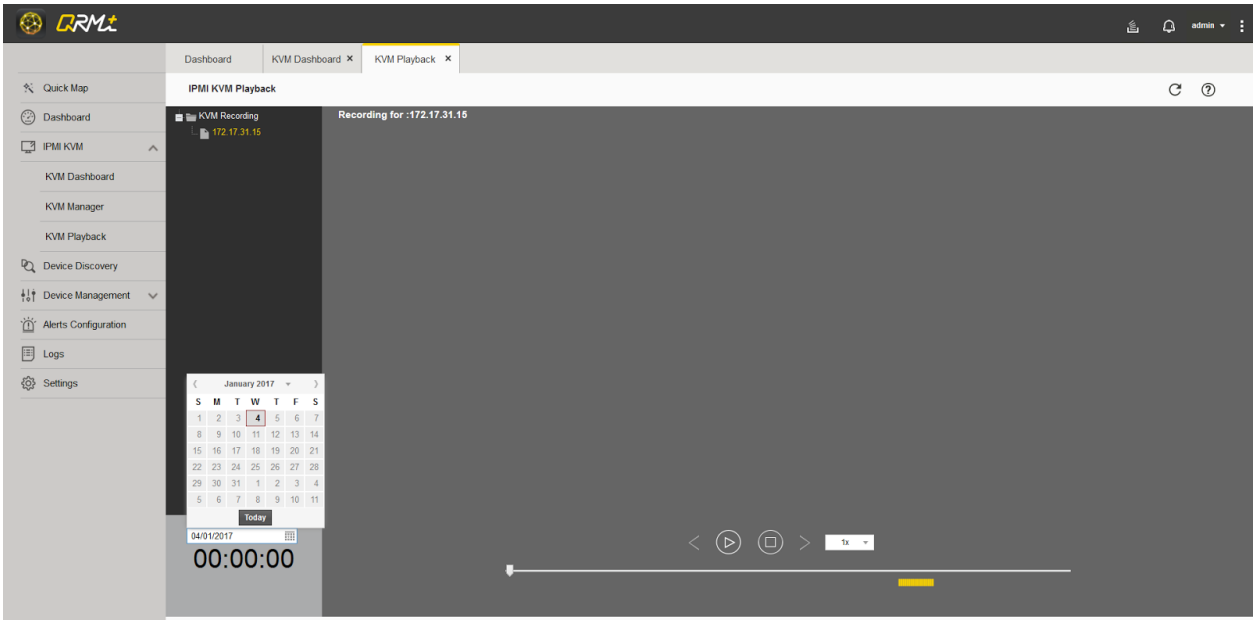
Stop Recording will stop the remote video recording and saving to file function, but it does not affect the already saved video files, and such files can still be played back.



Note: IPMI KVM currently only supports Supermicro and IEI Technology Inc. models

7. KVM Playback

KVM Playback can play user-recorded videos and a user can quickly search a playback device based on time interval



7.1 Select Device

Watch the video

A user can select the IPMI device that needs playback from the list of KVM devices on the left

7.2 Select Date

Users can retrieve the video file by specifying the date, if there is a video file, the playback progress bar will be marked with a yellow bar

7.3 Playback Control

The user can perform basic operations such as play back, pause or stop the video

7.4 Playback speed selection

Users can decide the playback speed, making it more convenient in retrieving video files

8. Alert Configuration

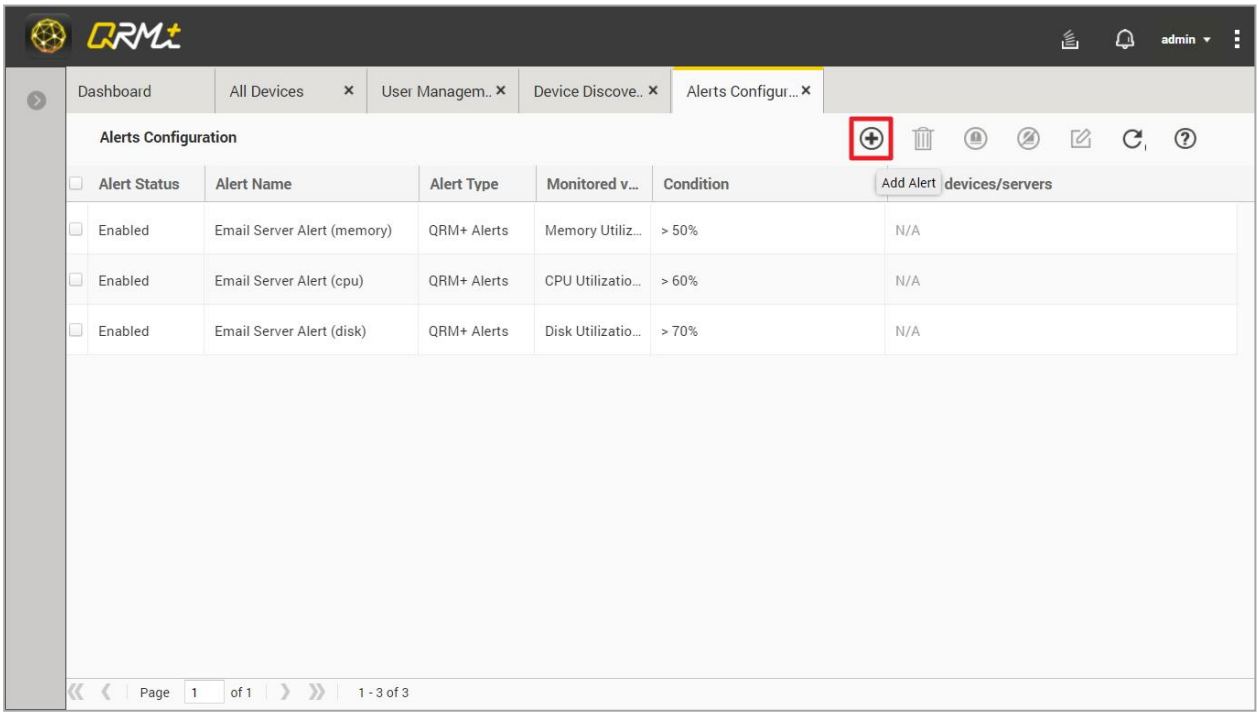
In QRM+, you can set different alert configurations for different device types. When the set alert condition is met, an alert will appear in the upper right notification window of QRM+ management page, so that administrators will know the current situation and solve the problem immediately; you can set 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.

8.1 Add Alert

Users can click the Add Alert button to add a new alert, the alert type is either QRM+ alert or IPMI event notification

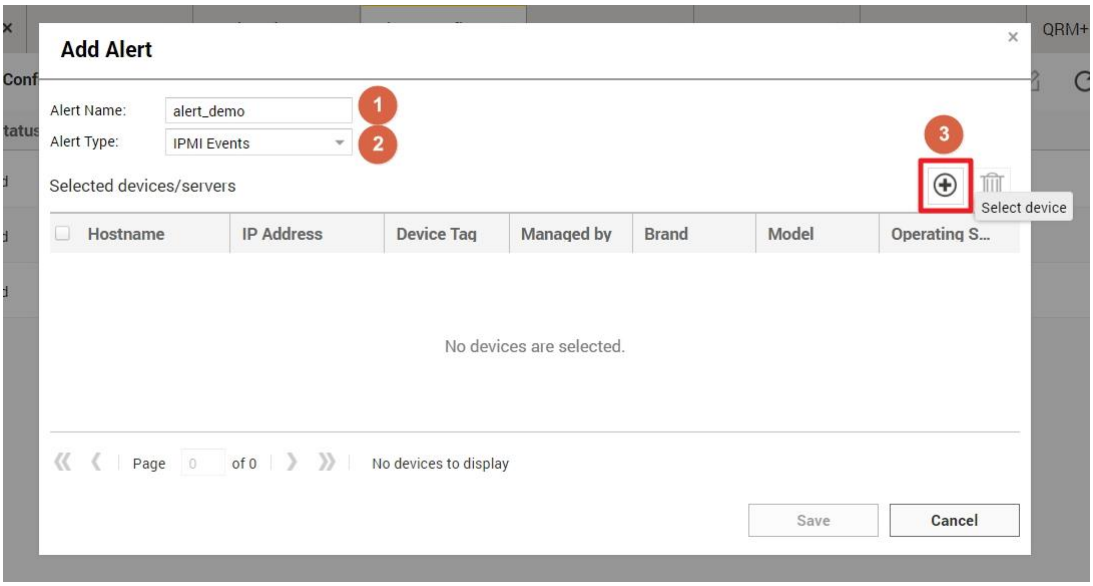
Setup steps:

Step 1: Enter the Alert Configuration page and click the "Add Alert" button

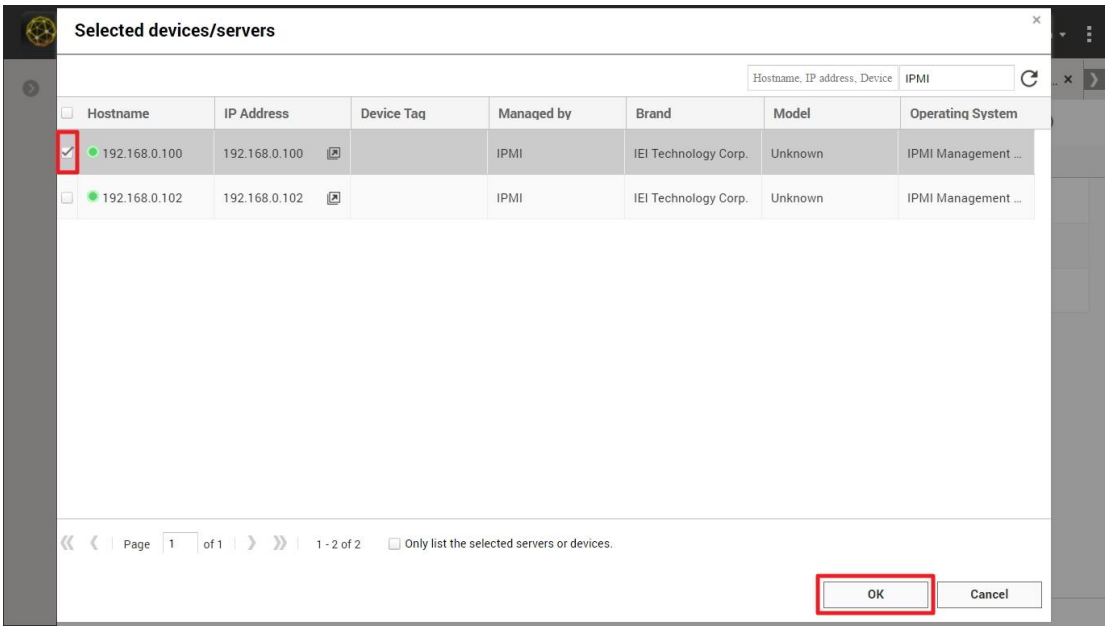


Step 2: In the Add Alert window, complete the alert type setting:

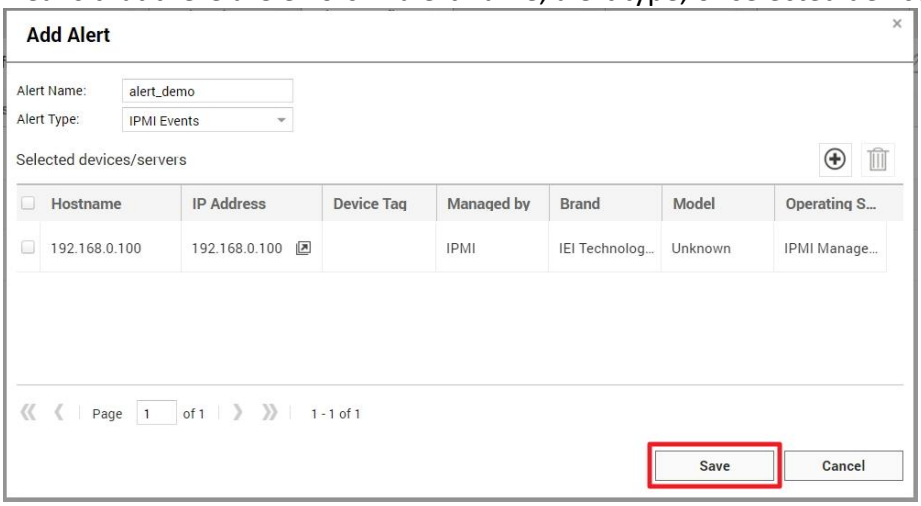
1. Set Alert Name
2. Set Alert Type (either QRM+ Alert or IPMI event notification.There are four types of QRM+ alerts: CPU usage, memory usage, power status, and disk usage)
3. Click the Select Device button



Step 3: Select the device you want to set the alert, you can select one or multiple devices, then click the OK button



Step 4: 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)

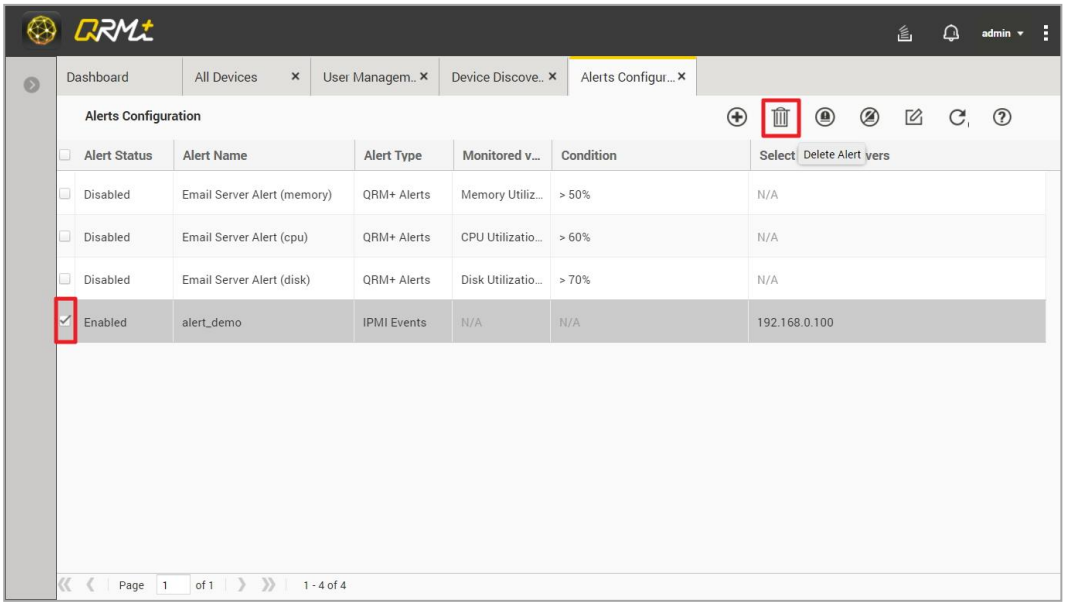


8.2 Delete Alert

Users can click the "Delete Alert" button to remove one or more alerts at once.
Setup steps:
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 "OK" button to complete the operation

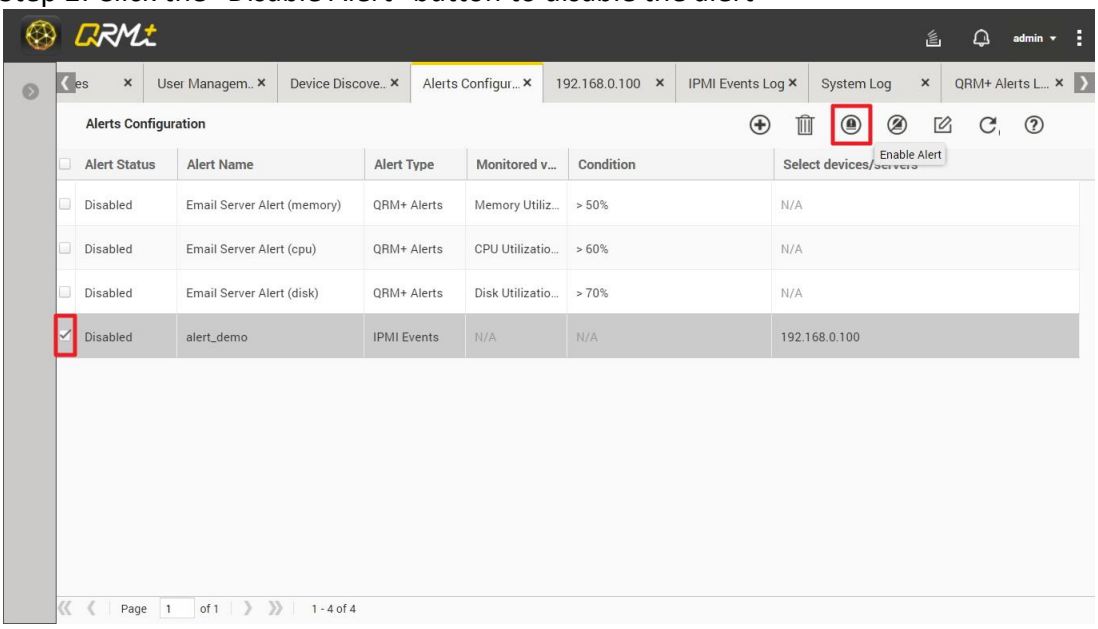
8.3 Enable Alert

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



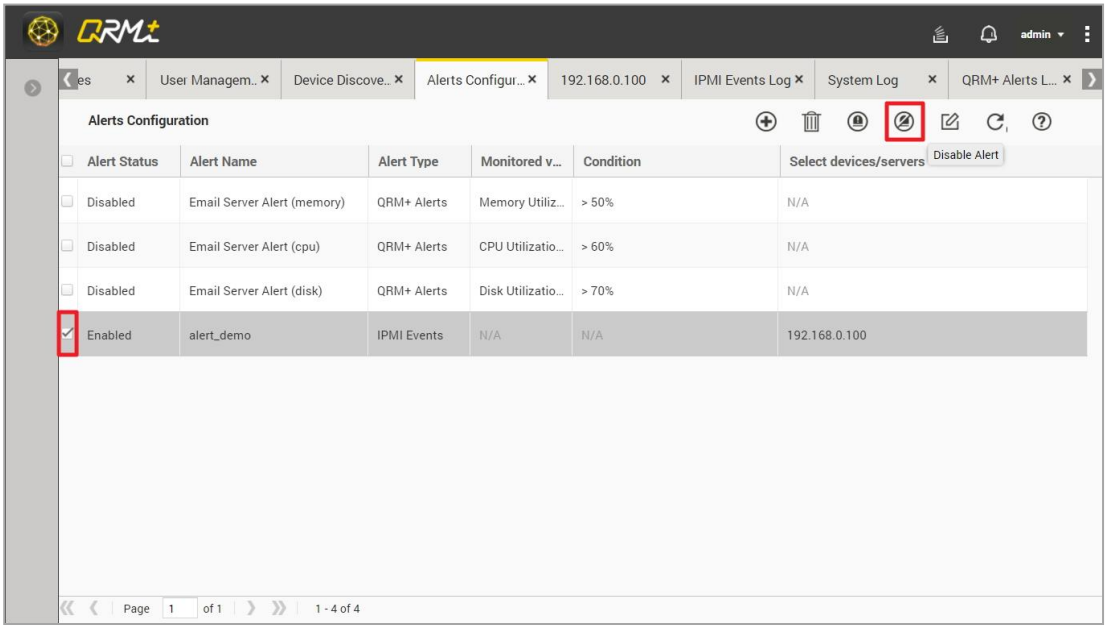
8.4 Disable Alert

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



8.5 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:
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 can not be modified)
Step 3: Click the "Save" button to finish editing

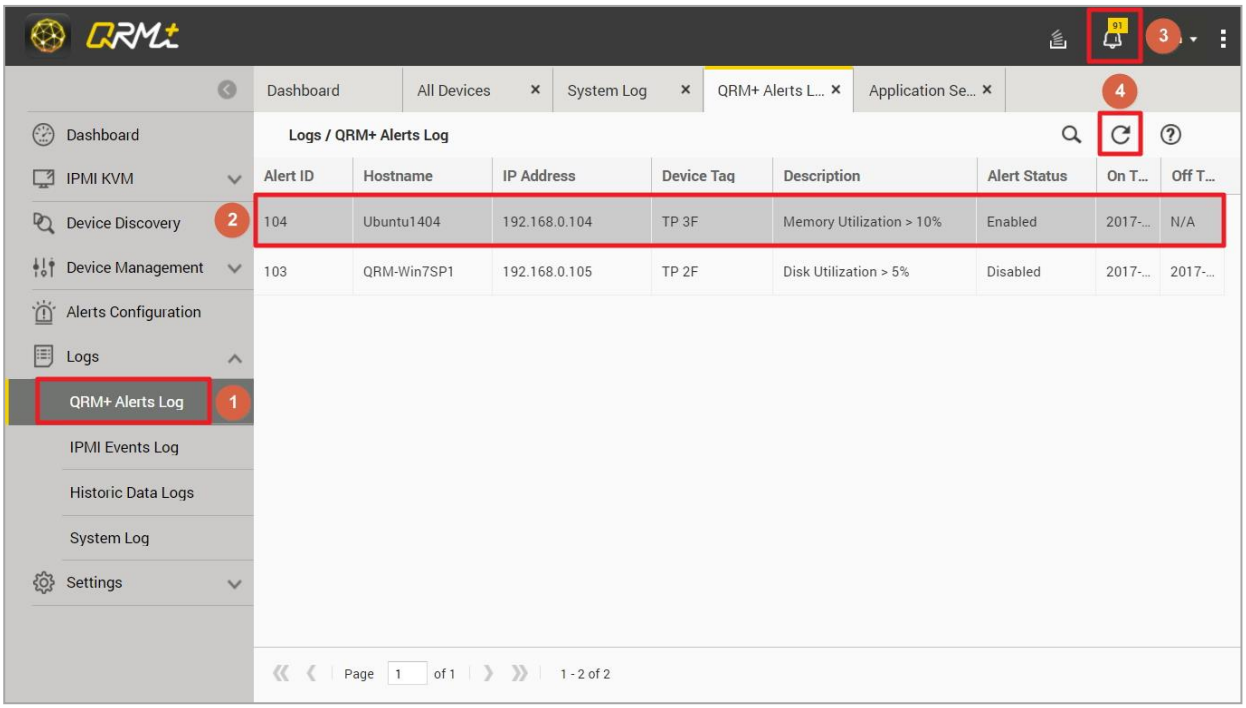


9. Logs

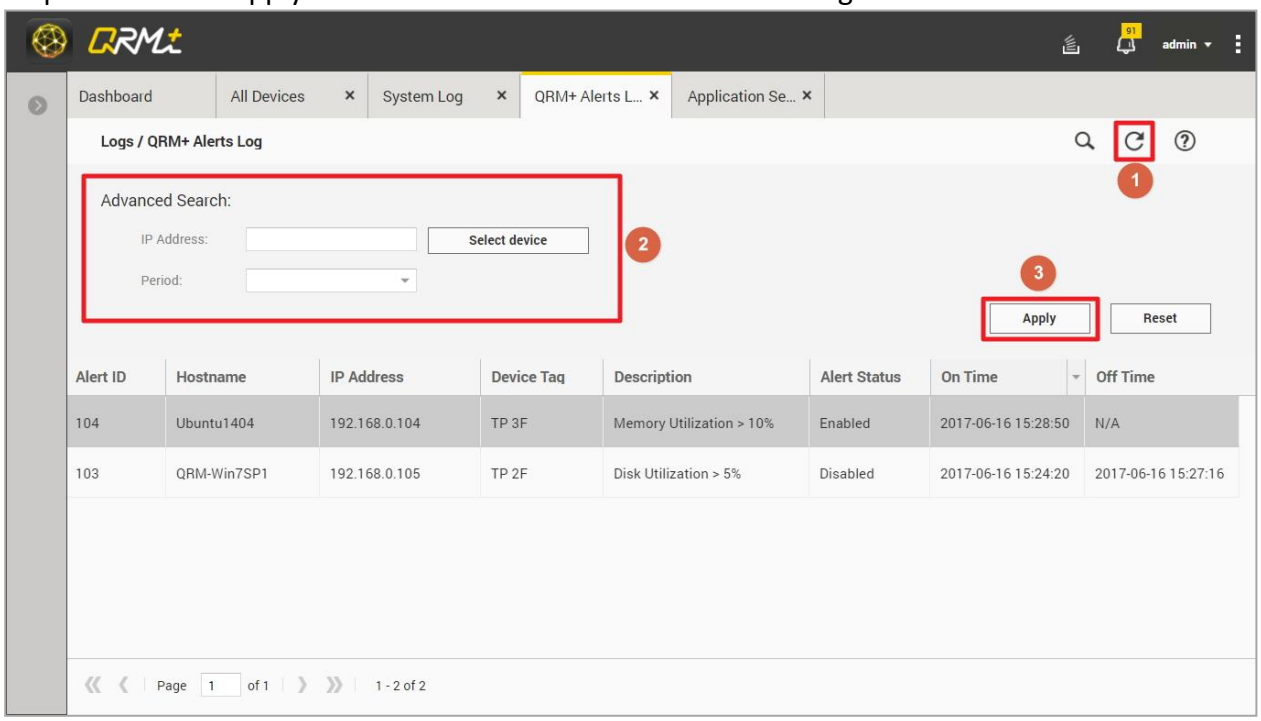
QRM+ provides four types of logs: Alerts log, IPMI event log, history log, and system log. This page is an advanced application. The user sets the corresponding alert type on the Alert Configuration page. Once an event occurs, you will be able to view the results in the Alert Log or IPMI Event Logs on the Logs page (the alert log generation time needs to be set in the Alert Notification setting in the Settings / Notification Settings; IPMI Event Log is once per minute).

9.1 Alerts Log

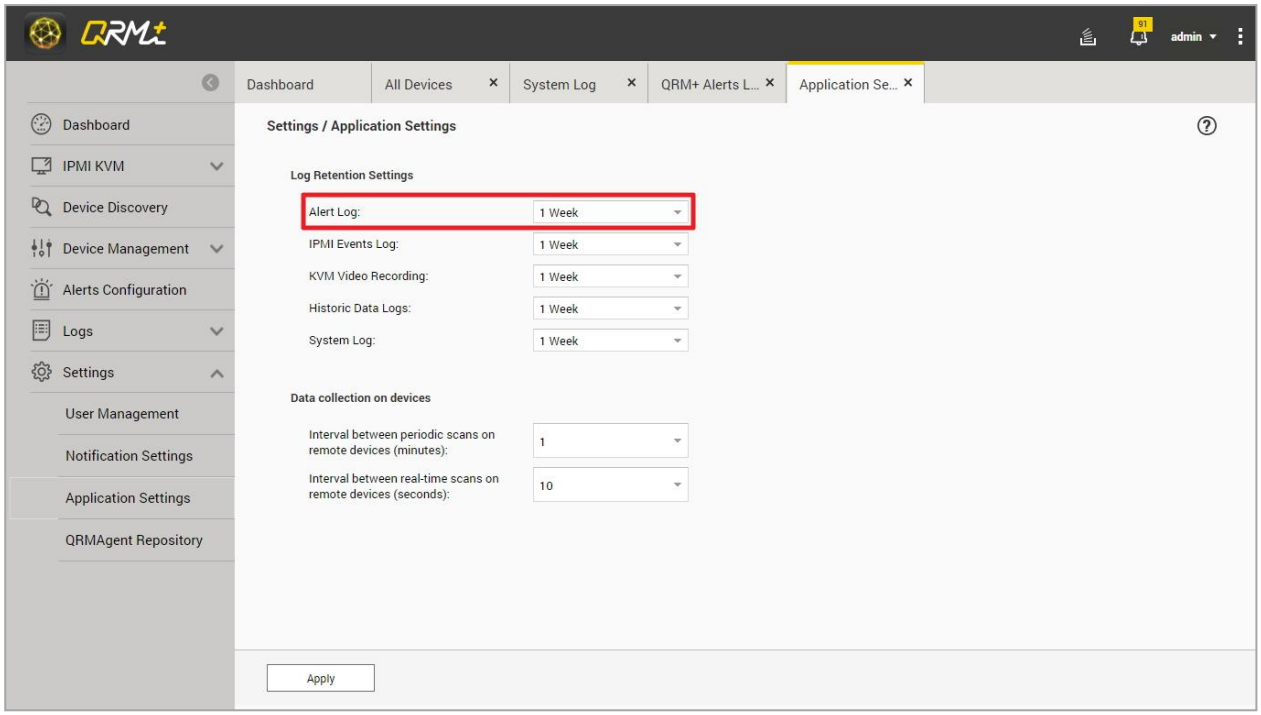
QRM+ Alerts Log page displays alerts for all Windows or Linux devices. Users need to select QRM+ Alerts from the Add Alert page and add one of the four types : CPU usage, memory usage, power status, or disk usage. Once an event occurs, you will be able to view the details of the alert on this page after the event has lasted for 5 minutes.
The basic steps are:
Step 1: Select Alerts Log in the Logs page
Step 2: View the alert info, including the Hostname, IP address, Device Tag, On Time and Off Time, 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 Alerts Log has advanced search features:
Step 1: Click the "Advanced Search" button on the 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

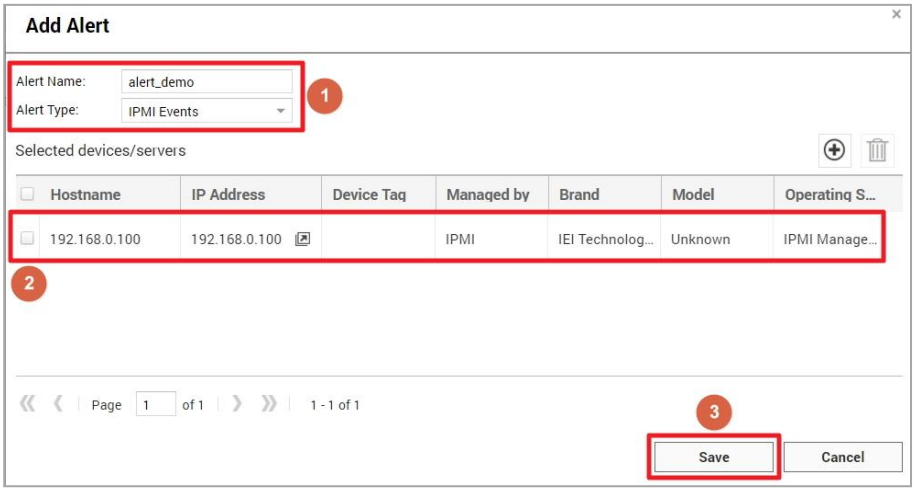


QRM+ provides Log Retention Settings feature, which can be set for periodic viewing.The default alert log retention period is 1 week. Logs older than one week will be deleted by the system. Users can adjust the length of period according to their needs.

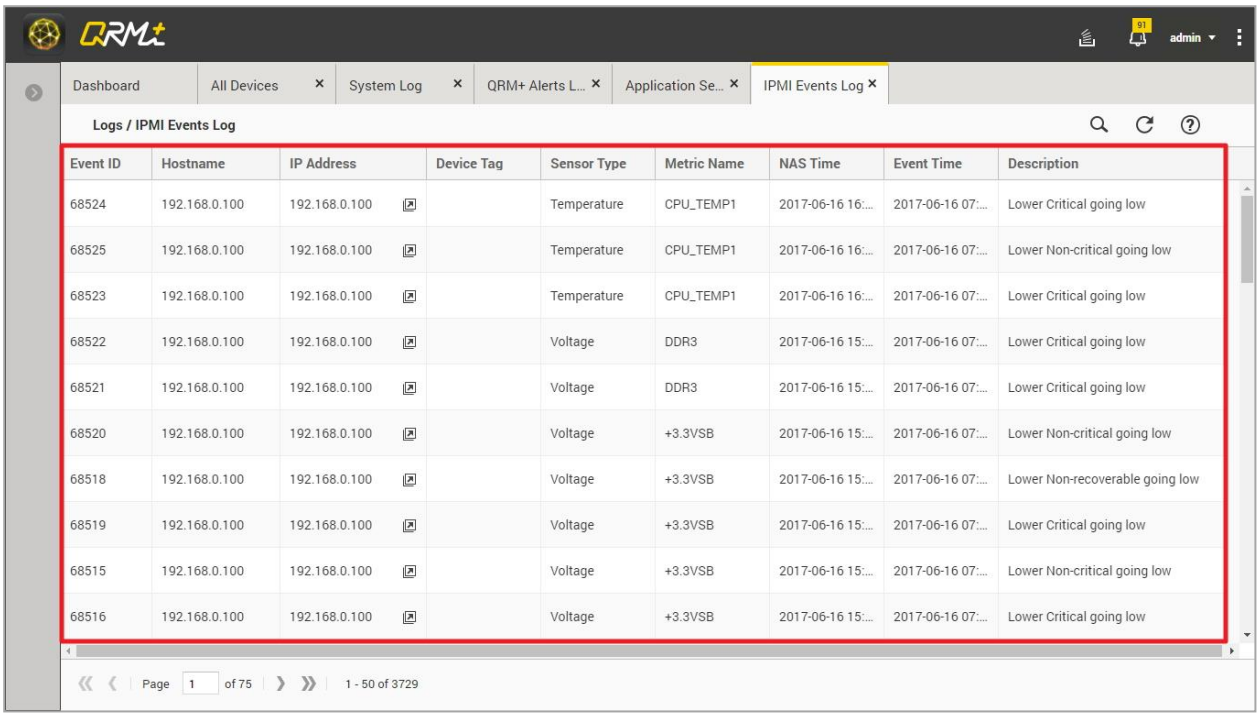


9.2 IPMI Events Log

IPMI Events Log shows all IPMI event history, on this page, the user can view all IPMI historical events.Note: QRM+ does not proactively generate these events. These events are generated by IPMI BMC. QRM+ only periodically retrieves these events and at the same time clears the events from IPMI BMC memory.
Setup steps:
Step 1: Select "IPMI Events" in the Alerts Configuration / Add Alert page
Step 2: Select the target device
Step 3: Save the alert

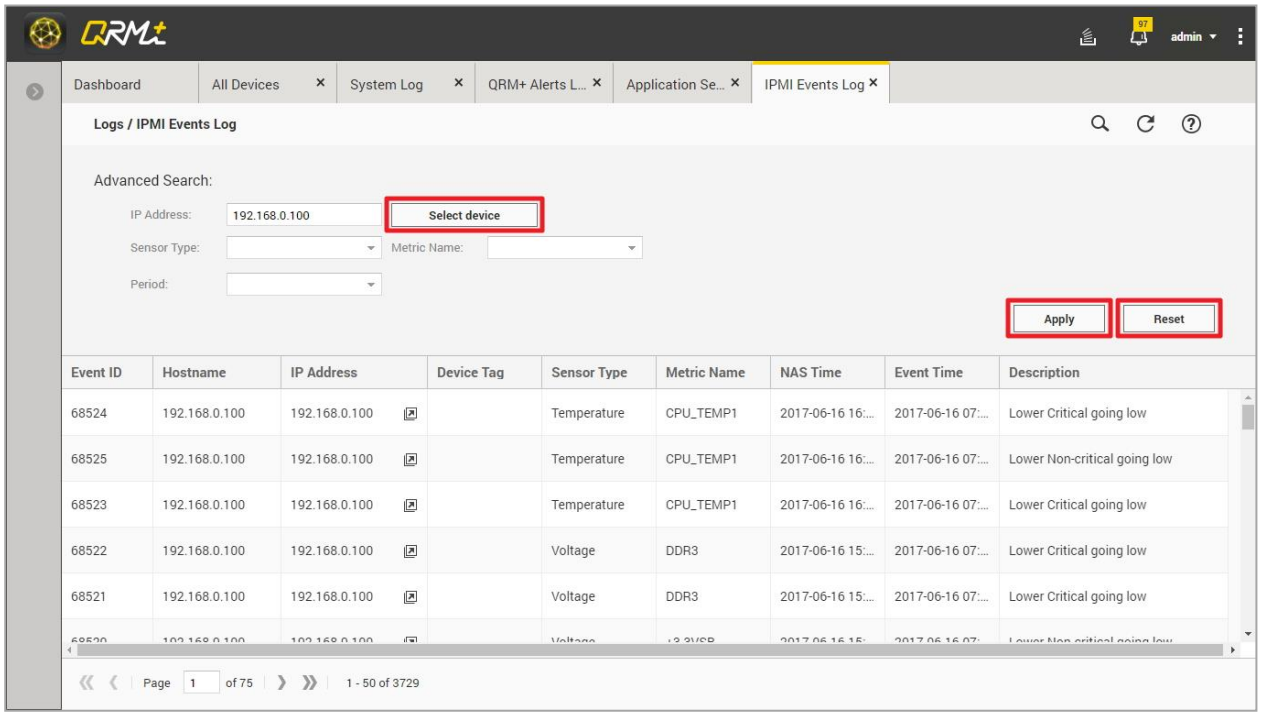


After adding the IPMI alert, users can view all IPMI events in the Logs / IPMI Events log and click the Refresh button to obtain the latest IPMI Events.

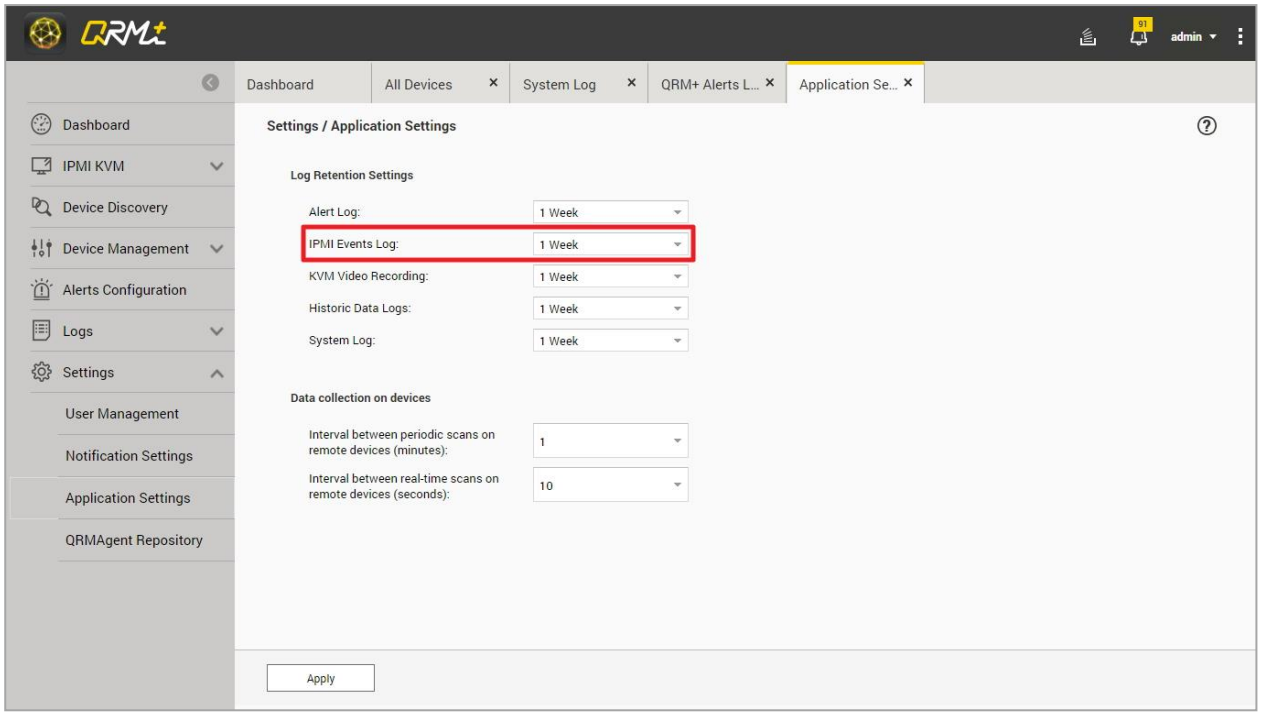


IPMI Events log provides advanced search capabilities to allow a user to select a specific device to view their events:
Step 1: Select the target device
Step 2: Select Sensor Type (optional)

Step 3: Select IPMI Metric Name (optional)
Step 4: Select Period (optional)
Step 5: Click the Apply button to filter out the IPMI events that the user needs to retrieve



QRM+ provides Log Retention Settings feature, which can be set for periodic viewing.The default IPMI events 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.



9.3 Historic Data Log

QRM+ 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 QRM+ 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.

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

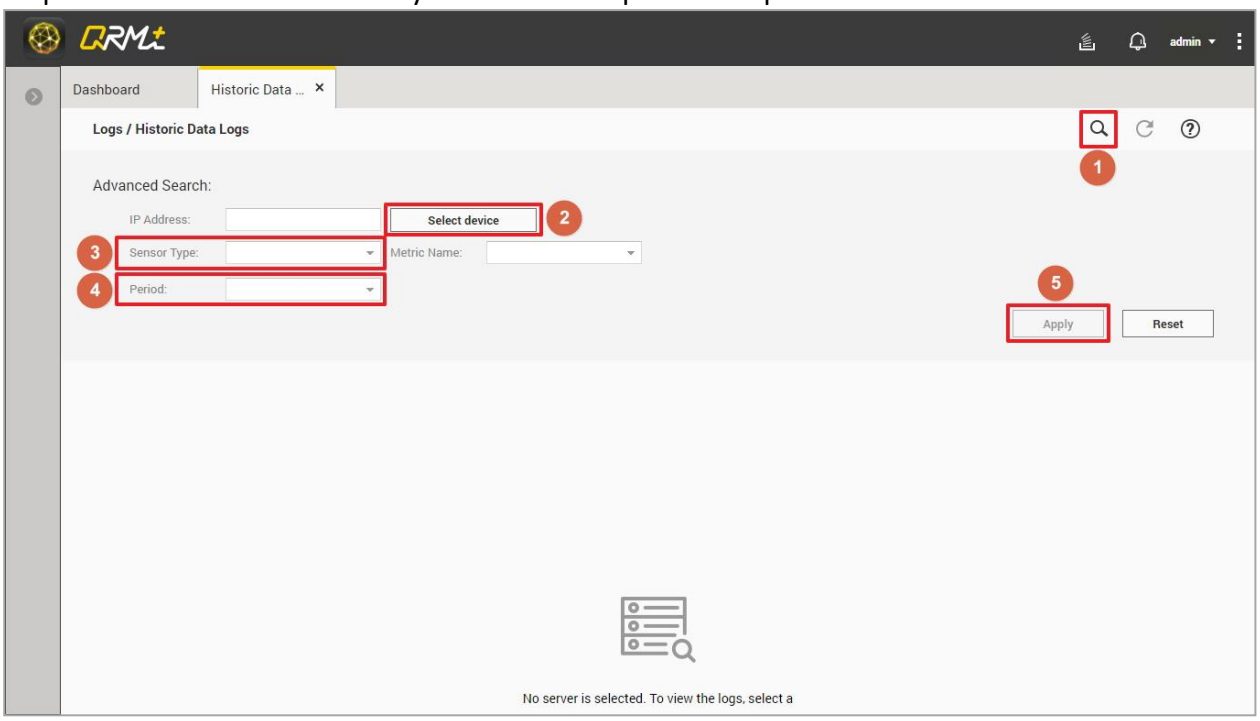
Step 1: Click what is indicated by Label 1

Step 2: Click what is indicated by Label 2, select the target device (required)

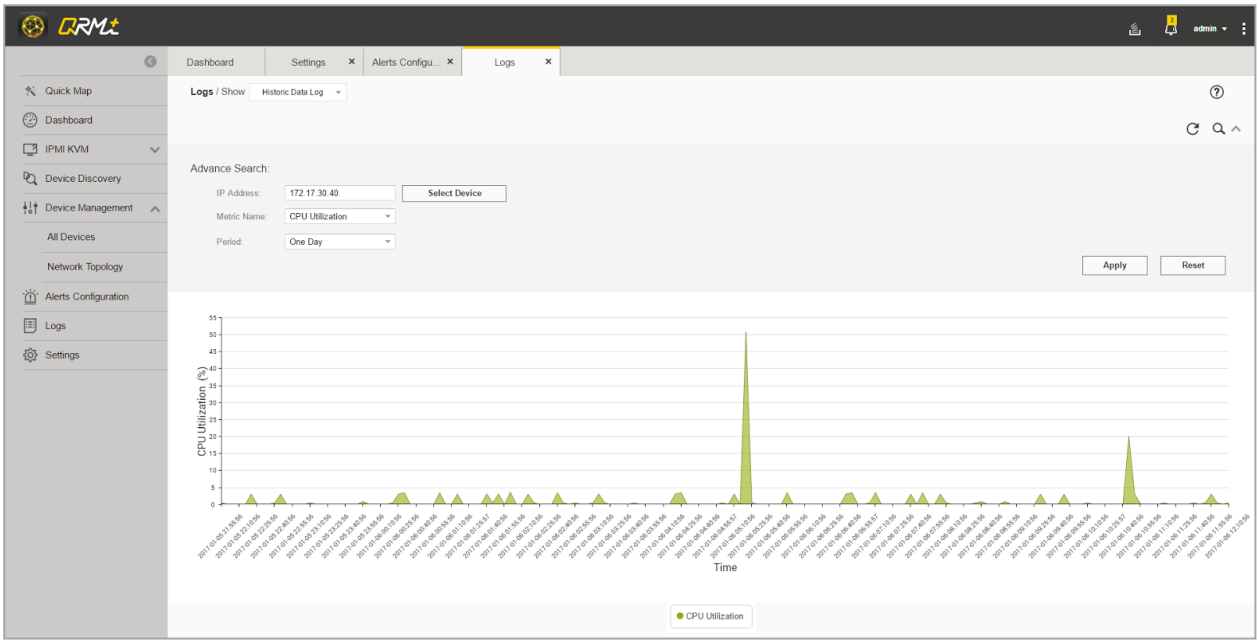
Step 3: Click what is indicated by Label 3, select Metric Name (required)

Step 4: Click what is indicated by Label 4, select the Period (required)

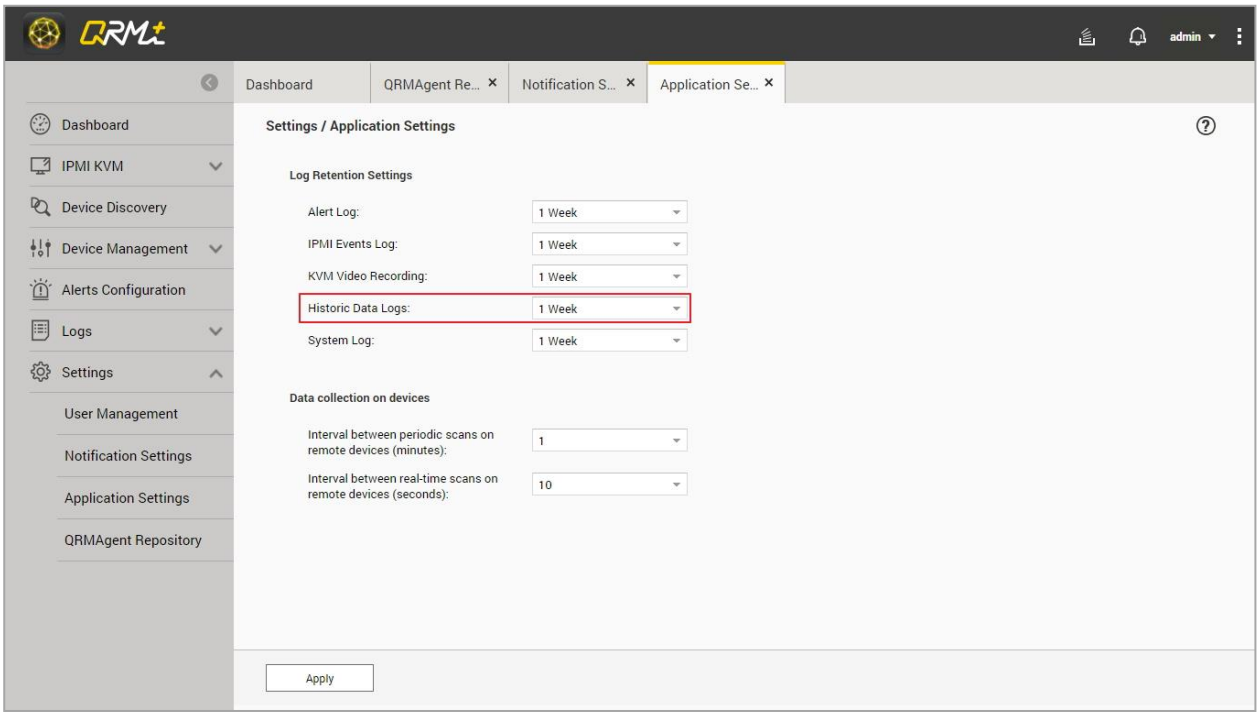
Step 5: Click what is indicated by Label 5 to complete the operation



The line chart for a specific device is shown below

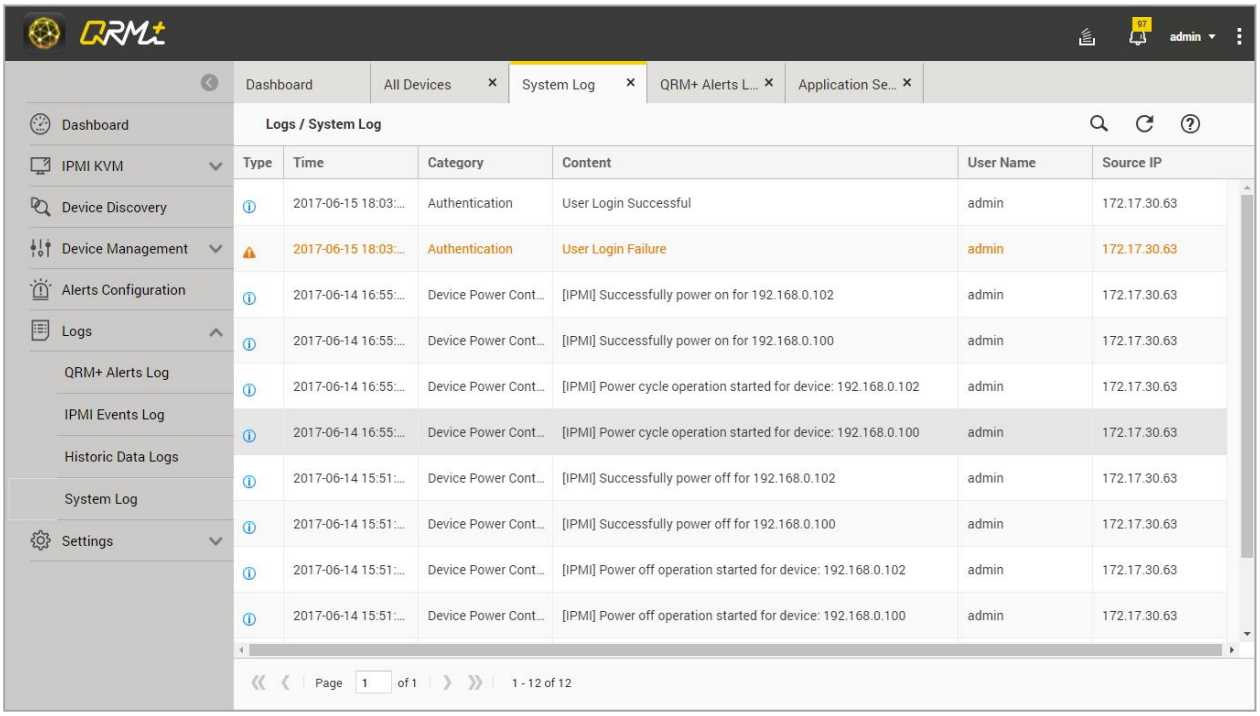


QRM+ provides Log Retention Settings feature, which can be set for periodic viewing.The default Historic Data Log retention period is 1 week. Logs older than one week will be deleted by the system. Users can adjust the length of period according to their needs.

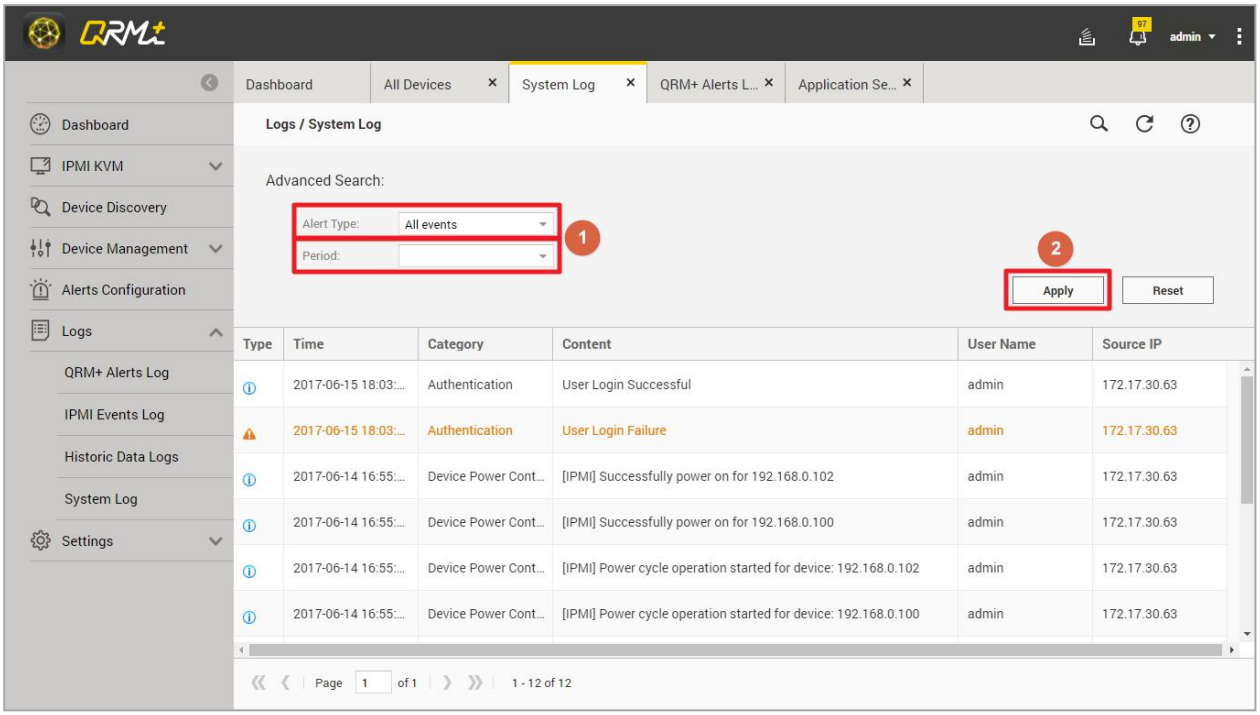


9.4 System Log

System Log shows the messages, alerts, errors, and other events logged by QRM+ 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



10. Settings

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

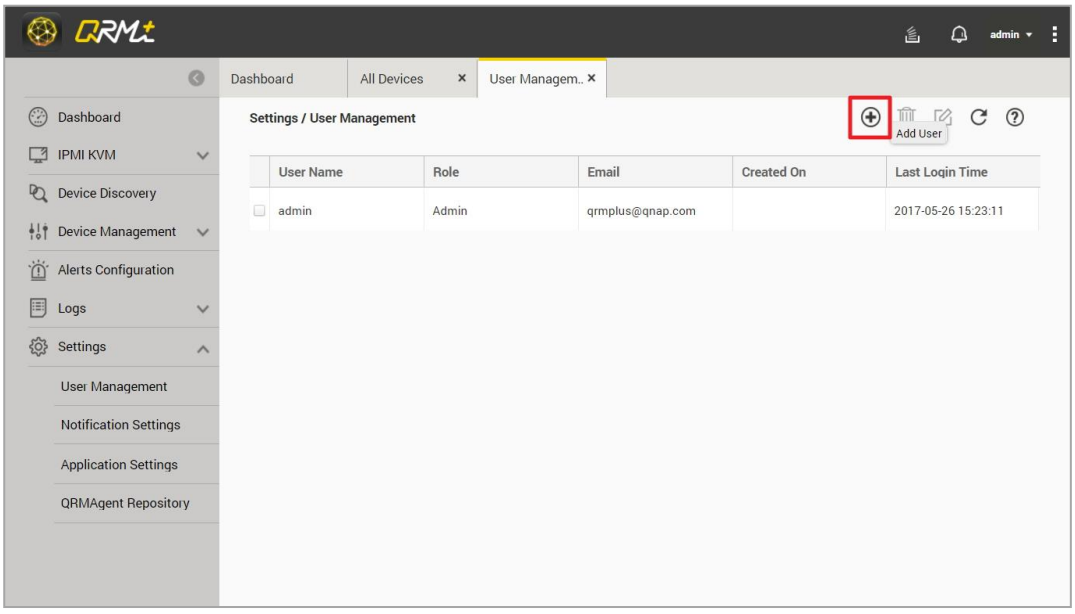
10.1 User Management

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

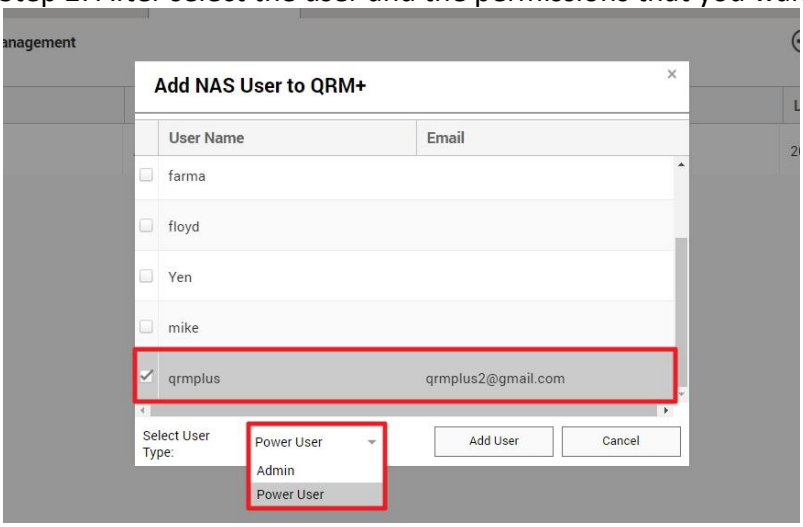
Add User:

Watch the video

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



Step 2: After select the user and the permissions that you want to add, click "Add User" to finish.

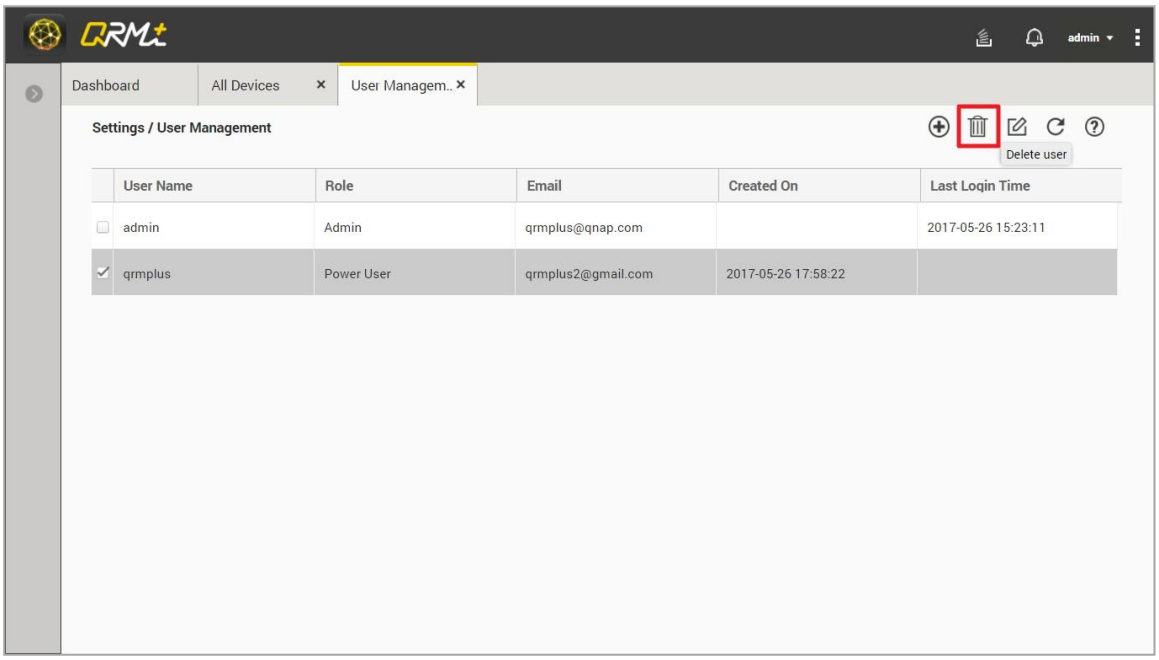


Deleting Users:

Watch the video

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

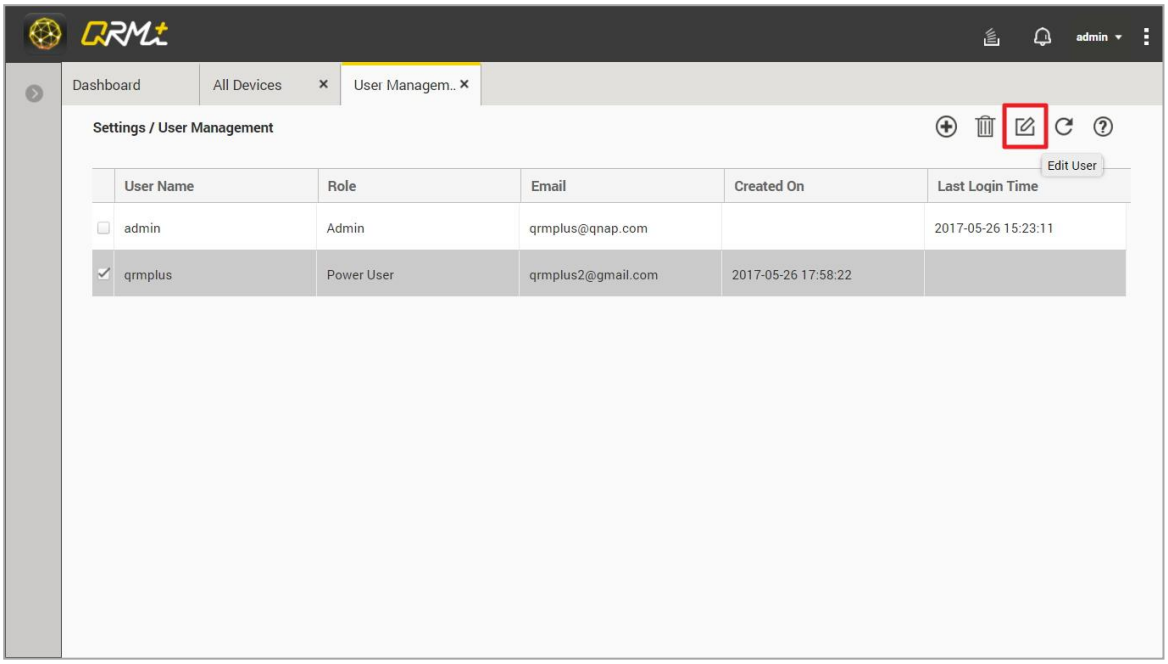
"Delete" button



Editing Permissions

Watch the video

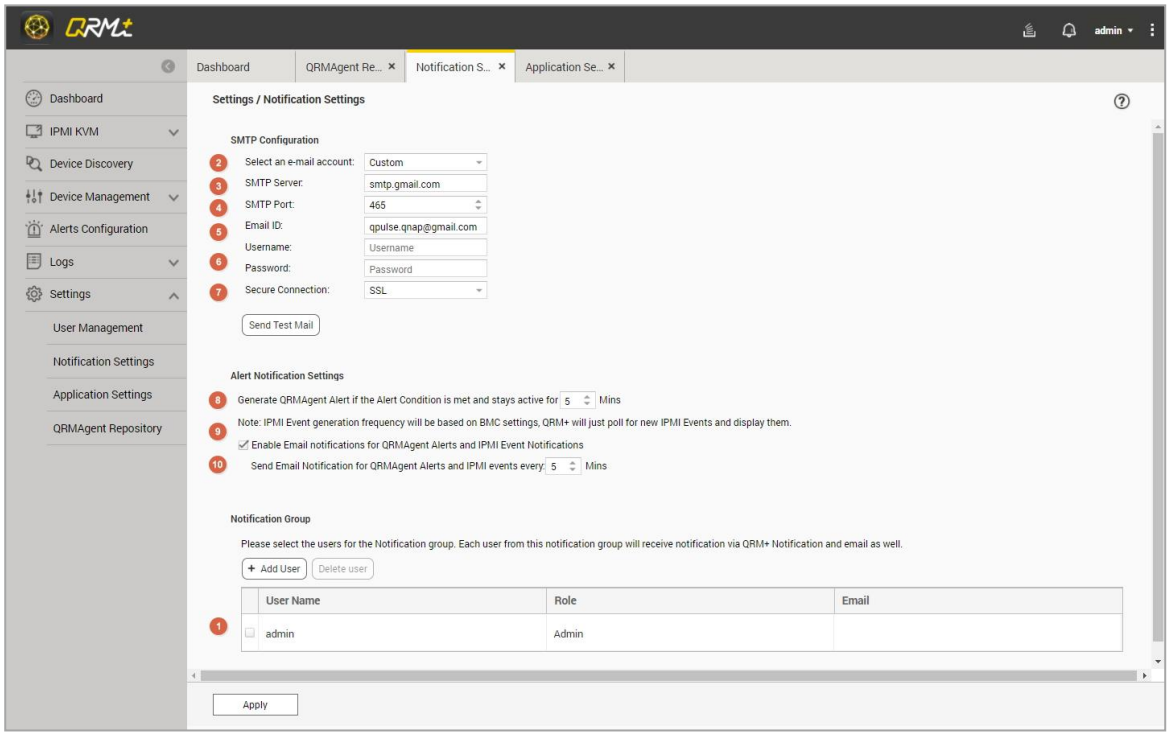
Step 1: Select "User Management" from the Settings page, select the user you want to edit and click the "Edit" button



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

10.2 Notification Settings

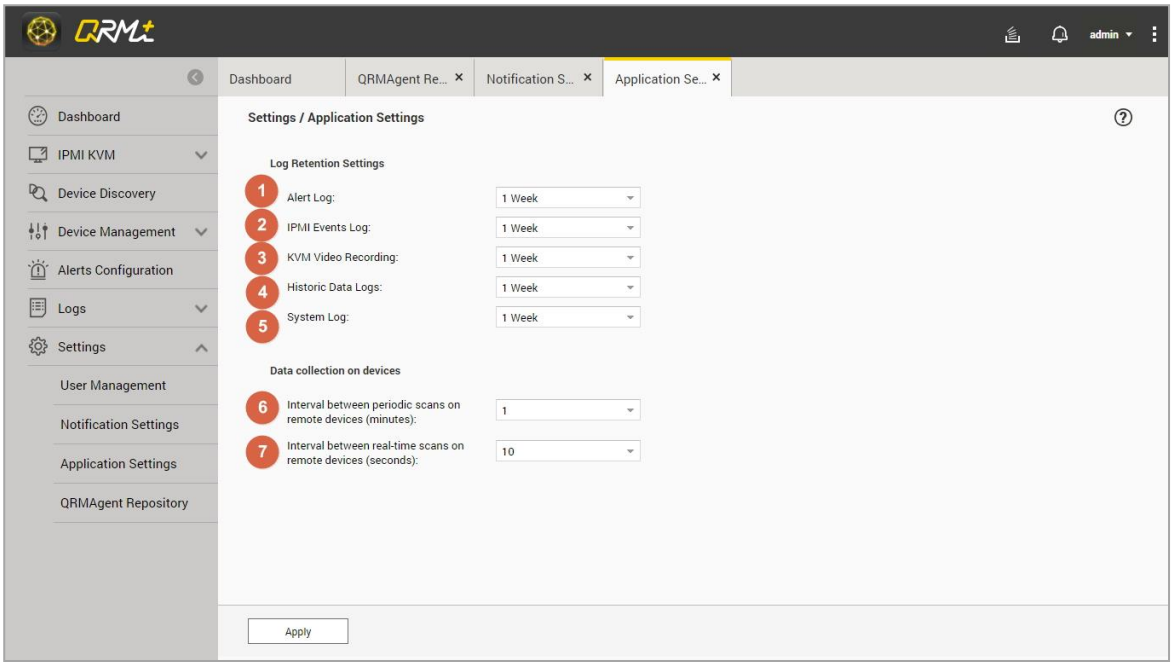
The notification settings allow users to be notified immediately when an event occurs, thus improving emergency response capabilities. Detailed setup instructions are as follows:



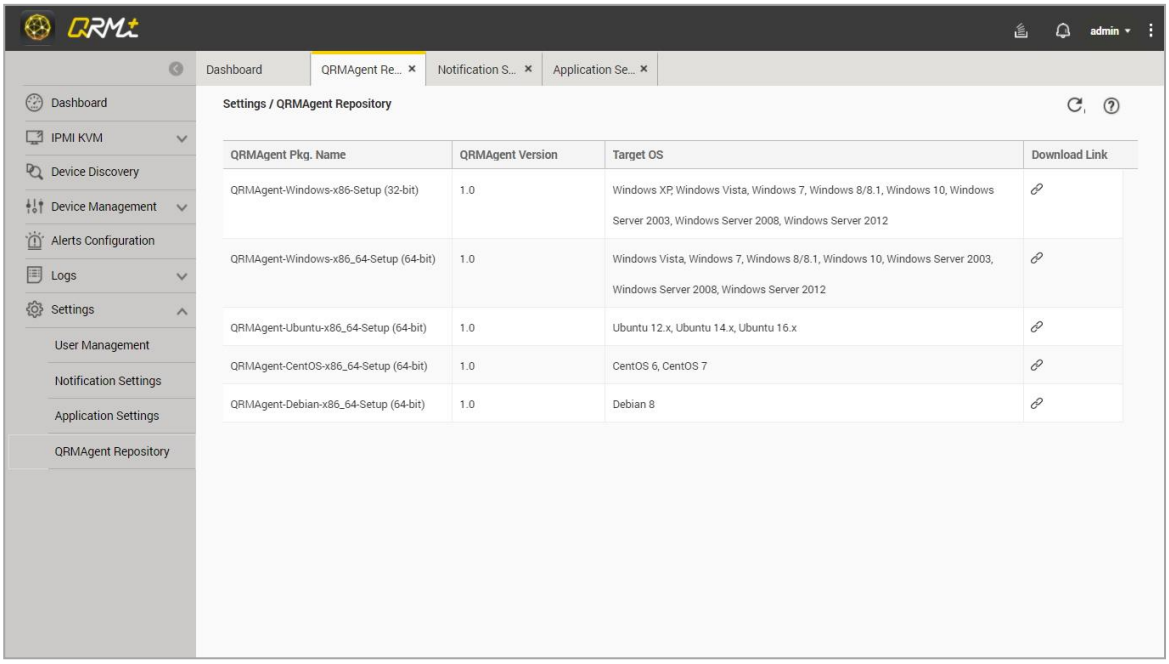
1. The list of accounts that need to be notified
2. SMTP type
3. SMTP server location
4. SMTP server port
5. E-mail account
6. E-mail password
7. Secure connection mode
8. How long after an alert condition has lasted before sending an alert
9. Whether to enable e-mail sent Agent alert and IPMI event alert
10. Time interval for sending repeat alerts

10.3 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.



1. Alert log retention period
2. IPMI Events Log retention period
3. KVM video file retention period
4. Historical data log retention period
5. System logs retention period
6. Device scan and automatic refresh period
7. Real-time data automatic refresh period

10.4 QRMAgent information

Select "QRMAgent Repository" in the Settings page to list the currently supported operating system platforms and their Agent versions.