

Intel[®] Remote Management Module 4 and Integrated BMC Web Console User Guide

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		Multiple corrections to the documentation.
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Intel® BMC And RMM4 User Guide

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1. Introduction

This User Guide describes how to use the Intel[®] Remote Management Module 4 (Intel[®] RMM4) and the Integrated BMC Web Console. It provides an overview of the features of the Web Console and the RMM4 module along with instructions on how to set up and operate the Intel[®] RMM4.

The Intel[®] Integrated BMC Web Console provides both exceptional stability and permanent availability independent of the present state of the server's operating system. As a system administrator, you can use the Intel[®] Integrated BMC Web Console to gain location-independent remote access to respond to critical incidents and to undertake necessary maintenance.

Designed to work with the Baseboard Management Controller (BMC), the Intel[®] RMM4 is a small form-factor mezzanine card that enables remote KVM (Keyboard, Video, and Mouse) and media redirection on your server system, from the built-in Web Console, from anywhere, at any time.

1.1 Target Audience

This User Guide is intended for system technicians who are responsible for monitoring their server systems with the Intel[®] Integrated BMC Web Console. As a system administrator, you can use the Intel[®] Integrated BMC Web Console to gain location-independent remote access to respond to critical incidents. You can use the Intel[®] RMM4 to install, update, and monitor your operating system.

1.2 Terminology

The following table lists the terminology used in this document and the description.

Word/Acronym	Definition
ARP	Address Resolution Protocol
BMC	Baseboard Management Controller
DHCP	Dynamic Host Configuration Protocol
DNS	Domain Name System
EWS	Embedded Web Server
ICMP	Internet Control Message Protocol
Intel [®] ASMI	Intel [®] Advanced Server Management Interface
Intel [®] RMM4	Intel [®] Remote Management Module 4
IPMI	Intelligent Platform Management Interface
KVM	Keyboard, Video, and Mouse
LAN	Local Area Network

Table 1: Terminology

Introduction

Word/Acronym	Definition
LDAP	Lightweight Directory Access Protocol
MAC	Media Access Controller
MII	Media Independent Interface
NIC	Network Interface Controller
ООВ	Out Of Band – No operating system interaction on Server
SDR	Sensor Data Record
TCP/IP	Transmission Control Protocol / Internet Protocol
UDP	User Datagram Protocol

1.3 Safety Information

WARNING

Before working with your Intel[®] RMM4 server product – whether you are using this guide or any other resource as a reference – pay close attention to the safety instructions. You must adhere to the assembly instructions in this guide to ensure and maintain compliance with existing product certifications and approvals. Use only the described regulated components specified in this guide. Use of other products/components will void the UL listing and other regulatory approvals of the product and will most likely result in noncompliance with product regulations in the region(s) in which the product is sold.

WARNINGS

- ▲ System power on/off: The server power button DOES NOT turn off the system power or Intel[®] RMM4 power. To remove power from the Intel[®] RMM4 you must unplug the server AC power cord from the wall outlet. Make sure the AC power cord is unplugged before you open the chassis to add or remove the Intel[®] RMM4.
- ▲ Hazardous conditions, devices and cables: Hazardous electrical conditions may be present on power, telephone, and communication cables. Turn off the server and disconnect the power cord, telecommunications systems, networks, and modems attached to the server before opening it. Otherwise, personal injury or equipment damage can result.
- ▲ Electrostatic discharge (ESD) and ESD protection: ESD can damage disk drives, boards, and other parts. We recommend that you perform all procedures in this chapter only at an ESD workstation. If one is not available, provide some ESD protection by wearing an antistatic wrist strap attached to chassis ground—any unpainted metal surface—on your server when handling parts.
- ▲ ESD and handling boards: Always handle boards carefully. They can be extremely sensitive to ESD. Hold boards only by their edges. After removing a board from its protective wrapper or from the server, place the board component side up on a grounded, static free surface. Use a conductive foam pad if available but not the board wrapper. Do not slide board over any surface.
- A Installing or removing jumpers: A jumper is a small plastic encased conductor that slips

over two jumper pins. Some jumpers have a small tab on top that you can grip with your fingertips or with a pair of fine needle nosed pliers. If your jumpers do not have such a tab, take care when using needle nosed pliers to remove or install a jumper; grip the narrow sides of the jumper with the pliers, never the wide sides. Gripping the wide sides can damage the contacts inside the jumper, causing intermittent problems with the function controlled by that jumper. Take care to grip with, but not squeeze, the pliers or other tools you use to remove a jumper, or you may bend or break the pins on the board.

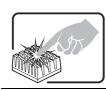
A Safety Cautions

Read all caution and safety statements in this document before performing any of the instructions. See also Intel[®] Server Boards and Server Chassis Safety Information at http://www.intel.com/support/motherboards/server/sb/cs-010770.htm.



SAFETY STEPS: Whenever you remove the chassis covers to access the inside of the system, follow these steps:

- 1. Turn off all peripheral devices connected to the system.
- 2. Turn off the system by pressing the power button.
- 3. Unplug all AC power cords from the system or from wall outlets.
- 4. Label and disconnect all cables connected to I/O connectors or ports on the back of the system.
- 5. Provide some electrostatic discharge (ESD) protection by wearing an antistatic wrist strap attached to chassis ground of the system—any unpainted metal surface—when handling components.
- 6. Do not operate the system with the chassis covers removed.



A microprocessor and heat sink may be hot if the system has been running. Also, there may be sharp pins and edges on some board and chassis parts. Contact should be made with care. Consider wearing protective gloves.

A Wichtige Sicherheitshinweise

Lesen Sie zunächst sämtliche Warn- und Sicherheitshinweise in diesem Dokument, bevor Sie eine der Anweisungen ausführen. Beachten Sie hierzu auch die Sicherheitshinweise zu Intel^{*}-Serverplatinen und -Servergehäusen auf der Ressourcen-CD oder unter <u>http://www.intel.com/support/motherboards/server/sb/cs-010770.htm</u>.



SICHERHEISMASSNAHMEN: Immer wenn Sie die Gehäuseabdeckung abnehmen um an das Systeminnere zu gelangen, sollten Sie folgende Schritte beachten:

- 1. Schalten Sie alle an Ihr System angeschlossenen Peripheriegeräte aus.
- 2. Schalten Sie das System mit dem Hauptschalter aus.
- 3. Ziehen Sie den Stromanschlußstecker Ihres Systems aus der Steckdose.
- 4. Auf der Rückseite des Systems beschriften und ziehen Sie alle Anschlußkabel von den I/O Anschlüssen oder Ports ab.
- 5. Tragen Sie ein geerdetes Antistatik Gelenkband, um elektrostatische Ladungen (ESD) über blanke Metallstellen bei der Handhabung der Komponenten zu

vermeiden.

6.



Der Mikroprozessor und der Kühler sind möglicherweise erhitzt, wenn das System in Betrieb ist. Außerdem können einige Platinen und Gehäuseteile scharfe Spitzen und Kanten aufweisen. Arbeiten an Platinen und Gehäuse sollten vorsichtig ausgeführt werden. Sie sollten Schutzhandschuhe tragen.

Schalten Sie das System niemals ohne ordnungsgemäß montiertes Gehäuse ein.

▲ 重要安全指导

在执行任何指令之前,请阅读本文档中的所有注意事项及安全声明。参见 Resource CD(资源光盘)和/或 <u>http://www.intel.com/support/motherboards/server/sb/cs-010770.htm</u>上的 *Intel*[®] *Server Boards and Server Chassis Safety Information*(《Intel[®]服务器主板与服务器机箱安全信息》)。

A Consignes de sécurité

Lisez attention toutes les consignes de sécurité et les mises en garde indiquées dans ce document avant de suivre toute instruction. Consultez *Intel*[®] *Server Boards and Server Chassis Safety Information* sur le CD Resource CD ou bien rendez-vous sur le site <u>http://www.intel.com/support/motherboards/server/sb/cs-010770.htm</u>



CONSIGNES DE SÉCURITÉ -Lorsque vous ouvrez le boîtier pour accéder à l'intérieur du système, suivez les consignes suivantes:

- 1. Mettez hors tension tous les périphériques connectés au système.
- 2. Mettez le système hors tension en mettant l'interrupteur général en position OFF (bouton-poussoir).
- 3. Débranchez tous les cordons d'alimentation c.a. du système et des prises murales.
- 4. Identifiez et débranchez tous les câbles reliés aux connecteurs d'E-S ou aux accès derrière le système.
- 5. Pour prévenir les décharges électrostatiques lorsque vous touchez aux composants, portez une bande antistatique pour poignet et reliez-la à la masse du système (toute surface métallique non peinte du boîtier).
- 6. Ne faites pas fonctionner le système tandis que le boîtier est ouvert.



Le microprocesseur et le dissipateur de chaleur peuvent être chauds si le système a été sous tension. Faites également attention aux broches aiguës des cartes et aux bords tranchants du capot. Nous vous recommandons l'usage de gants de protection.

A Instrucciones de seguridad importantes

Lea todas las declaraciones de seguridad y precaución de este documento antes de realizar cualquiera de las instrucciones. Vea *Intel[®] Server Boards and Server Chassis Safety Information* en el CD Resource y/o en <u>http://www.intel.com/support/motherboards/server/sb/cs-010770.htm</u>.

INSTRUCCIONES DE SEGURIDAD: Cuando extraiga la tapa del chasis para acceder al interior del sistema, siga las siguientes instrucciones:

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- 1. Apague todos los dispositivos periféricos conectados al sistema.
- 2. Apague el sistema presionando el interruptor encendido/apagado.
- 3. Desconecte todos los cables de alimentación CA del sistema o de las tomas de corriente alterna.
- 4. Identifique y desconecte todos los cables enchufados a los conectores E/S o a los puertos situados en la parte posterior del sistema.
- 5. Cuando manipule los componentes, es importante protegerse contra la descarga electrostática (ESD). Puede hacerlo si utiliza una muñequera antiestática sujetada a la toma de tierra del chasis o a cualquier tipo de superficie de metal sin pintar.
- 6. No ponga en marcha el sistema si se han extraído las tapas del chasis.



Si el sistema ha estado en funcionamiento, el microprocesador y el disipador de calor pueden estar aún calientes. También conviene tener en cuenta que en el chasis o en el tablero puede haber piezas cortantes o punzantes. Por ello, se recomienda precaución y el uso de guantes protectores.

AVVERTENZA: Italiano



PASSI DI SICUREZZA: Qualora si rimuovano le coperture del telaio per accedere all'interno del sistema, seguire i seguenti passi:

- 1. Spegnere tutti i dispositivi periferici collegati al sistema.
- 2. Spegnere il sistema, usando il pulsante spento/acceso dell'interruttore del sistema.
- 3. Togliere tutte le spine dei cavi del sistema dalle prese elettriche.
- 4. Identificare e sconnettere tutti i cavi attaccati ai collegamenti I/O od alle prese installate sul retro del sistema.
- 5. Qualora si tocchino i componenti, proteggersi dallo scarico elettrostatico (SES), portando un cinghia anti-statica da polso che è attaccata alla presa a terra del telaio del sistema qualsiasi superficie non dipinta .
- 6. Non far operare il sistema quando il telaio è senza le coperture.



Se il sistema è stato a lungo in funzione, il microprocessore e il dissipatore di calore potrebbero essere surriscaldati. Fare attenzione alla presenza di piedini appuntiti e parti taglienti sulle schede e sul telaio. È consigliabile l'uso di guanti di protezione.

1.4 Support Information

If you encounter an issue with your Intel[®] RMM4, follow these steps to obtain support:

1. Visit the following Intel Support website at http://www.intel.com/p/en_US/support.

This web page provides 24x7 support when you need to get the latest and most complete technical support information on all Intel[®] Enterprise Server and Storage Platforms. Information available at the support site includes:

• Latest BIOS, firmware, drivers, and utilities.

Introduction

- Product documentation, installation and Quick Start Guides.
- Full product specifications, technical advisories, and errata.
- Compatibility documentation for memory, hardware add-in cards, chassis support matrix, and operating systems.
- Server and chassis accessory parts list for ordering upgrades or spare parts.
- A searchable knowledgebase to search for product information throughout the support site.
- 2. If you are still unable to obtain a solution for your issue, you can contact Intel customer support at the following website: <u>http://www.intel.com/support/feedback.htm</u>.

1.5 Warranty Information

To obtain warranty information, visit the following Intel website: <u>http://www.intel.com/support/motherboards/server/sb/CS-010807.htm</u>.

2. Intel[®] Remote Management Module 4 Overview

This section gives you an overview of the Intel[®] RMM4 and highlights significant benefits of its features.

2.1 Intel[®] RMM4 Lite and Intel[®] Dedicated Server Management NIC

2.1.1 Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (V1&V2), S1200V3RP and S1200BTL Product Families

The Intel[®] RMM4 is comprised of up to two boards – Intel[®] RMM4 Lite and the optional Intel[®] Dedicated Server Management NIC (DMN).

The Intel[®] RMM4 Lite is a small board that unlocks advanced KVM and remote media management features on the RGMII interface when installed on Intel[®] Server Boards. It provides an increased level of manageability over the basic server management available to the server board. It works as an integrated solution on your server system.

After the Intel[®] RMM4 Lite has been installed, the advanced management features are available through both the optional Intel[®] Dedicated Server Management NIC, if installed, and all of the on-board Integrated BMC-shared NIC ports.

If the optional Intel[®] Dedicated Server Management NIC is installed, the NIC is dedicated to the Intel[®] RMM4 advanced management features traffic along with all other standard server management traffic. The host system is unaware of this NIC.

If the optional Intel[®] Dedicated Server Management NIC is not used, the traffic can go through any of the on-board Integrated BMC-shared NIC ports and will share network bandwidth with the host system.



Figure 1: Intel[®] RMM4 Lite



Figure 2: Intel[®] Dedicated Server Management NIC

2.1.2 Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

These platforms have a Dedicated Server Management NIC (DMN) on-board so only the Intel[®] RMM4 Lite is required to access the advanced management features.

The Intel[®] RMM4 Lite is a small board that unlocks advanced management features on the RGMII interface when installed on Intel[®] Server Boards. It provides an increased level of manageability over the basic server management available to the server board. It works as an integrated solution on your server system. (Refer to Figure 1: Intel[®] RMM4 Lite)

After the Intel[®] RMM4 Lite has been installed, the advanced management features are available through both on-board Intel[®] Dedicated Server Management NIC, and all of the on-board Integrated BMC-shared NIC ports.

2.2 Intel[®] RMM4 Features

The Intel[®] RMM4 add-on offers convenient, remote KVM access and control through LAN or Internet. It captures, digitizes, and compresses video and transmits it with keyboard and mouse signals to and from a remote computer. Remote access and control software runs in the Integrated Baseboard Management Controller, utilizing expanded capabilities enabled by the Intel[®] RMM4 hardware.

Key features of the Intel[®] RMM4 add-on card are:

• KVM redirection from either the RMM4 NIC or the baseboard NIC used for management traffic; up to two simultaneous KVM sessions.

- Media redirection The media redirection feature is intended to allow system administrators or users to mount a remote IDE or USB CD-ROM, floppy drive, or a USB flash disk as a remote device to the server. After mounted, the remote device appears just like a local device to the server, allowing system administrators or users to install software (including operating systems), copy files, update BIOS, and so on, or boot the server from this device.
- KVM Automatically senses video resolution for best possible screen capture, highperformance mouse tracking and synchronization. It allows remote viewing and configuration in pre-boot POST and BIOS setup.

2.3 Supported Operating Systems and Internet Browsers

The Intel[®] RMM4 enables Java* based Remote Console (KVM) and media connections. During Remote Console connections the keyboard, video, and mouse of the console system operate as if you were at the server where the Intel[®] RMM4 is connected. The Intel[®] RMM4 has been validated using the operating systems listed in the following sub sections.

2.3.1 Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2), S1200V3RP and S1200BTL Product Families

2.3.1.1 Server System

Refer to the platform supported OS list for the current list of OSes supported on the managed server. The following operating systems were supported at the time of the writing of this document.

- Microsoft Windows Server 2008* R2 SP1
- Microsoft Windows Server 2008* SP2
- Red Hat* Enterprise Linux 6.2
- SUSE* Enterprise Linux 11 SP2
- Microsoft Windows 7* SP1
- Red Hat* Enterprise Linux 5 Update 7

2.3.1.2 Client System

The following client Internet browsers have been tested:

- Microsoft Internet Explorer 8.0*
- Microsoft Internet Explorer 9.0*
- Microsoft Internet Explorer 10.0*
- Mozilla Firefox* 3.0
- Mozilla Firefox* 3.5
- Mozilla Firefox* 3.6
- Mozilla Firefox* 10 (on Microsoft Windows* operating systems)

2.3.2 Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

2.3.2.1 Server System

Refer to the platform supported OS list for the current list of OSes supported on the managed server. The following operating systems were supported at the time of the writing of this document.

- Microsoft Windows Server 2008* R2 SP1
- Microsoft Windows Server 2012* R2
- Red Hat* Enterprise Linux 6.5 x64
- Red Hat* Enterprise Linux 7.0 x64
- SUSE* Enterprise Linux 11 SP3 x64
- SUSE* Enterprise Linux 12 x64
- VMware ESXi 5.5U1
- CentOS 6.5
- CentOS 7.0
- Ubuntu 14.04

2.3.2.2 Client System

The following client Internet browsers have been tested:

- Microsoft Internet Explorer 9.0*
- Microsoft Internet Explorer 10.0*
- Mozilla Firefox 24*
- Mozilla Firefox 25*

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3. Hardware Installations and Initial Configuration

This section guides you on the hardware installations and initial configuration.

3.1 Before You Begin

Carefully read the Safety Information provided at the beginning of this manual before working with your server product.

3.2 Tools and Supplies Needed

Following are the tools and supplies needed:

- Phillips (cross head) screwdriver (#1 bit and #2 bit)
- Needle nosed pliers
- Antistatic wrist strap and conductive foam pad (recommended)

3.3 Installation

- For Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2), S1200V3RP and S1200BTL Product Families, the Intel[®] RMM4 has multiple packages:
- RMM4 Lite edition (AXXRMM4Lite), which contains the following components:
 Intel[®] Remote Management Module 4 Lite module
- RMM4 full edition (AXXRMM4), which contains the following components:
 - o Intel[®] Remote Management Module 4 Lite module
 - o Intel[®] Dedicated Server Management Network Interface Card (NIC) module
 - Bag containing screws, metal fastening bracket, PCI slot brackets, and cablings
 - EMI bracket covers and thumb screws
- RMM4 full edition 2 (AXXRMM4R) for Intel[®] Server Boards S2600GZ, S2600GL, S2400BB, S2400EP, and S1400SP, which contains the following components:
 - Intel[®] Remote Management Module 4 Lite module
 - o Intel[®] Dedicated Server Management Network Interface Card (NIC) module 2
 - Bag containing screws
- RMM4 Multi Node editions (**Note**: For advanced management features functionality, these also require the AXXRMM4LITE to be added)
 - AXXRMM4IOM (Intel[®] HNS2600JF and Intel[®] HNS2400LP Compute Module Family) for Intel[®] Server Boards S2600JF and S2400LP
 - AXXRMM4IOMW (Intel[®] HNS2600WP Compute Module Family) for Intel[®] Server Boards S2600WP
 - Each of these contains the following components:
 - A PCI Express* rIOM riser
 - A rIOM carrier board to provide a Dedicated RMM4 NIC port and a connector supporting the Intel[®] I/O modules
 - Associated mounting hardware (screws, standoff, and brackets)

- RMM4 Rack Optimized edition (A1UJPRMM4IOM) for Intel[®] Server Boards S1600JP which contains the following components (**Note**: For advanced management features functionality, this also requires the AXXRMM4LITE to be added):
 - A PCI Express* rIOM riser
 - A rIOM carrier board to provide a Dedicated RMM4 NIC port and a connector supporting the Intel[®] I/O modules
 - Associated mounting hardware (screws, standoff, and brackets)
- 2) For Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 ----S2600WT, S2600KP, S2600TP and S2600CW, the Intel[®] RMM4 has only one package:
- RMM4 Lite edition (AXXRMM4LITE), which contains the following components:
 - Intel[®] Remote Management Module 4 Lite module

The installation will vary between the chassis configurations. The following sections provide installation instructions.

- ▲ **Caution:** Intel[®] RMM4 Lite and RMM4 DMN are NOT hot-swappable. Before removing or replacing them, you must follow these steps:
 - 1. First take the server out of service.
 - 2. Turn off the system by pressing the power button.
 - 3. Unplug the AC power cord from the system or wall outlet.
 - **4.** Wait for at least 10 seconds before installing the module.

3.3.1 Installation of the Intel[®] RMM4 Lite on Intel[®] Server Boards

The following are steps for installing the Intel[®] RMM4 Lite on Intel[®] Server Boards and apply to all system types:

- 1. Ensure that AC power has been removed from the system and that you have waited at least 10 seconds after removing power.
- 2. Find the RMM4 Lite connector as specified in Table 2 for your specific server board. See your Intel[®] Server Boards Technical Product Specification (TPS) for details.
- 3. Carefully pick up the RMM4 Lite module. Verify the location of the RMM4 Lite connector key pin before inserting the RMM4 Lite into the mating connector on the Intel[®] Server Board.

Note: For more details see your specific *Intel*[®] *Server Systems Technical Product Specification* and *Intel*[®] *Server Systems Service Guide*.

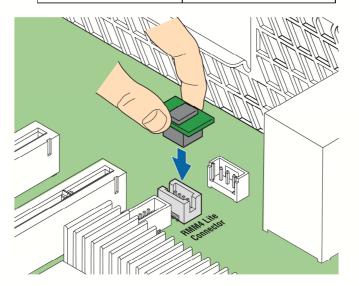
Intel [°] Server Board	RMM4 Lite Connector Reference Designator
S1200BTL	J4B1

Table 2: Intel[®] Server Boards RMM4 Lite Connector Locations

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Hardware Installations and Initial Configuration

Intel [°] Server Board	RMM4 Lite Connector Reference Designator
S1200V3RPL S1200V3RPO S1200V3RPM	J4B1
S2400BB	J3A2
S1400FP	J3D1
S1400SP	J4D2
S1600JP2/S1600JP4	J6A2
S2400EP	J1E1
S2400GP	J2B3
S2400LP	J7F2
S2400SC	J3D1
S2600CO	J1B1
S2600CP	J1B2
S2600GZ/S2600GL	J3B2
S2600IP	J2B1
S2600JF	J1A2
S2600WP	J1A2
S4600LH2/S4600LT2	J44
W2600CR	J2B1
S2600KP	J12
S2600WT	J2B2
S2600TP	J1A2
S2600CW	J1C1



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Figure 3: Installing the Intel[®] RMM4 Lite on Intel[®] Server Boards

3.3.2 Installation of the Intel[®] Dedicated Server Management NIC on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2), S1200V3RP and S1200BTL Product Families

For Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2), S1200V3RP and S1200BTL Product Families, the Intel[®] Dedicated Server Management NIC module need to be installed.

The installation will vary between the chassis configurations. The following sections provide installation instructions.

3.3.2.1 Installation of the Intel[®] Dedicated Server Management NIC on an Intel[®] Rack Server System

Most Intel[®] Rack Server Systems allow the Intel[®] Dedicated Server Management NIC module to be mounted to the chassis. Table 3 lists all Intel[®] Rack Server Systems that support a chassis mounted Intel[®] Dedicated Server Management NIC module. Use the following steps when installing the Intel[®] Dedicated Server Management NIC module on those server systems:

Note: For the next steps see your specific *Intel*^{*} *Server Systems Technical Product Specification* and *Intel*^{*} *Server Systems Service Guide* for more details. Table 3 lists the section and figure describing the installation for that specific system.

	•	•	0	
Intel [°] Server System	RMM4 NIC Connector Reference Designator	Cable and Bracket Required?	Section	Figure
R1000BTL Family	J5C1	Yes	3.3.2.1.1	Figure 6
R1000BB Family R2000BB Family	J3B2	No	3.3.2.1.2	Figure 9
R1000EP Family	J2B1	No	3.3.2.1.3	Figure 10
R1000RP Family	J5C1	Yes	3.3.2.1.1	Figure 6
R1000SP Family	J3B2	No	3.3.2.1.2	Figure 9
R2000FP Family	J1D2	Yes (PCI slot bracket)	3.3.2.1.4	Figure 12
R2000IP Family	J3A1	Yes	3.3.2.1.1	Figure 7
R2000LH2/R200LT2	J53	No	3.3.2.1.1	Figure 8
R2000SC Family	J1C7	Yes (PCI slot bracket)	3.3.2.1.4	Figure 12
R1000GZ/GL Family R2000GZ/GL Family	J2A1	No	3.3.2.1.2	Figure 9

Table 3: Intel[®] Rack Server Systems – Intel[®] Dedicated Server Management NIC Connector Locations

3.3.2.1.1 Installing the Dedicated NIC on Intel[®] Server System R1000BTL Family, R1000RP Family, R2000IP Family, or R2000LH2/R2000LT2

1. Ensure that AC power has been removed from the system and that you have waited at least 30 seconds after removing power.

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- 2. Push out and remove the metal cover on the chassis where the NIC RJ-45 receptacle will align.
- **Caution:** Carefully remove the metal cover with pliers; directly removing it with fingers has a potential risk.
- 3. Attach the metal fastening bracket to the Intel[®] Dedicated Server Management NIC module as shown in Figure 4.

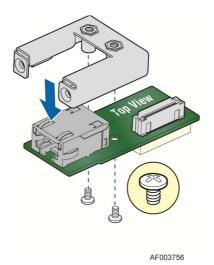


Figure 4: Attaching the Bracket to the Intel[®] Dedicated Server Management NIC Module

- 4. Attach the cable to the cable connector on the Intel[®] Dedicated Server Management NIC module as shown in Figure 5.
- ▲ **Caution:** Take care when attaching or removing this cable. Mishandling the cable could cause damage.

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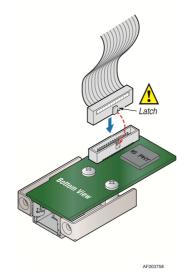


Figure 5: Attaching the Cable to the Intel[®] Dedicated Server Management NIC Module

- 5. Attach the cable to the cable connector on the Intel[®] Dedicated Server Management NIC module. Mount the NIC module to the back of the chassis and secure the metal fastening bracket with two screws. This will align the RJ-45 with the opening in the chassis. Attach the cable to the RMM4 NIC connector, as specified in Table 3, on the server board.
- **Caution:** Take care when attaching or removing this cable. Mishandling the cable could cause damage.

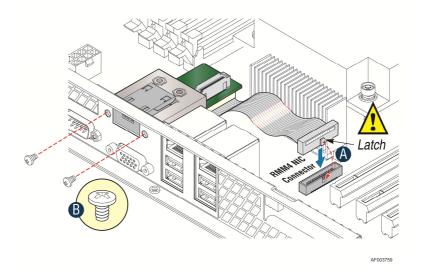


Figure 6: Adding the Intel[®] Dedicated Server Management NIC Module in the Intel[®] Server System R1000BTL and R1000RP Families

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Hardware Installations and Initial Configuration

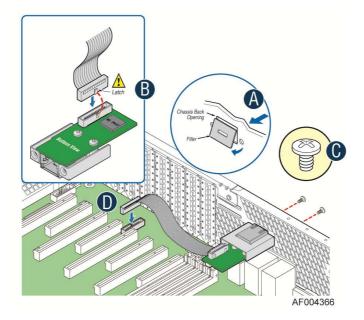


Figure 7: Adding the Intel[®] Dedicated Server Management NIC Module in the Intel[®] Server System R2000IP Family

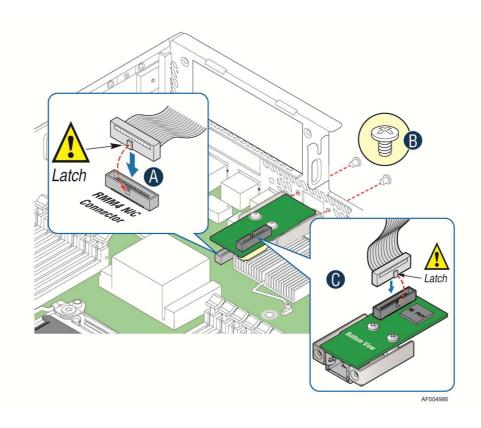
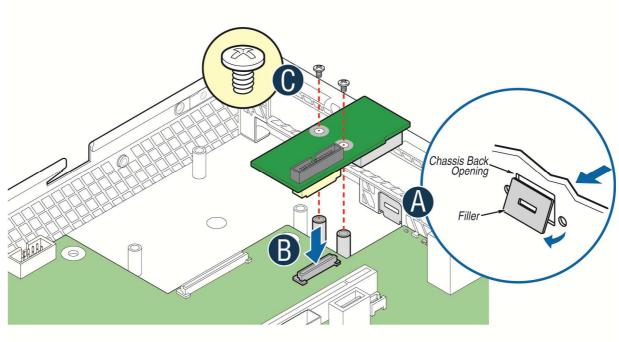


Figure 8: Adding the Intel[®] Dedicated Server Management NIC Module in the Intel[®] Server System R2000LH2/R200LT2

3.3.2.1.2 Installing the Dedicated NIC on Intel[®] Server System R1000BB and R2000BB Families, R1000SP Family, or R1000GZ/GL and R2000GZ/GL Families

- 1. Ensure that AC power has been removed from the system and that you have waited at least 30 seconds after removing power.
- 2. Push out and remove the metal cover on the chassis where the NIC RJ-45 receptacle will align.
- **Caution:** Carefully remove the metal cover with pliers; directly removing it with fingers has a potential risk.
- 3. Mount the NIC module to the Intel[®] Server System board and secure it to the standoffs with two screws.



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Figure 9: Adding the Intel[®] Dedicated Server Management NIC Module in the Intel[®] Server System R1000BB and R2000BB Families, R1000SP Family, or R1000GZ/GL and R2000GZ/GL Families

4. Replace the chassis cover, attach the AC power, and connect a network cable to the Intel[®] Dedicated Server Management NIC module.

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3.3.2.1.3 Installing the Dedicated NIC on Intel[®] Server System R1000EP Family

- 1. Ensure that AC power has been removed from the system and that you have waited at least 30 seconds after removing power.
- 2. Push out and remove the metal cover on the chassis where the NIC RJ-45 receptacle will align.
- ▲ **Caution:** Carefully remove the metal cover with pliers; directly removing it with fingers has a potential risk.
- 3. Insert and fit the metal adapter into the position as shown in Figure 10. Secure the adapter with two screws as shown (see letter **B**).
- 4. Position the module over the server board, fit the front of the module into the back panel slot, and then attach the module to the server board connector. Secure the module with the one screw as shown (see letter **C**).

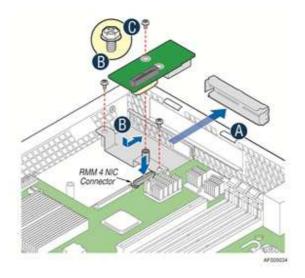
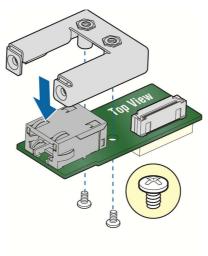


Figure 10: Adding the Intel[®] Dedicated Server Management NIC Module in the Intel[®] Server System R1000EP Family

3.3.2.1.4 Installing the Dedicated NIC on Intel[®] Server System R2000FP Family or R2000SC Family

- 1. Ensure that AC power has been removed from the system and that you have waited at least 30 seconds after removing power.
- 2. Attach the metal fastening bracket to the Intel[®] Dedicated Server Management NIC module.



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Figure 11: Attaching the Bracket to the Intel[®] Dedicated Server Management NIC Module

- 3. Remove the Filler Panel and Retention Device. See **A** in Figure 12.
- 4. Secure the metal fastening bracket with the NIC module to the PCI slot bracket with two screws as shown in **B** of Figure 12. This will align the RJ-45 with the opening in the PCI slot bracket.
- 5. Fasten the bracket with one screw as shown in **C** of Figure 12.

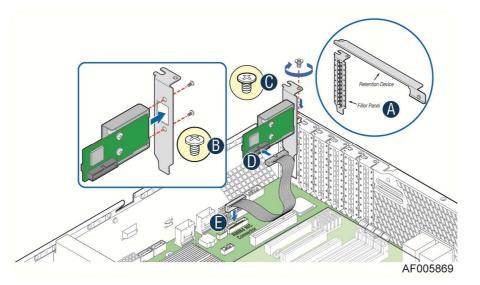


Figure 12: Installing the Intel[®] Dedicated Server Management NIC Module in the Intel[®] Server System R2000FP Family or R2000SC Family

- 6. Connect one end of the cable to the connector on the Intel[®] Dedicated Server Management NIC module as shown in **D** of Figure 12.
- 7. Connect the opposite end of the cable to the Intel[®] Dedicated Server Management NIC connector on the Server board as shown in **E** of Figure 12.

3.3.2.2 Installation of the Intel[®] Dedicated Server Management NIC on an Intel[®] Multi Node Server System

The Intel[®] Multi Node Server Systems have unique Intel[®] Dedicated Server Management NIC solutions. The NIC is located on the rIOM carrier modules. See your specific *Intel[®] Server System Technical Product Specification (TPS)* and *Server Guides* for details. These Intel[®] Multi Node Systems are listed in Table 4.

Intel [°] Server System			
H2000JF			
H2000LP			
H2000WP			

3.3.2.3 Installation of the Intel[®] Dedicated Server Management NIC on an Intel[®] Rack Optimized Server System

The Intel[®] Rack Optimized Server Systems have unique Intel[®] Dedicated Server Management NIC solutions. The NIC is located on the rIOM carrier modules. See your specific *Intel[®] Server System Technical Product Specification (TPS)* and *Server Guides* for details. These Intel[®] Rack Optimized Server Systems are listed in Table 5.

Intel® BMC And RMM4 User Guide

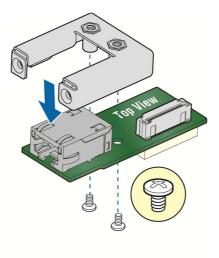
Table 5: Intel[®] Rack Optimized Server Systems



3.3.2.4 Installation of the Intel[®] Dedicated Server Management NIC on an Intel[®] Pedestal Server System

Most Intel[®] Pedestal Server Systems allow the Intel[®] Dedicated Server Management NIC module to be mounted to the chassis. Table 6 lists all Intel[®] Pedestal Server Systems that support a chassis mounted Intel[®] Dedicated Server Management NIC module. Use the following steps when installing the Intel[®] Dedicated Server Management NIC module on those server systems:

- 1. Ensure that AC power has been removed from the system and that you have waited at least 10 seconds after removing power.
- 2. Attach the metal fastening bracket to the Intel[®] Dedicated Server Management NIC module.



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Figure 13: Attaching the Bracket to the Intel[®] Dedicated Server Management NIC Module

Note: For the next two steps see your specific *Intel*^{*} *Server Systems Technical Product Specification* and *Intel*^{*} *Server Systems Service Guide* for more details. Table 6 lists the figure showing the installation for that specific system.

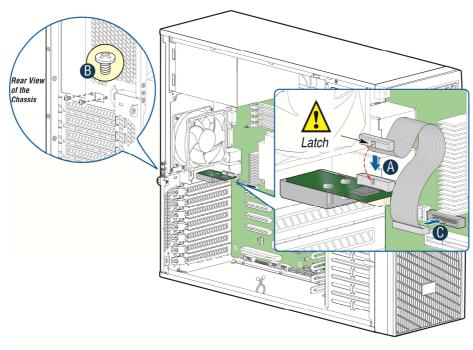
- 3. Push out and remove the metal cover on the chassis where the NIC RJ-45 receptacle will align.
- **Caution**: Carefully remove the metal cover with pliers; directly removing it with fingers has a potential risk.

Intel[®] BMC And RMM4 User Guide

- 4. Attach the cable to the cable connector on the Intel[®] Dedicated Server Management NIC module. Mount the NIC module to the back of the chassis and secure the metal fastening bracket with two screws. This will align the RJ-45 with the opening in the chassis. Attach the cable to the RMM4 NIC connector, as specified in Table 6, on the server board.
- **Caution:** Take care when attaching or removing this cable. Mishandling the cable could cause damage.

Table 6: Intel[®] Pedestal Server Systems – Chassis Mounted Intel[®] Dedicated Server Management NIC Connector Locations

Intel [°] Server	RMM4 NIC Connector	Figure
System	Reference Designator	•
P4000BTL Family	J5C1	Figure 14
P4000CR Family	J3A1	Figure 16
P4000CP Family	J1C7	Figure 15
P4000FP Family	J1D2	Figure 15
P4000GP Family	J1B2	Figure 15
P4000IP Family	J3A1	Figure 16
P4000RP Family	J5C1	Figure 14
P4000SC Family	J1C7	Figure 15
S2400GP/P4000M Chassis	J1B2	Figure 15
S2400SC/P4000M Chassis	J1C7	Figure 14
S2600CO/P4000M Chassis	J1B3	Figure 15
S2600CP/P4000M Chassis	J1C1	Figure 15



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Figure 14: Adding the Intel[®] Dedicated Server Management NIC Module in the Intel[®] Server System P4000BTL and P4000RP Families

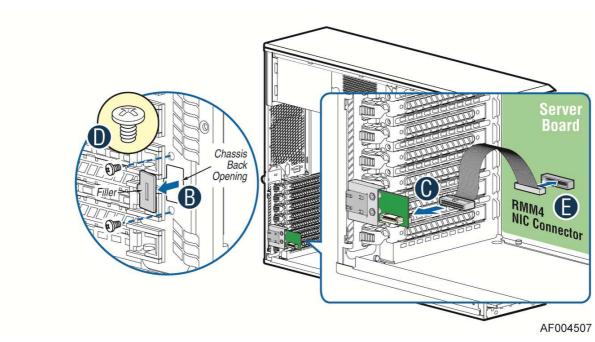


Figure 15: Adding the Intel[®] Dedicated Server Management NIC Module in the Intel[®] Server System P4000CP Family, P4000FP Family, P4000GP Family, P4000SC Family, or P4000M Chassis

Hardware Installations and Initial Configuration

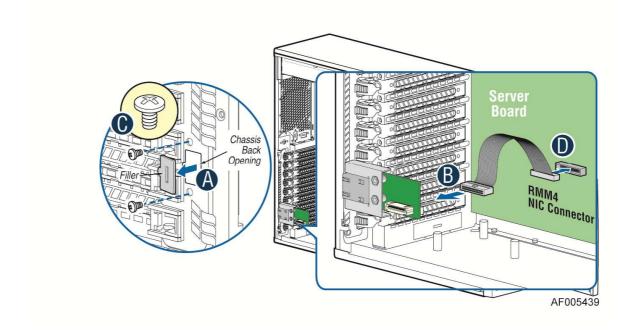


Figure 16: Adding the Intel[®] Dedicated Server Management NIC Module in the Intel[®] Server System P4000CR Family or P4000IP Family

Hardware Installations and Initial Configuration

5. Add the EMI bracket cover using the two thumb screws as shown in Figure 17 or Figure 18 per Table 7.

Intel [°] Server System	Figure
P4000BTL Family	Figure 17
P4000CR Family	Figure 18
P4000CP Family	Figure 17
P4000FP Family	Figure 17
P4000GP Family	Figure 17
P4000IP Family	Figure 18
P4000SC Family	Figure 17
P4000M Chassis	Figure 17
P4000S Chassis	Figure 17

Table 7: Intel® Pedestal Server Systems with Chassis Mounted Intel® Dedicated Server ManagementNIC – Installation of EMI Bracket Cover

G50757-001 Bracket Cover for P4000M and P4000S chassis

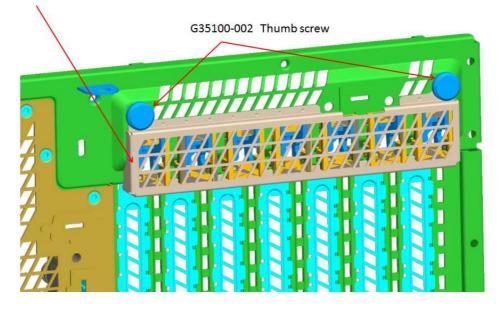


Figure 17. Installation of P4000S and P4000M Chassis EMI Bracket Cover

Hardware Installations and Initial Configuration

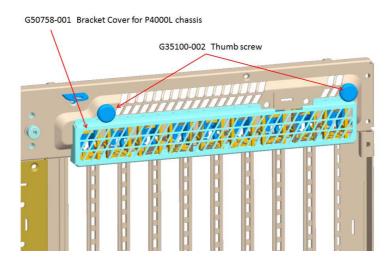


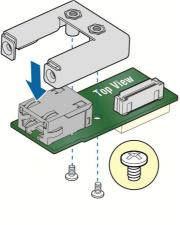
Figure 18. Installation of P4000L Chassis EMI Bracket Cover

6. Replace the chassis cover, attach the AC power, and connect a network cable to the Intel[®] Dedicated Server Management NIC module.

3.3.2.5 Installation of the Intel[®] Dedicated Server Management NIC on a Third-party Pedestal Chassis

Use the following steps when installing the Intel[®] Dedicated Server Management NIC module on a Third-party pedestal chassis:

- 1. Ensure that AC power has been removed from the system and that you have waited at least 10 seconds after removing power.
- 2. Attach the metal fastening bracket to the Intel[®] Dedicated Server Management NIC module.



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Figure 19: Attaching the Bracket to the Intel[®] Dedicated Server Management NIC Module

Hardware Installations and Initial Configuration

3. Secure the metal fastening bracket with the NIC module to the PCI slot bracket with two screws as shown in Figure 20. This will align the RJ-45 with the opening in the PCI slot bracket.

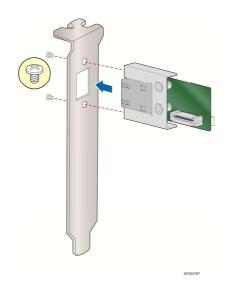


Figure 20: Mounting the Intel[®] Dedicated Server Management NIC Module to the PCI Slot Bracket

- 4. Attach the cable to the cable connector on the Intel[®] Dedicated Server Management NIC module as shown in Figure 21 (**A**).
- 5. Mount the PCI slot bracket with the NIC module to the third-party chassis and secure the PCI slot bracket with the screw as shown in Figure 15 (**B**).
- 6. Attach the cable to the RMM4 NIC connector (J5C1) on the server board as shown in Figure 21 (**C**).
- **Caution:** Take care when attaching or removing this cable. Mishandling the cable could cause damage.

Hardware Installations and Initial Configuration

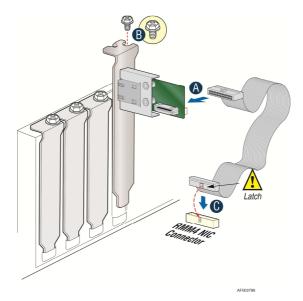


Figure 21: Adding the Intel[®] Dedicated Server Management NIC Module on a Third-party Chassis

Intel [°] Server Board	RMM4 NIC Connector Reference Designator
S1200BTL	J5C1
S2400BB	J3B2
S1400FP	J1D2
S1400SP	J3B2
S2400EP	J2B1
S2400GP	J1B2
S2400SC	J1C7
S2600CO	J1B3
S2600CP	J1C1
S2600GZ/S2600GL	J2A1
S2600IP	J3A1
S4600LH2/S4600LT2	J53
W2600CR	J3A1

Table 8: Intel[®] Server Boards RMM4 NIC Connectors

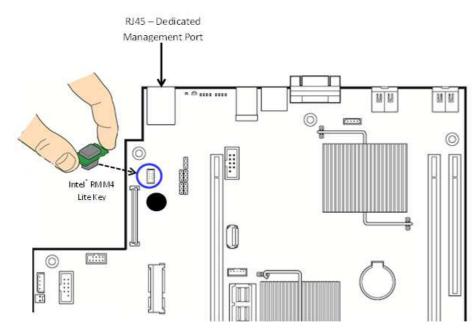
- 7. Replace the chassis cover.
- 8. Attach the AC power.
- 9. Connect a network cable to the Intel[®] Dedicated Server Management NIC module.

3.3.3 Intel[®] Dedicated Server Management NIC on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

For Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 ---S2600WT, S2600KP, S2600TP and S2600CW, the Intel[®] Dedicated Server Management NIC Hardware Installations and Initial Configuration

has been built on-board. User does not need to install Intel® Dedicated Server Management NIC module manually.

The Intel[®] Dedicated Server Management NIC has its own single separate Dedicated Management port NIC. Port location is varying by platforms, following sections provide the detail port location on each platforms.



3.3.3.1 Intel[®] Dedicated Server Management NIC on Intel[®] Server S2600WT

Figure 22: Intel[®] Dedicated Server Management NIC on Intel[®] Server S2600WT

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3.3.3.2 Intel[®] Dedicated Server Management NIC on Intel[®] Server S2600KP and S2600TP

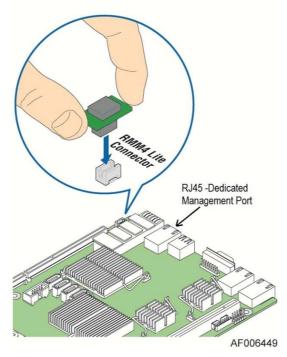


Figure 23: Intel[®] Dedicated Server Management NIC on Intel[®] Server S2600KP and S2600TP

3.3.3.3 Intel[®] Dedicated Server Management NIC on Intel[®] Server S2600CW

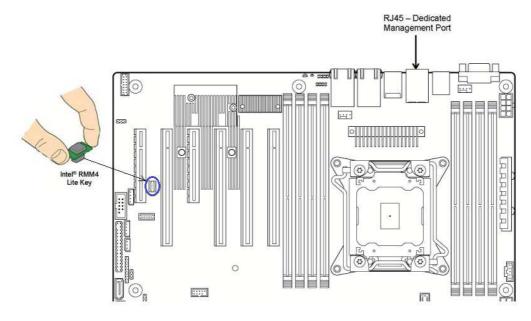


Figure 24: Intel[®] Dedicated Server Management NIC on Intel[®] Server S2600CW

4. Configuring the Integrated BMC Web Console and Intel[®] RMM4

This section discusses using the Server Utilities to enable your system to use the Integrated BMC Web Console or the Intel[®] RMM4 from a new unconfigured state to an operational one.

When first powered on, by default, the Server Management BMC LAN and the Intel[®] RMM4 have a static IP address of 0.0.0.0.

The Server Management BMC LAN and the Intel[®] RMM4 can be configured in multiple ways:

- Using BIOS setup
- Using the Intel[®] Deployment Assistant (IDA)
- Using Sysconfig (SYSCFG)
- Using IPMI commands

Note: You can download the IDA and SYSCFG software from the following links:

- IDA <u>http://www.intel.com/p/en_US/support/highlights/server/ida</u> This is also available on the resource disk that is shipped with the server board.
- SYSCFG <u>http://downloadcenter.intel.com/default.aspx</u> > relevant server platforms page

Two steps are necessary before Server Management BMC LAN or the Intel[®] RMM4 can be used:

- 1. One or both LAN channels must be configured as either DHCP or static addresses.
- 2. At least one user must be enabled to use the LAN channels.

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4.1 Configuring the Server Management NIC using BIOS Setup on S1200BTL

- 1. During POST, press <F2> to go to BIOS setup.
- 2. Navigate to the **Server Management** tab and then scroll down to **BMC LAN Configuration**. Press <Enter>.
- 3. If configuring your Server Management BMC LAN, scroll to **IP source** > **IP source** and then select either Static or Dynamic.
- 4. If configuring your Intel[®] RMM4, scroll down to Intel(R) RMM4 LAN configuration > IP source and then select either Static or Dynamic.
- 5. If Static is selected, configure the IP address, Subnet mask, and Gateway IP as required.
- 6. Scroll down to **User ID.** Select the user that you want to use.
- 7. Scroll down to User status. Select Enabled.
- 8. Scroll down to **User name**. Change the name as needed. Note that you cannot change anonymous or root.
- 9. Scroll down to **User password**. Change the password. Note that you need to enter the password twice.
- 10. When you finish configuring the LAN addresses and user information for the server, press <F10> and select save and exit. Your server will reboot with the new LAN settings.

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IP source IP source IP address Subnet mask Gateway IP	IP source [Static] 10.10.20.170 255.255.255.0	static option is selected, IP address, subnet mask and gateway are editable. When dynamic option selected, these
IP address Subnet mask	10.10.20.170 255.255.255.0	
Subnet mask	255.255.255.0	
Gateway IP		fields are read-only and IP
	0.0.0	address is acquired automatically (DHCP).
Intel (R) RMM4 LAN configuration		Ĩ
Intel (R) RMM4	Present	
IP source	[Static]	
IP address	10.10.10.170	
Subnet mask	255.255.255.0	
Gateway IP	0.0.0	→+: Select Screen
		↑↓: Select Item
		Enter: Select
User configuration		+/-: Change Opt.
User ID	[anonymous]	F1: General Help
Privilege	[Administrator]	F9: Setup Defaults
User status	[Enabled]	F10: Save ESC: Exit
User name	anonymous	
User password		

Figure 25: Server Management – BMC LAN Configuration on S1200BTL

4.2 Configuring the Server Management NIC using BIOS Setup on Intel[°] Server Boards and Systems Based on Intel[°] Xeon[°] Processor E5-4600/2600/2400/1600/1400 (v1&v2) and S1200V3RP Product Families

- 1. During POST, press <F2> to go to BIOS setup.
- 2. Navigate to the **Server Management** tab and then scroll down to **BMC LAN Configuration**. Press <Enter>.
- 3. If you will be using an IPv4 network:
 - a. If configuring your Server Management BMC LAN, scroll to Baseboard LAN configuration > IP source and then select either Static or Dynamic.
 - b. If configuring your Intel[®] RMM4, scroll down to Intel(R) RMM4 IPV4 LAN configuration
 > IP source and then select either Static or Dynamic.
 - c. If Static is selected, configure the **IP address**, **Subnet mask**, and **Gateway IP** as needed.

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- 4. If you will be using an IPv6 network:
 - a. If configuring your Server Management BMC LAN, scroll to **Baseboard LAN IPv6** configuration > IP source and then select Enabled.
 - 1. Scroll to **IPV6 source** and select either Static or Dynamic.
 - b. If configuring your Intel[®] RMM4, scroll down to Intel(R) RMM4 IPv6 LAN configuration
 > IP source and then select either Static or Dynamic.
 - c. If Static is selected, configure the IPV6 address, Gateway IPV6, and IPV6 Prefix Length as needed.
- 5. Scroll down to **User ID.** Select the user that you want to use.
- 6. Scroll down to **User status**. Select Enabled.
- 7. Scroll down to **User name**. Change the name as needed. Note that you cannot change anonymous or root.
- 8. Scroll down to **User password**. Change the password. Note that you need to enter the password twice.
- 9. When you finish configuring the LAN addresses and user information for the server, press <F10> and select save and exit. Your server will reboot with the new LAN settings.

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Aptio Setup Utility - Copyright (C) 2010 - 2011 American Megatrends, Inc. Server Management				
BMC LAN Configuration Baseboard LAN configuration IP source IP address Subnet mask Gateway IP Baseboard LAN IPV6 configuration IPV6	[Static] 172.24.243.43 255.255.255.0 172.24.243.251 [Disabled]	▲ Select BMC IP source. When static option is selected, IP address, subnet mask and gateway are editable. When dynamic option selected, these fields are read-only and IP address is acquired automatically (DHCP).		
Intel(R) RMM4 IPV4 LAN configurati Intel(R) RMM4 IP source IP address Subnet mask Gateway IP Intel(R) RMM4 IPV6 LAN configurati Intel(R) RMM4 IPV6 source IPV6 address Gateway IPV6 IPV6 Prefix Length	Present [Static] 10.10.10.180 255.255.255.0 0.0.0.0	<pre>**: Select Screen 14: Select Item Enter: Select */-: Change Opt. F1: General Help F9: Setup Defaults F10: Save ESC: Exit */***********************************</pre>		

Figure 26: Server Management – BMC LAN Configuration on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) and S1200V3RP Product Families

4.3 Configuring the Server Management NIC using BIOS Setup on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

- 1. During POST, press <F2> to go to BIOS setup main page.
- 2. Select **Setup Menu** to enter into BIOS setup Menu.
- 3. Navigate to the **Server Management** tab and then scroll down to **BMC LAN Configuration**. Press <Enter>.
- 4. If you will be using an IPv4 network:
 - a. If configuring your Server Management BMC LAN, scroll to Baseboard LAN configuration > IP source and then select either Static or Dynamic.
 - b. If configuring your Intel[®] RMM4, scroll down to Dedicated Management LAN Configuration> IP source and then select either Static or Dynamic.

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Configuring the Integrated BMC Web Console and Intel® RMM4

- c. If Static is selected, configure the **IP address**, **Subnet mask**, and **Gateway IP** as needed.
- 5. If you will be using an IPv6 network:
 - a. If configuring your Server Management BMC LAN, scroll to **Baseboard LAN IPv6** configuration > IP source and then select Enabled.
 - 1. Scroll to **IPV6 source** and select either Static or Dynamic.
 - b. If configuring your Intel[®] RMM4, scroll down to Dedicated Management LAN IPv6
 Configuration > IP source and then select either Static or Dynamic.
 - c. If Static is selected, configure the IPV6 address, Gateway IPV6, and IPV6 Prefix Length as needed.
- 6. Navigate to User Configuration and then press <Enter>.
- 7. Scroll down to **User ID.** Select the user that you want to use.
- 8. Scroll down to **User status**. Select Enabled.
- 9. Scroll down to **User name**. Change the name as needed. Note that you cannot change anonymous or root.
- 10. Scroll down to **User password**. Change the password. Note that you need to enter the password twice.
- 11. When you finish configuring the LAN addresses and user information for the server, press <F10> and select save and exit. Your server will reboot with the new LAN settings.

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User Configuration		View/Configure User
		information and settings of
Baseboard LAN configuration		the BMC.
IP Source	<dynamic></dynamic>	
IP Address	10.239.56.103	
Subnet Mask	255.255.255.0	
Gateway IP	10.239.56.241	
Baseboard LAN IPv6 configura	ation	
IPv6	<disabled></disabled>	
Dedicated Management LAN Con	nfiguration	
Remote Management Module	<present></present>	
IP Source	<dynamic></dynamic>	
IP Address	0.0.0	
Submet Mask	0.0.0	
Gateway IP	0.0.0	
Dedicated Management LAN IPu	n Configuration	
TPu6 Source	(Static)	
IPu6 Address	000:0000:0000:0000:0000	90.0000.000
1100 Mal1235		4 Scroll Down
	P10 0 Cl	
∔=Move Highlight	F10=Save Changes <enter>=Select Entry</enter>	F9=Reset to Defaults Esc=Exit

Figure 27: Server Management – BMC LAN Configuration on PCSD Platforms Based on Intel[®] S2600WT, S2600KP, S2600TP and S2600CW Product Families

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Configuring the Integrated BMC Web Console and Intel® RMM4

User Configuration				
User ID	anonymous	Press <enter> key to enter</enter>		
Privilege	<administrator></administrator>	password. Maximum length is		
User Status	<disabled></disabled>	15 characters. Any ASCII		
User Password		printable characters can be used: case-sensitive		
User ID	root	alphabetic, numeric, and		
Privilege	<administrator></administrator>	special characters.		
User Status	<enabled></enabled>	**Note: Password entered		
User Password		will override any previousl set password.		
User ID	User3			
Privilege	<administrator></administrator>			
User Status	<disabled></disabled>			
User Name	test1			
User Password				
User ID	User4			
Privilege	<administrator></administrator>			
User Status	<disabled></disabled>			
User Name	test2			
User Password				
		4 Scroll Down		
	F10=Save Changes	F9=Reset to Defaults		
′↓=Move Highlight	<enter>=Select Entry</enter>	Esc=Exit		
	—Copyright (c) 2010-2014, Intel C	Corporation Configuration changed		

Figure 28: Server Management – User Configuration on PCSD Platforms Based on Intel[®] S2600WT, S2600KP, S2600TP and S2600CW Product Families

4.4 Configuring the Server Management NIC using the Intel[®] Deployment Assistant (IDA)

The following section explains how to use the IDA to configure the on-board NIC1 and/or the RMM4 NIC for use with the Integrated BMC Web Console and the Intel[®] RMM4. The example shows how to configure LAN Channel 3 (Intel[®] RMM4 NIC).

A WARNING

If you need to configure both LAN Channel 1 and LAN channel 3 (Intel[®] Dedicated Server Management NIC), ensure that they are configured with different subnets.

Note: When the Intel[®] Dedicated Server Management NIC is not installed, because the RMM4 Lite has no dedicated NIC, the LAN Channel 3 is not displayed. The user can access the RMM4 Lite advance features from LAN channel 1 (on-board NIC1). See Figure 30. (Only apply to Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (V1&V2), S1200V3RP and S1200BTL Product Families)

1. Select the channel to be configured.

Intel [®] Deploymen	t Assistant	(intel)
	My <u>S</u> erver Advanced ▼ Help ▼ E⊻it	
Configure Server		2
Server Management Settings Finish	Communication Options Select server management capabilities to configure	1
	□ LAN Channel 1 (onboard NIC1) ✓ LAN Channel 3 (Intel(R) Remote Management Module 4)	

Figure 29: IDA Configure Server: Communication Options Window

Configuring the Integrated BMC Web Console and Intel® RMM4

Intel [®] Deploymer	nt Assistant	(intel)
Internet and internet and internet	My <u>S</u> erver Advanced ▼ Help ▼ E <u>x</u> it	
Configure Server Server Management Settings Finish	Select server management capabilities to configure Image: Contract in the server management capabilities to configure	2
	✓ Back Next	Cancel

Figure 30: IDA Configure Server: Communication Options Window No Intel[®] Dedicated Server Management NIC Installed

- 2. Select IP Address from a DHCP server or Static IP Address:
 - a. If **IP Address from a DHCP server** is selected, configure the **DHCP Host Name** as shown in Figure 31.
 - b. If **Static IP Address** is selected, configure the **IP address**, **Subnet Mask**, and **Gateway** as shown in Figure 32.
- 3. You can also select **Enable Serial Over LAN** and **Configure Alert** on these screens.

Intel [®] Deploymen	t Assistant	(intel)
condunidación dunidación d	My <u>S</u> erver Advanced → Help → E <u>x</u> it	
Configure Server Server Management Settings Finish	My Server Advanced + Help + Egit CARO Channel 3 (Intel® Remote Management Module) Configure the LAN Channel 3 access settings. F Enable LAN Channel 3 C IP Addresss from a DHCP server DHCP Host Name BMC Host Name Static IP Address F Enable Serial Over LAN C Onfigure Alert	
	4 Back Nex	t > Cancel

Figure 31: IDA Configure Server: Configure LAN Channel 3 (Intel[®] RMM4 DMN) IP Address from a DHCP Server Window

Configuring the Integrated BMC Web Console and Intel® RMM4

National Intel® Deploymen	t Assistant	(intel)
None and American and American	My <u>S</u> erver Advanced → Help → E <u>x</u> it	or musical and the second
Configure Server Server Management Settings Finish	<section-header><section-header><section-header><section-header><text><text><text></text></text></text></section-header></section-header></section-header></section-header>	Part / Cancel

Figure 32: IDA Configure Server: Configure LAN Channel 3 (Intel[®] RMM4 DMN) Static IP Address Window

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4. (Optional) Set up the users by selecting the **User Name** and then clicking **Edit**. The Edit User Data window is displayed.

	My <u>S</u> erve	er Advanced - Help -	Exit		A COLORADO
onfigure Server					2
erver Management Settings					
inish	Set Up Users				
	Set up user accounts for t	his server.			
	User Name	Status	Password	User Privileges	
	Anonymous User test1	Disabled Enabled	**** *****	ADMIN Admin	_
	test2	Disabled	*****	Admin	-
	test3	Disabled	xololok	ADMIN	
				Provide State Stat	Edit
				*	

Figure 33: IDA Configure Server: Set Up Users Window

Notes:

- You cannot login to the Integrated BMC Web Console or RMM4 Remote Console as an Anonymous User. You must modify the existing users.
- Enable and edit the username/passwords; set the privilege for the users as shown below.

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5. Edit the user information and click **OK** to apply configuration.

Intel [®] Deploymen	t Assistant	(intel)
	My <u>S</u> erver	Advanced + Help + Egit	
Configure Server Server Management Settings Finish	My Server	Edit User Data	
		Confirm password ******** Cancel OK	

Figure 34: IDA Configure Server: Edit User Information Window

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6. Click **Apply** to save your settings.

Intel [®] Deployn	nent Assistant	(intel)
Internet Constant on the Constant	My <u>S</u> erver Advanced ▼ Help ▼ E <u>x</u> it	o next de la none
Configure Server Server Management Settings Finish	Apply Configuration Select Apply to configure your server with the following settings. Server Management Settings	
	<mark>∛ Back Apply }</mark>	Cancel

Figure 35: IDA Configure Server: Apply Configuration Window

Configuring the Integrated BMC Web Console and Intel® RMM4

Intel [®] Deploym	ent Assistant	intel
acometer aco	MyServer Advanced + Help + Egit	
Configure Server Server Management Settings Finish	Applying Configuration	
	Committing LAN Configurations	

Figure 36: IDA Configure Server: Applying Configuration Progress Window

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- Keep a record of the DHCP Host Name and assigned IP address.
 These will be needed later when you are trying to connect to the Integrated BMC Web Console.
- 8. In order for the configuration settings to take effect, the server must be restarted. Click the **Restart** button.

Intel* Deployme	nt Assistant	(intel)
	My <u>S</u> erver Advanced + Help + E <u>x</u> it	
Configure Server Server Management Settings Finish	Restart Server Restart the server for the configuration settings to take effect.	
	IP address of Lan Channel 3 : 10.239.56.110 DHCP Host Name : RMM4UG Restart	

Figure 37: IDA Configure Server: Restart Server

4.5 Configuring the Server Management NIC using the Intel[®] System Configuration Utility (SysConfig)

This section describes the basic commands needed to configure the RMM4 using *SysConfig* commands. This utility is supported in EFI, Linux*, and Microsoft Windows*. The commands are the same for all versions. At a minimum, you need to configure the following settings:

- Enable one user
- Enable user's privilege level
- Set users and passwords
- IP source (static or DHCP)
- IP Address
- Subnet mask
- Default gateway (only required if you will be connecting from client outside of subnet)
- Enable text-based console redirection (Serial Over LAN SOL) if needed

Note: The examples in the following sections use the Intel[®] Dedicated Server Management NIC LAN channel 3. If you are not using the Intel[®] Dedicated Server Management NIC, substitute the appropriate channel number. For NIC1 it will be channel 1. For NIC2 it will be channel 2.

4.5.1 Configuring the User

Step by step instructions to enable a user for the RMM4:

1. Set the password for BMC user 2 (root) by typing (password is "p@ssw0rd" in this example):

syscfg /u 2 "root" "p@ssw0rd"

- 2. Enable the BMC user 2 on LAN channel 3 by typing: syscfg /ue 2 enable 3
- Enable the "admin" privilege and payload type to "SOL+KVM" for the BMC user 2 on LAN channel 3 by typing: syscfg /up 2 3 admin sol+kvm

4.5.2 Configuring the IP Address

- Set static IP address and subnet mask on LAN channel 3 by typing: syscfg /le 3 static <STATIC_IP> <SUBNET_MASK>
- If needed, set the default gateway on LAN channel 3 by typing: syscfg /lc 3 12 <DEFAULT_GATEWAY_IP>
- Set DHCP IP address source on LAN channel 3 by typing: syscfg /le 3 dhcp

4.5.3 Configuring the Serial Over LAN

 If needed, enable the Serial Over LAN (SOL) on LAN Channel 3 by typing: syscfg /sole 3 Enable Admin BAUD_RATE RETRY_COUNT RETRY_INTERVAL_IN_MILLISECONDS

5. Getting Started with Intel[®] RMM4 Operation

The Intel[®] RMM4 module features remote KVM access and control through LAN or Internet. The Intel[®] Integrated BMC Web Console is part of the standard BMC firmware / Server Management Software. The Integrated BMC Web Console feature is used to access the remote KVM.

This section describes both the interfaces and how to use them. The interfaces are accessed using TCP/IP protocol.

5.1 Before You Begin

For initial setup information, refer to Chapter 4. Before you log in, you must enable the intended user. The examples in this chapter use user "root', but other usernames and passwords could be used.

The Intel[®] RMM4 enabled advanced features may be accessed using a standard Java* enabled web browser. You may use the HTTP protocol or a secure encrypted connection from the HTTPS configurable in the embedded web server.

5.1.1 Client Browsers

In order to access the web console using a securely encrypted connection, you need a browser that supports the HTTPS protocol. Strong security is only assured by using a Cipher Strength (encryption) of 128-bit. Some older browsers may not have a strong 128-bit encryption algorithm.

If you are using Microsoft Windows Internet Explorer 7.0* or higher, you can verify the strong encryption by opening the **Help/About** menu to read about the key length that is currently activated. Figure 38 shows the dialog box presented by Microsoft Windows Internet Explorer 8.0*.



Figure 38: Internet Explorer 8* Displaying Encryption Key Length

In order to use the Remote Console (KVM) window of your managed server, Java* Runtime Environment (JRE) Version 6 Update 22 or higher must be installed.

Note: The Web Console is designed for a screen size of 1280 pixels by 1024 pixels or larger. In smaller screens, the browser displays slider controls to enable the user to see the full content of each web page.

5.2 Logging In

Enter the configured IP address of the Intel[®] RMM4 or your configured BMC on-board NIC into your web browser. In order to use a secure connection, type https://<IPaddress>/. This will take you to the Intel[®] Integrated BMC Web Console module login page as shown in Figure 39.

(intel) Integrated BMC Web	Console	
	Please log in to access the device. Username Password Login	

Figure 39: Intel[®] Integrated BMC Web Console Login Page

Log in by entering the username and password.

For example:

- Username = root
- Password = superuser

Click the **Login** button (shown in Figure 39) to view the home page.

After the initial login, system administrators may change passwords, create new users, and have full control over access to the RMM4 enabled advanced features.

Note: The username and password are case sensitive. Any username and password can be used (except anonymous).

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Getting Started with Intel® RMM4 Operation

5.3 Navigation

After successful login to the Integrated BMC Web Console module, the Integrated BMC Web Console home page appears as shown in Figure 40.

(intel) Inte	grated BMC Web Console	-	1	Y	A	
System Information Se	rver Health 🕴 Configuration 🕴 Remote Control 🦉	LOGOUT	٢	REFRESH	() HELP	ABOUT
	System Information This section contains general information about the system.					
4	Summary					
System Information	- System Information					
FRU Information	Host Power Status : Host is currently ON					
System Debug Log	RMM Status : Intel(R) RMM installed					
CPU Information	Device (BMC) Available : Yes					
	BMC FW Build Time : May 25 2012 16:02:14					
DIMM Information	BIOS ID : SE5C600.86B.01.02.0003.0228201213	335				
	BMC FW Rev : 01.10.3520					
	Boot FW Rev: 01.13					
	SDR Package Version : SDR Package 1.05					
	Mgmt Engine (ME) FW Rev : 02.01.05.069					
	Overall System Health : \varTheta 🥥 🥥					
	2					

Figure 40: Integrated BMC Web Console Home Page

The top horizontal toolbar within the Integrated BMC Web Console home page has four tabs. Click these tabs to get specific system information and perform tasks as shown in the following table.

Tab	Function		
	Click this tab to access general information about the server. The tab automatically opens the System Information page:		
	System Information		
System Information	FRU Information		
	 CPU Information (only on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families) 		
	DIMM Information		
	Click this tab for access to the sensors and event log. The tab automatically opens the Sensor Readings page:		
Server Health	Sensor Readings		
	Event Log		
	Power Statistics		

Table 9: Integrated BMC Web Console Home Page Tabs

Getting Started with Intel® RMM4 Operation

Tab	Function		
	 Click this tab to configure various settings for the server. The tab automatically opens the Network configuration page: Network/IPv4 Network IPv6 Network (only on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families) 		
	 Users Login LDAP 		
Configuration	 VLAN (only on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5- 4600/2600/2400/1600/1400 (v1&v2) Product Families) 		
	• SSL		
	Remote Session		
	Mouse Mode		
	Keyboard Macros		
	Alerts		
	Alert Email		
	 Node Manager (only on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families) 		
Remote Control	 Click this tab for access to the remote console and to control the power state of the server: Console Redirection Server Power Control 		
	 Virtual Front Panel (only on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families) 		

The four tabs on the horizontal menu allow you to navigate within the Integrated BMC Web Console. Each of these tabs contains a secondary menu on the left edge of the browser window. For detailed information on the specific functions of secondary menu item see Chapter 7.

The top horizontal toolbar also has the **Logout**, **Refresh**, and **Help** buttons. Click these buttons to perform tasks as shown in the following table.

Button	Function	
	Click this button to end the current Web Console session. Note that a remote console (KVM) window, if active, will be closed when you log out. After logging out, the Web Console will return to the Login screen.	
C REFRESH	Click this button to refresh the current web page, including any data shown on the page. Note: Using the web browsers refresh/reload button or pressing the function key <f5> to do a refresh/reload is not supported for reloading the Web Console pages. Using either of them can cause unexpected results.</f5>	
HELP	Click this button to view a brief description of the current page in a frame at the right side of the browser window. Close the Help frame by clicking the "X" in the upper right corner of the frame o by clicking the HELP button again.	
ABOUT	Click this button to view the Intel [®] copyright information and a statement about the use of open source code.	

Table 10: Horizontal Toolbar Buttons

Getting Started with Intel® RMM4 Operation

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5.4 Online Help

The Web Console user interface provides specific online help for each page. For additional

information on a certain topic or group of options, click the *top* button on the top horizontal toolbar to view the online help as shown in Figure 41. The right **Help** frame is visible only when the online **Help** is being accessed.

(intel) In	tegrated BMC Web Console	
System Information	Server Health Configuration Remote Control	OGOUT 🥝 REFRESH 🕜 HELP 🛞 ABOUT
	System Information This section contains general information about the system.	
System Information	Summary	System Information - Help
FRU Information	Host Power Status : Host is currently ON	about the server.
System Debug Log	RMM Status : Intel(R) RMM installed	Host Power Status Shows the power status of the host (on/off).
DIMM Information	Device (BMC) Available : Yes BMC FW Build Time : Dec 20 2012 15:47:45 BMC FW Rev : 01.16 Boot FW Rev : 00.03 SDR Package Version : SDR Package 1.16 Mgmt Engine (ME) FW Rev : 02.02.00.049	RMM Status RMM Status Indicates if the Remote Management Module (remote KVM card) is present. Device (BMC) Available Indicates whether the BMC is available for normal management tasks. BMC FW Build Time The date and time of the installed BMC firmware. BMC FW Rev Major and minor revision of the BMC firmware. Boot FW Rev Major and minor revision of the BOOT firmware. SDR Package Version Version of SDR package. ME FW Rev Major and minor firmware revision for the Management Engine (ME), Only available if the host is powered on.

Figure 41: Launching the Online Help

5.5 Logging Out

Click the Utton to log out the current user and revert to a new login screen as shown in Figure 42 and Figure 43.

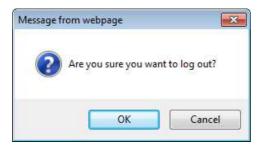


Figure 42: Logging Out of Integrated BMC Web Console – Step 1

(intel) Integrated BMC Web	Console	
	Logged out. Please log in again to access the device. Username Password Login	

Figure 43: Logging Out of Integrated BMC Web Console – Step 2

Note: Automatic Timeout – If there is no user activity detected by the Web Console for 30 minutes, the current session will be automatically terminated. If the user has an open KVM remote console window, the web session will not automatically timeout. The next action attempted by the user after the automatic timeout will inform the user of the need to login again for continued access to the Web Console.

6. Remote Console (KVM) Operation

The Remote Console is the redirected keyboard, video, and mouse of the remote host system where the Intel[®] RMM4 module is installed. To use the Remote Console window of your managed host system, the browser must include a Java* Runtime Environment plug-in. If the browser has no Java* support, such as with a small handheld device, the user can maintain the remote host system using the administration forms displayed by the browser.

Starting the Remote Console opens a new window to display the screen content of the host system. The Remote Console acts as if the administrator were sitting directly in front of the screen of the remote system. This means the keyboard and mouse can be used in the usual way.

6.1 Launching the Redirection Console

The Remote Console is the redirected keyboard, video, and mouse of the remote host system where the Intel[®] RMM4 module is installed. Launch the remote console KVM redirection window from this page.

Note: If you are using Microsoft Windows Internet Explorer*, the Smart Screen is enabled, and the system is on a network with no direct connectivity to the internet, it may take an extremely long time to open a KVM window.

(intel) Ir	itegrated BMC Web Console	
System Information	Server Health Configuration Remote Control	S LOGOUT C REFRESH O HELP ABOUT
	Remote Control This section allows you to perform various remote operations on the ser	rver, such as launching the remote console.
Console Redirection	Console Redirection Press the button to launch the redirection console and manage the serve	er remotely.
Server Power Control		
	Launch Console	

Figure 44: Remote Control Console Redirection Page

Click the **Launch Console** button to launch the redirection console and manage the server remotely.

When the **Launch Console** button is clicked, a pop-up window is displayed to download the Java* Network Launch Protocol, jviewer.jnlp file. This in turn downloads the standalone Java* application implementing the Remote Console.

Both Microsoft Internet Explorer* and Mozilla Firefox* browsers are supported.

Notes:

- Java* Runtime Environment (JRE, Version 6 Update 22 or higher) must be installed on the client before the launch of a JNLP file.
- The client browser must allow pop-up windows from the Integrated BMC Web Console IP address.

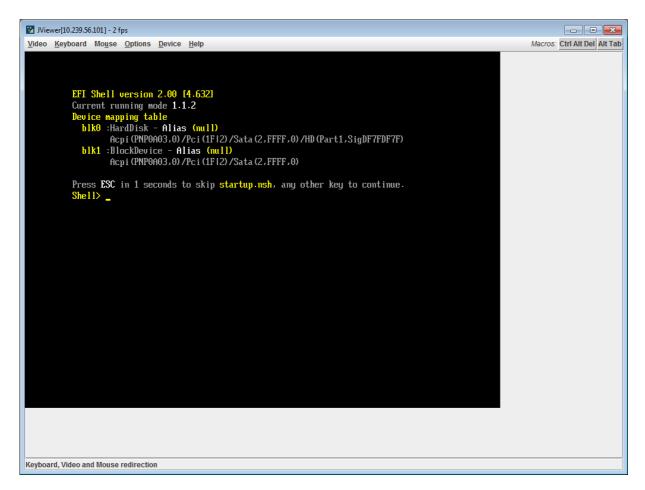


Figure 45: Remote Console

The Remote Console window is a Java* Applet that establishes TCP connections to the Integrated BMC Web Console. The protocol that is used to run these connections is a unique KVM protocol and not HTTP or HTTPS. This protocol uses ports #7578 for KVM, #5120 for CDROM media redirection, and #5123 for Floppy/USB media redirection. Your local network environment must permit these connections to be made, that is, your firewall and, in case you have a private internal network, your NAT (Network Address Translation) settings have to be configured accordingly.

Remote Console (KVM) Operation

6.2 Main Window

Starting the Remote Console opens an additional window as shown in Figure 46.

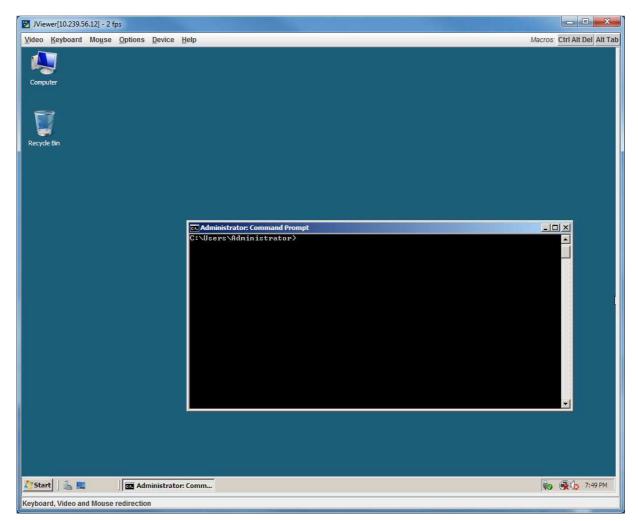


Figure 46: Remote Console Main Window

It displays the screen content of your remote server. The Remote Console behaves as if you were located at the remote server. The responsiveness may be slightly delayed depending on the bandwidth and latency of the network between Integrated BMC Web Console and Remote Console. Enabling KVM and/or media encryption on the **Configuration** > **Remote Session** web page will degrade performance as well.

The Remote Console window always shows the remote screen in its *optimal size*. This means it will adapt its size to the size of the remote screen initially and after the screen resolution of the remote screen has been changed. However, you can always resize the Remote Console window in your local window as usual.

6.3 Remote Console Control Bar

The upper part of the Remote Console window contains a control bar. Using its elements you can see the status of the Remote Console and influence the local Remote Console settings.

<u>V</u> ideo <u>K</u> eyboard Mo <u>u</u> se <u>O</u> ptions	Device Help	Macros: Ctrl Alt Del Alt Tab

Figure 47: Remote Console Control Bar

The following sub sections describe the tasks you can perform within each control.

6.3.1 Remote Console Video Menu

Click **Video** in the Remote Console control bar to open the Video menu as shown in Figure 48.

Video		_
Pause Redirection	Alt-P	
Resume Redirection	Alt-R	
Refresh Video	Alt-E	
Compression	►	None
Compression Full Screen	Alt-F	 None Type I
	Alt-F	

Figure 48: Remote Console Video Menu

Using this menu, you can do the following:

- **Pause Redirection.** Temporarily pauses the redirection of keyboard, video, and mouse. The Remote Console window stops being updated. Keyboard shortcut is Alt+P.
- **Resume Redirection.** Resumes the redirection after a pause. Shortcut is Alt+R.
- Refresh Video. Refreshes the Remote Console window. Shortcut is Alt+E.
- **Compression.** Enabling compression improves the responsiveness of the Remote Console. Disabling compression maximizes the quality of the redirected video.
- **Full Screen.** Toggles windowed/full screen mode of the Remote Console. Shortcut is Alt+F.
- Exit. Closes the Remote Console window.

6.3.2 Remote Console Keyboard Menu

Click **Keyboard** to open the Keyboard menu as shown in Figure 49.

Remote Console (KVM) Operation

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Figure 49: Remote Console Keyboard Menu

Using this menu, you can do the following:

- Language. Controls the keyboard language layout.
- **Soft Keyboard.** Displays and controls the Soft Keyboard window.
- Hold Ctrl/Alt/Windows* keys. Allows simulation by holding down these special keys on the remote keyboard. On the local keyboard these special keys are processed by the local OS and not passed on to the remote OS.
- **Ctrl+Alt+Del, Ctrl+Alt+Backspace, Ctrl+Alt+Left, Ctrl+Alt+Right.** Issues a fixed special key combination to the remote OS.

6.3.2.1 Keyboard Language Layout

The Remote Console supports the following keyboard language layouts: English, Dutch, French, German, Italian, Russian, and Spanish.

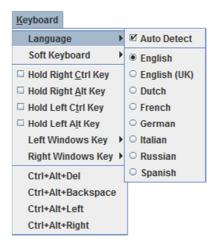


Figure 50: Remote Console Keyboard Language Sub Menu

In order for local key strokes to be interpreted correctly at the remote end, the client OS, the target OS, and the Remote Console must all be configured for the same language layout.

The Remote Console Java* application reversely translates local key strokes based on the selected language layout. If there is a mismatch, sometimes it works fine anyway, otherwise it mostly works except for a few mistranslated or unresponsive keys and in some mismatched configurations most of the keys are mishandled.

6.3.2.1.1 Windows* Language Layouts

The Remote Console supports the Windows* default keyboard variants for the supported languages.

In Windows*, the language is the current Language Bar setting (initially configured in **Control Panel > Regional and Language Options > Languages > Text Services and Input Languages**). If you are using one of the supported language keyboards, you don't have to manually select the language in the Remote Console because any Language Bar changes can be detected automatically and immediately. Manually setting the language would typically be useful if you are using a keyboard close but not identical to one of the supported ones.

6.3.2.1.2 Linux* Language Layouts

The Remote Console supports the Linux* default keyboard variants for supported languages, except Russian, where it is the "Russian Winkeys" variant. The Dutch layout is "Belgium" in Linux*.

In Linux* you typically select the language at the login screen; it can also be changed with the "locale" command but not while an application, such as the Remote Console, is running. There is also an OS keyboard layout that can be changed independently of the language. If the OS keyboard layout does not match the OS language setting, you may need to manually select the Remote Console layout.

On the other hand, with Linux^{*} Java^{*}, there is less reverse translation required by the application than in Microsoft Windows^{*} and is more likely that a mismatched configuration will work anyway.

6.3.2.2 Soft Keyboard

Click **Keyboard** to open the Keyboard menu as shown in Figure 51.

Remote Console (KVM) Operation

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Figure 51: Remote Console Keyboard Soft Keyboard Sub Menu

The Soft Keyboard window is displayed and closed either by selecting the **Keyboard** > **Soft Keyboard** > **Show** checkbox or by the Alt+S shortcut.

Soft Keyboard English
Esc F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 Prt Scr Pau
$\begin{array}{c} 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 0 & - = & + Back Ins \\ \hline \begin{matrix} M \\ \to & q \end{matrix} \qquad $
¹ shift ¹ shift ¹ shift ¹ ctrl

Figure 52: Remote KVM Soft Keyboard

Buttons clicked on the Soft Keyboard window get sent as key strokes to the remote target.

The Soft Keyboard is also a convenient way to see the exact layouts supported for the local keyboards because they are the same.

The Soft Keyboard language layout follows the local keyboard language setting when the default **Keyboard > Soft Keyboard > Follow Local** option is selected. This can be manually overridden by selecting a language.

Note: The Soft Keyboard keystrokes get retranslated by the remote target OS just like the local physical keystrokes and are subject to the same mismatched configuration issues.

6.3.3 Remote Console Mouse Menu

Click **Mouse** to open the Mouse menu as shown in Figure 53.

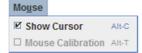


Figure 53: Remote Console Mouse Menu

Mo <u>u</u> se		
Show Cursor	Alt-C	
Mouse Calibration	Alt-T	
Mouse Mode		Þ

Figure 54: Remote Console Mouse Menu on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families

Mo <u>u</u> se	
Show Cursor Alt-C	
Mouse Calibration Alt-T	
Mouse Mode 🕨 🕨	☑ <u>A</u> bsolute Mode
	Relative Mode
	Other Mode

Figure 55: Remote Console Mouse Menu – Mode Selection on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families

The Mouse submenu offers two or three options:

- **Show Cursor**. This option toggles the cursor display in the Remote Console window. It does not affect the remote system cursor. Shortcut is Alt+C.
- Mouse Calibration. This option is used to detect the threshold and acceleration settings on the remote system and set the local client's mouse settings accordingly. It only applies when in Relative Mouse Mode, selected on the web page Configuration > Mouse Mode. Absolute Mouse Mode does not require calibration. Shortcut is Alt+T.
- **Mouse Mode.** This option is only available on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families. See Figure 54. This allows you to select the mouse mode being used. You can select Absolute, Relative, or Other as shown in Figure 55. For a description of these modes, see Section 7.3.9. Note that the functionality of this option is the same as changing then saving the mode on the Mouse Mode page. Any selections that you make will be saved for the next time when the remote console window is opened.

Relative Mode Mouse Calibration Procedure

- 1. If the remote mouse and local mouse cursors are not in sync, start mouse calibration by selecting the **Mouse Calibration** menu item or pressing Alt+T.
- 2. In this step, the mouse threshold settings on the remote server will be discovered. The local mouse cursor is displayed in red color and the remote cursor is part of the remote video screen. Both cursors will be in sync in the beginning.

Remote Console (KVM) Operation

- 3. Use number pad '+' or '-' keys to change the threshold settings until both cursors go out of sync.
- 4. Detect the first reading at which the cursors go out of sync.
- 5. After the reading is detected, use Alt-T to save the threshold value.
- 6. In this step, the mouse acceleration settings on the remote server will be discovered. The local mouse cursor is displayed in red color and the remote cursor is part of the remote video screen. Both cursors will be out of sync in the beginning.
- 7. Use number pad '+' or '-' keys to change the acceleration settings in steps of 1, or use Alt-'+' or Alt-'-' keys to change the acceleration settings in steps of 0.1 until both cursors are in sync.
- 8. Detect the first reading at which the cursors are in sync.
- 9. After the reading is detected, use Alt-T to save the acceleration value.

6.3.4 Remote Console Options Menu

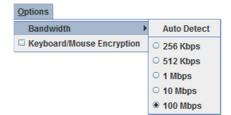


Figure 56: Remote Console Options Menu

Using this menu, you can do the following:

- **Bandwidth.** Changing the bandwidth setting affects low-level connection protocol parameters such as fragment size and timeouts. If you experience performance problems when operating over a slow connection such as a modem, the bandwidth setting may need to be adjusted. Use the **Auto Detect** option to find the correct setting for your connection.
- **Keyboard/Mouse Encryption.** Keyboard and mouse data is normally encrypted before being sent over the connection, but this can be disabled for a small performance increase.

6.3.5 Remote Console Device Menu



Figure 57: Remote Console Device Menu

This menu option allows starting/stopping remote media redirection. The first two options allow you to redirect either a local CDROM/DVD drive or else an ISO image on your local client file system as a virtual CDROM device on the remote system. The third option allows you to redirect either a local floppy drive or local USB key drive. The fourth option allows you to redirect a floppy or USB Key .img file on your local client file system as a virtual floppy device on the remote system.

Note: When trying to attach a local floppy or local USB key drive, if it is in use by the operating system or any other application it will fail to attach.

With Microsoft Windows 2008*, Microsoft Windows Vista*, Microsoft Windows 2008* R2, and Microsoft Windows 7* if a Windows Explorer* GUI is opened after the USB Key has been installed in the local system, you may not be able to attach the USB Key as remote media.

With Microsoft Windows 2003* and Microsoft Windows XP* if a Windows Explorer* GUI is opened after the USB Key has been installed in the local system and you then browse through the USB Key, you may not be able to attach the USB Key as remote media.

The virtual devices act just like any other CDROM/DVD or floppy on the remote system. They can be read, written (assuming they are not read-only), and booted. The pair of virtual devices only appears on the remote OS or BIOS setup menus when some media redirection is active. The virtual devices persist across remote system resets and power up/downs. They do not disappear from the remote system until the checkboxes are unchecked in the Remote Console window.

Note: The virtual devices are not limited to normal floppy/CDROM sizes and will be as large as the device or file being redirected. A USB Key drive is redirected as a virtual floppy device rather than a USB device to allow the loading of custom device drivers during remote OS installation which may require a floppy drive.

There is only one virtual CDROM and one virtual floppy device on the remote system allowed so only one local item of each type can be redirected at a time. Only one Remote Console window can be doing media redirection at any given time.

6.4 Remote Console Status Line

The status line at the bottom of the Remote Console screen shows the console state as shown in Figure 58. When you navigate the menu options, the status line provides a more detailed definition of each option.

Keyboard, Video and Mouse redirection

Figure 58: Status Line

This chapter gives you a detailed description of each Integrated BMC Web Console page. It is organized in sections corresponding to the four tabs in the horizontal menu. Within each section, each menu on the left side is illustrated and described in detail.

Notes:

- The first menu item for each tab is the default page that appears when the tab is selected.
- Similar information about each page is available in the Web Console by clicking the **HELP** button at the right side of the horizontal menu.
- When the Web Console is working on current user request, a busy indicator bar appears as shown in Figure 59.



Figure 59: Busy Indicator Bar

• Not all of the following sections are used by or directly related to the RMM4 enabled features but have been added here for completeness.

7.1 System Information Tab

The System Information tab contains general information about the system as explained in the following sub sections.

Click the **System Information** tab to select the various pages. By default, the Integrated BMC Web Console home page opens the System Information page.

7.1.1 System Information Page

The System Information page displays a summary of the general system information. This includes the power status and the version of firmware. Figure 60 shows the details for a S1200BTL system.

Intel® Integrated BMC Web Console Options

System Information	Server Health Configuration Remote Control	LOGOUT	REFRESH	() HELP	ABOUT
	System Information This section contains general information about the system.				
	Summary				
System Information	System Information	1			
FRU Information	Host Power Status : Host is currently ON				
System Debug Log	RMM Status : Intel(R) RMM installed				
System Debug Log					
DIMM Information	Device (BMC) Available : Yes				
and a second state of the	BMC FW Build Time : Dec 20 2012 15:47:45				
and a second state of the	BMC FW Build Time : Dec 20 2012 15:47:45 BMC FW Rev : 01.16				
	BMC FW Build Time : Dec 20 2012 15:47:45				

Figure 60: System Information Page on S1200BTL Platforms

The System Information page has the following information about the server.

Information	Details
Host Power Status	Shows the power status of the host (on/off).
RMM Status	Indicates whether the Intel [®] RMM4 card is present.
Device (BMC) Available	Indicates whether the BMC is available for normal management tasks.
BMC FW Build Time	The date and time of the installed BMC firmware.
BMC FW Rev	Major and minor revision of the BMC firmware.
Boot FW Rev	Major and minor revision of the BOOT firmware.
SDR Package Version	Version of the Sensor Data Record.
Mgmt Engine (ME) FW Rev	Major and minor revision of the Management Engine firmware.

Table 11: System Information Details

On an Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families you also get an **Overall System Health** indication. See Figure 61 for details. These are a general indication of the system heath:

- Left (Green) = System Ready LED
- Center (Amber) = System Fault LED
- Right (Blue) = Chassis ID LED

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(intel) Inte	grated BMC Web Console		Y	A	
System Information S	erver Health Configuration Remote Control		REFRESH	HELP	ABOUT
	System Information This section contains general information about the system.	8			
	Summary				
System Information	System Information				
FRU Information	Host Power Status : Host is currently ON				
System Debug Log	RMM Status : Intel(R) RMM installed				
CPU Information	Device (BMC) Available : Yes				
DIMM Information	BMC FW Build Time : Oct 25 2012 13:44:17				
	BIOS ID : SE5C600.86B.01.06.0001.090720	121056			
	BMC FW Rev : 01.17.4151				
	Boot FW Rev: 01.17				
	SDR Package Version : SDR Package 1.08				
	Mgmt Engine (ME) FW Rev : 02.01.05.107				
	Overall System Health : 😔 \varTheta				
	1.05	ġ.			

Figure 61: System Information Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families

On S1200V3RP Product Family the Baseboard Serial Number is added to display along with the **Overall System Health** indication. See Figure 62 for details. These are a general indication of the system heath:

- Left (Green) = System Ready LED
- Center (Amber) = System Fault LED
- Right (Blue) = Chassis ID LED

Intel® Integrated BMC Web Console Options

Inter Int	egrated BMC Web Console	1 ANT	Y	E	-4//-
System Information	Server Health Configuration Remote Control		REFRESH	HELP	ABOUT
	System Information This section contains general information about the system.				
	Summary				
System Information	System Information				
FRU Information	Host Power Status : Host is currently ON				
System Debug Log	RMM Status : RMM Dedicated Mgmt installed				
CPU Information	Device (BMC) Available : Yes				
DIMM Information	BMC FW Build Time : Jun 25 2013 19:45:48				
Current Users	BIOS ID : S1200RP.86B.01.02.0001.05062013	2251			
current osers	BMC FW Rev : 01.06.4994				
	Boot FW Rev : 01.16				
	SDR Package Version : SDR Package 1.04				
	Mgmt Engine (ME) FW Rev : 03.00.04.164 Baseboard Serial Number : BORP30300194				

Figure 62: System Information Page on S1200V3RP Product Family

On Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 ---S2600WT, S2600KP, S2600TP and S2600CW the Baseboard Serial Number is added to display along with the **Overall System Health** indication. See Figure 63 for details. These are a general indication of the system heath:

- Left (Green) = System Ready LED
- Center (Amber) = System Fault LED
- Right (Blue) = Chassis ID LED

Intel® BMC And RMM4 User Guide

(intel) Integ	grated BMC Web Console	
System Information 5	Server Health Configuration Server Diagnostics Remote Control System Information This section contains general information about the system.	S LOGOUT C REFRESH HELP ABOUT
S	ummary	
System Information	- System Information	
FRU Information	Host Power Status : Host is currently ON	
CPU Information	RMM Status : Intel® RMM installed	
	Device (BMC) Available : Yes	
DIMM Information	BMC FW Build Time: 2014-02-27 21:07:29	
Current Users	BIOS ID : SE5C610.86B.01.01.0519.050520140852	
	BMC FW Rev: 00.18.5885	
	Boot FW Rev: 00.01	
	SDR Package Version : SDR Package 0.08	
	Mgmt Engine (ME) FW Rev : 03.00.05.402	
	Baseboard Serial Number : BQWL35100305	
	Overall System Health : 😝 \varTheta	

Figure 63: System Information Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

7.1.2 Field Replaceable Unit (FRU) Information Page

The Field Replaceable Unit (FRU) Information page displays information from the FRU repository of the host system. See Figure 64 for details.

Intel[®] Integrated BMC Web Console Options

(intel) Inte	egrated BMC Web Console
System Information	Server Health Configuration Remote Control 🕙 LOGOUT 🙆 REFRESH 🗷 HELP 🙆 ABOUT
	System Information This section contains general information about the system.
	FRU Information
System Information	Chassis Information
FRU Information	Type: Main Server Chassis
System Debug Log	Part/Model Number:
CPU Information	Serial Number:
DIMM Information	Board Information
	Manufacturing Date: 2011-12-02 23:13
	Manufacturer : Intel Corporation
	Product Name : S2600CP
	Serial Number: QSCP14800034
	Part/Model Number : E99552-504
	FRU File ID : FRU Ver 1.00
	Product Information
	Manufacturer : Intel Corporation
	Name : S2600CP
	Part/Model Number :
	Version :
	Serial Number:
	Asset Tag :
	FRU File ID :

Figure 64: System Information FRU Information Page

7.1.3 System Debug Log Page

The System Debug Log page allows administrators to collect system debug information. This feature allows a user to export data into a file that is retrievable for the purpose of sending to an Intel engineer or Intel partners for enhanced debugging capability. The files are compressed, encrypted, and password protected. The files are not meant to be viewable by the end user but rather to provide additional debugging capability to your system manufacturer or an Intel support engineer.

7.1.3.1 System Debug Log Page on S1200BTL Platforms

The System Debug Log page can be used to collect system debug information on S1200BTL systems. See Figure 65 for details.

From the System Debug Log page you can run the System Debug Log dump.

Click the **Generate Log** button. It may take some time for the debug information to be collected.

Intel® BMC And RMM4 User Guide

After the debug log dump is finished, you can click the debug log filename to save the results as a .zip file on your client system. The file can then be sent to your system manufacturer or an Intel support engineer for analysis.

(intel) In	tegrated BMC Web Console	
System Information	Server Health Configuration Remote Control	🕚 LOGOUT 🎯 REFRESH 🕐 HELP 🙆 ABOUT
	System Information This section contains general information about the system	m.
System Information	The following operations generate an encrypted zip file that contains debug i resolution. The information collected includes Baseboard Management Contro supply data, System Event Log, sensor readings, SMBIOS tables, CPU machin	roller (BMC) status, BMC configuration settings, BMC Sensor readings, Power
FRU Information	forward this information to a third party, it contains no personal information a debug information by clicking on the link does not change any configuration fi	
System Debug Log	Log files should be sent to the system manufacturer for analysis.	nes of read application acts of any of the field arrest
DIMM Information	System Debug Log	
	Last Thu Feb 07 2013 12:50:39 GMT-0800 (Pacific	<u>Old Debug Log (44.65 KB)</u>
	Generate Log	

Figure 65: System Information System Debug Log Page on S1200BTL Platforms

A list of data that may be captured using this feature includes but is not limited to:

- **Platform sensor readings** This includes all "readable" sensors that can be accessed by the BMC FW and have associated SDRs populated in the SDR repository. This does not include any "event-only" sensors. (All BIOS sensors and some BMC and ME sensors are "event-only", meaning that they are not readable using an IPMI *Get Sensor Reading* command but rather are used just for event logging purposes.)
- **SEL** The current SEL contents are saved in both hexadecimal and text format.
- CPU/memory register data useful for diagnosing the cause of the following system errors: CATERR, ERR[2], SMI timeout, PERR, and SERR – The debug data is saved and timestamped for the last three occurrences of the error conditions.
 - o PCI error registers
 - o MSR registers
 - Integrated Memory Controller (iMC) and Integrated I/O (IIO) module registers
- BMC configuration data
- BMC FW debug log (that is, SysLog) Captures FW debug messages.

7.1.3.2 System Debug Log Page on Intel[°] Server Boards and Systems Based on Intel[°] Xeon[°] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP Product Family

The System Debug Log page can be used to collect system debug information on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP Product Family. See Figure 66 for details.

Click the **Generate Log** button. It may take some time for the debug information to be collected.

After the debug log dump is finished, you can click the debug log filename to save the results as a .zip file on your client system. The file can then be sent to your system manufacturer or an Intel support engineer for analysis.

(intel) In	tegrated BMC Web Cons	ole	
System Information	Server Health Configuration Remote	Control	S LOGOUT S REFRESH O HELP ABOUT
	System Inform This section contains ge	ation neral information about the system	im.
System Information FRU Information System Debug Log	resolution. The information collected includ supply data, System Event Log, sensor re forward this information to a third party, it	les Baseboard Management Contro adings, SMBIOS tables, CPU machin contains no personal information a oes not change any configuration fi	g information which is useful to the system manufacturer for problem troller (BMC) status, BMC configuration settings, BMC Sensor readings, Power nine check registers and PCI configuration space information. If you elect to and may be used for the purpose of investigating the problem. Downloading files or read application data on any of the hard drives.
CPU Information	System Debug Log	furacturer for analysis.	
DIMM Information	Last Log:	None	
	Generate Log		

Figure 66: System Information System Debug Log Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP Product Family

A list of data that may be captured using this feature includes but is not limited to:

- **Platform sensor readings** This includes all "readable" sensors that can be accessed by the BMC FW and have associated SDRs populated in the SDR repository. This does not include any "event-only" sensors. (All BIOS sensors and some BMC and ME sensors are "event-only", meaning that they are not readable using an IPMI *Get Sensor Reading* command but rather are used just for event logging purposes.)
- **SEL** The current SEL contents are saved in both hexadecimal and text format.

- CPU/memory register data useful for diagnosing the cause of the following system errors: CATERR, ERR[2], SMI timeout, PERR, and SERR – The debug data is saved and timestamped for the last three occurrences of the error conditions.
 - PCI error registers
 - o MSR registers
 - \circ $\:$ Integrated Memory Controller (iMC) and Integrated I/O (IIO) module registers
- BMC configuration data
- BMC FW debug log (SysLog) Captures FW debug messages.
- SMBIOS table data The entire SMBIOS table is captured from the last boot.
- **System memory map** The system memory map is provided by BIOS on the current boot. This includes the EFI memory map and the Legacy (E820) memory map depending on the current boot.
- Capture of power supply data and power supply asset information Power supply vendors are adding the capability to store debug data within the power supply itself. The platform debug feature provides a means to capture this data for each installed power supply. The data can be analyzed by Intel for failure analysis and possibly provided to the power supply vendor as well. The BMC gets this data from the power supplies by using PMBus* manufacturer-specific commands.
- **POST code sequence for the two most recent boots** This is a best-effort data collection by the BMC as the BMC real-time response cannot guarantee that all POST codes are captured.
- **Support for multiple debug files** The platform debug feature provides the ability to save data to two separate files that are encrypted with different passwords.
 - System Debug Log file can be viewed by Intel engineers and Intel partners.
 - System and BMC Debug Log file is strictly for viewing by Intel engineers and may contain additional BMC log messages and other debug data that Intel firmware developers deem useful in addition to the data specified above.

7.1.3.3 System Debug Log Page on Intel[®] Server Boards and Systems Based on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 ---S2600WT, S2600KP, S2600TP and S2600CW

The System Debug Log page can be used to collect system debug information on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW. See Figure 67 for details.

Click the **Generate Log** button. It may take some time for the debug information to be collected.

After the debug log dump is finished, you can click the debug log filename to save the results as a .zip file on your client system. The file can then be sent to your system manufacturer or an Intel support engineer for analysis.

Intel[®] Integrated BMC Web Console Options

(intel) In	tegrated BMC Web Console
System Information	Server Health Configuration Server Diagnostics Remote Control Store Refresh Refresh About
	Server Diagnostics Use these pages to view various internal diagnostics.
System Diagnostics	The following operations generate an encrypted zip file that contains debug information which is useful to the system manufacturer for problem resolution. The information collected includes Baseboard Management Controller (BMC) status, BMC configuration settings, BMC Sensor readings, Power supply data, System Event Log, sensor readings, SMBIOS tables, CPU machine check registers and PCI configuration space information. If you elect to forward this information to a third party, it contains no personal information and may be used for the purpose of investigating the problem. Downloading debug information by clicking on the link does not change any
POST Codes	configuration files or read application data on any of the hard drives.
System Defaults	Log files should be sent to the system manufacturer for analysis.
	⊂ System Debug Log
	Last Log: None
	Generate Log

Figure 67: System Information System Debug Log Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

7.1.4 DIMM Information Page

The DIMM Information page displays information on DIMM modules installed on the host system. See Figure 68 for details.

Intel® Integrated BMC Web Console Options

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(intel) In	tegrated	BMC	Web Co	onsole				
System Information	Server Health S Th	ystem	Inform	emote Cont ation neral inform	trol ation about th		SOUT SOUT REFRESH	HELP ABOUT E
	DIMM Info	ormation	1					
System Information	The list below	shows the	e current list	t of system	DIMM.			
FRU Information							N	umber of system DIMM: 1
System Debug Log								under of system Dimm. 1
DIMM Information	Slot Number	△ Size △	Type 🔺	Speed △ 1333	Manufactory Micron	△ Asset Tag △ 9876543210	Serial Number	Part Number A 9JSF12872AZ-1G4F1

Figure 68: System Information DIMM Information Page

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7.1.5 CPU Information Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP Product Family

The CPU Information page displays information on the processors that are installed on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP Product Family. See Figure 69 for details.

(intel) Inte	grated BMC Web Console		Y	A	
System Information Se	erver Health Configuration Remote Control		REFRESH	2 HELP	ABOUT
	System Information This section contains general information about the	e system.			
1	his page lists CPU data as reported by BIOS on the last succe	ssful system boot.			*
System Information	- CPU Information				
FRU Information	Socket Designation : CPU 1				
System Debug Log	Manufacturer : Intel				
	Version : Genuine Intel(R) CPU @ :	2.40GHz			
CPU Information	Processor Type : Central Processor				
DIMM Information	Family : Intel Xeon				
	Speed: 2.4 GHz				E
	Number of Cores: 8				
	Voltage: 0.8 V				
	Socket Type : Other				
	Status : Populated, Enabled				
	Serial Number :				
	Asset Tag :				
	Part Number :				
	CPU Information				
	Socket Designation : CPU 2				
	Manufacturer : Intel				
	Version : Genuine Intel(R) CPU @ .	2.40GHz			
	Processor Type : Central Processor				
	Family : Intel Xeon				
	Speed : 2.4 GHz				
	Number of Cores: 8				
	Voltage: 0.8 V				
	Socket Type : Other				
	Status : Populated, Enabled Serial Number :				
	Serial Number : Asset Tag :				
	Part Number :				
	- art Humber I				

Figure 69: System Information CPU Information Page

7.1.6 Current Users Page on S1200V3RP Product Family

The Current Users page shows users currently logged in to the BMC via the embedded web server, IPMI 1.5, or IPMI 2.0 session.

Web sessions over a secure socket layer (SSL) are denoted by "Secure" in parentheses.

The number of active KVM sessions opened by a "Web" user is noted in parentheses after the KVM notation.

(intel) Ir	ntegrated BM	C Web C	onsole		
System Information	Server Health Con	figuration R	temote Control	S LOGOUT S REF	FRESH O HELP ABOUT
		m Inform	nation Ineral information about the	e system.	
	Current Users				
System Information	This page lists users	currently logg	ed-in to the BMC.		
FRU Information					
System Debug Log	User Name 🔺 root	Type 🛆 Web	Channel A	IP Address 10.235.0.105	
CPU Information	test1	Web	Intel(R) RMM Intel(R) RMM	10.235.0.105	
DIMM Information					
Current Users					
-					

Figure 70: Current Users Page on S1200V3RP Product Family

7.2 Server Health Tab

The **Server Health** tab shows you data related to the server's health, such as sensor readings, the event log, and power statistics as explained in the following sub sections.

Click the **Server Health** tab to select the various pages. By default, this tab opens the Sensor Readings page.

7.2.1 Sensor Readings Page

The Sensor Readings page displays system sensor information including status, health, and reading as shown in Figure 71 and Figure 72.

By default, the sensor readings are updated every 60 seconds but this can be changed by entering a value in the **Set auto-refresh in seconds** selection box and then clicking the **Set** button.

(intel) In	ntegrated BMC Web	Console			- TET
System Information	Server Health Configuration	Remote Control		JOGOUT C REFRESH	THELP ABOUT
K	Server Health This section shows you data re event log.	elated to the server's h	ealth, such	n as sensor readings and the	
	Sensor Readings				
Sensor Readings				s and status. You can toggle viewing th	he thresholds for the
Event Log	sensors by pressing the Show	Inresholds button belo	w.		
Power Statistics	Refreshing readings every 60 s Select a sensor type category:	econds		Senso	or Readings: 44 sensors
	All Sensors -	All deasserted	- Old	0x0000	11
	IPMI Watchdog	reports there has been	ОК		i
	Physical Scrty	a chassis intrusion	OK	0x0001	
	FP NMI Diag Int	All deasserted	OK	0x0000	E
	SMI TimeOut	All deasserted	OK	0x0000	
	System Event Log	All deasserted	OK	0x0000	
	System Event	All deasserted	OK	0x0000	
	Button	All deasserted	OK	0x0000	
	PCH Therm Trip	All deasserted	OK	0x0000	
	BMC Board TEMP	Normal	OK	28 degrees C	
	Front Panel Temp	Normal	OK	21 degrees C	
	Board Inlet TEMP	Normal	OK	22 degrees C	
	Sys Fan 2	Normal	OK	2940 RPM	
	Processor Fan	Normal	OK	1666 RPM	
	Refresh	Show Thresholds		1000 000	
	Set auto-refresh in seconds ((

Figure 71: Server Health Sensor Readings Page (Thresholds not Displayed)

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	Server Health Configu	ration Remote Control			3	LOGOUT 🕝 I	REFRESH () HEI	LP ABOUT
	Server Heal	th you data related to the server's	health, su	ich as sensor readings and t	the event log.			
	Sensor Readings							
ensor Readings		sensor information, including rea	adings and	d status. You can toggle viev	ving the thresholds for th	e sensors by pres	ssing the Show Th	resholds butto
ent Log	– below.							
wer Statistics	 Refreshing readings every Select a sensor type cated 						Sensor Read	lings: 44 sens
	-	▼ ▼						
	IPMI Watchdog	All deasserted	OK	0x0000	N/A	N/A	N/A	N/A
	Physical Scrty	reports there has been a chassis intrusion	өк	0x0001	N/A	N/A	N/A	N/A
		All deasserted	OK	0x0000	N/A	N/A	N/A	N/A
	FP NMI Diag Int							1.0000
	FP NMI Diag Int SMI TimeOut	All deasserted	OK	0x0000	N/A	N/A	N/A	N/A
			OK OK	0x0000 0x0000	N/A N/A	N/A N/A	N/A N/A	N/A N/A
	SMI TimeOut	All deasserted						
	SMI TimeOut System Event Log	All deasserted All deasserted	OK	0x0000	N/A	N/A	N/A	N/A
	SMI TimeOut System Event Log System Event	All deasserted All deasserted All deasserted	OK OK	0x0000 0x0000	N/A N/A	N/A N/A	N/A N/A	N/A N/A
	SMI TimeOut System Event Log System Event Button	All deasserted All deasserted All deasserted All deasserted	OK OK OK	0x0000 0x0000 0x0000	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A N/A
	SMI TimeOut System Event Log System Event Button PCH Therm Trip	All deasserted All deasserted All deasserted All deasserted All deasserted	0К 0К 0К 0К	0x0000 0x0000 0x0000 0x0000	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	N/A N/A N/A N/A 114 degrees (
	SMI TimeOut System Event Log System Event Button PCH Therm Trip BMC Board TEMP	All deasserted All deasserted All deasserted All deasserted All deasserted Normal	ок ок ок ок	0x0000 0x0000 0x0000 0x0000 28 degrees C	N/A N/A N/A N/A 5 degrees C	N/A N/A N/A N/A 10 degrees C	N/A N/A N/A N/A 105 degrees C	N/A N/A N/A N/A 114 degrees C 48 degrees C
	SMI TimeOut System Event Log System Event Button PCH Therm Trip BMC Board TEMP Front Panel Temp	All deasserted All deasserted All deasserted All deasserted All deasserted Normal Normal	ОК ОК ОК ОК ОК	0x0000 0x0000 0x0000 0x0000 0x0000 28 degrees C 21 degrees C	NIA NIA NIA NIA 5 degrees C 0 degrees C	N/A N/A N/A N/A 10 degrees C 5 degrees C	N/A N/A N/A N/A 105 degrees C 44 degrees C	N/A N/A N/A N/A 114 degrees C 48 degrees C
	SMI TimeOut System Event Button PCH Therm Trip BMC Board TEMP Front Panel Temp Board Inlet TEMP	All deasserted All deasserted All deasserted All deasserted All deasserted Normal Normal Normal	ОК ОК ОК ОК ОК ОК	0x0000 0x0000 0x0000 28 degrees C 21 degrees C 22 degrees C	N/A N/A N/A 5 degrees C 0 degrees C 5 degrees C	N/A N/A N/A 10 degrees C 5 degrees C 10 degrees C	N/A N/A N/A N/A 105 degrees C 44 degrees C 105 degrees C	N/A N/A N/A 114 degrees (48 degrees (114 degrees (
	SMI TimeOut System Event Log System Event Button PCH Therm Trip BIAC Board TEMP Front Panel Temp Board Inleit TEMP Sys Fan 2	All deasserted All deasserted All deasserted All deasserted All deasserted Normal Normal Normal	ОК ОК ОК ОК ОК ОК ОК	0x0000 0x0000 0x0000 28 degrees C 21 degrees C 22 degrees C 29 40 RPM	N/A N/A N/A 5 degrees C 0 degrees C 5 degrees C 2 94 RPM	N/A N/A N/A 10 degrees C 5 degrees C 10 degrees C 392 RPM	N/A N/A N/A 105 degrees C 44 degrees C 105 degrees C 0 RPM	N/A N/A N/A 114 degrees C 48 degrees C 114 degrees C 0 RPM

Figure 72: Server Health Sensor Readings Page (Thresholds Displayed)

The following table lists the options available in this page.

Option	Task
Sensor Selection pull-down box	Select the type of sensor readings to display in the list. The default is to display all sensors.
Sensor Readings list	Selected sensors shown with their name, status, health, and readings.
Refresh button	Click to refresh the selected sensor readings.
Show Thresholds button	Click to expand the list, showing low and high threshold assignments. Shows the critical (CT) and non-critical (NC) thresholds for the selected sensors. Use scroll bar at the bottom to move the display left and right.
Hide Thresholds button	Click to return to the original display, hiding the threshold values.
Set auto-refresh in seconds (0 to disable) selection	Enter the time (in seconds) to wait between updates of the Sensor Readings and then click the Set button.

Table 12: Server Health Sensor Readings Options

7.2.2 Event Log Page

The Event Log page displays the systems server management Event Log. Figure 73 shows the details for an S1200BTL system.

(intel) II	ntegrate	ed BMC Web Cons	sole		
stem Information	Server He	alth Configuration Remo	ote Control		ILOGOUT CREFRESH O HELP ABOUT
		erver Health is section shows you data rela	ated to the server's health, such as	sensor readings and the event log.	
	Event L	og			
isor Readings	Below is a	table of the events from the s	ystem's event log. You can choose	a category from the pull-down box to fi	lter the events, and also sort them by clicking on a column heade
nt Log	- Select an e All Events	event log category:			Event Log: 815 event entr
ver staustics	-				
	Event ID A	Time Stamp A 02/13/2013 09:34:53	Sensor Name A P1 Status	Sensor Type Processor	Pescription reports the processor's presence has been detected - Asserted
	815	02/13/2013 09:34:53	Physical Scrty	Physical Security (Chassis Intrusion)	reports there has been a chassis intrusion - Asserted
	813	02/13/2013 09:34:52	Physical Scrty	Physical Security (Chassis Intrusion)	reports there has been a chassis intrusion - Deasserted
	813	02/13/2013 09:34:52 02/13/2013 09:31:16	Physical Scrty Unknown		reports there has been a chassis intrusion - Deasserted reports OEM System Boot Event - Asserted
	5,55			Intrusion)	
	812	02/13/2013 09:31:16	Unknown	Intrusion) System Event	reports OEM System Boot Event - Asserted
	812 811	02/13/2013 09:31:16 02/13/2013 09:31:12	Unknown Unknown	Intrusion) System Event System Event	reports OEM System Boot Event - Asserted reports OEM System Boot Event - Asserted reports Timestamp Clock Sync. Event is one of two expected events
	812 811 810	02/13/2013 09:31:16 02/13/2013 09:31:12 02/13/2013 09:30:56	Unknown Unknown BIOS Evt Sensor	Intrusion) System Event System Event System Event System Event Physical Security (Chassis Intrusion)	reports OEM System Boot Event - Asserted reports OEM System Boot Event - Asserted reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted reports Timestamp Clock Sync. Event is one of two expected events
	812 811 810 809	02/13/2013 09:31:16 02/13/2013 09:31:12 02/13/2013 09:30:56 02/13/2013 09:31:49	Unknown Unknown BIOS Evt Sensor BIOS Evt Sensor	Infrusion) System Event System Event System Event System Event Physical Security (Chassis	reports OEM System Boot Event - Asserted reports OEM System Boot Event - Asserted reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted
	812 811 810 809 808	02/13/2013 09:31:16 02/13/2013 09:31:12 02/13/2013 09:30:56 02/13/2013 09:31:49 02/13/2013 09:31:44	Unknown Unknown BIOS Evi Sensor BIOS Evi Sensor Physical Sorty	Intrusion) System Event System Event System Event System Event Physical Security (Chassis Intrusion) Physical Security (Chassis	reports OEM System Boot Event - Asserted reports OEM System Boot Event - Asserted reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted reports there has been a chassis intrusion - Asserted reports there has been a chassis intrusion - Deasserted reports OEM System Boot Event - Asserted
	812 811 810 809 808 807	02/13/2013 09:31:16 02/13/2013 09:31:12 02/13/2013 09:30:56 02/13/2013 09:31:49 02/13/2013 09:31:44 02/13/2013 09:31:43	Unknown Unknown BIOS EX Sensor BIOS EX Sensor Physical Sorty Physical Sorty	Intrusion) System Event System Event System Event Physical Security (Chassis Intrusion) Physical Security (Chassis Intrusion)	reports OEM System Boot Event - Asserted reports OEM System Boot Event - Asserted reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on . Asserted reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted reports there has been a chassis intrusion - Asserted reports there has been a chassis intrusion - Deasserted reports there has been a chassis intrusion - Deasserted reports there has been a chassis intrusion - Deasserted reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted
	812 811 810 809 808 807 806	02/13/2013 09:31:16 02/13/2013 09:31:12 02/13/2013 09:30:56 02/13/2013 09:31:49 02/13/2013 09:31:44 02/13/2013 09:31:43 02/13/2013 09:31:43 02/07/2013 11:25:35	Unknown Unknown BIOS Evi Sensor BIOS Evi Sensor Physical Scrity Physical Scrity Unknown	Intrusion) System Event System Event System Event System Event Physical Security (Chassis Intrusion) Physical Security (Chassis Intrusion) System Event System Event System Event	reports OEM System Boot Event - Asserted reports OEM System Boot Event - Asserted reports Immestamp Clock Sync Event is one of two expected events from BIOS on every power on Asserted reports Timestamp Clock Sync Event is one of two expected events from BIOS on every power on Asserted reports there has been a chassis infrusion - Asserted reports there has been a chassis infrusion - Deasserted reports there has been a chassis infrusion - Deasserted reports Timestamp Clock Sync. Event is one of two expected events
	812 811 810 809 808 807 806 805	02/13/2013 09:31:16 02/13/2013 09:31:12 02/13/2013 09:30:56 02/13/2013 09:31:49 02/13/2013 09:31:44 02/13/2013 09:31:43 02/07/2013 11:25:35 02/07/2013 11:25:17	Unknown Unknown BIOS EX Sensor BIOS EX Sensor Physical Sorty Physical Sorty Unknown BIOS EX Sensor	Intrusion) System Event System Event System Event System Event Physical Security (Chassis Intrusion) Physical Security (Chassis Intrusion) System Event System Event	reports OEM System Boot Event - Asserted reports OEM System Boot Event - Asserted reports Immestamp Clock Sync Event is one of two expected events from BIOS on every power on Asserted reports Timestamp Clock Sync Event is one of two expected events from BIOS on every power on Asserted reports there has been a chassis intrusion - Asserted reports there has been a chassis intrusion - Deasserted reports there has been a chassis intrusion - Deasserted reports there has been a chassis intrusion - Deasserted reports OEM System Boot Event - Asserted reports on every power on Asserted reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted

Figure 73: Server Health Event Log Page on S1200BTL Platforms

The following table lists the options available in this page.

Table 13: Server Health Event Log Options on S1200BTL Platforms

Option	Task
Event Log Category pull-down box	Select the type of events to display in the list.
Event Log List	Selected sensors are shown with their name, status, and readings. This includes a list of the events with their ID, time stamp, sensor name, sensor type, and description.
Clear Event Log button	Click to clear the event logs.

On an Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families you also get a **Save Event Log** button. See Figure 74 for details.

Intel® Integrated BMC Web Console Options

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(intel)	ntegrate	d BMC Web Con	sole		
System Information	Server Hea	alth Configuration Ren	note Control		LOGOUT C REFRESH O HELP ABOUT
		erver Health is section shows you data re	lated to the server's health, such as s	sensor readings and the event log	r.
	Event L	5			
ensor Readings	Below is a	table of the events from the	system's event log. You can choose a	category from the pull-down box	to filter the events, and also sort them by clicking on a column head
vent Log	Select an e	event log category:			
ower Statistics	All Events	-			Event Log: 511 event ent
			0.00 Lit conton	Cyclenii Lienii	from BIOS on every power on Asserted
	466	02/05/2013 14:21:56	BIOS Evt Sensor	System Event	reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted
	465	02/05/2013 14:21:45	HDD 6 Status	Drive Slot (Bay)	Drive Presence - Asserted
	464	02/05/2013 14:21:38	BIOS Evt Sensor	System Event	reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted
	463	02/05/2013 14:21:38	BIOS Evt Sensor	System Event	reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted
	462	02/05/2013 14:21:32	Button	Button / Switch	reports the power button has been pressed - Asserted
	461	02/05/2013 14:21:32	Pwr Unit Status	Power Unit	reports the power unit is powered off or being powered down - Deasserted
	460	02/05/2013 14:21:30	Pwr Unit Status	Power Unit	reports the power unit is powered off or being powered down - Assert
	459	02/05/2013 14:20:16	PS1 Status	Power Supply	reports the power supply's input (AC/DC) has been lost - Asserted
		02/05/2013 14:19:39	Pwr Unit Status	Power Unit	reports the power unit is powered off or being powered down - Assert
	458		BIOS Evt Sensor	System Event	reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted
	458 457	02/05/2013 14:19:39	DIOS EN SENSO		
		02/05/2013 14:19:39 02/05/2013 14:19:39	BIOS Ext Sensor	System Event	reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted
	457			System Event System Event	reports Timestamp Clock Sync. Event is one of two expected events
	457 456	02/05/2013 14:19:39	BIOS Evt Sensor	and a provide the state	reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted reports OEII System Bool Event - Asserted reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted
	457 456 455	02/05/2013 14:19:39 02/05/2013 14:17:40	BIOS Evt Sensor BIOS Evt Sensor	System Event	reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted reports OEM System Boot Event - Asserted reports Timestamp Clock Sync. Event is one of two expected events

Figure 74: Server Health Event Log Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families

On S1200V3RPand Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW Product Families there is an indicator towards the top of the page that gives an indication of how full the Event Log is. In addition towards the bottom of the page a selection is added that allows you to select going to another page of the recorded events. The selection is plus and/or minus two pages from the current page and a selection to go to the first and/or the last page of events.

Intel[®] Integrated BMC Web Console Options

stem Information	Server He	alth Configuration	Remote Control	3 LC	GOUT SREFRESH O HELP ABO	UT
			ated to the server's hea	th, such as sensor rea	dings and the	
	Event L	og				
nsor Readings	and also s	ort them by clicking on		g. You can choose a ca	tegory from the pull-down box to filter the e	ever
ver Statistics	Select an e	event log category:				
ver stausuus	All Events		•		Event Log: 790 event er	ntr
					Event Log is 219	⁄o f
		Time Stamp	Sensor Name	Sensor Type 🔺	Description	
	790	02/19/2013 10:22:18	BIOS Evt Sensor	System Event	reports OEM System Boot Event - Asserted	_
	789	02/19/2013 10:22:16	BIOS Evt Sensor	System Event	reports OEM System Boot Event - Asserted	
	788	02/19/2013 10:21:51	HDD 3 Status	Drive Slot (Bay)	Drive Presence - Asserted	
	787	02/19/2013 10:21:42	BIOS Evt Sensor	System Event	reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted	
	786	02/19/2013 10:21:42	BIOS Evt Sensor	System Event	reports Timestamp Clock Sync. Event is one of two expected events from BIOS on every power on Asserted	
	785	02/19/2013 10:21:39	Pwr Unit Status	Power Unit	reports the power unit's AC is lost - Deasserted	d
	784	02/19/201 <mark>3</mark> 10:21:38	P1 Status	Processor	reports the processor's presence has been detected - Asserted	
	783	02/19/2013 10:21:38	Pwr Unit Status	Power Unit	reports the power unit's AC is lost - Asserted	
	782	02/19/2013 10:20:34	Pwr Unit Redund	Power Unit	reports redundancy has been lost and there are insufficient resources to maintain normal operation - Asserted	
		02/19/2013 10:20:34	Pwr Unit Redund	Power Unit	reports redundancy has been lost - Asserted	
	781		PS2 Status	Power Supply	reports the power supply's input (AC/DC) has been lost - Asserted	
	781 780	02/19/2013 10:20:33			reports the power supply's input (AC/DC) has	
		02/19/2013 10:20:33 02/19/2013 10:20:33	PS1 Status	Power Supply	been lost - Asserted	
	780		PS1 Status Pwr Unit Status	Power Supply Power Unit	been lost - Asserted reports the power unit is powered off or being powered down - Asserted	

Figure 75: Server Health Event Log Page on S1200V3RP and Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

7.2.3 Power Statistics Page

The Power Statistics page displays the systems power statistics in watts as shown in Figure 76.

Intel® Integrated BMC Web Console Options

Intel® BMC And RMM4 User Guide



Figure 76: Server Health Power Statistics Page on S1200BTL, S1200V3RP and Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

On an Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families you can see the length of time that the statistics have been getting collected. See Figure 77 for details.

Intel® Integrated BMC Web Console Options

(intel) In	tegrated BMC Web Console	
System Information	Server Health Configuration Remote Control	S LOGOUT S REFRESH O HELP ABOUT
	Server Health This section shows you data related to the server's health, event log.	, such as sensor readings and the
	Power Usage Summary	
Sensor Readings	System Power Statistics value over the la	ast: 0.03 Hours
Event Log	Minimum: 62W	
Power Statistics	Current: 86W	
	Maximum: 263W	
	Average: 78W	

Figure 77: Server Health Power Statistic Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families

Intel® Integrated BMC Web Console Options

7.3 Configuration Tab

The **Configuration** tab is used to configure various settings such as IPv4 Network, Users Login, LDAP SSL, Remote Session, Mouse Mode, Keyboard Macros, Alerts, and Alert Email as discussed in the following subsections. In addition, Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families IPv6, VLAN, and Node Manager can also be configured.

Click the **Configuration** tab to select the various pages. By default, this tab opens the Network Settings page or the IPv4 Network page.

7.3.1 Network or IPv4 Network Page

The Network or IPv4 settings page is used to configure the IPv4 network settings for the server management LAN interface to the BMC controller. See Figure 78 or Figure 79 for details.

(intel) In	tegrated BMC Web C	onsole			P	AEA
System Information	Server Health Configuration	Remote Control	(J LOGOUT	C REFRESH	() HELP (A ABOUT
	Configuration Use these pages to configu	re various settings, such a:	alerts, users, or networ	k.		
Network Users	Network Settings _ You can view and modify the netw	ork settings on this page. S	elect whether to obtain a	an IP address	automatically o	r manually configure one
Login	LAN Channel	Baseboard Mgmt 👻				
LDAP	MAC Address	00:15:17:F2:AB:0C				
SSL Remote Session	 Obtain an IP address autom Use the following IP address 					
Mouse Mode	IP Address	10.235.0.10				
Keyboard Macros	Subnet Mask	255.255.255.0				
Alerts	Default Gateway	10.235.0.1				
Alert Email	Primary DNS Server					
	Secondary DNS Server	[]				
	Save					

Figure 78: Configuration Network Settings Page on S1200BTL Platforms

Intel® Integrated BMC Web Console Options

(intel) Ir	ntegrated BMC Web C	onsole		-		HEI	1
System Information	Server Health Configuration	Remote Control			REFRESH	THELP A	ABOUT
	Configuration Use these pages to configu	ure various settings, such a	is alerts, users, or network.				
IPv4 Network	IPv4 Network Settings You can view and modify the IPv4	network settings on this pa	ge. Select whether to obtair	an IP addre	ss automatically	or manually configu	ire one.
IPv6 Network							
Users	Enable LAN Failover						
Login	LAN Channel	Baseboard Mgmt 👻)				
LDAP	MAC Address	00:1E:67:2C:74:A8]				
VLAN	Obtain an IP address autom	atically (use DHCP)					
SSL	Use the following IP address Disable LAN Channel	1					
Remote Session	IP Address	10.235.05	1				
Mouse Mode	Subnet Mask	255.255.255.0	1				
Keyboard Macros			1				
Alerts	Default Gateway	10.235.0.1]				
Alert Email	Primary DNS Server						
Node Manager	Secondary DNS Server]				
	Save						

Figure 79: Configuration IPv4 Network Settings Page

WARNING

Each network controller must be on a different subnet than all other controllers used for management traffic.

A WARNING

When LAN failover is enabled, the system administrator must ensure that each network controller connection, which can be seen by the BMC, has connectivity to the same networks. If there is a loss of functionality on the primary network controller channel, it will randomly failover to any of the other network controller channels that are connected and seen by the BMC.

The following table lists the options available in this page.

Option	Task
Enable LAN Failover	Used to enable LAN Failover (only available on Intel® Server Boards and Systems Based on Intel® Xeon® Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families).

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Option	Task
LAN Channel drop-down box	Used to select the channel on which you want to configure the network settings.
	Lists the LAN Channels available for server management. The LAN channels describe the physical NIC connection on the server.
	Intel(R) RMM (BMC LAN Channel 3) is the add-in RMM4 Dedicated Management NIC.
	 Baseboard Mgmt (BMC LAN Channel 1) is the on-board, shared NIC configured for management and shared with the operating system.
	 Baseboard Mgmt 2 (BMC LAN Channel 2) is the second on-board, shared NIC configured for management and shared with the operating system.
MAC Address	The MAC address of the device (read only).
IP address radio buttons	Select one of the three options for configuring the IP address:
	Obtain an IP address automatically (use DHCP) – Uses DHCP to obtain the IP address.
	 Use the following IP address – Manually configure the IP address.
	• Disable LAN Channel – Sets the IP address, Subnet Mask, and Default Gateway to 0.0.0.0.
IP Address	If configuring a static IP, enter the requested address, subnet mask, and gateway in the given
Subnet Mask	fields.
Gateway	The IP Address is made of four numbers separated by dots as in "xxx.xxx.xxx.xxx".
	'xxx' ranges from 0 to 255.
	First 'xxx' must not be 0.
Primary DNS Server	If configuring a dynamic IP, enter the Primary and Secondary DNS servers.
Secondary DNS Server	
Save button	Click to save any changes made.

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7.3.2 IPv6 Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP and Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

The IPv6 settings page is used to enable and configure the IPv6 network settings. You can also enable and configure LAN Failover on this page. See Figure 80 for details.

(intel) II	ntegrated BMC Web	Console
System Information	Server Health Configuration	Remote Control 🕲 LOGOUT 🕲 REFRESH 🕐 HELP 🙆 ABOUT
	Configuration Use these pages to configur	e various settings, such as alerts, users, or network.
IPv4 Network		6 network settings on this page. Select whether to obtain an IP address automatically or port must be enabled prior to its configuration.
IPv6 Network	manually configure one. 1996 sup	port must be enabled prior to its conliguration.
Users	Enable LAN Failover	
Login	LAN Channel	Baseboard Mgmt 👻
LDAP	MAC Address	00:1E:67:2C:74:A8
VLAN	Enable IPv6 on this Channe	l
SSL		(stateless ICMPv6 discovery)
Remote Session	 Obtain an IP address automa Use the following IP address 	
Mouse Mode	IP Address	11 I
Keyboard Macros	IPv6 prefix length (0 to 128)	64
Alerts	Gateway	
Alert Email		
Node Manager	Save	

Figure 80: Configuration IPv6 Page

WARNING

Each network controller must be on a different subnet than all other controllers used for management traffic.

A WARNING

When LAN failover is enabled, the system administrator must ensure that each network controller connection, which can be seen by the BMC, has connectivity to the same networks. If there is a loss of functionality on the primary network controller channel, it will randomly failover to any of the other network controller channels that are connected and seen by the BMC.

The following table lists the options available in this page.

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Option	Task	
Enable LAN Failover	Used to enable LAN Failover.	
LAN Channel drop-down box	 Used to select the channel on which you want to configure the network settings. Lists the LAN Channels available for server management. The LAN channels describe the physical NIC connection on the server. Intel(R) RMM (BMC LAN Channel 3) is the add-in RMM4 Dedicated Management NIC. Baseboard Mgmt (BMC LAN Channel 1) is the on-board, shared NIC configured for management and shared with the operating system. Baseboard Mgmt 2 (BMC LAN Channel 2) is the second on-board, shared NIC configured for management and shared with the operating system. 	
MAC Address	The MAC address of the device (read only).	
Enable IPv6 on this channel selection box	Used to enable IPv6 on the channel selected in the LAN Channel drop-down box.	
IP address radio buttons	 Select one of the three options for configuring the IP address: Use IPv6 auto-configuration (stateless ICMPv6 discovery) – Uses ICMPv6 to obtain the IP address. Obtain an IP address automatically (use DHCPv6) – Uses DHCPv6 to obtain the IP address. Use the following IP address – Manually configure the IP address. 	
IP Address Gateway	If configuring a static IP, enter the requested address and gateway in the given fields. The IP Address and Gateway are 128-bit fields made of eight hexadecimal numbers separated by colons as in "xxxx:xxx:xxx:xxx:xxx:xxx:xxx:xxx: 'xxxx' ranges from 0 to FFFF. First 'xxxx' must not be 0. One or more consecutive groups of zero value may be replaced with a single empty group using two consecutive colons (::).	
IPv6 prefix length (0 to 128)	Select the routing prefix length.	
Save button	Click to save any changes made.	

Table 15: Configuration IPv6 Network Settings Options

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7.3.3 Users Page

The User List page lists the configured users, along with their status and network privilege. It also provides the capability to add, modify, and delete users. See Figure 81 for details.

System Information	Server Health Con	figuration Remote C	Control	I LOGOUT OR REFRESH O HELP ABOU
	Configurat Use these pages		tings, such as alerts, user	s, or network.
	User List			
Network	The list below shows	the current list of config	ured users.	
Jsers	If you would like to m	odify or delete a usor o	elect their name in the list	and click Modify User or Delete User. To add a new
ogin		figured slot and click Add		and dick modify user of Delete User. To add a new
DAP				Number of configured users:
SL				
amote Session	UserID 🔺	User Name 🔺	User Status 🔺	Network Privilege
	1	anonymous	disabled	Administrator
	1 2	anonymous root	disabled ENABLED	Administrator Administrator
louse Mode	1 2 3	anonymous root test1	disabled ENABLED disabled	Administrator Administrator Administrator
louse Mode eyboard Macros	1 2 3 4	anonymous root test1 test2	disabled ENABLED disabled disabled	Administrator Administrator Administrator Administrator
louse Mode eyboard Macros	1 2 3 4 5	anonymous root test1 test2 test3	disabled ENABLED disabled disabled disabled	Administrator Administrator Administrator Administrator Administrator
louse Mode eyboard Macros lerts	1 2 3 4 5 6	anonymous root test1 test2 test3 ~	disabled ENABLED disabled disabled disabled ~	Administrator Administrator Administrator Administrator Administrator ~
louse Mode eyboard Macros lerts	1 2 3 4 5 6 7	anonymous root test1 test2 test3 ~ ~	disabled ENABLED disabled disabled disabled ~ ~	Administrator Administrator Administrator Administrator Administrator ~ ~
louse Mode eyboard Macros lerts	1 2 3 4 5 6 7 8	anonymous root test1 test2 test3 ~ ~ ~	disabled ENABLED disabled disabled disabled ~ ~	Administrator Administrator Administrator Administrator Administrator ~ ~ ~
louse Mode eyboard Macros lerts	1 2 3 4 5 6 7 8 9	anonymous root test1 test2 test3 ~ ~ ~ ~	disabled ENABLED disabled disabled disabled ~ ~ ~ ~	Administrator Administrator Administrator Administrator Administrator ~ ~ ~ ~
ouse Mode eyboard Macros lerts	1 2 3 4 5 6 7 8 9 10	anonymous root test1 test2 test3 ~ ~ ~ ~ ~	disabled ENABLED disabled disabled disabled ~ ~ ~ ~	Administrator Administrator Administrator Administrator Administrator ~ ~ ~ ~ ~
ouse Mode eyboard Macros lerts	1 2 3 4 5 6 7 8 9 10 11	anonymous root test1 test2 test3 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	disabled ENABLED disabled disabled ~ ~ ~ ~ ~ ~ ~	Administrator Administrator Administrator Administrator Administrator ~ ~ ~ ~ ~ ~ ~
ouse Mode eyboard Macros lerts	1 2 3 4 5 6 7 8 9 10 11 11 12	anonymous root test1 test2 test3 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	disabled ENABLED disabled disabled cisabled ~ ~ ~ ~ ~ ~ ~	Administrator Administrator Administrator Administrator Administrator ~ ~ ~ ~ ~ ~ ~ ~
louse Mode eyboard Macros lerts	1 2 3 4 5 6 7 8 9 10 11 11 12 13	anonymous root test1 test2 test3 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	disabled ENABLED disabled disabled ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Administrator Administrator Administrator Administrator Administrator ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
Remote Session Aouse Mode Reyboard Macros Alerts Alert Email	1 2 3 4 5 6 7 8 9 10 11 11 12	anonymous root test1 test2 test3 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	disabled ENABLED disabled disabled cisabled ~ ~ ~ ~ ~ ~ ~	Administrator Administrator Administrator Administrator Administrator ~ ~ ~ ~ ~ ~ ~ ~

Figure 81: Configuration User List Page

This page allows the operator to configure the IPMI users and privileges for this server:

- UserID 1 (anonymous) may not be renamed or deleted.
- UserID 2 (root) may not be renamed or deleted, nor can the network privileges of UserID 2 be changed.
- User Names cannot be changed. To rename a user you must first delete the existing user, and then add the user with the new name.

To delete a user, select the user in the list and click **Delete User**.

To add a user, select an empty slot in the list and click **Add User**. This allows you to set the User Name, Password, and Network Privileges as shown in Figure 82.

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(intel) In	itegrated BMC We	b Console	-	Y	
System Information	Server Health Configurat	ion Remote Control	JUGOUT	REFRESH	THELP ABOUT
	Configuration Use these pages to con	figure various settings, such as ale	erts, users, or network.	1	
	Add New User				
Network	Enter the information for the	new user below and press Add. P	ress Cancel to return t	o the use <mark>r l</mark> ist.	
Users					
Login	User Name:				
LDAP	Password:				
SSL	Confirm Password:				
Remote Session	Network Privileges:	Administrator -			
Mouse Mode	Add Cancel				
Keyboard Macros					
Alerts					
Alert Email					

Figure 82: Configuration Users Add User Page

To modify a user, select a user in the list and click **Modify User**. This allows you to change the Password, Enable Access, and change Network Privileges as shown in Figure 83.

(intel) Ir	ntegrated BMC Web C	onsole	-			
System Information	Server Health Configuration	Remote Control		REFRESH	1 HELP	ABOUT
	Configuration Use these pages to configure	various settings, such as alerts	, users, or network	é N		
	Modify User					
Network	Enter the new information for the u	ser below and press Modify. Pr	ess Cancel to retur	n to the user lis	t.	
Users						
Login	User Name:	test1				
LDAP		Change Password				
SSL	Password:					
Remote Session	Confirm Password:					
Mouse Mode		Enable Access				
Keyboard Macros	Network Privileges:	Administrator 🝷				
Alerts	Modify Cancel					
Alert Email						

Figure 83: Configuration Users Modify User Page

7.3.4 Login Security Settings Page

Users can be locked out if they supply incorrect passwords too many times in a row. This is a security feature to prevent brute force hacking attacks. Only that user is locked out – other users can still login.

The number of failed attempts before being locked out is configurable; as is the length of time the lockout lasts.

To turn the feature off, set the lockout time to zero. Three default failures will lock out a user for one minute.

Click the **Save** button to save any changes.

(intel) In	tegrated BMC Web (Console	
System Information	Server Health Configuration	Remote Control	🖲 logout 🕝 refresh 🕐 help 🙆 about
	Configuration Use these pages to configure	e various settings, such as	alerts, users, or network.
	Login Security Settings		
Network	You can view and modify the logir	n security settings on this p	page. Select how many failed login attempts occur before a user is
Users	locked out and for how long.	57 5 7 2 5	
Login	Failed Login Attempts	3	
LDAP	_	-	
SSL	User Lockout Time (min)	1	
Remote Session	Save		
Mouse Mode			
Keyboard Macros			
Alerts			
Alert Email	_		

Figure 84: Configuration Login Security Settings Page on S1200BTL Platforms

For Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP Product Family you can also force the interface to HTTP Secure mode by selecting the **Force HTTPS** – **Enable** checkbox. See Figure 85 for details.

In addition the **Web Session Timeout** that locks the web session after a specified time of inactivity can be changed from the default 30 minutes (1800 seconds) by entering a new value for how long to wait before locking out the web session.

Click the **Save** button to save any changes.

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(intel) In	tegrated BMC Web	Console	
System Information	Server Health Configuration	Remote Control	🖲 logout 🕝 refresh 🕜 help 🛞 about
	Configuration Use these pages to configu	ire various settings, su	ich as alerts, users, or network.
IPv4 Network IPv6 Network	Login Security Settings You can view and modify the log locked out and for how long.	jin security <mark>settings or</mark>	this page. Select how many failed login attempts occur before a user is
Users	Failed Login Attempts	3	
Login	User Lockout Time (min)	1	
LDAP			
VLAN	Force HTTPS	Enable	
SSL	Web Session Timeout	1800	Second's
Remote Session	Save		
Mouse Mode	Save		
Keyboard Macros			
Alerts			
Alert Email			
Node Manager			

Figure 85: Configuration Login Security Settings Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP Product Family and Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

7.3.5 LDAP Settings Page

To enable/disable LDAP, check or uncheck the **Enable LDAP Authentication** checkbox respectively.

(intel) In	tegrated BMC V	veb Console	1	Y	-EER-
System Information	Server Health Configu	Iration Remote Control		REFRESH	() HELP (ABOUT
	Configuration Use these pages to	n configure various settings, such as	alerts, users, or network.		
	LDAP Settings				
Network	Check the box below to e	enable LDAP authentication and en	ter the required informatio	n to access the	LDAP server. Press the
Users	Save button to save your				
Login					
LDAP	Enable LDAP Aut	hentication			
SSL	Port	389			
Remote Session	IP Address				
Mouse Mode	Searchbase				
Keyboard Macros	Bind DN				
Alerts	Bind Password				
Alert Email					
	Save				

Figure 86: Configuration LDAP Settings Page

The following table lists the options available in this page.

Table 16: Configuration LDAP Settings Options

Option	Task
Enable LDAP Authentication	Check this box to enable LDAP authentication, then enter the required information to access the LDAP server.
Port	Specify the LDAP port.
IP Address	The IP address of LDAP server. The IP address is made of four numbers separated by dots as in "xxx.xxx.xxx.xxx". 'xxx' ranges from 0 to 255. First 'xxx' must not be 0.
Searchbase	The searchbase of the LDAP server, for example, "dc=my-domain, dc=com".
Bind Password	The authentication password for the LDAP server; the password must be at least four characters long.
Bind DN	The Distinguished Name of the LDAP server, for example, "cn=Manager, dc=my-domain, dc=com".
Save button	Click to save the current settings.

7.3.6 VLAN Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP Product Family and Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

On Intel® Server Boards and Systems Based on Intel® Xeon® Processor

E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP Product Family and Intel® Server Boards and Systems Based on Intel® Xeon® Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW this page is used to enable and configure the VLAN private network settings on the selected server management LAN channels.

(intel) In	tegrated BMC Web Console	A
System Information	Server Health Configuration Remote Control S LOGOUT REFRESH C HELP AB	OUT
	Configuration Use these pages to configure various settings, such as alerts, users, or network.	
	VLAN Settings	
IPv4 Network	Check the box below to enable a VLAN private network on this channel and configure it. Press the Save button to save yo	
IPv6 Network	changes.	
Users	LAN Channel Baseboard Mgmt -	
Login		
LDAP	VLAN ID (1-4094)	
VLAN	VLAN Priority (0-7)	
SSL	VLAN Priority (U-7)	
Remote Session	Save	
Mouse Mode		
Keyboard Macros		
Alerts		
Alert Email		
Node Manager	_	

Figure 87: Configuration VLAN Settings on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP and Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW Product Family

The following table lists the options available in this page.

Intel® Integrated BMC Web Console Options

Option	Task		
LAN Channel drop-down box	Used to select the channel on which you want to configure the network settings.		
	Lists the LAN Channels available for VLAN. The LAN channel describes the physical NIC connection on the server.		
	Intel(R) RMM (BMC LAN Channel 3) is the add-in RMM4 NIC.		
	 Baseboard Mgmt (BMC LAN Channel 1) is the on-board, shared NIC configured for management and shared with the operating system. 		
	 Baseboard Mgmt 2 (BMC LAN Channel 2) is the second on-board, shared NIC configured for management and shared with the operating system. 		
Enable VLAN	Used to enable VLAN for the LAN channel selected in the drop-down box.		
VLAN ID (1 – 4094)	Used to set the VLAN ID.		
VLAN Priority (0 – 7)	Used to set the VLAN priority.		
Save button	Click to save the current settings.		

Table 17: Configuration VLAN Settings Options

7.3.7 SSL Upload Page

Use this page to upload an SSL certificate and privacy key, which allows the device to be accessed in a secured mode.

(intel) In	tegrated BMC W	eb Console		-	Y	A	
System Information	Server Health Configur	ation Remote Cor	trol	J LOGOUT	REFRESH	HELP	ABOUT
	Configuration Use these pages to co		gs, such as alerts	, users, or network.			
	SSL Upload						
Network	The dates for the default c	ertificate and privacy l	ev are shown be	low. To upload a new	w SSL certificat	e. use the Br	rowse button
Users	to navigate to the certifical					19) 	
Login							
LDAP	Default Certificate	Wednesday, Decemb					
SSL	Default Privacy Key	Wednesday, Decemb		00 PM			
Remote Session	New SSL Certificate		Browse_				
Mouse Mode	Upload						
Keyboard Macros							
Alerts							
Alert Email							

Figure 88: Configuration SSL Upload Page

First upload the SSL certificate and then the device will prompt to upload the privacy key. If either of the files is invalid, the device will notify. A notification will be displayed on successful upload. On successful upload, the device will prompt to reboot. If you want to reboot, click **Ok**. Or click **Cancel** to cancel the reboot operation.

First upload the SSL certificate and then the device will prompt to upload the privacy key. Click the **Upload** button. On successful upload, a notification appears.

7.3.8 Remote Session Page

Use this page to configure various settings for the remote sessions.

7.3.8.1 Remote Session Page on S1200BTL Platforms

Use this page to enable/disable encryption on KVM or Media during a redirection session and to select USB Key Emulation Type. Figure 89 shows the details for an S1200BTL system.

(intel) In	tegrated BMC Web Console
System Information	Server Health Configuration Remote Control 3 LOGOUT CREFRESH O HELP ABOUT
	Configuration Use these pages to configure various settings, such as alerts, users, or network.
	Remote Session
Network	The following options allow the user to enable or disable encryption on KVM or Media data during a redirection session.
Users	
Login	Enable KVM Encryption
LDAP	Enable Media Encryption
SSL	
Remote Session	USB Key Emulation Type: Floppy 🔹
Mouse Mode	Port Forwarding:
Keyboard Macros	KVM CDROM USB/Floppy
Alerts	
Alert Email	Save

Figure 89: Configuration Remote Session Page on S1200BTL Platforms

The following table lists the options allowing you to enable or disable encryption on KVM or media data, and the USB Key Emulation type selection used during a redirection session.

Option	Task
Enable KVM Encryption Enable Media Encryption	Enable/Disable encryption on KVM or Media data during a redirection session. Note: KVM and Media encryption are enabled by default. Note: Disabling encryption can improve performance of KVM or Media redirection.
USB Key Emulation Type	Select Floppy or Hard Disk emulation.

Table 18: Configuration Remote Session Options

Intel® Integrated BMC Web Console Options

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Option	Task	
Port Forwarding	Only needs to be configured if there is NAT (Network Address Translation) or port forwarding on your network between the client side (web browser and JViewer application) and the BMC side.	
	Enter the browser-side port number (1024-65535) for each of the redirection services (remote KVM, virtual CDROM, and virtual USB/Floppy) that the JVIewer client should use.	
	If left blank, JViewer assumes no translation and uses the BMCs standard ports: 7578, 5120, 5123 (unencrypted) or else 7582, 5124, 5127 (encrypted) for remote KVM, virtual CDROM, and virtual USB/Floppy, respectively.	
	The client-side IP address and http/https port numbers are supplied automatically by the browser and do not need to be configured.	
Save button	Click to save any changes.	

7.3.8.2 Remote Session Page on Intel[°] Server Boards and Systems Based on Intel[°] Xeon[°] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families

On Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families you can select the encryption mode and separately enable or disable the keyboard or mouse and media encryption. The ports used for Port Forwarding can also be selected. See Figure 90 for details.

(intel) Ir	ntegrated BMC Web Co	onsole			- P	
System Information	Server Health Configuration	Remote Control			REFRESH	THELP ABOUT
	Configuration Use these pages to configure v	arious settings, such a	alerts, us	ers, or network	5 .	
IPv4 Network IPv6 Network	Remote Session The following options allow the use	r to enable or disable e	ncryption o	n KVM or Media	a data during a r	edirection session.
Users	KVM Encryption	None	•			
Login	Keyboard/Mouse Only	Enable				
LDAP	Media Encryption	🗖 Enable				
VLAN		111				
SSL	USB Key Emulation Type	Floppy	•			
Remote Session	Port Forwarding:	USB/Floppy				
Mouse Mode		030/1000/				
Keyboard Macros	Save					
Alerts						
Alert Email						
Node Manager	•					

Figure 90: Configuration Remote Session Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families

The following table lists the options that can be used to configure the settings used during a redirection session.

Option	Task
KVM Encryption mode	Disable or select encryption mode on KVM or Media data during a redirection session. Choose any one from the supported encryption techniques (None, Stunnel*, RC4, or AES). Note: KVM and Media encryption are enabled by default. Note: Disabling encryption can improve performance of KVM or Media redirection.
Keyboard/Mouse Only	If KVM Encryption is set to None, the Keyboard and Mouse data can still be encrypted using Blowfish encryption. Note : This option has the least performance impact while still encrypting the most important data.
Media Encryption	Enable/Disable encryption of Media data during a redirection session. Note: Disabling encryption can improve performance of KVM or Media redirection.
USB Key Emulation Type	Select Floppy or Hard Disk emulation.
Port Forwarding	Only needs to be configured if there is NAT (Network Address Translation) or port forwarding on your network between the client side (web browser and JViewer application) and the BMC side. Enter the browser-side port number (1024-65535) for each of the redirection services (remote KVM, virtual CDROM, and virtual USB/Floppy) that the JVIewer client should use. If left blank, JViewer assumes no translation and uses the BMCs standard ports: 7578, 5120, 5123 (unencrypted) or else 7582, 5124, 5127 (encrypted) for remote KVM, virtual CDROM, and virtual USB/Floppy, respectively. The client-side IP address and http/https port numbers are supplied automatically by the browser and do not need to be configured.
Save button	Click to save any changes.

Table 19: Configuration Remote Session Options

7.3.8.3 Remote Session Page on S1200V3RP Product Family

On an S1200V3RP Product Family system you can select the encryption mode and separately enable or disable the keyboard or mouse and media encryption. The ports used for Port Forwarding can also be selected. There is also a selection for enabling Serial Over LAN on the various LAN ports. See Figure 91 for details.

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(intel) In	tegrated BMC Web Co	onsole			Y	EFF	1
System Information	Server Health Configuration	Remote Control		JOGOUT	REFRESH	O HELP	ABOUT
	Configuration Use these pages to configure v	arious settings, s	uch as alerts, u	sers, or network.			
	Remote Session						
IPv4 Network	The following options allow the user	to enable or disa	ble encryption	on KVM or Media d	ata during a re	direction session	
IPv6 Network							
Users	KVM Encryption	None					
Login	Keyboard/Mouse Only	Enable					
LDAP							
VLAN	Media Encryption	Enable Enable					
SSL	USB Key Emulation Type	Floppy	-				
Remote Session	Serial Over LAN	Enable SO	L for Baseboard	d Mgmt			
Mouse Mode			L for Baseboard				
Keyboard Macros		Enable SU	L TOT Baseboard	1 Mgmt 2			
Alerts		Enable SO	L for RMM Dedic	ated Mgmt			
Alert Email	Port Forwarding:						
Node Manager	KVM CDROM	USB/Floppy					
	Save						

Figure 91: Configuration Remote Session Page on S1200V3RP Product Family

The following table lists the options that can be used to configure the settings used during a redirection session.

Option	Task	
	Disable or select encryption mode on KVM or Media data during a redirection session.	
KVM Encryption mode	Choose any one from the supported encryption techniques (None, Stunnel*, RC4, or AES)	
	Note: KVM and Media encryption are enabled by default.	
	Note : Disabling encryption can improve performance of KVM or Media redirection.	
	If KVM Encryption is set to None, the Keyboard and Mouse data can still be encrypted using Blowfish encryption.	
Keyboard/Mouse Only	Note : This option has the least performance impact while still encrypting the most important data.	
Madia Francisian	Enable/Disable encryption of Media data during a redirection session.	
Media Encryption	Note: Disabling encryption can improve performance of KVM or Media redirection.	
USB Key Emulation Type Select Floppy or Hard Disk emulation.		

Table 20: Configuration Remote Session Options on S1200V3RP Product Family	
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Intel® Integrated BMC Web Console Options

Option	Task
Serial Over LAN Enable SOL for Baseboard Mgmt Enable SOL for Baseboard Mgmt 2 Enable SOL for Intel(R) RMM 	Enable or disable Serial Over LAN for each LAN channel. Enable Console Redirection in BIOS Setup before activating SOL sessions; otherwise SOL will not be functional.
Port Forwarding	Only needs to be configured if there is NAT (Network Address Translation) or port forwarding on your network between the client side (web browser and JViewer application) and the BMC side. Enter the browser-side port number (1024-65535) for each of the redirection services (remote KVM, virtual CDROM, and virtual USB/Floppy) that the JVIewer
	client should use. If left blank, JViewer assumes no translation and uses the BMCs standard ports: 7578, 5120, 5123 (unencrypted) or else 7582, 5124, 5127 (encrypted) for remote KVM, virtual CDROM, and virtual USB/Floppy, respectively.
Save button	The client-side IP address and http/https port numbers are supplied automatically by the browser and do not need to be configured. Click to save any changes.

7.3.8.4 Remote Session Page Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

On Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 ---S2600WT, S2600KP, S2600TP and S2600CW, the **Remote Session** is combined under **KVM & Media**. You can select the encryption mode and separately enable or disable the keyboard or mouse and media encryption. The ports used for Port Forwarding can also be selected. See Figure 90 for details.

(intel) I	nte	grated BMC Web Console		
System Information	S	erver Health 🖡 Configuration 🦷 Server Diag	nostics Remote Control	S LOGOUT REFRESH O HELP ABOUT
		Configuration Use these pages to configure var	ious settings, such as alerts, users, or network.	
IPv4 Network IPv6 Network	-	Remote Session The following options allow the user to enable	or disable encryption on KVM or Media data during a redirection ses	ision.
Users		KVM Encryption	None 👻	
Security Settings	_	Keyboard/Mouse Only	Enable	
KVM & Media	E			
SOL & SMASH		Media Encryption	Enable	
LDAP		USB Key Emulation Type	Floppy 🔸	
VLAN		Default Ports:		
SSL	_	KVM 7578 CDROM	5120 USB/Floppy 5123	
Alerts		KVM (Secure) 7582 CDROM (Secure)	5124 USB/Floppy (Secure) 5127	
Alert Email Node Manager	-	Save		

Figure 92: Configuration Remote Session Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

The following table lists the options that can be used to configure the settings used during a redirection session.

Option	Task
KVM Encryption mode	Disable or select encryption mode on KVM or Media data during a redirection session. Choose any one from the supported encryption techniques (None, Stunnel*, RC4, or AES). Note : KVM and Media encryption are enabled by default. Note : Disabling encryption can improve performance of KVM or Media redirection.
Keyboard/Mouse Only	If KVM Encryption is set to None, the Keyboard and Mouse data can still be encrypted using Blowfish encryption. Note : This option has the least performance impact while still encrypting the most important data.
Media Encryption	Enable/Disable encryption of Media data during a redirection session. Note: Disabling encryption can improve performance of KVM or Media redirection.
USB Key Emulation Type	Select Floppy or Hard Disk emulation.
Default Ports	Only needs to be configured if there is NAT (Network Address Translation) or port forwarding on your network between the client side (web browser and JViewer application) and the BMC side. Enter the browser-side port number (1024-65535) for each of the redirection services (remote KVM, virtual CDROM, and virtual USB/Floppy) that the JVIewer client should use. JViewer assumes no translation and uses the BMCs standard ports: 7578, 5120, 5123 (unencrypted) or else 7582, 5124, 5127 (encrypted) for remote KVM, virtual CDROM, and virtual USB/Floppy, respectively. The client-side IP address and http/https port numbers are supplied automatically by the browser and do not need to be configured.
Save button	Click to save any changes.

Table 21: Configuration Remote Session Options

7.3.9 Mouse Mode Page

Use this page to select the Mouse Mode used during a Remote KVM session.

On an S1200BTL system the Redirection Console handles mouse emulation from local window to remote screen in either of two methods. Figure 93 shows the details.

- **Absolute Mode**. Select Absolute Mode to have the absolute position of the local mouse sent to the server. Use this mode for Microsoft Windows* OS.
- **Relative Mode**. Select Relative Mode to have the calculated relative mouse position displacement sent to the server. Use this mode for Linux* OS.

Click **Save** to use selected mode.

(intel) In	tegrated BMC Web Console
System Information	Server Health Configuration Remote Control Server Health Configuration Remote Control
	Configuration Use these pages to configure various settings, such as alerts, users, or network.
	Mouse Mode Setting
Network	Select the mouse mode to use from the options below and press the Save button.
Users	
Login	Current Mouse Mode is ABSOLUTE.
LDAP	Set Mode to Absolute (Recommended when server OS is Windows)
SSL	Set Mode to Relative (Recommended when server OS is Linux)
Remote Session	
Mouse Mode	Save
Keyboard Macros	
Alerts	
Alert Email	

Figure 93: Configuration Mouse Mode Setting Page on S1200BTL Platforms

On Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP Product Family the Redirection Console handles mouse emulation from local window to remote screen in either of three methods. Figure 94 shows the details.

- **Absolute Mode**. Select Absolute Mode to have the absolute position of the local mouse sent to the server. Use this mode for Microsoft Windows* and newer Red Hat* Linux versions (RHEL 6.x).
- **Relative Mode**. Select Relative Mode to have the calculated relative mouse position displacement sent to the server. Use this mode for other Linux* versions such as SUSE* (SLES) and older versions of Red Hat* (RHEL 5.x). For best results, server OS mouse

acceleration/threshold settings can be reduced, or use mouse calibration in the remote console window.

• **Other Mode**. Select Other Mode to have the calculated displacement from the local mouse in the center position, sent to the server. In this mode Alt+C can be used to switch between host and client mouse cursor. Use this mode for SLES 11 Linux* OS installation. See Section 7.3.9.1 for more details on this mode.

Click **Save** to use selected mode.

(intel) In	tegrated BMC Web Console
System Information	Server Health Configuration Remote Control 3 LOGOUT CREFRESH O HELP ABOUT
	Configuration Use these pages to configure various settings, such as alerts, users, or network.
	Mouse Mode Setting
IPv4 Network	Select the mouse mode to use from the options below and press the Save button.
IPv6 Network	=
Users	Current Mouse Mode
Login	Absolute Mode (Recommended when server OS is Windows or Red Hat/Fedora Linux)
LDAP	Relative Mode (Recommended when server OS is SLES Linux)
VLAN	Other Mode (Recommended when SLES 11 OS Installation)
SSL	Save
Remote Session	
Mouse Mode	
Keyboard Macros	
Alerts	
Alert Email	
Node Manager	

Figure 94: Configuration Mouse Mode Setting Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP Product Family

On Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 ---S2600WT, S2600KP, S2600TP and S2600CW, the Redirection Console handles mouse emulation from local window to remote screen in either of three methods. Figure 94 shows the details.

- **Absolute Mode**. Select Absolute Mode to have the absolute position of the local mouse sent to the server. Use this mode for Microsoft Windows* and newer Red Hat* Linux versions (RHEL 6.x).
- **Relative Mode**. Select Relative Mode to have the calculated relative mouse position displacement sent to the server. Use this mode for other Linux* versions such as SUSE* (SLES) and older versions of Red Hat* (RHEL 5.x). For best results, server OS mouse

acceleration/threshold settings can be reduced, or use mouse calibration in the remote console window.

• **Other Mode**. Select Other Mode to have the calculated displacement from the local mouse in the center position, sent to the server. In this mode Alt+C can be used to switch between host and client mouse cursor. Use this mode for SLES 11 Linux* OS installation. See Section 7.3.9.1 for more details on this mode.

Click **Save** to use selected mode.

(intel) Ir	itegrate	d BMC Web	Console		1	No -	AT.
System Information Control	Server Healt	th Configuration	Server Diagnos	tics Remote 🕙	LOGOUT	REFRESH 1 HEL	P ABOUT
<		guration se pages to configure	various settings, s	uch as alerts, users,	or network.		
	- Remot	te Session ——					
IPv4 Network		ving options allow the	user to enable or (lisable encountion or	NVM or Modia d	ata during a	
IPv6 Network		n session.		isable encryption of	TRAM OF MEdia d	ata duning a	
Users							
Security Settings	KVM E	ncryption		None	•		
KVM & Media	Ke	eyboard/Mouse Only		Enable			
SOL & SMASH	Media	Encryption		Enable			
LDAP	UCD V	ou Foulstion Tures		Flagger			
VLAN		ey Emulation Type		Floppy			
SSL	Default	Generative Construction					
Alerts		КУМ 7578	CDROM		/Floppy 512		
Alert Email	KVM (S	ecure) /582 CD	ROM (Secure)	5124 USB/Floppy (S	Secure) 512	1	
Node Manager	Sav	e					
SDR Configuration	Select the Curre Abso Rela Othe Sav You can vi supported	e mouse mode to use nt Mouse Mode olute Mode (Preferred tive Mode (Use with o er Mode (Special situa e ard Macros iew and modify keybo d key names. Key Seq Ctrl+Alt+Del	. Use with Windows Ider Linux or PS/2 o tions such as SLES	s or newer Linux) only mouse drivers) 11 OS Installation)		Help to see the	
	#2	Alt+Tab		Alt Tab			

Figure 95: Configuration Mouse Mode Setting Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

7.3.9.1 Mouse Mode Setting – Other Mode Description

This mode should only be used for a SLES* 11 OS installation, and after this has been completed, the Mouse Mode Setting should be changed to the suggested Relative Mode for use within the SLES* 11 OS.

In this mode, the KVM window will be maximized to the full screen. Note that the windows resizing button in the top right corner is grayed out.

To use the mouse within the KVM window you must press Alt-C. The first time that Alt-C is pressed the mouse will appear close to the center of the window. Pressing Alt-C after that will switch between using the mouse within the KVM window and using the mouse on your host system. The mouse in the KVM window will remain in the last position that it was at when the operation is switched between the KVM Window, to the host system, and then back to the KVM window. There is a reminder of using Alt-C key in the Remote Console control bar to the left of the keyboard macros. See Figure 96 for details. During installation, the mouse response in the KVM is slow. This is normal and expected.

Note: If the top bar of the KVM window is double clicked, the window will be resized. If this occurs, because there is no resize window button, the operator can use the Remote Console Control Bar to select Video and then perform a Full Screen (or press Alt-F) operation to go to the full screen mode.

Intel® Integrated BMC Web Console Options

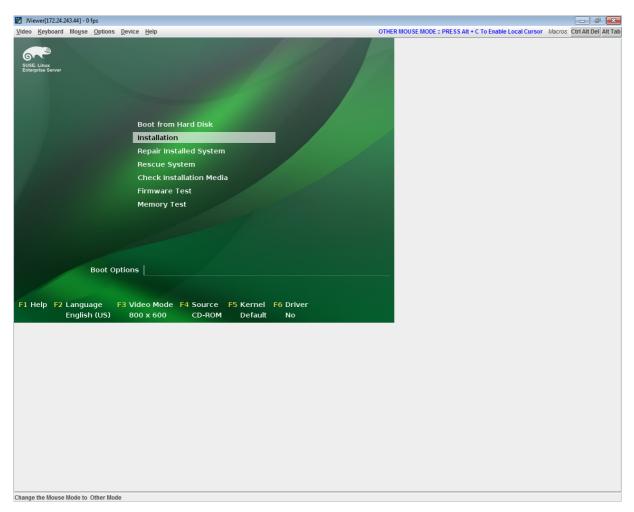


Figure 96: KVM Window with Mouse Other Mode Selected on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP Product Family

7.3.10 Keyboard Macros Page

Macro buttons can be defined on this page that appear in the upper right corner of the KVM Remote Console application window. Each button is assigned a sequence of keys to execute when the button is clicked.

(intel) In	tegra	ted BMC Web Consol	e	1	Y	A	
System Information	Server H	lealth Configuration Remote	Control	LOGOUT	C REFRESH	HELP	ABOUT
		onfiguration e these pages to configure various se	ttings, such as alerts, users,	or network.	o A		
Network Users	2022	oard Macros view and modify keyboard macros or	n this page. Button Name is o	ptional. Use	Help to see th	e supported l	key names.
Login		Key Sequence	Button Name				
LDAP	#1	Ctrl+Alt+Del	Ctrl Alt Del				
SSL	#2	Alt+Tab	Alt Tab				
Remote Session	#3						
Mouse Mode	#4						
Keyboard Macros	#5						
Alerts	#6						
Alert Email	#7						
	#8						
-	#9						
	#10						
		Save					

Figure 97: Configuration Keyboard Macros Page

This makes it convenient to quickly do oft repeated typing as well as execute key combos that are not possible directly from the local client keyboard. 'Alt' and 'Win' key combos such as Ctrl+Alt+Del are interpreted by the local client OS and are not passed through to the remote target OS. However, a macro can be set up to take care of this.

Each button can optionally be given a short mnemonic name. If this field is blank, the key sequence itself will also be used as the button label.

You must save changes before they take effect. If a Remote Console session is open at that time, you will not see the changes until that session is closed and a new session is opened.

7.3.10.1 Key Sequences

A key sequence is a set of one or more key names separated by a '+' or '-'.

A '+' indicates keep the previous keys pressed while holding down the next key, whereas a '-' indicates release all previous keys first before pressing the next key. A '*' inserts a one second pause in the key sequence.

Key names are either a printable character such as a, 5, @, and so on or else one of the nonprintable keys in the table below. Names in parentheses are aliases for the same key. Numeric keypad keys are prefixed with "NP_".

A plain '*' indicates a pause. Use '*' for the actual '*' key. The '\' key must also be escaped as '\\'.

Note: The key sequences are sent to the target as scan codes that get interpreted by the target OS, so they will be affected by modifiers such as Num Lock as well as the target OS keyboard language setting.

Shift (LShift)	RShift	Ctrl (LCtrl)	RCtrl
Alt (LAlt)	RAlt (AltGr)	Win (LWin)	RWin
Enter	Esc	F1 - F12	
Bksp	Tab	CapsLk	Space
Ins	Del	Home	End
PgUp	PgDn	Context (Menu)	
Up	Left	Down	Right
NumLk	NP_Div	NP_Mult	NP_Minus
NP_Plus	NP_0 - NP_9	NP_Dec	NP_Enter
PrtSc (SysRq)	ScrLk	Pause (Break)	

Table 22: Macro Non-printable Key Names

7.3.11 Alerts Page

Use this page to configure which system events an alert should be sent for and the destination for the alerts. Up to two destinations can be selected for each LAN channel. Figure 98 shows the details for an S1200BTL system.

(intel) In	tegrated BMC Web Console
System Information	Server Health Configuration Remote Control 3 LOGOUT CREFRESH O HELP ABOUT
	Configuration Use these pages to configure various settings, such as alerts, users, or network.
	Alerts
Network	Configure which system events generate Alerts and the external network destinations they should be sent to.
Users	
Login	Select the events that will trigger alerts:
LDAP	Temperature Sensor Out of Range System Restart Voltage Sensor Out of Range
SSL	Image: State of the state o
Remote Session	Power Supply Failure Power Supply Failure BIOS: Post Error Code FRB Failure
Mouse Mode	Node Manager Exception Hard Drive Failure
	Check All Clear All
Keyboard Macros	
Alerts	LAN Channel to Configure: Baseboard Mgmt -
Alert Email	Alert Destination #1:
	SNMP Send SNMP Alerts to IP: 0.0.0
	Email Send Email to:
	Alert Destination #2:
	SNMP Send SNMP Alerts to IP: 0.0.0
	© Email Send Email to:
	Save Send Test Alerts

Figure 98: Configuration Alerts Page on S1200BTL Platforms

The following table lists the options allowing you to select the events that alerts should be sent on and selection of where the alerts are to be sent.

Table 23: Configuration Alerts Options

Option	Task
Select the events that will trigger alerts.	Select one or more system events that will trigger an alert.
Check/Clear All buttons	Click to select or clear all events.
LAN Channel to Configure	Select either the BMC or RMM4 to configure the destination.
Alert Destination #1/#2	Select either SNMP along with the IP address or email address that the alert will be sent to. Up to two destinations can be selected for each LAN channel.

Intel[®] Integrated BMC Web Console Options

Option	Task
Save button	Click to use selected setup.
Send Test Alerts button	After configuring select this to send a test alert.

On Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW, there are two additional options. See Figure 99 for details.

- **Globally Enable Platform Event Filtering:** This can be used to prevent sending alerts until you have fully specified your desired alerting policies.
- Log Event on Filter Action: This can be used to enable or disable the logging of an event into the System Event Log when a Filter Action is taken.

(intel) In	tegrated BMC Web Console
System Information	Server Health Configuration Remote Control 3 LOGOUT CREFRESH O HELP ABOUT
	Configuration Use these pages to configure various settings, such as alerts, users, or network.
	Alerts
IPv4 Network	Configure which system events generate Alerts and the external network destinations they should be sent to.
IPv6 Network	
Users	Globally Enable Platform Event Filtering: © Enabled Disabled Log Event on Filter Action: © Enabled © Disabled
Login	
LDAP	Select the events that will trigger alerts: Temperature Sensor Out of Range Watchdog Timer
VLAN	System Restart Voltage Sensor Out of Range
SSL	🗌 Fan Failure 📃 Chassis Intrusion
Remote Session	Power Supply Failure Memory Error BIOS: Post Error Code FRB Failure
Mouse Mode	Node Manager Exception Hard Drive Failure
	Check All Clear All
Keyboard Macros	
Alerts	LAN Channel to Configure: Baseboard Mgmt 🔹
Alert Email	Alert Destination #1:
Node Manager	SNMP Send SNMP Alerts to IP: 0.0.0.0
	© Email Send Email to:
	Alert Destination #2:
	SNMP Send SNMP Alerts to IP: 0.0.0.0
	C Email Send Email to:
	Save Send Test Alerts

Figure 99: Configuration Alerts Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP and Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW Intel® Integrated BMC Web Console Options

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7.3.12 Alert Email Page

Use this page to configure the parameters for Alert Emails.

(intel) Int	tegrated BMC Web	Console	1	Y	
System Information	Server Health Configuration	Remote Control		REFRESH	THELP ABOUT
	Configuration Use these pages to configur	e various settings, such as al	erts, users, or network.		
	Alert Email Settings				
Network	Configure how Alerts are sent by	email to an external SMTP Ma	ailserver. Each LAN Chai	nnel has a sepe	erate configuration.
Users	LAN Channel:			10	1
Login		Baseboard Mgmt 👻			
LDAP	SMTP Server IP:	0.0.0.0			
SSL	Sender Address:				
Remote Session	Local Hostname:				
Mouse Mode	Save				
Keyboard Macros					
Alerts					
Alert Email					

Figure 100: Configuration Alert Email Page

The following table lists the options allowing you to configure the parameters for Alert Emails.

Table 24: Configuration Alert Email Options

Option	Task
LAN Channel	Select either the BMC or RMM4 to configure the destination.
SMTP Server IP	 The IP address of the remote SMTP mail server that the alert emails will be sent to. The IP address is made of four numbers separated by dots as in "xxx.xxx.xxx.xxx". 'xxx' ranges from 0 to 255. First 'xxx' must not be 0.
Sender Address	The sender address string to be put in the "From:" field of outgoing alert emails.
Local Hostname	 The hostname of the local machine that is generating the alert. It is put into the outgoing alert email. The Local Hostname is a string of maximum 31 alpha-numeric characters. Space and special characters are not allowed.
Save button	Click to use selected setup.

7.3.13 Node Manager Power Polices Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP, Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

On Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP Product Family this page is used to view, add, and configure the Node Manager Power Policies.

(intel) In	tegrated BMC Web Console
System Information	Server Health Configuration Remote Control Score Refresh Control Refresh ABOUT
	Configuration Use these pages to configure various settings, such as alerts, users, or network.
IPv4 Network	Node Manager Power Policies Use this page to set Node Manager Power Policies.
IPv6 Network	
Users	Policy Timers Enabled Shutdown Alert Power Limit
Login	
LDAP	Add/Edit Node Manager Policies.
VLAN	Policy Number 📃 Enabled 💭 System Shutdown 📃 Log Event
SSL	
Remote Session	Power Limit (Watts)
Mouse Mode	Use Policy Suspend Periods: O Yes No
Keyboard Macros	Save Delete Cancel
Alerts	
Alert Email	
Node Manager	

Figure 101: Configuration Node Manager Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP and Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

The following table lists the options allowing you to view, add, and edit the Node Manager Power Policies.

Option	Task
Node Manager Power Policies	This table lists the currently configured policies. Selecting an item from the table will populate the editable fields in the settings section below.

Table 25: Configuration Node Manager Options

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Option	Task
Policy Number	The policy number to add/edit/delete. Valid range is 0-255. In the policy table, policy numbers with an asterisk (*) are policies set externally using a non-platform domain. Changing parameters on these policies will not affect their triggers, trigger limits, reporting periods, correction timeouts, or aggressive CPU throttling settings.
Enabled check box	Check this box if the policy is to be enabled immediately.
System Shutdown check box	Check this box to enable a system shutdown if the policy is exceeded and cannot be corrected within the correction timeout period. The operating system will be given 30 seconds to shut down gracefully. If the system is still not shut down after 30 seconds, the BMC will initiate an immediate shutdown.
Log Event check box	Check this box to enable the node manager to send a platform event message to the BMC when a policy is exceeded.
Power Limit	The desired platform power limit, in watts.
Use Policy Suspend Periods	If enabled, you may configure policy suspend periods. Each policy may have up to five suspend periods (see Figure 102). Suspend periods are repeatable by day-of-week. Start and stop times are designated in 24-hour format, in increments of 6 minutes. To specify a suspended period crossing midnight, two suspend periods must be used.

For all policies set through this page, the following default values will be applied:

- **Domain: Platform** Power for the entire platform.
- **Trigger:** None Always monitor after end of POST.
- **Aggressive CPU Power Correction:** AUTO Use of T-states and memory throttling controlled by policy exception actions.
- Trigger Limit: None.
- **Reporting Period:** 10 seconds This is a rolling average for reporting only. It will not affect the average power monitored by the node manager.
- **Correction Timeout:** 22.555 seconds Maximum time for the NM to correct power before taking an exception action (that is, shutdown or alert).

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System Information	Server Health Configuration Remote Control 🕙 LOGOUT 🖉 REFRESH 🕐 HELP 🙆 ABOU
	Configuration Use these pages to configure various settings, such as alerts, users, or network.
Pv4 Network	Node Manager Power Policies
Pv6 Network	Use this page to set Node Manager Power Policies.
Jsers	Policy A Timers A Enabled A Shutdown A Alert A Power Limit A
ogin	
DAP	Add/Edit Node Manager Policies.
/LAN	Policy Number Enabled System Shutdown Log Event
SL	
Remote Session	Power Limit (Watts)
1ouse Mode	Use Policy Suspend Periods: Yes No
(eyboard Macros	
lerts	Timer 1 Timer 2 Timer 3 Timer 4 Timer 5 Monday Monday Monday Monday
Alert Email	🗌 Tuesday 🔄 Tuesday 📄 Tuesday 📄 Tuesday
Node Manager	Wednesday Wednesday Wednesday Wednesday Thursday Thursday Thursday Thursday
	Friday Friday Friday Friday
	Saturday Saturday Saturday Saturday
	Sunday Sunday Sunday Sunday Sunday Start Time Start Time Start Time Start Time
	End Time End Time End Time End Time

Figure 102: Configuration Node Manager Page with Use Policy Suspend Period Selected

7.4 Remote Control Tab

The **Remote Control** tab helps you perform the following remote operations on the server:

- Console redirection
- Server power control

7.4.1 Console Redirection Page

By default, the **Remote Control** tab opens the Console Redirection page. Launch the remote console KVM redirection window from this page.

Note that the **Launch Console** button will be grayed out and non-functional if the RMM4 Lite is not present.

(intel) In	tegrated BMC Web Console	-	1 P	E	
System Information	Server Health Configuration Remote Control		REFRESH	O HELP	ABOUT
	Remote Control This section allows you to perform various remote operations the remote console.	on the server, such as	launching		
Console Redirection Server Power Control	Console Redirection _ Press the button to launch the redirection console and manage	e the server remotely.			
	Launch Console				

Figure 103: Remote Control Console Redirection Page

Click the **Launch Console** button to launch the redirection console and manage the server remotely.

Note: Java* Runtime Environment (JRE - Version 6 Update 22 or higher) must be installed on the client before launch of JNLP file.

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7.4.2 Server Power Control Page

The Server Power Control page shows the power status and allows power/reset control of the server. Figure 104 shows the details for an S1200BTL system.

For the Graceful OS Shutdown to function properly the OS must be ACPI aware and be configured to do the shutdown without operator intervention. After a Graceful Shutdown has been requested, if the system does not shut down as requested, the command cannot be executed again for five minutes.

(intel) Int	egrated BMC Web Console
System Information	Server Health Configuration Remote Control 30 LOGOUT 30 REFRESH 30 HELP 3 ABOUT
	Remote Control This section allows you to perform various remote operations on the server, such as launching the remote console.
	Power Control and Status
Console Redirection	The current server power status is shown below. To perform a power control operation, select one of the options below and
Server Power Control	press Perform Action.
	Host is currently ON
	Reset Server
	Power OFF Server
	Graceful Shutdown
	O Power ON Server
	Power Cycle Server
	Perform Action

Figure 104: Remote Control Server Power Control Page on S1200BTL Platforms

The following power control operations can be performed.

Option	Task	
Reset Server	Select option to hard reset the host without powering off.	
Power OFF Server	Select option to immediately power off the host.	
Graceful Shutdown	Select option to soft power off the host.	
Power ON Server	Select option to power on the host.	
Power Cycle Server	Select option to immediately power off the host, and then power it back on after one second.	
Perform Action button	Click to execute the selected remote power command.	
Note: All power control actions are done through the BMC and are immediate actions. It is suggested to gracefully shut down the operating system using the KVM interface or other interface before initiating power actions.		

Intel[®] Integrated BMC Web Console Options

On Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families you have an additional option **Force-enter BIOS Setup** on a reset. See Figure 105 and Table 27 for details.

For the Graceful OS Shutdown to function properly the OS must be ACPI aware and be configured to do the shutdown without operator intervention. After a Graceful Shutdown has been requested, if the system does not shut down as requested, the command cannot be executed again for five minutes.

(intel) Int	egrated BMC Web Console
System Information	Server Health Configuration Remote Control 3 LOGOUT REFRESH ABOUT
	Remote Control This section allows you to remotely monitor and control the server .
	Power Control and Status
Console Redirection	The current server power status is shown below. To perform a power control operation, select one of the options below and
Server Power Control	press Perform Action.
Virtual Front Panel	Host is currently ON
	Reset Server
	Force-enter BIOS Setup
	Power OFF Server
	© Graceful Shutdown
	O Power ON Server
	Power Cycle Server
	Perform Action

Figure 105: Remote Control Server Power Control Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families

Table 27: Remote Control Power Control Options on Intel® Server Boards and Systems Based onIntel® Xeon® Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families

Option	Task
Reset Server	Select option to hard reset the host without powering off.
Force-Enter BIOS Setup	Check this option to enter into the BIOS setup after resetting the server.
Power OFF Server	Select option to immediately power off the host.
Graceful Shutdown	Select option to soft power off the host.
Power ON Server	Select option to power on the host.
Power Cycle Server	Select option to immediately power off the host, and then power it back on after one second.
Perform Action button	Click to execute the selected remote power command.

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Option	Task
Note: All power control actions are done through the BMC and are immediate actions.	

On an S1200V3RP and Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW ' system you have an additional option **Force-enter BIOS Setup** on a Power On. See Figure 106 and Table 28 for details.

For the Graceful OS Shutdown to function properly the OS must be ACPI aware and be configured to do the shutdown without operator intervention. After a Graceful Shutdown has been requested, if the system does not shut down as requested, the command cannot be executed again for five minutes.

(intel) Int	egrated BMC Web Console
System Information	Server Health Configuration Remote Control 3 LOGOUT REFRESH O HELP ABOUT
	Remote Control This section allows you to remotely monitor and control the server .
	Power Control and Status
Console Redirection	The current server power status is shown below. To perform a power control operation, select one of the options below and
Server Power Control	press Perform Action.
Virtual Front Panel	Host is currently ON
	Reset Server
	Force-enter BIOS Setup
	O Power OFF Server
	© Graceful Shutdown
	Power ON Server
	Force-enter BIOS Setup
	Power Cycle Server
	Perform Action

Figure 106: Remote Control Server Power Control Page on S1200V3RP and Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

Table 28: Remote Control Power Control Options on S1200V3RP Product Family

Option	Task	
Reset Server	Select option to hard reset the host without powering off.	
Force-Enter BIOS Setup	Check this option to enter into the BIOS setup after resetting the server.	
Power OFF Server	Select option to immediately power off the host.	
Graceful Shutdown	Select option to soft power off the host.	

Intel[®] Integrated BMC Web Console Options

Option	Task	
Power ON Server	Select option to power on the host.	
Force-Enter BIOS Setup	Check this option to enter into the BIOS setup after powering on the server.	
Power Cycle Server	Select option to immediately power off the host, and then power it back on after one second.	
Perform Action button	Click to execute the selected remote power command.	
Note: All power control actions are done through the BMC and are immediate actions.		

7.4.3 Virtual Front Panel Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP and Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

On Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP Product Family this page can be used just like the systems front panel.

(intel) In	tegrated BMC Web Console		Y	EET-
System Information	Server Health Configuration Remote Control		REFRESH	O HELP ABOUT
	Remote Control This section allows you to remotely monitor and control	the server .		
Console Redirection Server Power Control				
Virtual Front Panel	Power Status	Christis D		
	Power O Re:	set 🥂 Chassis	ID	

Figure 107: Remote Control Virtual Front Panel Page on Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP and Intel[®] Server Boards and Systems Based on Intel[®] Xeon[®] Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

The following power control operations can be performed.

Option	Task
Power Button	The Power button is used to power on or power off.

Table 29: Remote Control Virtual Front Panel Options

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Option	Task
Reset Button	The Reset button is used to reset the server while system is ON.
Chassis ID Button	When the Chassis ID button is pressed, the chassis ID LED changes to solid on. If the button is pressed again, the chassis ID LED turns off.
NMI Button	At present, the NMI button is disabled.
Power LED	The Power LED shows the system power status. If the Power LED is green, the system is ON. If the Power LED is grey, the system is OFF.
Status LED	The Status LED reflects the system status LED status and it is automatically in sync with the BMC every 60 seconds. This reflects the System Status LED.
Chassis ID LED	The Chassis ID LED shows the current system chassis ID status. If the Chassis ID LED is blue, the Chassis ID is indefinite ON. If the Chassis ID LED is grey, the Chassis ID is OFF.