ASRock Rack Server Management Utility

User Guide

August 2025

Revision: 2.8.0-001

Contents

Figure

Revision History

Revision Number	Description	Revision Date
2.8.0-001	• First release.	August 2025

1.0 Introduction

ASRock Rack Serve Management Utility is a management tool that monitors the ASRock Rack Server Rack/Mainboard products over ethernet. Users can monitor system status and control these servers from the remote host with this utility.

This utility is mainly based on the services provided by the BMC (Baseboard Management Controller) integrated on the ASRock Rack Server Rack/ Mainboard products, through the BMC services including IPMI (Intelligence Platform Management Interface), Web Services and DMTF Redfish API.

1.1 Terminology

Abbreviation	Definition
API	Application Programming Interface
BIOS	Basic Input Output System
BMC	Baseboard Management Controller
DMTF	Distributed Management Task Force
FRU	Filed Replaceable Unit
IPMI	Intelligence Platform Management Interface
KVM	Keyboard, Video and Mouse
PEF	Platform Event Filter
POST	Power-On Self-Test
SEL	System Event Log
SMBIOS	System Management BIOS
SNMP	Simple Network Management Protocol

NOTE

All screenshots in this document are provided for illustrative purposes only and may vary from the actual product.

2.0 Server Management Interface

This chapter provides information about ASRock Rack Server Management Utility and description for each item.

2.1 Management Interface

After launch the Server Management Utility, the tool should be start as below picture.

Figure 1. ASRock Rack Server Management Utility Interface

The fields on the Group Configuration interface include

- **Group:** Specific a group name for the to be added servers.
- **IP Range:** Specific an IP address or a Range of IP address for the to be added servers.
- **Exclude:** Specific an IP address or Range of IP Address for the do not added servers while using IP address range to adding the servers.
- **Remove Range** (🗑): Click the **Remove Range** button to remove the added IP or IP range listed on the group configuration.
- **New Range** (+): Click the **New Range** button to add a new range setting into the group configuration.
- **New (New):** Click the **New** button to add the specific servers with users provide information.
- **Save (Save):** Click the **Save** button to save the modified IP settings of IP Range and Exclude for the created group.
- **Cancel (Cancel):** Click the **Cancel** button to discard the current change of IP Range and Exclude.

NOTE

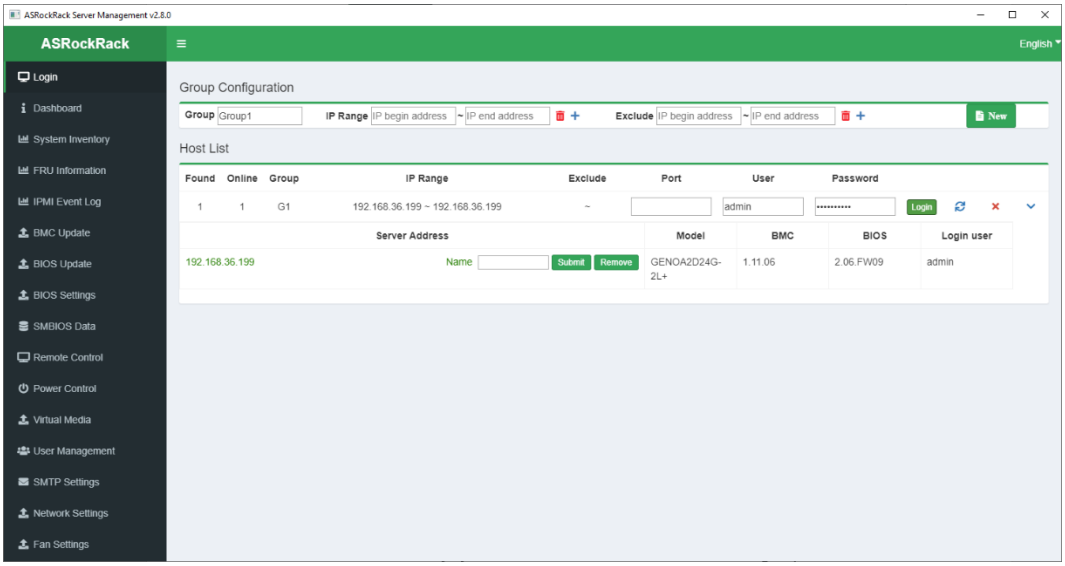
- Specific the monitored server IP address or range of IP address, and specific the excluded server IP address or range of IP address and the Group name if needed, then click the **New** button to add the monitored server into the Host List.
- After add monitored server into the Host List, users can click the instance listed on the Host List then re-configure the IP Rane, Exclude IP address and Group name on the Group

Configuration. Click the **Save** button to save the modified setting value or click the **Cancel** button to discard the current modified setting value.

2.2 Login

After add the monitored servers into the ASRock Rack Server Management Utility, the monitored servers should be listed on the utility, and users can login to the monitored server to monitor the server status through BMC services.

Figure 2. Host List Interface



The fields on the Host List interface includes

- **Found:** Indicates the number of monitored servers found within the IP range.
- **Online:** Indicates the number of monitored servers online within the IP range.
- **Group:** Indicates the name of group.
- **IP Range:** Indicates the IP address or IP address range for the monitored servers.
- **Exclude:** Indicates the excluded IP address or IP address range of this group.
- **Port:** Specific the session port number of this monitored server. Default port number is 443.
- **User:** BMC user account.
- **Password:** BMC user password.
- **Login (Login):** Click the **Login** button to login the monitored server.
- **Scan ( ):** Click the **Scan** button to search the server on the specific IP or IP range.
- **Delete ( ):** Click the **Delete** button to remove this group.
- **Show Details ( ):** Click the **Show Details** button to shows more information of the group.
- **Server Address:** The IP address of found servers in the specific group.
- **Name:** Specific the alias name for this server.
- **Submit (Submit):** Click the **Submit** button to add the alias name to the

specific server.

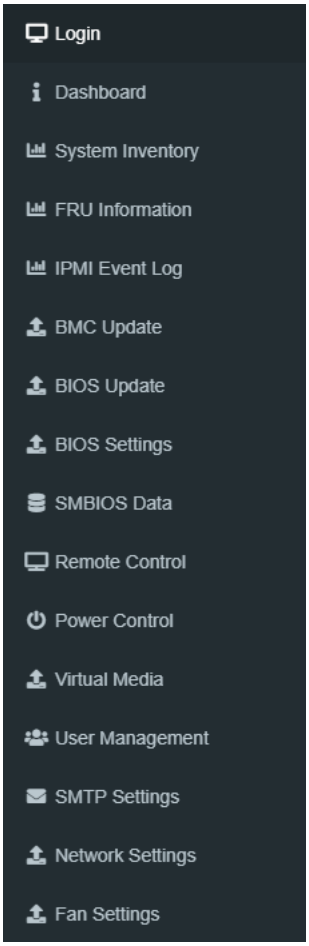
- **Remove (Remove):** Click the **Remove** button to remove the alias name of the specific server.
- **Model:** The model name of this server.
- **BMC:** The BMC version of this server.
- **BIOS:** The BIOS version of this server.
- **Login User:** The current login user account of this server.

2.3 Menu Bar

ASRock Rack Server Management utility provides a Menu Bar for users to quickly invoke the specific feature from the menu bar tabs.

The Menu Bar is located on the left side of the utility and appears when the user login to the monitored host.

Figure 3. Menu Bar



The Menu Bar provides the feature tabs includes

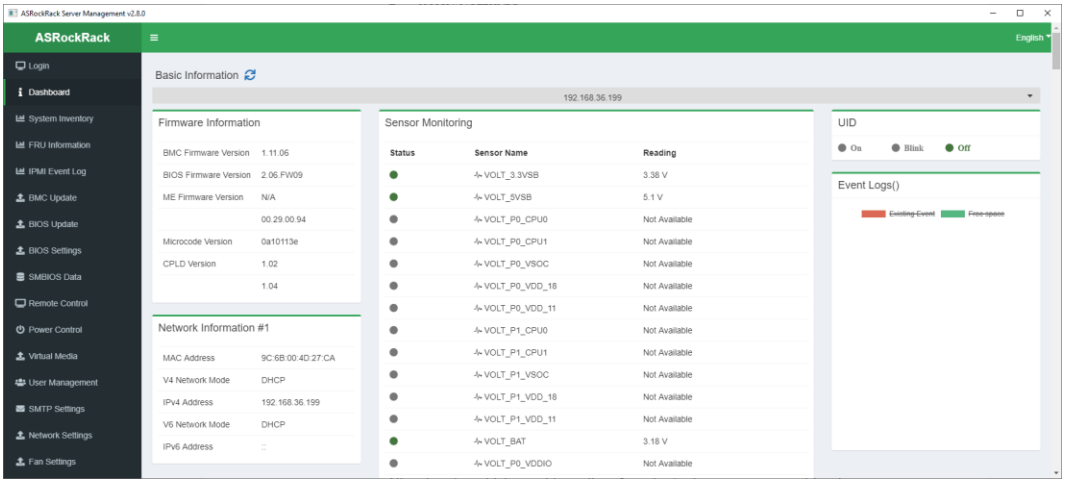
- **Dashboard**
- **System Inventory**
- **FRU Information**
- **IPMI Event Log**

- **BMC Update**
- **BIOS Update**
- **BIOS Settings**
- **SMBIOS Data**
- **Remote Control**
- **Power Control**
- **Virtual Media**
- **User Management**
- **Network Settings**
- **FAN Settings**

2.4 Dashboard

Dashboard provides various information of monitored host for users to monitor the host status, including Firmware Information, Network Information, Sensor Monitoring, UID and Event Logs.

Figure 4. Dashboard



The fields on the Dashboard includes

- **Refresh ( )**: Click the **Refresh** button to updates the information that listed on the Dashboard.
- **Drop-down List (Please select one server):** Select a monitored host from the **Drop-down List** to view the information.
- **Firmware Information**
  - **BMC Firmware Version:** Indicates the BMC firmware version of this host.
  - **BIOS Firmware Version:** Indicates the BIOS firmware version of this host.
  - **ME Firmware Version:** Indicates the ME firmware version (with Intel platform mainboard) or PSP firmware version (with AMD platform mainboard) of this host.
  - **Microcode Version:** Indicates the CPU Microcode version of this host.
  - **CPLD Version:** indicates the CPLD firmware version of this host.
- **Network Information**
  - **MAC Address:** Indicates the BMC MAC address of this host.
  - **V4 Network Mode:** Indicates the BMC V4 network mode of this

host.
- **IPv4 Address:** Indicates the BMC IPv4 Address of this host.
- **V6 Network Mode:** Indicates the BMC V6 network mode of this host.
- **IPv6 Address:** Indicates the BMC IPv6 address of this host.

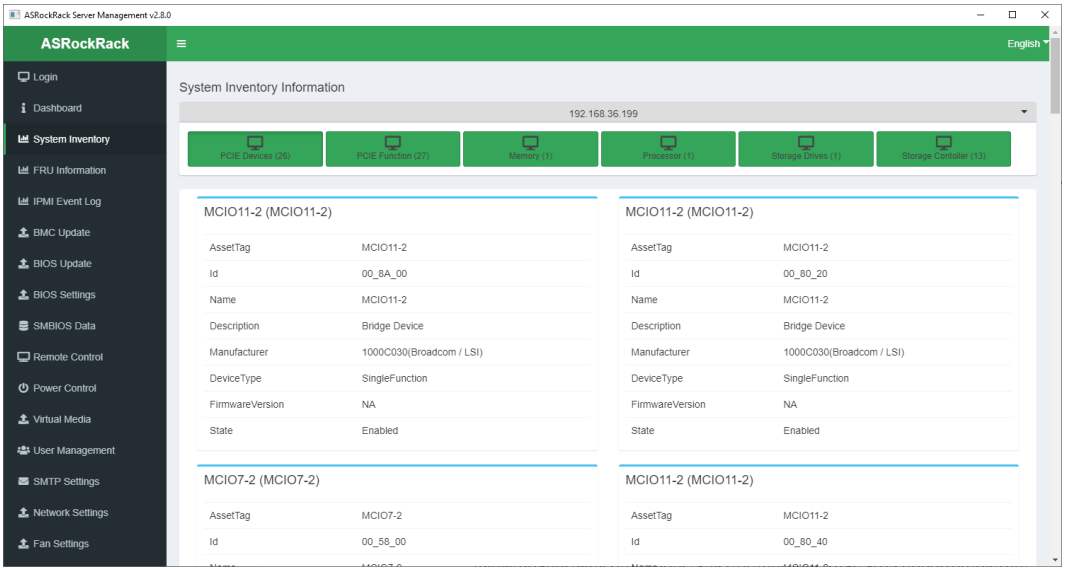
- **Sensor Monitoring:** Lists the Sensors and its status and value of this host.
- **UID:**
  - **On:** Click **On** option to turn on the UID LED on the monitored host.
  - **Blink:** Click **Blink** option to blinking the UID LED on the monitored host.
  - **Off:** Click **Off** option to turn off the UID LED on the monitored host.
- **Event Log:** Lists the all event logs on this host in a graphical representation.

2.5 System Inventory

The System Inventory provides the device information on the mainboard of monitored host, such as CPU, Memory, PCIe device, Storage device, etc.

Click on the listed component icon to displays more details information.

Figure 5. System Inventory



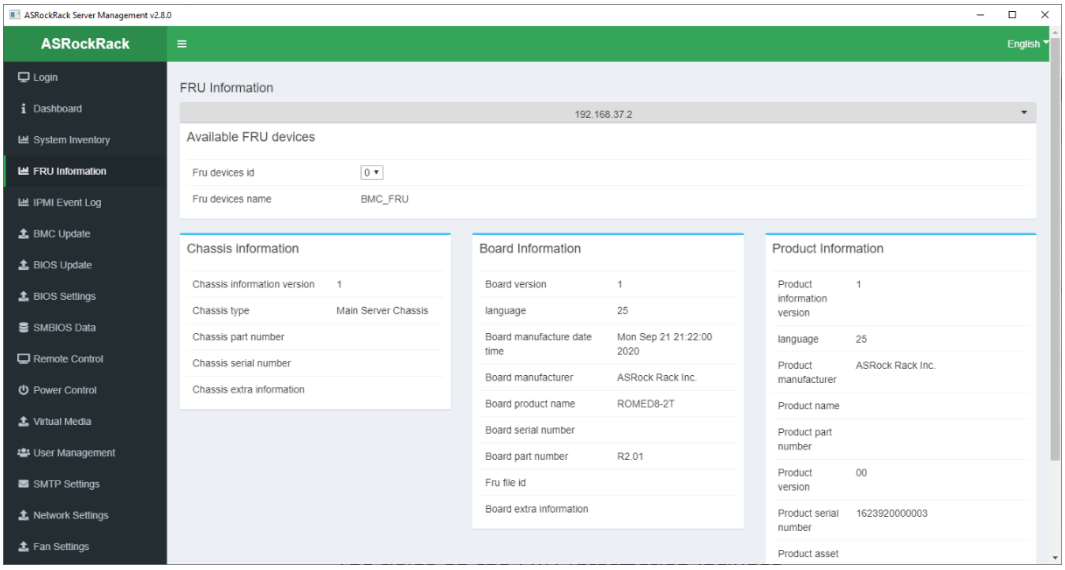
NOTE

- The information will be updated after system BIOS POST. Restart the system if no information displayed on the screen.
- The device information is vary based on the mainboard and installed device.

2.6 FRU Information

The FRU Information provides the FRU (Field Replaceable Unit) information which stored in the FRU device, including Chassis Information, Board Information and Product Information.

Figure 6. FRU Information



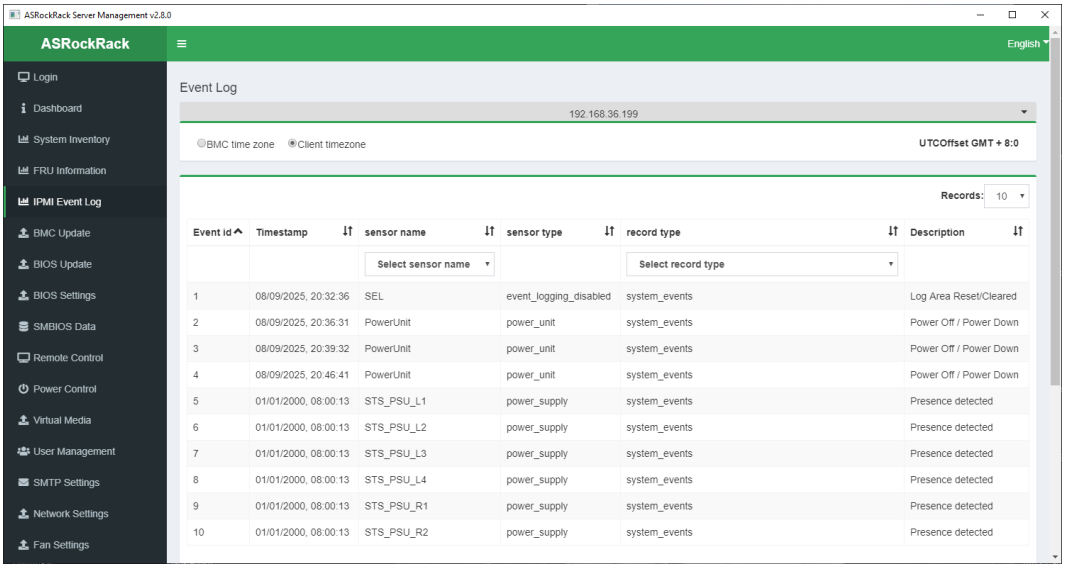
The fields on the FRU Information includes

- **Drop-down List (** Please select one server **):** Select a monitored host from the **Drop-down List** to view the information.
- **FRU Device ID:** Select the supported FRU device from the list.
- **FRU Device Name:** Indicates the selected FRU device name.
- **Chassis Information**
  - **Chassis Information Version**
  - **Chassis Type**
  - **Chassis Part Number**
  - **Chassis Serial Number**
  - **Chassis Extra Information**
- **Board Information**
  - **Board Version**
  - **Language**
  - **Board Manufacture Data Time**
  - **Board Manufacture**
  - **Board Product Name**
  - **Board Serial Number**
  - **Board Part Number**
  - **FRU File ID**
  - **Board Extra Information**
- **Product Information**
  - **Product Information Version**
  - **Language**
  - **Product Manufacture**
  - **Product Name**
  - **Product Part Number**
  - **Product Version**
  - **Product Serial Number**
  - **Product Asset Tag**
  - **FRU File ID**
  - **Product Extra Information**

2.7 IPMI Event Log

The IPMI Event Log provides the information of event logs recorded on the BMC of monitored host.

Figure 7. IPMI Event Log



The fields on the IPMI Event Log includes

- **Drop-down List (** Please select one server **):** Select a host from the **Drop-down List** to view the information.
- **BMC Time Zone:** Select **BMC Time Zone** option that timestamp of event log will using BMC Time Zone settings.
- **Client Time Zone:** Select **Client Time Zone** option that timestamp of event log will using Client Time Zone settings.
- **UTC Offset:** Indicates the UTC offset value of BMC Time Zone/Client Time Zone.
- **Records (** 10 **):** Select the number from the records list and the corresponding number of log instance will be displayed.
- **Event ID:** Indicates the ID Number of event log.
- **Timestamp:** Indicates the timestamp of event log.
- **Sensor Name:** Indicates the name of sensor that triggers the event log.
  - **Select Sensor Name (** Select sensor name **):** Select the specific sensor name from the list that the utility displays only the event log with specific sensor name.
- **Sensor Type:** Indicates the type of sensor that triggers the event log.
- **Record Type:** Indicates the type of record of specific event log.
  - **Select Record Type (** Select record type **):** Select the specific sensor type from the list that utility only displays the event log with specific sensor type.
- **Description:** The description information of specific event log.
- **Clear Event Logs (** Clear Event Logs **):** Click the **Clear Event Logs** button to deletes all event log.
- **Download Event Logs (** Download Event Logs **):** Click the **Download Event Logs** button to save the event log data.

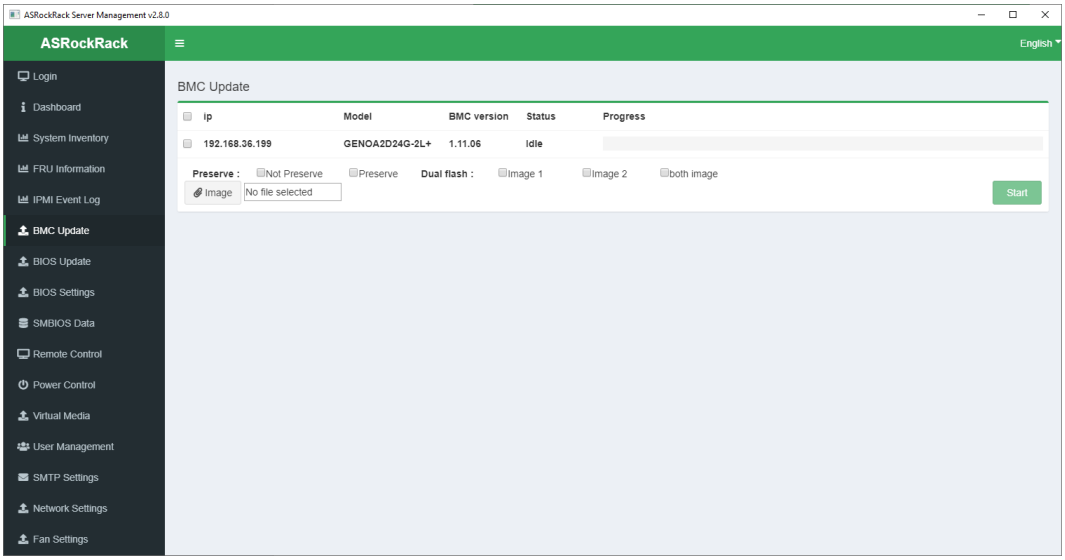
Group Host Action

- **IP:** The host IP address of this group.
- **Model:** The host model name of this group
- **BMC Version:** The BMC version of this group.
- **Checkbox:** Checked (☑) option to select this host or Uncheck (☐) the option to unselect this host.
- **Clear All Event Logs (Clear All Event Logs):** After checked the host, click this button to clear event logs for the selected host.
- **Download All Event Logs (Download All Event Logs):** After checked the host, click this button to download event logs for the selected host.

2.8 BMC Update

The BMC Update provides the feature that users can update the BMC firmware through the Server Management utility.

Figure 8. BMC Update



The fields on the BMC Update includes

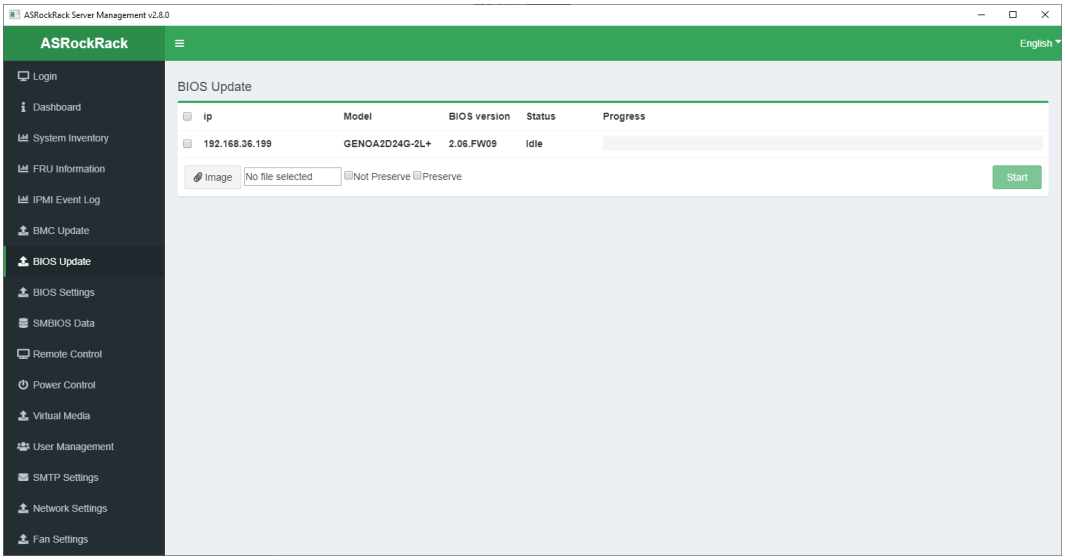
- **IP:** The IP address of this host. Click the checkbox of IP to select all hosts to perform BMC firmware update, or click the checkbox of specific IP address to perform BMC firmware update on specific host.
- **Model:** The model name of this host.
- **BMC Version:** The BMC firmware version of this host.
- **Status:** Indicates the BMC firmware update status.
- **Progress:** Indicates the progress of BMC firmware update process.
- **Preserve:**
  - **Not Preserve:** Delete all settings values in BMC during firmware update.
  - **Preserve:** Preserve all settings values in BMC during firmware update.
- **Dual Flash:**
  - **Image 1:** Update firmware image into first ROM.
  - **Image 2:** Update firmware image into second ROM.
  - **Both Image:** Update firmware image into both ROM.
- **Image (Image):** Select the updated image from remote host.

- **Start (Start):** Click the **Start** button to start the firmware update process.

2.9 BIOS Update

The BIOS Update provides the feature that users can update the BIOS firmware through the Server Management utility.

Figure 9. BIOS Update



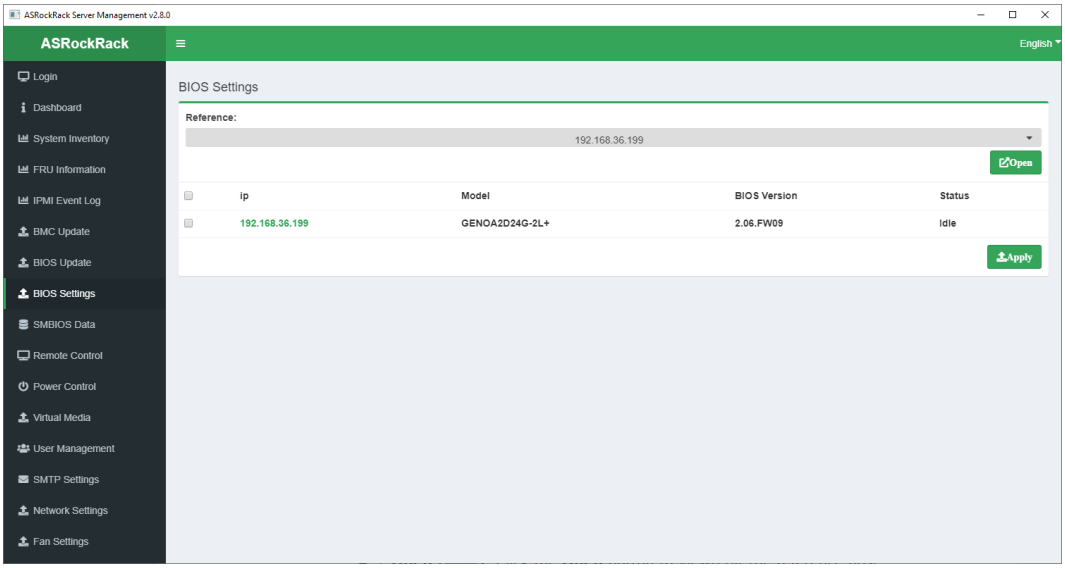
The fields on the BIOS Update includes

- **IP:** The IP address of this host. Click the checkbox of IP to select all hosts to perform BIOS firmware update, or click the checkbox of specific IP address to perform BIOS firmware update on specific host.
- **Model:** The model name of this host.
- **BIOS Version:** The BIOS firmware version of this host.
- **Status:** Indicates the BIOS firmware update status.
- **Progress:** Indicates the progress of BIOS firmware update process.
- **Not Preserve:** Delete all settings values in BIOS firmware during firmware update.
- **Preserve:** Preserve all settings values in BIOS firmware during firmware update.
- **Image (Image):** Select the updated image from remote host.
- **Start (Start):** Click the **Start** button to start the firmware update service.

2.10 BIOS Setting

The BIOS Settings provides the feature that users can configure the BIOS settings value through the Server Management utility.

Figure 10. BIOS Setting



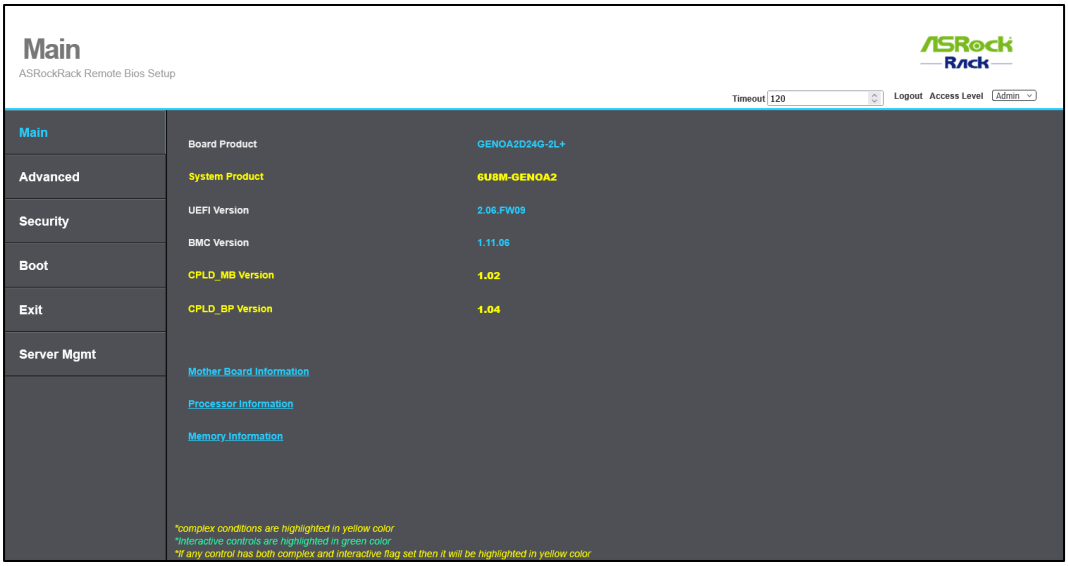
The fields on the BIOS Settings includes

- **Reference:** Select a reference host from the drop-list to edits the BIOS settings value, then users can apply the reference host BIOS settings values to others monitored hosts in the same group.
- **Open (Open):** Click the **Open** button to view or edit the reference host BIOS settings values.
- **IP:** The IP address of this host. Click the checkbox of IP to select all hosts to perform syncs BIOS settings values with reference host, or click the checkbox of specific IP address to perform syncs BIOS settings values with reference host.
- **Model:** The model name of this host.
- **BIOS Version:** The BIOS firmware version of this host.
- **Status:** Indicate the sync status of BIOS settings.
- **Apply (Apply):** Click the **Apply** button and applies the BIOS settings values from reference server to the other selected monitored hosts.

NOTE

- After changes the BIOS settings value, the value will affect at the next system POST.

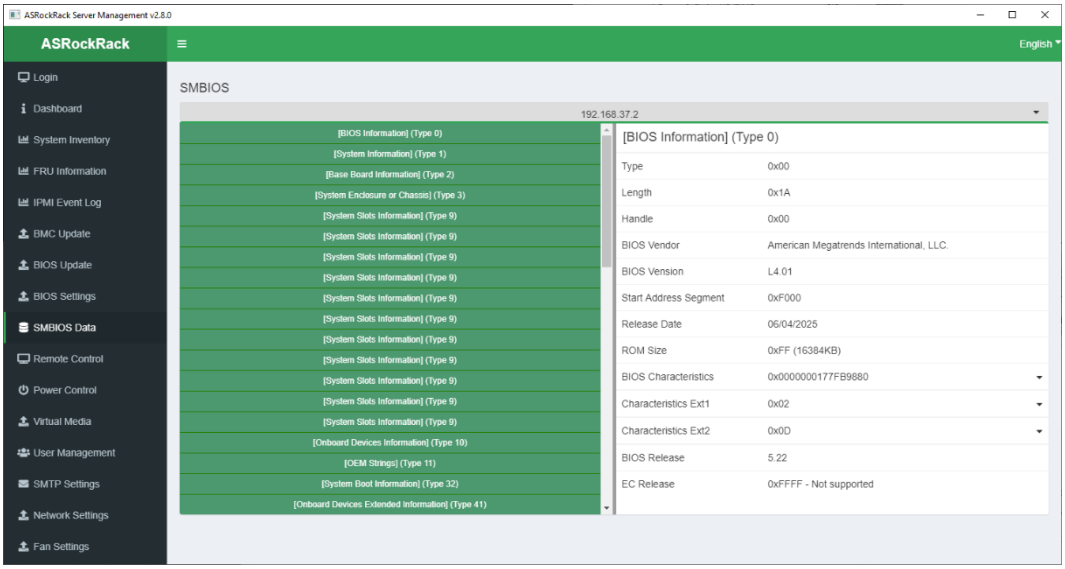
Figure 11. BIOS Settings Interface



2.11 SMBIOS Data

The SMBIOS Data provides the feature that users can view the monitored host SMBIOS information form the Serve Management utility.

Figure 12. SMBIOS Data



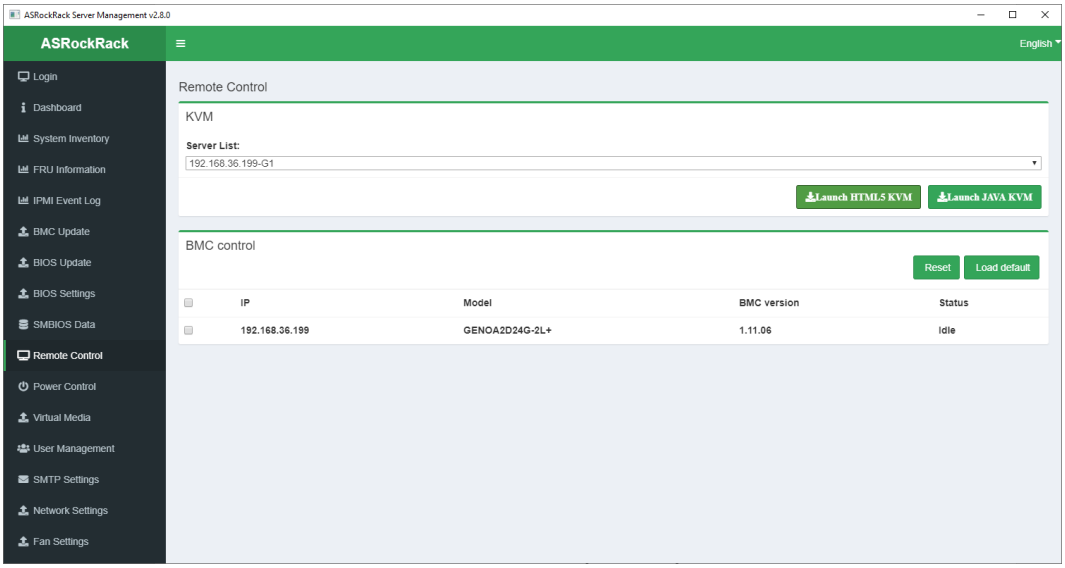
NOTE

- The monitored host must be powered-on and boot into BIOS UEFI Shell or host operating system to receive the SMBIOS information from BIOS.

2.12 Remote Control

The Remote Control provides the feature that users can remote access the monitored host through Server Management utility, including invokes HTML5 KVM, JAVA KVM, perform the BMC reset and BMC load default settings.

Figure 13. Remote Control



The fields on the Remote Control includes

- **KVM**
  - **Server List:** Select a monitored host from the drop-down list which to launch KVM service.
  - **Launch HTML5 KVM (Launch HTML5 KVM):** Click the **Launch HTML5 KVM** button to launch the HTML5 KVM service on browser.
  - **Launch JAVA KVM (Launch JAVA KVM):** Click the **Launch JAVA KVM** button to download the JNLP file then launch the JAVA KVM service.
- **IP:** The IP address of monitored host. Click the checkbox of IP to select all monitored hosts to perform BMC control action, or click the checkbox of specific IP address to perform BMC control action.
- **Model:** The model name of monitored host.
- **BMC Version:** The BMC firmware version of monitored host.
- **Status:** Indicate the status of performed the BMC control action.
- **Reset (Reset):** Click the **Reset button** to perform the reset BMC action.
- **Load Default (Load default):** Click the **Load Default** button to perform the BMC load default process.

Figure 14. HTML5 KVM

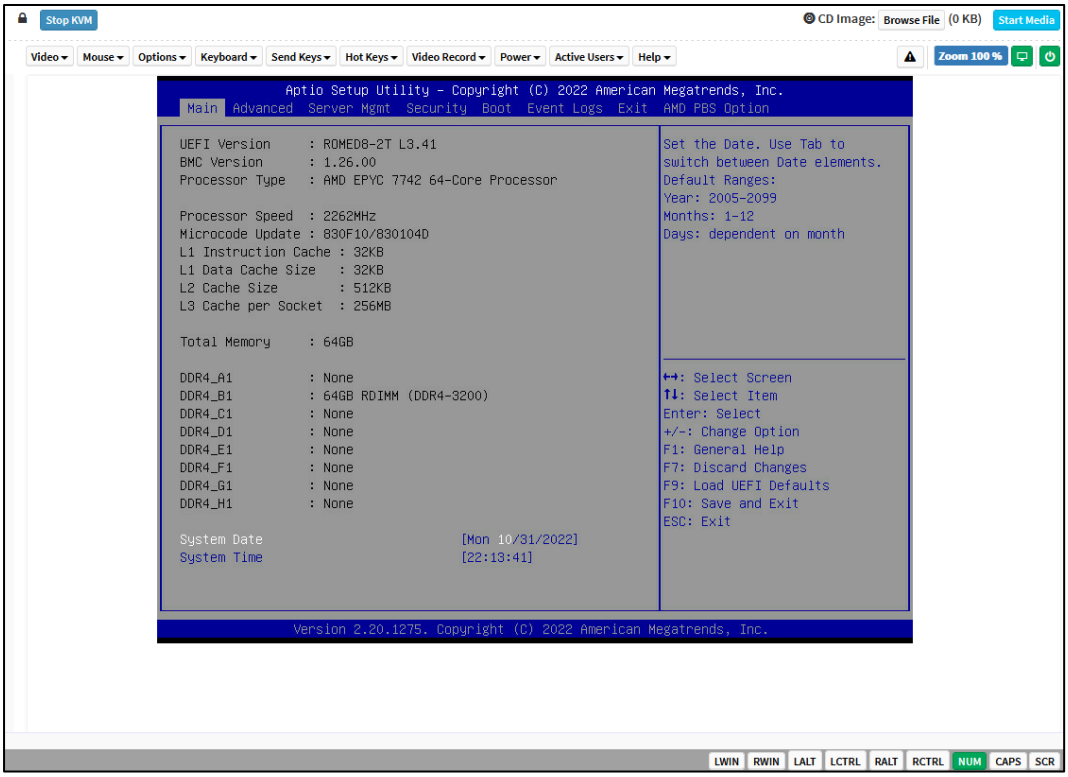
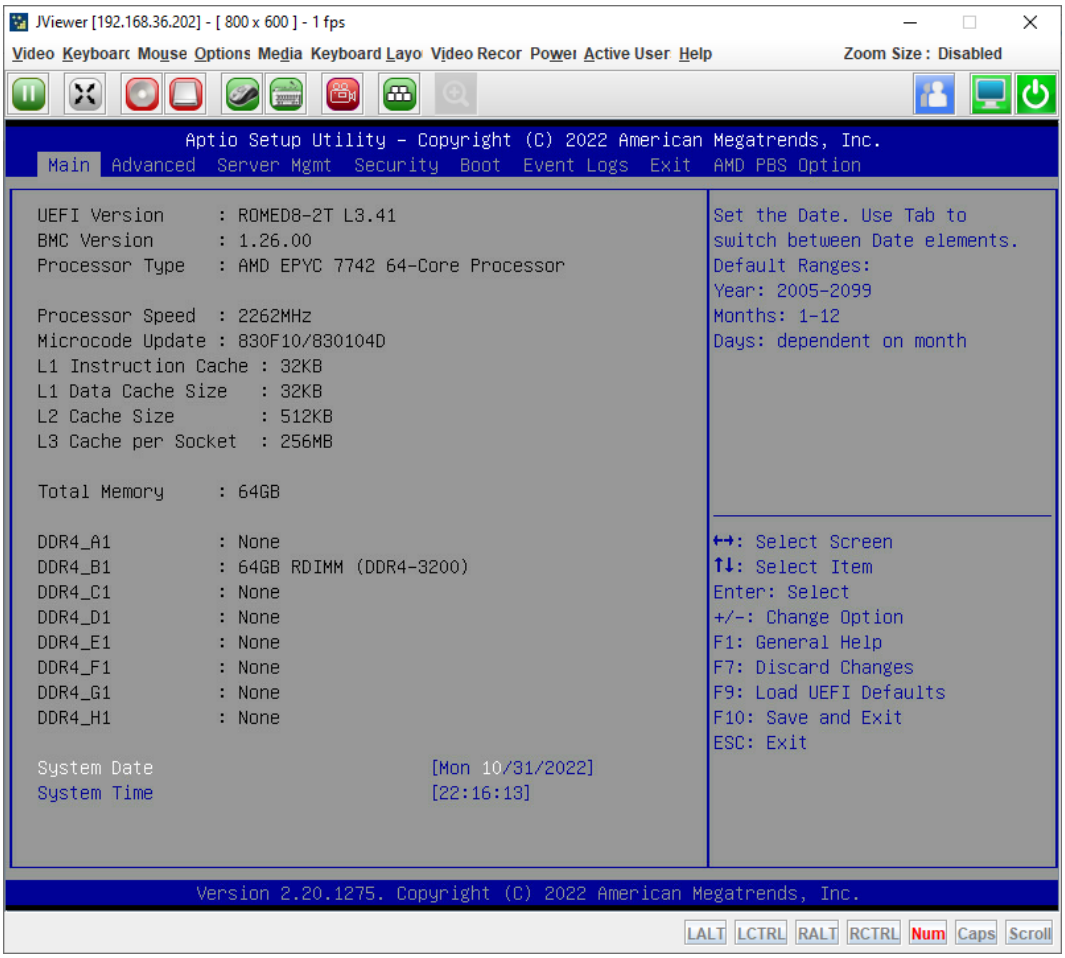


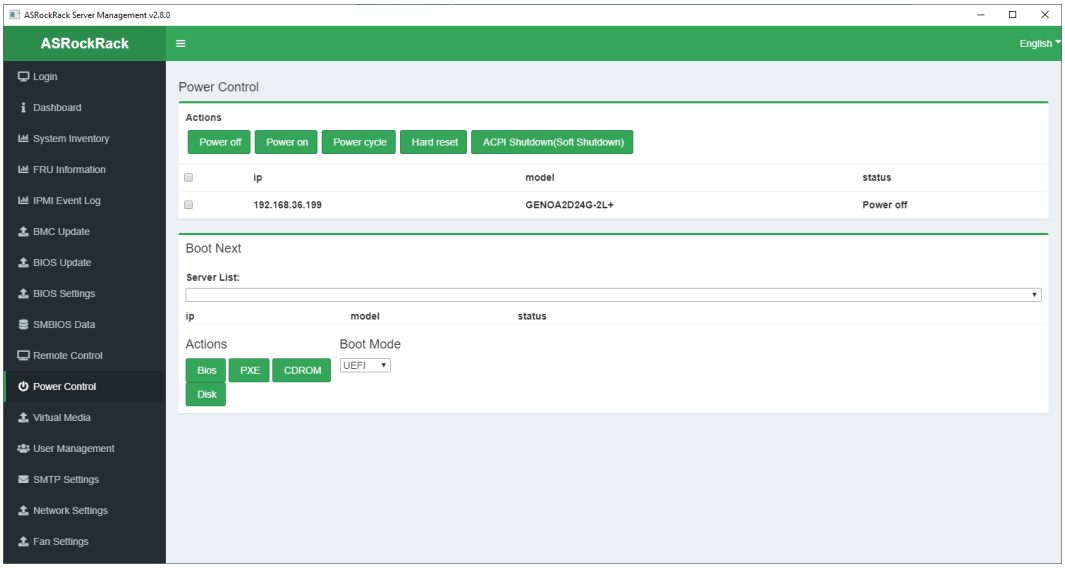
Figure 15. JAVA KVM



2.13 Power Control

The Power Control provides the feature that users can remote control the host power status and changes the BIOS next boot device.

Figure 16. Power Control



The fields on the Power Control includes

- **Actions**
  - **Power Off**: Perform power-off on the selected host.
  - **Power On**: Perform power-on on the selected host.
  - **Power Cycle**: Perform power cycle on the selected host.
  - **Hard Reset**: Perform hard reset on the selected host.
  - **ACPI Shutdown (Soft Shutdown)**: Perform ACPI shutdown on the selected host.
- **IP:** The IP address of monitored host. Click the checkbox of IP to select all monitored hosts to perform Power Control action, or click the checkbox of specific IP address to perform Power Control action.
- **Model:** The model name of monitored host.
- **Status:** Indicate current power state of monitored host.

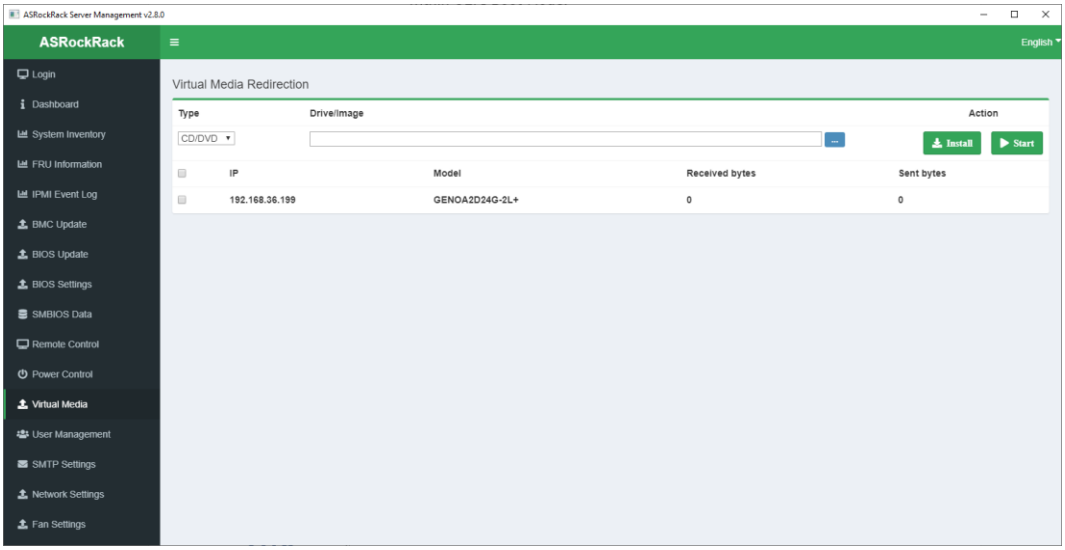
Boot Next

- **Server List:** Select the host from the drop-down list which to be perform the Boot Next action.
- **IP:** The IP address of this host.
- **Model:** The model name of this host.
- **Status:** Indicates the Boot Next perform action status of this host.
- **Actions**
  - **BIOS:** Click the **BIOS** button to set Boot Next action to BIOS.
  - **PXE:** Click the **PXE** button to set Boot Next action to PXE.
  - **CD-ROM:** Click the **CD-ROM** button to set Boot Next action to CD-ROM.
  - **Disk:** Click the **Disk** button to set Boot Next action to Disk.
- **Boot Mode**
  - **UEFI:** Select the UEFI then the selected action will be performed within UEFI Boot Mode.
  - **Legacy:** Select the Legacy then the selected action will be performed within Legacy BIOS Boot Mode.

2.14 Virtual Media

The Virtual Media provides the feature that users can remote mount the media through Server Management utility.

Figure 17. Virtual Media



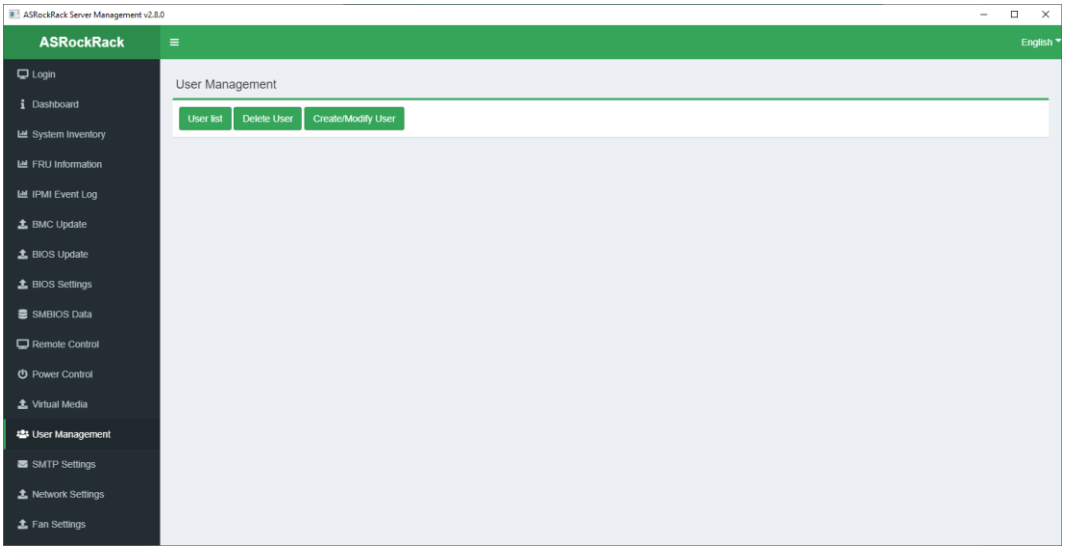
The fields on the Virtual Media includes

- **Type:** Select the media type either **CD/DVD** or **Hard Disk**.
- **Drive/Image**: Click the **Open File (...)** button to select the Drive/Image file form the client.
- **Action**
  - **Install (Install):** Click the **Install** button to reboot the host and boot to the virtual media.
  - **Start (Start):** Click the **Start** button to start redirect device.
  - **Stop (Stop):** Click the **Stop** button to stop redirect device.
- **IP:** The IP address of this host. Click the checkbox of IP to select all hosts to perform Virtual Media Redirection action, or click the checkbox of specific IP address to perform Virtual Media Redirection action.
- **Model:** The model name of this host.
- **Received Bytes:** Indicates the received bytes of this host BMC.
- **Sent Bytes:** Indicates the sent bytes of this host BMC.

2.15 User Management

The User Management provides the feature that users can View, Create, Modify or Delete the user accounts on BMC through the Server Management utility.

Figure 18. User Management



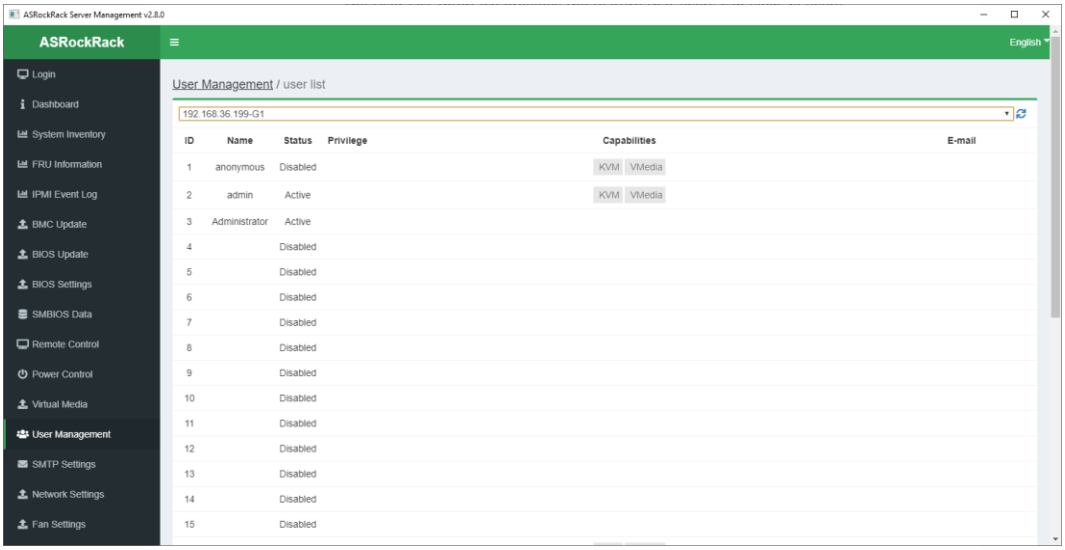
The fields on the User Management includes

- **User List (User list):** Click the **User List** button to launch the user list interface.
- **Delete User (Delete User):** Click the **Delete User** button to launch the Delete User interface.
- **Create/Modify User (Create/Modify User):** Click the **Create/Modify User** button to launch the Edit User interface.

2.15.1 User List Interface

The User List Interface provides the feature that users can view all users account information on the BMC through the Server Management utility.

Figure 19. User List Interface



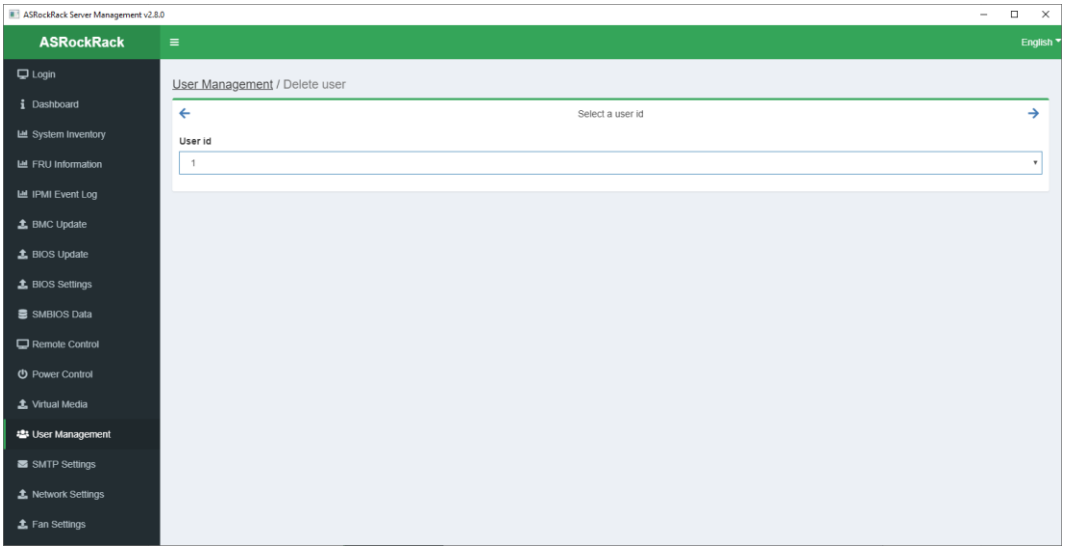
The fields on the User List Interface includes

- **Drop-List:** Select the monitored host from the drop-list to view the user list.
- **Refresh ( ):** Click the **Refresh** button and update the user list information.
- **ID:** Indicate the ID number.
- **Name:** Indicate the username for this user instance.
- **Status:** Indicate the account activation status for this user instance.
- **Privilege:** Indicate the privilege level for this user instance.
- **Capabilities:** Indicate the features enabled for this user instance.
- **E-Mail:** Indicate the E-mail address of this user instance.

2.15.2 Delete User Interface

The Delete User interface provides the feature that users can delete the user account on the BMC through the Server Management utility.

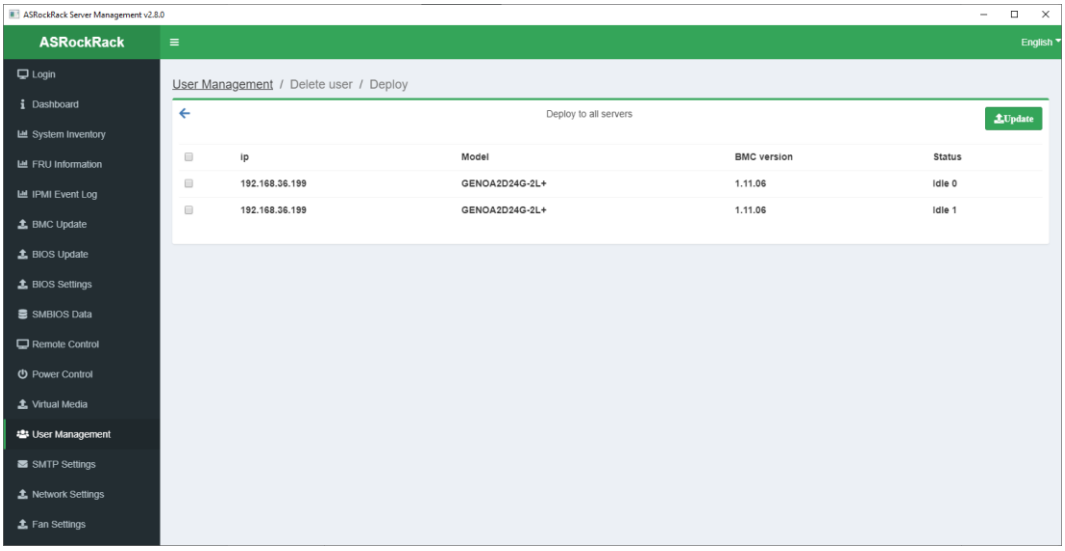
Figure 20. Select User ID on Delete User Interface



The fields on the Delete User includes

- **Back ( ):** Click the **Back** button and back to previous page.
- **Next ( ):** Click the **Next** button and go to next page.
- **User ID:** Select the User ID from the drop-down list to perform delete user action.

Figure 21. Select the Deploy Host to Delete User



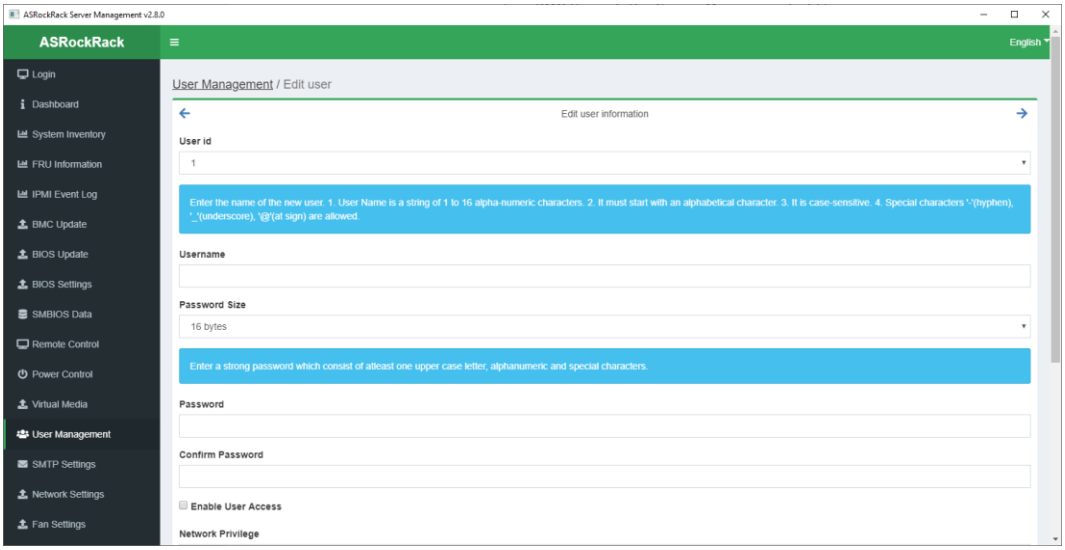
The fields on the Delete User Deploy includes

- **IP:** The IP address of this host. Click the checkbox of IP to select all hosts to perform deploy delete user action, or click the checkbox of specific IP address to perform deploy delete user action.
- **Model:** The model name of this host.
- **BMC Version:** The BMC firmware version of this host.
- **Status:** Indicate the deploy status of this host.
- **Back (←):** Click the **Back** button and back to previous page.
- **Update (Update):** Click the **Update** button and deploy the delete user settings to selected host.

2.15.3 Edit User Interface

The Edit User Interface provides the feature that users can create or edit the user account on BMC through the Server Management utility.

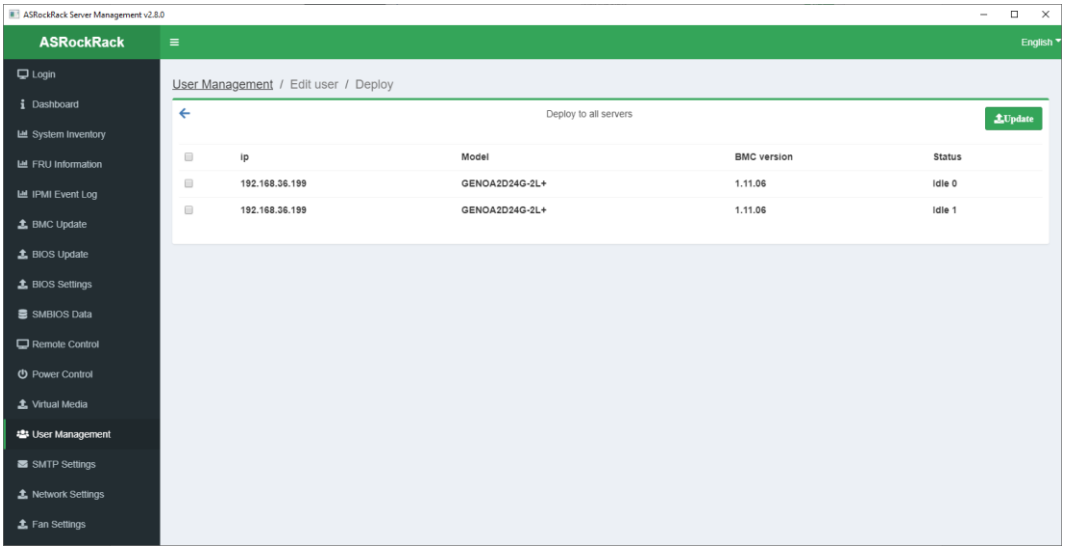
Figure 22. Edit User Interface



The fields on the Edit User Interface includes

- **Back (←):** Click the **Back** button and back to previous page.
- **Next (→):** Click the **Next** button and go to next page.
- **User ID:** Select the User ID from the drop-down list.
- **Username:** Specify the Username for this account.
- **Password Size:** Select the preferred size for the password.
- **Password:** Specify the password for this account. The minimum of 8 characters is required.
- **Confirm Password:** Specify the password again for this account. The minimum of 8 characters is required.
- **Enabled User Access:** Check this option to activation this account.
- **Network Privilege:** Select the Network Privilege level from the drop-down list.
- **Serial Privilege:** Select the Serial Privilege level from the drop-down list.
- **KVM Access:** Check this option to enable the KVM access for this account.
- **VMedia Access:** Check this option to enable the VMedia access for this account.
- **E-mail Format:** Specify the format for the email.
  This format will be used when sending emails. Two type of formats are available:
  - **AMI-Format:** The subject of this mail format is 'Alert from (your Hostname)'. The mail content includes sensor information, ex: Sensor type and Description.
  - **FixedSubject-Format:** This format displays the specific subject and message configured for email alerts for the specified user.
- **E-mail ID:** Specify the E-mail ID for this account.

Figure 23. Select the Deploy Host to Edit User



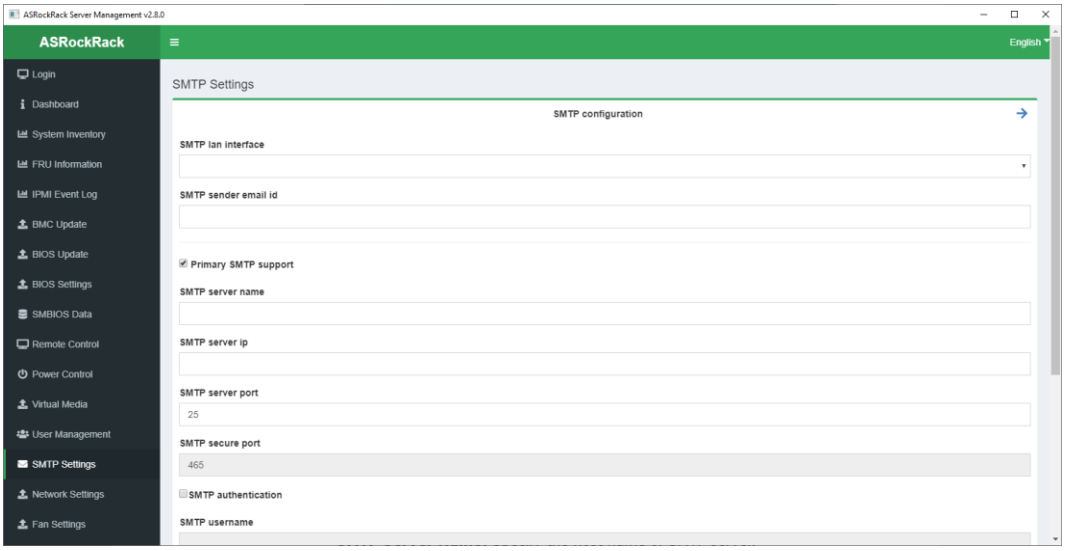
The fields on the Edit User Deploy includes

- **IP:** The IP address of this host. Click the checkbox of IP to select all hosts to perform deploy Edit User action, or click the checkbox of specific IP address to perform deploy Edit User action.
- **Model:** The model name of this host.
- **BMC Version:** The BMC firmware version of this host.
- **Status:** Indicate the deploy status of this host.
- **Back (←):** Click the **Back** button and back to previous page.
- **Update (Update):** Click the **Update** button and deploy the Edit User settings to selected monitored host.

2.16 SMTP Settings

The SMTP Settings provides the feature that users can configure the SMTP configuration on BMC through the Server Management utility.

Figure 24. SMTP Settings



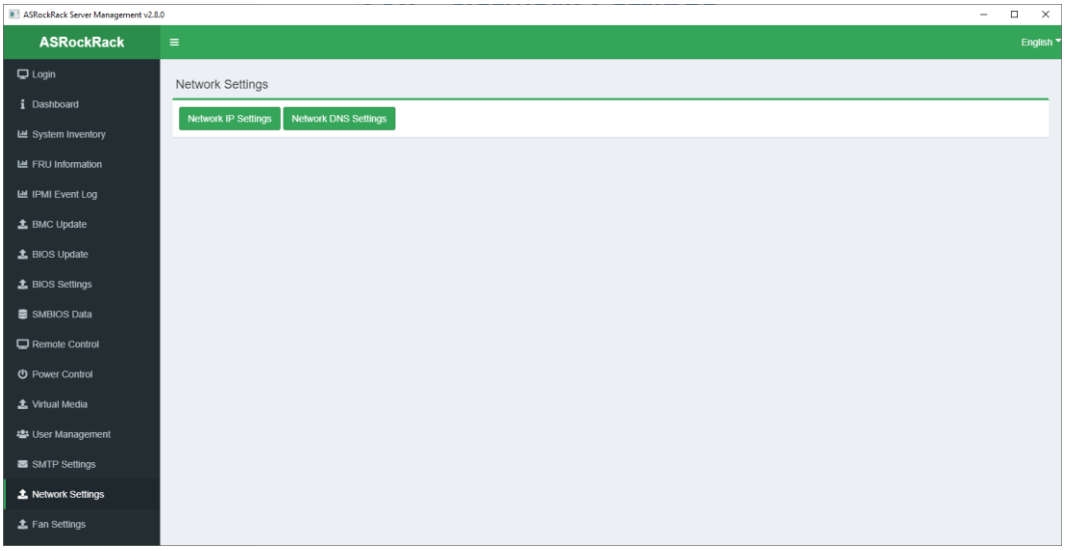
The fields on the SMTP Settings includes

- **Next (→)(Next): Click the Next** button and go to next page.
- **SMTP LAN Interface:** Select the LAN Interface for SMTP used.
- **SMTP Sender E-mail ID:** Specify the Sender E-mail ID on the SMTP server.
- **Primary SMTP Support:** Check this option to enable Primary SMTP Support for the BMC.
- **Secondary SMTP Support:** Check this option to enable Secondary SMTP Support for the BMC.
- **SMTP Server Name:** Specify the host name of SMTP server.
- **SMTP Server IP:** specify the IP address of SMTP server.
- **SMTP Server Port:** Specify the SMTP port number.
- **SMTP Secure Port:** Specify the SMTP secure port number.
- **SMTP Authentication:** Check this option to enable the SMTP Authentication feature.
- **SMTP Username:** Specify the username required to access SMTP server.
- **SMTP Password:** Specify the password for the SMTP user account.
- **SMTP SSLTLS Enable:** Check this option to enable SSLTLS protocol.
- **SMTP STARTTLS Enable:** Check this option to enable STARTTLS protocol.

2.17 Network Settings

The Network Settings provides the feature that users can configure the network configuration on BMC through the Server Management utility.

Figure 25. SMTP Settings



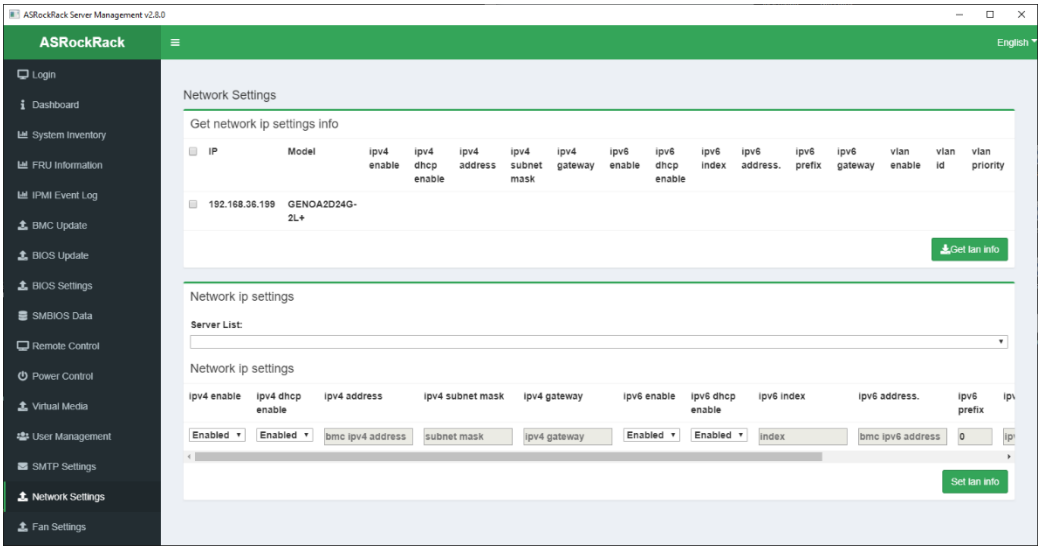
The fields on the Network Settings includes

- **Network IP Settings (Network IP Settings):** Click the **Network IP Settings** button and navigate to the Network IP Settings interface.
- **Network DNS Settings (Network DNS Settings):** Click the **Network DNS Settings** button and navigate to the DNS configuration interface.

2.17.1 Network IP Settings

The Network IP Settings interface provide the feature that users can view and edit the network IP settings of BMC on the selected host through the Server Management utility.

Figure 26. Network IP Settings



The fields on the Network IP Settings includes

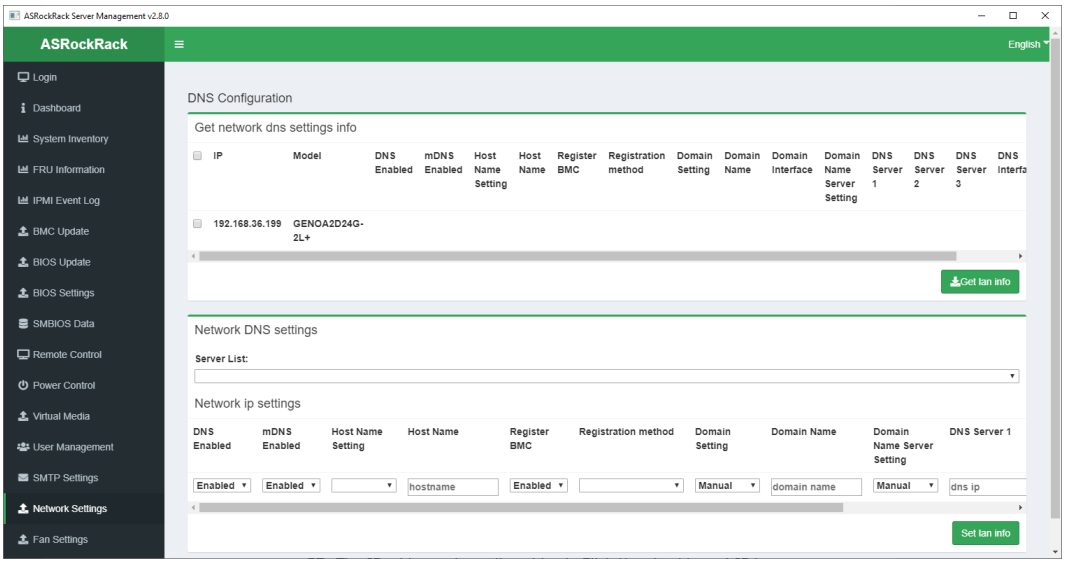
- **Network IP Settings Info:** Provides the network IP information of this host. The supported items as below.
  - **IP:** The IP address of monitored host. Click the checkbox of IP to select all hosts to perform Get Network IP Information action, or click the checkbox of specific IP address to perform Get Network IP Information action.
  - **Model:** The model name of this host.
  - **IPv4 Enable:** Indicates the IPv4 enablement status on the host.
  - **IPv4 DHCP Enable:** Indicates the IPv4 DHCP enablement status on the host.
  - **IPv4 Address:** Indicates the IPv4 address of this host.
  - **IPv4 Subnet Mask:** Indicates the IPv4 subnet mask of this host.
  - **IPv4 Gateway:** Indicates the IPv4 gateway address of this host.
  - **IPv6 Enable:** Indicates the IPv6 enablement status on the host.
  - **IPV6 DHCP Enable:** Indicates the IPv6 DHCP enablement status on the host.
  - **IPv6 Index:** Indicates the IPv6 index value of this host.
  - **IPv6 Address:** Indicates the IPv6 address of this host.
  - **IPv6 Prefix:** Indicates the IPv6 prefix value of this host.
  - **IPv6 Gateway:** Indicates the IPv6 gateway address of this host.
  - **VLAN Enable:** Indicates the VLAN enablement status on the host.
  - **VLAN ID:** Indicates the VLAN ID of this host.
  - **VLAN Priority:** Indicates the VLAN priority of this host.
- **Get LAN Info (Get lan info):** Click the **Get LAN Info** button to collect the Network IP Settings information of selected hosts
- **Network IP Settings**: Deploy the Network IP Settings to specific monitored host.
  - **Server List:** Select the host from the drop-down list to be the configured host.
  - **IPv4 Enable:** Select either Enabled or Disable for this feature.
  - **IPv4 DHCP Enable:** Select either Enabled or Disable for this feature.
  - **IPv4 Address:** Specify the IPv4 Address for the selected host.
  - **IPv4 Subnet Mask:** Specify the IPv4 Subnet Mask for the selected host.
  - **IPv4 Gateway:** Specify the IPv4 Gateway address for the selected host.
  - **IPv6 Enable:** Select either Enabled or Disable for this feature.
  - **IPv6 DHCP Enable:** Select either Enabled or Disable for this feature.
  - **IPv6 Index:** Specify the IPv6 index value for the selected host.
  - **IPv6 Address:** Specify the IPv6 Address for the selected host.
  - **IPv6 Prefix:** Specify the IPv6 prefix for the selected host.
  - **IPv6 Gateway:** Specify the IPv6 Gateway address for the selected host.
  - **VLAN Enable:** Select either Enabled or Disable for this feature.
  - **VLAN ID:** Specify the VLAN ID for the selected host.
  - **VLAN Priority:** Specify the VLAN Priority for the selected host.
- **Set LAN Info (Set lan info):** Click the **Set LAN Info** button to deploy the Network IP settings value to the selected host.

2.17.2 Network DNS Settings

The Network DNS Settings interface provide the feature that users can view

and edit the network DNS settings of BMC on the selected host through the Server Management utility.

Figure 27. Network DNS Settings



The fields on the Network DNS Settings includes

- **Network DNS Settings Info:**
  - **IP:** The IP address of this host. Click the checkbox of IP to select all hosts to perform Get Network DNS Information action, or click the checkbox of specific IP address to perform Get Network DNS Information action.
  - **Model:** The model name of this host.
  - **DNS Enable:** Indicates the DNS enablement status on the host.
  - **mDNS Enable:** Indicates the Multicast DNS enablement status on the host.
  - **Host Name Setting:** Indicates the Host Name Settings is either Automatic or Manual used on the BMC of this host.
  - **Host Name:** Indicates the Host Name of this host.
  - **Register BMC:** Indicates the Register BMC enablement status on the host.
  - **Registration Method:** Indicates the Registration Method used on the BMC of monitored host.
  - **Domain Setting:** Indicates the Domain Settings is either Automatic or Manual used on the BMC of monitored host.
  - **Domain Name:** Indicates the Domain Name on the BMC of this host.
  - **Domain Interface:** Indicates the Domain Interface used on the BMC of this host.
  - **Domain Name Server Settings:** Indicates the Domain Name Server Settings is either Automatic or Manual used on the BMC of this host.
  - **DNS Server 1:** Indicates the DNS Server 1 IP address.
  - **DNS Server 2:** Indicates the DNS Server 2 IP address.
  - **DNS Server 3:** Indicates the DNS Server 3 IP address.
  - **DNS Interface:** Indicates the DNS Interface used on the BMC of

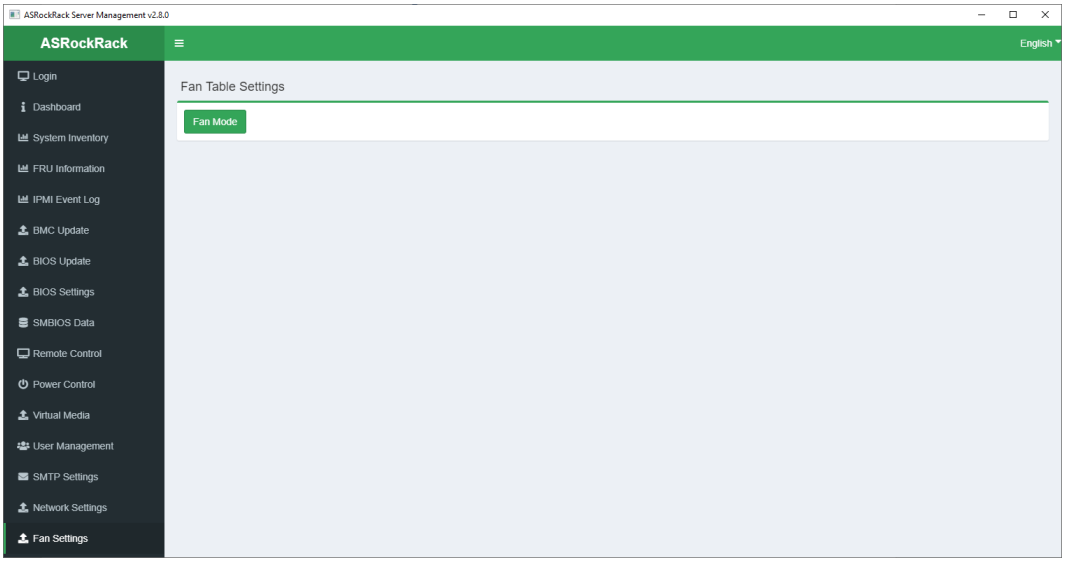
monitored host.
    - **IP Priority:** Indicates the DNS IP Priority used on the BMC of monitored host.
- **Get LAN Info (Get lan info):** Click the **Get LAN Info** button to collect the Network DNS Settings information of selected hosts

- **Network DNS Settings:**
    - **Server List:** Select the monitored host from the drop-down list to be the configured host.
    - **DNS Enable:** Select either Enabled or Disable for this feature.
    - **mDNS Enable:** Select either Enabled or Disable for this feature.
    - **Host Name Setting:** Select either Automatic or Manual for this feature.
    - **Host Name:** Specify the Host Name for selected host if Host Name settings is selected Automatic.
    - **Register BMC:** Select either Enabled or Disable for this feature.
    - **Registration Method:** Select the supported registration method from the drop-list.
    - **Domain Setting:** Select either Automatic or Manual for this feature.
    - **Domain Name:** Specify the Domain Name for the selected host.
    - **Domain Name Server Setting:** Select either Enabled or Disable for this feature.
    - **DNS Server 1:** Specify the IP address for DNS server 1.
    - **DNS Server 2:** Specify the IP address for DNS server 2.
    - **DNS Server 3:** Specify the IP address for DNS server 3.
    - **Set LAN Info (Set lan info):** Click the **Set LAN Info** button to deploy the Network DNS Settings value to the selected host.

2.18 Fan Settings

The Fan Settings provide the feature that users can edit the fan table settings of BMC on the selected host through the Server Management utility.

Figure 28. FAN Settings



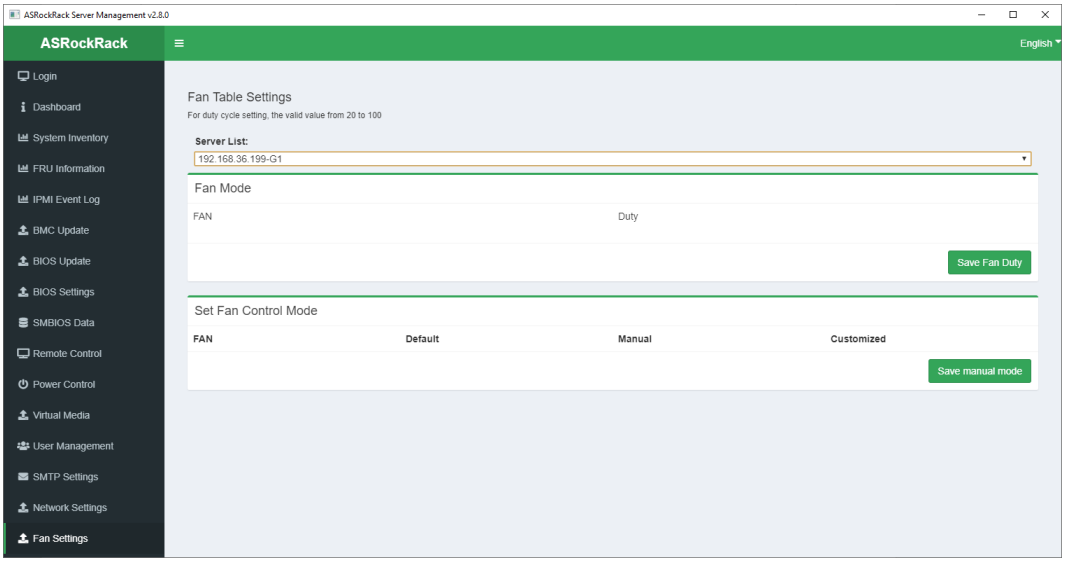
The fields on the Fan Settings includes

- **Fan Mode (Fan Mode):** Click the **Fan Mode** button and navigate to the Fan Table Settings interface.

2.18.1 Fan Table Settings

The Fan Table Settings interface provides the feature that users can modify the fan duty and control mode of supported fan sensors device through the Server Management utility.

Figure 29. FAN Table Settings



The fields on the Fan Table Settings includes

- **Server List:** Select the monitored host from the drop-down list to be configured the fan table settings.
- **Fan Mode**
  - **Duty:** Specify the fan duty value for the selected fan device.
  - **Save Fan Duty (Save Fan Duty):** Click the **Save Fan Duty** button to deploy the modified settings value to the selected host.
- **Fan Control Mode**
  - **Default:** Click this option to set the fan control mode to Default mode.
  - **Manual:** Click this option to set the fan control mode to Manual mode.
  - **Customized:** Click this option to set the fan control mode to Customized mode.
  - **Save Manual Mode (Save manual mode):** Click the **Save Manual Mode** button to deploy the modified settings value to the selected host.

3.0 Command Line Interface (CLI)

ASRock Rack Serve Management Utility supports the Command Line Interface (CLI). Users can invoke the CLI mode when execute the utility batch file named **asrrmgmttool.bat** with arguments or execute the CLI mode utility named **mgmtcli** from the utility installed folder.

The supported commands are as follows:

- **Group**
- **User**
- **Event**
- **FRU**
- **Sensor Information**
- **SMBIOS**
- **System Inventory**
- **Boot Next**
- **Power**
- **Remote Control**
- **Remote VMedia**
- **VMedia**
- **UID Control**
- **BIOS Update**
- **BMC Update**
- **CPLD Update**
- **PSU Update**
- **BIOS Settings**
- **External User Settings**
- **Fan Table Settings**
- **Firmware Password Settings**
- **Network Settings**
- **OS Settings**
- **Backup Config**
- **IPMI**

Figure 30. Command Line Interface

General Options:

--help	Show help
--log	Write log to file
--Logappend	Append log to existing file
--version	Show version number

3.1 Group

Use the Group Management command set to maintain the group members and its information.

Command:

group	Group management

The supported subcommands are as follows:

- **New**
- **Delete**
- **Add**
- **Scan**
- **List**

3.1.1 New

This command is used to create a new group.

Command:

```
new                 Create a group
```

Options:

```
-g, --group         Set name of the group
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          Host IP address list
--xbegin            Begin IP address of the range to exclude
--xend              End IP address of the range to exclude
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-o, --override      Override group if existed
```

3.1.2 Delete

This command is used to delete an existing group or remove servers from the group.

Command:

```
delete              Delete a group or remove servers from group
```

Options:

```
-g, --group         Name of the group to delete
-b, --begin         Begin IP address of the range to delete
-e, --end           End IP address of the range to delete
-h, --host          IP address of the server to remove
```

3.1.3 Add

This command is used to adds server into the group.

Command:

```
add                 Add servers into the group
```

Options:

```
-g, --group         Name of the group
-b, --begin         Begin IP address of the group
-e, --end           End IP address of the group
-h, --host          IP address of the server to add
```

3.1.4 Scan

This command is used to scan servers and update to the group info.

Command:

```
scan                Scan servers and update to the group info
```

Options:

```
-g, --group         Name of the group
```

3.1.5 List

This command is used to show the group info.

Command:

```
list                Scan servers and update to the group info
```

Options:

```
-g, --group         Name of the group to show the info
```

3.2 User

Use the User command set to maintain the user account.

Command:

```
user                User account control
```

The supported subcommands are as follows:

- **List**
- **Set**
- **Delete**

3.2.1 List

This command is used to list user account information of server.

Command:

```
list                List user account
```

Options:

```
-g, --group         The group to do user control
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do user control
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--id                Specific user ID (1 ~ 10)
```

3.2.2 Set

This command is used to setting the user account of server.

Command:

```
set                 List user account
```

Options:

```
-g, --group         The group to do user control
```

```
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do user control
-x, --exclude        IP address list to exclude
-s, --scan           Scan the IP range for servers
-u, --username       Username to login
-p, --password       Password to login
--id                 Specific user ID (1 ~ 10)
--name               User name
--pswd               User password
--access             User access
--kvm                User kvm
--vmedia             User vmedia
--snmp               User snmp
--prev_snmp          User prev_snmp
--                   User network privilege
network_privilege    Privilege: user, administrator, operator, none
--snmp_access        User snmp access
--                   User privilege limit serial
privilege_limit_s    Privilege: user, administrator, operator, none
erial
--                   User snmp authentication protocol
snmp_authenticati
on_protocol
--                   User snmp privacy protocol
snmp_privacy_prot
ocol
--email_id            User email address
--pswd_size          User password size
                     Size: bytes_16, bytes_20
--pswd_login         User login password
--pswd_cha           User change password
--ch1_enable         Enable channel 1 access status
                     0: Disable. 1: Enable
--ch7_enable         Enable channel 7 access status
                     0: Disable. 1: Enable
--ch8_enable         Enable channel 8 access status
                     0: Disable. 1: Enable
--ch1_Pri            Channel 1 Privilege Setting
                     Privilege: user, administrator, operator, none
--ch7_Pri            Channel 7 Privilege Setting
                     Privilege: user, administrator, operator, none
--ch8_Pri            Channel 8 Privilege Setting
                     Privilege: user, administrator, operator, none
```

3.2.3 Delete

This command is used to delete the user account of server.

Command:

```
delete               Delete user account
```

Options:

```
-g, --group          The group to do user control
```

```
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do user control
-x, --exclude        IP address list to exclude
-s, --scan           Scan the IP range for servers
-u, --username       Username to login
-p, --password       Password to login
--id                 Specific user ID (1 ~ 10)
```

3.3 Event

Use the Event command set to collect the system event log on the BMC.

Command:

```
event                System event log
```

The supported subcommands are as follows:

- **Download**
- **Clear**

3.3.1 Download

This command is used to download the system event log from the BMC.

Command:

```
download             Download system event event log
```

Options:

```
-g, --group          The group to do event log action
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do event log action
-x, --exclude        IP address list to exclude
-s, --scan           Scan the IP range for servers
-u, --username       Username to login
-p, --password       Password to login
--path               Event log file directory (the default is current path)
```

3.3.2 Clear

This command is used to clear the system event log on the BMC.

Command:

```
clear                clear system event log
```

Options:

```
-g, --group          The group to do event log action
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do event log action
-x, --exclude        IP address list to exclude
-s, --scan           Scan the IP range for servers
-u, --username       Username to login
-p, --password       Password to login
```

3.4 FRU

Use the FRU command to collect the FRU information on the system.

Command:

```
fru                 FRU Information
```

Options:

```
-g, --group         The group to do FRU action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do FRU action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.5 Sensor Information

Use the Sensor Information command set to collect the sensor details on the BMC.

Command:

```
sensor              Sensor Information
```

The supported subcommands are as follows:

- **Get Sensor**

3.5.1 Get Sensor

This command is used to get information of sensor on the host.

Command:

```
get_sensor          Get sensor configuration
```

Options:

```
-g, --group         The group to do sensor action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do sensor action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--all               All sensor status
--sn                Get specific sensor status
```

3.6 SMBIOS

Use the Sensor Information command set to collect the sensor details on the BMC.

Command:

```
smbios              SMBIOS Data
```

The supported subcommands are as follows:

- **Info**
- **Download**
- **Get**

3.6.1 Info

This command is used to collect the SMBIOS data of system BIOS.

Command:

```
info                SMBIOS data information
```

Options:

```
-g, --group         The group to do SMBIOS action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do SMBIOS action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.6.2 Download

This command is used to save the SMBIOS data into the file.

Command:

```
download            Download SMBIOS Data (save as a binary file)
```

Options:

```
-g, --group         The group to do SMBIOS action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do SMBIOS action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--path              File directory (the default is current path)
```

3.6.3 Get

This command is used to collect the SMBIOS data of system BIOS.

Command:

```
get                 Get SMBIOS Data Structure
```

Options:

```
-g, --group         The group to do SMBIOS action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do SMBIOS action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
```

```
-u, --username      Username to login
-p, --password      Password to login
--handle            Specific the SMBIOS data handle number
--decode            Display decoded data
```

3.7 System Inventory

Use the Sensor Inventory command set to collect the system device information.

Command:

```
system_inventory    System Inventory Information
```

The supported subcommands are as follows:

- **List**

3.7.1 List

This command is used to list device information on the system.

Command:

```
list                List device information on the system.
```

Options:

```
-g, --group         The group to do Sensor Inventory action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Sensor Inventory action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.8 Boot Next

This command is used to configure the boot device that BIOS will boot from next time.

Command:

```
Boot_next           Select Boot Device for Next Time Booting
```

Options:

```
-g, --group         The group to do Boot Next action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Boot Next action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--bios              Boot into BIOS Setup
--pxe               Boot from PXE. Default Legacy
--cdrom             Boot from CD/DVD
--disk              Boot from Disk. Default Legacy
```

```
--uefi              Boot UEFI
--legacy            Boot Legacy
```

3.9 Power

Use the Power command set to controls or monitors the host power status.

Command:

```
power               Power Control
```

The supported subcommands are as follows:

- **Status**
- **On**
- **Off**
- **Cycle**
- **Reset**
- **Shutdown**

3.9.1 Status

This command is used to view the power status of host.

Command:

```
status              Return Power Status
```

Options:

```
-g, --group         The group to do Power action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Power action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.9.2 On

This command is used to power-on the host.

Command:

```
on                  Power-on the host
```

Options:

```
-g, --group         The group to do Power action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Power action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.9.3 Off

This command is used to power-off the host.

Command:

```
off                 Power-off the host
```

Options:

```
-g, --group         The group to do Power action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Power action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.9.4 Cycle

This command is used to power cycle the host.

Command:

```
on                  Power cycle the host
```

Options:

```
-g, --group         The group to do Power action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Power action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.9.5 Reset

This command is used to hard reset the host.

Command:

```
reset               Hard reset the host
```

Options:

```
-g, --group         The group to do Power action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Power action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.9.6 Shutdown

This command is used to soft shutdown the host.

Command:

```
shutdown            ACPI Shutdown (Soft Shutdown) the host
```

Options:

```
-g, --group         The group to do Power action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Power action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.10 Remote Control

Use the Remote Control command set to invoke the remote control service.

Command:

```
remote_control      Remote control via Java KVM or HTML KVM
```

The supported subcommands are as follows:

- **Java KVM**
- **HTML KVM**

3.10.1 Java KVM

This command is used to invoke the Java KVM service.

Command:

```
java_kvm            Invoke Java KVM
```

Options:

```
-g, --group         The group to do Remote Control action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Remote Control action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--url               Get url entry only
-f, --file          Path to download file
```

3.10.2 HTML KVM

This command is used to invoke the HTML KVM service.

Command:

```
html_kvm            Invoke HTML KVM
```

Options:

```
-g, --group         The group to do Remote Control action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Remote Control action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
```

```
-u, --username      Username to login
-p, --password      Password to login
--url               Get url entry only
```

3.11 Remote Virtual Media

Use the Remote Virtual Media command set to remote mounting the media, editing the virtual media settings, or viewing the virtual media list on the BMC.

Command:

```
remote_vmedia       Remote Virtual Media
```

The supported subcommands are as follows:

- **Settings**
- **Image List**
- **Image Redirection**
- **Image Stop**

3.11.1 Settings

This command is used to configure virtual media settings.

Command:

```
settings            Remote Virtual Media Settings
```

Options:

```
-g, --group         The group to do Remote Virtual Media action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Remote Virtual Media action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--r_media_support   remote media support (0: Disabled, 1: Enabled)
--mcd               mount CD/DVD (0: Disabled, 1: Enabled)
--mcd_server_ip     Server Address for CD/DVD Images
--mcd_source_path   Path in server
--mcd_share_type    Share Type for CD/DVD
                    Type: nfs, cifs, https
--mcd_pswd          Password
--mcd_usr           Username
--                  Same settings for Harddisk Images
mcd_same_settings   (0: Disabled, 1: Enabled)
--mhd               Mount Hard disk
                    (0: Disabled, 1: Enabled)
--mhd_server_ip     Server Address for CD/DVD Images
--mhd_source_path   Path in server
--mhd_share_type    Share Type for CD/DVD
                    Type: nfs, cifs
--mhd_pswd          cifs Password
--mhd_usr           Cifs Username
--mhd_domain_name   cifs mhd_domain_name
```

3.11.2 Image List

This command is used to list the remote media images.

Command:

```
image_list          List Remote Media Image
```

Options:

```
-g, --group         The group to do Remote Virtual Media action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Remote Virtual Media action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.11.3 Image Redirection

This command is used to media image redirection.

Command:

```
image_redirection   Media Image Redirection
```

Options:

```
-g, --group         The group to do Remote Virtual Media action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Remote Virtual Media action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--name              Image Name
--type              Image Type
                    1: CD/DVD, 4: Hard Disk
--install           Reboot server to boot from virtual media
```

3.11.4 Image Stop

This command is used to stop media image redirection.

Command:

```
image_stop          Stop Media Image Redirection
```

Options:

```
-g, --group         The group to do Remote Virtual Media action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Remote Virtual Media action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--name              Image Name
```

```
--type              Image Type
                    1: CD/DVD, 4: Hard Disk
```

3.12 Virtual Media

This command is used to specific the virtual media.

Command:

```
vmedia              Virtual Media
```

Options:

```
-g, --group         The group to do Virtual Media action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Virtual Media action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--image             Image file to redirect to server
--drive             Drive to redirect to server
--install           Reboot server to boot from virtual media
--uefi              Boot UEFI
```

3.13 UID Control

Use the UID Control command set to viewing or setting the system UID status.

Command:

```
uid                 UID Control
```

The supported subcommands are as follows:

- **Get UID**
- **Set UID**

3.13.1 Get UID

This command is used to get the UID status.

Command:

```
get_uid             Get Host UID Status
```

Options:

```
-g, --group         The group to do UID Control action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do UID Control action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.13.2 Set UID

This command is used to set the UID status.

Command:

```
set_uid              set Host UID Status
```

Options:

```
-g, --group          The group to do UID Control action
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do UID Control action
-x, --exclude        IP address list to exclude
-s, --scan           Scan the IP range for servers
-u, --username       Username to login
-p, --password       Password to login
-a                   UID Action
                     0: Turn Off, 1: Temporary On, 2: Turn On
```

3.14 BIOS Update

Use the BIOS Update command set to update the BIOS firmware.

Command:

```
bios_update          BIOS Firmware Update
```

Options:

```
-g, --group          The group to do BIOS Update action
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do BIOS Update action
-x, --exclude        IP address list to exclude
-s, --scan           Scan the IP range for servers
-u, --username       Username to login
-p, --password       Password to login
--                   Update BIOS FW through redfish interface
redfish_interface
--preserve           preserve bios configuration
--action             Only for Redfish Update:
                     1: Update on host shutdown
                     2: Update immediately without changing host state.
                        (Intel platform not supported)
                     3: Shutdown host to update
```

The supported subcommands are as follows:

- **Get BIOS Firmware Version**

3.14.1 Get BIOS Firmware Version

This command is used to get BIOS firmware version.

Command:

```
get_fw_ver           Get BIOS Firmware Version
```

Options:

```
-g, --group          The group to do BIOS Update action
-b, --begin          Begin IP address of the range
```

```
-e, --end           End IP address of the range
-h, --host          IP address list to do BIOS Update action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.15 BMC Update

Use the BMC Update command set to update the BMC firmware.

Command:

```
bmc_udpate          BMC Firmware Update
```

Options:

```
-g, --group         The group to do BMC Update action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do BMC Update action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--preserve          Preserve all configuration
--sdr               Preserve SDR, (1: preserve, 0: overwrite, entry for keep
                    current settings) are used for the following preserve
                    options
--sel               Preserve SEL
--ipmi              Preserve IPMI
--network           Preserve Network
--ntp               Preserve NTP
--snmp              Preserve SNMP
--kvm               Preserve KVM
--authentication    Preserve Authentication
--syslog            Preserve Syslog
--web               Preserve Web
--redfish           Preserve Redfish
--fru               Preserve FRU
--ssh               Preserve SSH
--extlog            Preserve Extlog
--                  Preserve AutomationEngine
automationEngine
--rsd               Preserve RSD
--dual_image        Update BMC dual image settings
                    1: Image1, 2: Image2, 3: Both Image
--                  Update BMC firmware through redfish interface
redfish_interface
```

The supported subcommands are as follows:

- **Get BMC Firmware Version**

3.15.1 Get BMC Firmware Version

This command is used to get BMC firmware version.

Command:

```
get_fw_ver          Get BMC Firmware Version
```

Options:

```
-g, --group         The group to do BMC Update action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do BMC Update action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.16 CPLD Update

Use the CPLD Update command set to update the CPLD firmware.

Command:

```
cpld_udpate         CPLD Firmware Update
```

Options:

```
-g, --group         The group to do CPLD Update action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do CPLD Update action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--type              CPLD Type
                    1: Motherboard, 2: Backplane
--                  Update CPLD firmware through redfish interface
redfish_interface
```

The supported subcommands are as follows:

- **Get CPLD Firmware Version**

3.16.1 Get CPLD Firmware Version

This command is used to get CPLD firmware version.

Command:

```
get_fw_ver          Get CPLD Firmware Version
```

Options:

```
-g, --group         The group to do CPLD Update action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do CPLD Update action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.17 PSU Update

Use the PSU Update command set to update the PSU firmware.

Command:

```
psu_udpate          PSU Firmware Update
```

Options:

```
-g, --group         The group to do PSU Update action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do PSU Update action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
-f, --file          Firmware image
```

3.18 BIOS Settings

Use the BIOS Settings command set to view or configure the system BIOS settings.

Command:

```
bios_settings       BIOS Settings
```

The supported subcommands are as follows:

- **Get**
- **Quick Search**
- **Value**
- **Set**
- **Apply**
- **Save**
- **Restore**

3.18.1 Get

This command is used to collect the system BIOS attributes.

Command:

```
get                 Collect System BIOS Attributes
```

Options:

```
-g, --group         The group to do BIOS Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do BIOS Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--path              File directory (the default is current path)
-a, --all           Get all BIOS attribute
-q, --query         Search keyword of bios attribute
```

```
                    Example: -q keyword1 -q keyword2
--print             Print BIOS attribute
```

3.18.2 Quick Search

This command is used to search the system BIOS attributes.

Command:

```
quick_search        Quickly search BIOS available items
```

Options:

```
-g, --group         The group to do BIOS Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do BIOS Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--path              File directory (the default is current path)
--item_name         Get all BIOS item display name
--item_value        Get specific BIOS item display value
                    Example: --item_value item_name
--print             Print BIOS attribute
```

3.18.3 Value

This command is used to acquire the system BIOS settings value.

Command:

```
value               Acquire the system BIOS settings value
```

Options:

```
-g, --group         The group to do BIOS Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do BIOS Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--path              File directory (the default is current path)
-a, --all           Get all BIOS attribute
-o, --option        To acquire the BIOS option value
--print             Print BIOS attribute
```

3.18.4 Set

This command is used to configure the system BIOS settings.

Command:

```
set                 Set system BIOS settings
```

Options:

```
-g, --group         The group to do BIOS Settings action
```

```
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do BIOS Settings action
-x, --exclude        IP address list to exclude
-s, --scan           Scan the IP range for servers
-u, --username       Username to login
-p, --password       Password to login
--path               File directory (the default is current path)
-a, --all            Get all BIOS attribute
-d, --dircet         BIOS Settings
                     Example 1: -d "AttributeName1"="ValueName1"
                     Example 2: -d "DisplayName1"="ValueDisplayName1"
--print              Print BIOS attribute
```

3.18.5 Apply

This command is used to apply the reference system BIOS settings to specific system BIOS.

Command:

```
apply                Apply the system BIOS settings to specific host
```

Options:

```
-g, --group          The group to do BIOS Settings action
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do BIOS Settings action
-x, --exclude        IP address list to exclude
-s, --scan           Scan the IP range for servers
-u, --username       Username to login
-p, --password       Password to login
--path               File directory (the default is current path)
-r, --reference      Reference IP of BIOS settings
                     Example: -r IP -b begin_ip -e end_ip
--print              Print BIOS attribute
```

3.18.6 Save

This command is used to backups the system BIOS settings to the file.

Command:

```
save                 Save the BIOS settings
```

Options:

```
-g, --group          The group to do BIOS Settings action
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do BIOS Settings action
-x, --exclude        IP address list to exclude
-s, --scan           Scan the IP range for servers
-u, --username       Username to login
-p, --password       Password to login
--path               File directory (the default is current path)
```

3.18.7 Restore

This command is used to restore the system BIOS settings from the file.

Command:

```
restore              Restore the BIOS settings
```

Options:

```
-g, --group          The group to do BIOS Settings action
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do BIOS Settings action
-x, --exclude        IP address list to exclude
-s, --scan           Scan the IP range for servers
-u, --username       Username to login
-p, --password       Password to login
--path               File directory (the default is current path)
```

3.19 External User Settings

Use the External User Settings command set to configure external user settings on BMC.

Command:

```
external_user_set    Configure External User Settings
tings
```

The supported subcommands are as follows:

- **LDAP Settings**
- **Active Directory Settings**

3.19.1 LDAP Settings

This command is used to configure the LDAP settings

Command:

```
ldap_settings        General LDAP/E-directory Settings
```

Options:

```
-g, --group          The group to do External User Settings action
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do External User Settings action
-x, --exclude        IP address list to exclude
-s, --scan           Scan the IP range for servers
-u, --username       Username to login
-p, --password       Password to login
--enable             Enable LDAP/E-Directory Authentication
                     0: Disabled, 1: Enabled
--encryption_type    Encryption Type
                     0: No Encryption, 1: SSL, 2: StartTLS
--server_address     Server Address
--port               Port
--bind_dn            Bind DN
```

```
--search_base       Search Base
--                  Search Base
user_login_attrib
ute
--                  Common Name Type
common_name_type    0: IP, 1: FQDN
--                  CA Certificate File
ca_certificate_fi
le
--                  Certificate File
certificate_file
--private_key       Private Key
```

3.19.2 Active Directory Settings

This command is used to configure Active Directory (AD) Settings.

Command:

```
ad_settings         General Active Directory Settings
```

Options:

```
-g, --group         The group to do External User Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do External User Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--enable            Enable Active Directory Authentication
                    0: Disabled, 1: Enabled
--enablessl         SSL
                    0: Disabled, 1: Enabled
--secret_username   Secret Username
--secret_password   Secret Password
--user_domain_name  User Domain Name
--                  Domain Controller Server Address 1
domain_controller1
--                  Domain Controller Server Address 2
domain_controller2
--                  Domain Controller Server Address 3
domain_controller3
```

3.20 Fan Table Settings

Use the Fan Table Settings command set to configure system fan settings.

Command:

```
fantable_settings   Fan Table Settings
```

The supported subcommands are as follows:

- **Get**
- **Corresponding Fan**
- **Fan Mode**

- **Close**
- **Open**

3.20.1 Get

This command is used to view fan table information.

Command:

```
get                 Get Fan Table Information
```

Options:

```
-g, --group         The group to do Fan Table Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Fan Table Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
-o, --              Get open loop control table (1 ~ 8)
open_loop_control_
table
-c, --              Get close loop control table (1 ~ 10)
close_loop_control
_table
-i, --              Enter the sensor number (Parameter -l) to get the fan
sensor_fan_table_i  table info
nfo
-l, --              Get temperature sensor number list
temperature_sensor
_list
-m, --fan_mode      Get fan mode
-sn, --             Sensor number
sensor_number
-ca, --             Current Assignment List
current_assignment
```

3.20.2 Corresponding Fan

This command is used to setting the corresponding table.

Command:

```
correspnding_fan    Setting the Corresponding Table
```

Options:

```
-g, --group         The group to do Fan Table Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Fan Table Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--id, --config_id   Current Assignment Config ID
--sn, --            Sensor Number
```

```
sensor_number
-o, --               Select Open Loop Control Table (1~8)
open_loop_control_   0: Disable
table
-c, --               Select Close Loop Control Table (1~10)
close_loop_control   0: Disable
_table
-f, --select_fan     Select Fan
                     0: Disabled, 1: Enabled
                     Example: fan1=1
--del                Delete fan config
```

3.20.3 Fan Mode

This command is used to setting the fan mode.

Command:

```
fan_mode             Setting the Fan Mode
```

Options:

```
-g, --group          The group to do Fan Table Settings action
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do Fan Table Settings action
-x, --exclude        IP address list to exclude
-s, --scan           Scan the IP range for servers
-u, --username       Username to login
-p, --password       Password to login
--control, --        Set Fan Control Mode
fan_control_mode     0: Default, 1: Manual, 2: Customized
--duty, --           Set Fan Duty for Manual Mode.
fan_duty             Example: fan1=21 fan2=30
--max_duty           Maximum Duty.
--min_duty           Minimum Duty.
--fan_failed         Full speed if fan failed
                     0: Disabled, 1: Enabled
--fw_update          Force running at Maximum Speed when firmware update
                     1: BMC, 2: BIOS, 3: Both
--default_mode       Default Mode
                     0: Optimal, 1: Basic, 2: Aggressive, 3: Power Saving, 4:
                     Full speed
```

3.20.4 Close

This command is used to setting the close loop control table.

Command:

```
close                Setting the Close Loop Control Table
```

Options:

```
-g, --group          The group to do Fan Table Settings action
-b, --begin          Begin IP address of the range
-e, --end            End IP address of the range
-h, --host           IP address list to do Fan Table Settings action
-x, --exclude        IP address list to exclude
```

```
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--table, --Control  Set Fan table number (1~10)
Table
--temp_d, --Ramp    The Temperature of Slow Down Fan Duty Cycle
down temperature
--temp_u, --Ramp    The Temperature of Speed Up Fan Duty Cycle
up temperature
--duty_d, --Ramp    The Duty Cycle Percentage of Slow Down Fan Duty Cycle
down duty
--duty_u, --Ramp    The Duty Cycle Percentage of Speed Up Fan Duty Cycle
up duty
--time_d, --Ramp    The Time of Slow Down Fan Duty Cycle
down interval       Unit: Seconds
--time_u, --Ramp    The Time of Speed Up Fan Duty
up interval         Unit: Seconds
--RampThreshold     Ramp threshold
                    Unit: Degrees
```

3.20.5 Open

This command is used to setting the open loop control table.

Command:

```
open                Setting the Open Loop Control Table
```

Options:

```
-g, --group         The group to do Fan Table Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Fan Table Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--table, --fan      Set Fan table number (1~8)
table number
--order, --Table    Table order format: order_id=temp=duty
order               Example: --order 1=20=80
--Hysteresis        Falling Hysteresis
                    Unit: Degrees
--RampUpInterval    Ramp Up Interval
                    Unit: Seconds
--RampUpDuty        Ramp Up Duty
                    Unit: Percentage
--RampDownInterval  Ramp Down Interval
                    Unit: Seconds
--RampDownDuty      Ramp Down Duty
                    Unit: Percentage
```

3.21 Firmware Password Settings

Use the Firmware Password Settings command set to configure system fan

settings.

Command:

```
fw_pswd_settings    Setting the Firmware Password.
```

The supported subcommands are as follows:

- **BMC**
- **BIOS**

3.21.1 BMC

This command is used to setting the BMC password.

Command:

```
bmc                 Setting the BMC Default Password
```

Options:

```
-g, --group         The group to do Firmware Password Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Firmware Password Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--new_pw            New Password
--default           Change BMC default password
```

3.21.2 BIOS

This command is used to setting system BIOS password.

Command:

```
bios                Setting the System BIOS Password
```

Options:

```
-g, --group         The group to do Firmware Password Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Firmware Password Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--new_pw            New Password
--old_pw            Old Password
```

3.22 Network Settings

Use the Network Settings command set to configure BMC network settings.

Command:

```
network_settings    Setting the BMC Network Configuration
```

The supported subcommands are as follows:

- **Get IP**
- **Set IP**
- **Get DNS**
- **Set DNS**
- **Get Bond**
- **Set Bond**
- **Get NIC**
- **Set NIC**

3.22.1 Get IP

This command is used to get BMC network IP settings.

Command:

```
get_ip              Get the BMC Network IP Settings
```

Options:

```
-g, --group         The group to do Network Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Network Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.22.2 Set IP

This command is used to get BMC network IP settings.

Command:

```
set_ip              Setting the BMC Network IP Settings
```

Options:

```
-g, --group         The group to do Network Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Network Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--interface_name    LAN Interface
--ipv4_enable       IPv4 Enabled
                    0: Disabled, 1: Enabled
--ipv4_dhcp_enable  IPv4 DHCP Enabled
                    0: Disabled, 1: Enabled
--ipv4_address      IPv4 Address
--ipv4_subnet       IPv4 Subnet
--ipv4_gateway      IPv4 Gateway
--ipv6_enable       IPv6 Enabled
                    0: Disabled, 1: Enabled
--ipv6_dhcp_enable  IPv6 DHCP Enabled
                    0: Disabled, 1: Enabled
--ipv6_index        IPv6 Index
```

```
--ipv6_address      IPv6 Address
--ipv6_gateway      IPv6 Gateway
--ipv6_prefix       IPv6 Prefix
--vlan_enable       VLAN Enable
                    0: Disabled, 1: Enabled
--vlan_id           VLAN ID
--vlan_priority     VLAN Priority
```

3.22.3 Get DNS

This command is used to get BMC DNS configuration.

Command:

```
get_dns             Get the BMC DNS Configuration
```

Options:

```
-g, --group         The group to do Network Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Network Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.22.4 Set DNS

This command is used to get BMC network IP settings.

Command:

```
set_dns             Setting the BMC DNS Configuration
```

Options:

```
-g, --group         The group to do Network Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Network Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--dns               DNS Enabled
                    0: Disabled, 1: Enabled
--mdns              mDNS Enabled
                    0: Disabled, 1: Enabled
--host_cfg          Host Name Setting
                    0: Automatic, 1: Manual
--host_name         Host Name
--reg_bmc           Register BMC
                    0: Disabled, 1: Enabled
--reg_option        Registration Method
                    0: Nsupdate, 1: DHCP Client FQDN, 2: Hostname
--domain_manual     Domain Setting
                    0: Automatic, 1: Manual
--domain_name       Domain Name
```

```
--domain_iface      Domain Interface
--dns_manual        Domain Name Server Setting
                    0: Automatic, 1: Manual
--dns_priority      DNS Priority
--dns_server1       DNS Server 1
--dns_server2       DNS Server 2
--dns_server3       DNS Server 3
```

3.22.5 Get Bond

This command is used to get BMC Bond Configuration.

Command:

```
get_bond            Get the BMC Bond Configuration Settings
```

Options:

```
-g, --group         The group to do Network Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Network Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.22.6 Set Bond

This command is used to set BMC

Command:

```
set_bond            Setting the BMC Bond Configuration settings
```

Options:

```
-g, --group         The group to do Network Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Network Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--enable_bonding    Enable Bonding
                    0: Disabled, 1: Enabled
--                  Auto Configuration
auto_configuration  0: Disabled, 1: Enabled
--bond_interface    Bond Interface
--bond_mode         Bond Mode
```

3.22.7 Get NIC

This command is used to get BMC Shared NIC Link Up information.

Command:

```
get_ip              Get the BMC Shared NIC Link Up information
```

Options:

```
-g, --group         The group to do Network Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Network Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
```

3.22.8 Set NIC

This command is used to set the BMC shared NIC Link Up configuration.

Command:

```
set_nic             Setting the BMC shared NIC Link Up Configuration
```

Options:

```
-g, --group         The group to do Network Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Network Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--shared_NIC1       Shared NIC 1
                    0: Disabled, 1: Enabled
--shared_NIC2       Shared NIC 2
                    0: Disabled, 1: Enabled
```

3.23 OS Settings

Use the OS Settings command set to configure OS (Operating System) settings.

Command:

```
os_settings         Setting the Host OS Settings
```

The supported subcommands are as follows:

- **Get**
- **Host Interface**

3.23.1 GET

This command is used to set the BMC shared NIC Link Up configuration.

Command:

```
get                 Get Device Information on the OS
```

Options:

```
-g, --group         The group to do OS Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
```

```
-h, --host          IP address list to do OS Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--lan, --Lan Info   Show LAN Information
--ob_disk, --on-    Show Disk Information
board disk info
```

3.23.2 Host Interface

This command is used to set the BMC shared NIC Link Up configuration.

Command:

```
host_interface      Setting the Host Interface Configuration
```

Options:

```
-g, --group         The group to do OS Settings action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do OS Settings action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--usb_lan           Automatically Setting USB LAN
```

3.24 Backup Config

Use the Backup Config command set to download or restore BMC configuration settings.

Command:

```
backup_config       Backup BMC Config to a File or Restore BMC Config form a
                    File
```

The supported subcommands are as follows:

- **Download**
- **Restore**

3.24.1 Download

This command is used to download BMC configuration settings to a file.

Command:

```
download            Download Config Settings
```

Options:

```
-g, --group         The group to do Backup Config action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Backup Config action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
```

```
-u, --username      Username to login
-p, --password      Password to login
--snmp              Backup SNMP Config
                    0: Disable, 1: Enabled
--kvm               Backup KVM Config
                    0: Disable, 1: Enabled
--network           Backup Network Config
                    0: Disable, 1: Enabled
--ipmi              Backup IPMI Config
                    0: Disable, 1: Enabled
--ntp               Backup NTP Config
                    0: Disable, 1: Enabled
--authentication    Backup Authentication Config
                    0: Disable, 1: Enabled
--syslog            Backup Syslog
                    0: Disable, 1: Enabled
--path              File Directory (the default path is current path)
```

3.24.2 Restore

This command is used to restore BMC configuration settings from a file.

Command:

```
restore             Restore BMC Configuration
```

Options:

```
-g, --group         The group to do Backup Config action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Backup Config action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--path              File Directory (the default path is current path)
```

3.25 IPMI

Use the IPMI command set to send the IPMI raw command through this tool.

Command:

```
ipmi                Sent the IPMI Raw Command
```

Options:

```
-g, --group         The group to do Backup Config action
-b, --begin         Begin IP address of the range
-e, --end           End IP address of the range
-h, --host          IP address list to do Backup Config action
-x, --exclude       IP address list to exclude
-s, --scan          Scan the IP range for servers
-u, --username      Username to login
-p, --password      Password to login
--raw               IPMI Raw Command
```