



## **IPMIView for iOS**

### **User's Guide**

Revision 1.5.0

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Manual Revision 1.5.0

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# IPMIView Revision History

Date	Rev	Description
Feb-14-2018	1.5.0	<ol style="list-style-type: none"> <li>1. Add IPv6 information in Lan setting.</li> <li>2. Add automatically convert IP by DNS. (3.15)</li> <li>3. Add CA certification in P8 and P9 motherboard for iKVM.</li> <li>4. Add backup and restore function in settings page. (6.1, 6.2)</li> <li>5. Add "Move to Group" and "Remove" buttons in device list. (3.9, 3.10, 3.11)</li> <li>6. Fix known issues.</li> </ol>
Nov-17-2017	1.4.2	<ol style="list-style-type: none"> <li>1. Support iOS 11 and iPhone X.</li> </ol>
Aug-11-2017	1.4.1	<ol style="list-style-type: none"> <li>1. Supported 32 Bit iOS and iPad device.</li> </ol>
Jun-16-2017	1.4.0	<ol style="list-style-type: none"> <li>1. Add the Power Cycle button in IPM Device Page.</li> <li>2. Add NVME function. (4.15)</li> <li>3. Convert a host name to an IP address using DNS in the device and search page.</li> <li>4. Support BigTwin Multi-Node.</li> <li>5. Provide detailed status information for a specific PSU.</li> <li>6. Update SEL descriptions.</li> <li>7. Provide function of setting RMCP+ port. (3.12)</li> <li>8. Fix some known issues.</li> </ol>
Jun-29-2016	1.3.0	<ol style="list-style-type: none"> <li>1. Add HDD function. (4.14)</li> <li>2. KVM optimization.</li> <li>3. Support IPv6.</li> <li>4. KVM support SSL protocol.</li> <li>5. Update board id to 2016/6/13.</li> <li>6. Update SEL description.</li> <li>7. Modify UI interface.</li> <li>8. Support discrete sensor.</li> </ol>
Nov-17-2015	1.2.0	<ol style="list-style-type: none"> <li>1. Reduce crashes probability.</li> <li>2. Fix iPhone 6 plus KVM keyboard arranged issue.</li> <li>3. Update board id to 9/9</li> <li>4. Support MicroCloud device in Multi-Node function. (4.12)</li> <li>5. Support ConfigID = 5 device in Multi-Node function.</li> <li>6. Adjust the user interface.</li> <li>7. Add auto fill to start/end IP network segment in search function. (3.3)</li> </ol>
Aug-19-2015	1.1.0	<ol style="list-style-type: none"> <li>1. Add Health check function. (4.9)</li> <li>2. Add Multi-Node function. (4.12)</li> <li>3. Add BMC summary in BMC functions sliding menu. (4.13)</li> <li>4. Replace diagnostic view with the treeview. (3.5)</li> <li>5. Fix broken textures issue when KVM out of resolution.</li> <li>6. Update board id and GUID.</li> </ol>
Apr-24-2015	1.0.0	Initial document.

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# Document Revision History

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Date	Description
Feb-14-2018	Document update for 1.5.0 release.
Nov-17-2017	Document update for 1.4.2 release.
Aug-11-2017	Document update for 1.4.1 release.
Jun-16-2017	Document update for 1.4.0 release.
Jun-29-2016	Document update for 1.3.0 release.
Nov-17-2015	Document update for 1.2.0 release.
Aug-19-2015	Document update for 1.1.0 release.
Apr-24-2015	Initial version.

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## Contents

1	Overview .....	8
2	Installation .....	9
2.1	Requirements.....	9
2.2	Limitations .....	9
2.3	Installation .....	9
3	Grouping BMCs .....	10
3.1	Basic Setup.....	10
3.2	Creating a Group.....	10
3.3	Searching for BMCs.....	11
3.4	Group Overview .....	12
3.5	Diagnosing a Group.....	12
3.6	Manually Sorting the List .....	15
3.7	Changing Names of IP Addresses.....	15
3.8	Adding a BMC in Group.....	15
3.9	Adding a BMC to Another Group .....	15
3.10	Move selected BMCs to another Group .....	15
3.11	Deleting a BMC from a Group.....	16
3.12	Filtering for Specific BMCs .....	16
3.13	Group Settings .....	16
3.14	RMCP Port Setting.....	16
3.15	Automatic Refresh IP Address by DNS.....	16
4	Managing a BMC.....	17
4.1	IPM Device .....	19
4.2	LAN Setting.....	20
4.3	FRU.....	20
4.4	Sensors.....	21
4.5	Event Log.....	21
4.6	Power Supply .....	22
4.7	User .....	23
4.8	Raw Command.....	24

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4.9	Health Check.....	25
4.10	Preference.....	26
4.11	KVM.....	27
4.12	Multi-Node.....	28
4.13	Summary.....	28
4.14	HDD.....	29
4.15	NVME.....	30
5	Using the KVM Keyboard.....	31
5.1	Overview of Virtual Keyboard.....	31
6	Backup and Restoration.....	32
6.1	Backup.....	32
6.2	Restoration.....	32
7	Open Source Used in IPMIView for iOS.....	33
7.1	OpenSSL.....	33
7.2	GDataXML.....	37
7.3	PLCrashReporter.....	44
7.4	RATreeView.....	46
7.5	ICSDrawerController.....	47
7.6	DWBubbleMenuButton.....	48
7.7	ZipZrchive.....	49
	Contacting Supermicro.....	50

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# 1 Overview

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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.



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## 2 Installation

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### 2.1 Requirements

Make sure your device meets these requirements before installation.

- iOS version 8.0 or higher

### 2.2 Limitations

Support BMC list:

1. ASPEED AST2500 BMC on-Board (e.g., X11SPL-F, X11DPU, X11DGQ, B11DPT boards)
  2. ASPEED AST2400 BMC on-Board (e.g., X10, X11SSH-F, B10, B1 boards)
  3. Renesas SH7757 BMC on-Board (e.g., X9, B9 boards)
  4. Nuvoton WPCM450 BMC on-Board (e.g., X9 boards)
  5. Winbond WPCM450 BMC on-Board (e.g., X8 boards)
- \* KVM-over-LAN supports BMCs with ATEN solution in 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.

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## 3 Grouping BMCs

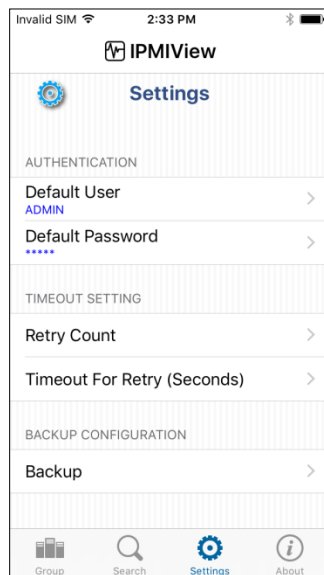
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### 3.1 Basic Setup

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.

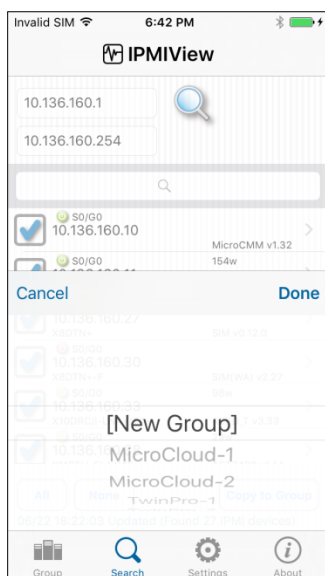
### 3.2 Creating a Group

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:

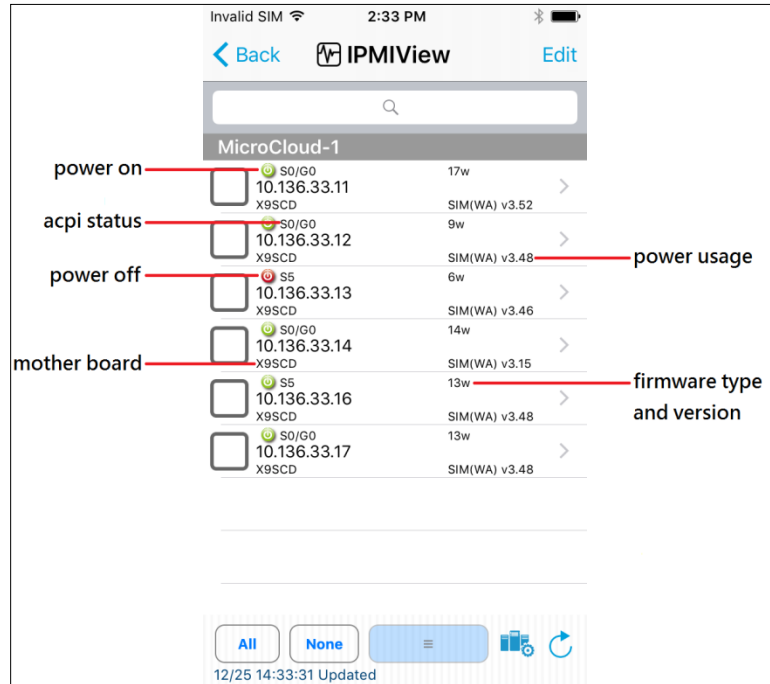
1. Select the Group icon  on the bottom, enter the “desired IP range / hostname” in the field or leave it blank for automatic search, and then tap the icon  .
2. Select the desired BMCs to be collected in the same group, tap the  button, and select Move to other Group or select New Group.



3. Assign the selected BMCs to the desired group.



## 3.4 Group Overview

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

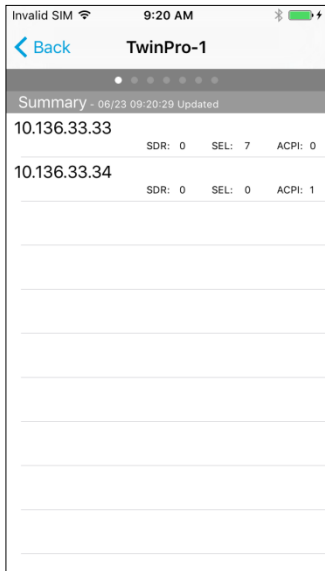


## 3.5 Diagnosing a Group

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

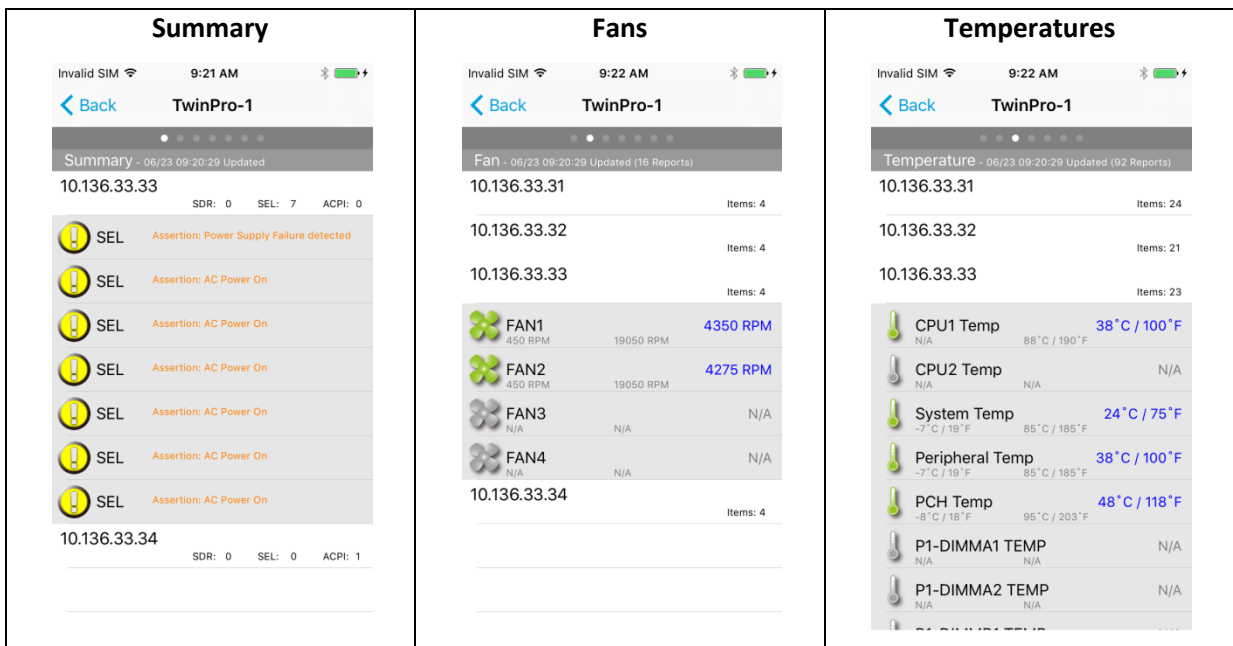
1. Tap the  tab, select the desired group, and then tap the icon  .

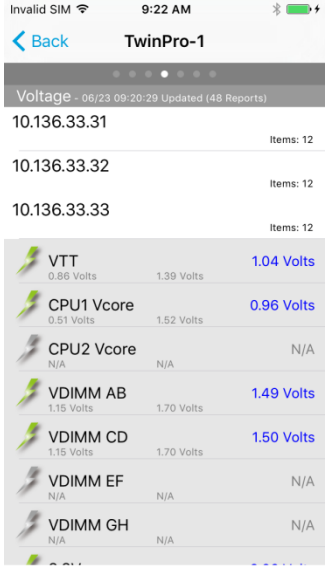
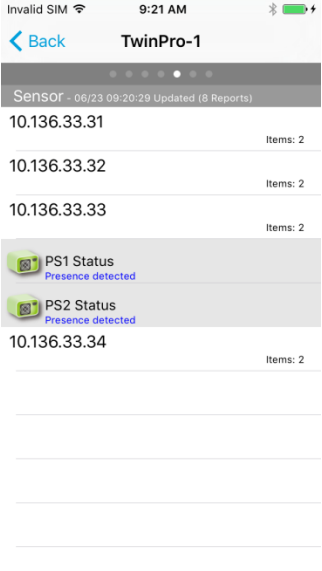
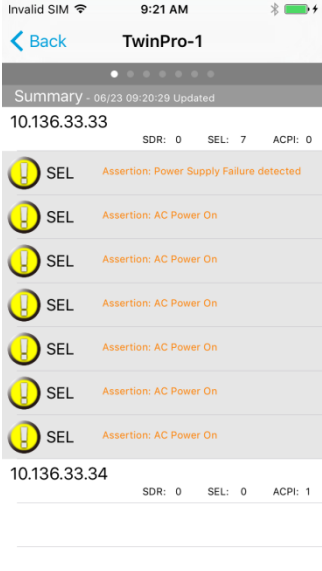
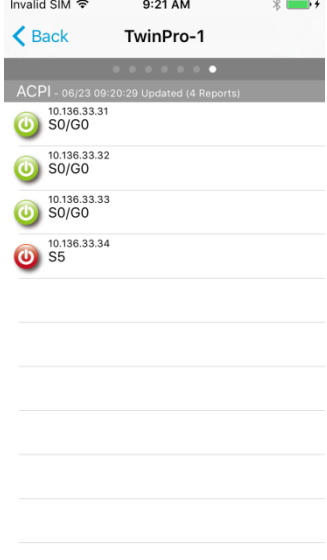
2. A diagnostic report is generated.



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.



<h3 style="text-align: center;">Voltages</h3> 	<h3 style="text-align: center;">Sensors</h3> 	<h3 style="text-align: center;">Event Log</h3> 
<h3 style="text-align: center;">ACPI</h3> 		






**Note:** BMCs in Summary (Assertion SEL range from now to 3 days ago).

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## 3.6 Manually Sorting the List

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




1. Tap the icon  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  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 icon  in the navigation bar.
2. Tap the option  in the upper left to add the BMC IP address.
3. Tap the option  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 Move selected BMCs to another Group

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


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## 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 press 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

Set group username and password by tapping 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 IP address of a BMC by DNS, long press the desired BMC on the screen and select the checkbox.

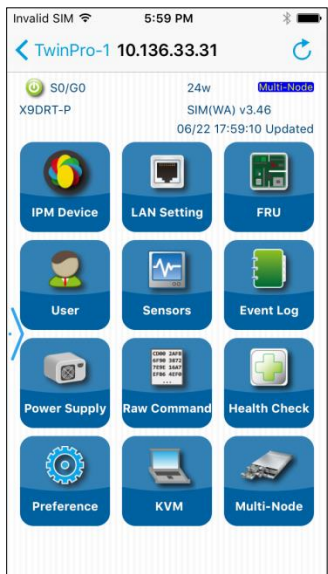


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## 4 Managing a BMC

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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.

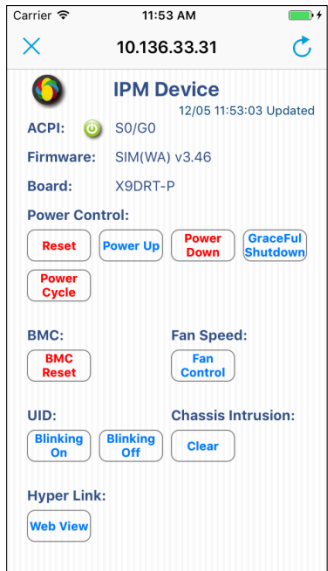
- IPM Device
- LAN Setting
- FRU
- User
- Sensors
- Event Log
- Power Supply
- Raw Command
- Health Check
- Preference
- KVM
- Multi-Node
- Hard Disk Drive

- 
- Summary
  - NVME

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## 4.1 IPM Device

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

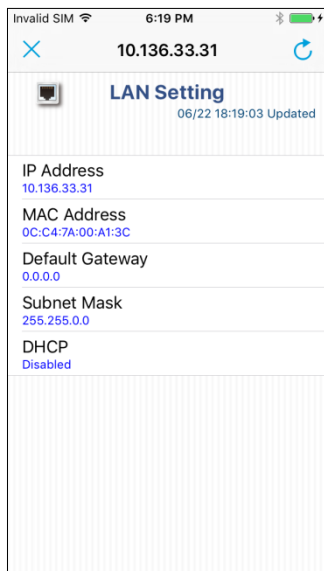


- **Reset:** Resets the server.
- **Power up:** Turns on the server.
- **Power Down:** Turns off the server.
- **Power Cycle:** Power cycle the server.
- **Graceful Shutdown:** Shuts down the server with software.
- **BMC Reset:** Resets the BMC.
- **Fan Control:** Sets the fan speed on the server.
-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

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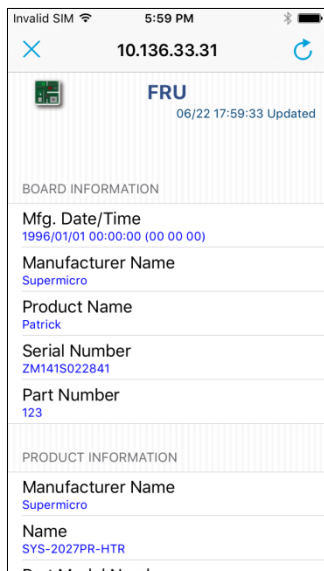
## 4.2 LAN Setting

This option displays the network settings.



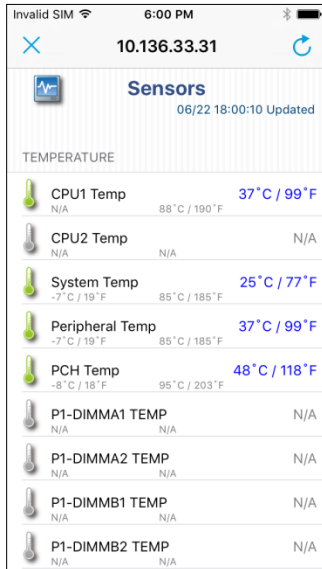
## 4.3 FRU

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



## 4.4 Sensors

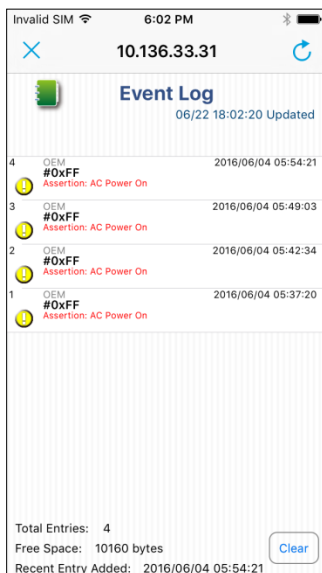
This option displays the status of each sensor used to monitor system health.



Sensors		
06/22 18:00:10 Updated		
TEMPERATURE		
CPU1 Temp	88° C / 190° F	37° C / 99° F
CPU2 Temp	N/A	N/A
System Temp	85° C / 185° F	25° C / 77° F
Peripheral Temp	85° C / 185° F	37° C / 99° F
PCH Temp	95° C / 203° F	48° C / 118° F
P1-DIMMA1 TEMP	N/A	N/A
P1-DIMMA2 TEMP	N/A	N/A
P1-DIMMB1 TEMP	N/A	N/A
P1-DIMMB2 TEMP	N/A	N/A

## 4.5 Event Log

This function allows you to access the system event log.



Event Log		
06/22 18:02:20 Updated		
4	OEM #0xFF Assertion: AC Power On	2016/06/04 05:54:21
3	OEM #0xFF Assertion: AC Power On	2016/06/04 05:49:03
2	OEM #0xFF Assertion: AC Power On	2016/06/04 05:42:34
1	OEM #0xFF Assertion: AC Power On	2016/06/04 05:37:20

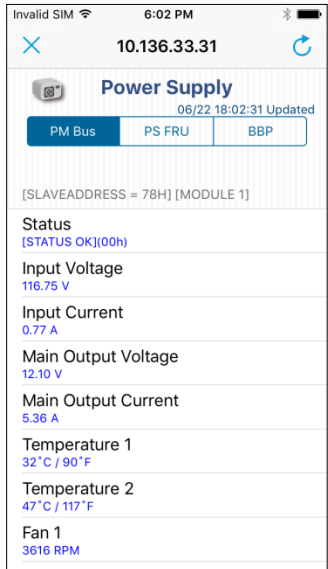
Total Entries: 4  
Free Space: 10160 bytes  
Recent Entry Added: 2016/06/04 05:54:21

Clear

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## 4.6 Power Supply

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

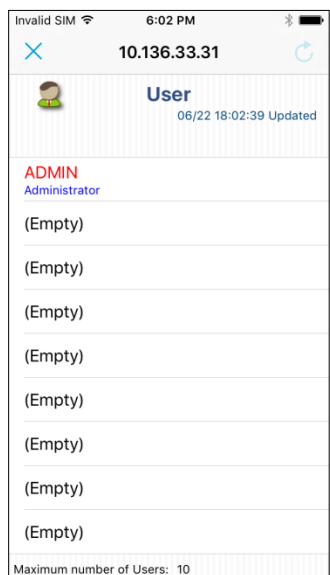


- **PMBus:** Displays the PMBus information of the power supply.
- **FRU:** Displays the FRU information of the power supply.
- **BBP (Battery Backup Power):** Select **Set the battery discharge setting** to configure how a battery is discharged or **View the current battery status** for information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

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## 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 that the user “ADMIN” cannot be deleted.



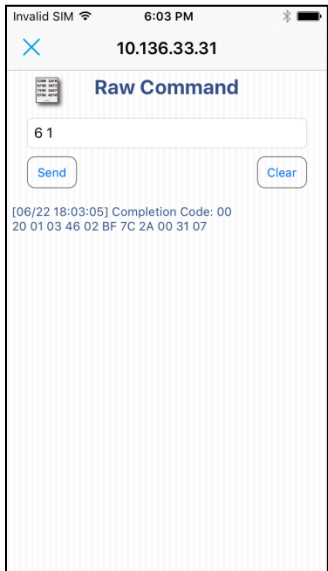
**Note:** that the user “ADMIN” cannot be deleted.

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## 4.8 Raw Command

This option allows for the execution of raw IPMI commands.



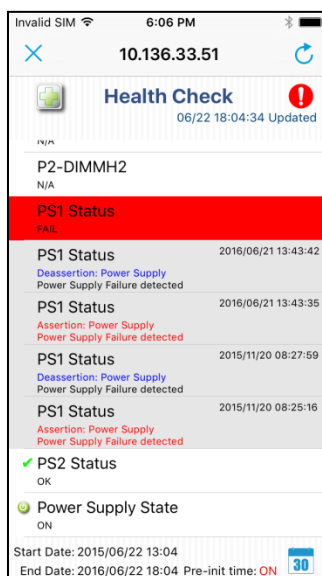
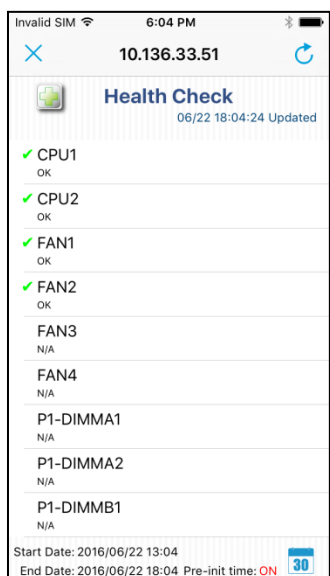


## 4.9 Health Check



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

Click on item if it is fail state, and check the detail from sub items.



### 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

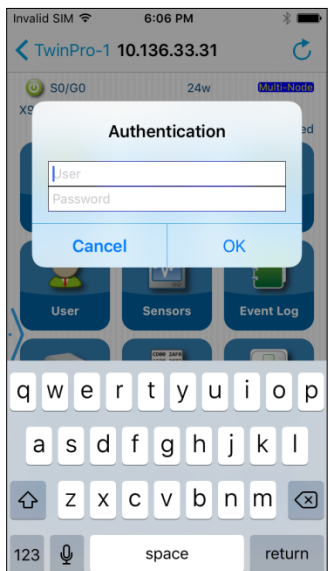



**Note:** Retrieve newest SEL and SDR with **Refresh** or re-enter function again (data range from now to 5 hours ago).

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## 4.10 Preference

This option allows the user to specify the login ID and password of the desired BMC.



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



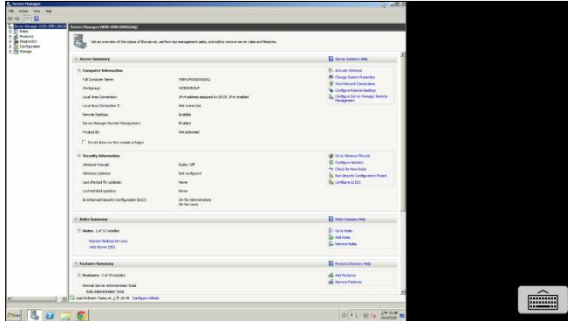
**Note:** BMC authentication priority is specify > group > global settings.

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## 4.11 KVM

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



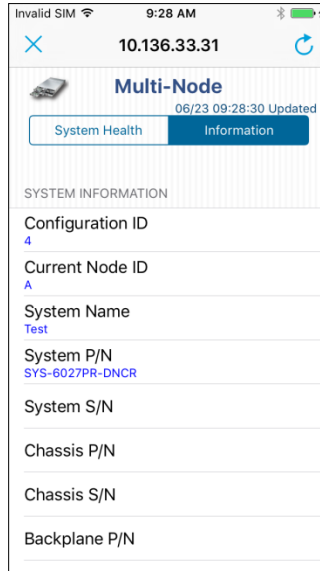
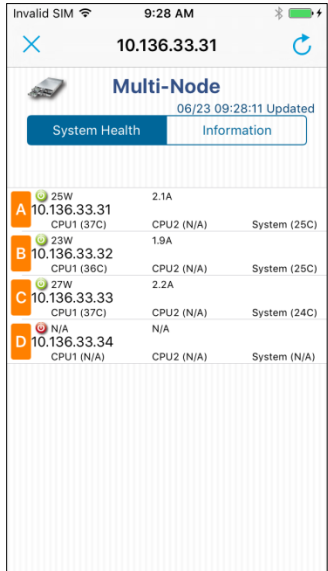
To control the cursor, use these multi-touch gestures:

- 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*.

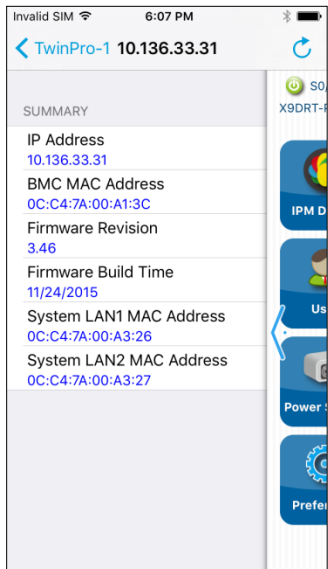
## 4.12 Multi-Node

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.

HDD			
06/22 18:08:10 Updated			
Physical		Logical	
EID 1	(00)	WDC WD1000CHTZ-0	
6.0Gb/s	931.0 GB	27° C / 81° F	
EID 1	(01)	WDC WD5000BHTZ-0	
6.0Gb/s	465.2 GB	26° C / 79° F	
EID 1	(02)	WDC WD5000BHTZ-0	
6.0Gb/s	465.2 GB	25° C / 77° F	
EID 1	(03)	WDC WD5000BHTZ-0	
6.0Gb/s	465.2 GB	26° C / 79° F	
EID 1	(04)	WDC WD5000BHTZ-0	
6.0Gb/s	465.2 GB	26° C / 79° F	

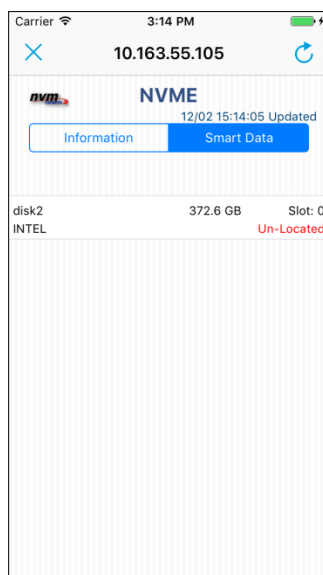
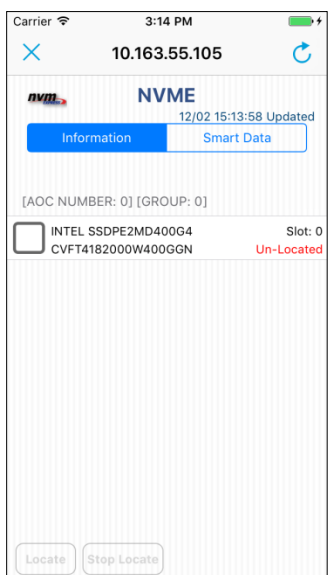
HDD	
06/22 18:08:18 Updated	
Physical	
Logical	
Target ID (0)	930.5 GB
RAID 0 # of Drives 2	
Target ID (1)	465.2 GB
RAID 1 # of Drives 2	



**Note:** This option is only available when the accessed server has LSI MegaRAID 2108 or 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.



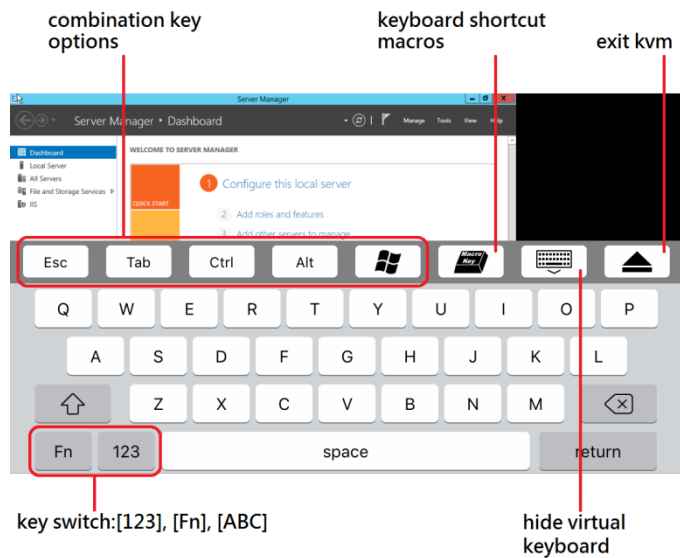
---


# 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. Select the Settings icon  on the bottom.
2. Tap the Backup item and type your mail address, then the backup file is sent to the designated e-mail address.

## 6.2 Restoration

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

1. Tap the backup file from the email containing the backup information.
2. Click the backup attachment and select "Copy to IPMIView" icon and apply the backup file.



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# 7 Open Source Used in IPMIView for iOS

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## 7.5 ICSDrawerController

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## 7.6 DWBubbleMenuButton

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