

# Intel<sup>®</sup> Remote Management Module 4 and Integrated BMC Web Console User Guide

**Revision 2.9** 

March 2019

Intel® Server Boards and Systems- Marketing

## **Revision History**

Date	Revision	Modifications
	Number	
February 2011	1.0	After second review. Screen captures updated.
December 2011	2.0	Renamed document and added Intel® Server Boards and Systems Based on Intel® Xeon® Processor E5-4600/2600/2400/1600/1400 Product Families.

Date	Revision Number	Modifications
December 2011	2.1	Update for new speed POR.
Jonuary 2012	2.2	Added AXXRMM4R.     Added description of Mouse Mode "Other"
January 2012	2.2	<ul> <li>Added description of Mouse Mode "Other".</li> <li>Added description of KVM mouse mode selection capability.</li> </ul>
March 2012	2.3	<ul> <li>Added description of KVM mouse mode selection capability.</li> <li>Added S2400GP, S2400LP, S2600IP, S2600WP, W2600CR boards and systems.</li> <li>Updated S1200BTL System Debug Log Page information.</li> <li>Added notes for USB Key not attaching.</li> <li>Added EMI bracket cover information.</li> <li>Multiple corrections to the documentation.</li> </ul>
May 2012	2.4	<ul> <li>Updated multi node SKU information.</li> <li>Added S2400EP board and system.</li> <li>Updated Intel® Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 Product Families System Debug Log section.</li> </ul>
August 2012	2.5	<ul> <li>Changed references to multi node products.</li> <li>Added note for About button.</li> <li>Added note for F5 and page refresh not being supported.</li> <li>Added clarifications on Remote Console page.</li> <li>Added S1400FP, S1400SP, and S4600LH2/S4600LT2 boards and systems.</li> </ul>
December 2012	2.6	Added S1600JP.
July 2013	2.7	<ul> <li>Added S1200V3RP.</li> <li>Updated Remote Sessions page.</li> <li>Updated Remote Alerts page.</li> <li>Updated Server Power Control page.</li> <li>Corrected R1000SP entry in Table 3.</li> <li>Updated screen captures.</li> </ul>
July 2014	2.8	<ul> <li>Added Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-2600 V3 S2600WT, S2600KP, S2600TP and S2600CW.</li> </ul>
March 2019	2.9	Add dedicate NIC setting caution to avoid duplex mismatch

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## 1. Introduction

This User Guide describes how to use the Intel<sup>®</sup> Remote Management Module 4 (Intel<sup>®</sup> 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<sup>®</sup> RMM4.

The Intel<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> Integrated BMC Web Console. As a system administrator, you can use the Intel<sup>®</sup> Integrated BMC Web Console to gain location-independent remote access to respond to critical incidents. You can use the Intel<sup>®</sup> 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 <sup>®</sup> ASMI	Intel® Advanced Server Management Interface
Intel <sup>®</sup> RMM4	Intel <sup>®</sup> Remote Management Module 4
IPMI	Intelligent Platform Management Interface
KVM	Keyboard, Video, and Mouse
LAN	Local Area Network
LDAP	Lightweight Directory Access Protocol
MAC	Media Access Controller
MII	Media Independent Interface

Table 1: Terminology

Word/Acronym	Definition
NIC	Network Interface Controller
OOB	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**

#### A WARNING

Before working with your Intel<sup>®</sup> 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.

#### A WARNINGS

- ▲ System power on/off: The server power button DOES NOT turn off the system power or Intel<sup>®</sup> RMM4 power. To remove power from the Intel<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> Server Boards and Server Chassis Safety Information* at <u>http://www.intel.com/support/motherboards/server/sb/cs-010770.htm</u>.



**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.
- 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<sup>®</sup>-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.
- Tragen Sie ein geerdetes Antistatik Gelenkband, um elektrostatische Ladungen (ESD) über blanke Metallstellen bei der Handhabung der Komponenten zu vermeiden.
- 6. Schalten Sie das System niemals ohne ordnungsgemäß montiertes Gehäuse ein.



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.

## ▲ 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*<sup>®</sup>

Server Boards and Server Chassis Safety Information (《Intel<sup>®</sup> 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<sup>®</sup> Server Boards and Server Chassis Safety Information sur le CD Resource CD ou bien rendez-vous sur le site <a href="http://www.intel.com/support/motherboards/server/sb/cs-010770.htm">http://www.intel.com/support/motherboards/server/sb/cs-010770.htm</a>



**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.
- 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.
- 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.

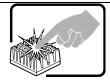
## **A** Instrucciones de seguridad importantes

Lea todas las declaraciones de seguridad y precaución de este documento antes de realizar cualquiera de las instrucciones. Vea *Intel<sup>®</sup> 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:

- 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.
- 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.
- 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<sup>®</sup> 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<sup>®</sup> Enterprise Server and Storage Platforms. Information available at the support site includes:

- Latest BIOS, firmware, drivers, and utilities.
- 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.
- 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<sup>®</sup> Remote Management Module 4 Overview

This section gives you an overview of the Intel<sup>®</sup> RMM4 and highlights significant benefits of its features.

### 2.1 Intel<sup>®</sup> RMM4 Lite and Intel<sup>®</sup> Dedicated Server Management NIC

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

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

The Intel<sup>®</sup> RMM4 Lite is a small board that unlocks advanced KVM and remote media management features on the RGMII interface when installed on Intel<sup>®</sup> 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<sup>®</sup> RMM4 Lite has been installed, the advanced management features are available through both the optional Intel<sup>®</sup> Dedicated Server Management NIC, if installed, and all of the on-board Integrated BMC-shared NIC ports.

If the optional Intel<sup>®</sup> Dedicated Server Management NIC is installed, the NIC is dedicated to the Intel<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> RMM4 Lite



Figure 2: Intel<sup>®</sup> Dedicated Server Management NIC

### 2.1.2 Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-2600 (V3&V4) --- S2600WT, S2600KP, S2600TP and S2600CW

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

The Intel<sup>®</sup> RMM4 Lite is a small board that unlocks advanced management features on the RGMII interface when installed on Intel<sup>®</sup> 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<sup>®</sup> RMM4 Lite)

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

### 2.1.3 Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Phi Processor (KNL-D, KNL-F) --- S7200AP

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

The Intel<sup>®</sup> RMM4 Lite is a small board that unlocks advanced KVM and remote media management features on the RGMII interface when installed on Intel<sup>®</sup> 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<sup>®</sup> RMM4 Lite)

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

If the optional Intel<sup>®</sup> Dedicated Server Management NIC is installed, the NIC is dedicated to the Intel<sup>®</sup> RMM4 advanced management features traffic along with all other standard server management traffic. The host system is unaware of this NIC. (Refer to Figure 2: Intel<sup>®</sup> Dedicated Server Management NIC)

If the optional Intel<sup>®</sup> 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.

### 2.2 Intel<sup>®</sup> RMM4 Features

The Intel<sup>®</sup> 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<sup>®</sup> RMM4 hardware.

Key features of the Intel<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> RMM4 is connected. The Intel<sup>®</sup> RMM4 has been validated using the operating systems listed in the following sub sections.

#### 2.3.1 Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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\*

#### 2.3.3 Intel® Server Boards and Systems Based on Intel® Xeon® Phi Processor (KNL-D, KNL-F) --- S7200AP

#### 2.3.3.1 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

#### 2.3.3.2 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\*

## 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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&v2), S1200V3RP and S1200BTL Product Families, the Intel<sup>®</sup> RMM4 has multiple packages:
- RMM4 Lite edition (AXXRMM4Lite), which contains the following components:
  - o Intel<sup>®</sup> Remote Management Module 4 Lite module
- RMM4 full edition (AXXRMM4), which contains the following components:
  - Intel<sup>®</sup> 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<sup>®</sup> Server Boards S2600GZ, S2600GL, S2400BB, S2400EP, and S1400SP, which contains the following components:
  - Intel<sup>®</sup> Remote Management Module 4 Lite module
  - Intel<sup>®</sup> 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<sup>®</sup> HNS2600JF and Intel<sup>®</sup> HNS2400LP Compute Module Family) for Intel<sup>®</sup> Server Boards S2600JF and S2400LP
  - AXXRMM4IOMW (Intel<sup>®</sup> HNS2600WP Compute Module Family) for Intel<sup>®</sup> 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<sup>®</sup> I/O modules
    - Associated mounting hardware (screws, standoff, and brackets)
- RMM4 Rack Optimized edition (A1UJPRMM4IOM) for Intel<sup>®</sup> 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
  - $\circ~$  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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-2600 V3 ----S2600WT, S2600KP, S2600TP and S2600CW, the Intel<sup>®</sup> RMM4 has only one package:
- RMM4 Lite edition (AXXRMM4LITE), which contains the following components:
   Intel<sup>®</sup> Remote Management Module 4 Lite module
- 3) For Intel® Server Boards and Systems Based on Intel® Xeon® Phi Processor (KNL-D, KNL-F) --- S7200AP, the Intel<sup>®</sup> RMM4 has two packages:
- RMM4 Lite edition (AXXRMM4LITE), which contains the following components:
   Intel<sup>®</sup> Remote Management Module 4 Lite module
- RMM4 full edition 2 (AXXRMM4R), which contains the following components:
  - o Intel<sup>®</sup> Remote Management Module 4 Lite module
  - Intel<sup>®</sup> Dedicated Server Management Network Interface Card (NIC) module 2
  - Bag containing screws

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

- Caution: Intel<sup>®</sup> 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.
- ▲ **Caution**: Because the BMC DMN does not allow for manual configuration of speed and duplex, any switch port to which the BMC is connected must be configured to auto-negotiation which follows industry best practices for 1GbE devices.

### 3.3.1 Installation of the Intel<sup>®</sup> RMM4 Lite on Intel<sup>®</sup> Server Boards

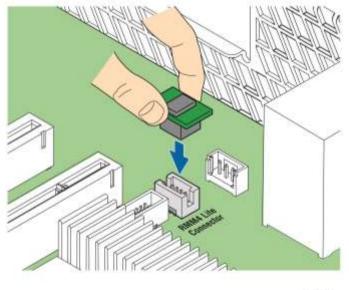
The following are steps for installing the Intel<sup>®</sup> RMM4 Lite on Intel<sup>®</sup> Server Boards and apply to all system types:

- 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<sup>®</sup>* 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<sup>®</sup> Server Board.

**Note**: For more details see your specific Intel<sup>®</sup> Server Systems Technical Product Specification and Intel<sup>®</sup> Server Systems Service Guide.

Intel <sup>®</sup> Server Board	RMM4 Lite Connector Reference Designator		
S1200BTL	J4B1		
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		
S7200AP			

#### Table 2: Intel<sup>®</sup> Server Boards RMM4 Lite Connector Locations



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

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

For Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&v2), S1200V3RP and S1200BTL Product Families, the Intel<sup>®</sup> 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<sup>®</sup> Dedicated Server Management NIC on an Intel<sup>®</sup> Rack Server System

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

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

Table 3: Intel <sup>®</sup> Rack Server Systems – Intel <sup>®</sup> Dedicated Server Management NIC Connector
Locations

Intel <sup>®</sup> 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

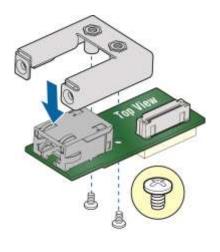
Intel <sup>®</sup> Server System	RMM4 NIC Connector Reference Designator	Cable and Bracket Required?	Section	Figure
R1000EP Family	J2B1	No	3.3.2.1.3	Figure 10
R1000RP Family	J5C1	Yes	3.3.2.1.1	Figure 6
R1000SP Family	J3B2	No	3.3.2.1.2	Figure 9
R2000FP Family	J1D2	Yes (PCI slot bracket)	3.3.2.1.4	Figure 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

# 3.3.2.1.1 Installing the Dedicated NIC on Intel<sup>®</sup> 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.
- 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.

Caution: because the BMC does not allow for manual configuration of speed and duplex, any switch port to which the BMC is connected must be configured to autonegotiation, which follows industry best practices for 1GbE devices.

3. Attach the metal fastening bracket to the Intel<sup>®</sup> Dedicated Server Management NIC module as shown in Figure 4.

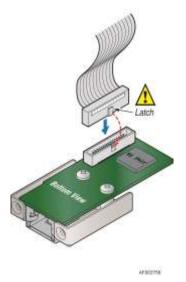


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#### Figure 4: Attaching the Bracket to the Intel<sup>®</sup> Dedicated Server Management NIC Module

#### Hardware Installations and Initial Configuration

- 4. Attach the cable to the cable connector on the Intel<sup>®</sup> 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.



#### Figure 5: Attaching the Cable to the Intel<sup>®</sup> Dedicated Server Management NIC Module

- 5. Attach the cable to the cable connector on the Intel<sup>®</sup> 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.

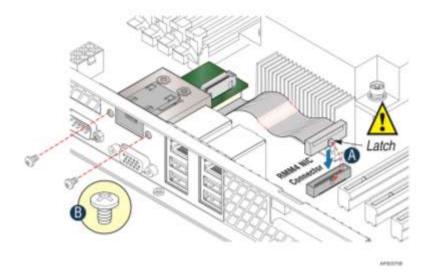


Figure 6: Adding the Intel<sup>®</sup> Dedicated Server Management NIC Module in the Intel<sup>®</sup> Server System R1000BTL and R1000RP Families

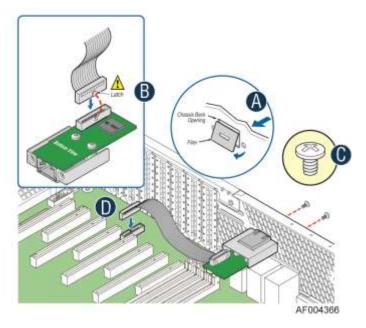


Figure 7: Adding the Intel<sup>®</sup> Dedicated Server Management NIC Module in the Intel<sup>®</sup> Server System R2000IP Family

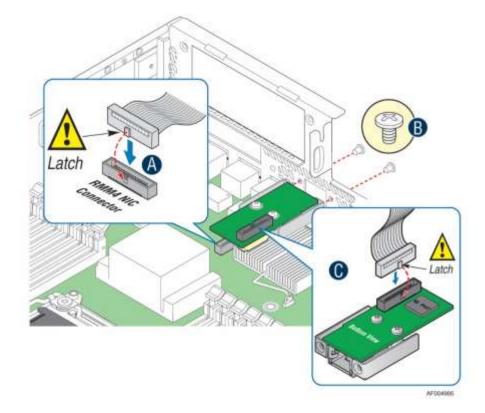
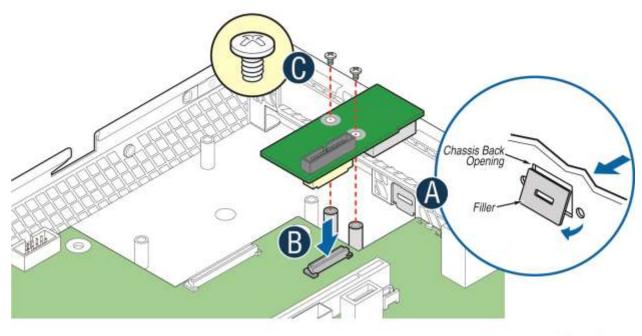


Figure 8: Adding the Intel<sup>®</sup> Dedicated Server Management NIC Module in the Intel<sup>®</sup> Server System R2000LH2/R200LT2

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# 3.3.2.1.2 Installing the Dedicated NIC on Intel<sup>®</sup> 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.
- A 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<sup>®</sup> Server System board and secure it to the standoffs with two screws.



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Figure 9: Adding the Intel<sup>®</sup> Dedicated Server Management NIC Module in the Intel<sup>®</sup> 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<sup>®</sup> Dedicated Server Management NIC module.
- Caution: because the BMC does not allow for manual configuration of speed and duplex, any switch port to which the BMC is connected must be configured to autonegotiation, which follows industry best practices for 1GbE devices.

#### 3.3.2.1.3 Installing the Dedicated NIC on Intel<sup>®</sup> 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**).

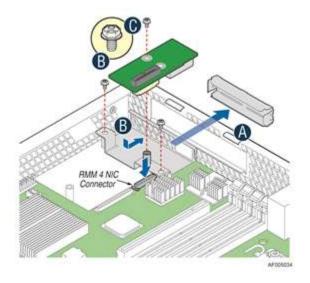
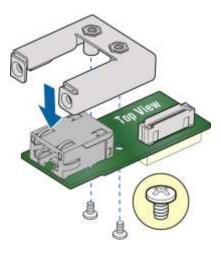


Figure 10: Adding the Intel<sup>®</sup> Dedicated Server Management NIC Module in the Intel<sup>®</sup> Server System R1000EP Family

# 3.3.2.1.4 Installing the Dedicated NIC on Intel<sup>®</sup> 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<sup>®</sup> 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.

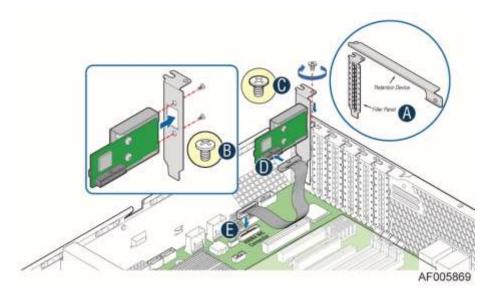


Figure 12: Installing the Intel<sup>®</sup> Dedicated Server Management NIC Module in the Intel<sup>®</sup> Server System R2000FP Family or R2000SC Family

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

#### 3.3.2.2 Installation of the Intel<sup>®</sup> Dedicated Server Management NIC on an Intel<sup>®</sup> Multi Node Server System

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

#### Table 4: Intel<sup>®</sup> Multi Node Server Systems

Intel <sup>®</sup> Server System		
H2000JF		
H2000LP		
H2000WP		

#### 3.3.2.3 Installation of the Intel<sup>®</sup> Dedicated Server Management NIC on an Intel<sup>®</sup> Rack Optimized Server System

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

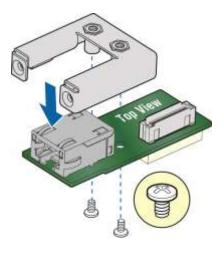
#### Table 5: Intel<sup>®</sup> Rack Optimized Server Systems

Intel <sup>®</sup> Server System	
R1000JP	

# 3.3.2.4 Installation of the Intel<sup>®</sup> Dedicated Server Management NIC on an Intel<sup>®</sup> Pedestal Server System

Most Intel<sup>®</sup> Pedestal Server Systems allow the Intel<sup>®</sup> Dedicated Server Management NIC module to be mounted to the chassis. Table 6 lists all Intel<sup>®</sup> Pedestal Server Systems that support a chassis mounted Intel<sup>®</sup> Dedicated Server Management NIC module. Use the following steps when installing the Intel<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup>* Server Systems Technical Product Specification and *Intel<sup>®</sup>* 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.
- 4. Attach the cable to the cable connector on the Intel<sup>®</sup> 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<sup>®</sup> Pedestal Server Systems – Chassis Mounted Intel<sup>®</sup> Dedicated Server Management

 NIC Connector Locations

Intel <sup>®</sup> Server System	RMM4 NIC Connector Reference Designator	Figure		
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		

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Intel <sup>®</sup> Server System	RMM4 NIC Connector Reference Designator	Figure
S2400GP/P4000M Chassis	J1B2	Figure 15
S2400SC/P4000M Chassis	J1C7	Figure 14
S2600CO/P4000M Chassis	J1B3	Figure 15
S2600CP/P4000M Chassis	J1C1	Figure 15

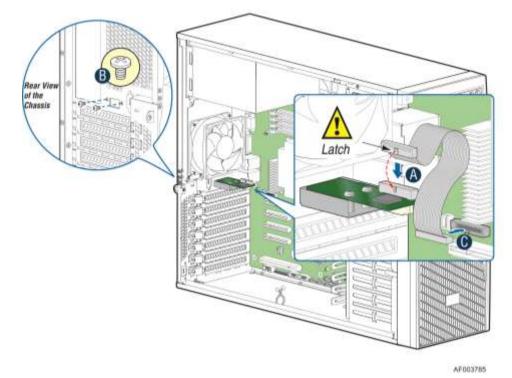


Figure 14: Adding the Intel<sup>®</sup> Dedicated Server Management NIC Module in the Intel<sup>®</sup> Server System P4000BTL and P4000RP Families

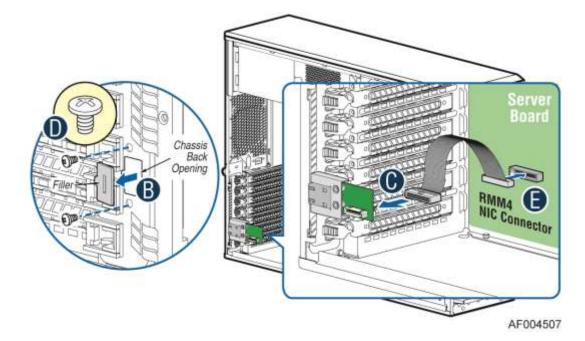


Figure 15: Adding the Intel<sup>®</sup> Dedicated Server Management NIC Module in the Intel<sup>®</sup> Server System P4000CP Family, P4000FP Family, P4000GP Family, P4000SC Family, or P4000M Chassis

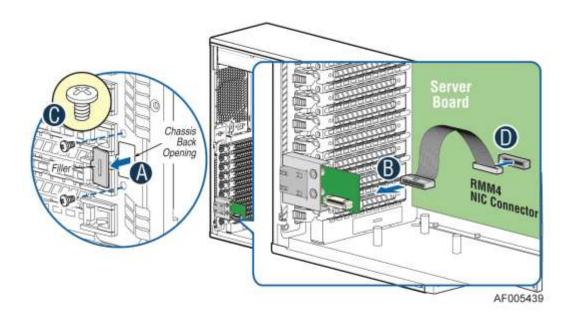


Figure 16: Adding the Intel<sup>®</sup> Dedicated Server Management NIC Module in the Intel<sup>®</sup> Server System P4000CR Family or P4000IP Family

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

Table 7: Intel <sup>®</sup> Pedestal Server Systems with Chassis Mounted Intel <sup>®</sup> Dedicated Server		
Management NIC – Installation of EMI Bracket Cover		

Intel <sup>®</sup> 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

G50757-001 Bracket Cover for P4000M and P4000S chassis

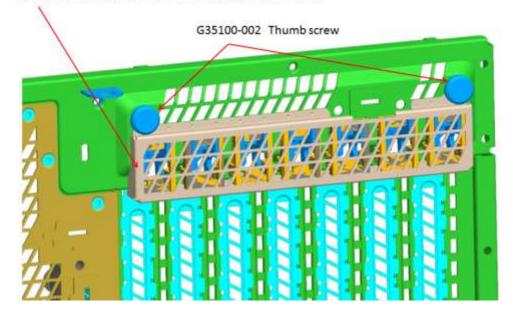
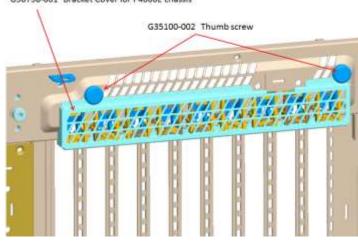


Figure 17. Installation of P4000S and P4000M Chassis EMI Bracket Cover



G50758-001 Bracket Cover for P4000L chassis

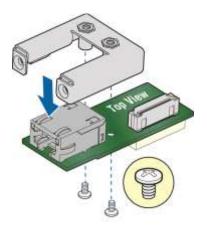
Figure 18. Installation of P4000L Chassis EMI Bracket Cover

6. Replace the chassis cover, attach the AC power, and connect a network cable to the Intel<sup>®</sup> Dedicated Server Management NIC module.

### 3.3.2.5 Installation of the Intel<sup>®</sup> Dedicated Server Management NIC on a Third-party Pedestal Chassis

Use the following steps when installing the Intel<sup>®</sup> Dedicated Server Management NIC module on a Third-party pedestal chassis:

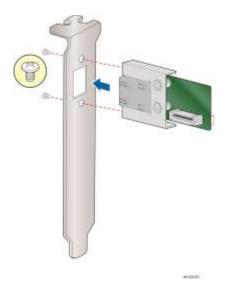
- 1. Ensure that AC power has been removed from the system and that you have waited at least 10 seconds after removing power.
- 2. Attach the metal fastening bracket to the Intel<sup>®</sup> Dedicated Server Management NIC module.



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

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<sup>®</sup> Dedicated Server Management NIC Module to the PCI Slot Bracket

- 4. Attach the cable to the cable connector on the Intel<sup>®</sup> 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**).
- A Caution: Take care when attaching or removing this cable. Mishandling the cable could cause damage.

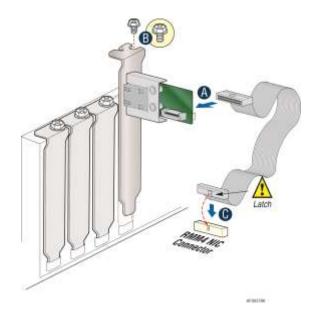


Figure 21: Adding the Intel® Dedicated Server Management NIC Module on a Third-party Chassis

Intel <sup>®</sup> 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<sup>®</sup> Server Boards RMM4 NIC Connectors

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

### 3.3.3 Intel<sup>®</sup> Dedicated Server Management NIC on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

For Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-2600 V3 ---S2600WT, S2600KP, S2600TP and S2600CW, the Intel<sup>®</sup> Dedicated Server Management NIC has been built on-board. User does not need to install Intel<sup>®</sup> Dedicated Server Management NIC module manually.

The Intel<sup>®</sup> 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<sup>®</sup> Dedicated Server Management NIC on Intel<sup>®</sup> Server S2600WT

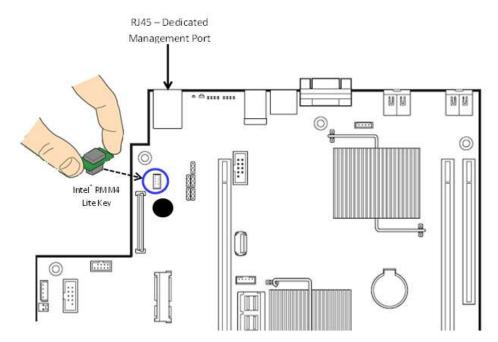


Figure 22: Intel<sup>®</sup> Dedicated Server Management NIC on Intel<sup>®</sup> Server S2600WT

3.3.3.2 Intel<sup>®</sup> Dedicated Server Management NIC on Intel<sup>®</sup> Server S2600KP and S2600TP

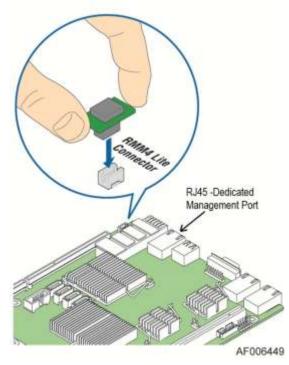


Figure 23: Intel® Dedicated Server Management NIC on Intel® Server S2600KP and S2600TP

### 3.3.3.3 Intel<sup>®</sup> Dedicated Server Management NIC on Intel<sup>®</sup> Server S2600CW

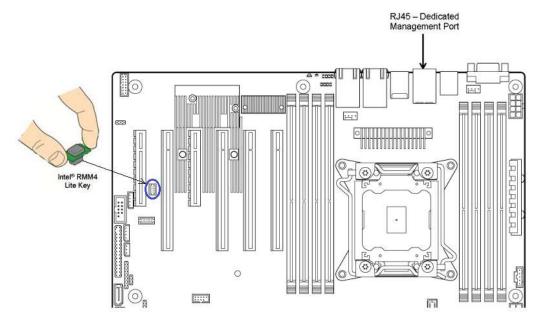


Figure 24: Intel<sup>®</sup> Dedicated Server Management NIC on Intel<sup>®</sup> Server S2600CW

### **3.3.4** Installation of the Intel<sup>®</sup> Dedicated Server Management NIC on Intel<sup>®</sup> Xeon<sup>®</sup> Phi Processor (KNL-D, KNL-F) --- S7200AP

For Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Phi Processor (KNL-D, KNL-F) --- S7200AP, the Intel<sup>®</sup> Dedicated Server Management NIC module need to be installed.

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

# 4. Configuring the Integrated BMC Web Console and Intel<sup>®</sup> RMM4

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

When first powered on, by default, the Server Management BMC LAN and the Intel<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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.

# 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<sup>®</sup> 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.

Aptio Setup Utility - Copyright (C) 2010 American Megatrends, Inc. Server Management			
BMC LAN Configuration		Select BMC IP source. When static option is selected, IP	
TP source	IP source	address, submet mask and	
IP source	[Static]	gateway are editable. When	
IP address	10.10.20.170	dynamic option selected, these	
Subnet mask	255.255.255.0	fields are read-only and IP	
Gateway IP	0.0.0	address is acquired automatically (DHCP).	
Intel (R) RMM4 LAN configuration	m		
Intel (R) RMM4	Present		
IP source	[Static]		
IP address	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			
	1 0		
Version 2.00.120	1. Copyright (C) 2010 Ameri	ican negatrends, Inc.	

Figure 25: Server Management – BMC LAN Configuration on S1200BTL

### 4.2 Configuring the Server Management NIC using BIOS Setup on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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<sup>®</sup> 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.
- 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<sup>®</sup> 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.

Aptio Setup Utility - Copyright (C) 2010 - 2011 American Megatrends, Inc. Server Management			
BMC LAN Configuration Baseboard LAN configuration		<ul> <li>Select BMC IP source. When static option is selected, IP address, subnet mask and</li> </ul>	
IP source	[Static]	gateway are editable. When	
IP address	172.24.243.43	dynamic option selected, these	
Subnet mask	255.255.255.0	fields are read-only and IP	
Gateway IP	172.24.243.251	address is acquired	
Baseboard LAN IPV6 configuration		automatically (DHCP).	
IPV6	[Disabled]		
Intel(R) RMM4 IPV4 LAN configurati Intel(R) RMM4 IP source IP address	on Present [Static] 10.10.180		
Subnet mask	255.255.255.0	14: Select Item	
Gateway IP	0.0.0.0	Enter: Select +/-: Change Opt.	
Intel(R) RMM4 IPV6 LAN configurati	on	F1: General Help	
Intel(R) RMM4	Present	F9: Setup Defaults	
IPV6 source	[Static]	F10: Save ESC: Exit	
IPV6 address	0000:0000:0000:00	Det .	
Gateway IPV6	0000:0000:0000:00		
IPV6 Prefix Length	64		
	uright (C) 2010 - 2011 Amor		

Figure 26: Server Management – BMC LAN Configuration on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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<sup>®</sup> RMM4, scroll down to **Dedicated Management 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.
- 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<sup>®</sup> 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.

User Configuration		View/Configure User information and settings of
<b>Baseboard LAN configuration</b>		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 configur	ation	
IPv6	<disabled></disabled>	
Dedicated Management LAN Co	nfiguration	
Remote Management Module	<present></present>	
IP Source	<dynamic></dynamic>	
IP Address	0.0.0	
Subnet Mask	0.0.0	
Gateway IP	0.0.0	
Dedicated Management LAN IP	v6 Configuration	
IPv6 Source	<static></static>	
IPv6 Address	0000:0000:0000:0000:0000	000:0000:000
		4 Scroll Down
	F10=Save Changes	F9=Reset to Defaults
t∔=Move Highlight	<enter>=Select Entry</enter>	Esc=Exit

### Figure 27: Server Management – BMC LAN Configuration on PCSD Platforms Based on Intel<sup>®</sup> S2600WT, S2600KP, S2600TP and S2600CW Product Families

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>	<b>**Note:</b> Password entered
User Password		will override any previous 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		
		↓ Scroll Down
I Massar Head Incard	F10=Save Changes	F9=Reset to Defaults
¦∔=Move Highlight	<pre><enter>=Select Entry</enter></pre>	Esc=Exit
	—Copyright (c) 2010-2014, Intel (	Corporation Configuration changed

Figure 28: Server Management – User Configuration on PCSD Platforms Based on Intel<sup>®</sup> S2600WT, S2600KP, S2600TP and S2600CW Product Families

# 4.4 Configuring the Server Management NIC using BIOS Setup on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon® Phi Processor (KNL-D, KNL-F) --- S7200AP

- 12. During POST, press <F2> to go to BIOS setup main page.
- 13. Select **Setup Menu** to enter into BIOS setup Menu.
- 14. Navigate to the **Server Management** tab and then scroll down to **BMC LAN Configuration**. Press <Enter>.
- 15. 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<sup>®</sup> RMM4, scroll down to **Dedicated Management 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.

16. 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<sup>®</sup> 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.
- 17. Navigate to User Configuration and then press <Enter>.
- 18. Scroll down to **User ID.** Select the user that you want to use.
- 19. Scroll down to User status. Select Enabled.
- 20. Scroll down to **User name**. Change the name as needed. Note that you cannot change anonymous or root.
- 21. Scroll down to **User password**. Change the password. Note that you need to enter the password twice.
- 22. 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.

# 4.5 Configuring the Server Management NIC using the Intel<sup>®</sup> 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<sup>®</sup> RMM4. The example shows how to configure LAN Channel 3 (Intel<sup>®</sup> RMM4 NIC).

### A WARNING

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

**Note**: When the Intel<sup>®</sup> 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)

Intel <sup>®</sup> Deploymen	it Assistant	(intel)
	My Server Advanced + Help + Eait	
Configure Server Server Management Settings Frish	Communication Options Select server management capabilities to configure C AM Channel 1 (onboard NIC1) C AM Channel 3 (Intel(R) Remote Management Module 4)	
	4 Black	Next :: Oancel

1. Select the channel to be configured.

Figure 29: IDA Configure Server: Communication Options Window

Intel <sup>®</sup> Deploymen	t Assistant	(intel)
	My≦erver Advanced + Help + Egit	
Configure Server Server Management Settings Finish	My Server Advanced + Heip + Egt         Communication Options         Select server management capabilities to configure         If LAN Channel 1 (onboard NIC1)	
	4 Back	Nox1 + Canoof

Figure 30: IDA Configure Server: Communication Options Window No Intel<sup>®</sup> 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 <sup>®</sup> Deploymen	nt Assistant	(intel)
	My Server Advanced + Help + Egit	
Configure Server Server Management Settings Finish	<section-header>         Carponal Cancer of Receive Management Module.         Carponal Cancer of Receive and Receive</section-header>	

Figure 31: IDA Configure Server: Configure LAN Channel 3 (Intel<sup>®</sup> RMM4 DMN) IP Address from a DHCP Server Window

Intel <sup>®</sup> Deploymen	t Assistant	(intel)
	My Server Advanced + Help + Egt	
Configure Server Server Management Settings Enish	LAD Channel 3 (Intel® Remote Management Module)   Longue the UA channel 3 excess settings   P Address from a DHCP server   P Address from a DHCP server   P Address 10 - 230 - 55 - 7   Subnet Mask 255 - 255 - 0   Gateway 10 - 230 - 55 - 241	
	4 Back No	at D Cancel

Figure 32: IDA Configure Server: Configure LAN Channel 3 (Intel<sup>®</sup> RMM4 DMN) Static IP Address Window

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

	My Ser	ver Advanced + He	ip • Egit		
onfigure Server					
erver Management Settings					•
nah.	Set Up Users				
	Set up user accounts for	this server.			
	UserName	Chattan .	Password	Lines Buildings	_
	Anonymous User	Disabled	Password	User Privileges ADMIN	
	testl	Enabled	*******	Admin	
	test2	Disabled	*****	ADMIN	
	test3	Disabled	*****	ADMIN	
				1	Edit
				<b>x</b>	
				*	
				*	
				•	
				•	
				•	

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.

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

My Server       Advanced * Help * Ept         Server Management Settings       Set Up Users         Fristi       Set up user accounts for this s         User Name       User Information         Itest2       Enter or change information for this user         Itest3       Ifer Privileges: Admin         Ifer Change User name:       Ifer Change User name:         Ifer Change User name:       Ifer Information         Ifer Information       Ifer Informat	Intel <sup>®</sup> Deploymen	nt Assistant	intel
Server Management Settings Firesh Set up user accounts for this s Set up user accounts for this s Set up user accounts for this s User Information Enter or change information for this user test2 test3 User Privileges: Admin		My Silen	r Advanced • Help • Egt
	Server Management Settings	Set Up Users Set up user accounts for t User Name Anonymous User Test1 test2	Edit User Sata       his st       User Information       Enter or change information for this user       IF Enable user account.       User Privileges:       Admin       IF Change Username and Password       Enter user name:       Test1       Enter password       Enter password       If Confirm password

Figure 34: IDA Configure Server: Edit User Information Window

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

Intel <sup>®</sup> Deploym	ent Assistant	(intel)
	My≦erver Advanced + Help + Egt	
Configure Server Server Management Settings Finish	My gerver Advanced • Help • Egit  Apply Configuration Select Apply to configure your server with the following settings. Server Management Settings	
	4 Back	Apply + Cancel

Figure 35: IDA Configure Server: Apply Configuration Window

Intel <sup>®</sup> Deployme	nt Assistant		(intel)
	Ny Server Advanced + Help	+ Egt	
Configure Server Server Menagement Settings Finish	Applying Configuration		
	Committing LAN Configurations		-

Figure 36: IDA Configure Server: Applying Configuration Progress Window

- 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 <sup>®</sup> Deployme	ent Assistant	(intel)
	MySarver Advanced + Help + Egit	
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

# 4.6 Configuring the Server Management NIC using the Intel<sup>®</sup> 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<sup>®</sup> Dedicated Server Management NIC LAN channel 3. If you are not using the Intel<sup>®</sup> Dedicated Server Management NIC, substitute the appropriate channel number. For NIC1 it will be channel 1. For NIC2 it will be channel 2.

### 4.6.1 Configuring the User

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

- Set the password for BMC user 2 (root) by typing (password is "p@ssw0rd" in this example): syscfg /u 2 "root" "p@ssw0rd"
- 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

### 4.6.2 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

### 4.6.3 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<sup>®</sup> RMM4 Operation

The Intel<sup>®</sup> RMM4 module features remote KVM access and control through LAN or Internet. The Intel<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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 Logm	

Figure 39: Intel<sup>®</sup> 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).

### 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.

System Information 🖡 S	erver Health Configuration Remote Control 3 LOGOUT CREEKER O HELP O	ABOUT
200	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 : Intel(R) RMM installed	
CPU Information	Device (BMC) Available : Yes	
DIMM Information	BMC FW Build Time : May 25 2012 16:02:14 BIOS ID : SE5C600.86B.01.02.0003.022820121335	
of the second second	BMC FW Rev: 01.10.3520	
	Boot FW Rev : 01.13	
	SOR Package Version : SDR Package 1.05	
	Mgmt Engine (ME) FW Rev : 02.01.05.069	

#### 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:
7	System Information
System Information	FRU Information
	<ul> <li>CPU Information (only on Intel® Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&amp;v2) Product Families)</li> <li>DIMM Information</li> </ul>
	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	<b>BMC</b> Web	Console	Home Pa	de Tabs
Table 3. Integrated		CONSOLE	nome i a	ye laba

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

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. <b>Note:</b> 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>
O 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 or by clicking the <b>HELP</b> button again.
ABOUT	Click this button to view the Intel <sup>®</sup> copyright information and a statement about the use of open source code.

### **Table 10: Horizontal Toolbar Buttons**

### 5.4 Online Help

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

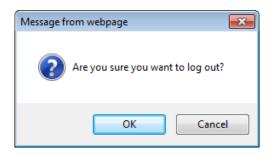
information on a certain topic or group of options, click the *tell* button on the top horizontal toolbar to view the online help as shown in Figure 41. The right **Help** frame is visible only when the online **Help** is being accessed.

System Information	Server Health Configuration Remote Control	S LOGOUT S REFRESH C HELP ABO
be	System Information This section contains general information about th	the system.
System Information	Summary	System Information - Help
FRU Information	System Information	Use this page to view informatio about the server.
	Host Power Status : Host is current	Host Power Status
System Debug Log	RMM Status : Intel(R) RMM in: Device (BMC) Available : Yes	installed Shows the power status of the hi (on/off).
IMM Information	BMC FW Build Time : Dec 20 2012 1	15:47:45 RMM Status
	BMC FW Rev : 01.16	Indicates if the Remote Manage Module (remote KVM card) is
	Boot FW Rev : 00.03	present.
	SDR Package Version : SDR Package 1	1.16 Device (BMC) Available Indicates whether the BMC is
	Mgmt Engine (ME) FW Rev : 02.02.00.049	indicates whether the pric ta
		BMC FW Build Time
		The date and time of the install- BMC firmnate.
		BMC FW Rev
		Major and minor revision of the firmware.
		Boat FW Rev
		Major and minor revision of the BOOT firmware.
		SDR Package Version
		Version of SDR package. ME FW Rev
		Major and minor firmware revisio
		the Management Engine (ME). C available if the host is powered

Figure 41: Launching the Online Help

### 5.5 Logging Out

Click the button 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 Logn	

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<sup>®</sup> 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<sup>®</sup> 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) In	tegrated BMC Web Console			
System Information	Server Health   Configuration   Remote Control	S LODOUT C REFRESH O HELR O ACOUT		
	Remote Control This section allows you to perform various remote operations on the serv	ver, such as launching the remote console.		
Console Redirection	Console Redirection Press the button to launch the redirection console and manage the server remotely.			
Server Power Control	ol			
	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.

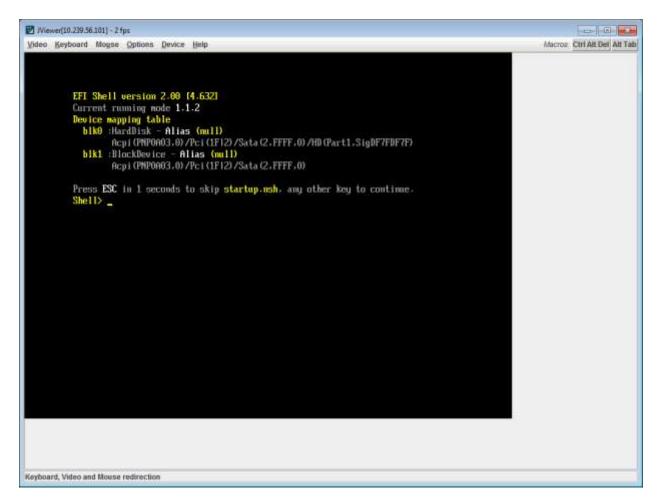
Both Microsoft Internet Explorer\* and Mozilla Firefox\* browsers are supported.

### 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.

### 6.2 Main Window

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

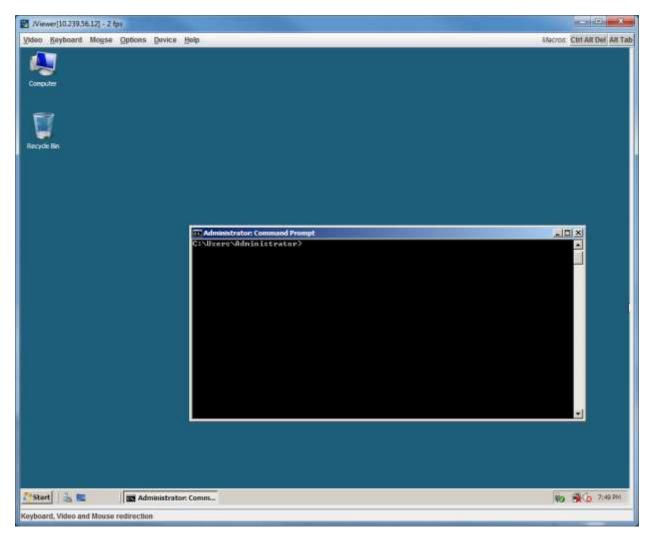


Figure 46: Remote Console Main Window

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.

### 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	Alt-F	<ul> <li>None</li> <li>Type I</li> </ul>
-	Alt-F	- 110110

#### 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.



### 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.

<u>K</u> eyboard	
Language 🔹 🕨	Auto Detect
Soft Keyboard	English
Hold Right Ctrl Key	English (UK)
Hold Right <u>Alt Key</u>	Outch
Hold Left Ctrl Key	French
Hold Left Alt Key	German
Left Windows Key 🕨	Italian
Right Windows Key 🕨	Russian
Ctrl+Alt+Del	Spanish
Ctrl+Alt+Backspace	
Ctrl+Alt+Left	
Ctrl+Alt+Right	

### 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<sup>\*</sup> Java<sup>\*</sup>, there is less reverse translation required by the application than in Microsoft Windows<sup>\*</sup> 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.



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	X
Esc F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12	Prt Scr Pau
` 1 2 3 4 5 6 7 8 9 0 - = ←Back       └ 1 q w e r t y u i o p [] \       △ Caps a s d f g h j k l ; ' ←	Ins         ▲         ↑         Mm         /         *         -           Del         ▲         ↓         ↓         ↑         ↑         ↑         ↑         + </td
① shift         z         x         c         v         b         n         m         ,         .         /         ① shift           Ctrl         #         Alt         Alt         Alt         E         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.

Mo <u>u</u> se		
Show	/ Cursor	Alt-C
Mous	e Calibration	Alt-T

Figure 53: Remote Console Mouse Menu

Mo	o <u>u</u> se	
V	Show Cursor Alt-C	
	Mouse Calibration Alt-T	
	Mouse Mode	×

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

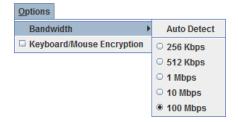
The Mouse submenu offers two or three options:

- **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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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.
- 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.
- 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

# 7. Intel<sup>®</sup> Integrated BMC Web Console Options

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) Int	tegrated BMC Web Console
System Information	Server Health Configuration Remote Control Succourt Remote 2 ABOUT System Information This section contains general information about the system.
System Information	Summary
FRU Information	- System Information Host Power Status : Host is currently ON
System Debug Log	RMM Status : Intel(R) RMM installed
DIMM Information	Device (BMC) Available : Yes
Direct Reomation	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

### 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 <sup>®</sup> 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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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

(intel) Int	egrated BMC Web Console		HEI
System Information	Server Health Configuration Remote Control 3 LOGOUT	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 : 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.01.06.0001.090720121056		
	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 : 😔 🥌		

### Figure 61: System Information Page on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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) In	tegrated BMC Web Console
System Information	Server Health Configuration Remote Control Secret Remote Control R
	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 : 51200RP.868.01.02.0001.050620132251
Current Galers	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 : BQRP30300194
	Overall System Health : 😔 🧕 😡

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

System Information       Server Health       Configuration       Server Diagnestics       Remote Control       Image: Control image: Control	(intel) Int	egrated BMC Web Console		
This section contains general information about the system.         Summary         System Information       FRU Information         CPU Information       Host Power Status : Host is currently ON RMM Status : Intel@ RMM installed         DiMM Information       BMC FW Build Time : 2014-02-27 21:07:29         BIOS ID : 5E5C610.86B.01.01.0519.050520140852         BMC FW Rev : 00.11         SDR Package Version : SDR Package 0.08         Mgmt Engine (ME) FW Rev : 03.00.05.402         Baseboard Serial Number : BQWL35100305	System Information	Server Health   Configuration   Server Diagnostics   Remote Control	C REFRESH	THELF ABOUT
System Information       System Information         FRU Information       Host Power Status : Host is currently ON         CPU Information       RMM Status : Intel® RMM installed         DIMM Information       Device (BMC) Available : Yes         BMC FW Build Time : 2014-02-27 21:07:29       BMC FW Build Time : 2014-02-27 21:07:29         Current Users       BIOS ID : 5E5C610.86B.01.01.0519.050520140852         BMC FW Rev : 00.11       SDR Package Version : SDR Package 0.08         Mgmt Engine (ME) FW Rev : 03.00.05.402       Baseboard Serial Number : BQWL35100305		System Information This section contains general information about the system.		
FRU Information       Bit Power Status : Host is currently ON         CPU Information       RMM Status : Intel® RMM installed         DIMM Information       Device (BMC) Available : Yes         BIOS ID : SESCE010.86B.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		Summary		
FRU Information       Host Power Status : Host is currently ON         CPU Information       RMM Status : Intel@ RMM installed         DiMM Information       BMC FW Build Time : 2014-02-27 21:07:29         Current Users       BIOS ID : 5E5C610.86B.01.01.0519.050520140852         BMC FW Rev : 00.11       SDR Package Version : SDR Package 0.08         Mgmt Engine (ME) FW Rev : 03.00.05.402       Baseboard Serial Number : BQWL35100305	System Information	- System Information		
CPU Information       Device (BMC) Available : Yes         DIMM Information       BMC FW Build Time : 2014-02-27 21:07:29         Current Users       BIOS ID : 5E5C610.86B.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       BQWL35100305	FRU Information			
DIMM Information Dimmet Users DIMM Information Current Users DIMM Rev: 00.18.5885 Boot FW Rev: 00.1 SDR Package Version : SDR Package 0.08 Mgmt Engine (ME) FW Rev: 03.00.05.402 Baseboard Serial Number : BQWL35100305	CPU Information	RMM Status : Intel® RMM installed		
Current Users BIOS ID : 5E5C610.868.01.01.0519.050520140852 BIOS ID : 5E5C610.868.01.01.0519.050520140852 BIOS FW Rev : 00.01 SDR Package Version : 5DR Package 0.08 Mgmt Engine (ME) FW Rev : 03.00.05.402 Baseboard Serial Number : BQWL35100305		Device (BMC) Available : Yes		
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	DIMM Information	BMC FW Build Time : 2014-02-27 21:07:29		
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	Current Users			
SDR Package Version : SDR Package 0.08 Mgmt Engine (ME) FW Rev : 03.00.05.402 Baseboard Serial Number : BQWL35100305				
Mgmt Engine (ME) FW Rev : 03.00.05.402 Baseboard Serial Number : BQWL35100305		and the second		
Baseboard Serial Number : BQWL35100305				
Overall System Health : 😌 🤤				
		Overall System Health : 划 😝 🐨		

### Figure 63: System Information Page on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

On Intel® Server Boards and Systems Based on Intel® Xeon® Phi Processor (KNL-D, KNL-F) - -- S7200AP, 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) Inte	egrated BMC Web Console	
System Information	Server Health   Configuration   Server Diagnostics   Remote Control	UDBOUT S REFRESH D HELF & 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	
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 : 😔 😝 😝	

## 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) Int	egrated BMC Web Console	-	N		
System Information	Server Health Configuration Remote Control	JOGOUT	REFRESH	O HELP	ABOUT
	System Information This section contains general information about the	system.			
	FRU Information				
System Information	Chassis Information				
FRU Information	Type: Main Server Chass	is			
System Debug Log	Part/Model Number:	535.			
CPU Information	Serial Number:				
DIMM Information	Board Information				
	Manufacturing Date : 2011-12-02 23:1	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	1			
	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.

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) Int	egrated BMC Web Console		
System Information	Server Health Configuration Remote Control	3.	CODUT @ REFRESH @ HELR @ ABOUT
20	System Information This section contains general information about the sy	rstem,	
System Information	The following operations generate an encrypted zip file that contains de resolution. The information collected includes Baseboard Management C supply data. System Event Log, sensor readings, SMBIOS tables, CPU m	ontroller (BMC) status, BMC cont	figuration settings, BMC Sensor readings, Power
FRU Information	forward this information to a third party, it contains no personal informat debug information by clicking on the link does not change any configurat	tion and may be used for the pu	irpose of investigating the problem. Downloading
System Debug Log	Log files should be sent to the system manufacturer for analysis.		
DIMM Information	System Debug Log		
	Last Thu Feb 07 2013 12:50:39 GMT-0800 (Pacific Log: Standard Time)	Old Debug Log (44.65 KB)	
	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.
  - PCI error registers
  - 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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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<sup>®</sup> Xeon<sup>®</sup> 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) Ir	ntegrated BMC Web Console	
System Information	Server Health Configuration Remote Control	TUCOS S REPRESEN S RECEI
	System Information This section contains general information about the system.	
System Information	The following operations generate an encrypted zip file that contains debug info resolution. The information collected includes Baseboard Management Controlle supply data, System Event Log, sensor readings, SMBIOS tables, CPU machine o	r (BMC) status, BMC configuration settings, BMC Sensor readings, Power check registers and PCI configuration space information. If you elect to
FRU Information	forward this information to a third party, it contains no personal information and debug information by dicking on the link does not change any configuration files	
System Debug Log	Log files should be sent to the system manufacturer for analysis.	
CPU Information	System Debug Log	
DIMM Information	Last Log: None	
	Generate Log	

Figure 66: System Information System Debug Log Page on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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
  - o 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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

The System Debug Log page can be used to collect system debug information on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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® BMC And RMM4 User Guide

(intel) In	tegrated BMC Web Con	sole	
System Information	Server Health   Configuration   Server	er Diagnostics   Remote Control	COSOUT C REFRESH C HELP C ABOUT
-	Server Diagno Use these pages to vi	ostics iew various internal diagnostics.	
System Diagnostics	problem resolution. The information coll Sensor readings, Power supply data, Sy configuration space information. If you of	ected includes Baseboard Management stem Event Log, sensor readings, SMB elect to forward this information to a th	formation which is useful to the system manufacturer for Controller (BMC) status, BMC configuration settings, BMC IOS tables, CPU machine check registers and PCI ird party, it contains no personal information and may be aton by clicking on the link does not change any
POST Codes	configuration files or read application da		abon by bicking on the link obes hot change any
System Defaults	Log files should be sent to the system n	manufacturer for analysis.	
	- System Debug Log		
	Last Log:	None	
	Generate Log		

Figure 67: System Information System Debug Log Page on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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) In	tegrated	BMC	web Co	onsole				BEDA
System Information	Server Health S Th	ystem	Inform	ation	nation about the		DOUT 3 REFRES	H 🕐 HELP 🔕 ABOUT
System Information	DIMM Info			t of system	DIMM.			
FRU Information System Debug Log							1	Number of system DIMM: 1
DIMM Information	Stot Number A1	Size - 1024	Type 2 DDR3	Speed 1	Manufactory Micron	Asset Tag 3 9876543210	Serial Number	Part Number 9JSF12872AZ-1G4F1

Figure 68: System Information DIMM Information Page

## 7.1.5 CPU Information Page on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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	AFT
System Information   S	erver Health Configuration Remote Control	C0000T	C REFRESH	THELE ABOUT
S.C.	System Information This section contains general information about th	e system.		
1	This page lists CPU data as reported by BIOS on the last succe	essful system boot.		
System Information	+CPU Information			
FRU Information	Socket Designation : CPU 1			
System Debug Log	Manufacturer : Intel			
and and an an and a state of the	Version : Genuine Intel(R) CPU @	2.40GHz		
CPU Information	Processor Type 1 Central Processor			
DIMM Information	Family : Intel Xeon			
	Speed : 2.4 GHz			
	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 :			
	Asset Tag :			
	Part Number :			

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.

System Info This section contain		<b>O</b> LOGOUT <b>O</b> REFRESH <b>O</b> HELP <b>O</b> AS
This section contain		out the system.
t Users		
lists users currently I	logged-in to the BMC.	
		IP Address
12 Jacob Phil	Intel(R) RMM	10.235.0.105
	ame Iype ot Web	ot Web Intel(R) RMM

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	tegrated BMC V	Veb Console		
System Information	Server Health Config	uration   Remote Control		S LOGOUT S REFRESH O HELF ABOUT
KI.	Server Health This section shows you o event log.	data related to the server's h	ealth, sud	h as sensor readings and the
	Sensor Readings			
Sensor Readings	This page displays system	n sensor information, includin Show Thresholds button belo	g reading	s and status. You can toggle viewing the thresholds for the
Event Log	sensors by pressing the s	show inresholds button belo	wc.	
Power Statistics	Refreshing readings ever Select a sensor type cate			Sensor Readings: 44 sensor
	All Sensors	•		
	IPMI Watchdog	All deasserted	98	0000x0
	Physical Scrty	reports there has been a chassis intrusion	ON	0x0001
	FP NMI Diag Int	All deasserted	OX:	0x0000
	SMI TimeOut	All deasserted	OK	0x00x0
	System Event Log	All deasserted	OK .	0x0000
	System Event	All deasserted	OK.	0000x0
	Button	All deasserted	OK:	0x0000
	PCH Therm Trip	All deasserted	ON	0x0000
	BMC Board TEMP	Normal	OK.	28 degrees C
	Front Panel Temp	Normal	198	21 degrees C
	Board Inlet TEMP	Normal	OK	22 degrees C
	Sys Fan 2	Normal	Off	2940 RPM
	Processor Fan	Normal	ON	1686 RPM
	Refresh	Show Thresholds	No. of Street, or other	1000 0011
	Reiresa	Show Thresholds		
	Set auto-refresh in seco Set	nds (O to disable).		

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

## Intel® Integrated BMC Web Console Options

System ununsatur	Server Health Configu	ation   Remote Control			3	1000ut 3	an 🕲 Hennes	LF ( MOUT	ġ
N	Server Healt This section shows	th you data related to the server's f	health, sud	h as sensor readings and t	the event log.				
	Sensor Readings								
Sensor Readings		sensor information, including rea	dings and	status. You can toggle viev	ving the thresholds for th	e sensors by pres	using the Show Th	resholds butto	π
Event Log	- below.								
	Refreshing readings every						Westmann and the second		
ower Statistics	Select a sensor type categ All Semon	loris:					Sensor Read	fings: 44 sens	1
	IFM Watchdog	· All deapperted	-	0:0000	Non.	24/4	NUA.	7414	
		reports there has been a							
	Physical Soft	chassis intrusion	- 21	0x0001	144	14/4	NSA.	1414	
	## NMI Dispirit	All deasserted	01	0x0000	104	NA	NA.	F&IA	
	FF NMI Diag int SMI TimeOut	All deasserted All deasserted	- 06	0x0000 0x0000	Naci, Naci,	NA NA	NUA. NUA	76/A 76/4	
			08 08-	Contraction of the second s					
	SMI TimeOut	Nefreoscob NA	OK OK OK	0x0000	144	NA	NA	F614	
	SMI TimeOut System Event Log	All deasourted All deasourced	01 01 01 01 01	0x0000 0x0000	160. 1694	1444 1444	NA NA	7414 7414	
	Still TimeOut System Event Log System Event	All deassarted All deasserted All deassarted	06 08 08 06 06 06	0x0000 0x0000 0x0000	140. 160. 1404	NA NA NA	neva neva neva	76% 76% 76%	
	Still TimeOut System Event Log System Event Button	All deasserheit All deasserheit All deasserheit All deasserheit	06 08 06 06 06 06 06	0x0000 0x0000 0x0000 0x0000 0x0000	140. 140. 140. 140.	N44 N44 N44 N44	NAA NAA NAA	NAA NAA NAA	
	Ski TimeOut System Event Log System Event Button PCH Thems Top	All desserted All desserted All desserted All desserted All desserted All desserted	01 04 05 05 01 04 04 04	0x0000 0x0000 0x0000 0x0000	1404. 1504. 1404. 1404.	NAA NAA NAA NAA NAA	NUA NUA NUA NUA	7614 7614 7614 7614 7614	
	SM TimeOut System EventLog System Event Button PCH Them Top BMC Board TEMP	All deasearted All deasearted All deasearted All deasearted All deasearted Fiormal	01 04 08 05 01 01 04 04 04 04	0x0000 0x0000 0x0000 0x0000 0x0000 28 degrees C	tan tan tan tan tan tan tan 5 degraes C	NA NA NA NA NA NA NG NA	NA NA NA NA NA 105 degrees-C	rain rain rain rain rain 114 degrees C	
	Stall TimeCut System Event Log System Event Button PCAH Therm Top BIAC Board TEMP Front Pasel Temp	All deasourted All deasourted All deasourted All deasourted National Normal	01 02 01 01 01 01 02 02 02 02 02 02	0x0000 0x0000 0x0000 0x0000 0x0000 28 deglees C 21 deglees C	taik taik taik taik taik taik 5 degraes C 0 degraes C	NAA NAA NAA NAA NAA NAA NAA Sidegrees C Sidegrees C	NAA NAA NAA NAA NAA NAA NAA NAA NAA NAA	1444 Falle Falle NMA Falle 114 dagrees C 45 degrees C	
	Stat TimeOut System Event Log System Event Botton PCH Therm Tap BitC Board Temp Front Panel Temp Board Amer TEMP	All deasearted All deasearted All deasearted All deasearted All deasearted Hormal Normal	01 01 01 01 01 01 01 01 01 01 01	0x0000 0x0000 0x0000 0x0000 0x0000 25 degrees C 21 degrees C 22 degrees C	NAA NAA NAA Sangraes C D obgrees C S obgrees C	NAA NAA NAA NAA NAA NAA NAA NAA NAA NAA	NUA NUA NUA NUA 105 degrees C 44 degrees C 105 degrees C	rain rain rain rain rain rain rain rain	
	Stat TimeOut System Event. og System Event Botton PCH Themt Top BIRC Board TEMP Front Paset Temp Board temp TEMP Sys Fan 2	All deasearted All deasearted All deasearted All deasearted All deasearted Normal Normal Normal	01 05 01 01 01 01 01 01 01 01 01	0x0080 0x0000 0x0000 0x0000 0x0000 28 degraes C 21 degraes C 22 degraes C 22 degraes C	NAA NAA NAA S degrees C S degrees C S degrees C 294 RPM	NAA NAA NAA NAA NAA NAA NAA NAA NAA NAA	NAA NAA NAA SAA 105 degrees C 44 degrees C 105 degrees C 0 RPM	144 Falk Falk NM Falk 114 degrees C 45 degrees C 116 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 <b>Set</b> 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.

		erver Health s section shows you data reb	ated to the server's health, such as	sensor readings and the event log.	
	Event Lo				
	100000	19			
Sensor Readings	Below is a t	able of the events from the s	iystem's event log. You can choose	a category from the pull-down box to f	iter the events, and also sort them by cicking on a column head
Event Log	Select an e	vent log rategory:			
Newer Statistics	All Events	1			Event Log: 815 event ent
	freed (D)	Time Stamp	Service Name	Secure Type -	Description
	\$15	02113(2013:00:54:53	P1 Statua	Processor Physical Security (Chausia	reports the processor's presence has been detected - Asserted
	814	02/13/2013 08:34:53	Physical Scrty	Whyman ()	reports there has been a chassis intrusion - Asserted
	813	02/13/2013 00:34:52	Physical Boty	Physical Security (Chaosis Intrusion)	reports there has been a chassis intrusion - Deasserted
	12.4.0	and the second second second	1 March and an and a second		
	812	02/13/2013 09:31:15	Linknown	Bystern Exent	raports OEM System Boot Event - Asserted
	812	02/13/2013 09:31:16 02/13/2013 00:31:12	Unknown	Bystern Event Dystern Event	reports OEM System Boot Event - Asserted reports OEM System Boot Event - Asserted
	#11 #10				
	411	00/13/0013 00:31 12	Unknown	Rystern Event	reports CEM System Boot Event - Assertad reports Timestamp Clock Suit, Event is see af two expected events
	811 810	02/13/2013 00:31 12 02/13/2013 00:30:55	Unknown BIOS Eid Bernson	Rystern Exist Bystern Exent	reports OEM System Ball Event - Asserted reports Timestamo Clock Sanz Elevatilis are aftero expected events from BKOS on even power on - reserted reports Timestamo Clock Syst. Event is are aftero expected events
	411 810 800	02/13/2013 00:31 12 02/13/2013 00:30:56 02/13/2013 00:31:48	Vekasya BIOS Ext Sensor BIOS Ext Sensor	Rystern Doort Bystern Count Systern Doort Physical Security (Channes	reports OEM System Bool Event - Asserted reports Timestamp Clock Sunc. Event is one aftwo expected events from BIOS on every power on - Asserted reports Timestamp Clock Spine: Event is one of two expected events from BIOS on every power on - Asserted
	411 810 805 806	62/13/2013 08:31 12 92/13/2013 09:30:55 62/13/2013 06:21:48 92/13/2013 06:21:48	Ubknown BIOS Ext Gensor DIOS Ext Gensor Physical Softy	Bystem Event Bystem Event System Event Physical Security (Chassis Physical Security (Chassis Physical Security (Chassis	reports OEM System Bool Event - Asserted reports Transform Clock Sanc Event to ane of two expected events from BKOS on eveny power on - Asserted reports Transformy Clock Sanc Event is one of two sepacted events from BKDS on every power on - Asserted reports there transform a chassis initiation - Asserted
	811 810 805 807	02/12/2013 08:21 12 02/12/2013 09:30:56 02/12/2013 09:21 48 02/12/2013 09:21 44 02/12/2013 09:21 44	Ubknown BIOS Ext Bensor DIOS Ext Bensor Physical Softy Physical Softy	System Event Bystem Event Dystem Event Physical Security (Chaosas Mitanian) Physical Security (Chaosais Mitanian)	reports OEM System Bool Event - Asserted reports Transstamp Clock Sanc Event to ane of two expected events from BKOS on eveny power on - Asserted reports Transstamp Clock Sanc Event is one of two expected events from BKDS on every power on - Asserted monoto there has been a chassis intrusion - Asserted reports there has been a chassis intrusion - Deaseeted
	811 810 805 805 807 806	02/12/01/2 00 21 12 02/12/2012 00 20:55 02/12/2012 00 21:55 02/12/2012 00 21:48 02/12/2012 00 21:44 02/12/2012 00 21:42 02/02/2012 11:25:35	Uskoswi BIOS Set Benser BIOS Ext Senser Physical Sofy Physical Sofy Usknowi	Bystem Event Bystem Event Bystem Event Physical Becarth (Chasses Introduct) Physical Security (Chasses Introduct) System Event	reports OEM System Biol Event - Asserted reports Timestamp Clock Suri: Event is one of two expected events from BIOS on even paver on - Asserted reports Timestamp Clock Syn: Event is one of two expected events from BIOS on even power on - Asserted reports there has been a chassis initiusion - Asserted reports there has been a chassis initiusion - Asserted reports there has been a chassis initiusion - Deasented reports there has been a chassis initiasion - Deasented reports Timestamp Clock Conc. Event a one of two expected events

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

Contraction of the local division of the loc			inhi Control		CODAT C SERVER C HELE C ADOUT
		erver Health his section shows you data re	lated to the server's health, such as s	sensor readings and the event log	
	Event L	og			
encor 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 heads
ent Log	Select an	event log category:			
wer Statistica	All Events				Event Log: 511 event enti
	1.1	14111111111111111111111111111111111111	No. 0 011 0000000	100000000000000000000000000000000000000	from DICD on every power on - Asserted
	466	02052013 14:21 55	BIOB Evt Bensor	Bystem Event	reports Timestamp Clock Sync. Event is one of two expedied events from BIOS on every power on - Asserted
	465	02052013142145	HDD 6 Status	Drive Stat (Bar)	Drive Presence - Asserted
	464	02/05/2013 14:21:38	BOS Evi 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	BIDS Evi Sensor	System Event	reports Timestamp Clock Sync. Event is one of two expected events
	462	020502013 14:21 32	Button	Button / Switch	hom BIOS on every power on - Asserted reports the power butten has been pressed - Asserted
	417	02/05/2013 14 21 32	Pwr Unit Status	Power Linit	reports the power unit is powered aff or being powered down - Descended
			Per Unit Statum	Power Unit	reports the power unit is powered off or being powered down - Asserts
	460	02052013142130		02100 0000	
	460 459	0205/2013 14:21 30 02/05/2013 14:20:16	PS1 Status	Power Supply	reports the power supply's input (VC/DC) has seen lost - Asserted
			PS1 Status Pwr Unit Status	Power Supply Power Unit	reports the power unit is powered off or being powered down - Asserbed
	459	02/05/2013 14:20:16			reports the power unit to powered off or being powered down - Asserte reports Timestamp Clock Sinc. Event is one of two expected events
	450 450	02/05/2013 14:20:16 02/05/2013 14:19:39	Per Unit Status	Power Unit	reports the power unit is powered off or being powered down - Assarts reports Trimestamp Crock Since Event is one of two expected events than BIOS on even power on - Assarted reports Trimestamp Crock Synce Event is one of two expected events
	459 456 457	02050013 142016 02050013 1419 39 02050013 1419 39	Per Unit Status BIOB Ext Bensor	Power Unit Bystem Event	reports the power unit is powered off or being powered down - Asserte reports Timestamp Clock Sins, Event is one of two expected events from BIOS on every power on - Asserted
	459 458 457 456 455	02/05/2013 14/2016 02/05/2013 14/19/39 02/05/2013 14/19/39 02/05/2013 14/19/39 02/05/2013 14/19/39	Per Unit Status BIOS Evi Sensor BIOS Evi Sensor BIOS Evi Sensor	Power Unit Bystem Event Bystem Event System Event	reports The power unit is powered off or being powered down - Asserte reports Timestamp Crock Sinc: Event is one of two expected events from BIOS on every power on - Asserted reports Timestamp Crock Sinc: Event is one of two expected events from BIOS on every power on - Asserted reports CEW System Boot Event - Asserted reports Timestamp Crock Sync: Event is one of two expected events from BIOS on Event - Asserted
	450 450 457 456	02/05/2013 14/2016 02/05/2013 14/19/39 02/05/2013 14/19/39 02/05/2013 14/19/39	Per Unit Status BIOS Ext Sensor BIOS Ext Sensor	Power Unit Bystem Event Bystem Event	reports the power unit is powered off or being powered down - Asserte reports Transitions Circle Since Event is one of two expected events from BIOS on every power on - Asserted reports Transitions Circle Since Event is one of two expected events from BIOS on every power on - Asserted reports CEM System BootEvent - Asserted

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

On S1200V3RPand Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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

### Intel® BMC And RMM4 User Guide

System Information	Server H	ealth Configuration	Remote Control	3 LC	обола 🕲 жерверн 🕲 негь 🕲 чер	ųτ.
		er Health tion shows you data rel: 9.	ated to the server's hea	lth, such as sensor rea	dings and the	
	Event	Log				
Sensor Readings				ig. You can choose a ca	ategory from the pull-down box to filter the e	ver
Event Log	and also	sort them by dicking on	a column header.			
The local differences	Select an	event log category:				
Power Statistics	All Event	5	•		Event Log: 790 event er	ntri
					Event Log is 21%	
						_
		1 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	-11
	789	02/19/2013 10:22:16	BIOS Evt Sensor	System Event	reports OEM System Boot Event - Asserted	-11
	(188	02/19/2013 10:21:51	HDD 3 Status	Drive Slot (Bay)	Drive Presence - Asserted reports Timestamp Clock Sync. Event is one of	-
	787	02/19/2013 10:21:42	BIOS Evt Sensor	System Event	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	
				Power Unit	reports the power unit's AC is lost - Deasserted	1
	785	02/19/2013 10:21:39	Pwr Unit Status	TOWER DIVIL		- 1. All
	785 784	02/19/2013 10:21:39 02/19/2013 10:21:38	Pwr Unit Status P1 Status	Processor	reports the processor's presence has been detected - Asserted	
					detected - Asserted reports the power unit's AC is lost - Asserted	
	784	02/19/2013 10:21:38	P1 Status	Processor	detected - Asserted reports the power unit's AC is lost - Asserted reports redundancy has been lost and there are insufficient resources to maintain normal	
	784 783	02/19/2013 10:21:38 02/19/2013 10:21:38	P1 Status Pwr Unit Status	Processor Power Unit	detected - Asserted reports the power unit's AC is lost - Asserted reports redundancy has been lost and there	
	784 783 782	02/19/2013 10:21:38 02/19/2013 10:21:38 02/19/2013 10:20:34	P1 Status Pwr Unit Status Pwr Unit Redund	Processor Power Unit Power Unit	detected - Asserted reports the power unit's AC is lost - Asserted reports redundancy has been lost and there are insufficient resources to maintain normal operation - Asserted reports redundancy has been lost - Asserted reports the power supply's input (AC/DC) has been lost - Asserted	
	784 783 782 781	02/19/2013 10:21:38 02/19/2013 10:21:38 02/19/2013 10:20:34 02/19/2013 10:20:34	P1 Status Pwr Unit Status Pwr Unit Redund Pwr Unit Redund	Processor Power Unit Power Unit Power Unit	detected - Asserted reports the power unit's AC is lost - Asserted reports redundancy has been lost and there are insufficient resources to maintain normal operation - Asserted reports redundancy has been lost - Asserted reports the power supply's input (AC/DC) has been lost - Asserted reports the power supply's input (AC/DC) has been lost - Asserted	
	784 783 782 781 780	02/19/2013 10:21:38 02/19/2013 10:21:38 02/19/2013 10:20:34 02/19/2013 10:20:34 02/19/2013 10:20:33	P1 Status Pwr Unit Status Pwr Unit Redund Pwr Unit Redund PS2 Status	Processor Power Unit Power Unit Power Unit Power Supply	detected - Asserted reports the power unit's AC is lost - Asserted reports redundancy has been lost and there are insufficient resources to maintain normal operation - Asserted reports redundancy has been lost - Asserted reports the power supply's input (AC/DC) has been lost - Asserted reports the power supply's input (AC/DC) has	

Figure 75: Server Health Event Log Page on S1200V3RP and Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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.

System Information Server Health Configuration Server Diagnostics Remote S LOGOUT C REFERENCE ABOUT	(intel) Int	ntegrated BMC Web Console	
Server Health This section shows you data related to the server's health, such as sensor readings and the event log.	Sensor Readings Event Log	Server Health This section shows you data related to the server's health, such as sensor readings and the event log. Power Usage Summary System Power Statistics value over the last : 52.79 Hours Minimum: 1W Current: 223W Maximum: 329W	<ul> <li>ABOUT</li> <li>I ↓ [</li> </ul>

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

On an Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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® BMC And RMM4 User Guide

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

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

## 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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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) Ir	ntegrated BMC Web	Console	
System Information	Server Health Configuration	Remote Control	S LODOUT @ REFEESH @ HELS @ ABOUT
25	Configuration Use these pages to confi	gure various settings, such as aler	ts, users, ar network.
	Network Settings		
Network	You can view and modify the net	work settings on this page. Select	whether to obtain an IP address automatically or manually configure one.
Users			
Login	LAN Channel	Baseboard Mgmt 🝷	
LDAP	MAC Address	00.15.17.F2.AB.0C	
SSL	Obtain an IP address auto	Contraction of the second second	
Remote Session	Use the following IP addre	69	
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		
. The stands where	Secondary DNS Server	Ĩ	
	Save		

Figure 78: Configuration Network Settings Page on S1200BTL Platforms

### Intel® Integrated BMC Web Console Options

### Intel® BMC And RMM4 User Guide

(intel) In	tegrated BMC Web (	Console			
System Information	Server Health Configuration	Remote Control		S LOGOUT S REFRESH	C HELP B ABOUT
	Configuration Use these pages to config	gure various settings, such as aler	ts, users, or network.		
IPv4 Network	IPv4 Network Settings You can view and modify the IPv4	network settings on this page. 54	elect whether to obtain	an IP address automatically	or manually configure one.
IPv6.Network		사망 전망에서 같은 사람의 가지 않는 것이 있는 것이 있다.			
Users	Enable LAN Failover				
Login	LAN Channel	Baseboard Mgmt •			
LDAP	MAC Address	00 1E 67.2C 74 A8			
VLAN	Obtain an IP address auton				
551	Use the following IP addres Disable LAN Channel	8			
Remote Session	IP Address	10,235,0 5			
Mouse Mode	Subnet Mask	255 255 255 0			
Keyboard Matros		10,235.0.1			
Alerts	Default Gateway	10.235.0.1			
Alert Email	Primary DNS Server				
Node Manager	Secondary DNS Server				
	Seve				

### Figure 79: Configuration IPv4 Network Settings Page

## A 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).
LAN Channel drop-down	Used to select the channel on which you want to configure the network settings.
box	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.
	<ul> <li>Baseboard Mgmt (BMC LAN Channel 1) is the on-board, shared NIC configured for management and shared with the operating system.</li> </ul>
	<ul> <li>Baseboard Mgmt 2 (BMC LAN Channel 2) is the second on-board, shared NIC configured for management and shared with the operating system.</li> </ul>
MAC Address	The MAC address of the device (read only).

#### **Table 14: Configuration IPv4 Network Settings Options**

90

Option	Task
IP address radio buttons	<ul> <li>Select one of the three options for configuring the IP address:</li> <li>Obtain an IP address automatically (use DHCP) – Uses DHCP to obtain the IP address.</li> <li>Use the following IP address – Manually configure the IP address.</li> <li>Disable LAN Channel – Sets the IP address, Subnet Mask, and Default Gateway to 0.0.0.0.</li> </ul>
IP Address Subnet Mask Gateway	If configuring a static IP, enter the requested address, subnet mask, and gateway in the given fields. 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 Secondary DNS Server	If configuring a dynamic IP, enter the Primary and Secondary DNS servers.
Save button	Click to save any changes made.

7.3.2 IPv6 Page on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP and Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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) Ir	ntegrated BMC Web	Console			BET
System Information	Server Health Configuration	Remote Control	( LOGO	от 🥝 леглевн	C HELP ABOUT
	Configuration Use these pages to configur	e various settings, such a	es alerts, users, or netw	ork.	
IPv4 Natwork	IPv6 Network Settings You can view and modify the IPvi	5 network settings on thi	s page. Select whether	to obtain an IP add	fress automatically or
IPv6 Network	manually configure one. IPv6 sup	port must be enabled pri	or to its configuration.		
Users	Enable LAN Failover				
Login	LAN Channel	Baseboard Mgmt 🔹			
LDAP	MAC Address	00:1E:67:2C:74 A8			
VLAN	Enable IPv6 on this Channel				
SSL	Use IPv6 auto-configuration (stateless ICMPv6 discovery)     Solution and a stateless ICMPv6 discovery)				
Remote Session	<ul> <li>Obtain an IP address automatically (use DHCPv6)</li> <li>Use the following IP address</li> </ul>				
Mouse Mode	1P Address	4			
Keyboard Macros	IPv6 prefix length (0 to 128)	64			
Alerts	Gateway	14			
Alert Email					
Node Manager	Save				

### Figure 80: Configuration IPv6 Page

## A 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.

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.
	<ul> <li>Intel(R) RMM (BMC LAN Channel 3) is the add-in RMM4 Dedicated Management NIC.</li> </ul>
	<ul> <li>Baseboard Mgmt (BMC LAN Channel 1) is the on-board, shared NIC configured for management and shared with the operating system.</li> </ul>
	<ul> <li>Baseboard Mgmt 2 (BMC LAN Channel 2) is the second on-board, shared NIC configured for management and shared with the operating system.</li> </ul>
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:
	<ul> <li>Use IPv6 auto-configuration (stateless ICMPv6 discovery) – Uses ICMPv6 to obtain the IP address.</li> </ul>
	<ul> <li>Obtain an IP address automatically (use DHCPv6) – Uses DHCPv6 to obtain the IP address.</li> </ul>
	<ul> <li>Use the following IP address – Manually configure the IP address.</li> </ul>
IP Address	If configuring a static IP, enter the requested address and gateway in the given fields.
Gateway	The IP Address and Gateway are 128-bit fields made of eight hexadecimal numbers separated by colons as in "xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xx
	'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.

## 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	Control	S LOGOUT C REFRESH C HELP ABO
E	Configurat Use these pages		ttings, such as alerts, user	s, or network.
	User List			
Network	The list below shows	the current list of config	ured users.	
Users	If you would like to m	odify or delete a user is	elect their name in the list	and dick Modify User or Delete User. To add a new
ogin		figured slot and click Ad		and starting and of perception and a new
				March 1 and 1 and 1 and 1
DAP				Number of configured users
isl				
	UserID	User Name	User Status	Network Privilege
Remote Session	The second se	the of some of the second second second		
er olde ernikelisetet i AM.	- 1 2	anonymous root	disabled ENABLED	Administrator
fouse Mode	.1	anonymous	disabled	
fouse Mode	1	anonymous root	disabled ENABLED	Administrator Administrator
fouse Mode Seyboard Macros	1 2 3	anonymous root test1	disabled ENABLED disabled	Administrator Administrator Administrator
fouse Mode Keyboard Macros Klerts	1 2 3 4	anonymous root fest1 test2	disabled ENABLED disabled disabled	Administrator Administrator Administrator Administrator
fouse Mode Keyboard Macros Klerts	1 2 3 4 5	anonymous root test1 test2 test3	disabled ENABLED disabled disabled disabled	Administrator Administrator Administrator Administrator Administrator
louse Mode leyboard Macros derts	1 2 3 4 8 5	anonymous root test1 test2 test3 -	disabled ENABLED disabled disabled disabled	Administrator Administrator Administrator Administrator Administrator
fouse Mode Keyboard Macros Klerts	1 2 3 4 8 5 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 5 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 5 7 8 9	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 5 7 8 9 10	anonymous root test1 test2 test3 - - - -	disabled ENABLED disabled disabled 	Administrator Administrator Administrator Administrator Administrator 
fouse Mode Keyboard Macros Klerts	1 2 3 4 5 5 7 8 9 10 11	anonymous root test1 test2 test3 - - - - -	disabled ENABLED disabled disabled 	Administrator Administrator Administrator Administrator Administrator 
Remote Session Mouse Mode Keyboard Macros Alerts Alert Email	1 2 3 4 5 5 7 8 9 10 11 11 12	anonymous toot test1 test2 test3 - - - - - -	disabled ENABLED disabled disabled 	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.

### Intel® Integrated BMC Web Console Options

(intel) In	ntegrated BMC Wel	Console	4	Y	
System Information	Server Health Configuration	n Remote Control	COSOUT		3 HELP ABOUT
	Configuration Use these pages to config	ure various settings, such as aler	ts, users, or network.	ii	
	Add New User				
Network	Enter the information for the n	ew user below and press Add. Pr	ess Cancel to return t	o the user list.	
Users	User Name:	1			
Login					
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) Integrated BMC Web Console					
System Information	Server Health Configuration	Remote Control	<b>()</b> LOGOUT	🕲 REFRESH 🔞 HELP 🔕 ABOUT	
A.E	Configuration Use these pages to configure	various settings, such as alert	s, users, or network	e	
	Modify User				
Network	Enter the new information for the u	user below and press Modify. P	ress Cancel to retur	n to the user list.	
Users		1999 - 19			
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 C	onsole		Y	- EER-
System Information	Server Health Configuration	Remote Control	COGOUT	Ø REFRESH	(2) HELP (2) ABOUT
	Configuration Use these pages to configure	various settings, such as al	erts, users, or network.	ż	
	Login Security Settings				
Network	You can view and modify the login	security settings on this pag	e. Select how many fail	ed login attem	ots occur before a user is
Users	locked out and for how long.				
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<sup>®</sup> Xeon<sup>®</sup> 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.

#### Intel® BMC And RMM4 User Guide

#### Intel® Integrated BMC Web Console Options

(intel) Integrated BMC Web Console				
System Information	Server Health Configuration	Remote Contro	LOGOUT @ REFREEH @ HELP @ ABOUT	
	Configuration Use these pages to configu	ire various settings,	such 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 settings	on this page. Select how many failed login attempts occur before a user is	
Users	Failed Login Attempts	3		
Login	User Lockout Time (min) Force HTTPS	1		
LDAP				
VLAN		Enable		
SSL	Web Session Timeout	1800	Second's	
Remote Session	-			
Mouse Mode	Save			
Keyboard Macros				
Alerts				
Alert Email				
Node Manager				

Figure 85: Configuration Login Security Settings Page on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP Product Family and Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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 \	web Console		
System Information	Server Health Config	aration Remote Control	J LOGOUT	🖉 REFRESH 🔞 HELP 🔕 ABOUT
ARK.	Configuratio Use these pages to	n configure various settings, such as	alerts, users, or network.	i
	LDAP Settings			
Network	Check the box below to	enable LDAP authentication and ent	er the required informatio	on to access the LDAP server. Press the
Users	Save button to save you			
Login				
LDAP	Enable LDAP Au	thentication		
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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP Product Family and Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

On Intel® Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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 We	b Console		
System Information	Server Health Configuration	on Remote Control	COBOUT	C REFREEH C HELP ABOUT
	Configuration Use these pages to confi	gure various settings, such as aler	ts, users, or network.	<sup>2</sup>
IPv4 Network	VLAN Settings Check the box below to enabl	e a VLAN private network on this o	hannel and configure	it. Press the Save button to save your
IPv6 Network	changes.		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Users	LAN Channel	Baseboard Mgmt -		
Login		100010000000000000000000000000000000000		
LDAP	- VLAN ID (1-4094)			
VLAN	<ul> <li>1. AND 2012 (2013) = -2.4 (2014) 251</li> </ul>			
SSL	VLAN Priority (0-7)			
Remote Session	Save			
Mouse Mode				
Keyboard Macros				
Alerts				
Alert Email				
Node Manager				

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

The following table lists the options available in this page.

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.	
	<ul> <li>Baseboard Mgmt (BMC LAN Channel 1) is the on-board, shared NIC configured t management and shared with the operating system.</li> </ul>	
	<ul> <li>Baseboard Mgmt 2 (BMC LAN Channel 2) is the second on-board, shared NIC configured for management and shared with the operating system.</li> </ul>	
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) Integrated BMC Web Console				
System Information	Server Health Configuration Remote Control 3 LOCOUT 3 REFRESH 3 HELP 3 ABOU	T ::		
	Configuration Use these pages to configure various settings, such as alerts, users, or network.			
	SSL Upload			
Network	The dates for the default certificate and privacy key are shown below. To upload a new SSL certificate, use the Browse butt	on		
Users	to navigate to the certificate and press the Upload button.			
Login				
LDAP	Default Certificate Wednesday, December 31, 1969 4:00:00 PM			
SSL	Default Privacy Key Wednesday, December 31, 1969 4:00:00 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 REFREEH 3 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 Matros	KVM CDROM US8/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.
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.

**Table 18: Configuration Remote Session Options** 

Option	Task
Save button	Click to save any changes.

### 7.3.8.2 Remote Session Page on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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)	ntegrated BMC Web C	onsole		-	P	- AET
System Information	Server Health Configuration	Remote Control		COGOUT	@ AEFRESH	C HELP ABOUT
AAT	Configuration Use these pages to configure s	various settings, such :	as alerts, u	sers, or network		
IPv4 Natwork	Remote Session The following options allow the use	r to enable or disable	encryption	on KVM or Media	i data during a r	redirection session.
Users	KVM Encryption	None				
Login	Keyboard/Mouse Only	Enable				
LDAP						
VLAN	Media Encryption	Enable Enable				
SSL	US8 Key Emulation Type	Floppy	<b>.</b> €]			
Remote Session	Port Forwarding: KVM CDROM	US8/Floppy	-			
Mouse Mode	COROM	Oserrioppy				
Keyboard Macros	Save					
Alerts						
Alert Email						
Node Manager						

#### Figure 90: Configuration Remote Session Page on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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). <b>Note</b> : KVM and Media encryption are enabled by default. <b>Note</b> : Disabling encryption can improve performance of KVM or Media redirection.	

#### **Table 19: Configuration Remote Session Options**

Option	Task
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.
	<b>Note:</b> 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.

# 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.

#### Intel® BMC And RMM4 User Guide

#### Intel® Integrated BMC Web Console Options

(intel) In	ntegrated BMC Web Co	onsole			No.	AFT
System Information	Server Health Configuration	Remote Control			C REFRECH	THORN AROLT
	Configuration Use these pages to configure v	/arious settings, s	such as alerts	, users, or network.	92	
IPv4 Network	Remote Session The following options allow the use	r to enable or dis	able encryptic	on on KVM or Media	data during a re	edirection session.
IPv6 Network					04.01121010-0012121010	
Users	KVM Encryption	None	( <b>•</b> )			
Login	Keyboard/Mouse Only	Enable				
LDAP	- La Reel allows and a part of	100 m				
VLAN	Media Encryption	Enable [2]				
SSL	USB Key Emulation Type	Floppy	•			
Remote Session	Serial Over LAN	Enable SC	OL for Baseboa	ard Mgmt		
Mouse Mode		Finable St	OL for Baseboa	ard Mont 2		
Keyboard Macros						
Alerts		Enable SC	DL for RMM De	dicated 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.		
Koukoord/Neuro Ordu	If KVM Encryption is set to None, the Keyboard and Mouse data can still be encrypted using Blowfish encryption.		
Keyboard/Mouse Only	<b>Note</b> : This option has the least performance impact while still encrypting the most important data.		
	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

Option	Task
Serial Over LAN	Enable or disable Serial Over LAN for each LAN channel.
<ul> <li>Enable SOL for Baseboard Mgmt</li> <li>Enable SOL for Baseboard Mgmt 2</li> <li>Enable SOL for Intel(R) RMM</li> </ul>	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. 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.

### 7.3.8.4 Remote Session Page Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

On Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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	ntegrated BMC Web Console	
System Information	Server Health Configuration Server Disgraphics Remote Control	8 LONDUT @ SAMESH @ HELP @ ABOUT
	Configuration Use these pages to configure various 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 Neida data during a redirection session.	
Users	KVM Encryption None -	
Security Settings	Keyboard/House Only	
KVM & Media		
SOL & SMASH	Media Encryption Enable	
LDAP	USB Key Emulation Type •	
VLAN	Default Ports:	
SSL	KVM 75/78 CDRDM \$120 USB/Roppy \$123	
Alerts:	KVM (Secure) 7582 CDROM (Secure) 5124 USB/Floppy (Secure) 5127	
West final		
Node Hanager	Save	

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

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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). <b>Note</b> : KVM and Media encryption are enabled by default.
Keyboard/Mouse Only	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.         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) Ir	ntegrated BMC Web Console
System Information	Server Health Configuration Remote Control 3 LOGOUT REFREEH O HELP ABOUT
2	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 Matros	
Alerts	
Alert Email	

Figure 93: Configuration Mouse Mode Setting Page on S1200BTL Platforms

On Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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 LOCOUT REFREEH 3 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	Resolute Mode (Recommended when server OS is Windows or Red Hat/Fedora Linux)
LDAP	C 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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families and S1200V3RP Product Family

On Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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) In	tegrat	ed BMC Web Conso	le
tem Information	Server He	alth Configuration Server	Diagnostics Remote 🕙 LOGOUT 🥝 REFRESH 🕐 HELP 🙆 AB
		figuration hese pages to configure various se	ttings, such as alerts, users, or network.
	- Rem	ote Session ————	
I Network			
5 Network		lowing options allow the user to er tion session.	able or disable encryption on KVM or Media data during a
rs			
urity Settings	KVI	1 Encryption	None 👻
1 & Media		Keyboard/Mouse Only	Enable
& SMASH			
D .	Med	lia Encryption	Enable
u .	USE	3 Key Emulation Type	Floppy 👻
	Defa	ult Ports:	
ts		KVM 7578 CDR	OM 5120 USB/Floppy 5123
t Email	KVM	(Secure) 7582 CDROM (Secu	re) 5124 USB/Floppy (Secure) 5127
e Manager	S	ave	
Configuration			
	Select f	se Mode Setting the mouse mode to use from the or rent Mouse Mode bsolute Mode (Preferred. Use with elative Mode (Use with older Linux ther Mode (Special situations such ave	or PS/2 only mouse drivers)
	You car	board Macros n view and modify keyboard macros ted key names. Key Sequence	s on this page. Button Name is optional. Use Help to see the Button Name
	#1	Ctrl+Alt+Del	Ctrl Alt Del
	Central 4		

# Figure 95: Configuration Mouse Mode Setting Page on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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.

	Boot from Hard Disk Rost from Hard Disk Repair Installed System	OTHER NOUSE WODE = PRESS AIL+C TO Enable Local Curb	or Micros Con At Dei Ak 1
ente staren Internet Surver	nstallation		
	nstallation		
	nstallation		
	Repair Installed System		
	Rescue System		
	Check Installation Media		
	Firmware Test		
	Memory Test	the second se	
Boot Options			
L Help F2 Language F3 Vi	lee Mode F4 Source F5 Kernel F6 Driver		
	0 x 000 CD-ROM Default No		

Figure 96: KVM Window with Mouse Other Mode Selected on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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	tegrat	ted BMC Web Consol	e		
System Information	Server H	iealth Configuration Remote C	Control	J LOGOLIT	S REFRESH C HELP ABOUT
		onfiguration e these pages to configure various set	tings, such as alerts, users	i, or network	k
Network Users				optional. Use	e Help to see the supported key names,
Login	- 1700	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		1		
	#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)	RAIt (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) I	ntegrated BMC Web Console
System Information	Server Health Configuration Remote Control 3 LOGOUT REFREEH O HELP ABOUT
ARK.	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	Control 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
Keyboard Macros	Check All Clear All
Alerts	
A CONTRACTOR OF THE OWNER OWNER OF THE OWNER OWNE	LAN Channel to Configure: Baseboard Mgmt -
Alert Email	Alert Destination #1:
	SIMP Send SIMP Alerts to IP: 0000
	Email Send Email to:
	Alert Destination #2:
	SNMP Send SNMP Alerts to IP: 0.0.0
	C 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.

<b>Table 23: Configuration Alerts Optic</b>	ons
---	-----

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.
Save button	Click to use selected setup.

Option	Task
Send Test Alerts button	After configuring select this to send a test alert.

On Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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 🔮 LOGOUT 🥝 REFRESH 🧭 HELR 🔕 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
Login	- Log Event on Filter Action: Disabled
LOAP	Select the events that will trigger alerts:
VLAN	Temperature Sensor Out of Range     Watchdog Timer     System Restart     Voltage Sensor Out of Range
SSL	Tan Failure
	Power Supply Failure Memory Error
Remote Session	BIOS: Post Error Code     FR8 Failure     Node Manager Exception     Hard Drive Failure
Mouse Mode	Check All Clear All
Keyboard Macros	Circle All
Alerts	LAN Channel to Configure: Baseboard Mgmt -
Alert Email	Alert Destination #1:
Node Manager	SNMP Send SNMP Alerts to IP: 0.000
	🗇 Email Send Email to:
	Alert Destination #2:
	SNMP Send SNMP Alerts to IP: 0000
	C Email Send Email to:
	Save Send Test Alerts

Figure 99: Configuration Alerts Page on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP and Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

# 7.3.12 Alert Email Page

Use this page to configure the parameters for Alert Emails.

(intel) In	tegrated BMC W	eb Console		
System Information	Server Health Configure	ition Remote Control	COGOUT	🖉 REFREEH 🔘 HELP 🔕 ABOUT
	Configuration Use these pages to co	nfigure various settings, such as aler	ts, users, ar network.	é,
	Alert Email Settings			
Network	Configure how Alerts are se	ent by email to an external SMTP Mail	server. Each LAN Cha	nnel has a seperate configuration.
Users	LAN Channel:	Baseboard Mgmt 👻		
Login				
LDAP	SMTP Server IP:	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	<ul> <li>The IP address of the remote SMTP mail server that the alert emails will be sent to.</li> <li>The IP address is made of four numbers separated by dots as in "xxx.xxx.xxx.xxx".</li> <li>'xxx' ranges from 0 to 255.</li> <li>First 'xxx' must not be 0.</li> </ul>	
Sender Address	The sender address string to be put in the "From:" field of outgoing alert emails.	
Local Hostname	<ul> <li>The hostname of the local machine that is generating the alert. It is put into the outgoing alert email.</li> <li>The Local Hostname is a string of maximum 31 alpha-numeric characters.</li> <li>Space and special characters are not allowed.</li> </ul>	
Save button	Click to use selected setup.	

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

On Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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	ntegrated BMC Web Console
System Information	Server Health Configuration Remote Control 🔮 LOGOUT SEFREEH 🕲 HELP 🔕 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 PowerLimit
Login	Add/Edit Node Manager Policies
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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP and Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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.

#### Table 25: Configuration Node Manager Options

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.

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).

### Intel® BMC And RMM4 User Guide

# Intel® Integrated BMC Web Console Options

(intel) In	tegrated BMC Web Console
System Information	Server Health Configuration Remote Control 3 LOGOUT CREFFEEH CHARLE ABOL
	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	
DAP	Add/Edit Node Manager Policies.
VLAN	Policy Number Enabled System Shutdown Log Event
SL.	
Remote Session	Power Limit (Watts)
Mouse Mode	Use Policy Suspend Periods: • Yes O No
Keyboard Macros	
Nerts	Timer 1 Timer 2 Timer 3 Timer 4 Timer 5 Monday Monday Monday Monday
lert Email	Tuesday Tuesday Tuesday Tuesday Tuesday
Node Manager	Wednesday     Wednesday     Wednesday     Wednesday       Thursday     Thursday     Thursday     Thursday       Friday     Friday     Friday     Friday       Saturday     Saturday     Saturday     Saturday
	Sunday         Sunday<
	End Time         End Time         End Time         End Time         End Time           00 + 00 -         00 - 00 +         00 - 00 +         00 - 00 +         00 - 00 +         00 - 00 +

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	
System Information	Server Health Configuration Remote Control 3 LOGOUT CREEREEH CO HELP CABOUT	
N.	Remote Control This section allows you to perform various remote operations on the server, such as launching the remote console.	
Console Redirection	Console Redirection Press the button to launch the redirection console and manage the server remotely.	
Server Power Control	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.

# 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 🕲 LOGOUT 🕝 REFRESH 🕐 HELP 🙆 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
	Power ON Server
	O 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.		
<b>Note:</b> 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.			

On Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families you have an additional option **Forceenter 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) Integrated BMC Web Console			
System Information	Server Health Configuration Remote Control 3 LOSOUT @ REFRESH 3 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		
	III 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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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 on Intel® 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.	
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 C REFLESH C HELP A ABOUT
N.S.	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
	E Force-enter BIOS Setup
	Power Cycle Server
	Perform Action

# Figure 106: Remote Control Server Power Control Page on S1200V3RP and Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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.	
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<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP and Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-2600 V3 --- S2600WT, S2600KP, S2600TP and S2600CW

On Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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 Conso	le	-	No.	A	
System Information	Server Health   Configuration   Remote	Control	COSOUT	C REFRESH	THELP	ABOUT
20	Remote Control This section allows you to remotely	monitor and control the	server .			
				-		
Console Redirection Server Power Control	6		0	100		
Virtual Front Panel			( )			
		-	<u> </u>			
		ver O Reset	🚺 Chassis E			

Figure 107: Remote Control Virtual Front Panel Page on Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> Processor E5-4600/2600/2400/1600/1400 (v1&v2) Product Families, S1200V3RP and Intel<sup>®</sup> Server Boards and Systems Based on Intel<sup>®</sup> Xeon<sup>®</sup> 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.	
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.	

#### Table 29: Remote Control Virtual Front Panel Options