



Intel® Active System Console

User Guide

November 2009

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1 Introduction

The Intel® Active System Console is a walk-up console that provides you a dashboard view of the system on which it is running. It also provides a BMC configuration. It serves as the hardware view of the server providing information about the hardware components of the system. The main components shown include overall health of the server and component health, sensors, System Event Log (SEL), storage (Logical Drives, Hard Drives and CD and DVD Drives), processors, memory, FRU and BMC configuration.

1.1 Document Scope

The purpose of this document is to help you install and use the Intel® Active System Console. It provides you detailed information on the features of Intel® Active System Console and how to use them. It describes the software requirements, supported operating systems and the supported platforms. It also explains the installation and un-installation process.

1.2 Overview

The Intel® Active System Console displays the hardware sensors, Field Replaceable Unit (FRU) data, and System Event Log (SEL) for any system. This console is only available for Intel servers that have a baseboard management controller or National Semiconductor* PC87431x “mini” BMC.

To launch the Intel® Active System Console, go to **Start> Programs> Intel® Server Management Software > Intel® Active System Console**.

1.3 Features

The Intel® Active System Console has the following features:

- Viewing System Health
- Other Hardware Information as follows:
 - o Viewing System Summary
 - o Viewing Sensor Readings
 - o Viewing Fan and Temperature Sensor Readings
 - o Viewing Power and Voltage Sensors Readings
 - o Viewing Chassis Information
 - o Viewing System Event Log (SEL)
 - o Viewing DIMMs and Capacity Information

- o Viewing Processor Information
- o Viewing Cache Information
- o Viewing Storage Information (Local Drive, Hard Drive, and CD/DVD Drive)
- o Viewing Field Replacement Unit (FRU) Information
- Configuring BMC feature including the following:
 - o Configuring LAN
 - o Configuring User Password
 - o Configuring Boot Options
 - o Configuring Power Restore Options
 - o Configuring Serial Over LAN (SOL)
 - o Configuring Node Manager Policies
 - o Configuring Refresh and SEL Alerts Interval

1.4 System Requirements

This section details the software requirements, supported operating systems and the supported platforms for the Intel® Active System Console.

1.4.1 Supported Console Operating Systems

- Windows Server 2003 (Standard and Enterprise) Edition SP2 – x86, x64*
- Windows Server 2003 Release 2 – x86 and x64*
- Windows Vista*
- Windows 2008 – x86 and x64* and Windows 2008 R2*
- Windows 7*

1.4.2 Software Components

- Internet Information Server
- .Net 3.0

1.4.3 Browser Requirements

The application can be run on Internet Explorer Version 6.0 or above. This application has been sanity tested on Firefox v2.0*.

1.4.4 Supported Platforms

The following platforms that have a BMC and associated agents running on them are supported:

- Intel® Server Board S5500BC
- Intel® Server Board S5520HC
- Intel® Server Board S5520UR
- Intel® Server Board S5500WB
- Intel® Workstation Board S5520SC
- Intel® Server Board S5000PSL & S5000XSL
- Intel® Server Board S5400SF
- Intel® Server Board S5000PAL
- Intel® Server Board S5000VSA
- Intel® Workstation Board S5000XVN
- Intel® Server Board S5000VCL
- Intel® Server Board X38ML
- Intel® Server System S7000FC4UR
- Intel® Server Board S3200SH

In addition to supporting English, the Intel® Active System Console supports other languages as well. The UI will be localized per browser's language. Languages supported are as shown in Table 1: Languages Supported:

Table 1: Languages Supported

Name	Description
En	English
De	German
Es	Spanish
Fr	French
It	Italian
Ja	Japanese
Ko	Korean
Pt	Portuguese
Ru	Russian
Zh-Chs	Simplified Chinese
Zh-Cht	Traditional Chinese

To get the latest and up-to-date list of supported operating systems, system requirements and platforms supported refer to the release notes available with the product.

1.5 Related Information

The following table lists the related information:

Document/ Information	Source
Intel® Server Management Pack Release Notes	Available at the root of the DVD.
Intel® Modular Server Management Pack User Guide	Documents\User Guide\ENU
Intel® AMT Management Pack User Guide	software\amtmp\MPAMTInstallation\iAMT MP for Ops Mgr and Essentials
Intel® Server Management Pack Upgrade Guide	Documents\User Guide\ENU
Intel® Command Line Interface User's Guide	software\utilities\linux\DPC-CLI\docs\<LANG>
Microsoft® System Center Essentials 2007*	software\sce\ENU\ProductDocumentation
Intel® Intelligent Power Node Manager – White Paper	documents\User Guide\ENU
Intel® System Management Software Installation Guide	documents\Installation\ENU
Intel® SNMP Subagent User Guide	software\utilities\linux\SNMP_SA\Baseboard_Subagent\docs\<LANG>
Intel® Utilities Installation Instructions	Documents\Installation\<LANG>
Intel Support	http://support.intel.com

1.6 Terminology

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

Term	Description
Agent	Agent is the Software Development Kit Layer for Extracting the Server Hardware Information from Base Board Management Controller and System Management Basic Input Output System (BIOS)
BMC	Base board Management Controller
CIM	DMTFs Common Information Model - CIM provides a common definition of management information for systems, networks, applications and services, and allows for vendor extensions
GUI	Graphical User Interface
Intel® AMT	Intel® Active Management Technology
Intel® SMS	Intel® System Management Software
IPMI	Intelligent Platform Management Interface. Operates independent of the operating system (OS) and allows you to manage a system remotely even in the absence of the OS
Management Pack	It is a Plug-in module in System Center Essentials software that has all the definitions and configurations of the Intel® Server Hardware Components
RAID	Ra
RMCP	Remote Management Control Protocol – Protocol used by IPMI for communicating over LAN
SCE*	Microsoft® System Center Essential* 2007
SCOM*	Microsoft® System Center Operations Manager*
SEL	System Event Log
SMBIOS	System Management BIOS (SMBIOS) is specification to lay out data structures (and access methods) in a BIOS which allows a user or application to store and retrieve information specifically about the Server
SNMP	Simple Network Management Protocol
SOL	Serial Over LAN
Upgrade	Enhanced versions of Intel® SMS with new platform support or new features are uploaded to Intel Website. Users installing Intel® SMS from a CD can upgrade to a new version using multiple ways. Intel recommends all users to upgrade to a new versions

2 Getting Started

This section provides some basic steps on how to install and use the Intel® Active System Console.

2.1 Overview

The Autorun launches a Pre -Requisite checker (Figure 1) to validate that the Intel® Active System Console will be able to install without any complications. A system reboot may be required proceeding the prerequisite installation. The Intel® Active System Console Installer installs all the necessary components required for the Intel® Active System Console. This installer also installs an agent for the console to get/set data from/to the BMC.

2.1.1 Prerequisites

Following are the Prerequisites to install and use the Intel® Active System Console:

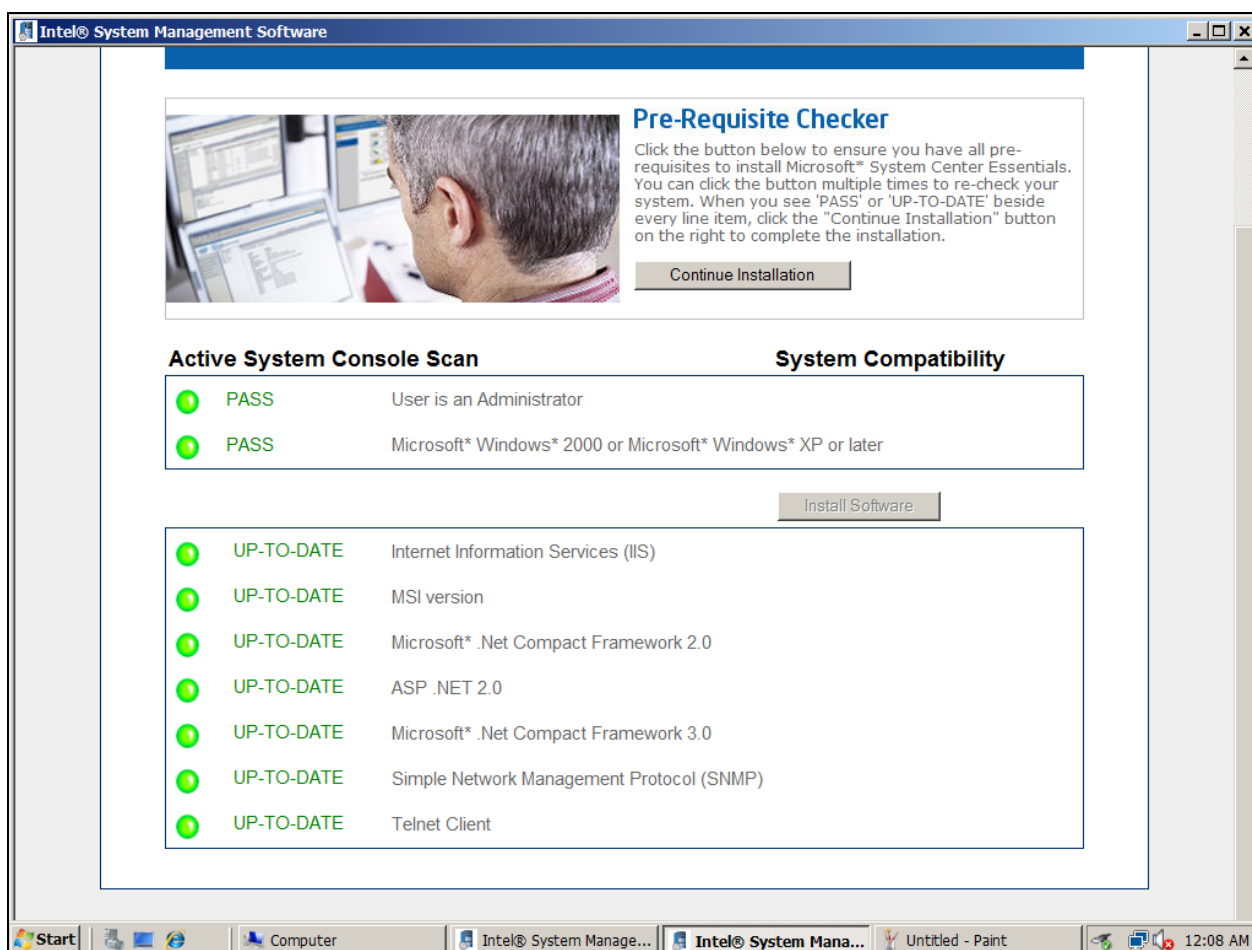


Figure 1. Pre-Requisite Checker

2.2 Installing Intel® Active System Console

1. Insert the SMS DVD. In the Pre-Requisite Checker screen (Figure 1) that appears, click **Continue Installation** to display the Installation Status screen as shown in Figure 2.



Figure 2 – Installation Status

2. Click button **Click to Install**. The **Preparing to Install** dialog configuring Windows* installer opens as shown in Figure 3.

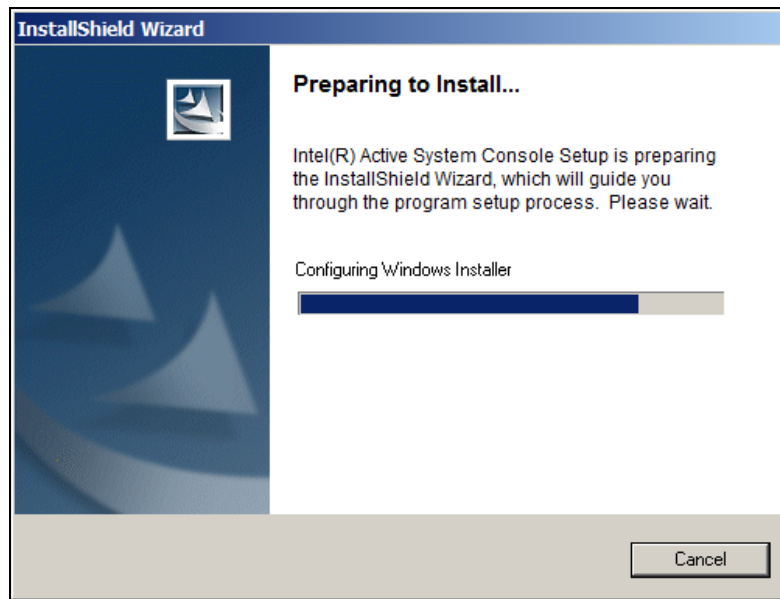


Figure 3. InstallShield Wizard – Preparing to Install

3. Once the configuration of Windows* Installer is complete, the Welcome screen for the **Intel® Active System Console - InstallShield Wizard** opens as shown in Figure 4.



Figure 4 – InstallShield Wizard – Welcome Screen

4. Click **Next** to continue. The **License Agreement** screen appears as shown in Figure 5.

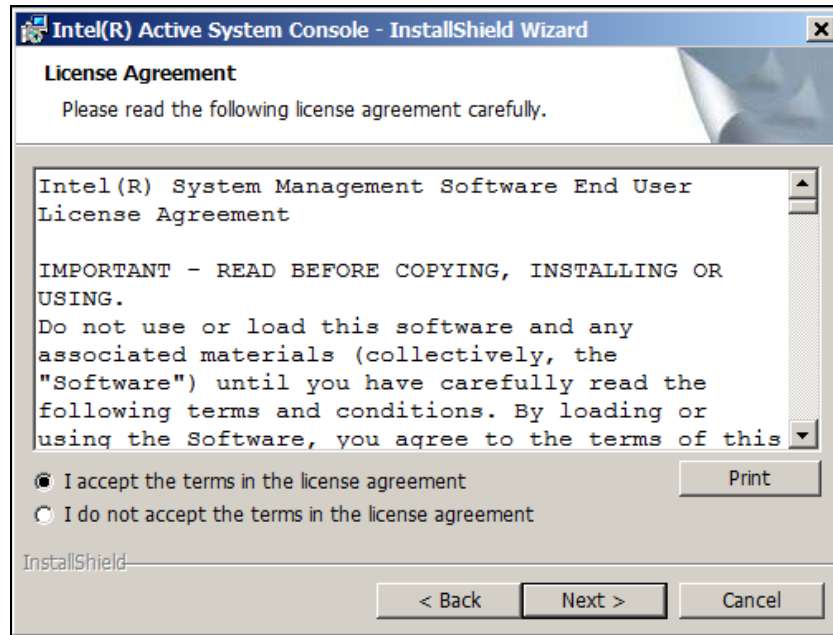


Figure 5 – InstallShield Wizard – License Agreement Screen

5. Read the license agreement and to accept, select the **I accept the terms in the license agreement** button. Click **Next**.

Note: The **Next** button is disabled till you select the *accept agreement* option. The **Logon Information** screen appears as shown in Figure 6.

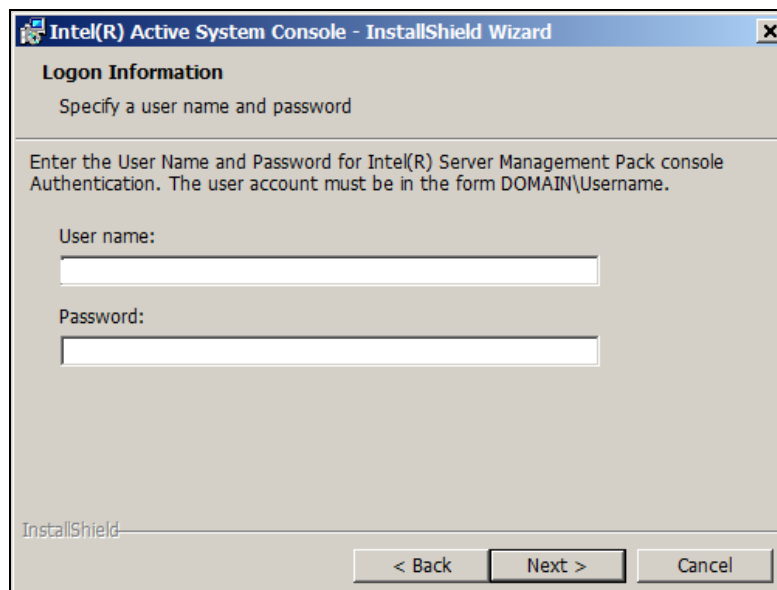


Figure 6 – InstallShield Wizard – Logon Information Screen

Enter Username and Password and click **Next**. The Installing Intel® Active System Console progress window appears as shown in Figure 8.

Note: You need valid domain administrative rights. In case of a local console, this can be any administrator account.

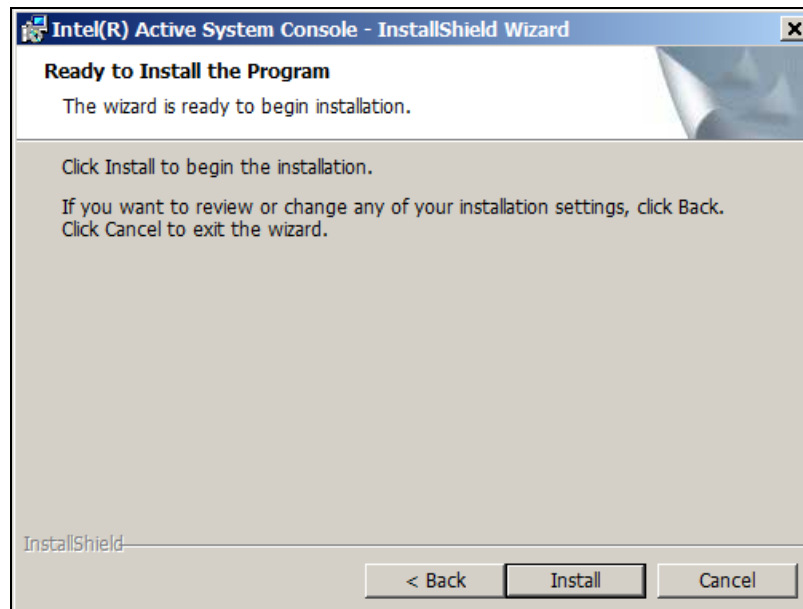


Figure 7 – InstallShield Wizard – Installation Screen

6. Click **Install** to continue installation.

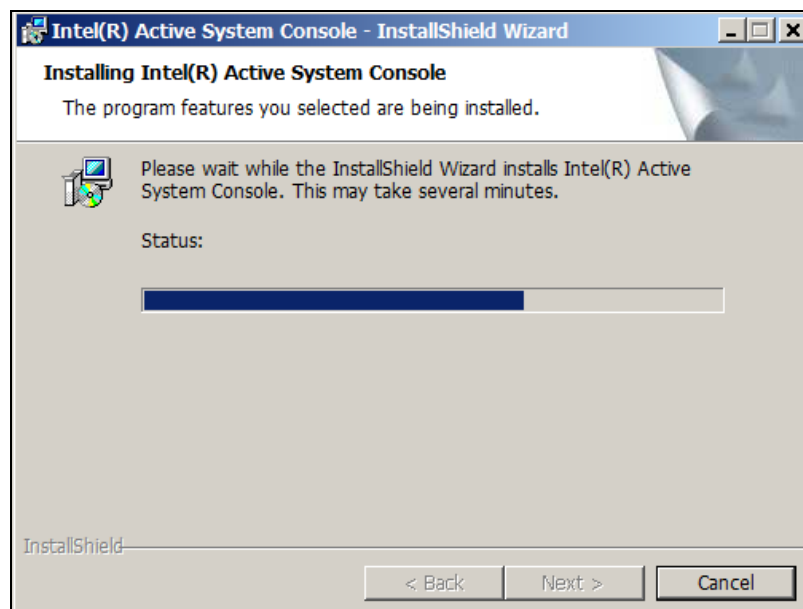


Figure 8 – InstallShield Wizard – Installing Intel® Active System Console Screen

7. Once installation is complete, the InstallShield Wizard Completed screen opens as shown in Figure 9.

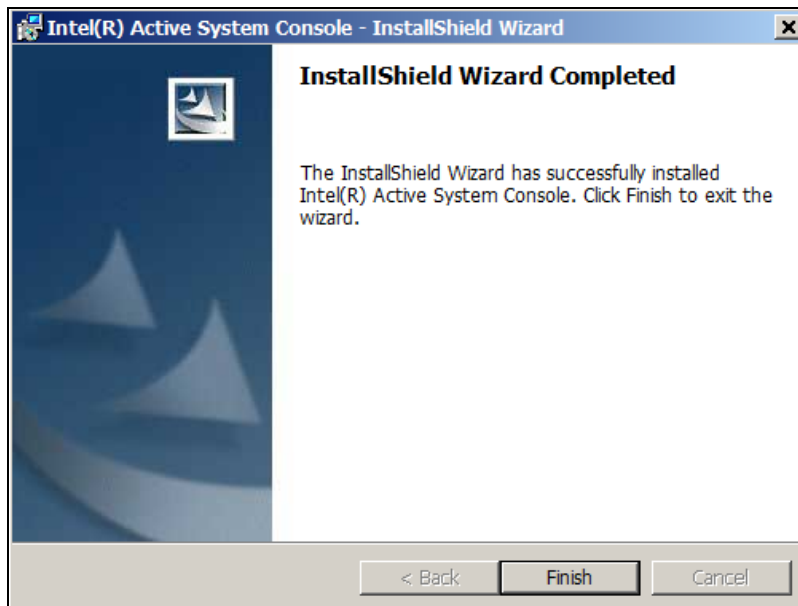


Figure 9 – InstallShield Wizard completed– Installing Intel® Active System Console Screen

8. Click **Finish** to exit the wizard.

2.3 Upgrading Intel® Active System Console

This section details steps to upgrade the Intel® Active System Console.

1. The Intel® Active System Console Upgrade Setup dialog appears as shown in Figure 10.

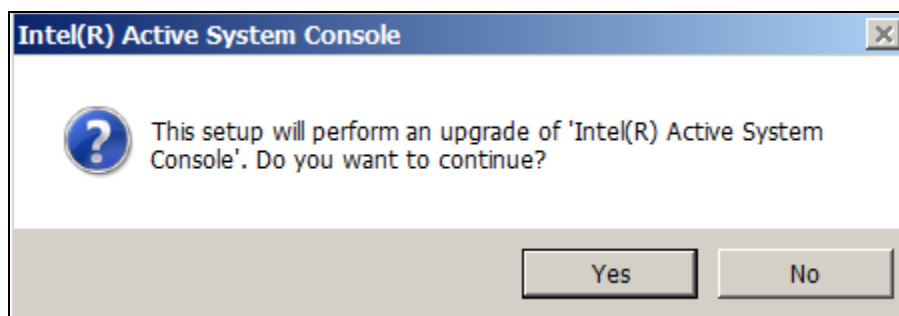


Figure 10 – Intel® Active System Console Upgrade Setup Initial Dialog

2. Click **Yes** to continue. The Resuming the InstallShield Wizard for Intel® Active System Console windows appears as shown in Figure 11. Click **Next** to continue.



Figure 11 –Intel® Active System Console Upgrade Configuring Installer Window

3. In the Logon Information window that opens fill in username and Password. Click **Next**.

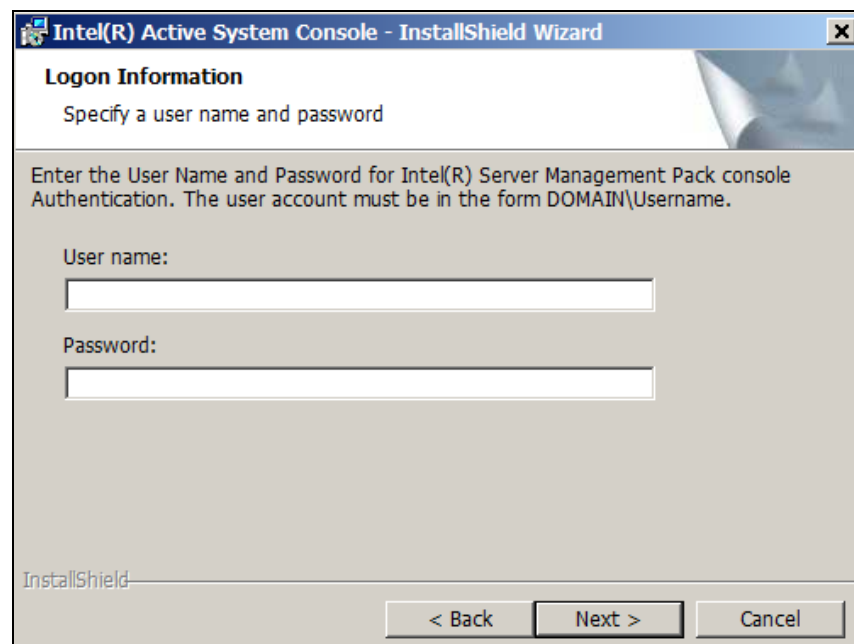
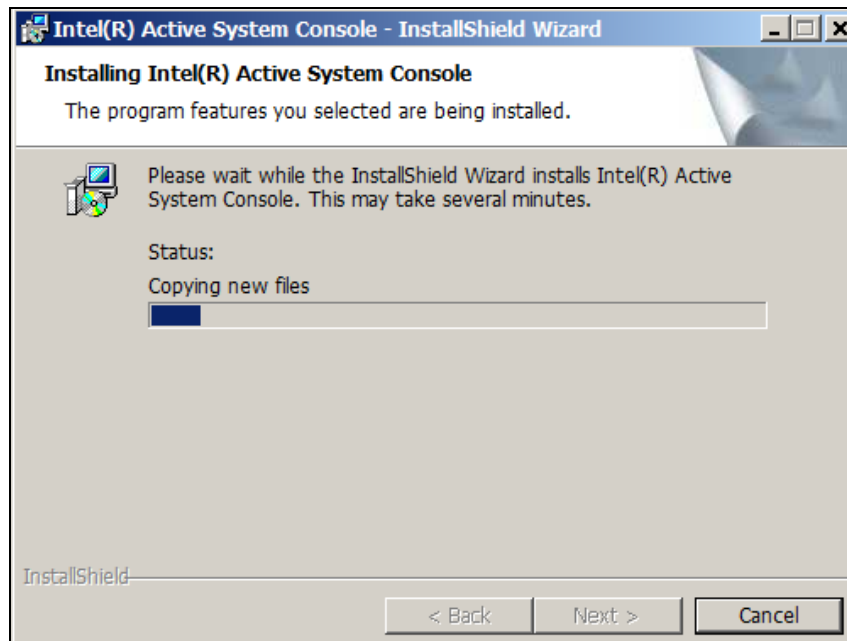


Figure 12 –Intel® Active System Console Upgrade Logon Information window

4. The installation status progress window appears.



5. Once installation is complete, the **InstallShield Wizard Completed** window appears as shown in Figure 13.

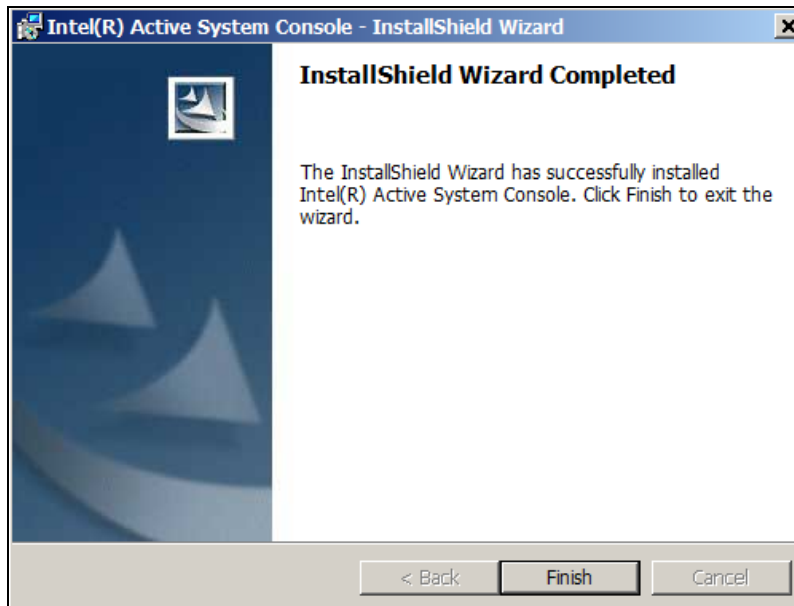
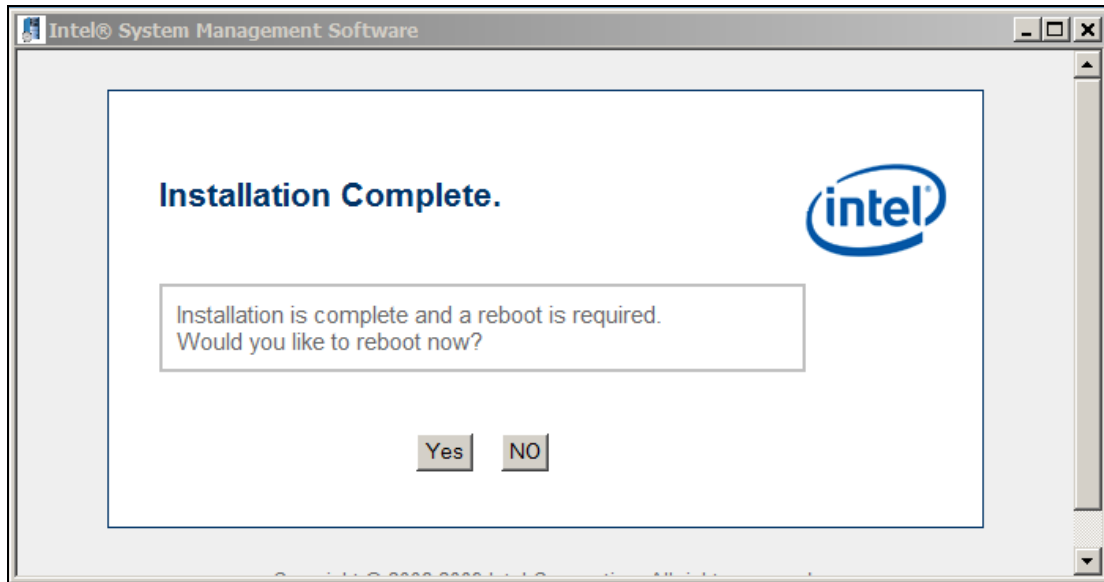


Figure 13 –Intel® Active System Console Upgrade Complete Window

6. Click **Finish** to exit the wizard. The following screen appears. Click **Yes** to reboot.



2.4 Uninstalling Intel® Active System Console

This section explains the steps to uninstall the Intel® Active System Console.

1. Go to **Start->Programs->Intel System Management Software->Uninstall->Uninstall Intel Active System Console**.
(You can also go to Start>My Computer>Add Remove Programs and proceed to uninstall Intel® Active System Console.)

The Intel® Active System Console start uninstall dialog opens as shown in Figure 14.and Figure 15.

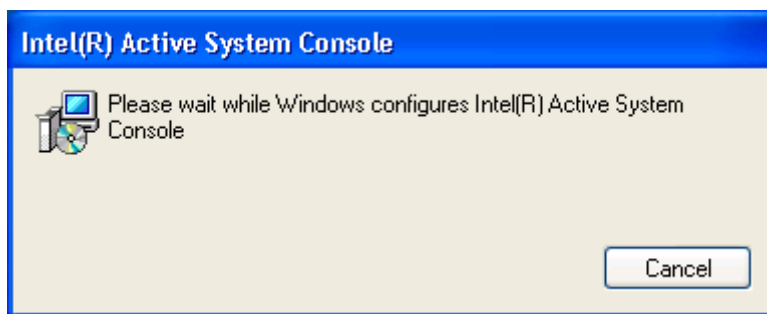


Figure 14 –Intel® Active System Console start uninstall dialog

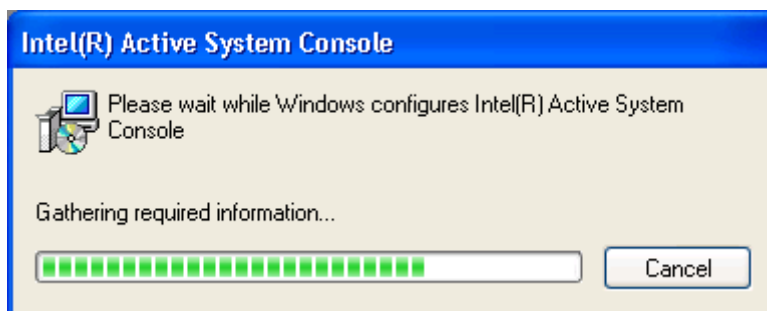


Figure 15 –Intel® Active System Console uninstall gathering information dialog

2. In the Uninstall Intel® Active System Console Complete dialog that follows (Figure 16), click **Finish** to exit.

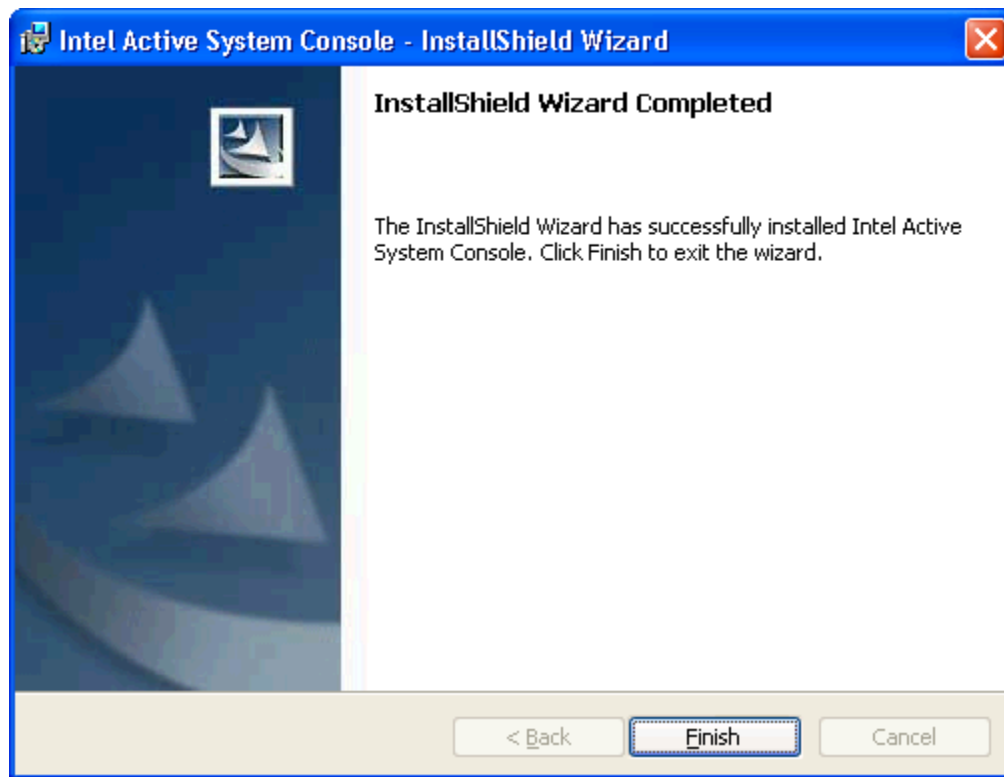


Figure 16 – Intel® Active System Console Uninstall Complete dialog

3 Navigating Intel® Active System Console

This section details how you can use the features of the Intel® Active System Console. Intel® Active System Console has a navigation pane on the left side of the screen. The navigation menu includes the following choices as shown in Figure 17.

- Hardware Information (opens by default)
- BMC Configuration



Figure 17. Intel ® Active System Console Home Page - Hardware Information

3.1 Hardware Information

This section lists the following Hardware choices available as listed in the following Table:

Hardware choice	Function
Home	Displays system health information.
Baseboard	Displays hardware versions (BIOS, BMC, and other related information).
Sensor Readings	Displays a table of all hardware sensors and the threshold settings
Cooling	Displays a table of all fan/temperature sensors and the threshold settings
Power	Displays a table of all power supply sensors, threshold settings, voltage sensors, and node manager related information
Chassis Information	Displays the state of the chassis intrusion sensor and enables identifying the system by turning on/off the Chassis ID LED
System Event Log	Allows you to navigate and clear the SEL
Memory	Displays memory size and type information
Processor	Displays processor speed information
Cache	Displays cache-information
Storage	Displays information about the hard disk drives, logical disk drives, and media or DVD drives
FRU	Field Replaceable Unit information

3.1.1 Viewing System Health

In the **Hardware Information** page, the **Home** page as shown in Figure 18 displays the health of the system and its components. The UI gets refreshed every 10 minutes.

Note: This is configurable in the **BMC Configuration>System Console** page with the data managed by reading of the sensor readings.



Figure 18 – Intel ® Active System Console Home Page - Hardware Health

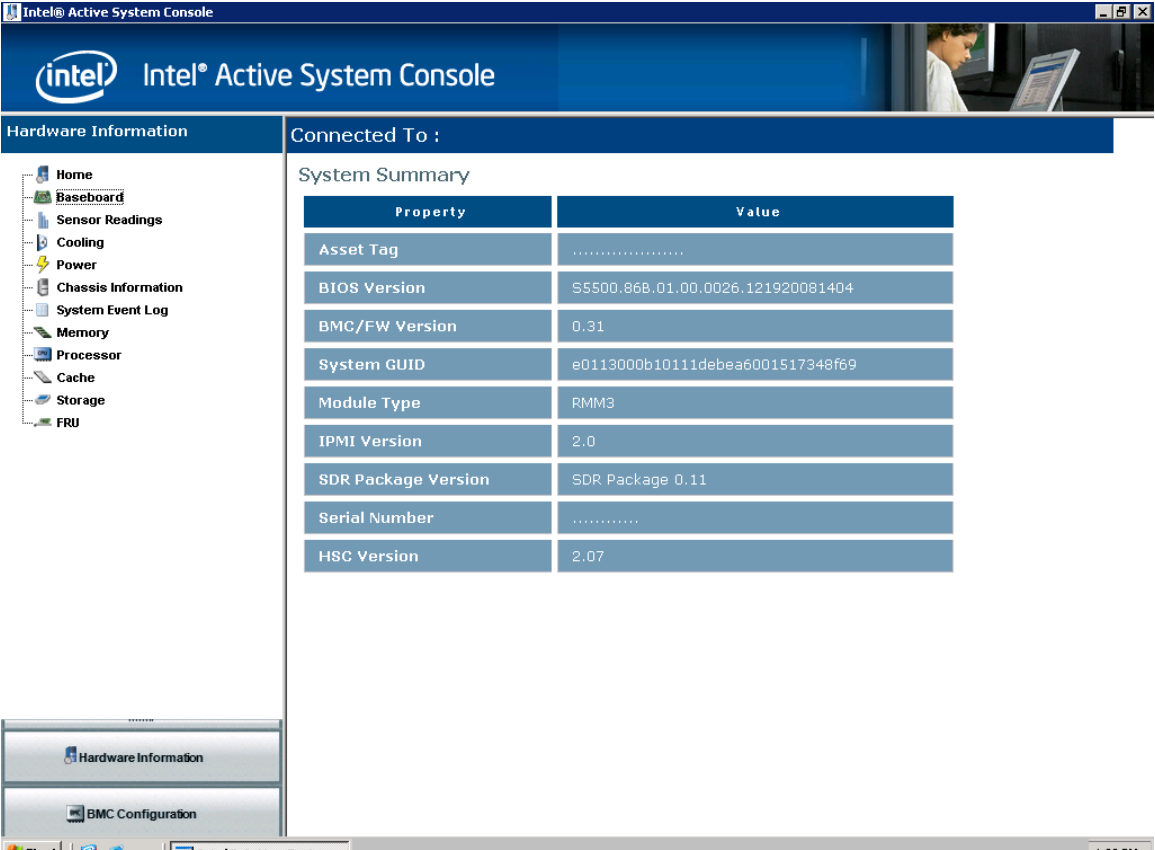
The health calculation for the components in the Home page is displayed in the respective pages as shown in the following Table:

Component	Function	Health Status displayed
Fan, Voltage	Checks the supported thresholds.	Critical - If current reading is outside range of critical thresholds, then the health status will be critical. Warning - If current reading falls outside of the non critical threshold ranges, then health status will be a warning. Healthy - Else the status will be healthy.
Temperature	Checks on the supported thresholds	If current reading falls outside the range, then health status will be changed depending on that. But if current reading is 0° C, then the corresponding sensors will not contribute to health.
Power Supply		Healthy – If Power Supply Sensors status is “Presence Detected” Critical – If Power Supply Sensors status is “PS Failure Detected” or “Predictive Failure” Warning – If Power Supply Sensors status is any result out of “Presence Detected”, “Failure Detected” and “Predictive Failure”
Chassis		This is based on the chassis sensor status. If Intrusion status/Drive bay intrusion Status/IO Card Area intrusion status/processor area intrusion status/LAN Leash lost status/Fan area status/Unauthorized dock-undock status • True – Warning • Otherwise – Healthy
Processor		The status of Thermal trip error, IError, Config error and Processor throttle status is checked. • If any of these are set, the status displayed - Critical • Else - Healthy • If any of the error bit is set, the status displayed – Warning
Storage		The free space of hard disks is checked. If it is 90% full the status - critical. If it is 75% full the status - warning. Else - healthy.

Memory		Healthy – If Memory Sensors status is "Presence Detected" or "Spare" Critical – If Memory Sensors status is "Uncorrectable ECC" or "Parity" or Memory Scrub Failed" or "Memory Device Disabled" or "Correctable Error limit reached" or "Configuration error" or "Critical Over temperature" or if Memory Slot Sensors status is "Fault Status Asserted" or "Slot is disabled" Warning – if memory Sensors Status is "Correctable ECC"
Note: Fan & Temperature together contribute to Cooling and Voltage. Current and Power supply health are combined to Power Monitoring.		

3.1.2 Viewing System Summary

To view information on the board, BIOS and FW, in the **Hardware Information** Page, click the **Baseboard** button to display System Summary the readings of numeric sensors and the status of discrete sensors as shown in Figure 19.



The screenshot shows the Intel Active System Console interface. The top bar displays the Intel logo and the text "Intel® Active System Console". Below this, there is a navigation pane on the left with a tree view containing the following items: Home, Baseboard (selected), Sensor Readings, Cooling, Power, Chassis Information, System Event Log, Memory, Processor, Cache, Storage, and FRU. The main content area is titled "System Summary" and contains a table with the following data:

Property	Value
Asset Tag	
BIOS Version	S5500.86B.01.00.0026.121920081404
BMC/FW Version	0.31
System GUID	e0113000b10111debea6001517348f69
Module Type	RMM3
IPMI Version	2.0
SDR Package Version	SDR Package 0.11
Serial Number	
HSC Version	2.07

At the bottom of the console, there is a taskbar with a "Start" button, a taskbar showing "Intel® Active System...", and a system clock displaying "4:33 PM".

Figure 19. IPMI System Summary

3.1.3 Viewing Sensor Readings

To view the sensor readings, in the **Hardware Information** Page, click **Sensor Readings** button as shown in Figure 20. As all thresholds are not supported for all sensors, unsupported thresholds are marked with a hyphen. Health of the sensors is also shown to indicate those that are critical and that are not.

Intel® Active System Console

Hardware Information Connected To :

Export To File

Temperature Sensors (InDegrees C)

Sensor Health	Sensor Name	Current Reading	Threshold Values			
			Lower		Upper	
			Critical	Non-Critical	Non-Critical	Critical
✓	Baseboard Temp	30.00	5.00	10.00	61.00	66.00
✓	Front Panel Temp	26.00	0.00	5.00	44.00	48.00
✓	IOH Therm Margin	-64.00	-	-	5.00	10.00
✓	Mem P1 Thrm Mrgn	0.00	-	-	5.00	10.00
✓	PS1 Temperature	29.00	-	-	55.00	60.00
✓	P1 Therm Margin	-50.00	-	-	-	-
✓	P1 Therm Ctrl %	0.00	-	-	11.70	19.50
✓	HSBP Temperature	27.00	5.00	9.00	50.00	55.00

Start Intel® Active System Co... 4:34 PM

Figure 20 - Sensor Readings 1

Click the **Export to File** button to download the readings to a client system to analyze the readings.



Figure 21 - Sensor Readings 2

3.1.4 Viewing Fan and Temperature Sensor Readings

In the **Hardware Information** Pane, click the **Cooling** button to display the fan and temperature sensor readings as shown in Figure 22.

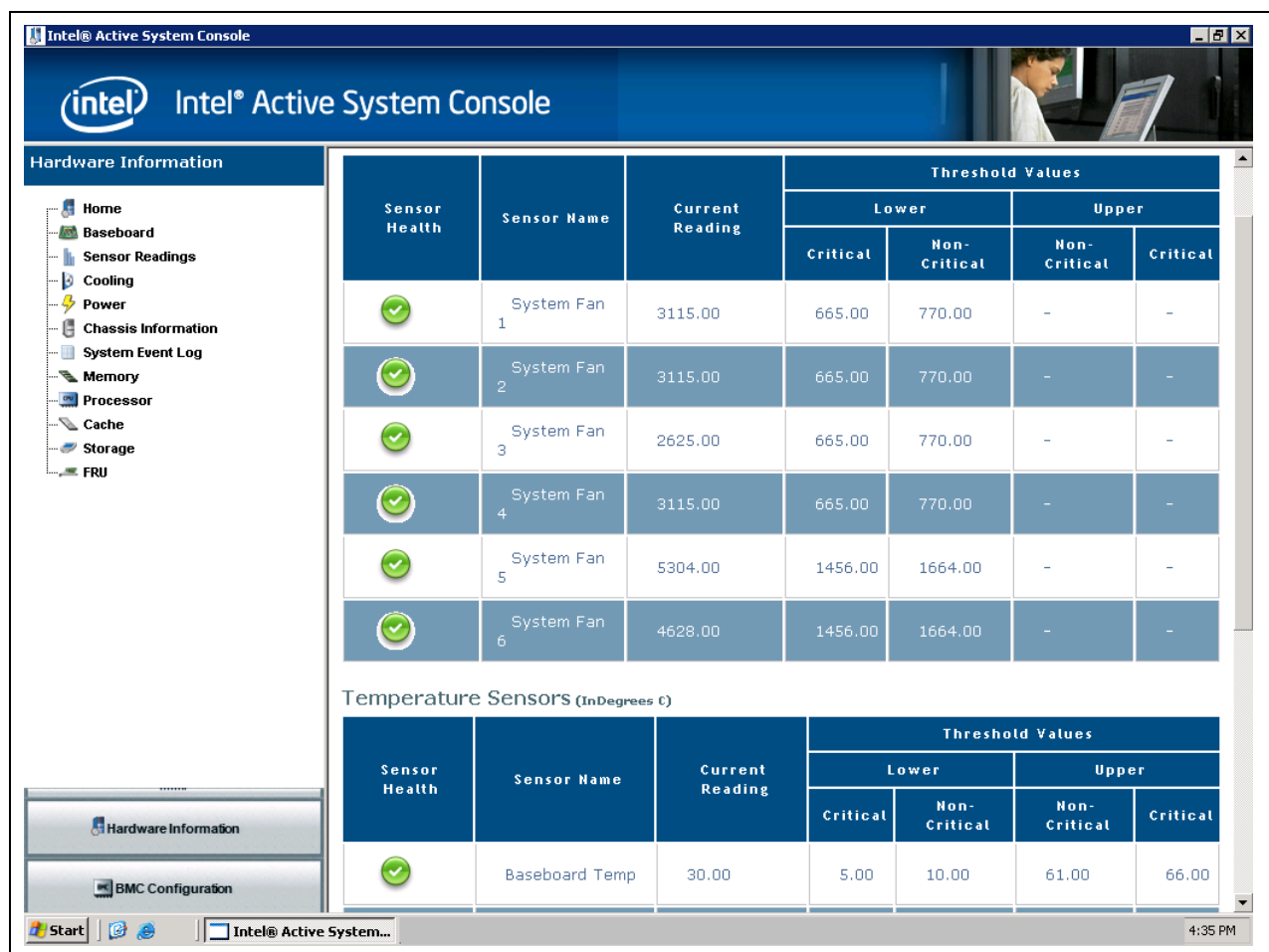


Figure 22 - Cooling Sensors

3.1.5 Viewing Power and Voltage Sensors Readings

In the **Hardware Information** pane, click the **Power** button to view the power and voltage sensors readings as shown in Figure 23. For systems that do not have compatible power supply, this page will not have instances. If the platform does not support power gauge sensors or PMBUS power supplies, then the current reading will be 0s (for example, H800t).

The screenshot displays the Intel Active System Console interface. The left sidebar shows the 'Hardware Information' pane with the 'Power' button selected. The main content area is titled 'Connected To :'. Below this, there are three sections: 'Power Supplies', 'Node Manager Statistics', and 'Voltage Sensors (In Volts)'.

Power Supplies

Instance Id	Device Status	Power Usage %	Max Power (Watts)	Current Reading (Watts)	Upper Critical Threshold(Watts)
0	TRUE	13	750	104	988

Node Manager Statistics

Node Manager Version	Management Engine Version	Maximum Policies	Min Power Reading	Current Power Reading	Max Power Reading
NM Version 1.5	1.10	10	94 Watts	105 Watts	114 Watts

Voltage Sensors (In Volts)

Sensor Health	Sensor Name	Current Reading	Threshold Values			
			Lower		Upper	
			Critical	Non-Critical	Non-Critical	Critical
✓	BB +1.1V IOH	1.09	1.02	1.05	1.14	1.17
✓	BB +1.1V P1 Vccp	1.03	0.68	0.70	1.50	1.54
✓	BB +1.5V P1 DDR3	1.53	1.36	1.40	1.58	1.63
✓						

The bottom of the console shows the 'Start' button and the 'Intel Active System...' taskbar. The system clock indicates 4:36 PM.

Figure 23. Power and Voltage Sensors

3.1.6 Viewing Chassis Information

In the **Hardware Information** page, click the **Chassis Information** button to display the chassis intrusion information as shown in Figure 24. The user can also identify the server by turning the LED on or off. To do this, click the chassis icon in this screen.

Notes:

- For systems that do not support the chassis sensor, **The system LED is currently Not Supported status** displays.
- For some platforms, the status of LED is not supported, but the user will still be able to turn the LED on and off as shown in Figure 24. To do this, click the chassis icon in this screen.

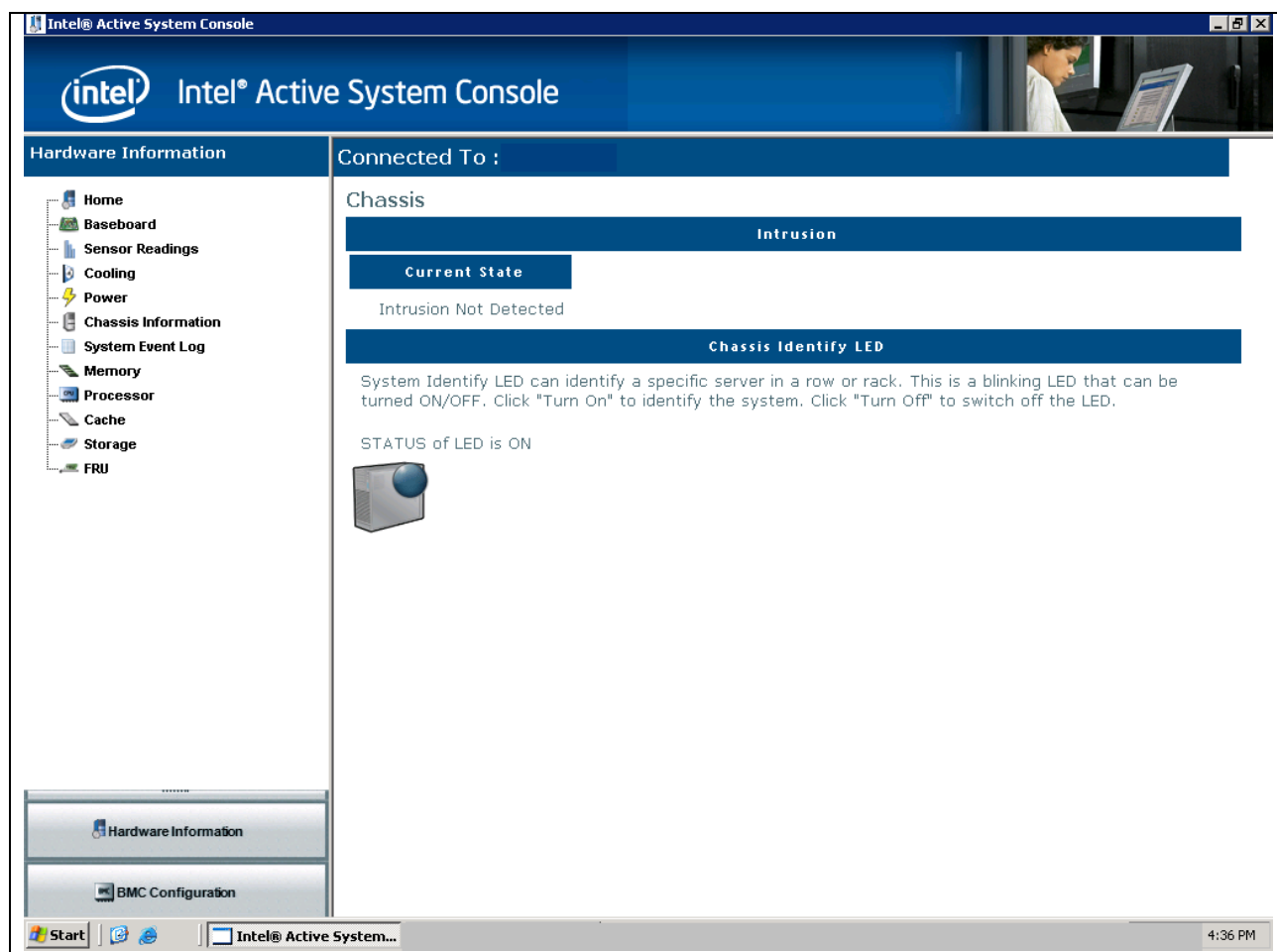


Figure 24 – Chassis Information page

3.1.7 Viewing System Event Log (SEL)

In the **Hardware Information** pane, click the **System Event Log** button to display complete SEL information as shown in Figure 25.

Note: 20 records are shown per page. To navigate through additional records click the **Previous** and **Next** buttons as needed.

To clear the System Event Log of BMC, click the **Clear SEL** button. When you do this, the events that are cleared are stored in MonitoringAgentEvents-old.xml file on the managed node. In L1 mode, it is the same server and in L2, it is the server that you are connected to.

Intel® Active System Console

Hardware Information

Connected To :

Page : 1/41 Clear SEL Previous Next

SEL Display

Date / Time	Description	Sensor
2/27/2009 3:10 PM	Informational event: System Event reports a PEF action has occurred - alert.	System Event
2/27/2009 3:10 PM	Informational event: System Event sensor 131 reports a system boot event has occurred.	System Event
2/27/2009 3:10 PM	Informational event: System Event sensor 131 reports Timestamp Clock Sync. Event is second of two expected events from BIOS on every power on.	System Event
2/27/2009 3:10 PM	Informational event: System Event sensor 131 reports Timestamp Clock Sync. Event is first of two expected events from BIOS on every power on.	System Event
2/27/2009 2:57 PM	Informational event: System Event sensor 131 reports Timestamp Clock Sync. Event is second of two expected events from BIOS on every power on.	System Event
2/27/2009 2:57 PM	Informational event: System Event sensor 131 reports Timestamp Clock Sync. Event is first of two expected events from BIOS on every power on.	System Event
2/27/2009 2:57 PM	Informational event: System Event sensor 131 reports Timestamp Clock Sync. Event is first of two expected events from BIOS on every power on.	System Event
2/27/2009 2:57 PM	OEM Timestamped SEL event	Temperature
2/27/2009 2:57 PM	OEM Timestamped SEL event	Unknown
2/27/2009 2:57 PM	CRITICAL event: System Management Software states that OS Critical Stop sensor 0 reports the OS has suffered a runtime stop.	OS Stop
2/27/2009 2:06 PM	Informational event: System Event reports a PEF action has occurred - alert.	System Event
2/27/2009 2:06 PM	Informational event: System Event sensor 131 reports a system boot event has occurred.	System Event
2/27/2009	Informational event: System Event sensor 131 reports Timestamp Clock Sync. Event is second of two expected events from BIOS on every power on.	System

Hardware Information

BMC Configuration

Start Intel@ Active System... 4:36 PM

Figure 25. System Event Log

3.1.8 Viewing DIMMs and Capacity Information

In the **Hardware Information** pane, click the **Memory** button to view the DIMMs and capacity information in the **Memory Devices** page as shown in Figure 26.



Intel® Active System Console

Hardware Information

Connected To :

Memory Devices

Slot Name	Bank Name	Size	Speed	Type	Memory Location
DIMM_A1	NODE 0 CHANNEL 0 DIMM 0	1024MB	800MHz	Other	Motherboard
DIMM_A2	NODE 0 CHANNEL 0 DIMM 1	1024MB	800MHz	Other	Motherboard
DIMM_B1	NODE 0 CHANNEL 1 DIMM 0	0MB			
DIMM_B2	NODE 0 CHANNEL 1 DIMM 1	0MB			
DIMM_C1	NODE 0 CHANNEL 2 DIMM 0	0MB			
DIMM_C2	NODE 0 CHANNEL 2 DIMM 1	0MB			
DIMM_D1	NODE 1 CHANNEL 0 DIMM 0	0MB			
DIMM_D2	NODE 1 CHANNEL 0 DIMM 1	0MB			
DIMM_E1	NODE 1 CHANNEL 1 DIMM 0	0MB			
DIMM_E2	NODE 1 CHANNEL 1 DIMM 1	0MB			
DIMM_F1	NODE 1 CHANNEL 2 DIMM 0	0MB			
DIMM_F2	NODE 1 CHANNEL 2 DIMM 1	0MB			

Hardware Information

BMC Configuration

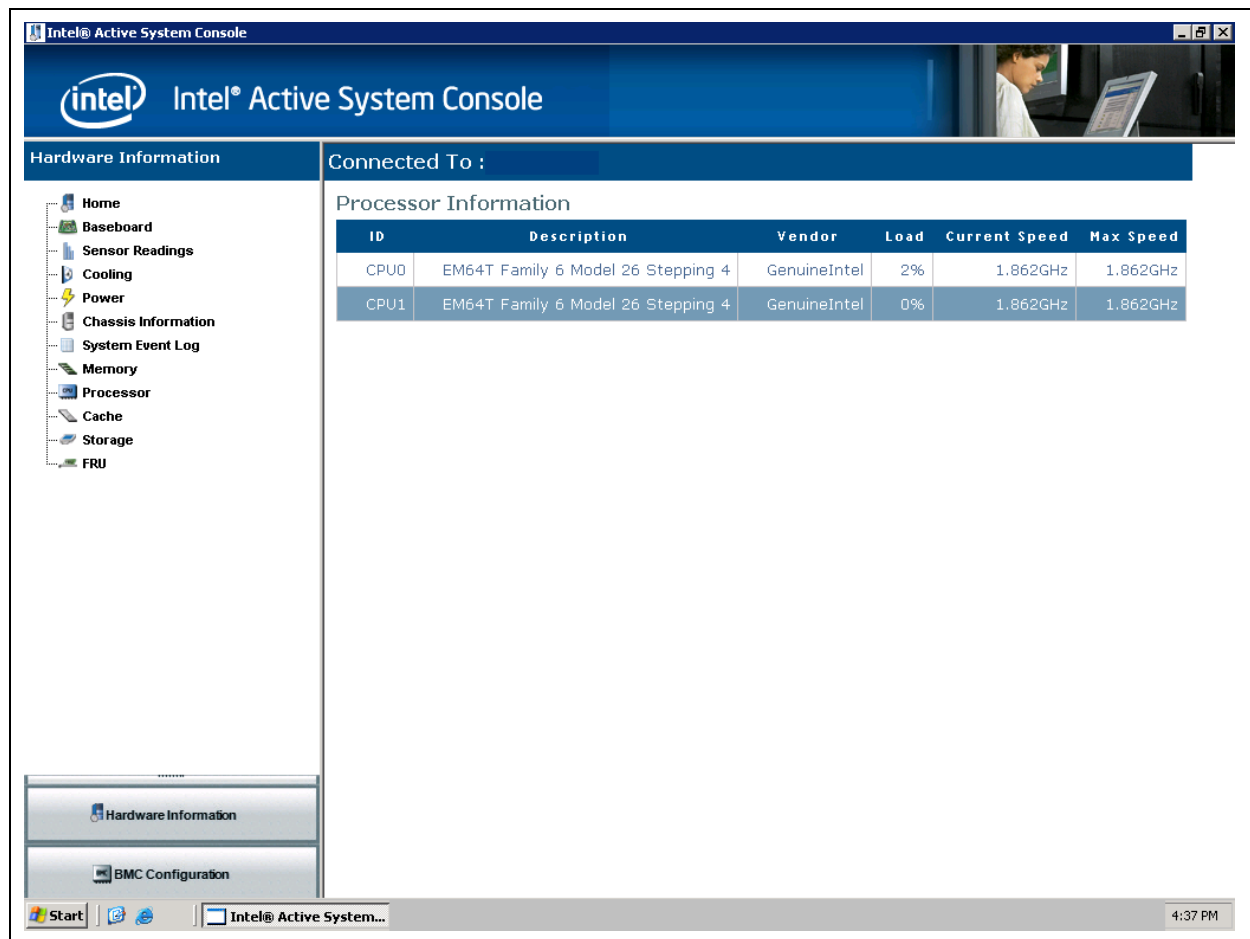
Start | Intel® Active System... | 4:37 PM

Figure 26 – Memory Devices Window

3.1.9 Viewing Processor Information

In the Hardware Information pane, click the Processor button to view the processors and corresponding load information as show in Figure 27.

Note: The load percentage indicates the load of the CPU at the time of query.



The screenshot displays the Intel Active System Console interface. The left sidebar contains a tree view with the following items: Home, Baseboard, Sensor Readings, Cooling, Power, Chassis Information, System Event Log, Memory, Processor (selected), Cache, Storage, and FRU. The main content area is titled 'Connected To : Processor Information' and contains a table with the following data:

ID	Description	Vendor	Load	Current Speed	Max Speed
CPU0	EM64T Family 6 Model 26 Stepping 4	GenuineIntel	2%	1.862GHz	1.862GHz
CPU1	EM64T Family 6 Model 26 Stepping 4	GenuineIntel	0%	1.862GHz	1.862GHz

The bottom of the console shows a taskbar with the Start button, a few application icons, and a system tray with the time 4:37 PM.

Figure 27 – Processor Window

3.1.10 Viewing Cache Information

From the **Hardware Information** pane, click the **Cache** button to view cache memory as shown in Figure 28.

The screenshot displays the Intel Active System Console interface. The top header features the Intel logo and the text "Intel® Active System Console". Below this, a navigation pane on the left lists various system components: Home, Baseboard, Sensor Readings, Cooling, Power, Chassis Information, System Event Log, Memory, Processor, Cache, Storage, and FRU. The "Cache" option is selected. The main content area, titled "Connected To :", displays a table of cache information. The table has five columns: ID, Type, Size, Write Policy, and Error Correction. It lists four cache entries: Cache Memory 0 (Unified, 4096KB, Write Back, Single-bit ECC), Cache Memory 1 (Data, 64KB, Write Back, Single-bit ECC), Cache Memory 2 (Unified, 512KB, Write Back, Single-bit ECC), and Cache Memory 3 (Instruction, 64KB, Write Back, Single-bit ECC). At the bottom of the console, there are buttons for "Hardware Information" and "BMC Configuration". The Windows taskbar at the very bottom shows the Start button, several application icons, and the system clock indicating 4:37 PM.

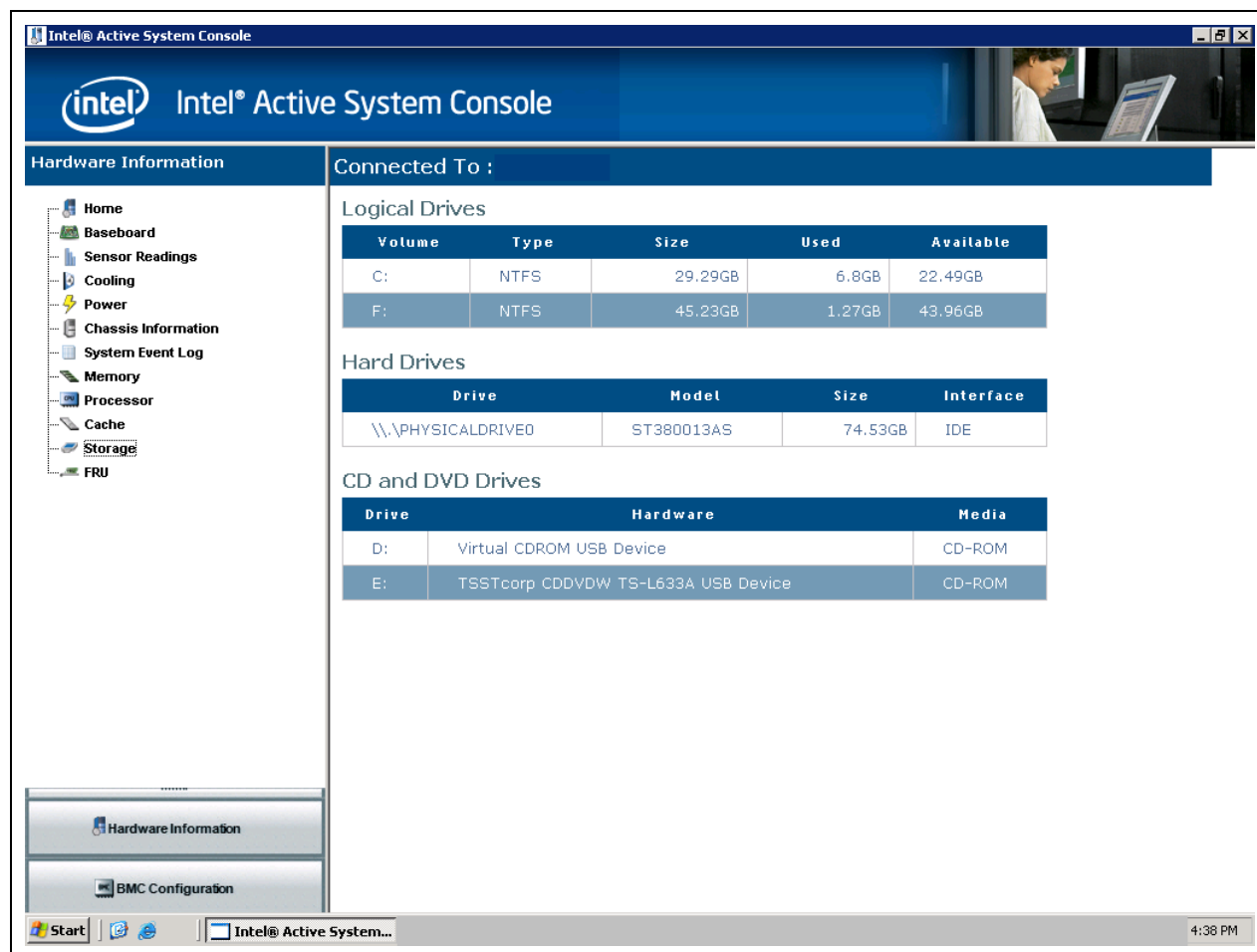
ID	Type	Size	Write Policy	Error Correction
Cache Memory 0	Unified	4096KB	Write Back	Single-bit ECC
Cache Memory 1	Data	64KB	Write Back	Single-bit ECC
Cache Memory 2	Unified	512KB	Write Back	Single-bit ECC
Cache Memory 3	Instruction	64KB	Write Back	Single-bit ECC

Figure 28 - Cache Information

3.1.11 Viewing Storage Information (Local Drive, Hard Drive, and CD / DVD Drive)

In the **Hardware Information** pane, click the **Storage** button to view information about logical drive, hard drive and CD ROM drive as shown in Figure 29.

Note: These instances are driven by the Windows* OS. No information about RAID controllers/instances is displayed.



The screenshot shows the Intel Active System Console interface. On the left is a navigation pane with icons for Home, Baseboard, Sensor Readings, Cooling, Power, Chassis Information, System Event Log, Memory, Processor, Cache, **Storage**, and FRU. The main area is titled 'Connected To :'. It contains three sections:

- Logical Drives**: A table with columns Volume, Type, Size, Used, and Available.
- Hard Drives**: A table with columns Drive, Model, Size, and Interface.
- CD and DVD Drives**: A table with columns Drive, Hardware, and Media.

At the bottom of the console, there are buttons for 'Hardware Information' and 'BMC Configuration'. The Windows taskbar at the very bottom shows the Start button, several icons, and the text 'Intel Active System...' with a clock showing 4:38 PM.

Volume	Type	Size	Used	Available
C:	NTFS	29.29GB	6.8GB	22.49GB
F:	NTFS	45.23GB	1.27GB	43.96GB

Drive	Model	Size	Interface
\\.\PHYSICALDRIVE0	ST380013AS	74.53GB	IDE

Drive	Hardware	Media
D:	Virtual CDROM USB Device	CD-ROM
E:	TSSSTcorp CDDVDW TS-L633A USB Device	CD-ROM

Figure 29 – Storage Information window

3.1.12 Viewing Field Replacement Unit (FRU) Information

In the **Hardware Information** pane, click the **Storage** button to view FRU information as shown in Figure 30. For fields that are not populated in FRU, it shows as NA.

The screenshot shows the Intel Active System Console interface. On the left is a navigation pane with a tree view containing: Home, Baseboard, Sensor Readings, Cooling, Power, Chassis Information, System Event Log, Memory, Processor, Cache, Storage, and FRU. The 'FRU' item is selected. Below this tree are two buttons: 'Hardware Information' and 'BMC Configuration'. The main area on the right is titled 'Connected To :'. Below this, a section titled 'FRU Data' contains a table with the following data:

Device Name	Board ID	Entity	Manufacturer	Part Number	Board Product	Serial Number
Baseboard	FRU Ver 0.03	0	Intel Corporation		S5520UR	
Power Dist Board		21	NA	NA	NA	NA
Pwr Supply 1 FRU		10	NA	NA	NA	NA

The bottom of the window shows a Windows taskbar with the Start button, several icons, and a taskbar button for 'Intel® Active System...'. The system clock in the bottom right corner displays '4:38 PM'.

Figure 30. Field Replacement Unit window

3.2 Configuring BMC

This section explains configuring the BMC. It details the options available in the BMC Configuration feature if the Intel® Active System Console.

In the left navigation pane, click the **BMC Configuration** button to view the BMC Configuration window as shown in Figure 31.

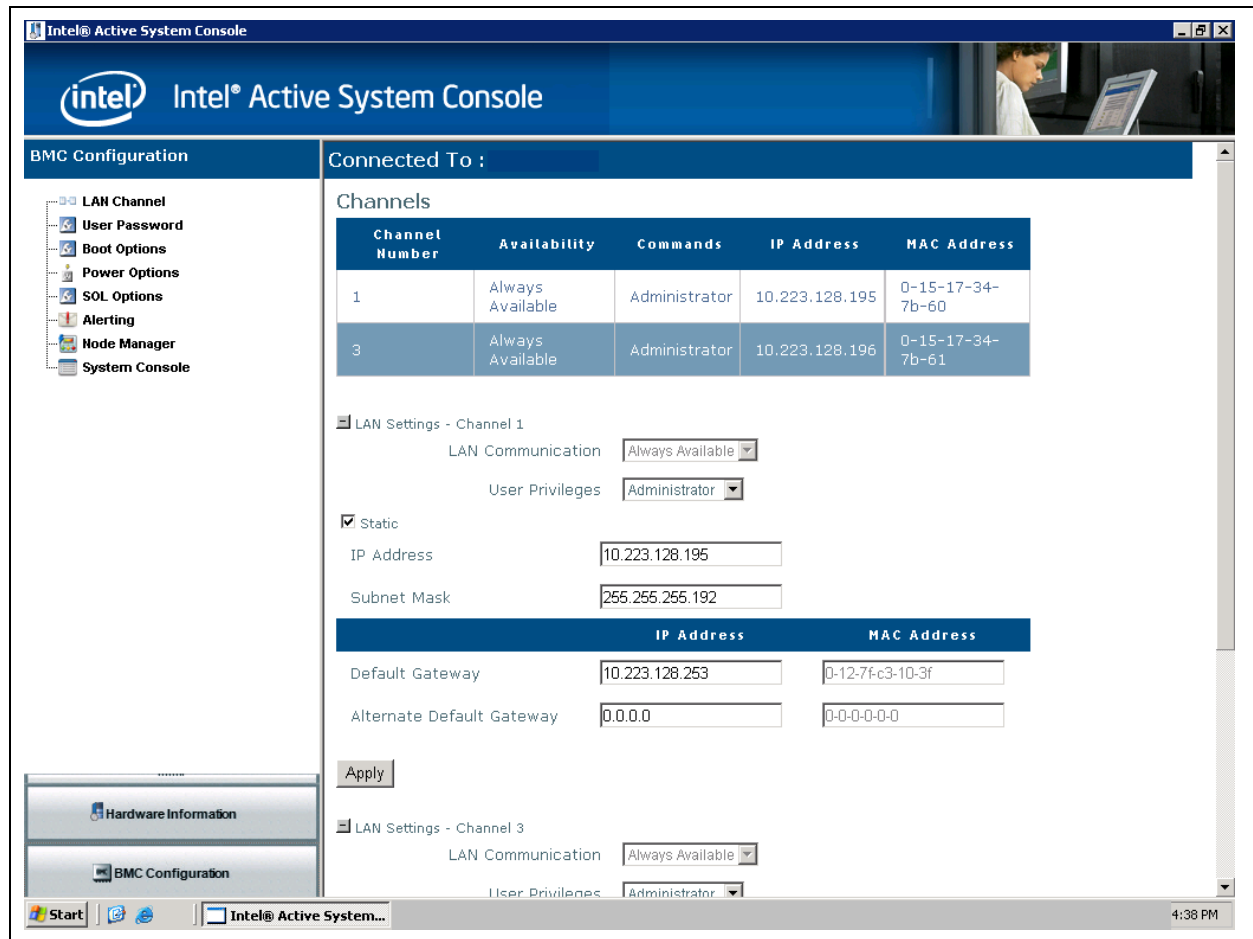


Figure 31. Intel ® Active System Console BMC Configuration window

The BMC Configuration window has the following choices available:

- **LAN Channel.** Sets the LAN channel properties for the BMC. By default, BMC Configuration option opens in this window.
- **User Password.** Sets the BMC password for the null user
- **Boot Options.** Sets the boot device for the next reboot.
- **Power Options.** Sets the power restore options
- **SOL Options.** Sets the Serial Over LAN options

- **Alerting.** Sets the Alert destinations for email and traps.
- **Node Manager.** Configures node manager policies and actions
- **System Console.** Sets refresh intervals for health and alerts.

The configuration of different parameters in the BMC is as described in the following sections:

3.2.1 Configuring LAN

The LAN configuration page helps you configure the LAN channels of the BMC. You can set IP Address, Subnet Mask and Gateway Details. This needs to be set appropriately to enable Out-of-Band communication.

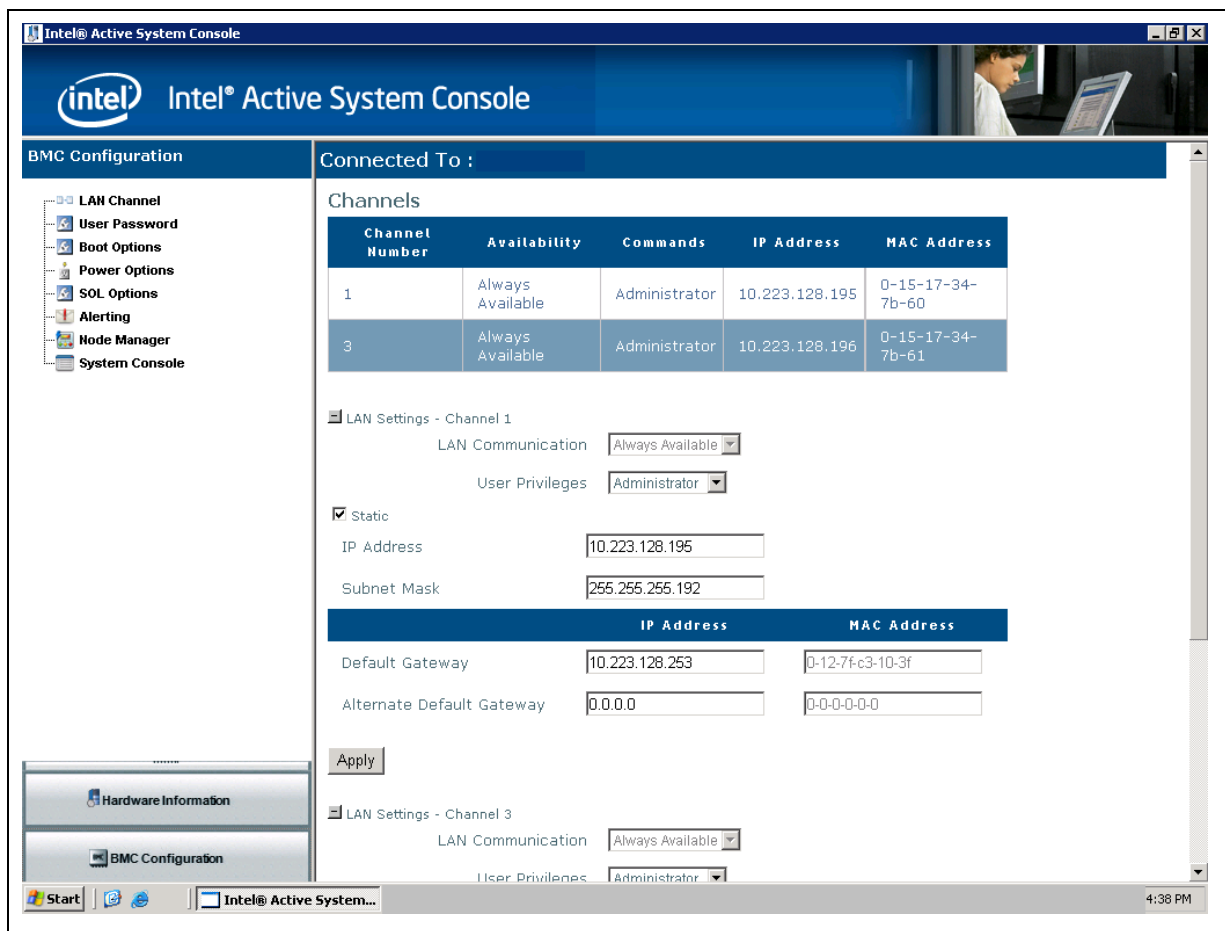


Figure 32 - LAN Configuration window

3.2.2 Configuring User Password

In the **BMC Configuration** pane, click the **User Password** button to open the BMC User Password window as shown in Figure 33.

Note: This does not alter passwords of Windows* or BIOS.

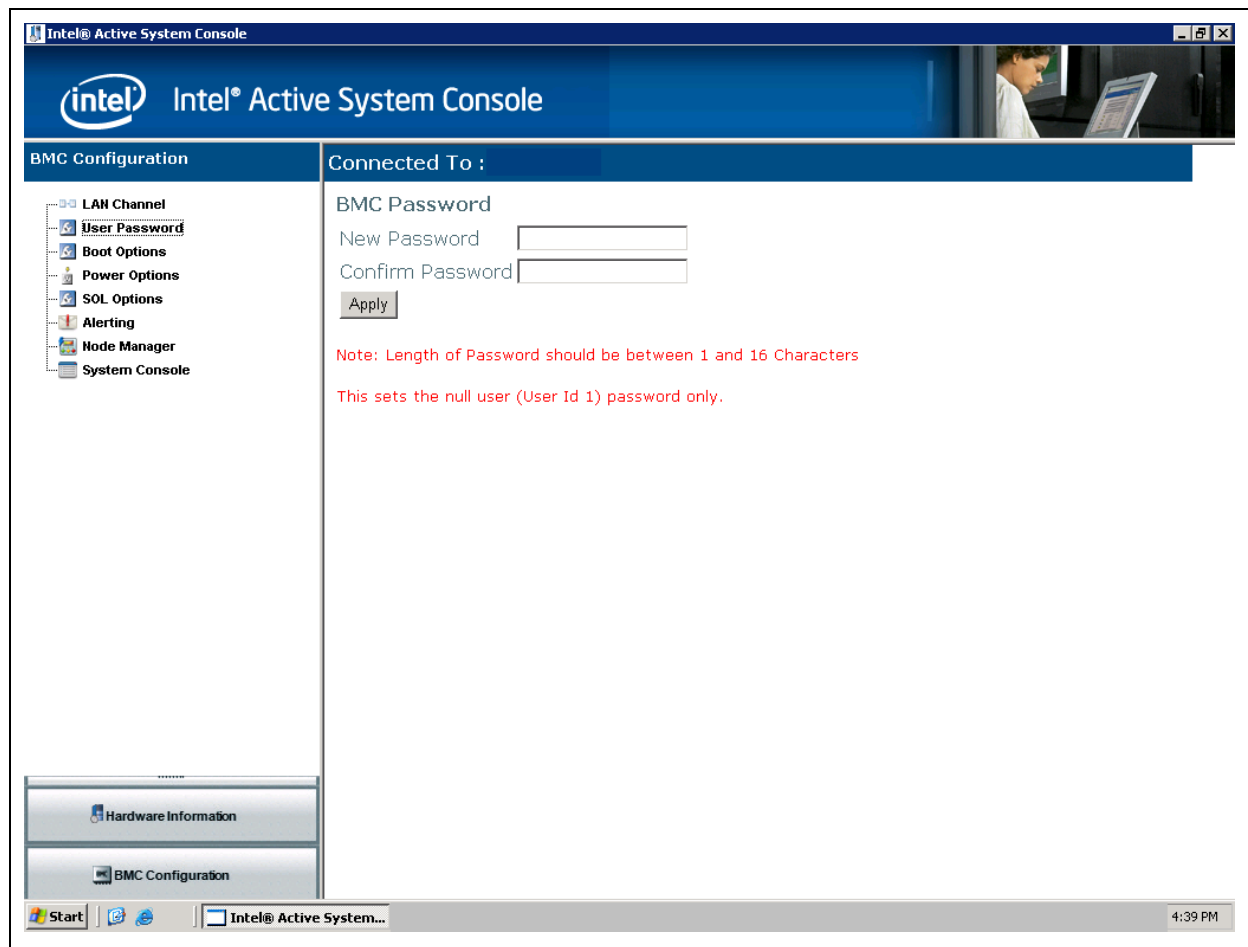


Figure 33 - BMC User Password Configuration window

3.2.3 Configuring Boot Options

In the **BMC Configuration** pane, click the **Boot Options** button to open the Boot Configuration window as shown in Figure 34.

Note: Boot Options configuration is a permanent setting and must be done carefully. It can be modified *only* by re-setting the boot option using the application.

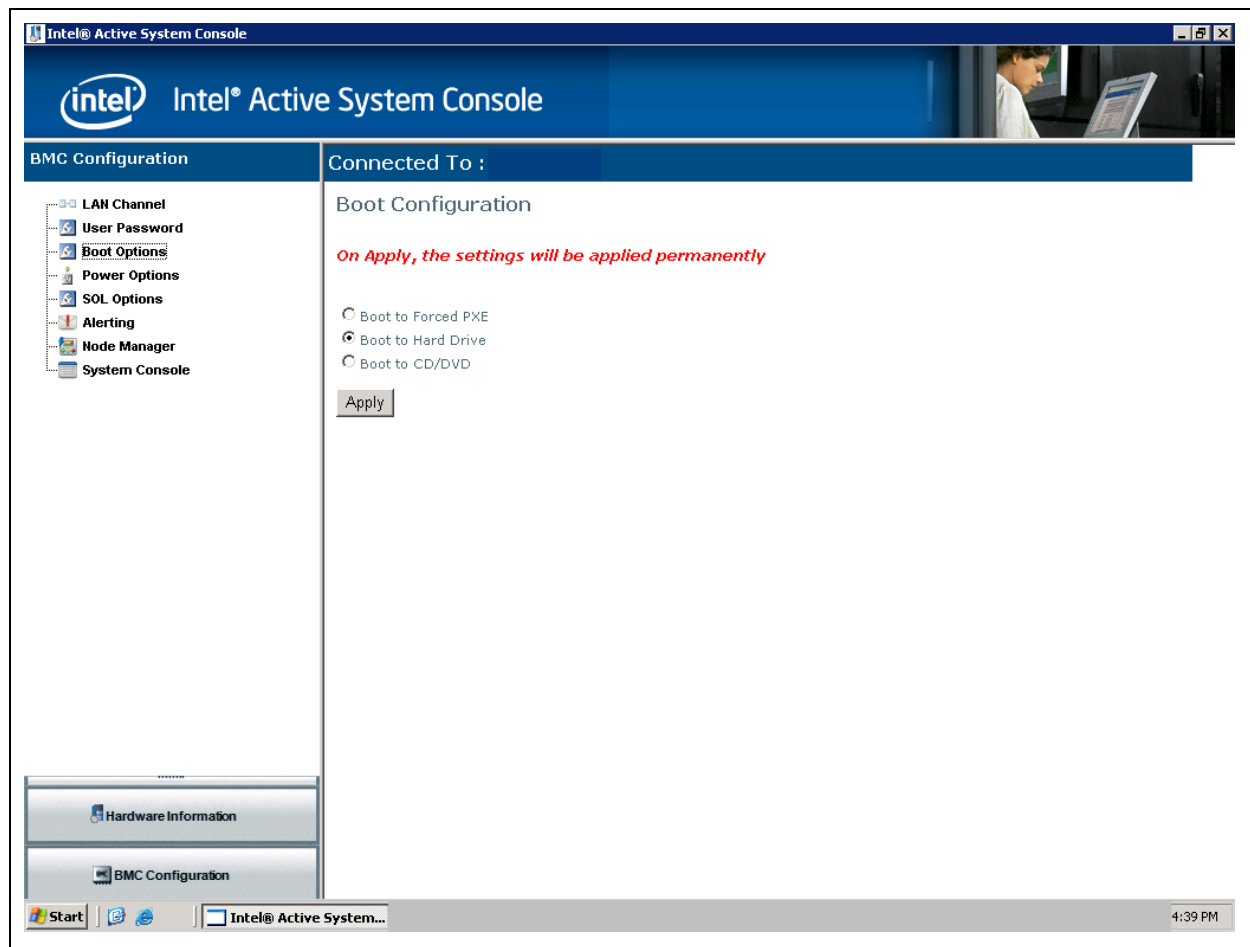


Figure 34 – Configuring BMC Boot Options

3.2.4 Configuring Power Restore Options

The power restore options indicate the platform action needed when the power is restored.

In the **BMC Configuration** pane, click the **Power Options** button to open the Power Configuration window as shown in Figure 35.

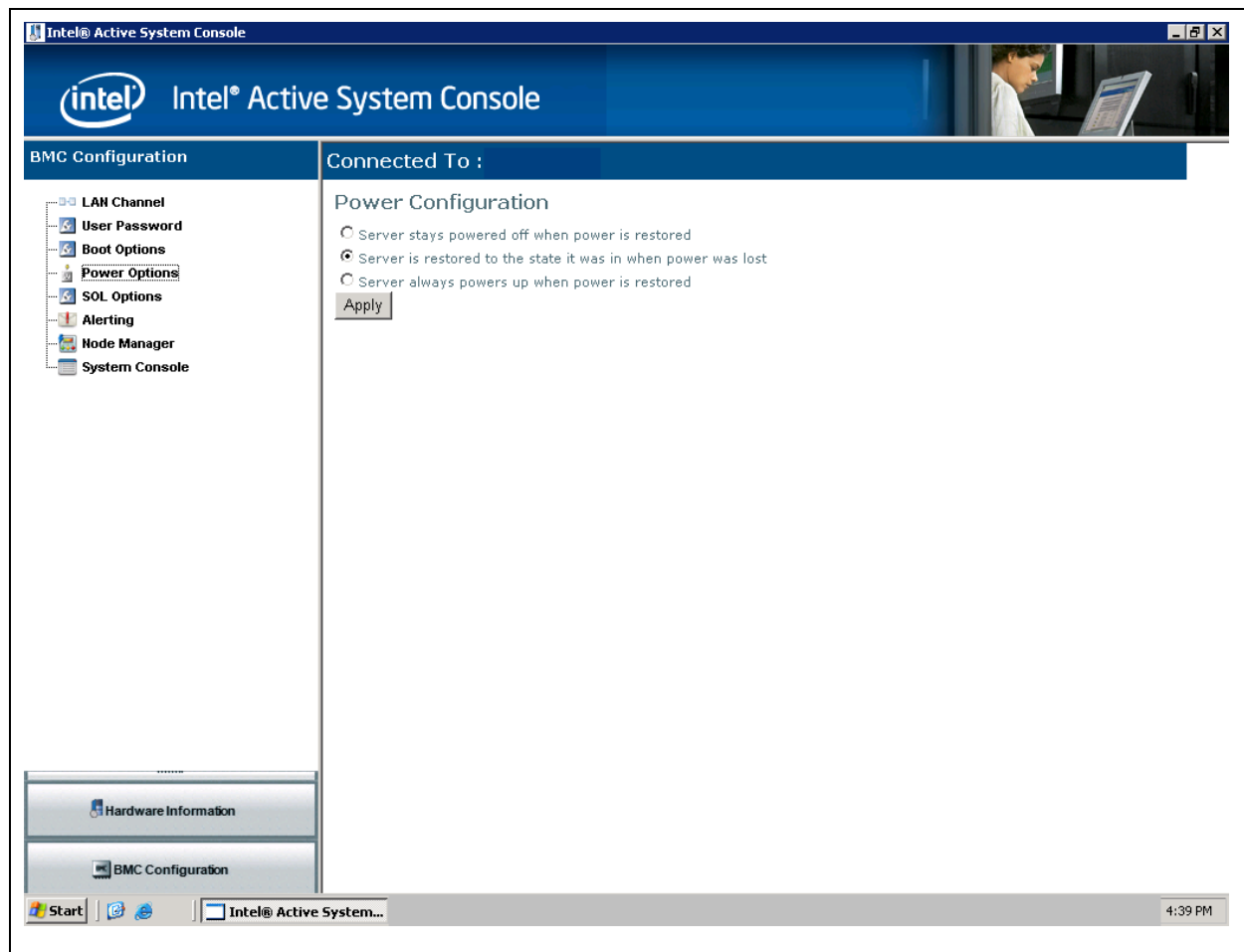


Figure 35 – Configuring BMC Power Restore window

3.2.5 Configuring Serial Over LAN (SOL)

In the **BMC Configuration** pane, click the **SOL Options** button to open the SOL Configuration window as shown in Figure 36.

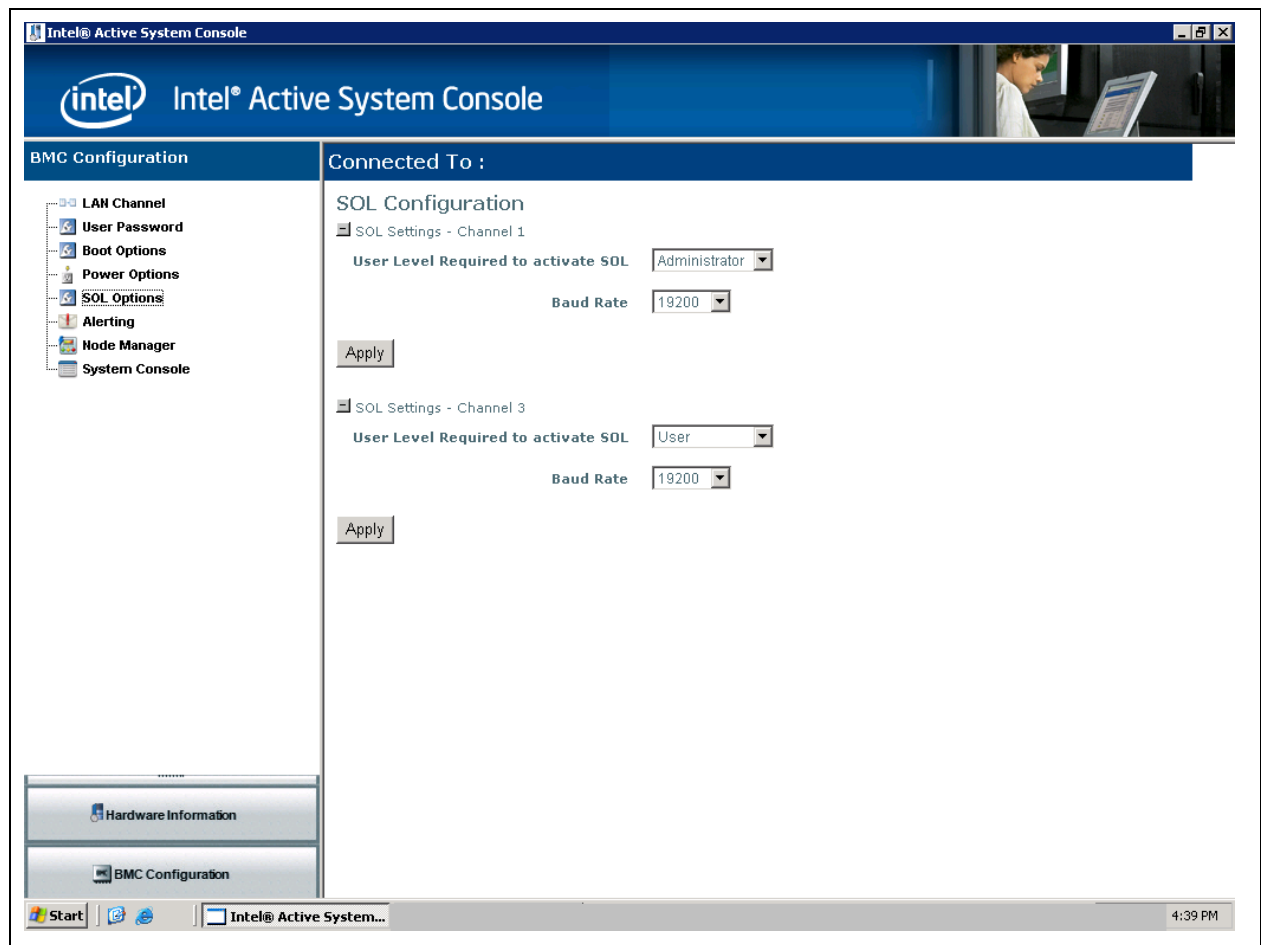


Figure 36 - SOL Configuration Options

3.2.6 Configuring Alert Destinations

Alerts can be configured in IASC.

In the **BMC Configuration** pane, click the **Alerting** button to open the **Alert Configuration** window as shown in Figure 37. The channels and destination indices that can be configured on the system are also shown in the Figure 37.

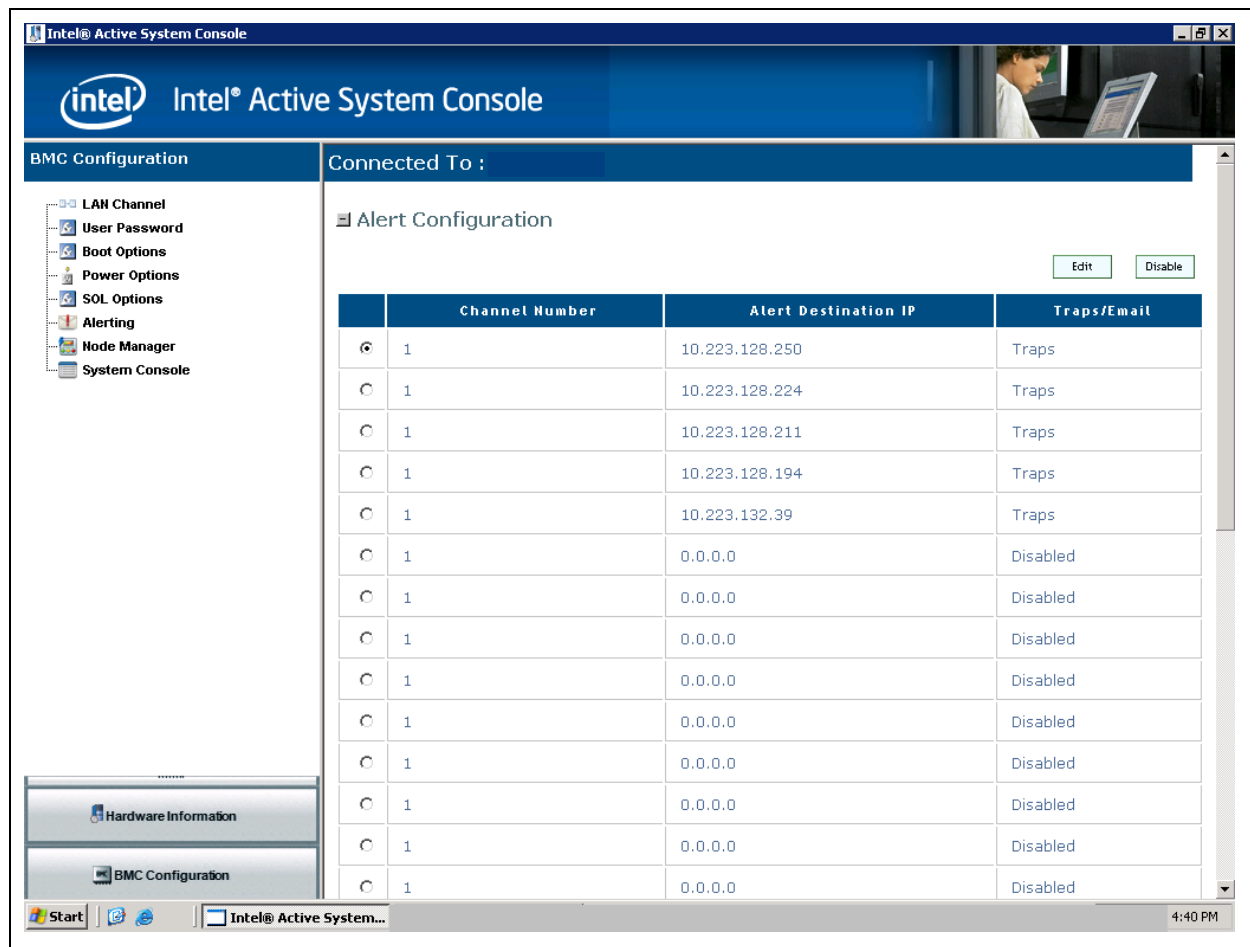


Figure 37 - Alert Configuration

To edit a particular destination, select the destination and click on **Edit** button to view the Alert Destination Parameters window as shown in Figure 38.

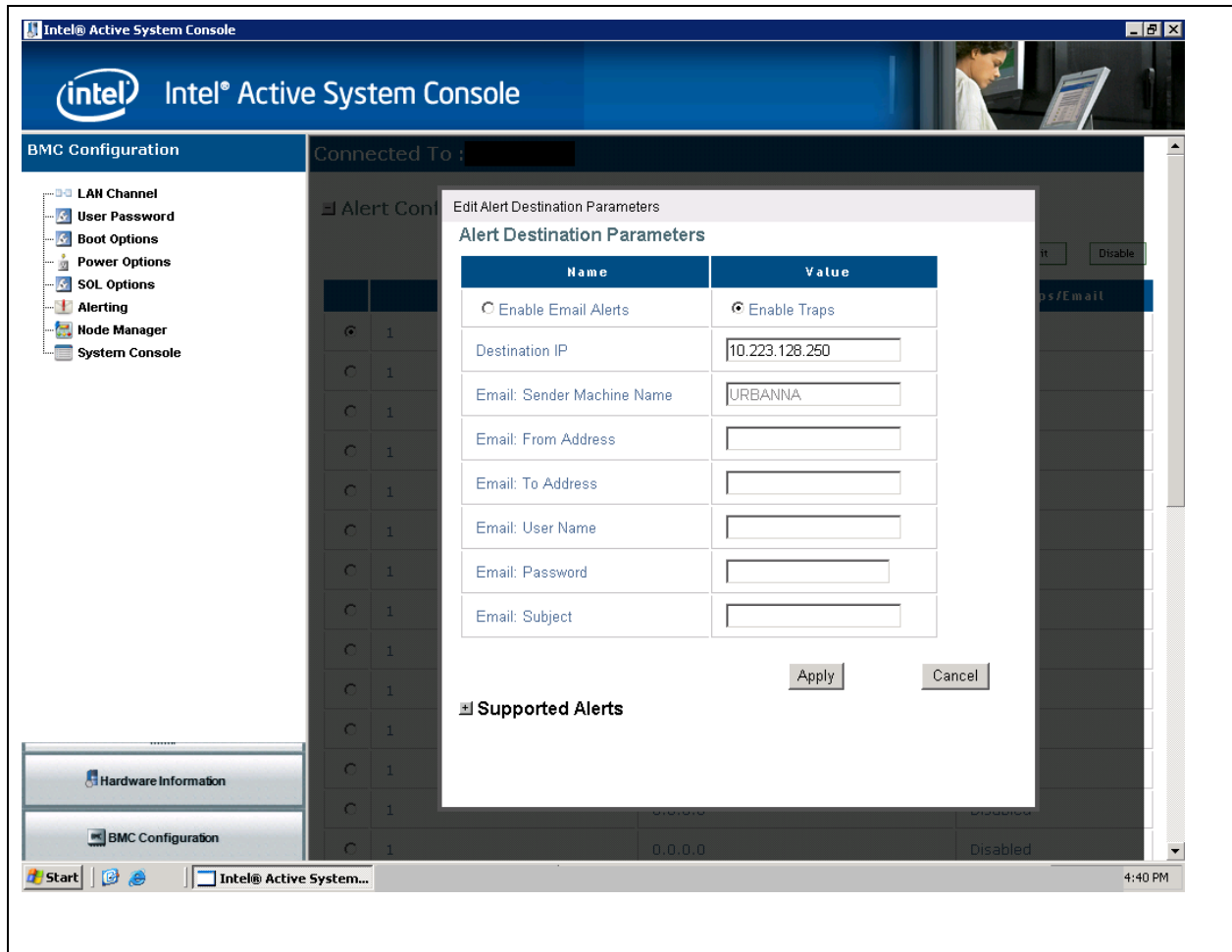


Figure 38- Configuring Alerts: Editing Destination IP

- **Enabling Traps:** To configure Traps, select the **Enable Traps** option, enter the destination IP and click on the **Apply** button shown in Figure 38. Saving the changes will generate all the alerts supported by the system including Node Manager alerts.
- **Enabling Email Alerts:** To configure Email Alerts, select the **Enable Email Alerts** option, and enter the fields in the window shown in Figure 39. Click on the **Apply** button to save the changes. All alerts supported by the system will be generated and sent as email to the “To” address mentioned. The user name and password is optional for Tylersberg platforms and these credentials are that of the exchange server. **Note:** Supported alerts are not configurable in this release.

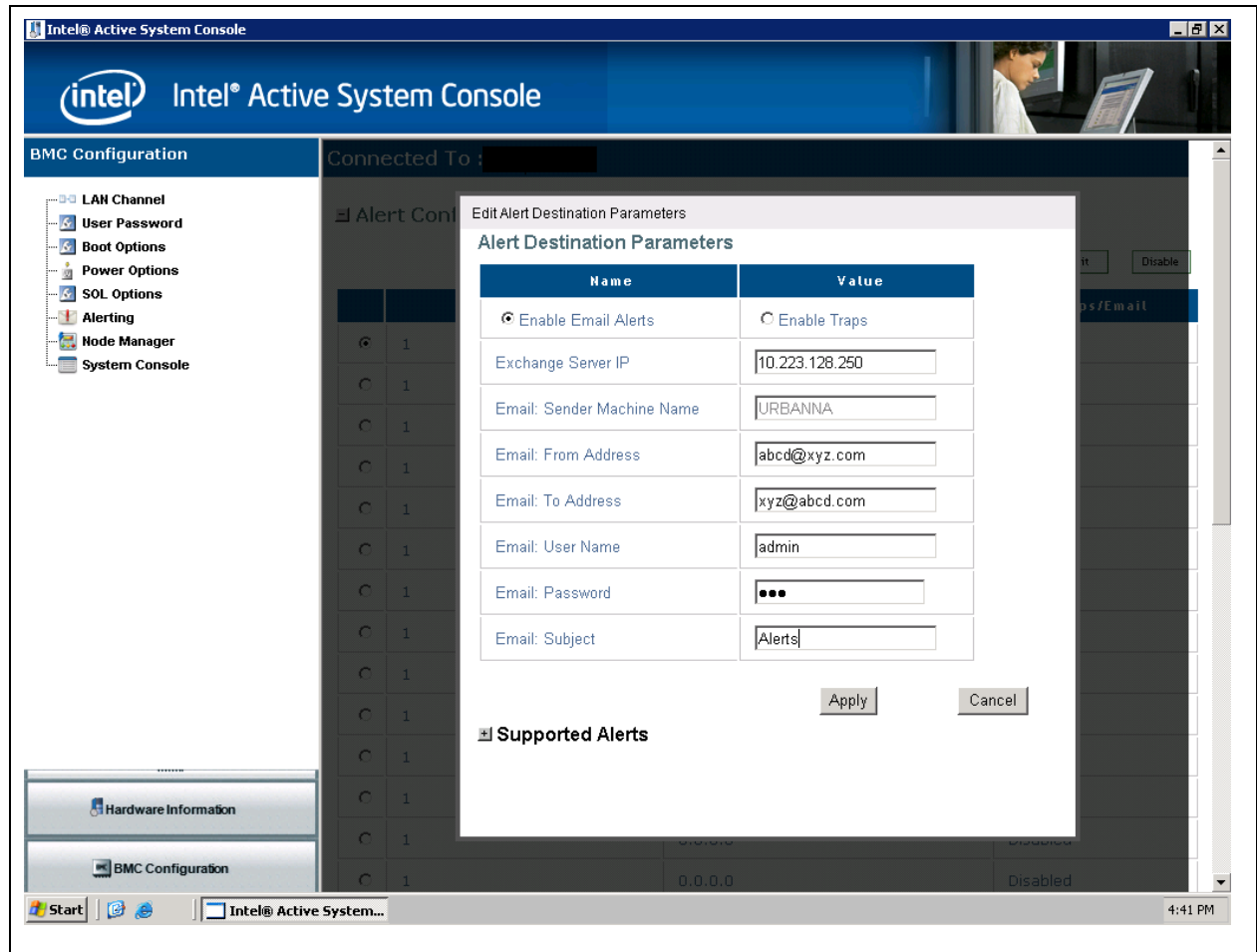


Figure 39 – Configuring Alerts - Editing Email Parameters (1)

3.2.7 Configuring Node Manager Policies

You can use IASC to configure Node Manager Policies. The current set parameters of Node Manager are shown in Node Manager Statistics. If the system does not support PMBUS power supplies, then the value of the readings is 0 and configuration of policies is not allowed. Node manager statistics is available as part of power page.

Note: You must refer to the statistics shown in the power supply page and then carefully create policies. Else, performance can be affected. The readings of the system will vary based on the configuration and hence policy settings have to be done appropriately

Node manager policies configured on a system can be downloaded in the form of an XML file to a client computer. This file can be imported to the Power manager UI to apply to a group of servers.

1. In the **BMC Configuration** pane, click the **Node Manager** button. Before the Node Manager Configuration window opens, a Warning appears as shown in Figure 40. Click **Continue** to open the Node Manager Configuration window as shown Figure 41. You can configure node manager policies using the **Add**, **Edit**, **Disable**, or **Delete** buttons. **Note:** Node Manager Policies can be disabled globally by de-selecting the *Enable Node Manager Policies* checkbox.

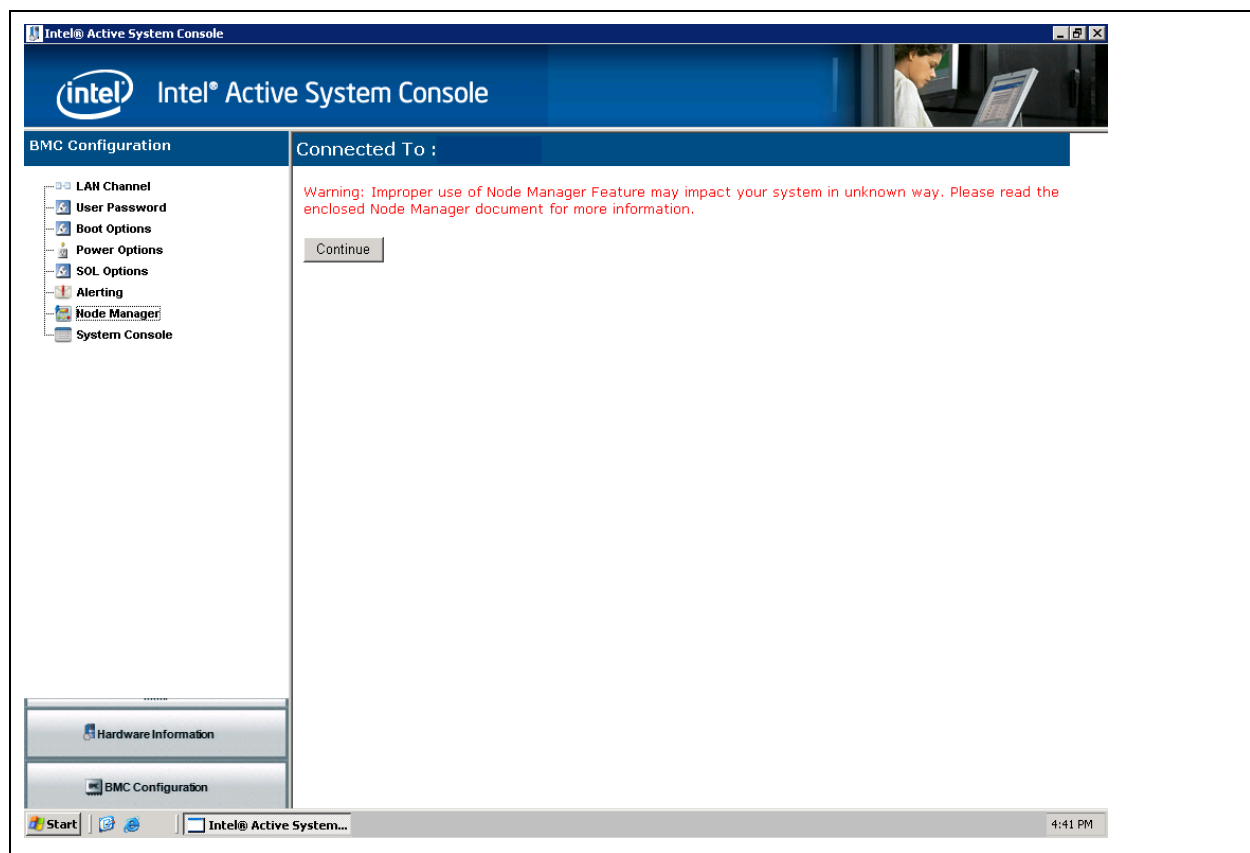


Figure 40 - Node Manager Configuration – Warning Message

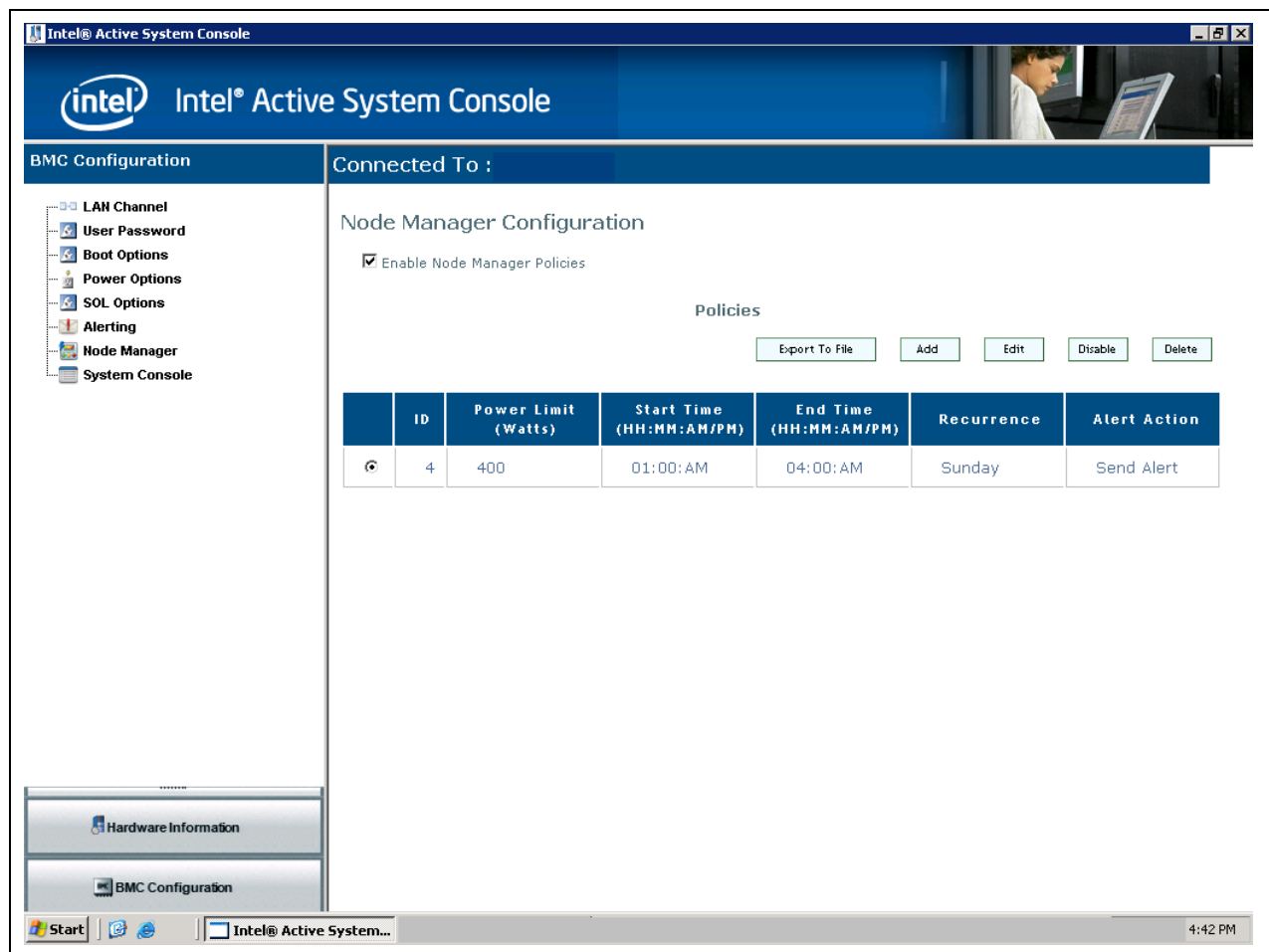


Figure 41 - Node Manager Configuration window

Adding a New Policy. To add a new policy, click the **Add** button. The Add New Policy dialog displays as shown in Figure 42.

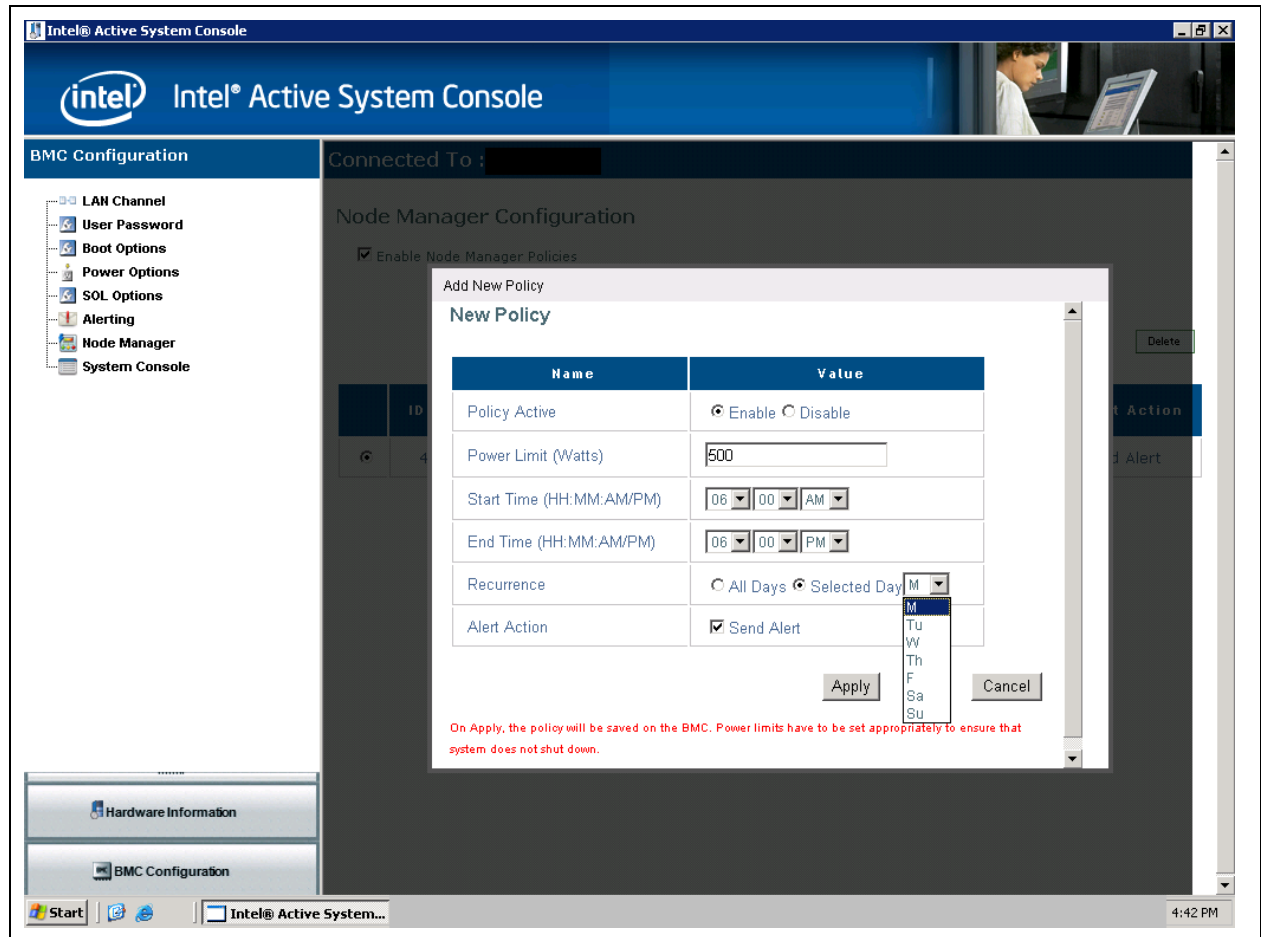


Figure 42 – Configuring Node Manager - Adding New Policy

Editing a Policy. To edit a policy, select the policy and click on **Edit** button. The following window appears.

(To **disable a policy**, click on the **Disable** button. Disabled policies are shown in different color.)

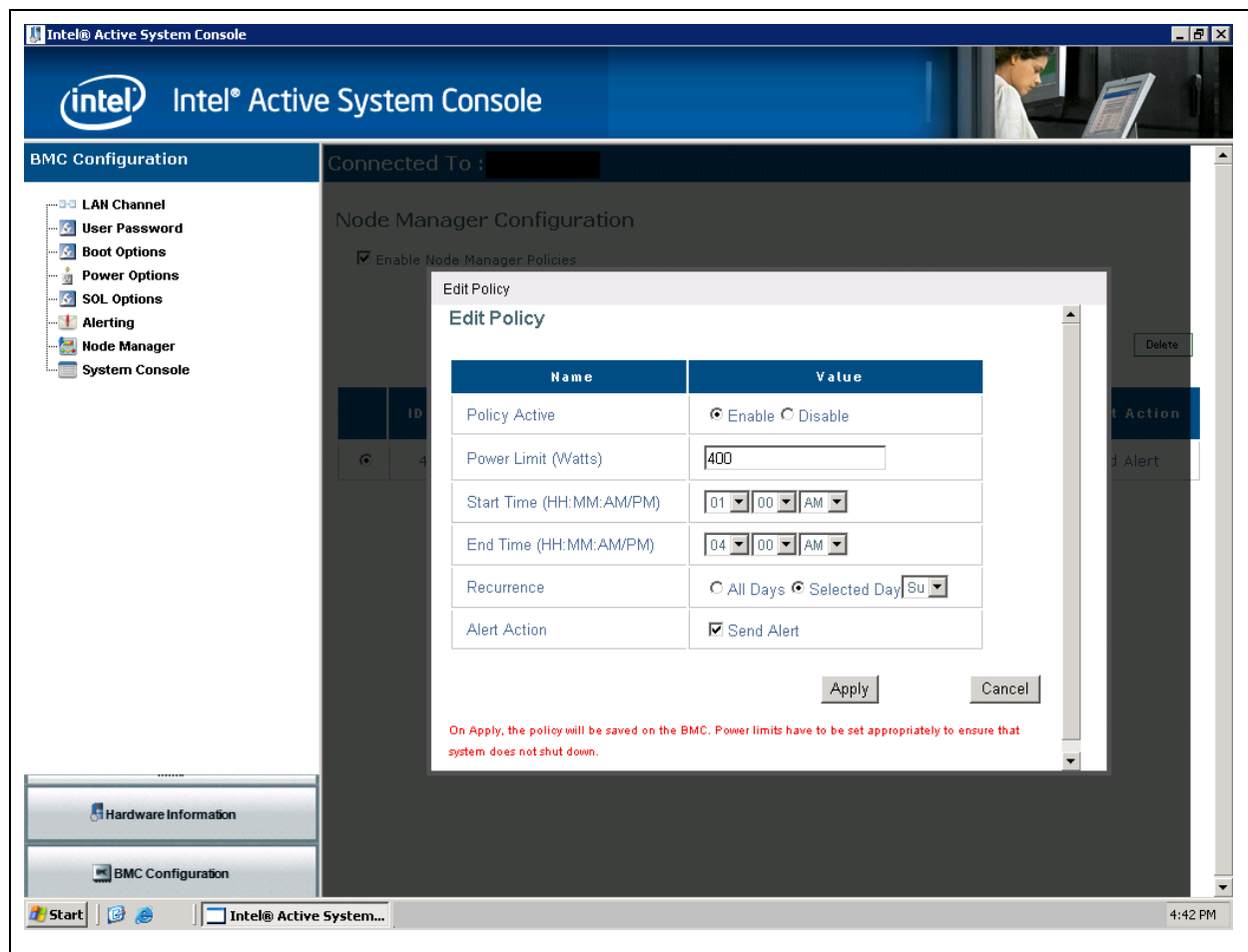


Figure 43 – Configuring Node Manager - Editing Policy

Deleting a Policy. To delete a policy, select the policy and click the **Delete** button.

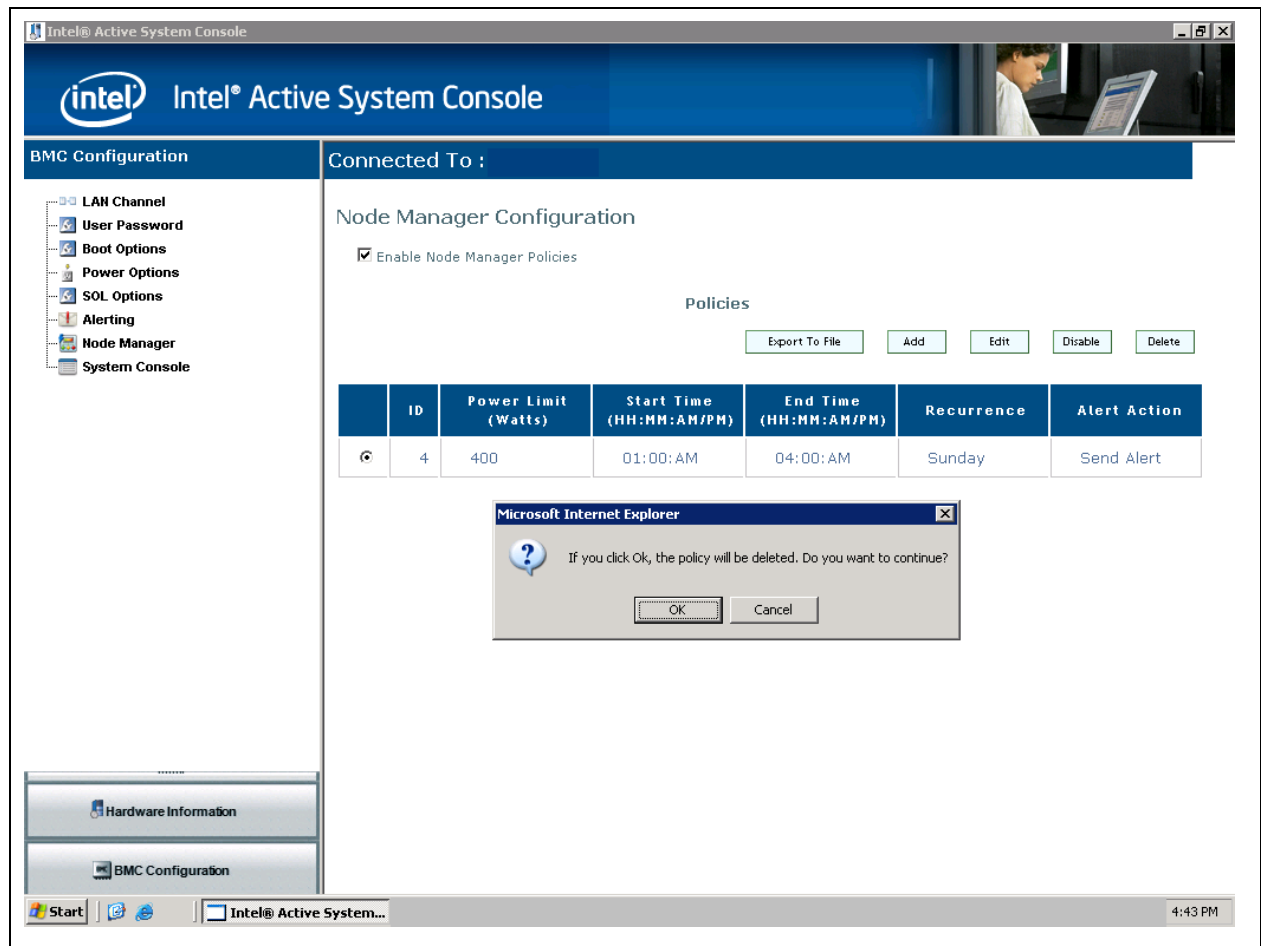


Figure 44 - Configuring Node Manager - Deleting Policy

3.2.8 Configuring Refresh and SEL Alerts Interval

The health refresh interval and SEL alerts refresh interval can be configured using the console UI. In the BMC Configuration pane, click the System Console button to view the IASC Console Settings window as shown in Figure 45. After configuration, click the **Apply** button to save the changes.

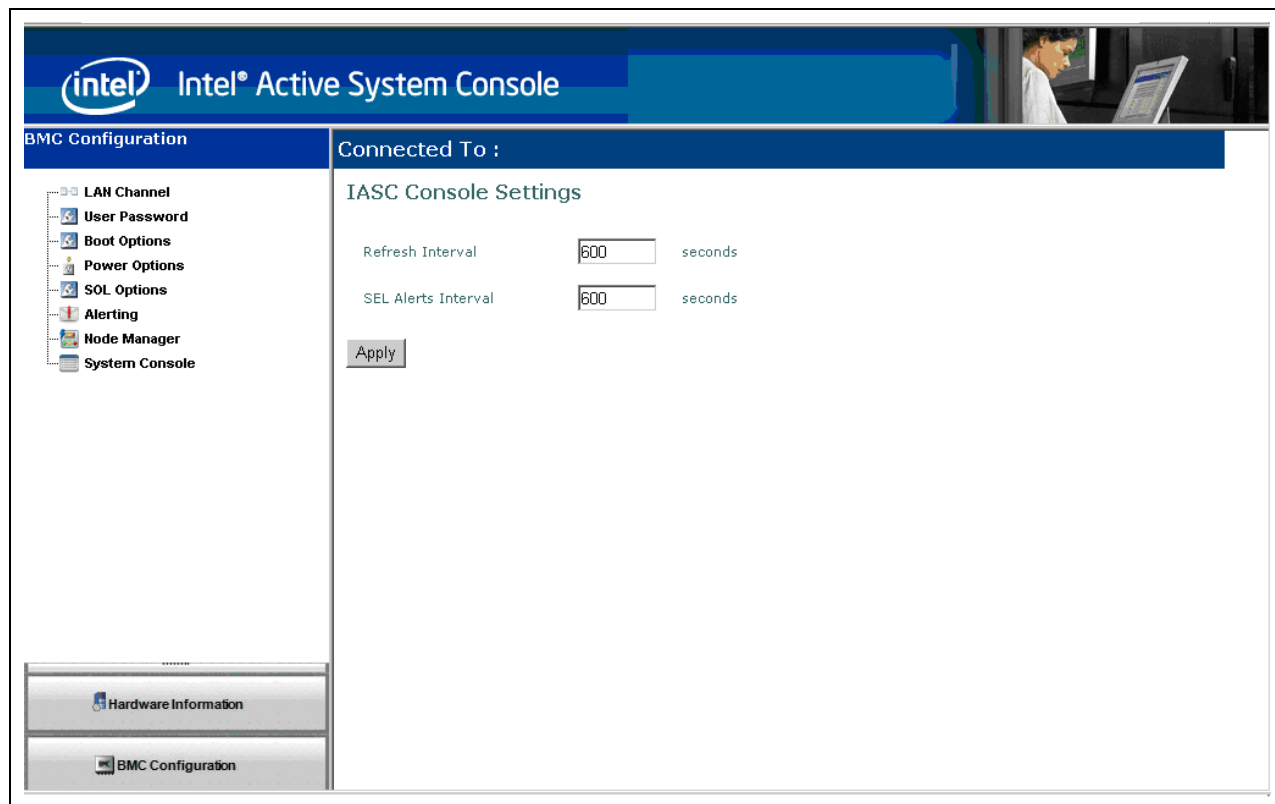


Figure 45. Configuring IASC settings