ASRock Rack

Server Management utility

Revision History

No.	Document	Product	Date	Description
3	1.0.2	2.2.13	04-30-2019	1. Support cli interface 2. Update group management 3. Improve virtual media function
2	1.0.1	2.0.5	08-28-2018	Update some pictures and function descriptions
1	1.0.0	2.0.1	07-07-2018	Initial draft

Table of contents

1.   Introduction

ASRock Rack server management is a software program that communicates to ASRock Rack servers over Ethernet; meanwhile, administrators can monitor system status and control these servers from remote computers. The program is mainly based on the services provided by BMC (Baseboard Management Controllers) with IPMI (Intelligence Platform Management Interface), web services and DMTF's Redfish API.

Terminology

Abbreviation	Definition
BMC	Baseboard Management Controller
BIOS	Basic Input Output System
SMBIOS	System Management BIOS
IPMI	Intelligence Platform Management Interface
FRU	Filed Replaceable Unit
KVM	Keyboard, Video and Mouse
DMTF	Distributed Management Task Force
API	Application Programming Interface
ME	Intel Management Engine
PEF	Platform Event Filter

POST	Power On Self-Test
SEL	System Event Log
SNMP	Simple Network Management Protocol

2.   Features Summary

Key	Description
Login	Grouped server by assigning IP range
System inventory	Display device detailed information
IPMI Event log	View and download system event log
Remote control	KVM, reboot, load default settings
Power control	Perform system power on/off/cycle
BIOS settings	Edit BIOS settings through BMC interface
SMBIOS data	View SMBIOS data through BMC interface
BIOS/BMC update	Upgrade firmware on multiple servers
Virtual media	Attach local media to remote server

Note:
All screenshots in this document are provided for illustrative purpose only, and may be different from the actual product.

3.   Installation

ASRock Rack server management can be run on Windows and Linux operating systems.

3.1.   Windows

Download AsrSrvMgmtSetup(vx.x.x).zip from the ASRock Rack official web site, unzip and run the application, and follow the instructions to complete the setup process. Then you also need to download and install the required Microsoft Visual C++ 2010 Redistributable Package for program to run. After that you can start ASRockSrvMgmt from Windows start menu. Below are some installation screenshots for your references.
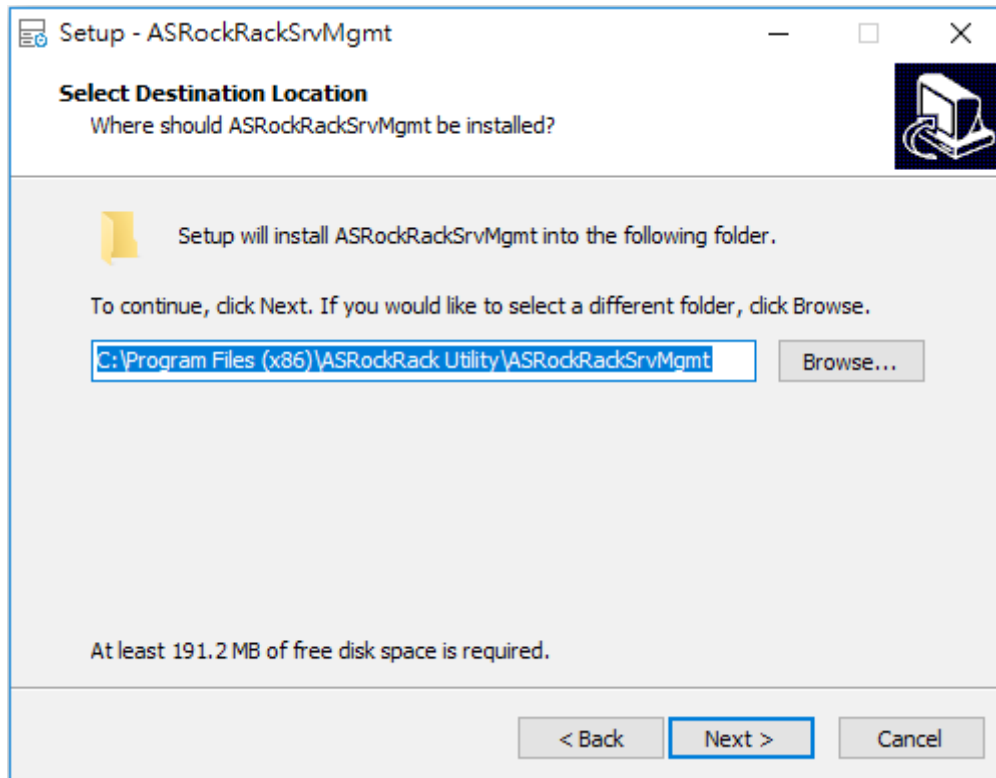
Note:
Microsoft Visual C++ 2010 Redistributable Package can be downloaded from this link:
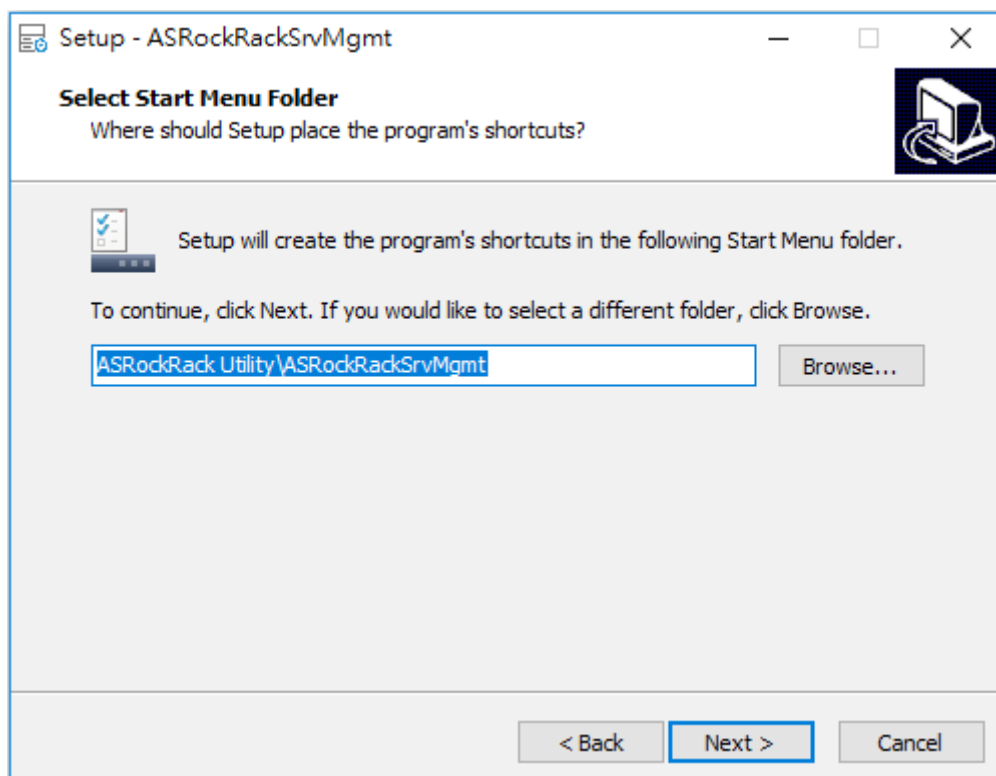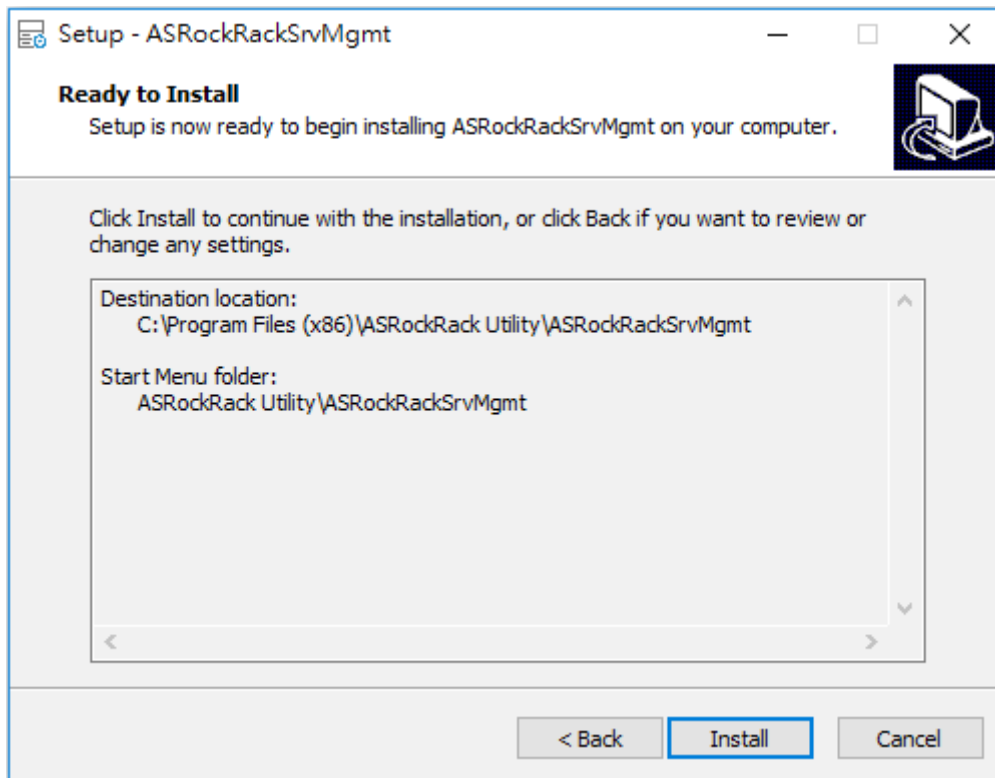*https://www.microsoft.com/en-us/download/details.aspx?id=14632*
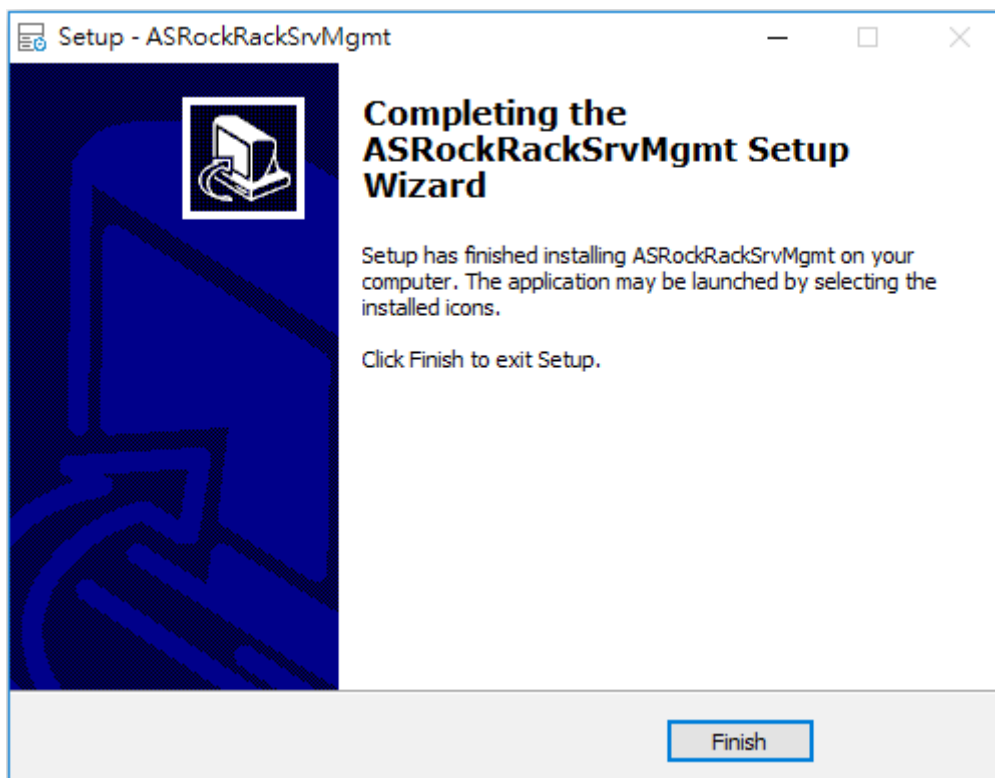
1.   Start setup
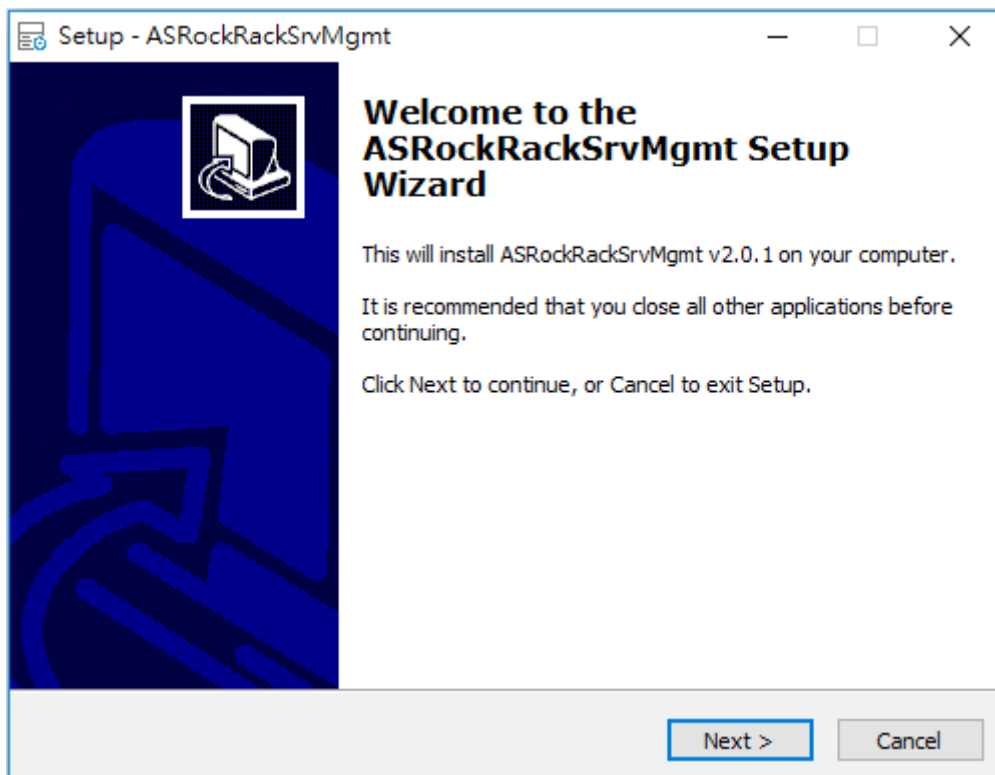
2. Select destination location

3. Select start menu folder

4. Ready to install

5. Finish

3.2. Linux

Download asrrmgnttool_vx.x.x.zip from the ASRock Rack official web site, unzip the file into the installation folder. Execute below commands from the installation folder to start the program with GUI interface, check CLI section for the command line options.

- $sudo ./asrrmgnttool

Note:
1. You need to run above commands with root privileges.

3.3. System Requirement

Client machine with 8GB RAM or above.
Supported browsers: Chrome, IE11 and above, Firefox.

Note:
For HTML5 KVM, it is advisable to use Chrome or IE as your default browser, since Firefox has its own memory limitations.

4.   Management Interface

When you launch the program for the first time, it looks like the following screenshot. You can find the version number the program title and program screen is separated into two parts: function menu is on the left-hand side and the main operational area is on the right-hand side.

▤ - Click on this button to minimize the function menu.
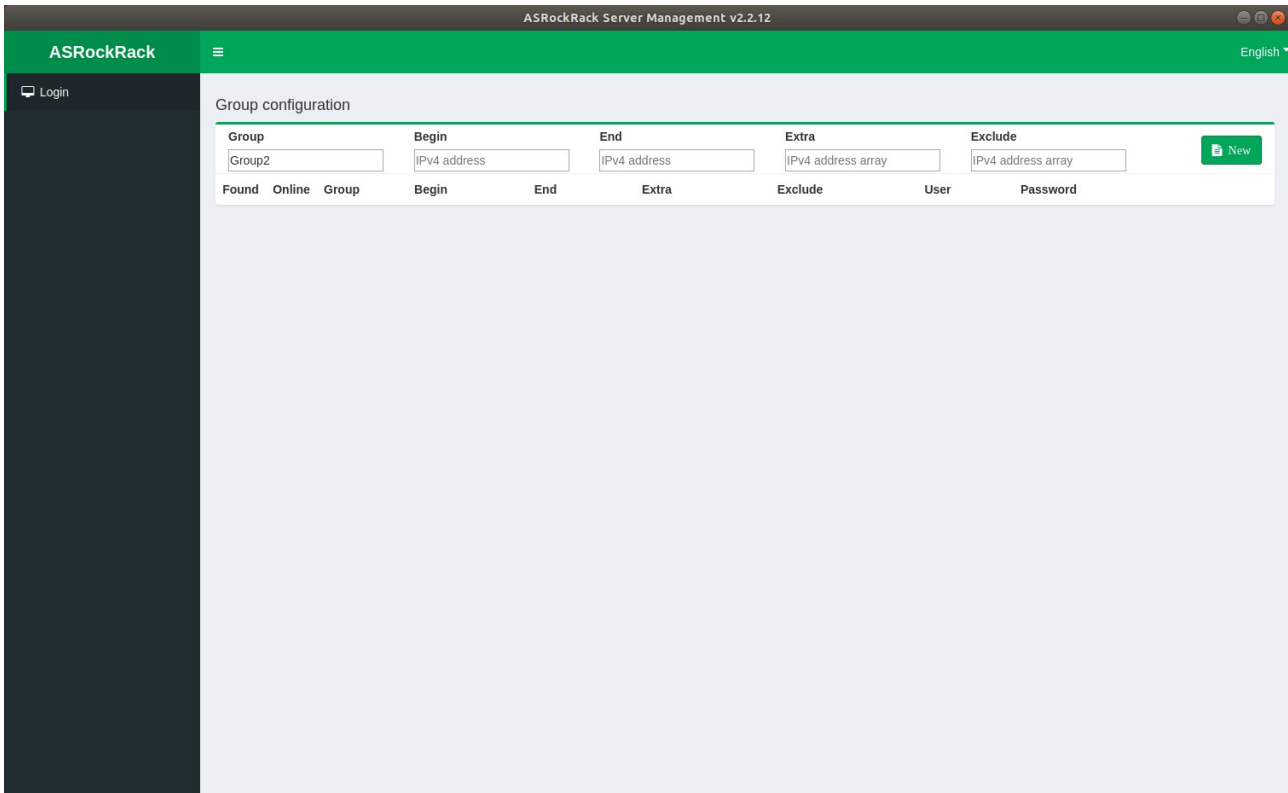
Begin: Set begin IP address of the range.
End: Set end IP address of the range.
Add group: Click on to add group entry.

4.1. Login

To login servers, input the IP range under group configuration and click on Add group button, and then the group entry will be added into the list with default Group# name, you may change the group name by editing the Group column and click on the save button. If you want to redefine the IP range you can delete the entry by clicking on the delete button. After adding the group entry, you can click on the scan button to identify our servers within the IP range, the found column will display the number of server found when the detection is done. Before trying to login, you need to provide username and password, note that all servers within a group must be using the same username and password, the default username and password are both "admin".

Note:
1. IP range overlap between groups is not supported, error message will popup when you try to add IP overlapped group.
2. It is recommended to change the username and password after first login, you can apply the change with the "User Management" function.

After clicking on the login button, program will try to login on the found servers, the online column will update to report the number of servers that were successfully login. You may click on the drop down button to get the list of online servers' information that including IP address, Model name, BMC firmware version, BIOS firmware version and Login username, as shown below.

Begin: Set begin IP address of the range.
End: Set end IP address of the range.
Add group: Click on to add group entry.

- Click on to save the group name if changed the default value.

- Scan the IP range to identify ASRock Rack servers.

- Delete the group entry.

- Click on to display detailed information.

Login - Login servers using the provided username and password for authentication.

4.2. Function Menu

A list of functions will be shown on the left hand side of the program screen after login. When you click on the function menu, the right-hand side operational area will display the content accordingly. Usually you can change to another function at any time, exception is BMC/BIOS firmware update. During the update, BMC cannot perform any other functions.
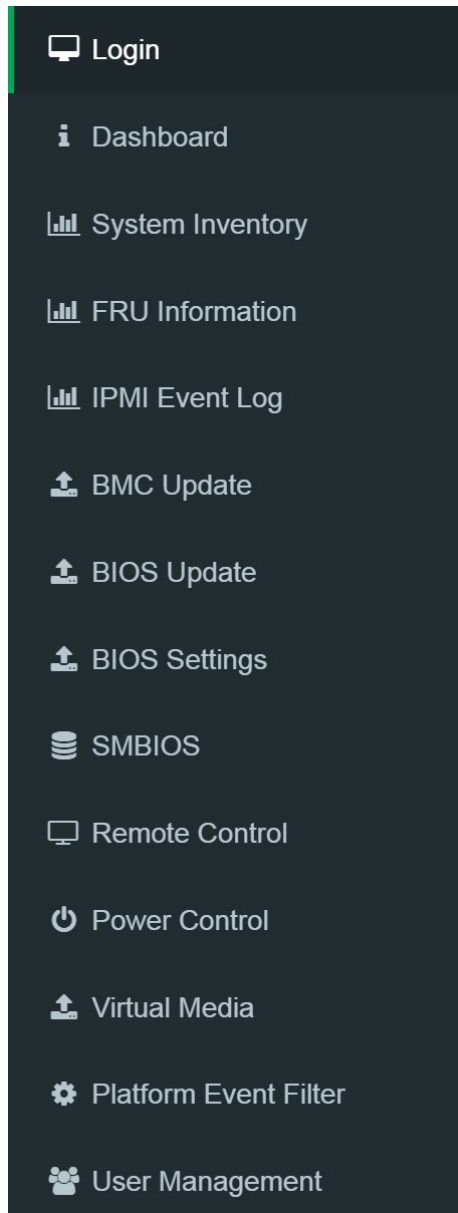
4.3. Dashboard

Dashboard provides some basic information such as firmware version, network configuration and sensors status. You can retrieve information from one server at a time, and switch to another server by selecting the IP address from the drop-down list.

Drop down list: Select server from this IP list.
🔄 **-** Click on to refresh information.

Firmware Information
The Firmware Information displays the following information.

BMC Firmware Version: Displays the BMC firmware version of the device.
BIOS Firmware Version: Displays the BIOS firmware version of the device.
ME Firmware Version: Displays the ME (or PSP) firmware version of the device.
Microcode Version: Displays the microcode version of the device.
CPLD Version: Displays the version of CPLD of the device.

Note:
BIOS version, ME (or PSP) version and Microcode version will be refreshed when the system POST; please restart the system if you see nothing on screen.

Network Information
The Network Information of the device with the following fields is shown here.

MAC Address: Read-only field shows the MAC address of the device.
V4 Network Mode: The v4 network mode of the device can be either static or DHCP.
IPv4 Address: The IPv4 address of the device.
V6 Network Mode: The v6 network mode of the device can be either static or DHCP.
IPv6 Address: The IPv6 address of the device.

Sensor Monitoring

Here lists all the available sensors on the device with the following information.

Status: This column displays the state of the device.
●- Normal state
●- Critical State
●- Not Available
Sensor Name: Displays the name of the sensor.
Reading: *Displays the value of sensor readings.*

UID
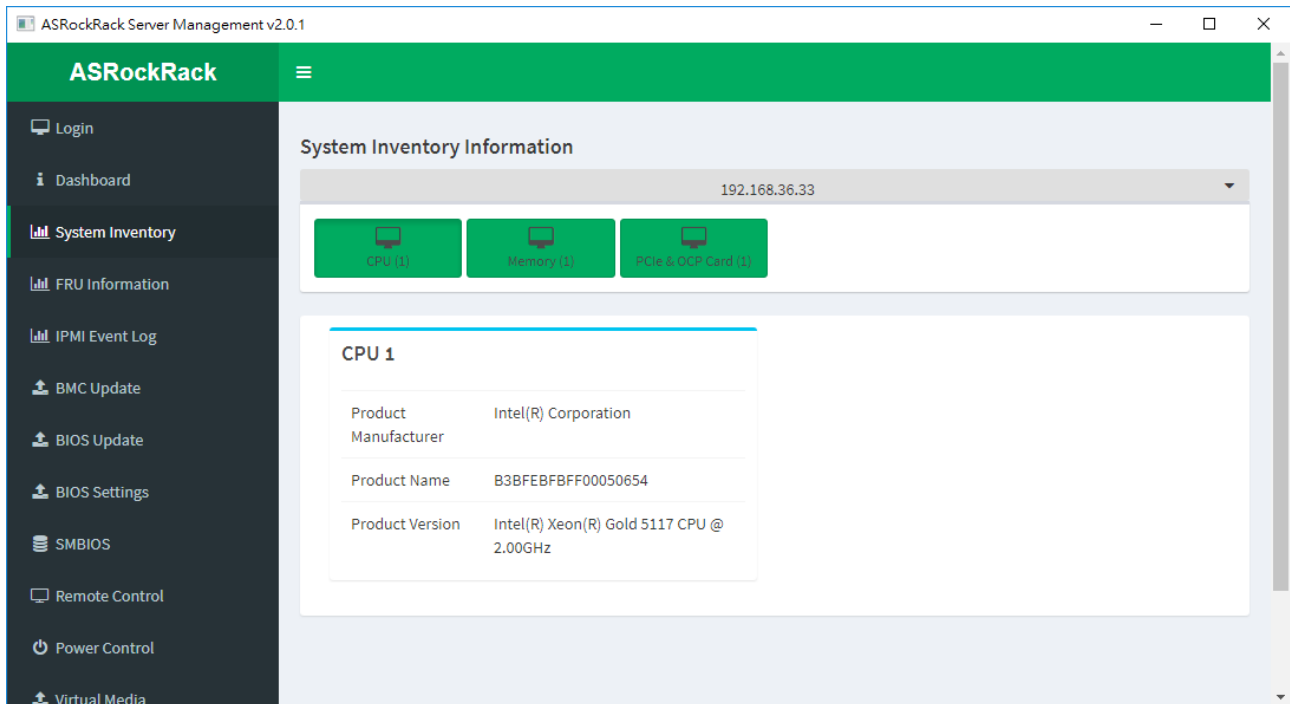
Here displays the UID status and it also supports the UID control function. The user can click the circle icon to change the UID status.

Event Logs

Here displays a graphical representation of all events and occupied/available space in logs.

4.4. System Inventory

This function list all the devices detected by the firmware, such as CPU, memory, storage device, and PCIE device. Select the server from the drop-down list and the detected devices will be updated. Details information will be displayed when you click on a group item.

Note:
1. *The information will be refreshed when the system POST, please restart the system if you see nothing on screen.*
2. *The information on this page may differ by platforms.*

4.5. FRU Information

This displays the FRU (Field Replaceable Unit) storage information. Structure definition can be found in the Platform Management FRU Information Storage Definition specification; usually it includes chassis, board and product information.

FRU Device ID: Select the FRU ID from the list.
FRU Device Name: Display the FRU device name.

4.6. IPMI Event Log

This function displays the event logs recorded on the server, select a server from the IP drop-down list. The event log data will update shortly. You can use the sensor name or record type filter options to view those specific events, or you can click on the column header to sort the list of entries by Event ID, Time Stamp or Sensor Name.

Select Sensor Name: Filter events with one of the sensors.
Select Record Type: Filter events with one of the record types.
BMC Timezone: Displays the events with BMC UTC Offset timestamp.
Client Timezone: Displays the events with Client UTC Offset timestamp.
UTC Offset: Displays the current UTC Offset value based on which event time stamps will be updated.
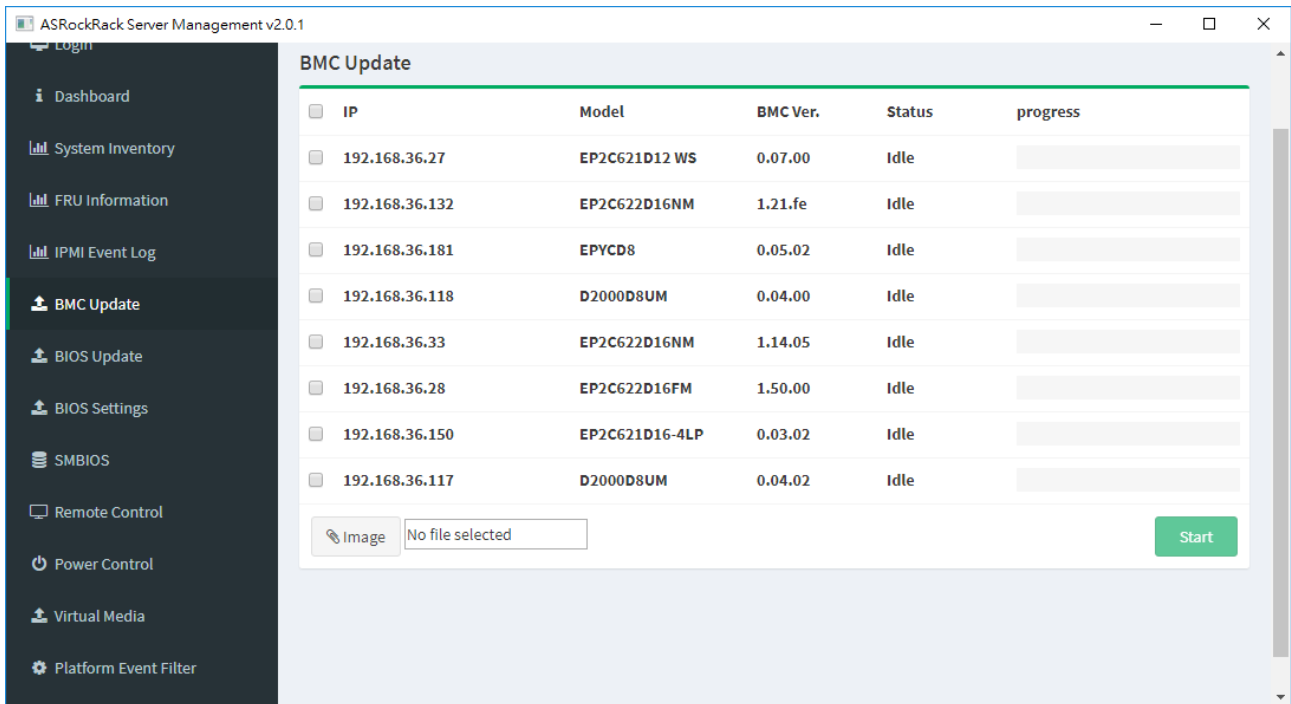**Clear Event Logs**: To delete all the event logs.
Download Event Logs: To download all the existing event log records.
Clear All Event Logs: Delete all the event logs on the selected servers.
Download All Event Logs: Download all the existing event log records from the selected servers.

4.7. BMC Update

This function can update BMC firmware for multiple servers. Click on the image button and select firmware file in the open file dialog, or input the file path and name in the edit box, and then check the IP checkbox of the model entry and click on start button to start. The status column will display "Upgrading" and the progress bar will report the percentage of work that has been completed.

	IP	Model	BMC Ver.	Status	progress
☐	192.168.36.27	EP2C621D12 WS	0.07.00	Idle	
☐	192.168.36.132	EP2C622D16NM	1.21.fe	Idle	
☐	192.168.36.181	EPYCD8	0.05.02	Idle	
☐	192.168.36.118	D2000D8UM	0.04.00	Idle	
☐	192.168.36.33	EP2C622D16NM	1.14.05	Idle	
☐	192.168.36.28	EP2C622D16FM	1.50.00	Idle	
☐	192.168.36.150	EP2C621D16-4LP	0.03.02	Idle	
☐	192.168.36.117	D2000D8UM	0.04.02	Idle	

IP column: Check the IP of the server to update BMC firmware.
Model: Display the model name of the server.
BMC Ver.: Display the current BMC firmware version.
Status: Display the BMC update status.
Progress: Display the BMC update progress.
Image: Select BMC firmware image file.
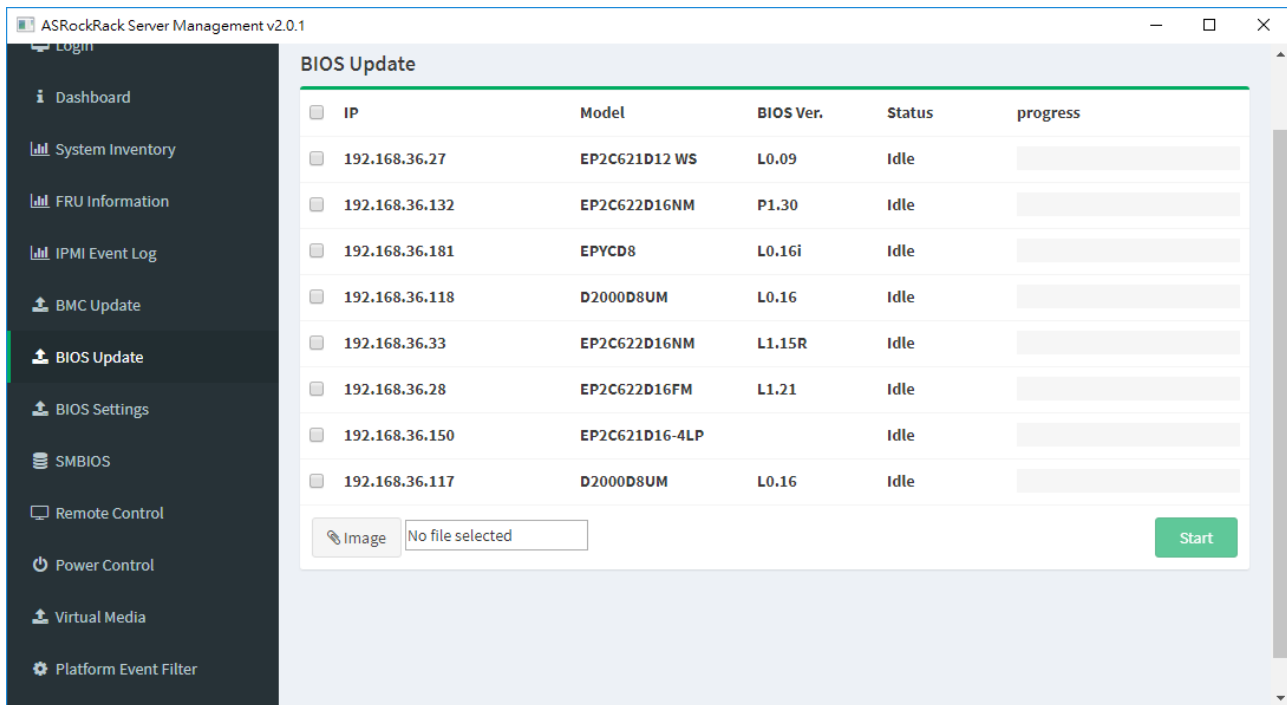**Start:** Click on to start.

Note:
BMC firmware cannot perform any other task during the update, and after the update BMC will reboot itself. You have to wait until the status become to "Idle" before switching it to other function.

4.8.   BIOS Update

This function can update BIOS firmware for multiple servers. Click on the image button and select firmware file in the open file dialog, or input the file path and name in the edit box, and then check the IP checkbox of the model entry and click on start button to start. The status column will display "Upgrading" and the progress bar will report the percentage of work that has been completed.

IP	Model	BIOS Ver.	Status	progress
192.168.36.27	EP2C621D12 WS	L0.09	Idle	
192.168.36.132	EP2C622D16NM	P1.30	Idle	
192.168.36.181	EPYCD8	L0.16i	Idle	
192.168.36.118	D2000D8UM	L0.16	Idle	
192.168.36.33	EP2C622D16NM	L1.15R	Idle	
192.168.36.28	EP2C622D16FM	L1.21	Idle	
192.168.36.150	EP2C621D16-4LP		Idle	
192.168.36.117	D2000D8UM	L0.16	Idle	

IP column: Check the IP of the server to update BIOS firmware.
Model: Display the model name of the server.
BMC Ver.: Display the current BIOS firmware version.
Status: Display the BIOS update status.
Progress: Display the BIOS update progress.
Image: Select BIOS firmware image file.
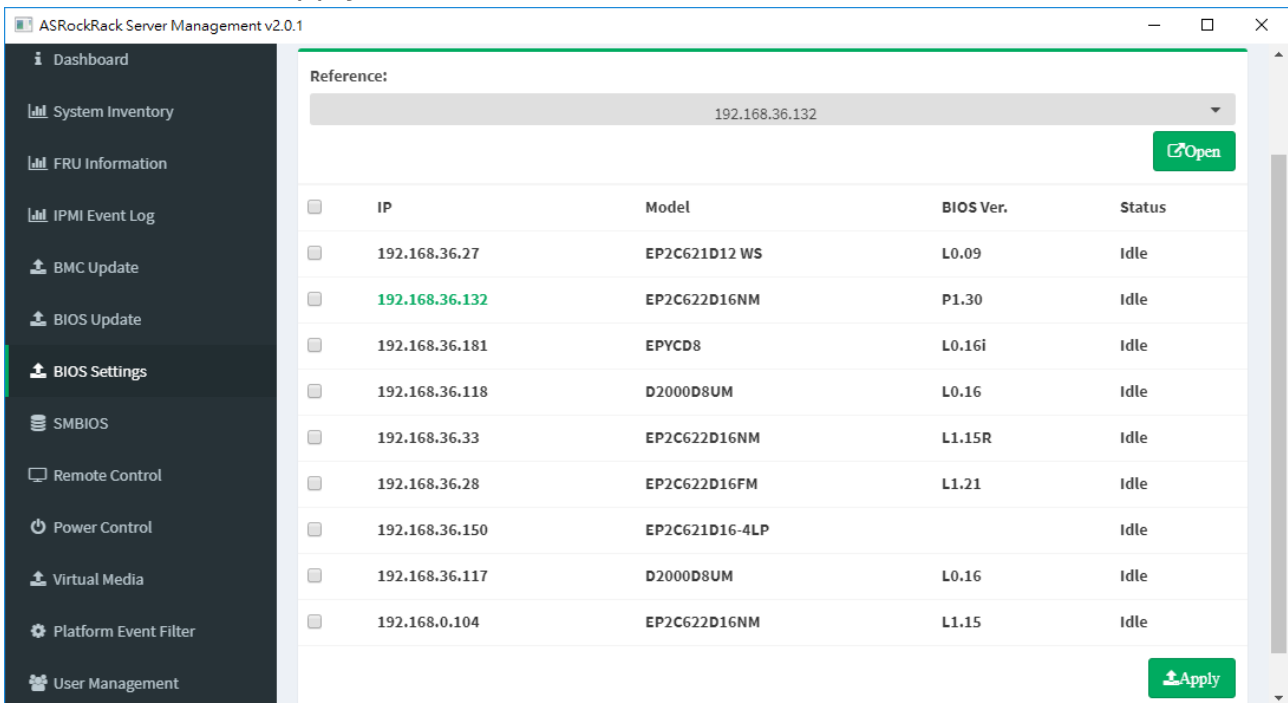**Start:** Click on to start.

Note:
BIOS related functions will not be available during the update, and after the update BIOS will reboot itself. You have to wait until the status become to "Idle" before switching it to other function.

4.9. BIOS Settings

This function provides an interface to view or change the BIOS settings. The settings will be synchronized during the system POST, so that you can access the BIOS settings remotely without rebooting the system for entering the BIOS setup interface; however, you have to reboot the system for the changed settings to take effect. You can do that with the power control function after modifying the settings. And you can make the same modifications to multiple servers with the Apply button.

|	IP	Model	BIOS Ver.	Status
☐	192.168.36.27	EP2C621D12 WS	L0.09	Idle
☐	192.168.36.132	EP2C622D16NM	P1.30	Idle
☐	192.168.36.181	EPYCD8	L0.16i	Idle
☐	192.168.36.118	D2000D8UM	L0.16	Idle
☐	192.168.36.33	EP2C622D16NM	L1.15R	Idle
☐	192.168.36.28	EP2C622D16FM	L1.21	Idle
☐	192.168.36.150	EP2C621D16-4LP		Idle
☐	192.168.36.117	D2000D8UM	L0.16	Idle
☐	192.168.0.104	EP2C622D16NM	L1.15	Idle

Reference: Select a reference server to edit BIOS settings, then you may apply the changes to others.
Open: Click on to open the BIOS setup interface.
Apply: Apply the BIOS settings from the reference server to others.

4.9.1. BIOS Settings Interface

This function displays BIOS settings. You can navigate through each page to check or change the setup items and save the changes on the Exit page. The modified setup items will be take effect after system reboot. You may do that with the power control function.
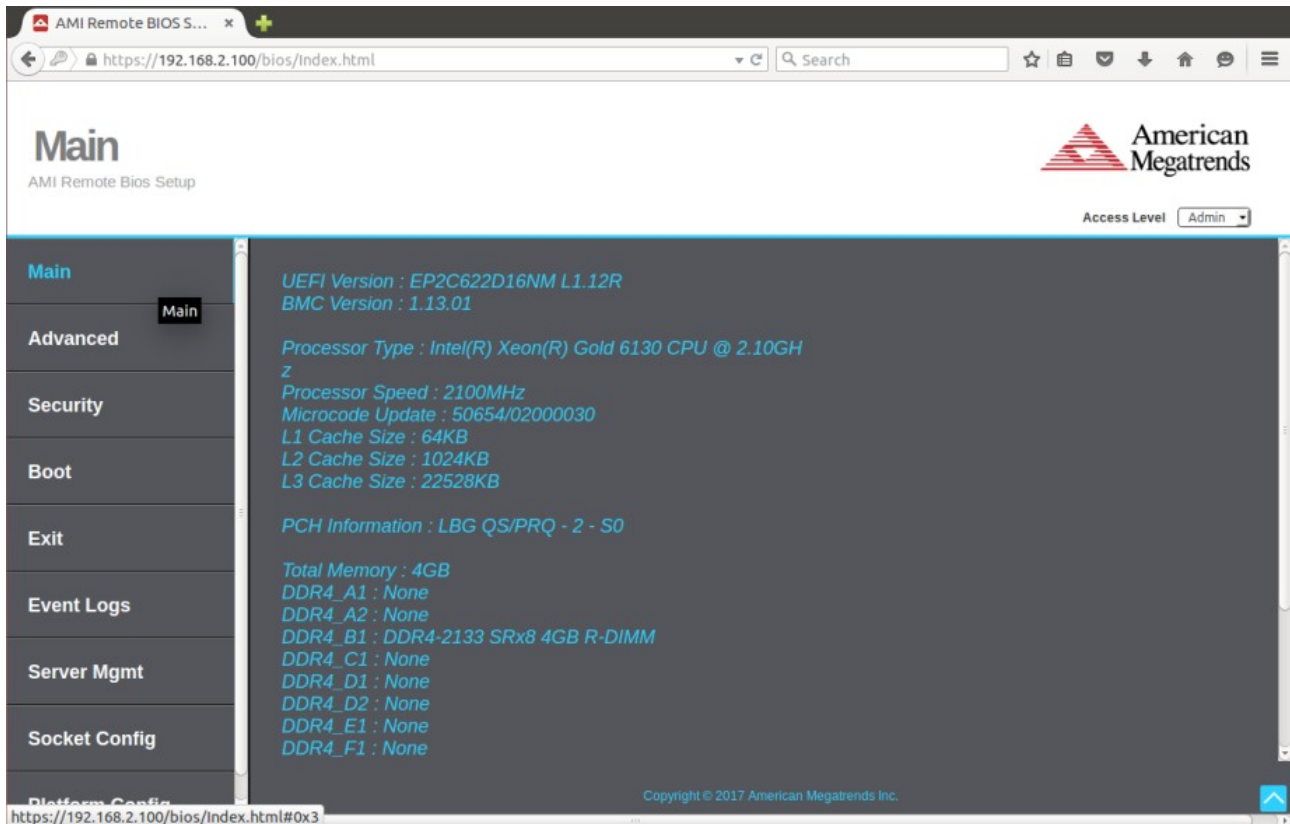
Note:
Default username and password to login the function is "Administrator" and "superuser".

4.10. **SMBIOS**

This function provides system management BIOS data retrieved from BIOS. System must be powered on for this function to work.

4.11. Remote Control

You can use HTML5 KVM or Java KVM interface to control the server remotely.

Server: Select the server from the IP list.
Launch HTML5 KVM: Click on to start HTML5 KVM function.
Launch JAVA KVM: Click on to start JAVA KVM function.

4.11.1. HTML5 KVM

Launching HTML5 KVM will invoke the default browser on the client system.
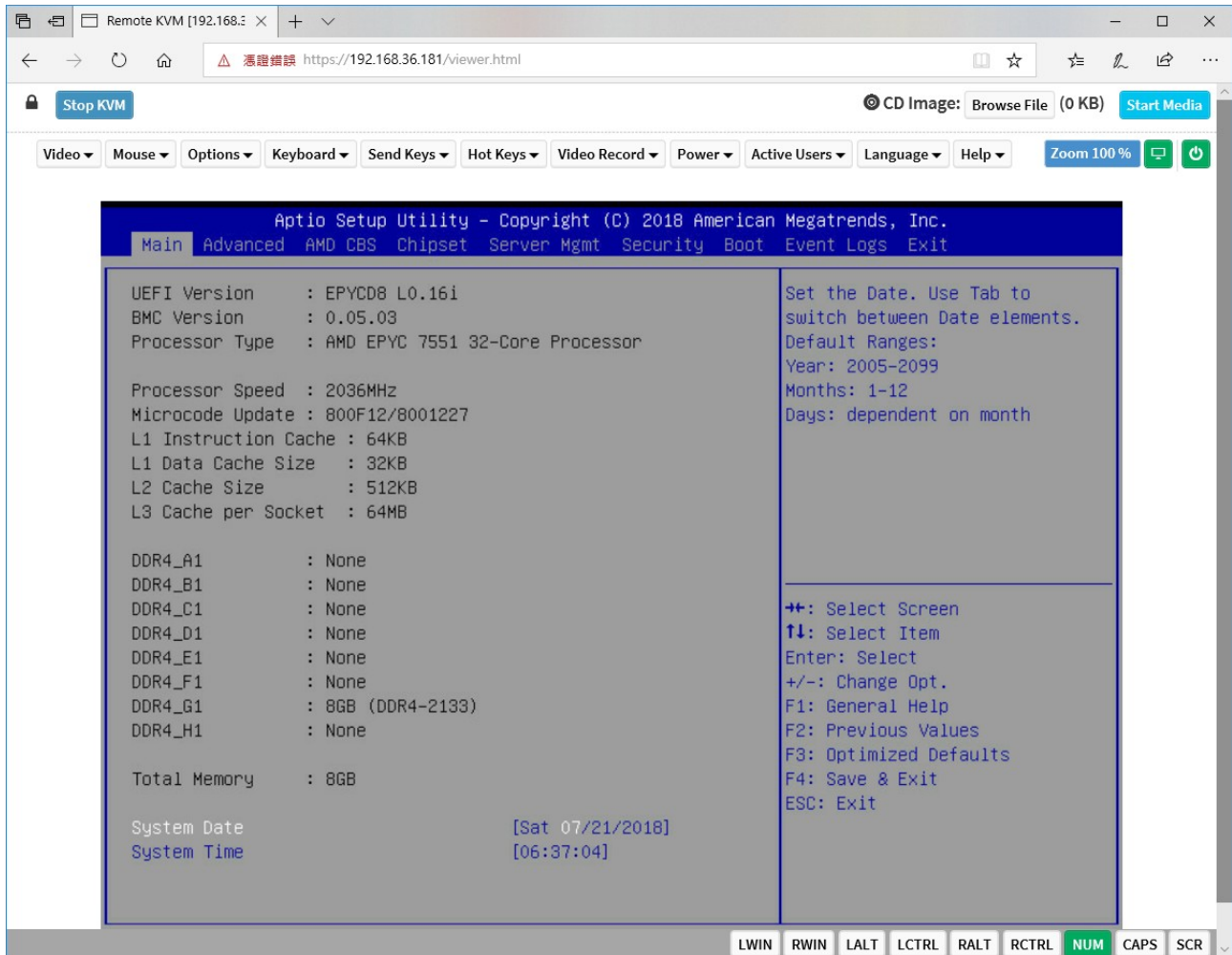
4.11.2. JAVA KVM

This function will download jviewer.jnlp file from server. You need to install Java web start program to launch it successfully.
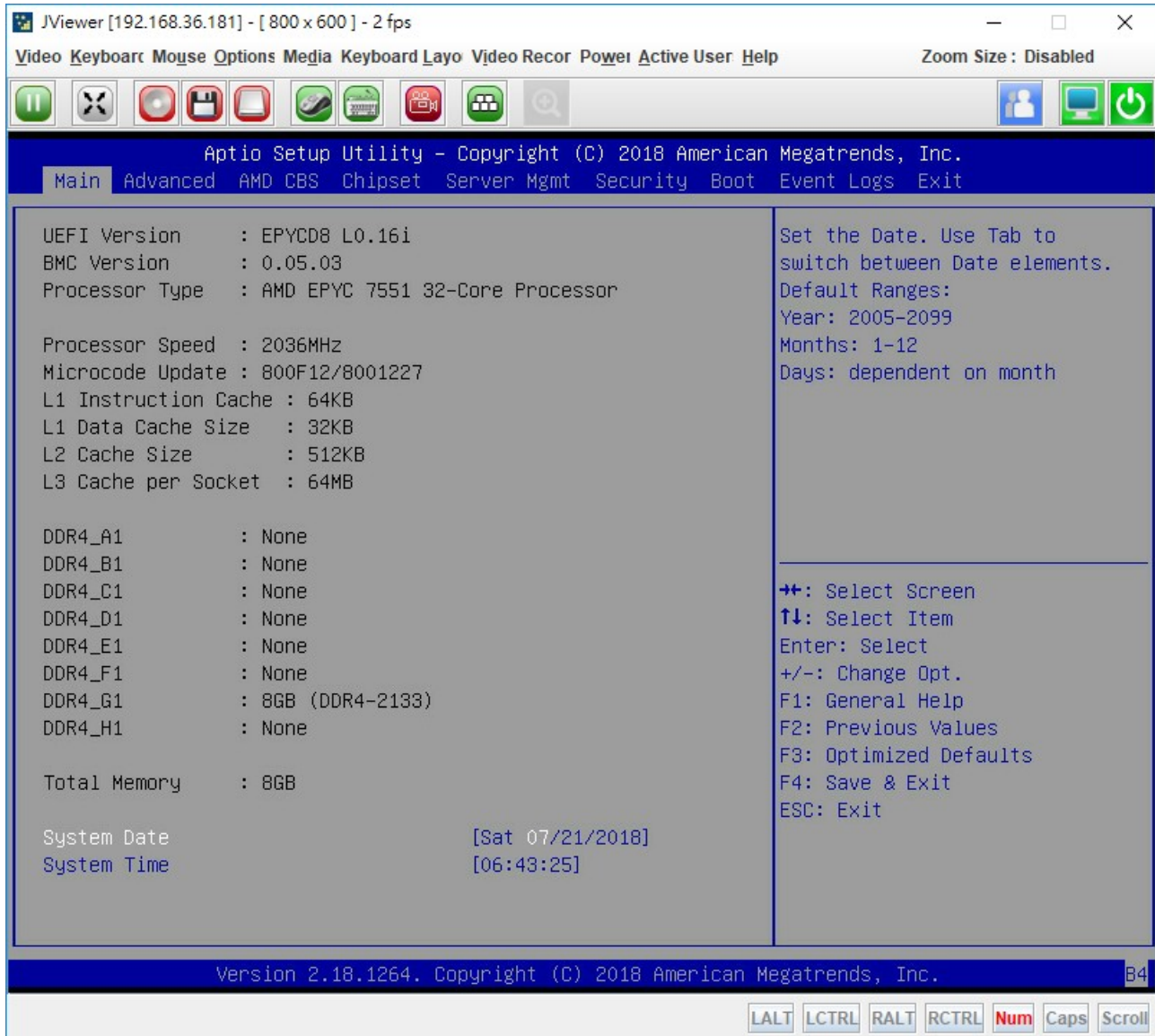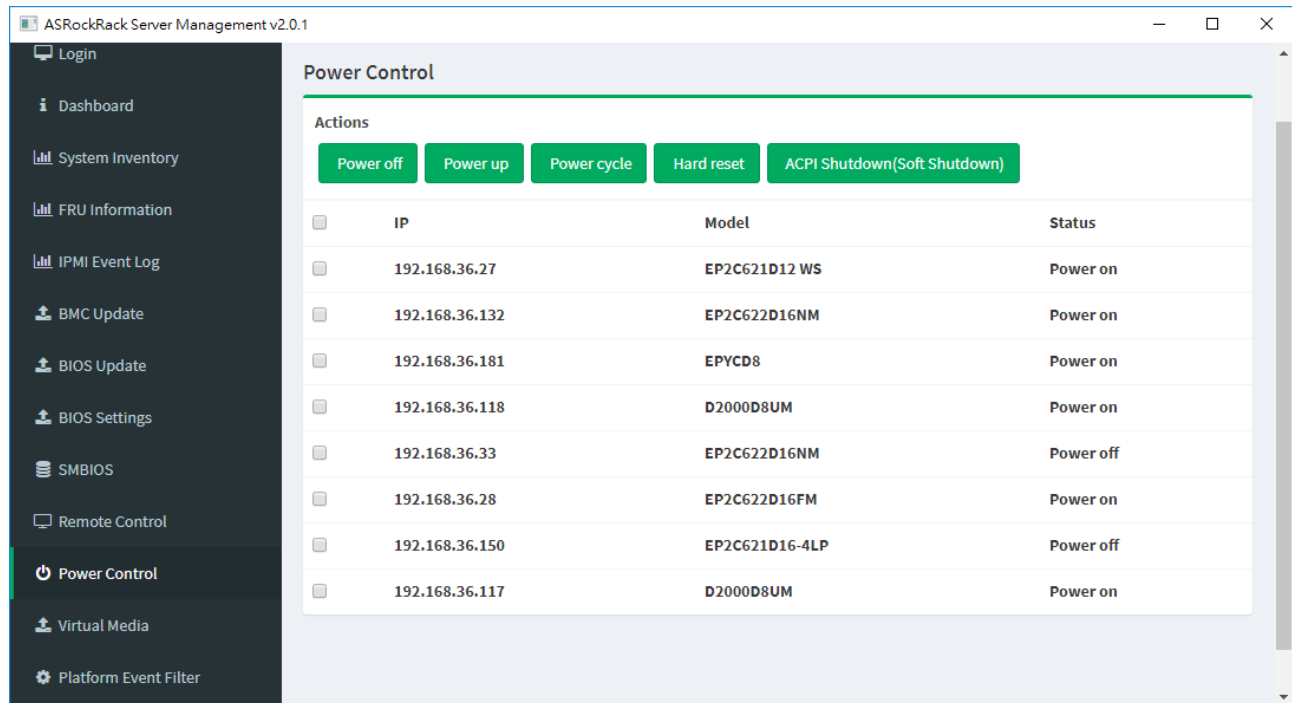
Note:
You may download Java runtime from this link: https://java.com/en/download/

4.12. Power Control

This function reports power status of all login servers and also can perform power action on them. Select the server by checking the checkbox from the server list, and then click on the action button. It may take a while to update the power status.

Power off: To immediately power off the server.
Power up: To power on the server.
Power cycle: To first power off, and then reboot the server (cold boot).
Hard reset: To reboot the server without powering off (warm boot).
ACPI Shutdown(Soft Shutdown): To initiate operating system shutdown prior to the shutdown (actual behavior may depend on OS settings).

4.13. Virtual Media

This function let you attach local USB device to the remote server. Select server from the IP column, then select type and drive or image file, and then click on the action button to start the function.
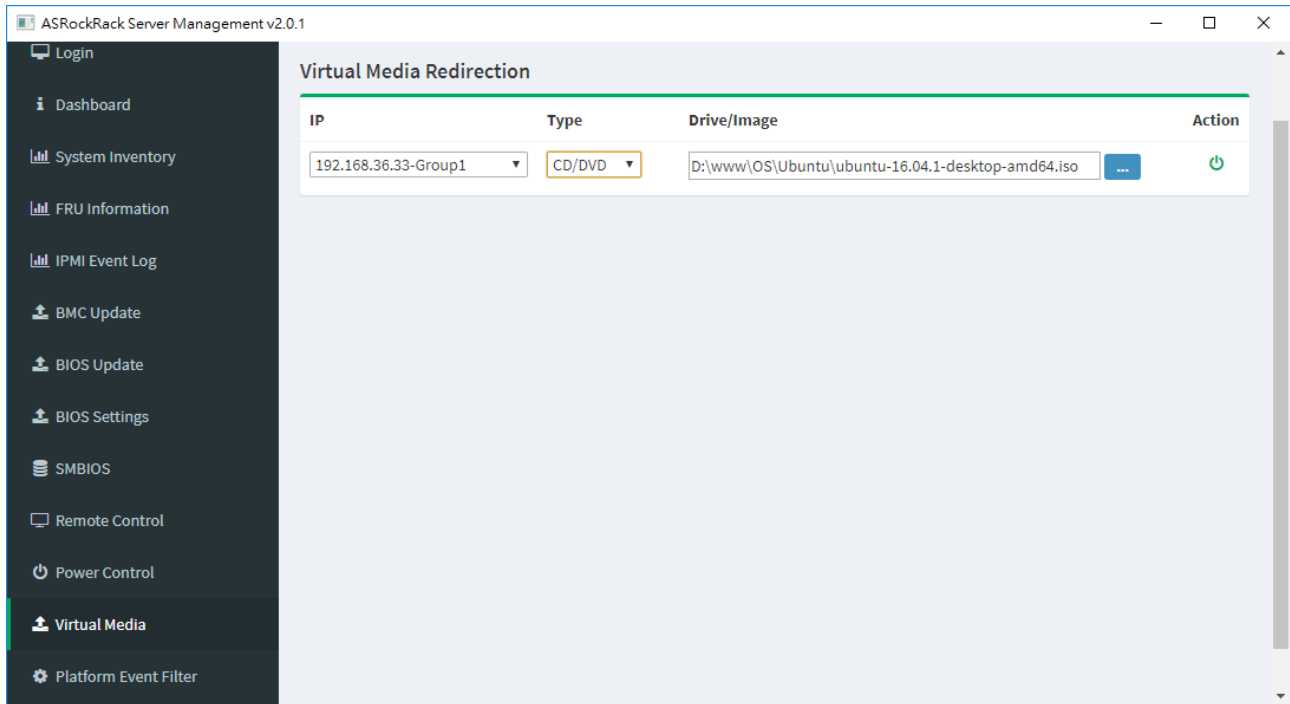
IP column: Select the server from the IP list.
Type: Select the media type.
Drive/Image: Select hard drive or image file.
Action: Start or stop the function.
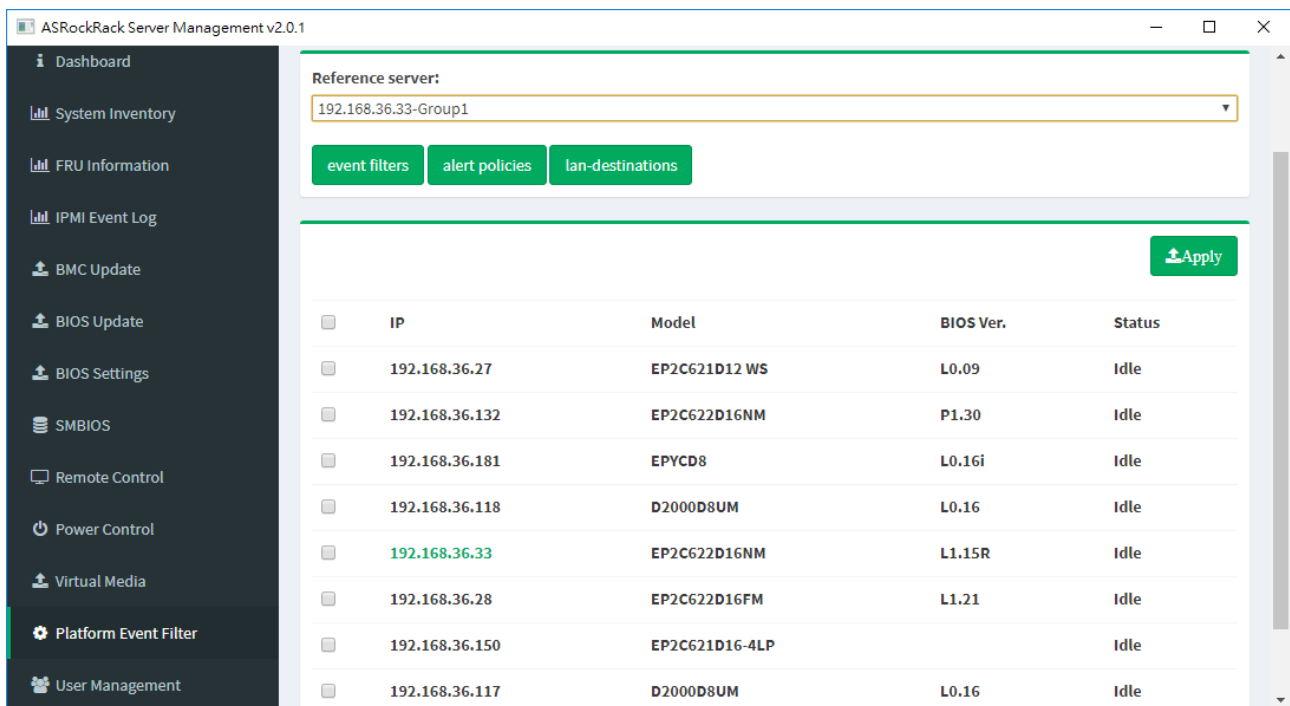
4.14. Platform Event Filter

Platform Event Filter (PEF) provides a mechanism for configuring the BMC to take selected actions on event messages that it receives or has internally generated. These actions include operations such as system power-off, system reset, as well as triggering the generation of an alert. Select a reference server and edit the settings with it, and then you can apply the settings to other servers.

You can configure the platform event filter to alert the administrator when an event occurred in the server. The receiver can be another server that listens to a group of servers, or can be a group of email addresses.

Reference server: Select a server and edit the settings, and then you may apply them to others.

4.14.1. Event Filters

This page is used to configure Event filters. You can modify or add new event filter entry from here. By default, 15 event filter entries are configured among the 40 available slots. Click on the edit button to start the filter configuration.

Event Filter Configuration: Configure the event filter for the selected slot.

Enable this filter: Check the box to enable the PEF settings.

Event Severity to trigger: Select any one of the Event severity from the list.

Power Action: Select any one of the power action either Power down, Power reset or Power cycle from the drop-down list

Alert Policy Group Number: Select any one of the alert policy group number from the drop-down list.

Raw Data: Check the box to fill the Generator ID with raw data.

Generator ID 1: Enter the raw generator ID1 data value.

Generator ID 2: Enter the raw generator ID2 data value.

Generator Type: Choose the event generator as slave address - if event is generated from IPMB.

Slave Address/Software ID: Specify corresponding I2C slave address or system software ID.

Channel Number: Choose the particular channel number through which the event message is received over. Choose "0" if the event message is received via the system interface, primary IPMB, or internally generated by the BMC.

IPMB Device LUN: Choose the corresponding IPMB device LUN if event is generated by IPMB.

Sensor type: Select the type of sensor that will trigger the event filter action.

Sensor name: Choose the particular sensor from the sensor list.

Event Options: Choose event option to be either all events or sensor specific events.

Event Trigger: Enter the raw event/reading type value.

Event Data 1 AND Mask: Indicate wildcarded or compared bits.

Event Data 1 Compare 2: Indicate whether each bit position's comparison is an exact comparison or not.

Event Data 2 AND Mask: Similar to Event Data 1 AND Mask.

Event Data 2 Compare 1 & Event Data 2 Compare 2: Similar to Event Data 1 Compare 1 and Event Data 1 Compare 2 respectively.
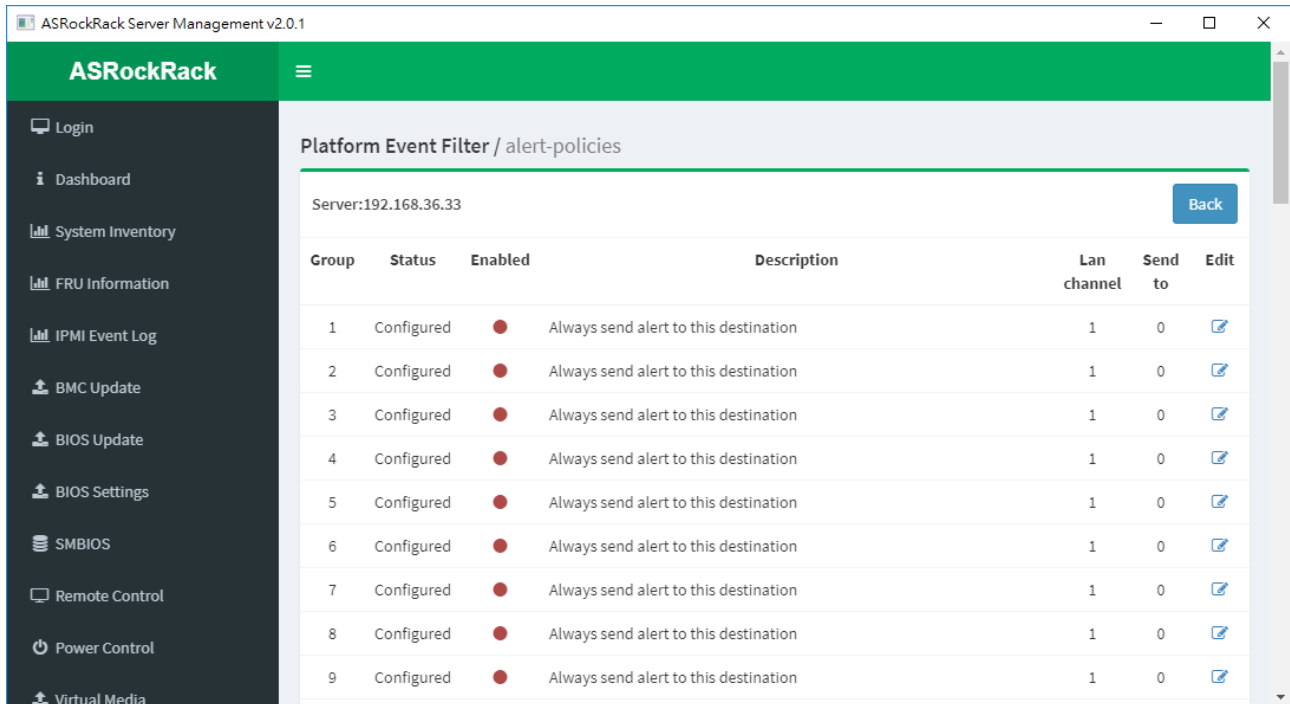
Event Data 3 AND Mask: Similar to Event Data 1 AND Mask.

Event Data 3 Compare 1 & Event Data 3 Compare 2: Similar to Event Data 1 Compare 1 and Event Data 1 Compare 2 respectively.

4.14.2. Alert Policies

This page is used to configure the Alert Policy for the PEF configuration. You can add, delete or modify an entry in this page. Click on the edit button to open the configuration page.

Alert Policies: Configure the alert policies for the selected slot.

Policy Group Number: Displays the Policy number of the configuration.
Enable this alert: Check the box to enable the policy settings.
Policy Action: Choose any one of the Policy set values from the list.
LAN Channel: Choose a particular channel from the available channel list.
Destination Selector: Choose a particular destination from the configured destination list.
Event Specific Alert String: Check the box to specify event-specific Alert String.
Alert String Key: Specify which string is to be sent for this Alert Policy entry.
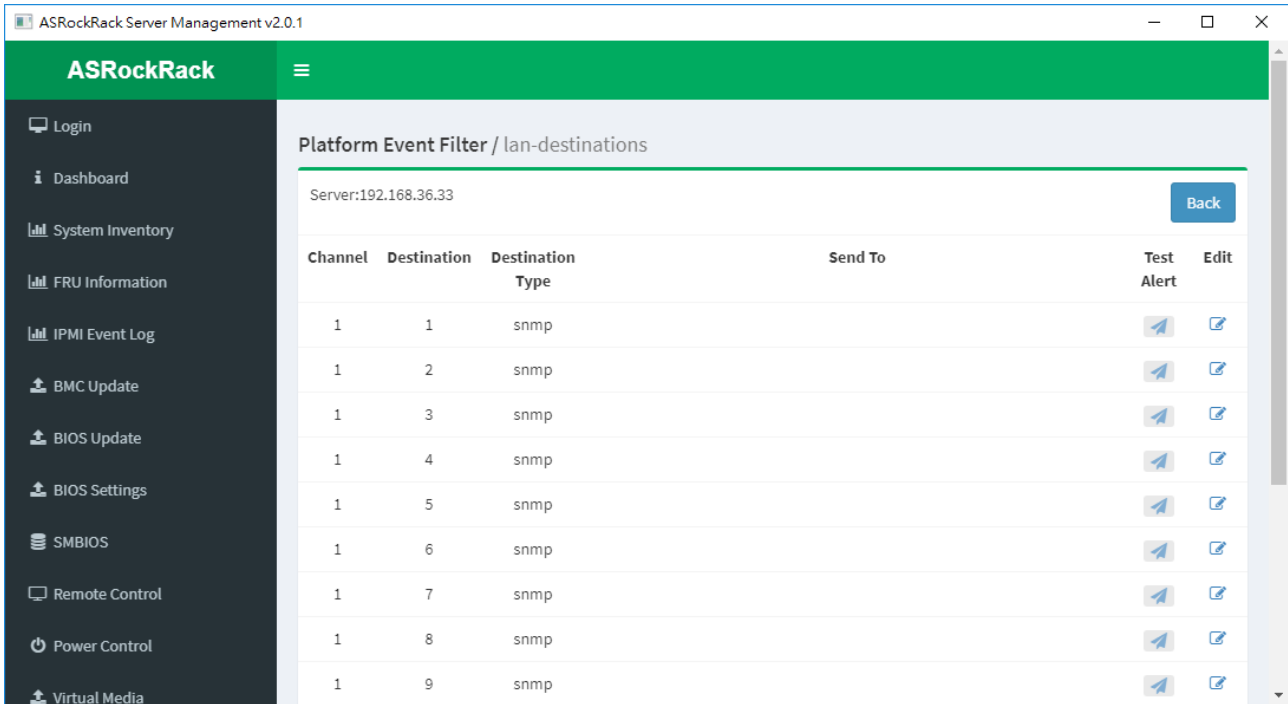
4.14.3. LAN Destination

This page is used to configure the LAN destination of PEF configuration. Click on the edit button to open the configuration page.

LAN Destination Configuration: Configure the LAN destination for the selected slot.
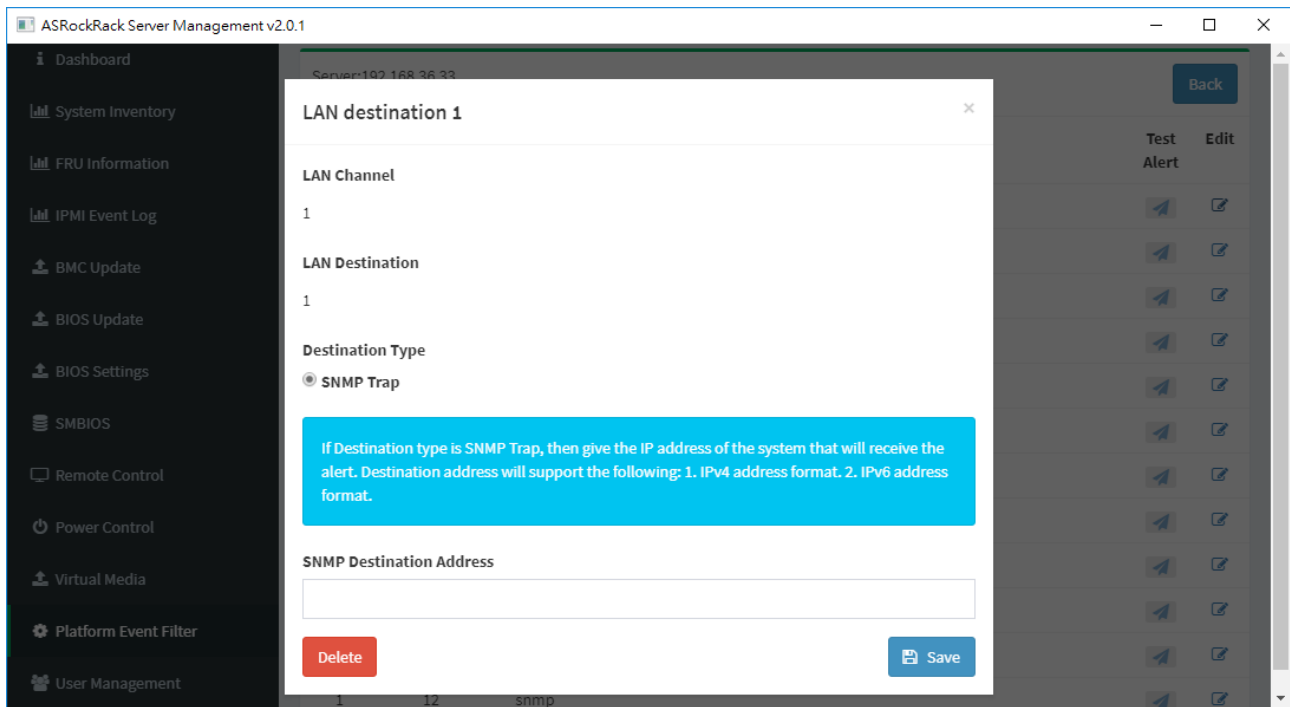
LAN Channel: Displays LAN Channel Number for the selected slot (read only).

LAN Destination: Displays ID for setting Destination Selector of Alert Policy (read only).

SNMP Destination Address: Destination type can be either an SNMP Trap or an E-mail alert. For E-mail alerts, the four fields - SNMP Destination Address, BMC User Name, Email subject and Email message needs to be filled. For SNMP Trap, only the SNMP Destination Address has to be filled.

BMC User Name: If Destination type is Email Alert, then choose the user to whom the email alert has to be sent.

4.15. User Management

This function displays the current list of user accounts on the server. You can add a new user and modify or delete the existing users.
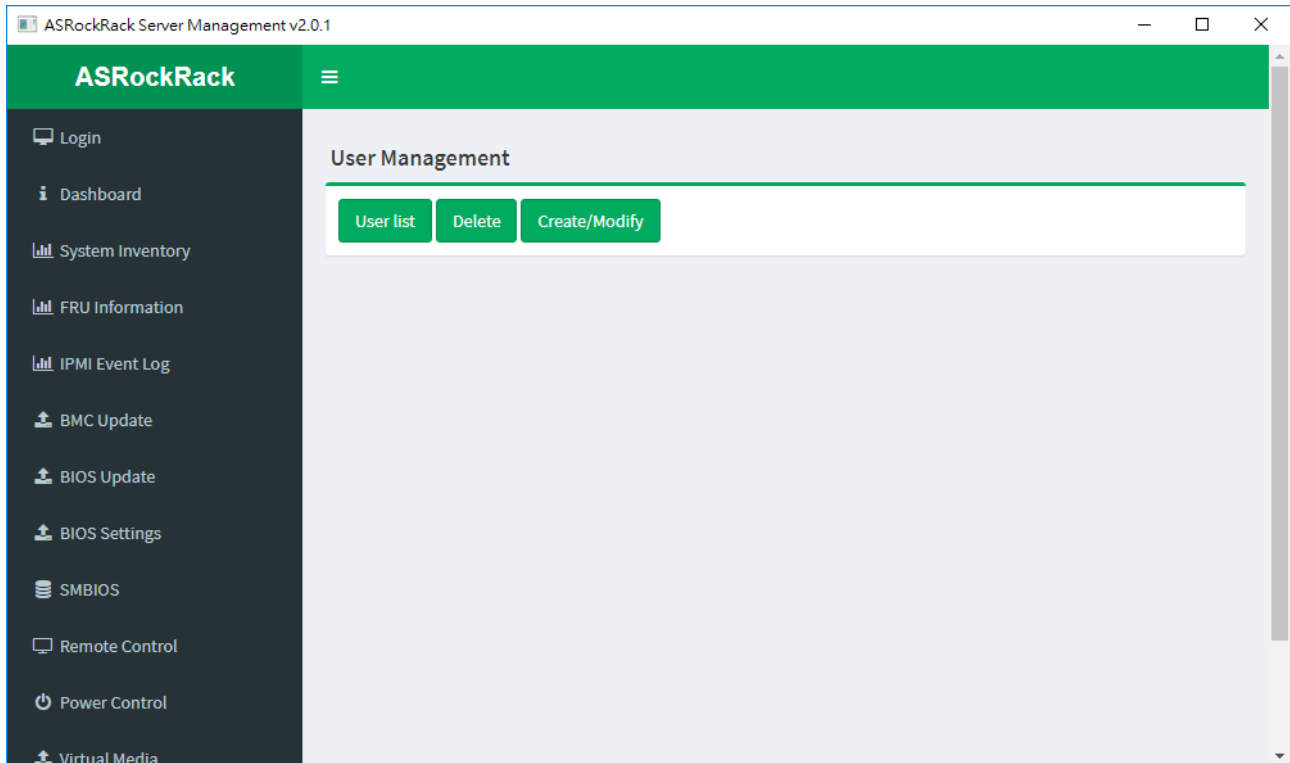
User list: Click on to get current user list.
Delete: Enter delete user account interface.
Create/Modify: Enter create or modify user account interface.

4.15.1. User List

This page displays the current user account information.

ID: Sequence number of the user.
Name: User account name.
Status: User account status.
Privilege: User account privilege level.
Capabilities: Specific function access right.
E-mail: E-mail setting of the user account.

4.15.2.　　Delete

This function can delete existing users and create or modify user account.
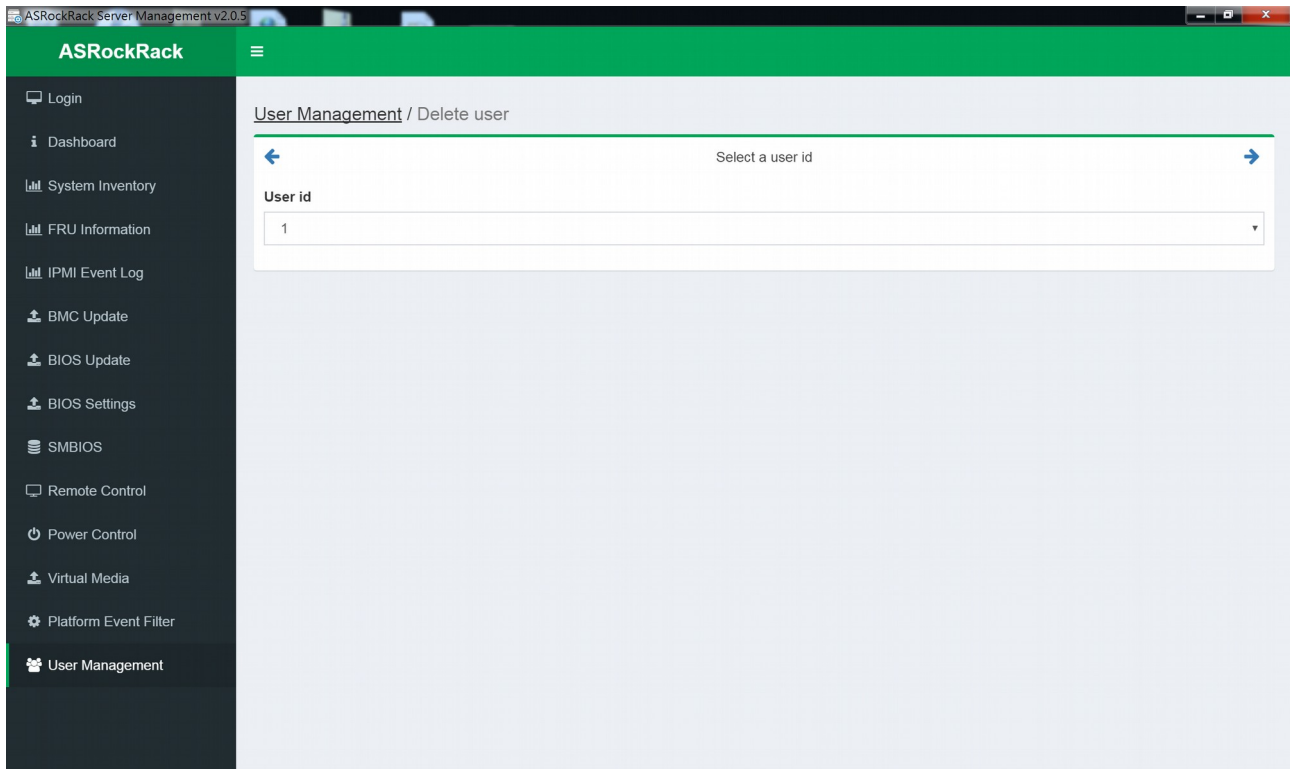
User id: Select a user id to delete.

➡ **-** Go to next page.

⬅ **-** Go to previous page.

To delete the user account on servers, select the user ID, and you can send the delete command to selected servers.

	IP	Model	BMC Ver.	Status
☐	192.168.36.114	X7P-MB	0.09.02	Idle
☐	192.168.36.92	D2100D4I	0.09.00	Idle
☐	192.168.36.182	EP2C621D8-16R	0.03.00	Idle
☐	192.168.36.99	EP2C621D16GM Series	1.00.00	Idle
☐	192.168.36.40	EP2C622D16NM	1.14.15	Idle
☐	192.168.36.150	X299 WS/IPMI	1.01.00	Idle
☐	192.168.36.63	EPYCD8	0.05.02	Idle
☐	192.168.36.158	EPYCD8	0.07.00	Idle
☐	192.168.36.155	EP2C621D16-4LP	0.09.01	Idle
☐	192.168.36.138	X299 WS/IPMI	1.01.00	Idle
☐	192.168.36.42	EP2C622D24LM2	0.01.00	Idle

IP: Select server from the IP list.
Model: The model name of the server.
BMC Ver.: BMC firmware version of the server.
Status: Current status of the BMC firmware.

4.15.3.   Create/Modify

This function edits user account settings. You can reset all the settings and then apply them to servers.

User id: Select user account ID.

Username: Enter the name of the user.

Password Size: Either 16 Bytes or 20 Bytes password size can be chosen.

Password: Enter the password of the user.

Confirm Password: Confirm the password.

Enable User Access: Enabling user access will intern assign the IPMI messaging privilege to user.

Network Privilege: Select the network privileges assigned to the user.

Serial Privilege: Select the serial privileges assigned to the user.

KVM Access: Assign the KVM privilege for the user.

VMedia Access: Assign the VMedia privilege for the user.

Note: Both KVM and VMedia privilege will enable/disable automatic when Network Privilege is administrator(other).

Email Format: Specify the format for the email. Two types of formats are available.

AMI-Format: The subject of this mail format is 'Alert from (your Host name)'. The mail content shows sensor information, ex: Sensor type and Description.

Fixed-Subject Format: This format displays the message according to user's setting. You must set the *subject and message for email alert.*

Email ID: Enter the email ID of the user. If the user forgets the password, the new password will be mailed to the configured email address.

Create/modify user account on servers. After filling up the form, you can apply the settings to servers.

IP: Select server from the IP list.
Model: The model name of the server.
BMC Ver.: BMC firmware version of the server.
Status: Current status of the BMC firmware.

5.　Command line (cli)

This utility supports command line interface, it will enter command line mode when it launch with arguments. Run it in console with --help parameter to display the usage.

```
Usage: asrrmgnttool <command> [options]

Commands:
  asrrmgnttool group          Group management
  asrrmgnttool bmc_update     Update BMC firmware
  asrrmgnttool bios_update    Update BIOS firmware
  asrrmgnttool power          Power control
  asrrmgnttool vmedia         Virtual media
  asrrmgnttool user           User account control
  asrrmgnttool bios_settings  Bios settings
  asrrmgnttool smbios         SMBIOS data
  asrrmgnttool event          System event log
  asrrmgnttool                launch GUI interface              [default]

Options:
  --help       Show help                                       [boolean]
  --version    Show version number                             [boolean]
  --log        Write log to file
  --logappend  Append log to existing file                     [boolean]

Examples:
  1. Update 2 servers BMC firmware: asrrmgnttool bmc_update -f file -h
  192.168.0.100 192.168.0.101 -u admin -p admin
  2. Create Group1 servers: asrrmgnttool group -b 192.168.0.100 -e
  192.168.0.120 --scan
  3. Power on Group1 servers: asrrmgnttool power on -g Group1 -u admin -p
  admin
```

Options:
```
 --help              Show help
 --version           Show version number
 --log=filename      Write log to file
 --logappend         Append log to existing file
```

5.1.　　group

Use group command to maintain group information which define a range of IP addresses, extra IP address list and/or excluded IP addresses.

5.1.1.　　new

```
 new                 Create a group
```
Options:

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

5.1.2. delete

delete   Delete a group or remove server from group
Options:
-g, --group   Name of the group to delete
-h, --host   IP address of the server to remove

5.1.3. add

add   Add a server into group
Options:
-g, --group   Name of the group
-h, --host   IP address of the server to add

5.1.4. scan

scan   Scan servers and update to the group info
Options:
-g, --group   Name of the group to scan

5.1.5. list

list   List the group info
Options:
-g, --group   Name of the group to show the info

5.2. bmc_update

Use bmc_update command to update BMC firmware, with various options you can update servers' BMC firmware by group or by IP address list.

bmc_update   Update BMC firmware

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

5.3.   **bios_update**

Use bios_update command to update BIOS firmware, with various options you can update servers' BIOS firmware by group or by IP address list.

 bios_update   Update BIOS firmware
Options:
 -f, --file   Firmware image
 -g, --group   The group to update
 -b, --begin   Begin IP address of the range
 -e, --end   End IP address of the range
 -h, --host   IP address list to update
 -x, --exclude   IP address list to exclude
 -s, --scan   Scan the IP range for servers before update
 -u, --username   Username to login
 -p, --password   Password to login

5.4.   **power**

Use power command to control servers' power state such as on, off, cycle, reset or shudown.

5.4.1.   **status**

 status   Return power status
Options:
 -g, --group   The group to do power control
 -b, --begin   Begin IP address of the range
 -e, --end   End IP address of the range

-h, --host	IP address list to do power 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

5.4.2. on

| on | Power on servers |

Options:

-g, --group	The group to do power control
-b, --begin	Begin IP address of the range
-e, --end	End IP address of the range
-h, --host	IP address list to do power 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

5.4.3. off

| on | Power off servers |

Options:

-g, --group	The group to do power control
-b, --begin	Begin IP address of the range
-e, --end	End IP address of the range
-h, --host	IP address list to do power 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

5.4.4. cycle

| cycle | Power cycle servers |

Options:

-g, --group	The group to do power control
-b, --begin	Begin IP address of the range
-e, --end	End IP address of the range
-h, --host	IP address list to do power 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

5.4.5. reset

reset   Hard reset servers
Options:
-g, --group   The group to do power control
-b, --begin   Begin IP address of the range
-e, --end   End IP address of the range
-h, --host   IP address list to do power 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

5.4.6. shutdown

shutdown   ACPI shutdown(Soft shutdown) servers
Options:
-g, --group   The group to do power control
-b, --begin   Begin IP address of the range
-e, --end   End IP address of the range
-h, --host   IP address list to do power 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

5.5. vmedia

Use vmedia command to do virtual media function, you can redirect and local iso image or local hard drive to remote servers.

vmedia   Virtual media
Options:
-g, --group   The group to do power control
-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 function
-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

5.6.　　user

Use user command to do user account control, you can set user account with various options or delete user account.

5.6.1.　list

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)

5.6.2.　　set

set   Set 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   User ID (1 ~ 10)
--name   User name
--pswd   User password

--access   User access
--kvm   User kvm
--vmedia   User virtual media
--snmp   User snmp
--prev_snmp   User prev_snmp
--network_privilege   User network privilege
--snmp_access   User snmp access
--privilege_limit_serial   User privilege limit serial
--snmp_authentication_protocol   User snmp authentication protocol
--snmp_privacy_protocol   User snmp privacy protocol
--email_id   User email address
--password_size   User password size

5.6.3.　　delete

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   User ID (1 ~ 10)

5.7.　　bios_settings

Use bios_settings command to get/set bios settings through BMC interface, you need to reboot the system to let the adjusting bios options to take effect.

5.7.1.　　get

get   Collect the bios attribute
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
--path   File directory (the default is current path)
--dircet, -d   Bios settings

5.7.2.   value

value   BIOS value to acquire
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
--path   File directory (the default is current path)
--all, -a   Get all bios attribute
--option, -o   Option bios value to acquire

5.7.3.   set

set   Set BIOS settings
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
--path   File directory (the default is current path)
--all, -a   Get all bios attribute
--dircet, -d   Bios settings

5.7.4.   apply

apply   Apply bios settings

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
  --path   File directory (the default is current path)
  --reference, -r   Reference ip of bios settings

5.8.   smbios

Use smbios command to retrieve SMBIOS data through BMC.

5.8.1.   info

  info   Return SMBIOS data info
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

5.8.2   get

  get   Get SMBIOS data structure
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

   --handle   Specific the SMBIOS data handle number
   --decode   Display decoded data

5.9.　　　event

Use event command to download event log data from BMC.

5.9.1.　　　download

  download   Download ipmi event log
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
  --path   Event log file directory (the default is current path)

5.9.2.　　　clear

  clear   Clear event log
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

6.   Compatibility

This utility supports server motherboard built with BMC AST2500 chip.
Intel Platform: Purley, Denverton, Skylake-D, Mehlow, Basin Falls.
AMD Platform: Naples.

Some of the functions may need to update BIOS/BMC firmware to support them, contact ASRock Rack support team to check the approval models.

7.   Contact Information

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