



IPMIView for iOS

User's Guide

Revision 1.9.0

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Manual Revision 1.9.0

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Revision History

Date	Rev	Description
Jan-21-2022	1.9.0	<ol style="list-style-type: none"> Added the "Boot Device" button in the IPMI Device tab. Added privilege options on the User page. Improved user interfaces.
May-12-2021	1.8.2	<ol style="list-style-type: none"> Fixed the issue of user interface mismatch.
Nov-27-2020	1.8.0	<ol style="list-style-type: none"> Added the Maintenance Event tab in the event log. Added the login username and privilege label on the BMC page. Added support for iPad. Added the BMC IPv6 addresses on the summary page. Added the dynamic IPv6 address list on the LAN setting page. Modified the detailed BMC information in the device list.
Mar-27-2020	1.7.0	<ol style="list-style-type: none"> Updated KVM stunnel. Updated SEL descriptions. Updated OpenSSL to 1.1.1d Fixed the known issues.
Nov-30-2018	1.6.0	<ol style="list-style-type: none"> Supported SMC RAKP mode for security login. (4.10) Added the export diagnostic report function in diagnostic page menu. (3.5) Displayed IPv6 in Multi-Node information tab when device is MicroCloud. (4.12) Fixed HDD physical size and logical strip size wrong when system installed LSI MegaRAID 2108, 2208 or 3108. Backup files could be transferred via file sharing. (6.1, 6.2)
Mar-23-2018	1.5.0	<ol style="list-style-type: none"> Added IPv6 information in Lan setting. Added automatically convert IP by DNS. (3.15) Added CA certification in P8 and P9 motherboard for iKVM. Added backup and restore function in settings page. (6.1, 6.2) Added "Move to Group" and "Remove" buttons in device list. (3.9, 3.10, 3.11) Fixed the known issues.
Nov-17-2017	1.4.2	<ol style="list-style-type: none"> Supported iOS 11 and iPhone X.
Aug-11-2017	1.4.1	<ol style="list-style-type: none"> Supported 32 Bit iOS and iPad device.
Jun-16-2017	1.4.0	<ol style="list-style-type: none"> Added the Power Cycle button in IPM Device Page. Added NVMe function. (4.15) Converted a host name to an IP address using DNS in the device and search page. Supported BigTwin Multi-Node. Provided detailed status information for a specific PSU. Updated SEL descriptions. Provided function of setting RMCP+ port. (3.12) Fixed some known issues.

Jun-29-2016	1.3.0	<ol style="list-style-type: none"> 1. Added HDD function. (4.14) 2. KVM optimization. 3. Supported IPv6. 4. Added support for SSL protocol from KVM. 5. Updated board id to 2016/6/13. 6. Updated SEL description. 7. Modified UI interface. 8. Supported discrete sensor.
Nov-17-2015	1.2.0	<ol style="list-style-type: none"> 1. Reduced crashes probability. 2. Fixed iPhone 6 plus KVM keyboard arranged issue. 3. Updated board id to 9/9 4. Supported MicroCloud device in Multi-Node function. (4.12) 5. Supported ConfigID = 5 device in Multi-Node function. 6. Adjusted the user interface. 7. Added auto fill to start/end IP network segment in search function. (3.3)
Aug-19-2015	1.1.0	<ol style="list-style-type: none"> 1. Added Health check function. (4.9) 2. Added Multi-Node function. (4.12) 3. Added BMC summary in BMC functions sliding menu. (4.13) 4. Replaced diagnostic view with the treeview. (3.5) 5. Fixed broken textures issue when KVM out of resolution. 6. Updated board id and GUID.
Apr-24-2015	1.0.0	Initial document.

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1 Overview

IPMIView (IPMI-Over-LAN) is a management software program based on IPMI specification revision 1.5 - 2.0. IPMIView sends IPMI messages to and from the BMC (Baseboard Management Controller) on a host system at a remote location. IPMI messages are encapsulated in RMCP (Remote Management Control Protocol) packets called “datagrams”. This method is also referred to as “IPMI-over-LAN”.

According to the Distributed Management Task Force (DMTF) specification, RMCP is used for system management in a pre-OS or an OS-absent environment. RMCP is a simple request-response protocol that can be delivered using UDP (User Datagram Protocol) datagrams. IPMI-over-LAN uses version 1 of the RMCP protocol and packet format. An RMCP packet is transmitted via an IP (Internet Protocol) network, which allows system managers to manage their IPMI-enabled systems over the Internet. In a private LAN network, this is a basic feature. IPMI uses the same UDP port number (623 in decimal) as the ASF (Alert Standard Forum) protocol. If the managed system is protected by a firewall, UDP port 623 must be opened.

Now the iOS app of this program has been developed to expand its use. With IPMIView for iOS and a wireless connection, users can manage BMCs via their mobile devices with ease.

In addition, this app also provides you with a console to remotely and directly monitor and control your Supermicro servers.

2 Installation

2.1 Requirements

Make sure your device meets these requirements before installation.

- iOS version 10.0 or higher

2.2 Limitations

Support BMC list:

1. ASPEED AST2600 BMC onboard (e.g., X12DPU, X12DPi boards)
 2. ASPEED AST2500 BMC onboard (e.g., X11SPL-F, X11DPU, X11DGQ, B11DPT boards)
 3. ASPEED AST2400 BMC onboard (e.g., X10, X11SSH-F, B10, B1 boards)
 4. Renesas SH7757 BMC onboard (e.g., X9, B9 boards)
 5. Nuvoton WPCM450 BMC onboard (e.g., X9 boards)
 6. Winbond WPCM450 BMC onboard (e.g., X8 boards)
- * KVM-over-LAN supports BMCs with ATEN solution in ASPEED AST2600 (e.g., X12, H12), ASPEED AST2500 (e.g., X11, B11), AST2400 (e.g., X10, B10, B1) and WPCM450 (X9).

2.3 Installation



To install IPMIView on your mobile device, follow these steps:

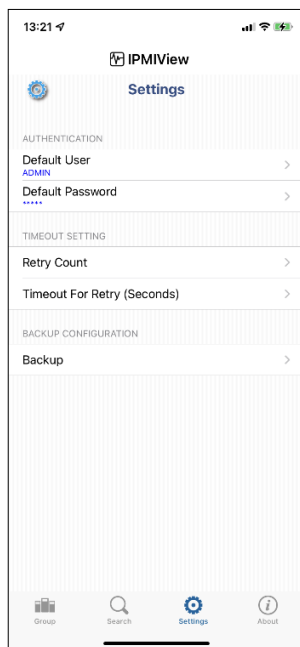
1. Search for “Supermicro IPMIView” in the Apple App store.
2. Download and install the “Supermicro IPMIView” application on your iOS mobile device.

3 Grouping BMCs

3.1 Basic Setup



Before use, enter the username and password set up in your IPMIView at the control site.

1. Tap the IPMIView app icon  on the screen page.
2. Select the **Settings** icon  on the bottom. This screen page appears.





3. Tap Default Username and enter the username.
4. Tap Default Password and enter the password.

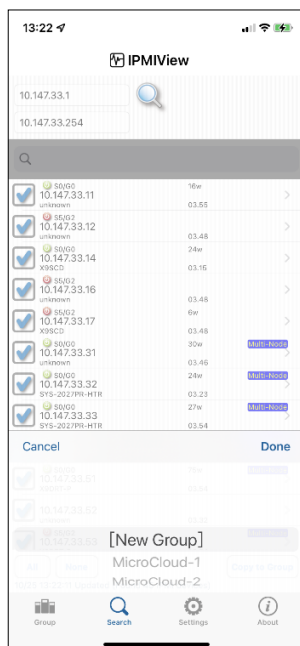
3.2 Creating a Group

1. Select the **Group** icon  on the bottom and tap the menu button on the device or the icon [Edit](#).
2. Tap the icon  to add the Group, and then enter a name for this group.
3. Tap the option [Done](#) in the upper right to save the change.

3.3 Searching for BMCs

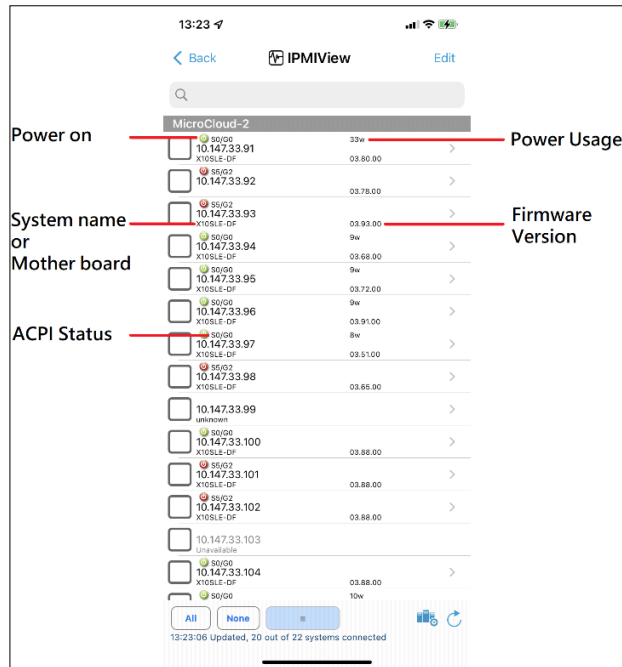
To search for BMCs, follow these steps:

1. Select the **Search** icon  on the bottom, enter the “desired IP range / hostname” in the field or leave it blank for automatic search, and then tap the icon .
2. Select the desired BMCs to be collected in the same group, tap the **Copy to Group** button, and assign them over to the desired group or swipe down the screen to the New Group filed or select **New Group**.





3.4 Group Overview

Tap the desired group for an overview of the BMCs in the group.

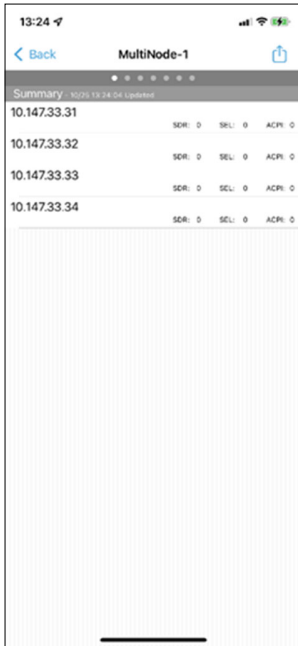


3.5 Diagnosing a Group

To view the status of each BMC in the group, follow these steps:

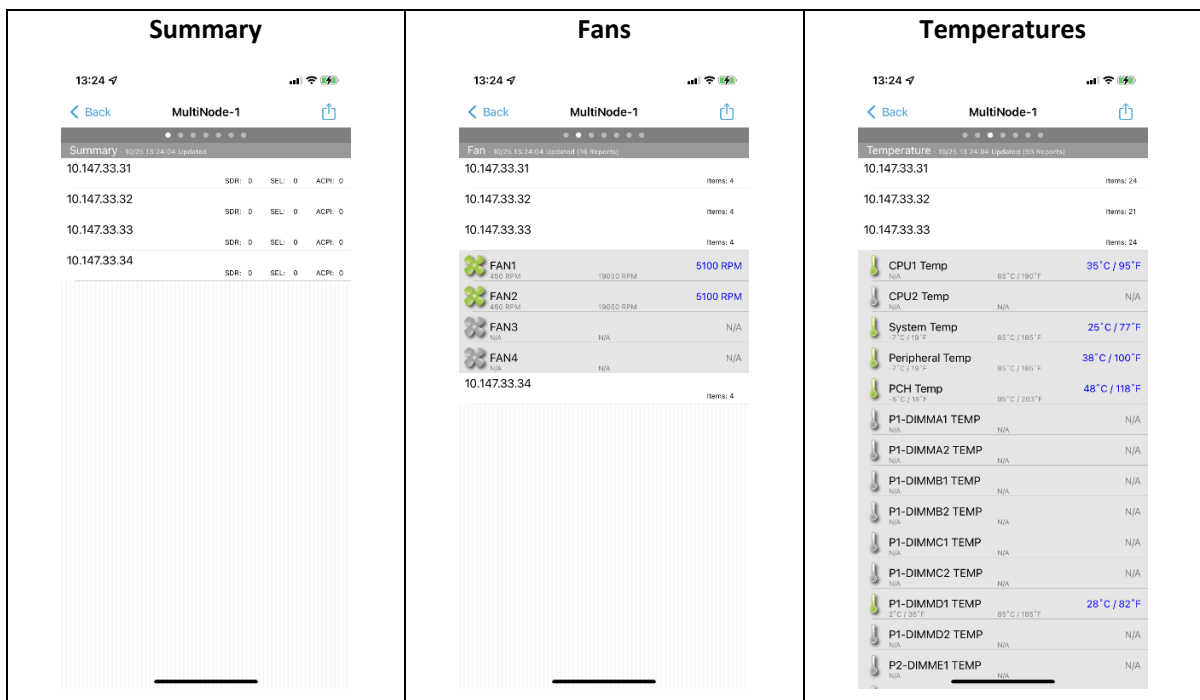
1. Tap the **Group** icon , select the desired group, and then tap the icon .

2. A diagnostic report is generated.




The report includes the following information: Summary, Fans, Temperatures, Voltages, Sensors, Event Log and ACPI.

3. Click on each item to enter the desired BMC function view.






4. Tap the option  in the upper right corner to export the diagnostic report (in .xlsx format).



Note: Assertion types of events in system event log in Summary can be traced within three days.

3.6 Manually Sorting the List

To sort the BMCs on the group list, follow these steps:


1. Tap the option **Edit** in the navigation bar.
2. Select the desired BMC to be moved around, and then drag and drop the icon  next to it.
3. Tap the option **Done** in the upper right to save the change.

3.7 Changing Names of IP Addresses

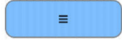

To modify the name or IP address of a BMC, long press the desired BMC on the screen and enter the new information.

3.8 Adding a BMC in Group



To add a BMC in group, follow these steps:

1. Tap the option **Edit** in the navigation bar.
2. Tap the icon  in the upper left to add the BMC IP address.
3. Tap the option **Done** in the upper right to save the change.

3.9 Adding a BMC to Another Group


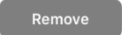
To add a BMC to one or more groups, tap the check box on the device, and then select  and .

3.10 Moving selected BMCs to another Group

To move BMC(s) to another group, tap the check box on the device, and then select  and .

3.11 Deleting a BMC from a Group


To delete a BMC from a group, tap the menu button on the device or the icon  in the navigation bar, tap the **Remove** icon  and tap the **Delete** button .

Or to add a BMC to one or more groups, tap the check box on the device, and then select  and .

3.12 Filtering for Specific BMCs

To locate specific BMCs, tap the search bar  and then enter the keywords in the filter device field.

3.13 Group Settings

To set up a username and a password for a group, tap the icon .

3.14 RMCP Port Setting

To modify the RMCP+ port number of a BMC, long press the desired BMC on the screen and enter the new port number.

3.15 Automatic Refresh IP Address by DNS

To set automatic refresh of an IP address of a BMC by DNS, long press the desired BMC on the screen and select the checkbox.

4 Managing a BMC

To view the details of a BMC, tap the desired group then tap the IP address of the desired BMC. The page screen below appears.



Scroll down to find more about the types of BMC functions listed. Tap any desired function to further manage the BMCs.

- IPMI Device
- LAN Setting
- FRU
- User
- Sensors
- Event Log
- Power Supply
- Raw Command
- Health Check
- Preference
- KVM

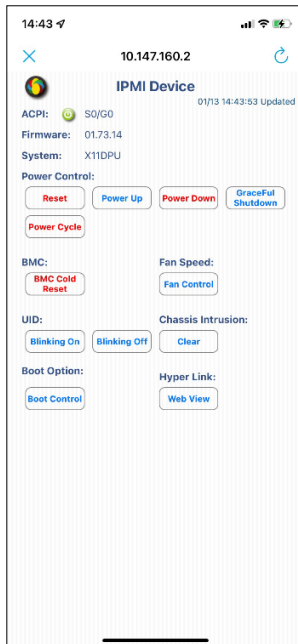
-
- Multi-Node
 - Hard Disk Drive
 - Summary
 - NVMe



Note: Depending on the login level, these BMC functions: LAN Setting, User, Power Supply, KVM, Multi-Node, Hard Disk Drive and NVMe - may be restricted or unavailable. To access all functions, logging in as an Administrator is thus recommended.

4.1 IPMI Device

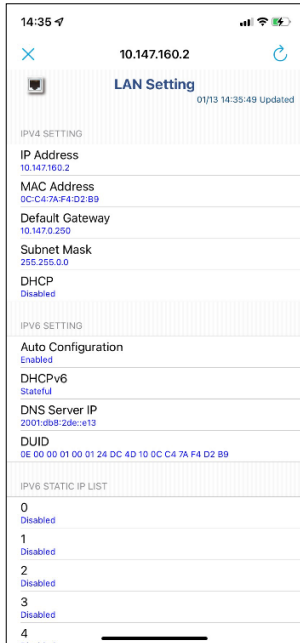
This option is used to display the information and functionality of the BMC firmware installed in the system.



- **Reset:** Resets the server.
- **Power Up:** Turns on the server.
- **Power Down:** Turns off the server.
- **Graceful Shutdown:** Shuts down the server with software.
- **Power Cycle:** Power cycle the server.
- **BMC Cold Reset:** Cold resets the BMC.
- **Fan Control:** Sets the fan speed on the server.
- **Blinking on/off:** Sets the server blinking on/off.
- **Clear:** Clears the chassis intrusion record.
- **Boot Control:** Sets the boot device at the next boot only.
- **Web View:** Opens a browser view of BMC management.

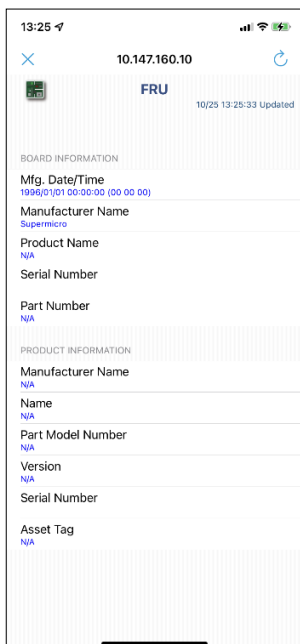
4.2 LAN Setting

This option displays the network settings.



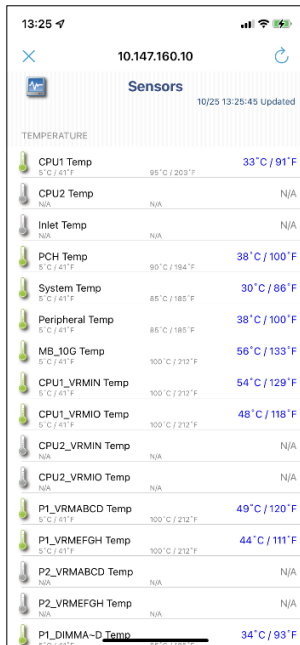
4.3 FRU

This option provides information on FRUs, including the serial number, part number, and the components of the motherboard.



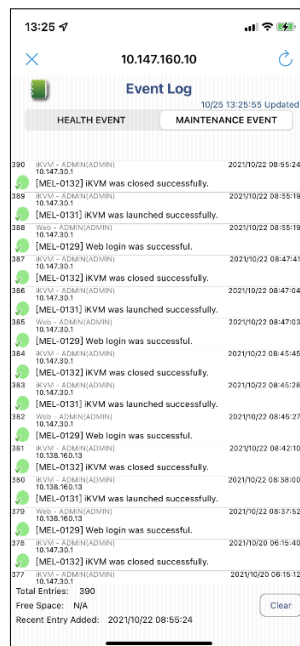
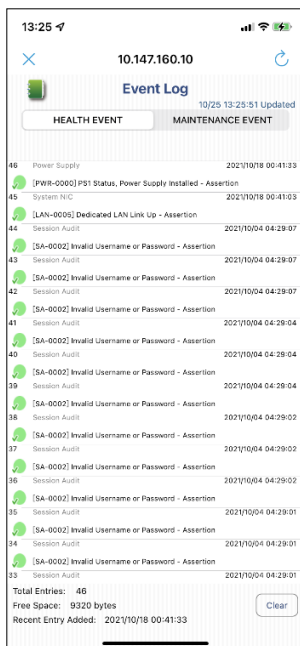
4.4 Sensors

This option displays the status of each sensor used to monitor system health.



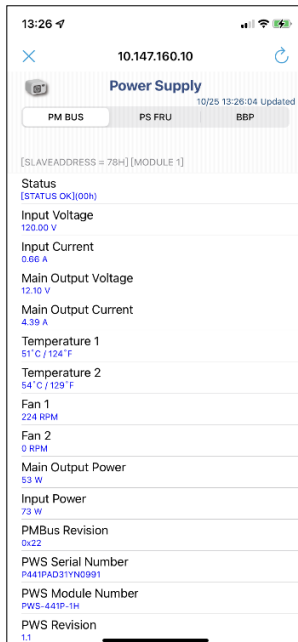
4.5 Event Log

This function allows you to access the health and maintenance events.



4.6 Power Supply

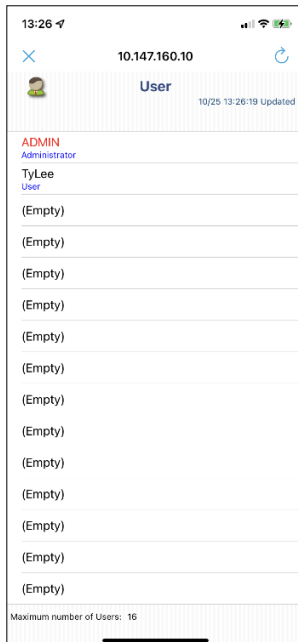
This option is used to display the power supply information in the system.



- **PM BUS:** Displays the PMBus information of the power supply.
- **PS FRU:** Displays the FRU information of the power supply.
- **BBP (Battery Backup Power):** Select **Set the battery discharge setting** to configure how a battery is discharged or **View the current battery status** for information on the battery in use.

4.7 User

This option is used to access or edit the user information.



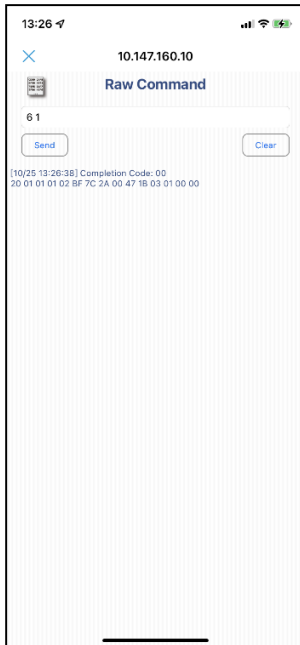
- To add or modify the user information, tap the desired item.
- To clear the user information, long press the desired item.




Note: The user “ADMIN” cannot be deleted.

4.8 Raw Command

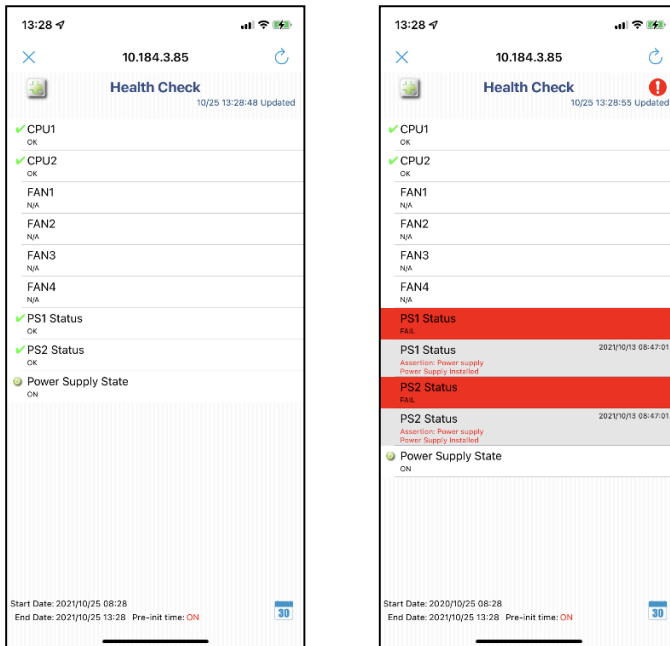
This option allows for the execution of raw IPMI commands.



4.9 Health Check

This option displays the status of each sensor health. Tap the date icon  and select **Health Check Date** to set other date range for filtering status and SEL from the latest search.

To view the details of the item that indicates “FAIL”, click it to expand to view the details.



Sensor status:

- OK
- Fail
- Unknown
- N/A
- Fail(N/A) : BMC thought the sensor exist, but it is missing in real life.

Power Status:

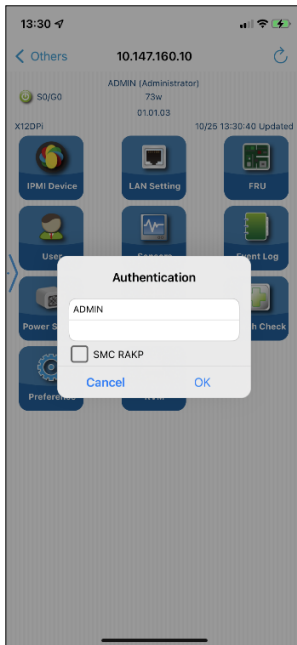
- ON
- OFF
- Unknown




Note: To access the newest SEL (data within five hours) and SDR, tap the **Refresh** icon in the navigation bar or exit and enter Health Check again.

4.10 Preference

This option allows the user to specify the login ID, password and SMC RAKP setting of the desired BMC.



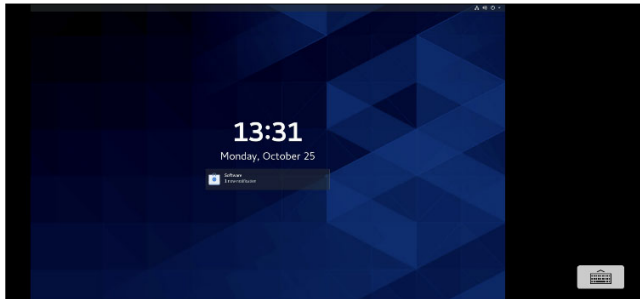
If any information has been modified, tap the menu button on the device or the **Refresh** icon  in the navigation bar to update.



Note: The priority order of BMC authentication is specify > group > global settings.

4.11 KVM

This option allows the user to perform console redirection via KVM (Keyboard/Video/Mouse) support.



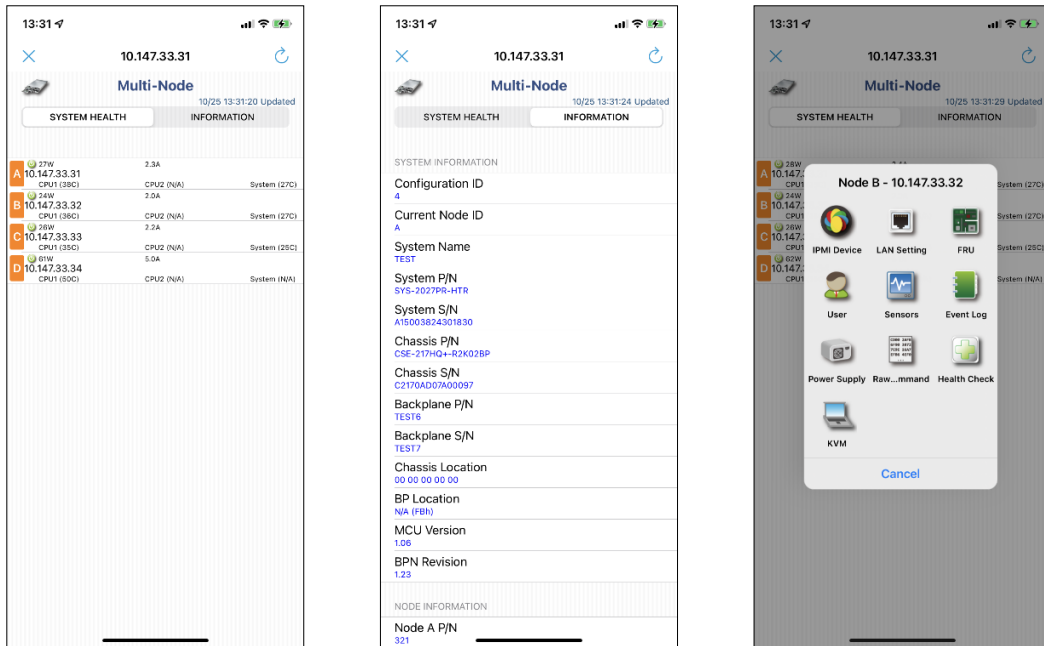
To control the cursor, use these multi-touch gestures:

- Moving the mouse: Drag the screen and move.
- Double-clicking the left mouse button: Double-tap the screen.
- Clicking the left mouse button: Tap the screen once.
- Clicking the right mouse button: Long press the screen.
- Using the mouse wheel: Use two fingers to scroll up or down.
- Using the mouse to draw a selection rectangle or drag a window: Double-tap the screen or the desired window and drag.

For details on the use of virtual keyboard, see 5. *Using the KVM Keyboard*.

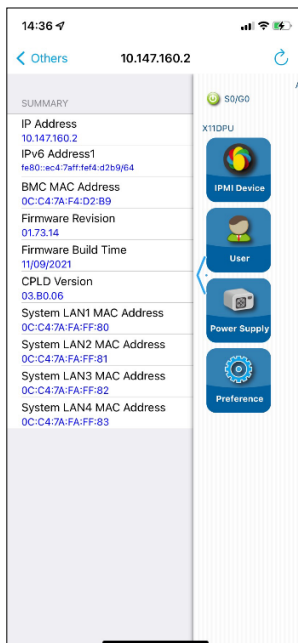
4.12 Multi-Node

This option displays the status of multi-node system health. Tap the tab **INFORMATION** for detail information.



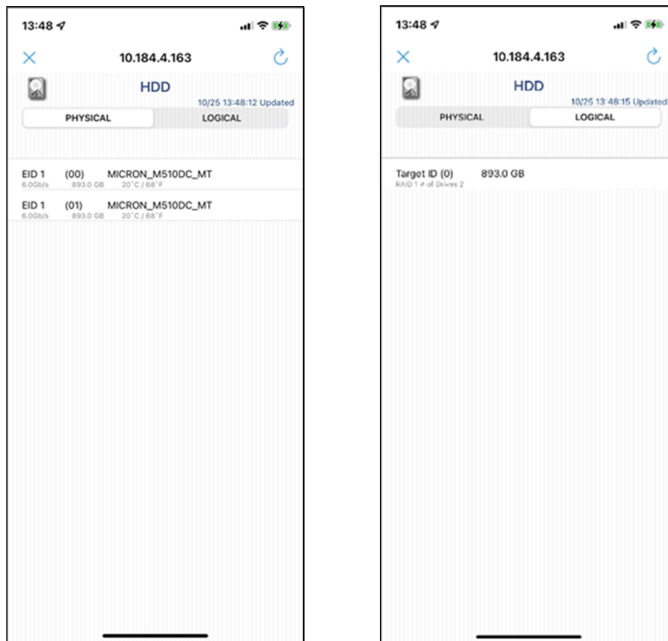
4.13 Summary

Slide the screen from left to right to show BMC summary.



4.14 HDD

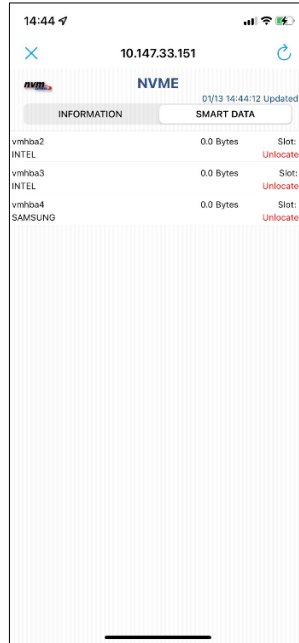
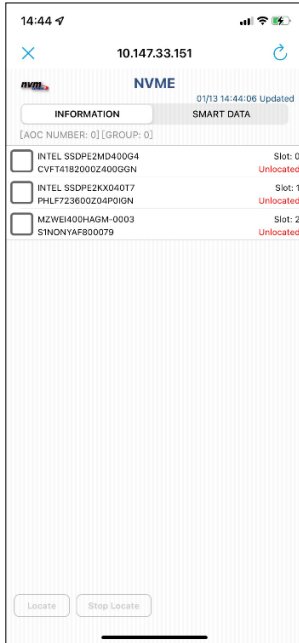
This option provides the information on two types of disk drives in the system. Tap the tab PHYSICAL or LOGICAL for details.




Note: This option is only available when the accessed server has Supermicro storage add-on card with LSISAS 2108, 2208 or 3108 installed.

4.15 NVMe

This option provides the information on two types of NVMe drives in the system. Tap the tab INFORMATION or SMART DATA for details. The SMART tab will need TAS installed to provide OS information.




5 Using the KVM Keyboard

A virtual keyboard on the screen is provided when you access the KVM console. To call up the virtual keyboard, tap the icon  on the menu bar.

5.1 Overview of Virtual Keyboard




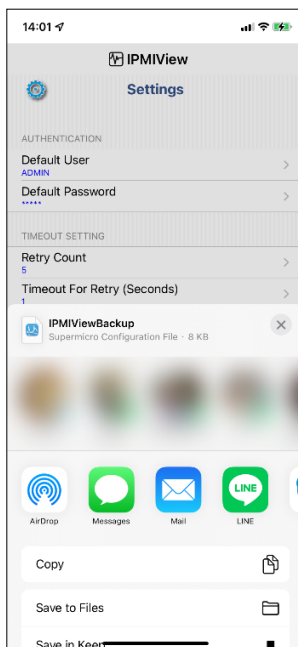
- The options [Esc], [Tab], [Ctrl], [Alt] and [Win] above on the virtual keyboard act as combination keys.
- The key  is used to switch between caps and symbol keypads.
- Tap the key [123], [Fn] and [ABC] to switch between different keyboards for input options.

6 Backup and Restoration

6.1 Backup

To back up the IPMIView settings for iOS, follow these steps:

1. Tap the **Settings** icon  the bottom and then tap **Backup**. The data is backed up in a file in .smc format.
2. Select the desired way to export the backup file (see the figure below).



6.2 Restoration

To restore the previous settings with the backup file, follow these steps:

1. Locate and tap the desired backup file from its designated source.
2. Tap the **Copy to IPMIView** icon  to open the backup file.

7 Open Source Software

In this chapter, licenses and notices for open source software used in IPMIView for iOS are listed.

7.1 OpenSSL

- Notifications:

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit
(<http://www.openssl.org/>)

This product includes cryptographic software written by Eric Young (eay@cryptsoft.com).

This product includes software written by Tim Hudson (tjh@cryptsoft.com).

- Available under licenses:

<https://www.openssl.org/source/apache-license-2.0.txt>

<https://www.openssl.org/source/license.html>

<https://www.openssl.org/source/license-openssl-ssleay.txt>

7.2 GDataXML

Available under license: Apache 2.0

<https://github.com/google/gdata-objectivec-client/blob/master/LICENSE>

7.3 PLCrashReporter

Available under license: Apache 2.0

<https://github.com/microsoft/plcrashreporter/blob/master/LICENSE>

7.4 RATreeView

Available under license: The MIT License (MIT)

<https://github.com/Augustyniak/RATreeView/blob/master/LICENSE.md>

7.5 ICSDrawerController

Available under license: The MIT License (MIT)

<https://github.com/vmodena/ICSDrawerController/blob/master/LICENSE>

7.6 DWBubbleMenuButton

Available under license: The MIT License (MIT)

<https://github.com/dwalker39/DWBubbleMenuButton/blob/master/LICENSE.md>

7.7 ZipZrchive

Available under license: The MIT License (MIT)

<https://github.com/ZipArchive/ZipArchive/blob/master/LICENSE.txt>

7.8 LibxlsxWriter

Available under license: FreeBSD license

<https://github.com/jmcnamara/libxlsxwriter/blob/master/License.txt>

7.9 nghttp2

Available under license: The MIT License (MIT)

<https://github.com/nghttp2/nghttp2/blob/master/COPYING>

7.10 curl

Available under license: MIT/X derivate license

<https://github.com/curl/curl/blob/master/COPYING>

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