



QRM+

QNAP's Remote Server Management Solution

Tutorials rev 20170922



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QNAP

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:

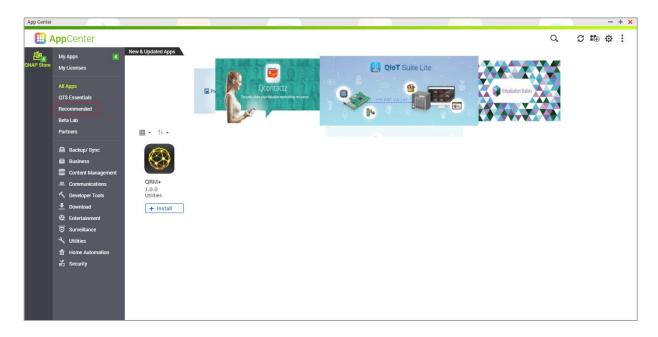
- QNAP NAS that support QTS 4.3.0 (or later): TS-x53B, TVS-x73, TS-x85
- QNAP NAS that support QTS 4.2.2 (or later): SS-x53, TES-x85U , TS-x53U, TS-x53A, TS-x51U, TS-x51A, TS-x51+, TS-x51, TS-x80, TVS-x63+, TVS-x63, TS-x63U, TS-x70, TS-X89U, TVS-x71, TVS-x82, TVS-x82T, TVS-x82ST, X51 , X53, X63, X70 , X70U , X71 , X80 , X80U , X82 , X82T , X82ST , 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+.



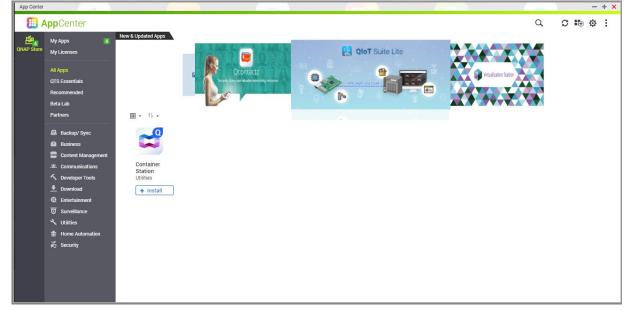
Installing Container Station, QRMAgentPack and QRM+:

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".

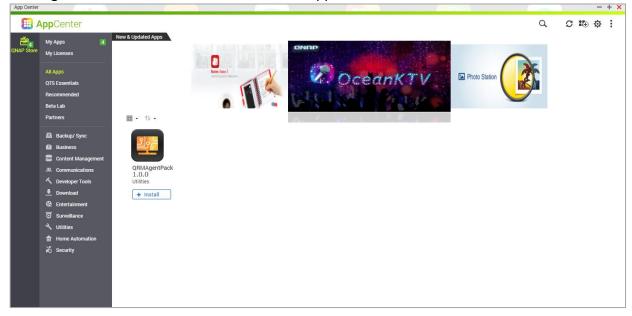




Step 2: Open Container Station and follow the installation wizard. After selecting a folder to store images and containers, click "Start Now".

| Container Station | | | | | - + x |
|-------------------|--------------------|------------------------------------|----------|---------------------------------|-------|
| | © | Container | rStation | | Ø |
| | The system will au | tomatically create a shared folder | | docker images and containers | |
| | | | | | |
| | | Start No | w > | | |

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".

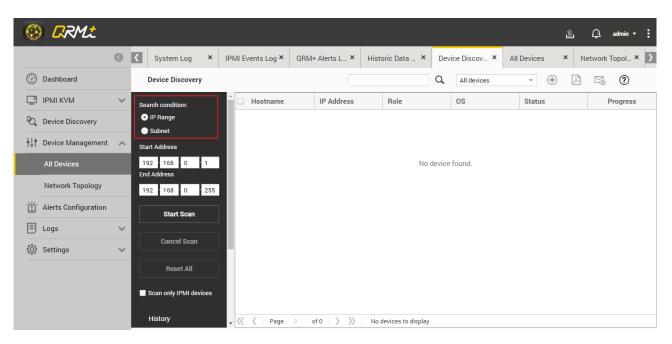




1. Device Discovery

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"



| 🛞 💪 | RML | | | | | | | | | Ű | 🔔 admin - |
|----------------------|---------------|--------|--|--------|-------------------|-----------------|-----------------------|--------|--------------|---------------|----------------------|
| | | 0 | System Log | × | IPMI Events Log × | QRM+ Alerts L × | Historic Data 🗙 | Dev | ice Discov × | All Devices × | Network Topol × 🔰 |
| 💮 Dashb | ooard | | Device Discove | ry | | | | Q | All devices | • | ∞ ? |
| 🛄 IPMI k | KVM | \sim | Search condition: | | 🔒 🗌 Hostname | IP Address | Role | | OS | Status | Progress |
| 🔍 Device | e Discovery | | IP Range Subnet | | | | | | | | |
| ↓↓† Device | e Management | ^ | Start Address | | | | | | | | |
| All De | evices | | 192 168 0 | 1 | 2 | | No | device | found. | | |
| Netwo | ork Topology | | End Address | 255 | 13 | | | | | | |
| <u>`</u> ظَنْ Alerts | Configuration | | Start Scan | | | | | | | | |
| 📰 Logs | | \sim | | | | | | | | | |
| දිරිූි Settin | ıgs | ~ | Cancel Sca | | | | | | | | |
| | | | Reset All | | | | | | | | |
| | | | Scan only IPMI d | evices | | | | | | | |
| | | | History | | 🗸 🗶 🕴 Page | 0 of 0 💙 🔊 | No devices to display | | | | |

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"

| 8 | R RMt | | | | | | É 💭 admin ▾ |
|---|------------------------------------|-------------------|-------------------|---------------|----------------------------------|---------------------|-------------|
| 0 | Dashboard Device [| Discove × | | | | | |
| | Device Discovery | | | | fl Hostname, IP Address and (Su | pported devices 👻 🕀 | A v. O |
| | Search condition: | Hostname | IP Address † | Role | OS | Status | Progress |
| | IP Range | | | | | | |
| | • Subnet | | | | | | |
| | Subnet ID: | | | | No device found. | | |
| | 192.168.0.1 24 2 | 2 | | | No device found. | | |
| | Start Scan 3 | | | | | | |
| | | | | | | | |
| | Cancel Scan | | | | | | |
| | Reset All | | | | | | |
| | Scan only IPMI devices | | | | | | |
| | | | | | | | |
| | History | | | | | | |
| | ③ 2017-05-04 11:06:35 | | | | | | |
| | 3 2017-05-04 10:59:14 | | | | | | |
| | [©] 2017-05-02 17:37:11 ▼ | 巛 🕻 🛛 Page 🛛 🛛 of | 0 🛛 🔪 📎 No device | es to display | | | |

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.



| 🕽 🌍 🗣 🕨 Control Panel 🔸 | System and Security 🕨 Windows Firewall | | ✓ 4 Search Control Panel | |
|--|--|---|--------------------------|--|
| Control Panel Home | Help protect your computer with Wir | ndows Firewall | | |
| Allow a program or feature through Windows Firewall | Windows Firewall can help prevent hackers or m through the Internet or a network. | alicious software from gaining access to your computer | | |
| Change notification settings | How does a firewall help protect my computer? | | | |
| Turn Windows Firewall on or off | What are network locations? | | | |
| Restore defaults | 📕 🥑 Home or work (private) netw | rorks Connected 🐼 | | |
| Advanced settings | Networks at home or work where you know an | d trust the people and devices on the network | | |
| Troubleshoot my 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 | | | | |

| ile Action View Help | | | | | | | | | | |
|-----------------------------------|--|------------------------------------|-----------------|---------|--------|-------------|---------|---------------|----------------|-----|
| • 🔿 🔁 🖬 😖 🛙 🖬 | | | | | | | | | | |
| P Windows Firewall with Advance | Inbound Rules | | | | | | | | | |
| Inbound Rules R Outbound Rules | Name | Group | Profile | Enabled | Action | Override | Program | Local Address | Remote Address | 1 |
| Connection Security Rules | File and Printer Sharing (Echo Request - ICMPv4-In) | File and Printer Sharing | Domain | No | Allow | No | Any | Any | Any | |
| Monitoring | File and Printer Sharing (Echo Request - ICMPv4-In) | File and Printer Sharing | Private, Public | No | OI | - | _ | Any | Local subnet | |
| Moniconny | grmplus | | All | Yes | 2 | Enable Rule | | Any | Any | - 8 |
| | @ amplus | | All | Yes | 7 | Cut | | Any | Any | |
| | Ø grmplus | | All | Yes | | | | Any | Any | |
| | Ø grmplus | | All | Yes | 1 | Сору | | Any | Any | |
| | Ø grmplus | | All | Yes | 1 | Delete | | Any | Any | |
| | Ø grmplus | | All | Yes | , | Properties | | Any | Any | |
| | Ø grmplus | | All | Yes | , | rioperato | | Any | Any | |
| | Ø grmplus | | All | Yes | 1 | Help | | Any | Any | |
| | @ grmplusrdp | | All | Yes | Allow | No | Any | Any | Any | |
| | BranchCache Content Retrieval (HTTP-In) | BranchCache - Content Retr | All | No | Allow | No | SYSTEM | Any | Any | |
| | BranchCache Hosted Cache Server (HTTP-In) | BranchCache - Hosted Cach | All | No | Allow | No | SYSTEM | Any | Any | |
| | BranchCache Peer Discovery (WSD-In) | BranchCache - Peer Discove | All | No | Allow | No | %system | Any | Local subnet | |
| | Connect to a Network Projector (TCP-In) | Connect to a Network Proje | Private, Public | No | Allow | No | %System | | Local subnet | |
| | Connect to a Network Projector (TCP-In) | Connect to a Network Proje | Domain | No | Allow | No | %System | | Any | |
| | Connect to a Network Projector (WSD Events-In) | Connect to a Network Proje | Private, Public | No | Allow | No | System | Any | Local subnet | |
| | Connect to a Network Projector (WSD Events-In) | Connect to a Network Proje | Domain | No | Allow | No | System | Any | Any | |
| | Connect to a Network Projector (WSD EventsSecure-In) | Connect to a Network Proje | Private, Public | No | Allow | No | System | Any | Local subnet | |
| | Connect to a Network Projector (WSD EventsSecure-In) | Connect to a Network Proje | Domain | No | Allow | No | System | Any | Any | |
| | Connect to a Network Projector (WSD-In) | Connect to a Network Proje | All | No | Allow | No | %System | Any | Local subnet | |
| | Ocore Networking - Destination Unreachable (ICMPv6-In) | Core Networking | All | Yes | Allow | No | System | Any | Any | |
| | Ocore Networking - Destination Unreachable Fragmentation Need | Core Networking | All | Yes | Allow | No | System | Any | Any | |
| | Core Networking - Dynamic Host Configuration Protocol (DHCP | Core Networking | All | Yes | Allow | No | %System | | Any | |
| | Core Networking - Dynamic Host Configuration Protocol for IPv6 | Core Networking | All | Yes | Allow | No | %System | 1.5 | Any | |
| | | Second Second Second Second Second | All | Yes | Allow | No | System | Any | Any | |
| | Core Networking - IPHTTPS (TCP-In) | Core Networking | All | Yes | Allow | No | System | Any | Any | |
| | O Core Networking - IPv6 (IPv6-In) | Core Networking | All | Yes | Allow | No | System | Any | Any | |
| | Core Networking - Multicast Listener Done (ICMPv6-In) | Core Networking | All | Yes | Allow | No | System | Any | Local subnet | |
| | Core Networking - Multicast Listener Query (ICMPv6-In) | Core Networking | All | Yes | Allmer | No | System | Any | Local subnet | |

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 | Help protect your computer with Wir | ndows Firewall | | |
| Allow a program or feature through Windows Firewall | Windows Firewall can help prevent hackers or m through the Internet or a network. | nalicious software from gaining access to your computer | | |
| Change notification settings | How does a firewall help protect my computer? | | | |
| Turn Windows Firewall on or | What are network locations? | | | |
| off Restore defaults | Home or work (private) netw | vorks Connected 🕥 | | |
| Advanced settings | Networks at home or work where you know an | d trust the people and devices on the network | | |
| Troubleshoot my 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 | | | | |

| ewall with Advance Rules | Inbound Rules | * | | | | 1 | | | | | | |
|-----------------------------|---|------------------------|---------|---------|--------|----------|----------|---------------|----------------|----------|-------------|-------|
| d Rules | Name | Group | Profile | Enabled | Action | Override | Program | Local Address | Remote Address | Protocol | Local Port | Remot |
| ion security rules | 🔮 Google Chrome (mDNS-In) | Google Chrome | All | Yes | Allow | No | C:\Progr | Any | Any | UDP | 5353 | Any |
| | 🖤 HomeGroup In | HomeGroup | Private | No | Allow | No | %system | | Local subnet | TCP | 3587 | Any |
| | HomeGroup In (PNRP) | HomeGroup | Private | No | Allow | No | %system | | Local subnet | UDP | 3540 | Any |
| | 🔮 iSCSI Service (TCP-In) | iSCSI Service | Domain | No | Allow | No | %System | | Any | TCP | Any | Any |
| | 🐻 iSCSI Service (TCP-In) | iSCSI Service | Private | No | Allow | No | %System | Any | Local subnet | TCP | Any | Any |
| | Media Center Extenders - HTTP Streamin | Media Center Extenders | All | No | Allow | No | System | Any | Local subnet | TCP | 10244 | Any |
| | 🔘 Media Center Extenders - Media Streami | Media Center Extenders | All | No | Allow | No | System | Any | Local subnet | TCP | 2869 | Any |
| | Media Center Extenders - qWave (TCP-In) | Media Center Extenders | All | No | Allow | No | %System | Any | Local subnet | TCP | 2177 | Any |
| | 🔘 Media Center Extenders - qWave (UDP-In) | Media Center Extenders | All | No | Allow | No | %System | Any | Local subnet | UDP | 2177 | Any |
| | 🔘 Media Center Extenders - RTSP (TCP-In) | Media Center Extenders | All | No | Allow | No | %System | Any | Local subnet | TCP | 554, 8554, | Any |
| | Media Center Extenders - SSDP (UDP-In) | Media Center Extenders | All | No | Allow | No | %System | Any | Local subnet | UDP | 1900 | Any |
| | Media Center Extenders - WMDRM-ND/R | Media Center Extenders | All | No | Allow | No | %System | Any | Local subnet | UDP | 7777, 7778, | Any |
| | Media Center Extenders - XSP (TCP-In) | Media Center Extenders | All | No | Allow | No | System | Any | Local subnet | TCP | 3390 | Any |
| | Netlogon Service (NP-In) | Netlogon Service | 2 Enab | 2000 | 0.W | No | System | Any | Any | TCP | 445 | Any |
| | WNetwork Discovery (LLMNR-UDP-In) | Network Discovery | Linab | le Rule | ow | No | %System | Any | Local subnet | UDP | 5355 | Any |
| | 🔇 Network Discovery (LLMNR-UDP-In) | Network Discovery | Cut | | ow | No | %System | Any | Local subnet | UDP | 5355 | Any |
| | Network Discovery (NB-Datagram-In) | Network Discovery | Copy | , | ow | No | System | Any | Local subnet | UDP | 138 | Any |
| | 🔘 Network Discovery (NB-Datagram-In) | Network Discovery | Delet | | ow | No | System | Any | Any | UDP | 138 | Any |
| | 🕢 Network Discovery (NB-Datagram-In) | Network Discovery | Delet | e | ow | No | System | Any | Local subnet | UDP | 138 | Any |
| | Network Discovery (NB-Name-In) | Network Discovery | Prop | erties | ow | No | System | Any | Local subnet | UDP | 137 | Any |
| | 🔇 Network Discovery (NB-Name-In) | Network Discovery | | | ow | No | System | Any | Local subnet | UDP | 137 | Any |
| | Network Discovery (NB-Name-In) | Network Discovery | Help | | ow | No | System | Any | Any | UDP | 137 | Any |
| | Network Discovery (Pub-WSD-In) | Network Discovery | Domai | No | Allow | No | %System | Any | Local subnet | UDP | 3702 | Any |
| | Network Discovery (Pub-WSD-In) | Network Discovery | Private | Yes | Allow | No | %System | Any | Local subnet | UDP | 3702 | Any |
| | Network Discovery (SSDP-In) | Network Discovery | Private | Yes | Allow | No | %System | Any | Local subnet | UDP | 1900 | Any |
| | Network Discovery (SSDP-In) | Network Discovery | Domai | No | Allow | No | %System | | Local subnet | UDP | 1900 | Any |
| | Network Discovery (UPnP-In) | Network Discovery | Private | Yes | Allow | No | System | Any | Local subnet | тср | 2869 | Any |
| | Network Discovery (UPnP-In) | Network Discovery | Domain | No | Allow | No | System | Any | Any | TCP | 2869 | Any |
| | Network Discovery (UPnP-In) | Network Discovery | Public | No | Allow | No | System | Any | Local subnet | TCP | 2869 | Any |
| | Network Discovery (WSD Events-In) | Network Discovery | Public | No | Allow | No | System | Anv | Local subnet | TCP | 5357 | Anv |



1.2 Stop scanning

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

| | 0 | Dashboard | Device | Disco | × | | | | | |
|--|-----|--|--------|-------|---------------|----------------|--------|-------------|----------------------------|---------------------------|
| Dashboard | | Device Discovery | | | | | ٩ | All devices | • 🕂 片 | × ? |
| IPMI KVM | ~ | Search condition: | í | | Hostname | IP Address ↑ | Role | OS | Status | Progress |
| 🔍 Device Discovery | | IP Range Subnet | | | 192.168.0.1 | 192.168.0.1 | | | | 👴 Scanning. |
| ↓↓ Device Management | ^ | Start Address | | | 192.168.0.100 | 192.168.0.100 | | | | 👴 Scanning. |
| All Devices | | 192 168 0 End Address | | | 192.168.0.101 | 192.168.0.101 | | | | 👴 Scanning. |
| Network Topology | | 192 168 0 | 255 | | 192.168.0.102 | 192.168.0.102 | | | | 👴 Scanning. |
| Alerts Configuration Logs Settings | > > | Start Scan | | | | | | | | |
| | | Reset All Scan only IPMI devi Scanning (10%) | | . « | Page 1 | of1 🕽 🔊 1- | 4 of 4 | Eur, | No need to wait for scan o | x <u>omplete. Just</u> |

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.

| | 0 | Dashboard | Device I | Disc | x | | | | | |
|------------------------|--------|--|----------|------|---------------|---------------|---------|----------------|---------------|-----------|
| Dashboard | | Device Discovery | | | | | Q | All devices | · (+) | × ? |
| Прмі кум | \sim | Search condition: | A | | Hostname | IP Address † | Role | OS | Status | Progress |
| 🛇 Device Discovery | | IP Range Subnet | | | 192.168.0.1 | 192.168.0.1 | NAS | QTS | New Device | Completed |
| Device Management | ^ | Start Address | | | 192.168.0.100 | 192.168.0.100 | Device | IPMI Managemen | New Device | Completed |
| All Devices | | 192 · 168 · 0 · 1 End Address | | | 192.168.0.101 | 192.168.0.101 | Unknown | Unknown | New Device | Completed |
| Network Topology | | 192 168 0 25 | 5 | | 192.168.0.102 | 192.168.0.102 | Device | IPMI Managemen | Already Added | Completed |
| 🤆 Alerts Configuration | | Start Scan | | | | | | | | |
| 🗐 Logs | \sim | | | | | | | | | |
| ලි Settings | \sim | Cancel Scan | | | | | | | | |
| | | Reset All | | | | | | | | |
| | | Scan only IPMI devices | 3 | | | | | | | |
| | | Scan Completed (100%) | | « | Page 1 | of1 🔰 🔊 🔰 1-4 | | | | |



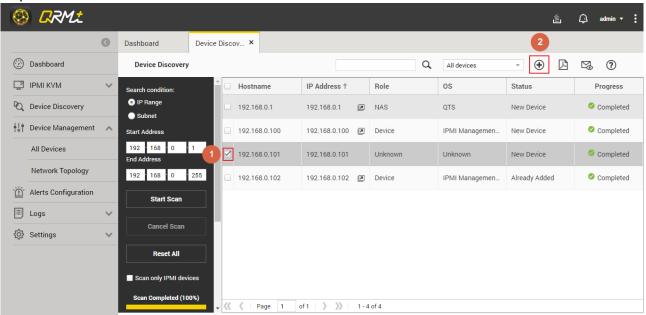
1.4 Steps to add the device to QRM+

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.

| He | ostname | IP Address | Role | OS | Status | Managed by ↓ |
|----|-------------|---------------|--------|---------|------------|----------------------|
| 19 | 2.168.0.106 | 192.168.0.106 | Device | Unknown | New Device | IPMI |
| | | | | | | |
| | | | | | | |
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| | | | | | | |
| | | | | | | |
| | | | | | | Add selected devices |
| | | | | | | |

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.

| nternet | Options | | | | | ? |
|---------|--|---|--|----------------------------------|---|----------------|
| General | Security | Privacy | Content | Connections | Programs | Advanced |
| Setting | s: | | | | | |
| | Allow ac Allow sol Check fo Check fo Check fo Do not s Empty Tu Enable If Use SSL Use SSL Use TLS Watt ab | tive conte tware to r or publishe or server co or signatur ave encry emporary ntegrated Profile Ass 2.0 3.0 1.0 out invalie | ent to run ir un or insta ertificate r es on dow ipted page Internet Fil Windows istant | es folder when Authentication | mputer gnature is in ires restart) ms browser is c (requires res | losed tart) |
| L | | | | (| Restore [|)efaults |
| | | | | Ca | ncel | Apply |



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

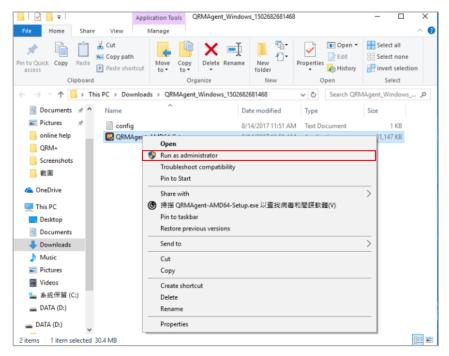
| Add De | vices to QRM+ | | | | |
|--------|------------------------------|---|---------------------------------------|--------------------|--|
| | <u></u> | | 3 | 4 | |
| | How to Add | Select Device Type | Deployment | | |
| | Download QRMAgent | | | | |
| | Install QRMAgent on the Wind | ows/Linux device you want to add. Once insta | alled, you can proceed to the next st | ep. | |
| | Download QRMAgent: | | | | |
| | Downle | oad Windows QRMAgent | | Download V | |
| | | Download and install Microsoft .Net Framewo Windows Server 2003) | ork (For Windows 7, Windows XP an | 32-bit d 64-bit | |
| | Downle | oad Linux QRMAgent | | Download V | |
| | QRMAgent must be insta | alled before the device can be added. | | | |
| | View step-by-step instr | ructions | | | |
| | | | | Previous Next | |
| | | | | | |

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

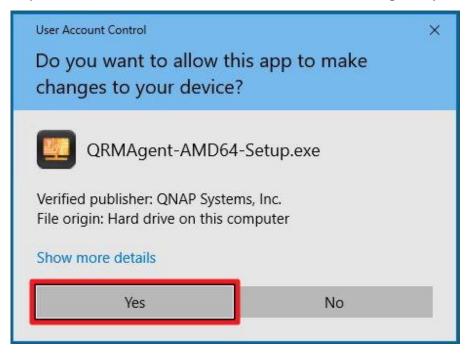
| 🛞 📿 RM.t. | <u>۵</u> . | admin + 🚦 |
|----------------------|---|-----------|
| 🛞 Add De | vices to QRM+ | SL_X D |
| ② Dashi | V () (4) | 0 |
| 🖵 ІРМІ | How to Add Select Device Type Deployment | Status |
| RQ Devic | Download QRMAgent | Monitored |
| tit Devic | Install QRMAgent on the Windows/Linux device you want to add. Once installed, you can proceed to the next step. | Monitored |
| · Alerta | Download QRMAgent: | Monitored |
| Logs | Download Windows QRMAgent | Monitored |
| Settir | | Monitored |
| | NET Download and install Microsoft. Net Framework (For Windows 7, Windows XP and Windows Server 2003) Download | Monitored |
| | Download Linux QRMAgent Download V | Monitored |
| | | Monitored |
| | QRMAgent must be installed before the device can be added. View step-by-step instructions | Monitored |
| | Previous Next | |
| 🔒 QRMAgent_Windzip ^ | | 金町棚寺 × |



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".

| QRMAgentService Setup | |
|-----------------------------|----------------------|
| | |
| QRM+ Server IP or Hostname: | |
| QRMPlus_Server | |
| QRM+ Client IP Address: | |
| 192.168.0.105 | • |
| | |
| | |
| | |
| | |
| ullsoft Install System v3.0 | |
| | < Back Next > Cancel |
| | |



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

| | | | | 2.5 |
|----------------------|------------------|-------------------|-------|-----|
| Please enter your us | ername and passv | vord before conti | nuing | |
| Enter Username ar | nd Password | | | |
| Username: | 0 | | | |
| Password: | 1 | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

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

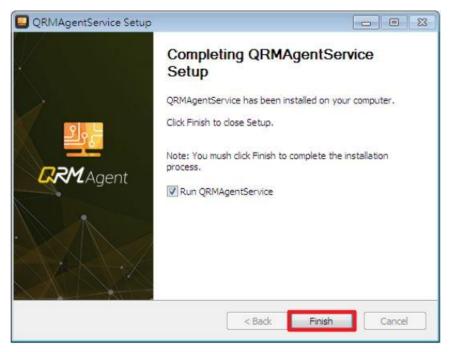
| | 1 |
|--|---|
| t level of authentication is successfully com enter the security code to proceed. | pleted. |
| Enter | |
| Lost phone? | |
| | |
| | nter the security code to proceed. Enter |



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

| QRMAgentService Setup | |
|--|--------|
| Inst ling Please wait while QRMAgentService is being installed. | |
| Extract: keys.h | |
| | |
| | |
| | |
| | |
| Nullsoft Install System v3.0 | |
| < <u>B</u> ack | Cancel |

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





| 0 | 0 | Dashboard All Device | | KVM Manag | ger × IPMI Even | is Log × | | | | | | |
|------------------------|---|--|------|---------------|-----------------|------------|---|----------|------------|-----------|--------|----------------|
| Dashboard | | Device Management / All Dev | ices | | | | | | Q. Ac | ction * 🕂 | Ŵ | C () |
| IPMI KVM | ~ | ෯ My Network - යු 192.168.0.0/24 (3) | | lostname | IP Address | Device Tag | | Managed | Brand | Operatin | Role | Status |
| 🔍 Device Discovery | | 🖻 📷 Dynamic Groups | | 10.1.10.168 | 10.1.10.168 | HQ 2F | Ø | | Unknown | Linux | Device | 📕 Not Monitor |
| Device Management | ~ | IPMI (2) | • | QRM-Win7SP1 | 192.168.0.105 | | Ø | QRMAgent | Bochs | Microsoft | Device | Monitored |
| 🔆 Alerts Configuration | | - Dig QRMAgent-Windows (1) - Dig QRMAgent-Linux (1) | | Ubuntu1404 | 192.168.0.104 | | ø | QRMAgent | Bochs | Ubuntu | Device | 🐼 Monitored |
| E Logs | ~ | - 🖿 Windows Devices (1) - 🖿 Linux Devices (3) | | 192.168.0.100 | 192.168.0.100 | | Ø | IPMI | IEI Techno | IPMI Man | Device | 🐼 Monitored |
| ô} Settings | ~ | Uthers (0) | • | 192.168.0.102 | 192.168.0.102 | 123 | ø | IPMI | IEI Techno | IPMI Man | Device | 🐼 Monitored |
| | | | | 10.10.10.1 | 10.10.10.1 | CN 6F | Ø | | Unknown | Linux | Device | 🜉 Not Monitore |
| | | | | | | | | | | | | |

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

| Set device pa | ssword | 8 |
|-----------------|--------------------|------------------------|
| Enter device us | er ID and password | 1 |
| Hostname: | 192.168.0.106 | |
| IP Address: | 192.168.0.106 | |
| OS: | Unknown | |
| Managed by: | IPMI | |
| User ID: | | 1 |
| Password: | | 2 |
| Apply the sa | ame user ID and pa | ssword to all devices. |
| View step-by-s | step instructions | |
| | | 3 |
| | Cancel | ок |



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".

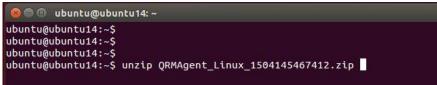
| 🛞 Add Dev | rices to QRM+ | | | | |
|-----------|---|---|--|----------------------|--|
| | <u></u> | / | 3 | 4 | |
| | How to Add | Select Device Type | Deployment | | |
| | Download QRMAgent Install QRMAgent on the Wi | ndows/Linux device you want to add. Once insta | illed, you can proceed to the next step. | | |
| | Download QRMAgent: | | | | |
| | Dow | nload Windows QRMAgent | | Download V | |
| | Mersset | Download and install Microsoft .Net Framewo Windows Server 2003) | rk (For Windows 7, Windows XP and | Download | |
| | Dow | nload Linux QRMAgent | | Download V Ubuntu | |
| | QRMAgent must be in View step-by-step in: | stalled before the device can be added. structions | | CentOS Debian | |
| | | | Pro | evious Next | |

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

| 🛞 RRM: | | é 📮 | admin 👻 🚦 |
|-------------------|---|-----|------------|
| Add 🛞 | Devices to QRM+ | 8 | s L × 🔉 |
| Dashi | ✓(4) | | 0 |
| | How to Add Select Device Type Deployment | | Status |
| Devic Devic | Download QRMAgent | | Monitored |
| ∳¦† Devic | Install QRMAgent on the Windows/Linux device you want to add. Once installed, you can proceed to the next step. | | Monitored |
| ۲ ۲ ۲ ۲ | Download QRMAgent: | | Monitored |
| Logs | Download Windows QRMAgent Download V | | Monitored |
| ố옷 Settir | | | Monitored |
| | NET Download and install Microsoft .Net Framework (For Windows 7, Windows XP and Windows Server 2003) | | Monitored |
| | Download Linux QRMAgent Download V | | Monitored |
| | | | Monitored |
| | QRMAgent must be installed before the device can be added. View step-by-step instructions | | Monitored |
| | Previous Next | | |
| QRMAgent_Linuxzip | ^ | [| Show all X |



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



Use the following command to run the QRMAgent installation program:

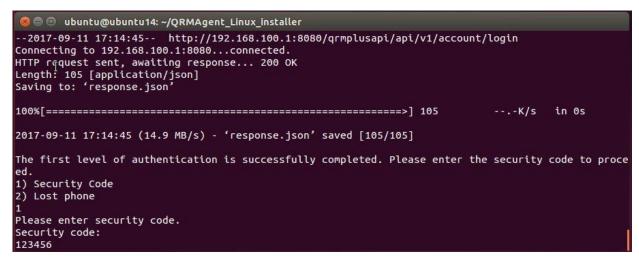
"sudo bash InstallUbuntuQRMAgent.sh <Client IP Address>"

```
ubuntu@ubuntu14:~/QRMAgent_Linux_installer
ubuntu@ubuntu14:~/QRMAgent_Linux_installer$
ubuntu@ubuntu14:~/QRMAgent_Linux_installer$
ubuntu@ubuntu14:~/QRMAgent_Linux_installer$
ubuntu@ubuntu14:~/QRMAgent_Linux_installer$
ubuntu@ubuntu14:~/QRMAgent_Linux_installer$
```

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

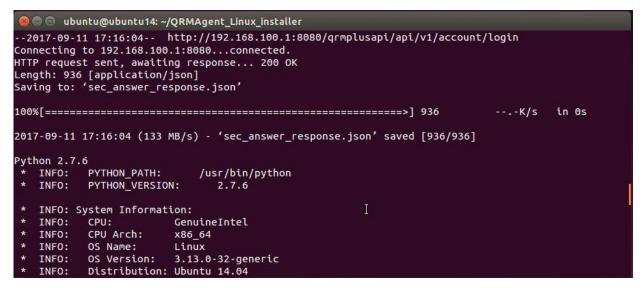


步驟 4-3-4: Confirm your sign in with 2-step Verification (if enabled).





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.

| Dashboard | Device Discov. | × Application | Se × All Devices | , × | Network Top | ool × | QRMAge | nt Re × | User M | anage × | Notif | 卣 fication S. | admin ▼ × |
|---|-------------------|----------------------|------------------|--------|-------------|-------|--------|-----------|--------|-------------|-------|------------------|--------------|
| Device Managem | ent / All Devices | | | | | | | | Q | Action 🔻 | ۲ | Û | C () |
| 🕀 My Network | | Hostname | IP Address | Device | Tag | Manag | ged by | Brand | | Operating S | Syst | Role | Status |
| ം 🖧 192.168.0.0/2 🚍 🏣 Dynamic Groups | | <u>192.168.0.100</u> | 192.168.0.100 | | Ø | IPMI | | IEI Techn | ology | IPMI Manag | eme | Device | 🐼 Monitore |
| | | Ubuntu1404 | 192.168.0.105 | | Ø | QRMA | gent | Bochs | | Ubuntu | | Device | 🐼 Monitore |
| - E Windows Dev | | | | | | | | | | | | | |
| Linux Devices | | | | | | | | | | | | | |
| Linux Devices | | | | | | | | | | | | | |



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.

| | 3 | Dashboard De | evice l | Disco | × | | | | 2 | |
|----------------------|--------|------------------------------------|---------|-------|---------------|---------------|------|-------------|--|---------------|
| Dashboard | | Device Discovery | | | | | ٩ | All devices | - 🕀 🖪 | × ? |
| IPMI KVM | ~ | Cancel Scan | ^ | | Hostname | IP Address ↑ | Role | OS | Status | Progress |
| C Device Discovery | | Reset All | | | 192.168.0.1 | 192.168.0.1 | | | | 👛 Scanning. |
| Device Management | ^ | Scan only IPMI devices | _ | | 192.168.0.100 | 192.168.0.100 | | | | 🖒 Scanning. |
| All Devices | | Scanning (10%) | | | 192.168.0.101 | 192.168.0.101 | | | | 🖒 Scanning |
| Network Topology | | - | 1 | ~ | 192.168.0.102 | 192.168.0.102 | | | | 🌜 Scanning |
| Alerts Configuration | | History | T | | | | | | | |
| 🗉 Logs | \sim | ③ 2017-09-25 11:23:25 | Ш | | | | | | | |
| స్తో Settings | \sim | ③ 2017-09-25 11:22:08 | Ш | | | | | | | |
| | | ③ 2017-09-25 11:05:19 | Ш | | | | | | | |
| | | ③ 2017-09-25 11:03:15 | Ш | | | | | | | > |
| | | ⁽¹⁾ 2017-09-25 11:01:25 | | | | of 1 🔪 📎 1- | | ••• | No need to wait for scan of click to add, | omplete. Just |

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

| poard | | | | |
|--|---|--|--|--|
| | | | 2 columns 👻 🕒 C | |
| Server Health Overview | ŵ | Device Sta | Add Add | Widget @ |
| | | Hostname | IP Address | State State Cha |
| | | QRM-Win7SP1 | 192.168.0.105 | UP 06/14/2017 0 |
| | • On | 192.168.0.100 | 192.168.0.100 | UP 06/14/2017 0 |
| | • Off | <u>192.168.0.102</u> | 192.168.0.102 | UP 06/14/2017 0 |
| | Not reachable | Ubuntu1404 | 192.168.0.104 | UP 06/14/2017 0 |
| [#] Memory Utilization (Top 10) | 0 | Disk Utiliz | ation (Top 10) | ŵ |
| name IP Address | % Utilization | Hostname | IP Address | % Utilization |
| tu1404 192.168.0.104 | 57 % | QRM-Win7SP1 | 192.168.0.105 | 8.03 % |
| Win7SP1 192.168.0.105 | 23.8 % | Ubuntu1404 | 192.168.0.104 | 1.8 % |
| | Memory Utilization (Top 10) name IP Address tut1404 192.168.0.104 | Memory Utilization (Top 10) Memory Utilization (Top 10) P Address % Utilization tut1404 192.168.0.104 57% | • OR Health Sterile • OR Hostname • On • On • OR Hostname • On • Off 192.168.0.102 Ubuntu1404 * Memory Utilization (Top 10) Image: State | Server Health Overview Image: Constraint of the served serve |

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"



| 🖶 Add new widget to d | shboard | | 8 |
|---|--------------------------|--|------|
| ID_DASHBOARD_METRIC_TYPE | { | | |
| CPU 1 | This widge format. Th | ration (Top 10) et displays Top 10 devices by their respective Average CPU Utilization, in Grid/Table is widget will help you to know which of your servers are having maximum CPU . The grid will refresh every 60 seconds. | ^ |
| کی Disk اللہ Network اللہ General | This widge managed, | ration (24H) et displays the Average CPU Utilization values from last 24 hours for a single device being in an Area Chart format. This Area Chart will keep updating every 5 mins so that always ee the values from last 24 hours till the current moment. | |
| IPMI | This widge | cation (Live) 2 et displays the Live Average CPU Utilization for a single device being managed, in an Area nat. This Area Chart will keep updating with Live Data Polling frequency, set by the QRM+ | Ŧ |
| | | | Next |

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

| Е СРИ | Hostname | IP Address | Device Tag | Managed by | Operating System |
|---------|-------------|---------------|------------|------------|--------------------|
| Memory | QRM-Win7SP1 | 192.168.0.105 | TP 2F | QRMAgent | Microsoft Windows. |
| Disk | Ubuntu1404 | 192.168.0.104 | TP 3F | QRMAgent | Ubuntu |
| Network | | | | | |
| General | | | | | |
| | | | | | |
| IPMI | | | | | |



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

| 🖶 Add new widge | t to dashboard | ⊗ |
|------------------------|--|---|
| 1 ID_DASHBOARD_METRIC. | TYPE 2 CPU Utilization (Live) 3 Ubuntu1404 | |
| әри | Widget Type | |
| Memory | Area Chart | |
| Disk | | |
| Network | | |
| General | | |
| IPMI | | |
| | | |
| | Previous Add Widget | ٦ |
| | | |

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

| Dashboard | | | | 2 columns 💌 | • | CÎ | | ∑0 |
|--------------------------------------|--|---------------------------|---------------------------|---------------|-------------|----|----------|------------|
| Hostname | IP Address | % Utilization | Hostname | IP Address | | | Shutdown | Time |
| Ubuntu1404 | 192.168.0.104 | 2 % | | | | | | |
| QRM-Win7SP1 | 192.168.0.105 | 0 % | | | | | | |
| | | | | | | | | |
| find CPU1Hiliz | ration (Top 10) | @ | CPU Utiliz | No data coulo | I be shown. | | | ٢ ٩ |
| CPU Utiliz | | | CPU Utiliz: Ubuntu1404 | | l be shown. | | | 0 @ |
| CPU Utiliz Hostname Ubuntu1404 | tation (Top 10) IP Address 192.168.0.104 | © % Utilization 2 % | Ubuntu1404 | | l be shown. | | | ③ 續 |
| Hostname | IP Address | % Utilization | Ubuntu1404 | | l be shown. | | | © @ |
| Hostname Ubuntu1404 | IP Address 192.168.0.104 | % Utilization 2 % | Ubuntu1404 | | l be shown. | | | 0 |



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 columns | • | 2 🔟 🖾 🖾 |
|----------------------------|----------------------|--------------------|---------------------------|---------------------------------|-------|------------------------|
| Server He | alth Overview | @ | Device Sta | ate Change Log | | Delete all widgets |
| | | | Hostname | IP Address | State | State Change Time |
| | | | QRM-Win7SP1 | 192.168.0.105 | UP | 05/11/2017 03:53:10 PM |
| | | On | 192.168.0.106 | 192.168.0.106 | UP | 05/04/2017 03:07:37 PM |
| | | • Off | Ubuntu1404 | 192.168.0.108 | UP | 05/02/2017 05:18:49 PM |
| | | | | | | |
| | | Not reachable | <u>ubuntu</u> | 192.168.0.101 | UP | 04/24/2017 02:58:30 PM |
| RANGE Memory L | Jtilization (Top 10) | • Not reachable | | 192.168.0.101 ation (Top 10) | UP | 04/24/2017 02:58:30 PM |
| Fashi Memory U Hostname | Utilization (Top 10) | | | | UP | |
| | | ¢ |) Disk Utiliz | ation (Top 10) | | ŝ |
| Hostname | IP Address | © % Utilization | i Disk Utiliz Hostname | ation (Top 10) | | ي % Utilization |

2.3 Refresh all widgets in the Dashboard

Setup steps:

Go to the Dashboard page and click the Refresh Widgets button

| Dashboard | | | | | · (+) (*) | |
|------------------------|----------------------|--------------------|-------------------------|------------------------------|-----------|--|
| | | | | 2 columns | • • C | (marging and the second s |
| Server He | alth Overview | @ | Device Sta | ite Change Log | | Refresh |
| | | | Hostname | IP Address | State | State Change Time |
| | | | QRM-Win7SP1 | 192.168.0.105 | UP | 05/11/2017 03:53:10 PM |
| | | • On | <u>192.168.0.106</u> | 192.168.0.106 | UP | 05/04/2017 03:07:37 PM |
| | | • Off | Ubuntu1404 | 192.168.0.108 | UP | 05/02/2017 05:18:49 PM |
| | | | | | | |
| | | Not reachable | ubuntu | 192.168.0.101 | UP | 04/24/2017 02:58:30 PM |
| RAM Memory U | Jtilization (Top 10) | • Not reachable | | 192.168.0.101 | UP | |
| International Memory L | Jtilization (Top 10) | | | | UP | |
| | | ¢ |) Disk Utiliz | ation (Top 10) | | © % Utilization |
| Hostname | IP Address | © % Utilization | Disk Utiliz Hostname | ation (Top 10) IP Address | | 04/24/2017 02:58:30 PM |



2.4 Select the layout mode

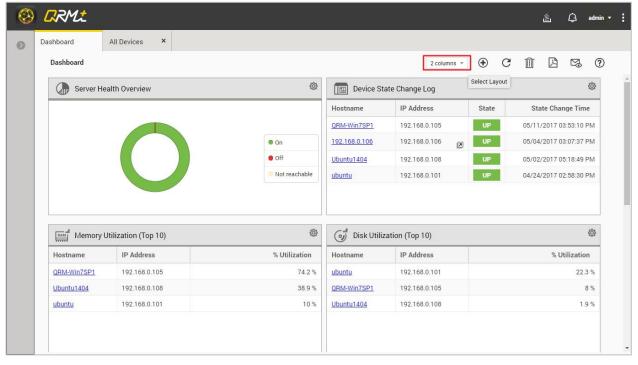
Watch the video

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"

| Dashboard | All Devices X | Device Discove × | Network Topol × | | | |
|--------------|----------------------|------------------|--|--------------------------------------|---|---|
| Dashboard | | | | | 2 columns 👻 | 🕀 C 🗓 🗳 👒 |
| Server He | ealth Overview | | ø | Device Sta | te Change L 1 column ✓ 2 columns | 6 |
| | | | | Hostname | IP Addre 3 columns | |
| | | | | QRM-Win7SP1 | 192.168.0.105 | UP 05/11/2017 03:53:10 PM |
| | | | • On | 192.168.0.106 | 192.168.0.106 | UP 05/04/2017 03:07:37 PM |
| | | | | | | |
| | | | • Off | Ubuntu1404 | 192.168.0.108 | UP 05/02/2017 05:18:49 PM |
| | | | Off Not reachable | Ubuntu1404 ubuntu | 192.168.0.108 192.168.0.101 | UP 05/02/2017 05:18:49 PM UP 04/24/2017 02:58:30 PM |
| and Memory I | Utilization (Top 10) | | | ubuntu | | |
| Hostname | Utilization (Top 10) | | Not reachable | ubuntu | 192.168.0.101 | UP 04/24/2017 02:58:30 PM |
| | | | Not reachable | ubuntu | 192.168.0.101 ation (Top 10) | UP 04/24/2017 02:58:30 PM |
| Hostname | IP Address | | Not reachable % Utilization | ubuntu of Disk Utiliz Hostname | 192.168.0.101 ation (Top 10) IP Address | UP 04/24/2017 02:58:30 PM |

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

| Dashboard | | | | | 0 0 | |
|---------------------------|----------------------|--|--------------------------------------|---|---|------------------------|
| Dusinbulu | | | | 2 columns | • 🕀 C | |
| Server He | ealth Overview | @ | Device Sta | ite Change Log | | Export as P |
| | | | Hostname | IP Address | State | State Change Time |
| | | | QRM-Win7SP1 | 192.168.0.105 | UP | 05/11/2017 03:53:10 PM |
| | | • On | <u>192.168.0.106</u> | 192.168.0.106 | UP | 05/04/2017 03:07:37 PM |
| | | • Off | Ubuntu1404 | 192.168.0.108 | UP | 05/02/2017 05:18:49 PM |
| | | | <u>obuilturituri</u> | | and the second se | |
| | | Not reachable | ubuntu | 192.168.0.101 | UP | 04/24/2017 02:58:30 PM |
| man di Memory | Utilization (Top 10) | Not reachable Ø | ubuntu | | | |
| Essaid Memory Hostname | Utilization (Top 10) | | ubuntu | 192.168.0.101 | | 04/24/2017 02:58:30 PN |
| | | ¢ | ubuntu | 192.168.0.101 ation (Top 10) | | 04/24/2017 02:58:30 PM |
| Hostname | IP Address | © % Utilization | ubuntu of Disk Utiliz Hostname | 192.168.0.101 ation (Top 10) IP Address | | 04/24/2017 02:58:30 PM |



Step 2: Showing "Generating View as PDF"

| RRM± | | | | | | |) | ٤ | ۵ | admin |
|-------------|----------------------|---------------|-----------------|----------------|-------|---|---------|-----------------------|-----------|-----------|
| Dashboard | All Devices × | | | | | | | | | |
| Dashboard | | | | 2 columns 💌 | ۲ | C | Ŵ | ß | M | ? |
| Server H | ealth Overview | 0 | Device Sta | ate Change Log | | | | | | \$ |
| | | | Hostname | IP Address | State | | Stat | te <mark>Cha</mark> r | nge Tim | ne |
| | | | QRM-Win7SP1 | 192.168.0.105 | UP | | 05/11/: | 2017 0 | 3:53:10 | PM |
| | | • On | 192.168.0.106 | 192.168.0.106 | UP | | 05/04/ | 2017 0 | 3:07:37 | PM |
| | | • Off | Ubuntu1404 | 192.168.0.108 | UP | | 05/02/2 | 2017 0 | 5:18:49 | PM |
| | | Not reachable | ubuntu | 192.168.0.101 | UP | | 04/24/2 | 2017 0 | 2:58:30 | PM |
| d ,, | Unit of 10 | | ion in progress | | | | | | | \$ |
| Memory | Utilization (Top 10) | St. | Jisk Utiliz | ation (Top 10) | | | | | | 252 |
| Hostname | IP Address | % Utilization | Hostname | IP Address | | | | % U | tilizatio | n |
| QRM-Win7SP1 | 192.168.0.105 | 73.4 % | ubuntu | 192.168.0.101 | | | | | 22. | 3 % |
| Ubuntu1404 | 192.168.0.108 | 39.1 % | QRM-Win7SP1 | 192.168.0.105 | | | | | | 8 % |
| ubuntu | 192.168.0.101 | 10 % | Ubuntu1404 | 192.168.0.108 | | | | | 1. | 9 % |
| | | | | | | | | | | |

Step 3: Download the view to the local computer

| | | | | 2 columns 👻 | • | C | Ô 🛛 | M. |
|----------------|----------------------|--------------------|---|---------------------------------|-------|---|--------------|------------------|
| Server He | alth Overview | ۵ | Device Sta | ate Change Log | | | | ιų. |
| | | | Hostname | IP Address | State | | State Cha | ange Time |
| | | | QRM-Win7SP1 | 192.168.0.105 | UP | 0 | 05/11/2017 | 03:53:10 PN |
| | | On | <u>192.168.0.106</u> | 192.168.0.106 | UP | 0 | 05/04/2017 | 03:07:37 PN |
| | | • Off | Ubuntu1404 | 192.168.0.108 | UP | C | 05/02/2017 | 05:18:49 PN |
| | | | | | | | | |
| | | Not reachable | <u>ubuntu</u> | 192.168.0.101 | UP | O | 04/24/2017 (| 02:58:30 PN |
| RANK RANK | Jtilization (Top 10) | Not reachable | | 192.168.0.101 ation (Top 10) | UP | 0 | 04/24/2017 (| 02:58:30 PM |
| Treed Memory U | Julization (Top 10) | | | | UP | 0 | | |
| | | @ | 🕥 Disk Utiliz | ation (Top 10) | UP | 0 | | Ę |
| Hostname | IP Address | © % Utilization | الله في الله المعالم ال Mostname | ation (Top 10) IP Address | | 0 | | چ Utilization |



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

| Dashboard | | | | 2 columns | · • (| | (|
|------------|---------------------------------|--------------------|--------------------------------------|---------------------------------|-------|--------------------|---------|
| Server H | ealth Overview | © | Device Sta | ite Change Log | | | F docun |
| | | | Hostname | IP Address | State | State Change Ti | Time |
| | | | QRM-Win7SP1 | 192.168.0.105 | UP | 05/11/2017 03:53:1 | 10 PM |
| | | • On | 192.168.0.106 | 192.168.0.106 | UP | 05/04/2017 03:07:3 | :37 PM |
| | | • Off | Ubuntu1404 | 192.168.0.108 | UP | 05/02/2017 05:18:4 | |
| | | | | | 100 | | :49 PM |
| | | Not reachable | ubuntu | 192.168.0.101 | UP | 04/24/2017 02:58:3 | |
| and Memory | Utilization (Top 10) | Not reachable | ubuntu | 192.168.0.101 ation (Top 10) | | | |
| Hostname | Utilization (Top 10) IP Address | | ubuntu | | | | :30 PM |
| | | @ | ubuntu | ation (Top 10) | | 04/24/2017 02:58:3 | :30 PM |
| Hostname | IP Address | © % Utilization | ubuntu of Disk Utiliz Hostname | ation (Top 10) | | 04/24/2017 02:58:3 | 30 PM |

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

| Email | | | | × |
|----------------|--------|------------|--|---|
| | | | end the report to. The nt and attached to the | |
| Email Address: | admin@ |)gmail.com | | |
| | 2 | Send | Cancel | |
| | | | | |



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

| Dashboard | | | | | | î A s | (| | |
|--|----------------------|---------------|----------------------|----------------|-------|---------------------|---------------|--|--|
| Dashboard | | | | 2 columns 👻 | ⊕ C | | | | |
| Server He | alth Overview | @ | Device Sta | te Change Log | | | <u>ئ</u> | | |
| | | | Hostname | IP Address | State | State Change Tim | ne | | |
| | | | QRM-Win7SP1 | 192.168.0.105 | UP | 05/11/2017 03:53:10 | PM | | |
| | | • On | <u>192.168.0.106</u> | 192.168.0.106 | UP | 05/04/2017 03:07:37 | РM | | |
| | | • Off | Ubuntu1404 | 192.168.0.108 | UP | 05/02/2017 05:18:49 | PM | | |
| | | Not reachable | ubuntu | 192.168.0.101 | UP | 04/24/2017 02:58:30 | PM | | |
| | | Sendin 🛞 | | | | | | | |
| RAM Memory U | Jtilization (Top 10) | @ | 💓 Disk Utiliz | ation (Top 10) | | 0 | | | |
| Hostname | IP Address | % Utilization | Hostname | IP Address | | % Utilizatio | % Utilization | | |
| QRM-Win7SP1 | 192.168.0.105 | 73.4 % | ubuntu | 192.168.0.101 | | 22.: | 3 % | | |
| A CONTRACTOR AND AND A CONTRACTOR AND AND A CONTRACTOR AN | 192.168.0.108 | 39.7 % | QRM-Win7SP1 | 192.168.0.105 | | , | 8 % | | |
| Ubuntu1404 | | | Ubuntu1404 | 192.168.0.108 | | 8% | | | |

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.

QNAP

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.

| | C Dashboard Device I | Discovery × All Devices | × Logs × Net | work Topol × KVM Dast | board × KVM Manager | KVM Playback × 1 | 72.17.31.17 × 172.17.3 | 1.20 × 10.64.202.62 × | Alerts (| Configur × |
|-------------------------|---|-------------------------|---------------|-----------------------|---------------------|-------------------------|--------------------------|------------------------|----------|--------------|
| Dashboard | Device Management / All De | vices | | | | | Q Hostna | ame, IP Address, Devic | • | t c |
| 🗿 IPMI KVM 🗸 🗸 🗸 | | 🗌 Hostname | IP Address | Device Tag | Managed by | Brand | Model | Operating System | Role | Status |
| 2 Device Discovery | | 172.17.30.169 | 172.17.30.169 | 1 | | Unknown | Unknown | Unknown | Device | Not Monitor |
| 🕴 Device Management 🛛 🗸 | | · 172.17.31.20 | 172.17.31.20 | 1 | IPMI | IEI Technology Corp. | Unknown | Unknown | Device | Monitored |
| G Alerts Configuration | Dynamic Groups | | ۲ | | | | | | | |
|] Logs | IPM (15) | 172.17.31.17 | 172.17.31.17 | | IPMI | IEI Technology Corp. | Unknown | Unknown | Device | Monitored |
| Settings | - B QRMAgent-Linux (1) | | 8 | | | | | | | |
| | - En Windows Devices (6) En Linux Devices (7) En Others (3) | 172 17.30 130 | 172.17.30.130 | 12121 | IPMI | HP | Unknown | Unknown | Device | Monitored |
| | | . • <u>10.4.14.11</u> | 10.4.14.11 | 1 | IPMI | Supermicro | Unknown | Linux | Device | Monitored |
| | | Win10-RDP | 172.17.31.68 | 1 | QRMAgent | Gigabyte Tecohnology Co | Intel64 Family 6 Model 4 | Microsoft Windows 10 骞 | Device | 🔯 Monitored |
| | | • <u>172 17 31 18</u> | 172 17.31.18 | 1 | IPMI | IEI Technology Corp. | Unknown | Unknown | Device | Monitored |
| | | • <u>172 17 31 19</u> | 172 17 31 19 | / | IPMI | IEI Technology Corp. | Unknown | Unknown | Device | Monitored |
| | | 172 17 30 145 | 172 17.30.145 | 1 | | Unknown | Unknown | Unknown | Device | 💭 Not Monito |
| | | 172.17.30.146 | 172 17 30 146 | / | | Unknown | Unknown | Unknown | Device | 購 Not Monito |
| | | 🗆 🜻 <u>WIN-RP</u> | 172.17.20.125 | 1 | | Unknown | Unknown | Windows | Device | 💭 Not Monito |
| | | <u> 10.64.202.47 </u> | 10.64.202.47 | 1 | | Unknown | Unknown | Windows | Device | 🜉 Not Monito |
| | | GALAXY | 172.17.30.35 | 1 | | Unknown | Unknown | Windows | Device | 🜉 Not Monito |

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



| Add Devices to QRM+ | | | | 6 |
|---------------------|---|-------------|-------------|---|
| Step 1 | 2 Step 2 | 3 Step 3 | 4 Step 4 | |
| Add devices to | | orep o | otep 4. | |
| | ou like to add a device? actlywhich device you wantto manage | | | |
| | twork and then select | | | |
| | | | | |
| | | | Next | |

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

Add Devices to QRM+

O

| Step 1 | Step 2 | Step 3 | Step 4 |
|------------------|---------------------------------|--------|--------|
| Add devices to Q | RM+ | | |
| | | | |
| How would you I | ike to add a device? | | |
| You know exactly | which device you want to manage | | |
| Scan your netwo | rk and then select | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

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

| dd Devices to QRM+ | | | |
|--|--------|---------|-------------|
| Step 1 | Step 2 | 33 | 4 Step 4 |
| Add devices to QR | | oldh o | Step 4 |
| | | | |
| Evice type Windows Devices Linux Devices |] | | |
| O IPM | | | |
| | | | |
| | | | |
| | | « Pt ev | Nect |



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

| 🛞 Add Devices t | to QRM+ | 8 |
|-----------------|---|---|
| | ✓ 34 | |
| Hov | w to Add Select Device Type Deployment | |
| | In I QRMAgent II QRMAgent on the Windows/Linux device you want to add. Once installed, you can proceed to the next step. | |
| c. | Download QRMAgent: | |
| | Download Windows QRMAgent Download V 32-bit | |
| | Download and install Microsoft . Net Framework (For Windows 7, Windows XP and 64-bit Windows Server 2003) | |
| | Download Linux QRMAgent Download V | |
| | QRMAgent must be installed before the device can be added. View step-by-step instructions | |
| | Previous Next | |

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

| IPMI KVM Image: IPMI KVM Image: | Dashboard | | Device Management / All Dev | ieee | | | - | | | Q. Ac | tion * 🕂 | ÎÎI | C () |
|--|------------------------|---|-----------------------------|------|---------------------|---------------|------------|---|----------|------------|-----------|--------|----------------|
| Image: Settings | | ~ | - | | Hostname | IP Address | Device Tag | | Managed | | | _ | |
| Image: Device Management ImpMt (2) | | | | | | | | Ø | | | | | I Not Monitore |
| Marts Configuration GRMAgentLinux (1) Ubuntul1404 192.168.0.104 QRMAgent Bochs Ubuntu Device GMIntore Image: Settings Windows Devices (3) 192.168.0.102 192.168.0.102 IPMI IEI Techno IPMI Man Device GMIntore Image: Settings Others (0) 192.168.0.102 123 IPMI IEI Techno IPMI Man Device GMIntore | Device Management | ~ | | | QRM-Win7SP1 | 192.168.0.105 | | 0 | QRMAgent | Bochs | Microsoft | Device | Monitored |
| E Logs Windows Devices (1) 192.168.0.100 P IPMI IEI Techno IPMI Man. Device Device Temperature Settings Others (0) 192.168.0.102 P 123 IPMI IEI Techno IPMI Man. Device Temperature | 👾 Alerts Configuration | | | | Ubuntu1404 | 192.168.0.104 | | 0 | QRMAgent | Bochs | Ubuntu | Device | Monitored |
| 🔅 Settings V Device (0) | 🗉 Logs | ~ | Windows Devices (1) | | 192.168.0.100 | 192.168.0.100 | | 0 | IPMI | IEI Techno | IPMI Man | Device | Monitored |
| | ô Settings | ~ | | | 192.168.0.102 | 192.168.0.102 | 123 | Ø | IPMI | IEI Techno | IPMI Man | Device | Monitored |
| | | | | | • <u>10.10.10.1</u> | 10.10.10.1 | CN 6F | Ø | | Unknown | Linux | Device | Not Monitore |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Refer to "<u>Steps to add the device to QRM+</u>" to know installation instructions.



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

| <u></u> | <u>_</u> | 3 | 4 |
|---|---|--|----------------------------|
| How to Add | Select Device Type | Deployment | |
| Download QRMAgent | | | |
| Install QRMAgent on the Wind | ows/Linux device you want to add. Once insta | alled, you can proceed to the next step. | |
| Download QRMAgent: | | | |
| Downl | oad Windows QRMAgent | | Download V |
| | Download and install Microsoft .Net Framewo Windows Server 2003) | ork (For Windows 7, Windows XP and | Download |
| Downl | oad Linux QRMAgent | | Download V |
| QRMAgent must be inst View step-by-step inst | alled before the device can be added. uctions | | Ubuntu CentOS Debian |
| | | | Previous Next |

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.

| | 0 | Dashboard All Device | es | × KVM Manag | ger × IPMI Even | ts Log × | | | | | | |
|------------------------|---|---|-------|---------------------|-----------------|------------|---|----------|------------|-----------|--------|----------------|
| Dashboard | | Device Management / All De | vices | | | | | | Q. Ac | tion - | Û | C () |
| 🔄 IРМІ КVМ | ~ | My Network | | Hostname | IP Address | Device Tag | | Managed | Brand | Operatin | Role | Status |
| 🔍 Device Discovery | | ్లిసి 192.168.0.0/24 (3) తా 📷 Dynamic Groups | | 10.1.10.168 | 10.1.10.168 | HQ 2F | ø | | Unknown | Linux | Device | 🜉 Not Monitore |
| Device Management | ~ | - E All (6) - E IPMI (2) | | QRM-Win7SP1 | 192.168.0.105 | | 0 | QRMAgent | Bochs | Microsoft | Device | Monitored |
| 👾 Alerts Configuration | | QRMAgent-Windows (1) QRMAgent-Linux (1) | | Ubuntu1404 | 192.168.0.104 | | 0 | QRMAgent | Bochs | Ubuntu | Device | Monitored |
| E Logs | ~ | Windows Devices (1) | | 192.168.0.100 | 192.168.0.100 | | 0 | IPMI | IEI Techno | IPMI Man | Device | Monitored |
| ôን Settings | ~ | Dithers (0) | | 192.168.0.102 | 192.168.0.102 🛃 | 123 | 0 | IPMI | IEI Techno | IPMI Man | Device | Monitored |
| | | | | • <u>10.10.10.1</u> | 10.10.10.1 | CN 6F | ø | | Unknown | Linux | Device | 🗮 Not Monitore |
| | | | | | | | | | | | | |

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



| Add Devices to QRM+ | | | | 8 |
|---------------------|------------------------|-------------|--------------|---|
| Step 1 | Step 2 | 3 Step 3 | 4) Step 4 | |
| Add a single devic | e using an IP address | | | |
| Please input the d | evice information of : | | | |
| IP Address: | IP Address | | | |
| UserID: | U ser ID | | | |
| Password: | Password | | | |
| Confirm Password: | Confirm Password | | | |
| View step-by-ste | ep instructions | | | |
| | | | | |
| | | | | |
| | | « Previous | A dd | |
| | | | | |

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 th | ne device to QRM+ | " to know installation instructions |
|--|------------|-----------------|-------------------|-------------------------------------|
|--|------------|-----------------|-------------------|-------------------------------------|

| | 0 | Dashboard All Device | S | × KVM Manag | ger × IPMI Even | ts Log × | | | | | | |
|------------------------|---|--|------|----------------------|-----------------|------------|---|----------|------------|-----------|--------|----------------|
| Dashboard | | Device Management / All Dev | ices | | | | | | Q. Ac | etion * | Ŵ | C () |
| 🛄 IРМІ КVМ | ~ | | | Hostname | IP Address | Device Tag | | Managed | Brand | Operatin | Role | Status |
| 🔍 Device Discovery | | 🚍 📷 Dynamic Groups | | 10.1.10.168 | 10.1.10.168 | HQ 2F | Ø | | Unknown | Linux | Device | 📕 Not Monitore |
| Uevice Management | ~ | - 🖿 Ali (6) - 🎦 IPMI (2) | | QRM-Win7SP1 | 192.168.0.105 | | ø | QRMAgent | Bochs | Microsoft | Device | Monitored |
| 👾 Alerts Configuration | | - 🖿 QRMAgent-Windows (1) - 🖿 QRMAgent-Linux (1) | | Ubuntu1404 | 192.168.0.104 | | ø | QRMAgent | Bochs | Ubuntu | Device | 🐼 Monitored |
| E Logs | ~ | - 📷 Windows Devices (1) - 📷 Linux Devices (3) | | <u>192.168.0.100</u> | 192.168.0.100 | | ø | IPMI | IEI Techno | IPMI Man | Device | Monitored |
| ô子 Settings | ~ | Uthers (0) | | 192.168.0.102 | 192.168.0.102 | 123 | 0 | IPMI | IEI Techno | IPMI Man | Device | Monitored |
| | | | | • <u>10.10.10.1</u> | 10.10.10.1 | CN 6F | ø | | Unknown | Linux | Device | 🜉 Not Monitore |
| | | | | | | | | | | | | |

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.

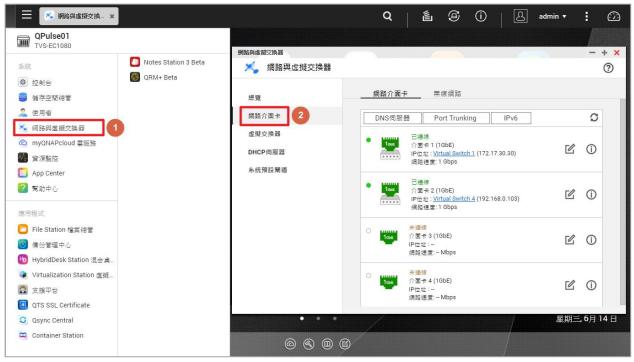
| | vice Management / All De My Network | vices | | | | Hostname | TD 11 | | | | | |
|----|---|-------|---------------|-----------------|------------|----------|----------------|------------|--------|-------|--------|----------------|
| | Wu Notwork | | | | | | e, IP address, | Device tag | Action | • | | C. (?) |
| | | | Hostname | IP Address | Device Tag | | Mana | Brand | Model | Oper | Role | Status |
| | 옮 192.168.0.0/24 (4) Dynamic Groups All (6) | | 10.1.10.168 | 10.1.10.168 | HQ 2F | Ø. | | Unkn | Unkn | Linux | Device | 📕 Not Monitore |
| -1 | IPMI (2) QRMAgent-Windows (1) | | QRM-Win7SP1 | 192.168.0.105 | TP 2F | Ø. | QRMA | Bochs | Intel(| Micro | Device | 🔯 Monitored |
| -1 | QRMAgent-Linux (1) Windows Devices (1) | | Ubuntu1404 | 192.168.0.104 | TP 3F | Ø | QRMA | Bochs | Intel(| Ubunt | Device | Monitored |
| -1 | Linux Devices (3) Others (0) | | 192.168.0.100 | 192.168.0.100 🗷 | | Ø | IPMI | IEI Te | Unkn | IPMI | Device | 🔯 Monitored |
| | | | 192.168.0.102 | 192.168.0.102 🗷 | | Ø | IPMI | IEI Te | Unkn | IPMI | Device | Monitored |
| | | | 10.10.10.1 | 10.10.10.1 | CN 6F | (III) | | Unkn | Unkn | Linux | Device | 📕 Not Monitore |

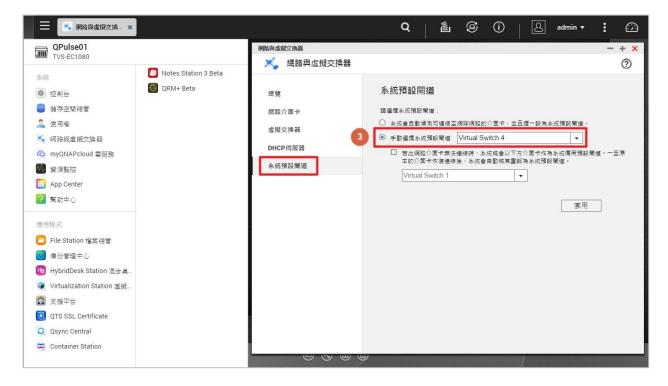
Step 1: Log in to QTS and open "Network & Virtual Switch".

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

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









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.

| 8 | RRML | | | | | | | | | | Ű | Q | admin 🔻 | : |
|-------------|----------------------|---|-----------------------------|-----------------|---------|------------------|---------------------------|------------------------------|-------------------------|-----|---|---|---------|---|
| | | 0 | Dashboard | All Devices | × | Device Discove × | Network Topol × | | | | | | | |
| | Dashboard | | Device Managem | ent / Network 1 | ropolog | Hostname | 🗹 IP Address 🗹 Ping Statu | s fl Hostname, IP addres | ss, Device tag | a c | Å | M | ? | |
| Ţ | IPMI KVM | ~ | My Network | | | | | | | | | | | |
| PQ. | Device Discovery | | & 192.168.0.0/2 | | | | | | | | | | | |
| †!† | Device Management | ^ | IPMI (1) | indows (1) | | | | | | | | | | |
| | All Devices | | QRMAgent-Lin Windows Dev | | | | | | | | | | | |
| | Network Topology | | Linux Devices | ; (2) | | | | | | | | | | |
| <u>`</u> أأ | Alerts Configuration | | - Culcis (c) | | | | | 192.168.0.108 Ubuntu1404 | | | | | | |
| | Logs | ~ | | | | | | 192.168.0.0/24 | | | | | | |
| ţ | Settings | ~ | | | | | 192,168.0,106 | | 192.168.0.101 ubuntu | | | | | |
| | | | | | | | 132.100.0.100 | | ubuntu | | | | | |
| | | | | | | | | e e î | | | | | | |
| | | | | | | | | 192.168.0.105 QRM-Win7SP1 | | | | | | |
| | | | | | | | | GRW-WIN SET | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

- 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

| (3) | RRMt | | | | | | é Q | admin 🔻 |
|------------|--|--|--|---|--|-------------------------|---------------------------------|-------------|
| D | Dashboard 192.1 Device Management (19 | 68.0.105 × 2.168.0.105) / Show | Dashboard • | | Tools v 2 | columns 💌 | ⊕ C 🗊 | ? |
| | Device Summary | 2 Device Information | | Operating System | | 4 Network Informatio | | ^ |
| | Host is powered on | Managed By: Hostname: Localhost: Device Tag: Manufacturer: CPU Model: 3.50GHz CPU Architecture: Physical Memory: Number of CPUs: | QRMAgent v2016.11.3 QRM-Win7SP1 QRM-Win7SP1 M Bochs Intel(R) Xeon(R) CPU E3-1246 v3 @ 32-bit 1023 MB 2 | OS Family: OS Release: Kernel: | Windows Microsoft Windows 7 專樂版 7 Windows v6.1.7601 | IPv4 Address | IPv6 Address fe80::3cfc:5eb5 | MAC 52:5 |
| | CPU Utilization | (Live) | 0 | Mer 100 100 100 100 100 100 00 00 | nory Utilization (Live) | | G | , |

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"

| rric type | nory Utilization (Live) | |
|-----------|---|-------------------|
| EPU 1 | Memory Utilization (24H) This widget displays the Memory Utilization values from last 24 hours for a single de managed, in an Area Chart format. This Area Chart will keep updating every 5 mins so can see the values from last 24 hours till the current moment. | |
| Disk | Memory Utilization (Live) | |
| | Device Memory Information (Live) This widget displays the detailed Memory information for a device being managed, ir Grid will keep updating with Live Data Polling frequency, set by the QRM+ admin. | Text Format. This |
| | | • |

Step 3: Complete the chart type setting

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



| Add new widge | to dashboard |
|---------------|---------------------------|
| Metric type | Memory Utilization (Live) |
| ери | Widget Type |
| Memory | Area Chart |
| Disk | |
| Network | |
| | |
| | |
| | |
| | 2 |
| | Previous Add Widget |

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

| Device Information Operating System Information Network Information Managed By: QRMAgent v2016.11.3 Hostname: OS Family: Windows Localhost: QRM-Win7SP1 OS: Microsoft Windows 7 3\$ | Device Summary | | | | | | | ^ |
|--|--------------------|---------------------------------------|-----------------------------------|---|-------------------------|--------------------|----------------|-------|
| Hostname: QRM-Win7SP1 OS: Microsoft Windows 7 3%% Localhost: QRM-Win7SP1 OS Release: 7 Device Tag: Kemel: Windows v6.1.7601 Manufacturer: Bochs Feb0:: 192.168.0.105 CPU Model: Intel(R) Xeon(R) CPU E3-1246 v3 @ 192.168.0.105 3.50GHz CPU Anchitecture: 32-bit Physical Memory: 1023 MB Let | | · · · · · · · · · · · · · · · · · · · | | | | Network Informatio | on | |
| Localhost: QRM-Win7SP1 OS Release: 7 192.168.0.105 fe80::3cfc:5eb5: Host is powered on Manufacturer: Bochs Windows v6.1.7601 192.168.0.105 fe80::3cfc:5eb5: Host is powered on OCPU Model: Intel(R) Xeon(R) CPU E3-1246 v3@ Year Host is powered on Intel(R) CPU Acon(R) CPU E3-1246 v3@ Year Host is powered on Intel(R) GRM Host is powered on Intel(R) Year Year | A 🚅 1 | | | 1 A A A A A A A A A A A A A A A A A A A | | IPv4 Address | IPv6 Address | M |
| Host is powered on Manufacture: Bochs CPU Model: Intel(R) Xeon(R) CPU E3-1246 v3 @ 3.50GHz CPU Architecture: 32-bit Physical Memory: 1023 MB | | | | | | 192.168.0.105 | fe80::3cfc:5eb | 5: 5: |
| Host is powered on CPU Model: Intel(R) Xeon(R) CPU E3-1246 v3 @ 3.50GHz CPU Architecture: 32-bit Physical Memory: 1023 MB | | Device Tag: | Ø | Kernel: | Windows v6.1.7601 | | | |
| 3.50GHz CPU Architecture: 32-bit Physical Memory: 1023 MB | Host is powered on | | | | | | | |
| CPU Architecture: 32-bit Physical Memory: 1023 MB | | | Intel(R) Xeon(R) CPU E3-1246 v3 @ | | | | | |
| | | | 32-bit | | | | | |
| Number of CPI les 2 | | | | | | | | |
| | | Number of CPUs: | 2 | | | | | |
| | CPU Utilizatio | n (Live) | Ø | 🕸 🔛 Me | mory Utilization (Live) | | | @ @ |
| 👞 CPU Utilization (Live) 🕜 🚳 📠 Memory Utilization (Live) 📀 🕸 | | | | | | | | |



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

| Device Summary | | | | | | De | elete a |
|--------------------|-------------------------|-----------------------------------|--------------------|------------------------------|--------------------|------------------|---------|
| | Device Information | | Operating System | Information | Network Informatio | on | |
| | Managed By: | QRMAgent v2016.11.3 | OS Family: | Windows | IPv4 Address | IPv6 Address | M |
| | Hostname: Localhost: | QRM-Win7SP1 QRM-Win7SP1 | OS: OS Release: | Microsoft Windows 7 專業版 7 | 192.168.0.105 | fe80::3cfc:5eb5: | 52 |
| | Device Tag: | Kernel: | Windows v6.1.7601 | | | | |
| Host is powered on | Manufacturer. | Bochs | | | | | |
| | CPU Model: 3.50GHz | Intel(R) Xeon(R) CPU E3-1246 v3 @ | | | | | |
| | CPU Architecture: | 32-bit | | | | | |
| | Physical Memory: | 1023 MB | | | | | |
| | Number of CPUs: | 2 | | | | | |
| 4 | | | | | | | |
| CPU Utilizatio | n (Live) | Ø | 🕸 🕍 Mer | nory Utilization (Live) | | Ø | ŝ |
| | | | | | | | _ |

4.4 Refresh all widgets information in the Dashboard

Setup steps:

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

| Device Summary | | | | | | Refresh | ^ |
|--------------------|------------------------------|-----------------------------------|--------------------|------------------------------|--------------------|------------------|------|
| | Device Information | | Operating System | Information | Network Informatio | on | |
| | Managed By: | QRMAgent v2016.11.3 | OS Family: | Windows | IPv4 Address | IPv6 Address | MA |
| | Hostname: Localhost: | QRM-Win7SP1 QRM-Win7SP1 | OS: OS Release: | Microsoft Windows 7 專業版 7 | 192,168.0,105 | fe80::3cfc:5eb5: | 52:5 |
| | Device Tag: | 0 | Kernel: | Windows v6.1.7601 | | | U.L. |
| Host is powered on | Manufacturer. | Bochs | | | | | |
| Host is powered on | CPU Model: | Intel(R) Xeon(R) CPU E3-1246 v3 @ | | | | | |
| | 3.50GHz CPU Architecture: | 32-bit | | | | | |
| | Physical Memory: | 1023 MB | | | | | |
| | Number of CPUs: | 2 | | | | | |
| 4 | | | | | | | Þ |
| CPU Utilization | (Live) | Ø | @ Mer | mory Utilization (Live) | | <u>ا</u> ک | ž2 |
| | (/ | | | , | | | |



4.5 Select the layout mode

Watch the video

Users can customize the layout of QRMAgent Single Device Dashboard, and the widgets will rearrange 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

| Device Manag | | 2.168.0.105) / Show | / Dashboard * | | Tools v | 2 columns 🔹 | ⊕ C Ⅲ | ? |
|--------------|-------------|---|---|---|---|---------------------|----------------------------------|-----------|
| | | Device Information Managed By: Hostname: Localhost: Device Tag: | QRMAgent v2016.11.3 QRM-Win7SP1 QRM-Win7SP1 | Operating System OS Family. OS: OS Release: Kernel: | Information Windows Microsoft Windows 7 寄業版 7 Windows v6.1.7601 | Network Information | IPv6 Address fe80::3cfc:5eb5: | MA 52: |
| Host is pov | wered on | Manufacturer. CPU Model: 3.50GHz CPU Architecture: Physical Memory. Number of CPUs: | P Bochs Intel(R) Xeon(R) CPU E3-1246 v3 @ 32-bit 1023 MB 2 | | | | | |
| CPU I | Utilization | (Live) | 0 | Mer | nory Utilization (Live) | | Ø | ŝ |

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

| | .168.0.105 × | | | | | | | | | | |
|----------------------|-------------------------|-----------------------------------|---|-----------------------------|----------------|----------|-------|-----|-----------|--------|----|
| Device Management (1 | 92.168.0.105) / Show | Dashboard 🔻 | | Tools 👻 | 2 c | olumns | * | • | G | Ŵ | ? |
| Device Summary | | | | | 1 co √ 2 co | olumn | 5 | | | | ^ |
| | Device Information | | Operating System In | formation | | olumns | at | ion | | | |
| | Managed By: | QRMAgent v2016.11.3 | OS Family: | Windows | | IPv4 Add | iress | П | Pv6 Add | ress | M |
| | Hostname: Localhost: | QRM-Win7SP1 QRM-Win7SP1 | OS: OS Release: | Microsoft Windows 7 專調 7 | | 192.168. | 0.105 | fe | e80::3cfc | :5eb5: | 52 |
| | Device Tag: | Ø | Kernel: | Windows v6.1.7601 | | | | | | | |
| Host is powered on | Manufacturer. | Bochs | | | | | | | | | |
| | CPU Model: 3.50GHz | Intel(R) Xeon(R) CPU E3-1246 v3 @ | | | | | | | | | |
| | CPU Architecture: | 32-bit | | | | | | | | | |
| | Physical Memory: | 1023 MB | | | | | | | | | |
| | Number of CPUs: | 2 | | | | | | | | | |
| 4 | | | | | _ | | | | | | |
| | n (Live) | Ø | 🚱 🔛 Memo | ory Utilization (Live) | | | | | | Ø | ŝ |
| CPU Utilizatio | .() | | | | _ | _ | _ | - | _ | _ | |
| CPU Utilizatio | | | | | | | | | | | |
| CPU Utilizatio | | | 100 ₁ | | | | | | | | |
| 1007 | . (2 | | | | | | | | | | _ |
| 1007 | . (| | | | | | | | | | |
| | | | 100 50 50 50 50 50 50 50 50 50 | | | | | | | | |



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"

| - | RRMt | | | | | | | | | Ű | ۵ | admin 🔻 | : |
|---|---------------|---------------------|--|---|---|------------------------|-------------|--|---|---------|---|-------------|---|
| 0 | Dashboard | 192.1 | 58.0.105 × | | | 1 | | | | | | | |
| | Device Manage | ement (192 | .168.0.105) / Show | Dashboard * | | Tools | 2 | columns 👻 | ۲ | C | Ŵ | ? | |
| | Device Sumr | mary | | | | Browse Device Ping | 2 | | | | | ^ | Â |
| | Host is pow | U ered on | Device Information Managed By: Hostname: Localhost: Device Tag: Manufacturer: CPU Model: 3.50GHz CPU Architecture: Physical Memory: Number of CPUs: | QRMAgent v2016.11.3 QRM-Win75P1 QRM-Win75P1 Bochs Intel(R) Xeon(R) CPU E3-1246 v3 @ 32-bit 1023 MB 2 | Operating System Inf OS Family: OS: OS Release: Kernel: | Traceroute | 小 業版 | Network Informa IPv4 Address 192.168.0.105 | 1 | Pv6 Add | | MAC 52:5 | |
| | | Hilization | Livo) | Ø | l he Mama | nu litilization (Livo) | | | | | Ø | + ش | |
| | | tilization (| This sit 192.168.0 Try: • Chec • Chec | e can't be reached 105 took too long to respond. king the connection king the proxy and the firewall TION_TIMED_OUT | | ry Utilization (Live) | D | ETAILS | - | | | | × |
| | | | | | | | | | | | | | |



4.7 Tools - ping

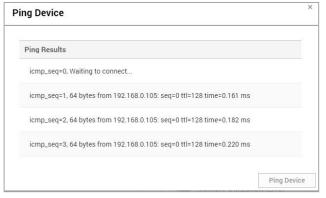
Watch the video

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:

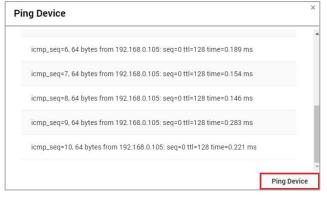
Step 1: Go to QRMAgent Single Device Dashboard page and click the "Tools" button Step 2: Select "Ping"

| Device Summary | | | | Browse Device | | | | | | |
|--------------------|--|-----------------------------------|-------------------------------|-----------------------|----|--------------|---------|----------|----------|---|
| | Device Information | | Operating System Inf | Traceroute | | Network Info | rmation | | | |
| | Managed By: | QRMAgent v2016.11.3 | OS Family: | Remote Desktop | | IPv4 Addre | ss | IPv6 Ad | dress | 1 |
| | Hostname: Localhost: Device Tag: | QRM-Win7SP1 QRM-Win7SP1 | OS: OS Release: Kernel: | RDP Settings | 業版 | 192.168.0.1 | 05 | fe80::3c | fc:5eb5: | |
| | Manufacturer. | Ø Bochs | Kennel. | Windows vo.1.7001 | | | | | | |
| Host is powered on | CPU Model: 3.50GHz | Intel(R) Xeon(R) CPU E3-1246 v3 @ | | | | | | | | |
| | CPU Architecture: | 32-bit | | | | | | | | |
| | Physical Memory: Number of CPUs: | 1023 MB 2 | | | | | | | | |
| 4 | | | | | | | | | í. | |
| CPU Utilization | (Live) | Ø | 🚳 🔛 Memo | ry Utilization (Live) | | | | | Ø | ŝ |

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"

| Device Management (19 | | Devices × Dashboard × | | Tools • | | 2 columns 🔹 | ŧ |) C I | Ì (? |
|-----------------------|---|--|------------------------|------------------------|-----|----------------|--------|----------------|----------|
| Device Summary | | | | Browse Device Ping | | | | | ^ |
| | Device Information | | Operating System Inf | Traceroute 2 | | Network Inform | nation | | |
| | Managed By: Hostname: | QRMAgent v2016.11.3 QRM-Win7SP1 | OS Family: OS: | Remote Desktop | 家業版 | IPv4 Address | 5 | IPv6 Address | s M/ |
| | Localhost: Device Tag: | QRM-Win7SP1 | OS Release: Kernel: | RDP Settings | | 192.168.0.105 | 5 | fe80::3cfc:5et | 52 |
| Host is powered on | Manufacturer. CPU Model: 3.50GHz | Bochs Intel(R) Xeon(R) CPU E3-1246 v3 @ | | | | | | | |
| | CPU Architecture: Physical Memory: | 32-bit 1023 MB | | | | | | | |
| | Number of CPUs: | 2 | | | | | | | |
| + | | ~ | ~~ I | | | | | | 0.63 |
| CPU Utilization | (Live) | 19 | 🕸 🕍 Memo | ory Utilization (Live) | | | | | \$ \$ |
| 100-1 | | | 100- | | | | | | |

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

| | aceroute | |
|-----------------------------|-------------------------------|--|
| | Traceroute Result | |
| 2.168.0.105 (192.168.0.105) | 192.168.0.105 (192.168.0.105) | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |



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

| Device Summary | | | | Browse Device | | | | ^ |
|--------------------|--|-----------------------------------|-------------------------------|------------------------|------------|----------------|-----------------|----|
| | Device Information | | Operating Syst | Ping Traceroute | Netw | ork Informatio | on | |
| | Managed By: | QRMAgent v2016.11.3 | OS Family: | Remote Desktop | RDP | 3 dress | IPv6 Address | M |
| | Hostname: Localhost: Device Tag: | QRM-Win7SP1 QRM-Win7SP1 | OS: OS Release: Kernel: | RDP Settings | VNC SSH | .0.105 | fe80::3cfc:5eb5 | 52 |
| | Manufacturer. | Ø Bochs | | | | _ | | |
| Host is powered on | CPU Model: | Intel(R) Xeon(R) CPU E3-1246 v3 @ | | | | | | |
| | 3.50GHz CPU Architecture: | 32-bit | | | | | | |
| | Physical Memory: | 1023 MB | | | | | | |
| | Number of CPUs: | 2 | | | | | | |
| 4 | | | | | | | | |
| CPU Utilizatio | n (Live) | ß | 🕸 🔛 Memo | ory Utilization (Live) | | | (| 00 |
| | | | | | | | | _ |



| ashboard 192 | All Devices × | 192.168.0.106 × | 1 | | |
|-----------------------|--|--|--|-------------------------|-------|
| Device Management (1 | 92.168.0.106) / Show Dashboar | d * | Tools | 2 columns 👻 | • C 🗎 |
| Device Summary | | | Power Control | | |
| | Device Information | Network Info | Remote Desktop | IPMI KVM Inapshot | t |
| Host is powered on | Managed By: IPMI v2.0 Mg. Name: Unknown (0xAC Mg. ID: 44040 Device Tag: Firmware Revision: 1.8 Device Revision: 1 Device ID: 32 Product ID: 55042 (0xd702) Device Available: yes | Subnet Mask MAC Address SNMP Comm String: | 192.168.0.106 c 255.255.255.0 s: 00:18:7d:3b:9f:fd | 20 | |
| | (All Parameters) | ۵ | IPMI Monitor (Single Paran | neter - Live) - CPU_TEM | IP1 G |
| IPMI Monitor | (Air r drameters) | | , | | |
| IPMI Monitor | Status | Value | | | |
| | | 38 °C | 00 | | |
| Metric Name | Status | 38 °C 1 | 30 - | | |
| Metric Name CPU_TEMP1 | Status Normal | 38 °C | 30 - | | |

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

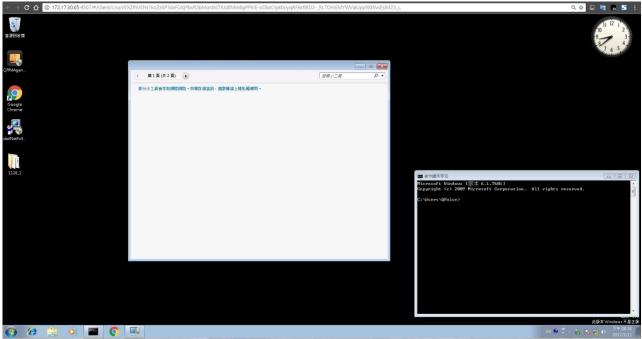
Step 5: Select the "Apply" button, or click the "Reset" button to re-enter

| Security Ch | leck | |
|----------------------------|--------------------|-----------------|
| You must con User Name: | firm your username | e and password. |
| Password: | | |
| | | |

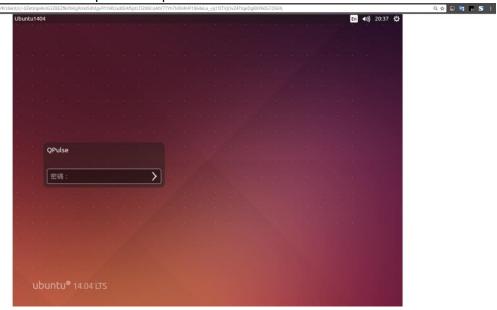
Step 6: The browser opens a new page to display the remote desktop. If the connection is successful, the remote desktop will be displayed. If the connection fails, an error message will be displayed and the user can try to reconnect.

Displays the remote desktop screen upon successful RDP connection





Displays the remote desktop screen upon successful VNC connection

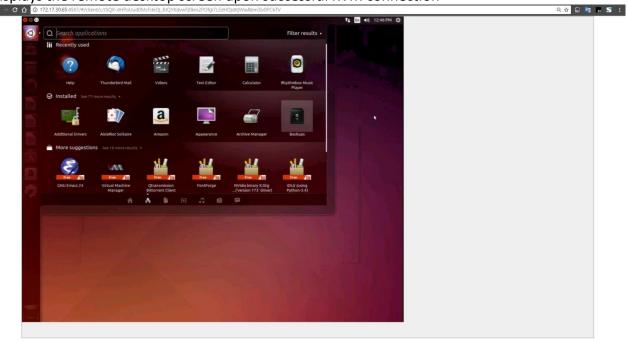




Displays the remote desktop screen upon successful SSH connection



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"

| Device Summary | | | | Browse Device Ping | | | | ^ |
|--------------------|---|--|------------------------|----------------------------------|-----------|---------------|------------------|-----|
| | Device Information | | Operating System Inf | Traceroute Remote Desktop 🗼 — | Netwo | rk Informatio | on | |
| | Managed By: Hostname: | QRMAgent v2016.11.3 QRM-Win7SP1 | OS Family: 2 OS: | Power Control RDP Settings | Power Off | dress | IPv6 Address | M |
| | Localhost: Device Tag: | QRM-Win7SP1 | OS Release: Kernel: | willuows vo.1./out | Restart | 0.105 | fe80::3cfc:5eb5: | 51 |
| Host is powered on | Manufacturer. CPU Model: 3.50GHz | Bochs Intel(R) Xeon(R) CPU E3-1246 v3 @ | | | | | | |
| | CPU Architecture: | 32-bit | | | | | | |
| | Physical Memory: Number of CPUs: | 1023 MB 2 | | | | | | |
| | Humber of or os. | • | | | | | | |
| 4 | | | | | | | 0 | ŝ |
| CPU Utilizatio | n (Live) | 3 | 🕸 🔟 Memo | ory Utilization (Live) | | | 19 | 205 |



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

| ice Information haged By: IPMI v2.0 Name: Unknown (0 ID: 44040 ice Tag: Ware Revision: 1.8 | | Network Information IP Address Source: IP Address: Subnet Mask: MAC Address: SNMP Community | Tools • DHCP Address 192.168.0.106 255.255.255.0 00:18:7d:3b:9f:fd | 2 columns V | Add Wide | lget . |
|---|--|--|--|--|--|--|
| naged By: IPMI v2.0 . Name: Unknown (0 . ID: 44040 ice Tag: ware Revision: 1.8 | xAC08) | IP Address Source: IP Address: Subnet Mask: MAC Address: | DHCP Address 192.168.0.106 255.255.255.0 | Remote Snapshot | Add Wid | lget |
| naged By: IPMI v2.0 . Name: Unknown (0 . ID: 44040 ice Tag: ware Revision: 1.8 | XAC08) | IP Address Source: IP Address: Subnet Mask: MAC Address: | DHCP Address 192.168.0.106 255.255.255.0 | Remote Snapshot | | |
| Name: Unknown (0. 1D: 44040 ice Tag: ware Revision: 1.8 | XAC08) | IP Address: Subnet Mask: MAC Address: | 192.168.0.106 255.255.255.0 | | | |
| ice Available: yes | 10.5. | String: | AMI | | | |
| status | Value | | | | | |
| Normal | 38 °C | | | | | |
| Normal | 4.879 Volts | | | | | |
| Normal | 12.047 Volts | | | | | |
| i | uct ID: 55042 (0xd7 ce Available: yes ameters) Status Normal Normal | Status Value Normal 4.879 Volts Normal 12.047 Volts | ameters) Status Value Normal 38 °C Normal 12.047 Volts | ameters) Image: Constraint of the second o | wet ID: 55042 (0xd702) ameters) Image: Constraint of the second | ameters) Status Value Normal 38 °C Normal 4.879 Volts Normal 12.047 Volts |

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"

| tric type | | |
|-----------|---|--|
| IPMI | Ħ | IPMI Monitor (All Parameters) |
| | | This widget displays all the IPMI Parameters supported by the device's BMC alongwith each parameter's value and status. This widget will display all this information in a Grid/Table. All these parameters will be polled with Live Data Polling frequency, set by the QRM+ admin. |
| 2 | ĸ | IPMI Monitor (Single Parameter - Live) This widget displays the value of single IPMI parameter of the device being managed, in an Area Chart format. User can select the Device/Server and then single IPMI parameter of that device to be displayed. This parameter will be polled with Live Data Polling frequency, set by the QRM+ admin. |
| | | IPMI Monitor (Multiple Parameters - Live) |
| | | This widget displays values of multiple IPMI parameter of the device being managed, in Gauge format. Each parameter value is represented by a gauge. User can select the Device/Server and then Multiple IPMI parameters (upto 3 max) of that device to be displayed. These parameters will be polled with Live Data Polling frequency, set by the QRN/H admin. |

Step 4: Select the type of sensor to be monitored in the IPMI device Step 5: Click "Next"

| 🔁 Add new widget | to | lashboard | | 8 |
|-----------------------|-------|-----------------------------------|---------------|----|
| 1 Metric type | IPMI | Jonitor (Single Parameter - Live) | | |
| IPMI | | IPMI Sensors | | |
| | | +3.3V | • | |
| | | +5VSB | | |
| | | DDR3 | | |
| | | +12V | | |
| | | +5V | | |
| | | CPU_CORE | | |
| 4 | 2 | CPU_TEMP1 | v | |
| Note: Please select a | ny on | e device/server. | Previous Next | _5 |

Step 6: Select the type of chart

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

| 🗗 Add new | get to dashboard | 8 |
|-------------|--|------------|
| Metric type | 2 IPMI Monitor (Single Parameter - Live) | |
| | Wednet Tons | |
| IP | Widget Type Area Chart 6 | |
| | | |
| | | |
| | | |
| | | |
| | | 0 |
| | Previous | Add Widget |



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

| Device Summary Bevice Information Managed By: Information Managed By: | ashboard 19 | 2.168.0.105 × 192.168.0.1 | 08 × All Devices × | 192.168.0.106 | × | | | | |
|--|---------------------|---|--------------------|---|---|-----------------------|------|-----|-----|
| Device Information Managed By: IPMI V2.0 IPA ddress Source: DHCP Address Device Information Remote Snapshot Host is powered on Market Revision: 1.8 Device Revision: 2.5 Device Revision: 1.8 Device Revision: 1.8 Device Revision: 1.8 Device Revision: 1.8 Device Revision: 2.5 Device Revision: 1.8 Device Revision: 2.5 Device Revision: 2.5 Device Revision: 1.8 Device Revision: 2.5 Device Revision: 1.5 Device Revision: 1.8 Device Revision: 2.5 Device Revision: 2.5 Device Revision: 1.5 Device Revision: 2.5 Device Revision: Device Revision: De | Device Management (| 192.168.0.106) / Show D | ashboard · | | Tools 👻 | 2 columns | · (| C 🗊 | |
| Managed By: IPMI V2.0 Mg. Name: Unknown (0xAc08) Mg. ID: 44040 Device Tag: IP Address Immware Revision: 1.8 Device Fay: 0:18:7d:3b:9f.fd SINP Community AMI Device Prevision: 1 Device Prevision: 1 Device Prevision: 1 Device Available: yes Product ID: 55042 (0xd702) Device Available: yes Metric Name Status Value Value | Device Summary | | | | | | | | |
| Mig. Name: Unknown (0xAC08) Mig. ID: 44040 Device Tag: Image: Comparison of the comp | | Device Information | | Network Information | 1 | Remote Snaps | shot | | |
| Metric Name Status Value ODU TENDI Named 00 0 0 | | Mfg. Name: Unknow Mfg. I0: 44040 Device Tag: Firmware Revision: 1.8 Device Revision: 1 Device ID: 32 | n (0xAC08) | IP Address: Subnet Mask: MAC Address: SNMP Community | 192.168.0.106 255.255.255.0 00:18:7d:3b:9f:fd | | | | |
| | 4 | | JAU (02) | | | | | | |
| | IPMI Monitor | Device Available: yes | xu102) | IPM | Monitor (Single Param | eter - Live) - CPU_TE | EMP1 | G | 0 @ |
| +5V Normal 4.879 Volts 9 60 - | 0 | Device Available: yes (All Parameters) | | | Monitor (Single Param | eter - Live) - CPU_TE | EMP1 | G | 0 @ |
| | Metric Name | Device Available: yes (All Parameters) Status | Value | 100 | Monitor (Single Param | eter - Live) - CPU_TE | EMP1 | G | 0 @ |
| +12V Normal 12.047 voits 2 40 | Metric Name | All Parameters) Status Normal | Value 38 ° | 100 | Monitor (Single Param | eter - Live) - CPU_TE | EMP1 | G | 0 6 |

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

| ashboard 193 | 2.168.0.105 × 192 | All Devices | , × 1 | 192.168.0.106 | < | | |
|---------------------|--|--|---------------------|--|--|--------------------------|-------|
| Device Management (| 92.168.0.106) / Show | Dashboard v | | | Tools * | 2 columns 🔹 🕀 |) C 🗊 |
| Device Summary | | | | | | | L |
| | Device Information | | N | etwork Information | | Remote Snapshot | |
| Host is powered on | Mfg. Name: Mfg. ID: Device Tag: Firmware Revision: Device Revision: Device ID: Product ID: | IPMI v2.0 Unknown (0xAC08) 44040 1.8 1.8 1 32 55042 (0xd702) yes | IP Su M St | Address Source: Address: ubnet Mask: IAC Address: IAC Address: NMP Community tring: | DHCP Address 192.168.0.106 255.255.255.0 00:18:7d:3b:9f:fd AMI | | |
| 4 | | | -0 | | | | G |
| IPMI Monitor | (All Parameters) | | 傪 | IPMI | Monitor (Single Parame | eter - Live) - CPU_TEMP1 | |
| IPMI Monitor | (All Parameters) Status | 5 | Value | | Monitor (Single Parame | eter - Live) - CPU_TEMPT | ~ |
| 0 | | | | 1007 | Monitor (Single Parame | eter - Live) - CPU_TEMPT | ~ |
| Metric Name | Status | d | Value | | Monitor (Single Parame | ster - Live) - CPU_TEMPT | ~ |



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

| RRM± | | | | | <u>ا</u> گ | ධ admin | |
|---|---|-------------------------------|--|------------------------------|------------|---------|---|
| Dashboard 192 Device Management (1 Device Summary | .168.0.105 × All Devices × 92.168.0.106) / Show Dashboard | 192.168.0.106 × | Tools | ▼ 2 columns ▼ 🕀 | | iresh |] |
| Host is powered on | Device Information Managed By: IPMI v2.0 Mfg.Name: Unknown (0xAC08 Mfg.ID: 44040 Device Tag: Firmware Revision: 1.8 Device Revision: 1 Device ID: 32 Product ID: 55042 (0xd702) Device Available: yes | IP Ai IP Ai Subr MAC | Address Source: DHCP Address Iddress: 192.168.0.106 Net Mask: 255.255.255.0 Address: 00:18:7d:3b:9f:fd P Community AMI | Remote Snapshot | | | |
| IPMI Monitor | (All Parameters) | Value | IPMI Monitor (Single Pa | arameter - Live) - CPU_TEMP1 | | 0 ¢ | |
| CPU_TEMP1 | Normal | 38 °C | 100 | | | | |
| CPU_CORE | Lower Non Recoverable | 0.847 Volts | () 80 - en en e | | | | |
| +5V | Normal | 4.879 Volts | - 04 - | | | | |
| +12V | Normal | 12.047 Volts | E 20 - | | | | |



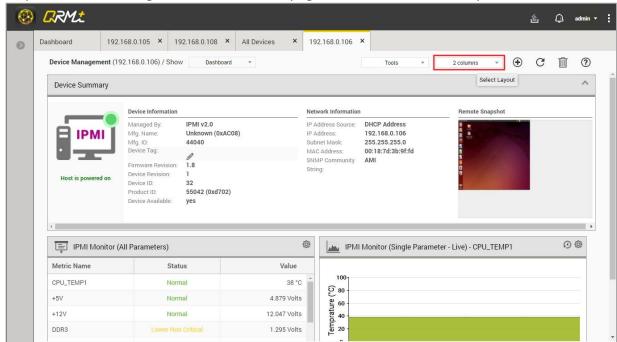
4.15 Select the layout mode

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"

| RRMt | | | | | 阖 | Q |
|--------------------|---|--|---|---------------------------------|-----|---|
| ashboard 1 | 92.168.0.105 × All Devices × | 192.168.0.106 × | | | | |
| Device Management | (192.168.0.106) / Show Dashboard | × | Tools * | 2 columns 🔻 | • C | Û |
| Device Summary | | | | 1 column | | |
| | Device Information | Network Infor | nation | ✓ 2 columns 3 columns t | | |
| E IPMI | Managed By: IPMI v2.0 Mfg. Name: Unknown (0xAC0 Mfg. ID: 44040 Device Tag: Firmware Revision: 1.8 | Subnet Mask: MAC Address: SNMP Commu | 192.168.0.106 255.255.255.0 00:18:7d:3b:9f:fd | | | |
| Host is powered on | Davias Rovinian: | String: | | | | |
| 0 | r (All Parameters) | | IPMI Monitor (Single Paran | neter - Live) - CPU_TEMP1 | 1 | 0 |
| Metric Name | Status | Value | | | | |
| CPU_TEMP1 | Normal | 38 °C 10 | | | | |
| | Lower Non Recoverable | 0.527 Volts 4.879 Volts 12.047 Volts 0.527 Volts 0.52 | | | | |
| CPU_CORE | | | | | | |
| CPU_CORE +5V | Normal | 4.879 Volts | | | | |



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"

| | | | | (1) | | | | |
|---------------------------|--|--|--|--|------------------------|----------|---|------------|
| Device Management (| (192.168.0.106) / Show | Dashboard 💌 | | Tools | • 2 columns | · • | C | Ŵ |
| Device Summary | | | 2 | Power Control | Power On | 1 | | |
| | Device Information | | Network Information | Remote Desktop | Power Off 3 Restart | hapshot | | |
| Host is powered on | Mfg. Name: Unkr Mfg. ID: 4404 Device Tag: Firmware Revision: 1.8 Device Revision: 1 Device ID: 32 | I v2.0 nown (0xAC08) 40 42 (0xd702) | IP Address Source: IP Address: Subnet Mask: MAC Address: SNMP Community String: | DHCP Address 192.168.0.106 255.255.255.0 00:18:7d:3b:9f:fd AMI | Power cycle | | | |
| 4 | | | | | | | | |
| IPMI Monitor | (All Parameters) | | IPMI | Monitor (Single Pa | rameter - Live) - C | PU_TEMP1 | | Q (|
| IPMI Monitor Metric Name | r (All Parameters) Status | Value | IPMI | Monitor (Single Pa | rameter - Live) - C | PU_TEMP1 | | Q { |
| 0 | | | 100 | Monitor (Single Pa | rameter - Live) - C | PU_TEMP1 | | <u>ی</u> و |
| • Metric Name | Status | Value 38 °C | 100 | Monitor (Single Pa | rameter - Live) - C | PU_TEMP1 | | <u>ی</u> ک |
| Metric Name CPU_TEMP1 | Status Normal | Value 38 °C | 100 () 80 9 60 | Monitor (Single Pa | rameter - Live) - C | PU_TEMP1 | | 0 |

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

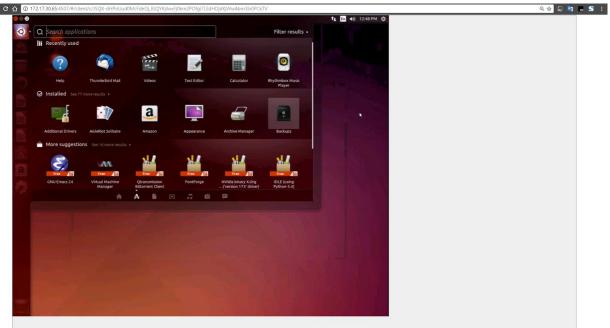
Step 2: Select "Remote Desktop"

Step 3: Select "IPMI KVM"



| Device Menonement | 2.168.0.105 × All Devices × (192.168.0.106) / Show Dashboard | | | | a m |
|---------------------|--|---|--------------------------------|--------------------------|-----|
| Device Management (| 192.108.0.100) / Show Dashboard | * | Tools * | 2 columns 👻 🕀 | CÎ |
| Device Summary | | | Power Control | | |
| | Device Information | Network Infor | Remote Desktop | IPMI KVM 3 | |
| ІРМІ | Managed By: IPMI v2.0 Mfg, Name: Unknown (0xACC Mfg, ID: 44040 Device Tag: | IP Address So IP Address: Subnet Mask: MAC Address | 192.168.0.106 255.255.255.0 | | |
| Host is powered on | Firmware Revision: 1.8 Device Revision: 1 Device ID: 32 Product ID: 55042 (0xd702) Device Available: yes | SNMP Comm String: | unity AMI | | |
| | | | | | |
| IPMI Monitor | (All Parameters) | Value | IPMI Monitor (Single Parame | eter - Live) - CPU_TEMP1 | Ø |
| IPMI Monitor | | Value 38 °C 10 | 0 | eter - Live) - CPU_TEMP1 | ß |
| IPMI Monitor | Status | Value | 0 | eter - Live) - CPU_TEMP1 | Ø |

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



QNAP 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 <u>add a new device</u> in the "KVM Manager" section, then click the "Add KVM Widget" button

| (| RRMt | | | | | | | | | ٤. | 99+ [_]} | admin 👻 | : |
|----------------|--------------------|---|----------------|-------------|---------|-----------------------|---------------------------|-------------------------|--------------------|----|-------------|---------|---|
| | | 0 | Dashboard | All Devices | × | KVM Dashboard × | | | | | | | |
| 🕑 Da | ashboard | | IPMI KVM / KVM | Dashboard | | | | | 3 columns 🔹 | ۲ | G | ? | |
| | MI KVM | ^ | | | | | | | | | | | |
| K١ | VM Dashboard | | | | | | | | | | | | |
| K | VM Manager | | | | | | | | | | | | |
| K | VM Playback | | | | | | | | | | | | |
| Q De | evice Discovery | | | | | | | | | | | | |
| ∳¦∳ De | evice Management | ~ | | | | | [o] | | | | | | |
| <u>َشْ</u> Ale | erts Configuration | | | | | | | | | | | | |
| E Lo | ogs | ~ | | т | he KV/M | dashboard does not ba | ve any widgets. You can a | add widgets with the "/ | Add Widget" button | | | | |
| දිවූ Se | ettings | ~ | | | | uushbouru uoes not ne | ve any magets. Tou can t | add mogets mar are 7 | au mager batton. | | | | |
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| | | | | | | | | | | | | | |

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

| IPMI Devices | Hostname | IP Address | Device Tag | Managed by | Operating System |
|--------------|---------------|---------------|------------|------------|------------------|
| | 192.168.0.102 | 192.168.0.102 | | | unknown |
| | | | | | |
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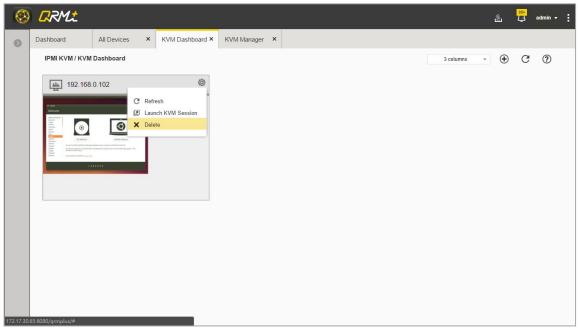


Watch the video

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".

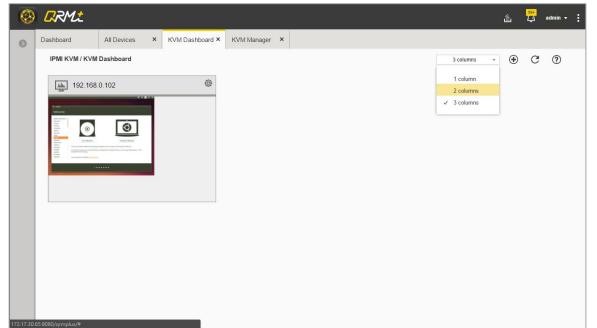


5.3 Layout mode

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"



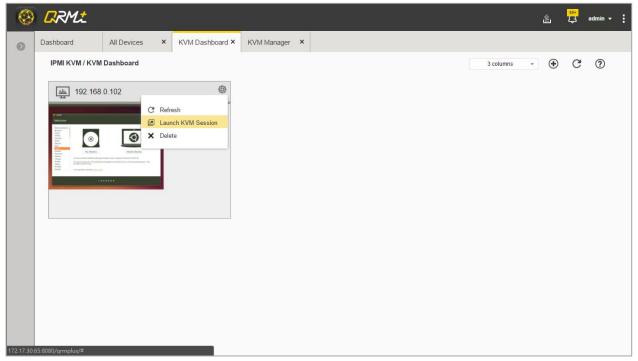


5.4 Launch KVM Remote Desktop

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.

| IPMI KVM KVM Dashboard IPMI kVM IPMI kVM <th></th> <th>0</th> <th>Dashboard All D</th> <th>Devices × KVM Da</th> <th>ashboard × KVM Manager</th> <th>~</th> <th></th> <th></th> | | 0 | Dashboard All D | Devices × KVM Da | ashboard × KVM Manager | ~ | | |
|---|--|---|---------------------|------------------|------------------------|----------------------|------------------|-----------------------|
| KVM Dashboard 192.168.0.102 192.168.0.102 IPMI IEI Technology Corp. Enabled 04/27/2017 11:1 KVM Manager KVM Playback Povice Discovery Povice Discovery Povice Management Povice Note Povice Note Povice Povice </th <th>Dashboard</th> <th></th> <th>IPMI KVM / KVM Mana</th> <th>ger</th> <th></th> <th></th> <th>• 🖉 🕀</th> <th>1 C 0</th> | Dashboard | | IPMI KVM / KVM Mana | ger | | | • 🖉 🕀 | 1 C 0 |
| KVM Manager KVM Playback Device Discovery Device Management Alerts Configuration Logs | | ^ | Hostname | IP Address | Management Technol | Brand | Recording Status | Recording Since |
| KVM Playback Device Discovery Device Management Alerts Configuration Logs | KVM Dashboard | | 192.168.0.102 | 192.168.0.102 | IPMI | IEI Technology Corp. | Enabled | 04/27/2017 11:11:00 A |
| Device Discovery Image: Instance of the second s | KVM Manager | | | | | | | |
| b t Device Management ↓ ∴ Alerts Configuration ⇒ Logs ↓ | | | | | | | | |
| Alerts Configuration ∃ Logs ✓ | KVM Playback | | | | | | | |
| ILogs V | | | | | | | | |
| | Device Discovery | ~ | | | | | | |
| | Device Discovery | ~ | | | | | | |
| 😚 Settings 🗸 🗸 | Device Discovery ↓↑ Device Management ☆ Alerts Configuration | | | | | | | |
| | Device Discovery Device Management Alerts Configuration | ~ | | | | | | |
| | Device Discovery | ~ | | | | | | |

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



| 0 | | | | | | 4 | | | Ű | <mark>99+</mark> لي admir | · • : |
|---|----------------|-------------|---------|-----------------|------------------|-------|-------|-----------------|----------|------------------------------|-------|
| 0 | Dashboard | All Devices | × | KVM Dashboard × | KVM Manager 🗙 | | | | | | |
| | IPMI KVM / KVM | Manager | | | | | | | | |) |
| | Hostname | | IP Addr | ess | Management Techn | ology | Brand | Recording State | us R Add | Device ince | |
| | | | | | | | | | | | |
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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.

| 192.168.0.102 IPMI | 192.168.0.102 IPMI | Select the IPMI devices to add | d to KVM Manager. | | | |
|---------------------------------------|--------------------------|--------------------------------|-------------------|------------|-----------------------|--------------------|
| | | Hostname | IP | Device Tag | Management Technology | Brand |
| 92.168.0.107 192.168.0.107 US 2F IPMI | 192.168.0.107 US 2F IPMI | 192.168.0.102 | 192.168.0.102 | | IPMI | IEI Technology Cor |
| | | 192.168.0.107 | 192.168.0.107 | US 2F | IPMI | IEI Technology Cor |
| | | | | | | |
| | | | | | | |
| | | | | | | |
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| | | | | | | |



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

| | 9 | RRMt | | | | | | | ⁸⁹⁺ 眞 〔〕 admin |
|---|---|----------------|-------------|---------|-----------------|-----------------------|----------------------|------------------|-------------------------------|
| ✓ Hostname IP Address Management Technology Brand Recording Status Recording Remove | l | Dashboard | All Devices | × | KVM Dashboard × | KVM Manager × | | | |
| | | IPMI KVM / KVN | l Manager | | | | | | • 🗊 C 📀 |
| ✓ 192.168.0.102 192.168.0.102 IPMI IEI Technology Corp. Disabled N/A | 5 | / Hostname | | IP Addr | ess | Management Technology | Brand | Recording Status | Recordir Remove Devic |
| | | 192.168.0.102 | | 192.168 | .0.102 | IPMI | IEI Technology Corp. | Disabled | N/A |
| | | | | | | | | | |
| | | | | | | | | | |
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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.

| e. | Dashboard | All Devices | × | KVM Dashboard × | KVM Manager × | | _ | |
|----|----------------|-------------|---------|-----------------|-----------------------|----------------------|----------------------|----------------------|
| | IPMI KVM / KVM | l Manager | | | | | | • 🗊 C |
| í | Hostname | | IP Addr | ess | Management Technology | Brand | Recording Start Reco | rding ecording Since |
| | 192.168.0.102 | | 192.168 | .0.102 | IPMI | IEI Technology Corp. | Disabled | N/A |
| i | 192.168.0.107 | | 192.168 | .0.107 | IPMI | IEI Technology Corp. | Disabled | N/A |
| Π. | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



6.4 Stop Recording

Watch the video

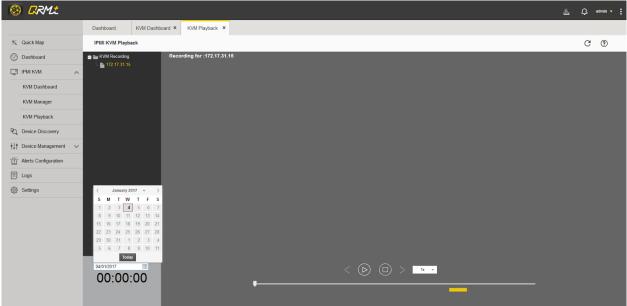
Stop Recording will stop the remote video recording and saving to file function, but it does not affect the already saved video files, and such files can still be played back.

| ashboard | Dashboard All Devices × KVM Dashb | | | | | | <mark>99+</mark> 色 Q admin |
|----------------|-----------------------------------|---------------|------------------------|-----------------------------|----------------------------------|---|---|
| | All Devices | × | KVM Dashboard $	imes$ | KVM Manager × | | | |
| IPMI KVM / KVM | Manager | | | | | . 0 |) 🗊 C 🤉 |
| Hostname | | IP Addr | ess | Management Technology | Brand | Recording Status Sto | p Recording ig Since |
| 192.168.0.102 | | 192.168. | 0.102 | IPMI | IEI Technology Corp. | Enabled | 04/27/2017 11:32:15 AM |
| 192.168.0.107 | | 192.168. | 0.107 | IPMI | IEI Technology Corp. | Disabled | N/A |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | 192.168.0.102 | 192.168.0.102 | 192.168.0.102 192.168. | 192.168.0.102 192.168.0.102 | 192.168.0.102 192.168.0.102 IPMI | 192.168.0.102 192.168.0.102 IPMI IEI Technology Corp. | 192.168.0.102 IPMI IEI Technology Corp. Enabled |

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



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

| C | Dashboard | All Devices × U | ser Managem × | Device Discove | × Alerts Configur × | |
|---|----------------|-----------------------------|---------------|-----------------|---------------------|---------------------------|
| | Alerts Configu | ration | | | | 🕀 🗊 🖲 🖉 🗹 C, 🕐 |
| | Alert Status | Alert Name | Alert Type | Monitored v | Condition | Add Alert devices/servers |
| | Enabled | Email Server Alert (memory) | QRM+ Alerts | Memory Utiliz | > 50% | N/A |
| | Enabled | Email Server Alert (cpu) | QRM+ Alerts | CPU Utilizatio | > 60% | N/A |
| | Enabled | Email Server Alert (disk) | QRM+ Alerts | Disk Utilizatio | > 70% | N/A |
| | | | | | | |
| | | | | | | |



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

| Alert Name: Alert Type: | alert_demo | | 1 2 | | | | 3 |
|----------------------------|------------|------------|------------|--------------------|-------|-------|---------------|
| Selected devic | es/servers | | | | 1 | | • fill Select |
| Hostnam | ie | IP Address | Device Tag | Managed by | Brand | Model | Operating S |
| | | | No dev | ices are selected. | | | |

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

| | | | | | | Hostname, IP address, Device | IPMI | G |
|---|-----------------|---------------|------------|------------|----------------------|------------------------------|------------------|---|
| | Hostname | IP Address | Device Tag | Managed by | Brand | Model | Operating System | 1 |
| ~ | • 192.168.0.100 | 192.168.0.100 | | IPMI | IEI Technology Corp. | Unknown | IPMI Management | |
| | 192.168.0.102 | 192.168.0.102 | | IPMI | IEI Technology Corp. | Unknown | IPMI Management | |
| | | | | | | | | |
| | | | | | | | | |



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)

| Hostname IP Address Device Tag Managed by Brand Model Operating S. | | t Name: | alert_c | demo | | | | | |
|---|-----|-----------|---------|---------------|------------|------------|---------------|---------|--------------|
| | | | | | | | | | • |
| I 192.168.0.100 I 192.168.0.100 I IPMI IPMI IEI Technolog Unknown IPMI Manage | | Hostnam | ie 📘 | IP Address | Device Tag | Managed by | Brand | Model | Operating S |
| | | 192.168.0 | 0.100 | 192.168.0.100 | | IPMI | IEI Technolog | Unknown | IPMI Manage. |
| | | | | | | | | | |
| | ıı. | < Pac | ge 1 | of 1 🔵 📎 1 | - 1 of 1 | | | | |
| Page 1 of 1) 1-1 of 1 | 11 | | | | | | | | |

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 2: Click the Delete Alert Dutton

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

| | Alerts Configu | ration | | | | |
|---|----------------|-----------------------------|-------------|-----------------|-----------|--------------------------|
| | Alert Status | Alert Name | Alert Type | Monitored v | Condition | Select Delete Alert vers |
| | Disabled | Email Server Alert (memory) | QRM+ Alerts | Memory Utiliz | > 50% | N/A |
| | Disabled | Email Server Alert (cpu) | QRM+ Alerts | CPU Utilizatio | > 60% | N/A |
| | Disabled | Email Server Alert (disk) | QRM+ Alerts | Disk Utilizatio | > 70% | N/A |
| ~ | Enabled | alert_demo | IPMI Events | N/A | N/A | 192.168.0.100 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |



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

| | Alert Status | Alert Name | Alert Type | Monitored v | Condition | Enable Alert |
|---|--------------|-----------------------------|-------------|-----------------|-----------|---------------|
| | Disabled | Email Server Alert (memory) | QRM+ Alerts | Memory Utiliz | > 50% | N/A |
| | Disabled | Email Server Alert (cpu) | QRM+ Alerts | CPU Utilizatio | > 60% | N/A |
| | Disabled | Email Server Alert (disk) | QRM+ Alerts | Disk Utilizatio | > 70% | N/A |
| ~ | Disabled | alert_demo | IPMI Events | N/A | N/A | 192.168.0.100 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

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

| | Alerts Configu | Alert Name | Alert Type | Monitored v | Condition | Disable Alert | | | | |
|---|----------------|-----------------------------|------------------------------|----------------|-----------|---------------|--|--|--|--|
| | Disabled | Email Server Alert (memory) | QRM+ Alerts | Memory Utiliz | > 50% | N/A | | | | |
| | Disabled | Email Server Alert (cpu) | QRM+ Alerts | CPU Utilizatio | > 60% | N/A | | | | |
| | Disabled | Email Server Alert (disk) | QRM+ Alerts Disk Utilizatio. | | > 70% | N/A | | | | |
| ~ | Enabled | alert_demo | IPMI Events | N/A | N/A | 192.168.0.100 | | | | |
| | A. 4. | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |



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.

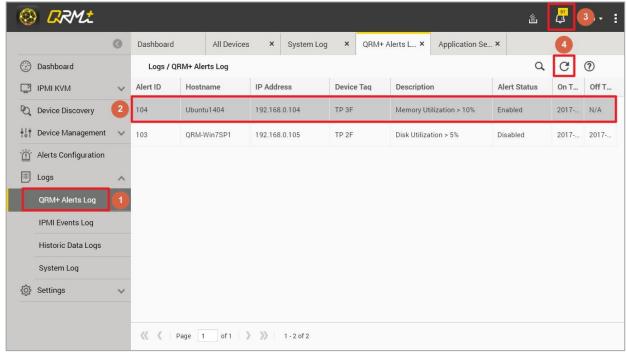
The basic steps are:

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

| 8 | | . * | | | | | | | Ľ | : 4 | admin 🔻 | : |
|---|-----------|----------------|-------|------------|---------|-----------------|-------------------|--------------|---------------------|----------|--------------|---|
| 0 | Dashboard | All Devices | × | System Log | × | QRM+ Alerts L × | Application Se × | : | | | | |
| | Logs / QF | RM+ Alerts Log | | | | | | | | a 0 | ? | |
| | | d Search: | | Se | lect de | evice 2 | | | 3 Apply | | Reset | |
| | Alert ID | Hostname | IP Ad | dress | Devi | ce Taq Descript | tion | Alert Status | On Time | • Off Ti | ne | |
| | 104 | Ubuntu1404 | 192.1 | 68.0.104 | TP 3 | F Memory | Utilization > 10% | Enabled | 2017-06-16 15:28:50 | N/A | | |
| | 103 | QRM-Win7SP1 | 192.1 | 68.0.105 | TP 2 | F Disk Utili | zation > 5% | Disabled | 2017-06-16 15:24:20 | 2017-0 | 6-16 15:27:1 | 6 |
| | | Page 1 of 1 | >> | 1-2 of 2 | | | | | | | | |

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.

| 8 | RRMt | | | | | | | | | Ű | 91 4 | admin 🔻 | : |
|--------------|-----------------------|---|---------------------------|---|---|------------|---|-----------------|------------------|---|---------|---------|---|
| | | 0 | Dashboard | All Devices | ۲ | System Log | × | QRM+ Alerts L × | Application Se × | | | | |
| | Dashboard | | Settings / Applic | ation Settings | | | | | | | | ? | |
| | IPMI KVM | ~ | Log Retention | Settings | | | | | | | | | |
| R. | Device Discovery | | Alert Log: | | | 1 Week | | ~ | | | | | |
| †!† | Device Management | ~ | IPMI Events | Log: | | 1 Week | | * | | | | | |
| <u>`</u> !!́ | Alerts Configuration | | KVM Video Historic Dat | | | 1 Week | | * | | | | | |
| | Logs | ~ | System Log | - | | 1 Week | | * | | | | | |
| ŝ | Settings | ^ | | | | | | | | | | | |
| | User Management | | Data collection | | | | | | | | | | |
| | Notification Settings | | remote devi | ween periodic scans on ces (minutes): | | 1 | | * | | | | | |
| | Application Settings | | | ween real-time scans of ces (seconds): | n | 10 | | Z. | | | | | |
| | QRMAgent Repositor | у | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | Apply |] | | | | | | | | | |



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

| | 1 | | | | |
|-----------------|------------|-----------------------|----------------------------------|--|--|
| rvers | | | 1/ | 1 | • |
| IP Address | Device Tag | Managed by | Brand | Model | Operating S. |
| 192.168.0.100 🗵 | | IPMI | IEI Technolog | | IPMI Manage. |
| | IP Address | IP Address Device Tag | IP Address Device Tag Managed by | IP Address Device Tag Managed by Brand | IP Address Device Tag Managed by Brand Model |

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.

| Dashboard | All Device | es × System Lo | g × QRM+ | Alerts L × Ap | plication Se × | IPMI Events Log × | | |
|-----------|----------------|----------------|------------|---------------|----------------|-------------------|----------------|---------------------------------|
| Logs / I | PMI Events Log | | | | | | | ୦.୦ ୧ |
| Event ID | Hostname | IP Address | Device Tag | Sensor Type | Metric Name | NAS Time | Event Time | Description |
| 68524 | 192.168.0.100 | 192.168.0.100 | | Temperature | CPU_TEMP1 | 2017-06-16 16: | 2017-06-16 07: | Lower Critical going low |
| 68525 | 192.168.0.100 | 192.168.0.100 | | Temperature | CPU_TEMP1 | 2017-06-16 16: | 2017-06-16 07: | Lower Non-critical going low |
| 68523 | 192.168.0.100 | 192.168.0.100 | | Temperature | CPU_TEMP1 | 2017-06-16 16: | 2017-06-16 07: | Lower Critical going low |
| 68522 | 192.168.0.100 | 192.168.0.100 | | Voltage | DDR3 | 2017-06-16 15: | 2017-06-16 07: | Lower Critical going low |
| 68521 | 192.168.0.100 | 192.168.0.100 | | Voltage | DDR3 | 2017-06-16 15: | 2017-06-16 07: | Lower Critical going low |
| 68520 | 192.168.0.100 | 192.168.0.100 | | Voltage | +3.3VSB | 2017-06-16 15: | 2017-06-16 07: | Lower Non-critical going low |
| 68518 | 192.168.0.100 | 192.168.0.100 | | Voltage | +3.3VSB | 2017-06-16 15: | 2017-06-16 07: | Lower Non-recoverable going low |
| 68519 | 192.168.0.100 | 192.168.0.100 | | Voltage | +3.3VSB | 2017-06-16 15: | 2017-06-16 07: | Lower Critical going low |
| 68515 | 192.168.0.100 | 192.168.0.100 | | Voltage | +3.3VSB | 2017-06-16 15: | 2017-06-16 07: | Lower Non-critical going low |
| 68516 | 192.168.0.100 | 192.168.0.100 | | Voltage | +3.3VSB | 2017-06-16 15: | 2017-06-16 07: | Lower Critical going low |

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

| | All Device | es × System Lo | g × QRM | + Alerts L × Ap | plication Se × | IPMI Events Log × | | |
|----------------|--------------------------------|--------------------------------------|---------------|----------------------------|------------------------|----------------------------------|----------------------------------|------------------------------|
| Logs / I | PMI Events Log | | | | | | | Q C (? |
| Advanc | ced Search: | | | | | | | |
| IP | Address: 192.16 | 58.0.100 | Select device | | | | | |
| Se | ensor Type: | ▼ Met | ric Name: | * | | | | |
| Pe | eriod: | * | | | | | | |
| | | | | | | | | Apply Reset |
| Event ID | Hostname | IP Address | Device Tag | Sensor Type | Metric Name | NAS Time | Event Time | Description |
| | | | | | | | | |
| 68524 | 192.168.0.100 | 192.168.0.100 |] | Temperature | CPU_TEMP1 | 2017-06-16 16: | 2017-06-16 07: | Lower Critical going low |
| 68524 68525 | 192.168.0.100 192.168.0.100 | 192.168.0.100 I | | Temperature Temperature | CPU_TEMP1 CPU_TEMP1 | 2017-06-16 16: 2017-06-16 16: | 2017-06-16 07: 2017-06-16 07: | Lower Critical going low |
| | | |] | | | | | |
| 68525 | 192.168.0.100 | 192.168.0.100 | | Temperature | CPU_TEMP1 | 2017-06-16 16: | 2017-06-16 07: | Lower Non-critical going low |
| 68525 68523 | 192.168.0.100 192.168.0.100 | 192.168.0.100 [2 192.168.0.100 [2 | | Temperature Temperature | CPU_TEMP1 CPU_TEMP1 | 2017-06-16 16: 2017-06-16 16: | 2017-06-16 07: 2017-06-16 07: | Lower Non-critical going low |

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.

| S | RRM: | | | | | | | | | ű. | 91 (1) | admin 🔻 | : |
|--------------------|----------------------|---|----------------------------|-------------------------------------|--------|------------|---|-----------------|------------------|----|-----------|---------|---|
| | | 0 | Dashboard | All Devices | × | System Log | × | QRM+ Alerts L × | Application Se × | | | | |
| 💮 Da | shboard | | Settings / Applic | ation Settings | | | | | | | | ? | |
| IPN | MI KVM | ~ | Log Retention | Settings | | | | | | | | | |
| Q De | vice Discovery | | Alert Log: | | | 1 Week | | × | | | | | |
| ∳¦† De | vice Management | ~ | IPMI Events | Log: | | 1 Week | | * | | | | | |
| <u>`</u> أَنْ` Ale | erts Configuration | | KVM Video | | | 1 Week | | × | | | | | |
| E Log | gs | ~ | Historic Dat System Log | - | | 1 Week | | * * | | | | | |
| र्ट्रि Set | ttings | ^ | | | | | | | | | | | |
| Us | ser Management | | Data collection | on devices | | | | | | | | | |
| No | otification Settings | | | ween periodic sca ces (minutes): | ans on | 1 | | | | | | | |
| Ap | oplication Settings | | | ween real-time so ces (seconds): | ans on | 10 | | * | | | | | |
| QF | RMAgent Repository | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | 1 | | | | | | | | | |
| | | | Apply | | | | | | | | | | |



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:

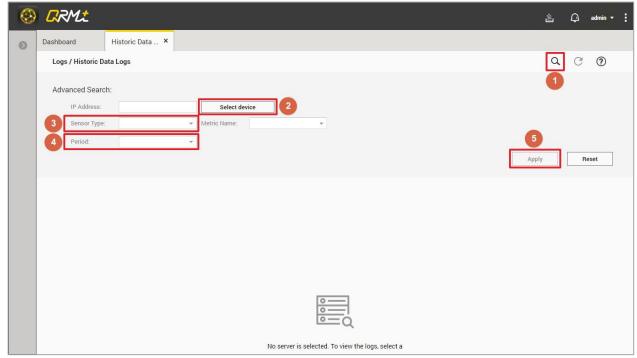
Step 1: Click what is indicated by Label 1

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



| 🛞 Ӆ RML | ي 🖡 sann - į |
|-----------------------|---|
| 0 | Dashboard Settings × Alerts Configu × Logs × |
| 🛠 Quick Map | Cogs / Show Historic Data Log * |
| Dashboard | G d v |
| 🖸 ІРМІ КУМ 🗸 🗸 | |
| Device Discovery | Advance Search: IP Address: 172:17:30:40 Select Device |
| ↓↓↓ Device Management | Metric Name: CPU Utilization * |
| All Devices | Period: One Day |
| Network Topology | Apply Reset |
| Àlerts Configuration | |
| E Logs | 53 |
| {Ô} Settings | |
| | |
| | |
| | |
| | 5 |
| | · · · · · · · · · · · · · · · · · · · |
| | |
| | Time |
| | CPU Utilization |

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.

| Ø | RRMt | | | | | | | Ű | Q | admin 🔻 | : |
|-----|-----------------------|----|-------------------|--|------------------|------------------|--|---|---|---------|---|
| | | 0 | Dashboard | QRMAgent Re × | Notification S × | Application Se × | | | | | |
| | Dashboard | | Settings / Applic | ation Settings | | | | | | ? | |
| Ţ | IPMI KVM | ~ | Log Retention S | Settings | | | | | | | |
| PQ. | Device Discovery | | Alert Log: | | 1 Week | ~ | | | | | |
| +l+ | Device Management | ~ | IPMI Events | s Log: | 1 Week | * | | | | | |
| Ĭ | Alerts Configuration | | KVM Video | | 1 Week | * | | | | | |
| | Logs | ~ | Historic Dat | | 1 Week | * | | | | | |
| | | | System Log | E. | 1 Week | * | | | | | |
| ŝ | Settings | ^ | Data collection | on devices | | | | | | | |
| | User Management | | | ween periodic scans on | | | | | | | |
| | Notification Settings | | remote devi | ices (minutes): | 1 | | | | | | |
| | Application Settings | | | ween real-time scans on ices (seconds): | 10 | | | | | | |
| | QRMAgent Reposito | ry | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | Apply |] | | | | | | | |
| | | | | | | | | | | | |



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"

| | 0 | Dashi | board All D | evices × Syste | em Log × QRM+ Alerts L × Application Se × | | | |
|------------------------|---|-------|-------------------|-------------------|--|-----------|--------------|--|
| Dashboard | | Lo | gs / System Log | | | | Q C (?) | |
| | ~ | Туре | Time | Category | Content | User Name | Source IP | |
| Device Discovery | | 1 | 2017-06-15 18:03: | Authentication | User Login Successful | admin | 172.17.30.63 | |
| Device Management | ~ | 4 | 2017-06-15 18:03: | Authentication | User Login Failure | admin | 172.17.30.63 | |
| ් Alerts Configuration | | 0 | 2017-06-14 16:55: | Device Power Cont | [IPMI] Successfully power on for 192.168.0.102 | admin | 172.17.30.63 | |
| Logs | ^ | 0 | 2017-06-14 16:55: | Device Power Cont | [IPMI] Successfully power on for 192.168.0.100 | admin | 172.17.30.63 | |
| QRM+ Alerts Log | | 1 | 2017-06-14 16:55: | Device Power Cont | [IPMI] Power cycle operation started for device: 192.168.0.102 | admin | 172.17.30.63 | |
| IPMI Events Log | | 1 | 2017-06-14 16:55: | Device Power Cont | [IPMI] Power cycle operation started for device: 192.168.0.100 | admin | 172.17.30.63 | |
| Historic Data Logs | | 0 | 2017-06-14 15:51: | Device Power Cont | [IPMI] Successfully power off for 192.168.0.102 | admin | 172.17.30.63 | |
| System Log | | 0 | 2017-06-14 15:51: | Device Power Cont | [IPMI] Successfully power off for 192.168.0.100 | admin | 172.17.30.63 | |
| 济 Settings | ~ | 0 | 2017-06-14 15:51: | Device Power Cont | [IPMI] Power off operation started for device: 192.168.0.102 | admin | 172.17.30.63 | |
| | | 0 | 2017-06-14 15:51: | Device Power Cont | [IPMI] Power off operation started for device: 192.168.0.100 | admin | 172.17.30.63 | |

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

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|------------------|----------------------------------|---|--|--|--|-----------------|--|---------------------------------------|-------------------------|--|-------|
| | | 0 | Dashboard | All D | evices × S | ystem Log 🛛 🗙 | QRM+ Alerts L × | Application Se × | | | |
| 💮 D | Dashboard | | Logs / Sys | stem Log | | | | | | 9 C C | 2 |
| [] II | PMI KVM | ~ | Advanced | 1 Search | | | | | | | |
| 20 | Device Discovery | | _ | | II events | | | | | | |
| ¦ ¦† □ | Device Management | ~ | Perio | | il events | | | | 2 | | |
| <u>'</u> ́́́́́ A | Alerts Configuration | | _ | | | | | | Apply | Reset | |
| 🗉 L | ogs | ^ | Type Time | | Category | Content | | | User Name | Source IP | |
| (| QRM+ Alerts Log | | 0 2017-0 | 06-15 18:03: | Authentication | User Login Su | ccessful | | admin | 172.17.30.63 | |
| , j | IPMI Events Log | | A 2017-0 | 06-15 18:03: | Authentication | User Login Fa | ilure | | admin | 170 17 00 50 | |
| | | | 44 20111 | | | | | | uurini | 172.17.30.63 | |
| ł | Historic Data Logs | | | 06-14 16:55: | Device Power Con | t [IPMI] Succes | sfully power on for 192.1 | 168.0.102 | admin | 172.17.30.63 | |
| | Historic Data Logs System Log | | 2017-0 | 06-14 16:55: | Device Power Con | | sfully power on for 192.1 | | admin | 172.17.30.63 | |
| Ş | | ~ | 2017-0 2017-0 | 06-14 16:55: 06-14 16:55: | Device Power Con Device Power Con | t [IPMI] Succes | sfully power on for 192.1 sfully power on for 192.1 | 168.0.100 | admin admin | 172.17.30.63 | |
| 5 | System Log | ~ | 2017-0 2017-0 2017-0 2017-0 | 06-14 16:55: 06-14 16:55: 06-14 16:55: | Device Power Con Device Power Con Device Power Con | t [IPMI] Succes | sfully power on for 192.1 sfully power on for 192.1 cycle operation started fo | 168.0.100 or device: 192.168.0.102 | admin admin admin | 172.17.30.63 172.17.30.63 172.17.30.63 | |
| Ş | System Log | ~ | 2017-0 2017-0 2017-0 2017-0 | 06-14 16:55: 06-14 16:55: | Device Power Con Device Power Con | t [IPMI] Succes | sfully power on for 192.1 sfully power on for 192.1 cycle operation started fo | 168.0.100 | admin admin | 172.17.30.63 | |

QNAP 10. Settings

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

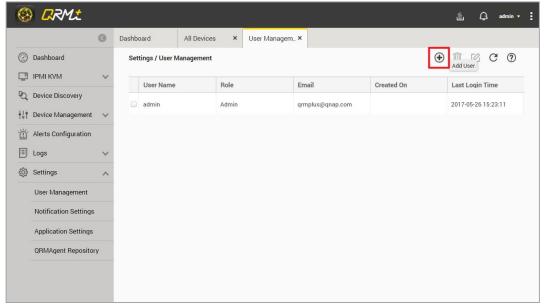
10.1 User Management

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.

| - | dd NAS User to QRM+ | E. |
|---|-----------------------|--------------------|
| | User Name | Email |
| | farma | |
| | floyd | |
| | Yen | |
| | mike | |
| ~ | qrmplus | qrmplus2@gmail.com |
| | ect User Power User 👻 | Add User Cancel |

Deleting Users:

Watch the video

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



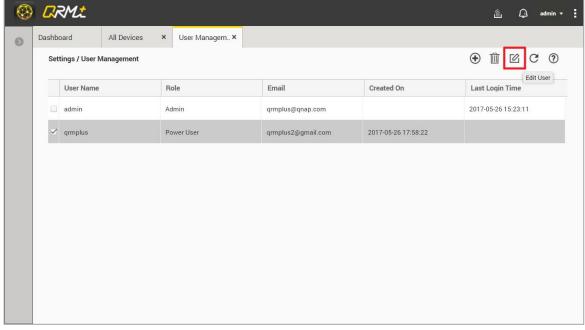
"Delete" button

| rd All Devices × gs / User Management Jser Name F | | | | ⊕ ÎI 🗹 Ĉ 0 |
|---|------------|--------------------|---------------------|---------------------|
| | | | | |
| Iser Name F | | | | Delete user |
| | Role | Email | Created On | Last Login Time |
| dmin A | Admin | qrmplus@qnap.com | | 2017-05-26 15:23:11 |
| rmplus F | Power User | qrmplus2@gmail.com | 2017-05-26 17:58:22 | |
| | | | | |
| | | | | |

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

| Please select the ro | le for this user | |
|----------------------|------------------|--------|
| Admin | | - |
| | Save | Cancel |



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:

| | ttings / Notification Settings | Notification S × Ap | oplication Se × | | |
|---|-------------------------------------|---|---|-------------------|---|
| IPMI KVM V Q Device Discovery Image: | SMTP Configuration | | | | |
| PQ: Device Discovery 2 I bevice Management ✓ I bevice Ma | | | | | ? |
| Image: State | | | | | |
| Image: The series of the se | Select an e-mail account: Custo | om 👻 | | | |
| E Logs V 6 | SMTP Server: smtp SMTP Port: 465 | .gmail.com | | | |
| | Email ID: qpuls | se.qnap@gmail.com | | | |
| 🔅 Settings 🧄 🔿 | Vsername: Usern Password: Pass | | | | |
| | Secure Connection: SSL | * | | | |
| User Management | Send Test Mail | | | | |
| Notification Settings | Alert Notification Settings | | | | |
| Application Settings | Generate QRMAgent Alert if the Aler | rt Condition is met and stays activ | ve for 5 💠 Mins | | |
| QRMAgent Repository | Note: IPMI Event generation frequer | ncy will be based on BMC settings | s, QRM+ will just poll for new IPMI Events and display them. | | |
| | Enable Email notifications for QF | | | | |
| • | Send Email Notification for QRM | Agent Alerts and IPMI events even | y 5 ¢ Mins | | |
| | Notification Group | | | | |
| | | ification group. Each user from th | is notification group will receive notification via QRM+ Notification a | nd email as well. | |
| | + Add User Delete user | | | | |
| | User Name | | Role | Email | |
| 0 | admin | | Admin | | |
| 1 | | | | | |
| | | | | | |

- 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.



| 8 | | | | | | | | ٤ | Q | admin 🔻 | : |
|-----|-----------------------|--------|-------------------|--|------------------|------------------|--|---|---|---------|---|
| | | 0 | Dashboard | QRMAgent Re × | Notification S × | Application Se × | | | | | |
| | Dashboard | | Settings / Applic | ation Settings | | | | | | ? | |
| 1 | IPMI KVM | ~ | Log Retention | Settings | | | | | | | |
| PQ. | Device Discovery | | Alert Log: | | 1 Week | • | | | | | |
| ŧļţ | Device Management | \sim | 2 IPMI Events | s Log: | 1 Week | | | | | | |
| ĬĎ | Alerts Configuration | | 3 KVM Video | Recording: | 1 Week | • | | | | | |
| | Logs | ~ | 4 Historic Dat | ÷ | 1 Week | | | | | | |
| _ | | ~ | 5 System Log | F | 1 Week | * | | | | | |
| ŝ | Settings | ^ | | | | | | | | | |
| | User Management | | Data collection | | | | | | | | |
| | Notification Settings | | | ween periodic scans on ices (minutes): | 1 | | | | | | |
| | Application Settings | | | ween real-time scans on ices (seconds): | 10 | | | | | | |
| | QRMAgent Repositor | ry | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | Apply |] | | | | | | | |

- 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.

| 2 | Dashboard | | Settings / QRMA | gent Repository | | | C. 0 |
|----------|-----------------------|---|---------------------------------------|----------------------------|------------------|---|---------------|
| 31 | PMI KVM | ~ | | | | | |
| | Device Discovery | | QRMAgent Pkg | . Name | QRMAgent Version | Target OS | Download Link |
| | Device Management | ~ | QRMAgent-Wind | ows-x86-Setup (32-bit) | 1.0 | Windows XP, Windows Vista, Windows 7, Windows 8/8.1, Windows 10, Windows | 0 |
| | | ~ | | | | Server 2003, Windows Server 2008, Windows Server 2012 | |
| _ | Alerts Configuration | | QRMAgent-Wind | lows-x86_64-Setup (64-bit) | 1.0 | Windows Vista, Windows 7, Windows 8/8.1, Windows 10, Windows Server 2003, | ð |
|] | .ogs | ~ | | | | Windows Server 2008, Windows Server 2012 | |
| <u>}</u> | Settings | ^ | QRMAgent-Ubuntu-x86_64-Setup (64-bit) | | 1.0 | Ubuntu 12.x, Ubuntu 14.x, Ubuntu 16.x | Ø |
| | User Management | | | | | | |
| | Notification Settings | | QRMAgent-Centr | OS-x86_64-Setup (64-bit) | 1.0 | CentOS 6, CentOS 7 | 0 |
| | Application Settings | | QRMAgent-Debia | an-x86_64-Setup (64-bit) | 1.0 | Debian 8 | O |
| | QRMAgent Repositor | | | | | | |
| | QhimAgent hepositor | y | | | | | |
| | | | | | | | |
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