

**Solution Deployment Guide:  
Dual-Core Intel® Xeon®  
Processor Based Systems  
Running SyAM\* Management**

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# Intel® Active Management Technology with Dual-Core Intel® Xeon® Processor Based Servers

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Target Audience: The target audience for this guide are system integrators and resellers interested in building and deploying solutions built on Dual-Core Intel® Xeon® processor based systems.

## Preface

Intel has created unique Solution Deployment Guides to enable its channel partners to provide complete solutions to their customers, backed up by top-quality technology and support. This Deployment Guide examines the need for a more secure, robust, and efficient management experience, which can be addressed using Dual-Core Intel® Xeon® processor-based servers combined with hardware-enhanced management technology available on the Intel® 945 Express chipset-based client platforms (described below).

Intel® Active Management Technology (Intel® AMT): Using built-in platform capabilities and popular third-party management and security applications, Intel Active Management Technology allows IT departments to better Discover, Heal, and Protect their networked computing assets.

## Solution Overview

This document describes how the Dual-Core Intel® Xeon® processor-based server platforms utilizing Intel® Active Management Technology and SyAM\* Management software coupled with Intel AMT-enabled clients can be deployed to address the problems that a small to medium sized business (SMB) must contend with on a daily basis.

## SyAM Manageability Software Benefits

The SyAM Management software provides powerful reporting and management capabilities. Here is a list of features that are mostly beneficial to your company when they are used with Dual-Core Intel® Xeon® processor-based servers in conjunction with Intel® 945 Express Chipset-based client platforms with Intel® Active Management Technology (Intel® AMT) support.

- A single user interface to manage all systems
- Reporting - report on your system assets, from location, owner, function down to the hardware configuration and the software and versions installed
- Event Logging - filter events to identify trends across your systems
- Centralized Alerting - send different categories of alerts to different administrators

## SyAM Management

- Remote Management - power off and on systems
- Out of Band Management - take control of IPMI based systems when they are no longer responding
- Remote Console - take control of a systems keyboard, video and mouse through your browser
- Diagnose/Repair - When a system with Intel AMT support or IPMI-enabled develops problems – either blue screen or stopped responding, the SyAM Management software can take control of problem system. This provides the user with the capability to diagnose and repair the managed system remotely if there is anything wrong with the system without having to make a trip to work on the system in person.

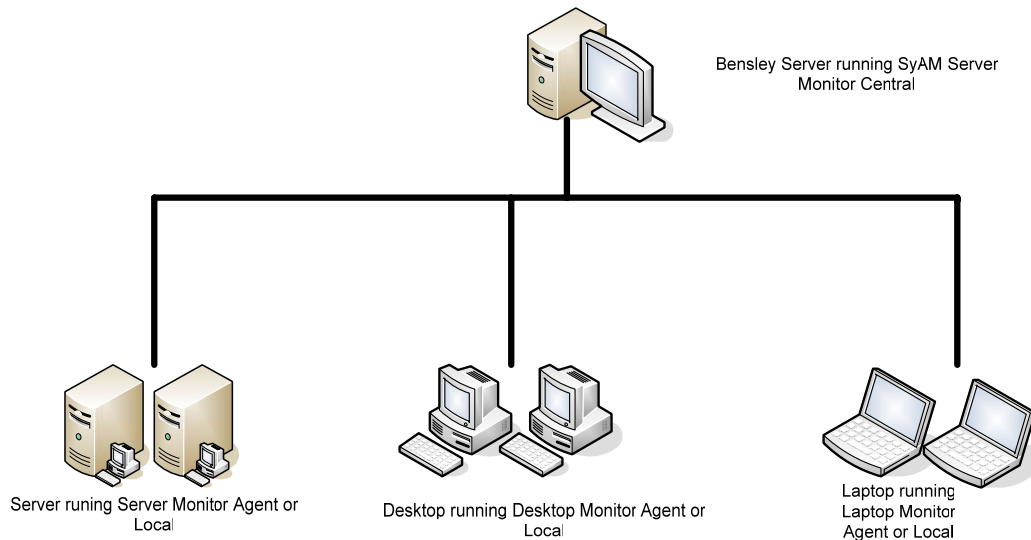
This Deployment Guide describes how to install and use some of the features of the Central Monitor System on both server and client.

## Solution Architecture

SyAM software can be used for managing the following systems:

- Dual-Core Intel® Xeon® processor-based servers
- Intel 945 Express Chipset-based platforms with Intel AMT support
- Laptops with Intel® Centrino® Duo technology

Administrators use Internet Explorer\* or Firefox\* to browse to the Central Manager Interface to manage the above systems



## Common Notation & Terms

**Intel® AMT:** Intel® Active Management Technology.

**Server Monitor Central:** The SyAM software provides the ability to manage Servers, Desktops, and Notebook platforms running the SyAM Local Management Software.

**Desktop Monitor Central:** The SyAM software provides the ability to manage Desktops, and Notebook platforms running the SyAM Local Management Software.

**KCS:** Keyboard Control Style (KCS) is an IPMI Specification interface that describes the connection between the BMC to System Management Software (SMS).

**OOB:** out-of-band. Communications to and from remote platforms that are not handled by the remote platform's Operating System (OS).

**In-band:** Communications to and from remote platforms that are handled by the remote platform's OS. The remote platform OS must be operational for in-band communications to work.

**SOL:** Serial over local area network allows remote keyboard and text redirection.

**IPMI:** Intelligent Platform Management Interface 2.0 is a specification designed to improve remote management and configuration capabilities.

**BMC:** Baseboard Management Controller.

## Components to Build SyAM Manageability Solution

- Dual-Core Intel® Xeon® processor-based server running Windows 2003 Server Enterprise x64 Edition R2
- Intel 945 Express Chipset-based systems with Intel AMT support running Microsoft\* Windows\* XP Professional SP2
- SyAM Server Monitor Central 3.1 to install on Dual-Core Intel® Xeon® processor-based server
- SyAM Desktop Monitor Central 3.1 to install on 945 platforms supporting AMT1
- KCS driver for Intel 945 Express chipset-based platforms supporting AMT1

### NOTE:

*For more details, please see the Hardware Configuration and Recommendation section.*

## Where to Get Manageability Solution Components

SyAM software can be obtained from

<http://www.syamsoftware.com/syam300/products/downloads.php>

Please contact SyAM Software to get version newer than 3.0 or if the above link does not work.

KCS driver can be downloaded from the following link:

<http://fdbl.intel.com/servlet/contentServlet?zipped=F&OBJID=09000d2980b7ff73>

Microsoft Windows Server 2003 can be obtained from:

<http://www.microsoft.com>

## **Introduction/Links**

Support Information:

<http://www.syamsoftware.com/>

Production Information:

<http://www.syamsoftware.com/syam300/products/family.php>

Intel hardware setup information link:

<http://support.intel.com/support/motherboards/server/<product>/manual.htm>

# Bill of Materials

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## Hardware Configuration and Recommendation

In order to run SyAM manageability software, here is a recommended hardware configuration:

- At least 1 Dual-Core Intel® Xeon® processor based server
  - In order to use IPMI features, you need at least one more Dual Core Intel® Xeon® processor-based server
- At least 1 Intel® 945 Express chipset-based client with AMT1 support

Here is a sample of Dual-Core Intel® Xeon® processor-based server configuration. See Intel's support website for a list of tested parts to ensure compatibility.

Qty	Item	Manf	Model
1	Motherboard	Intel	S5000VSA
1	Chassis		
1	Power Supply		550W
2	CPU	Intel	Dual-Core Intel® Xeon® processor, 3.2Gz
2	RAM – 512MB		
1	CDROM		standard
1	Hard Drive		SATA HDD 160GB

Here is a sample Intel 945 chipset based client configuration. See Intel's support website for a list of tested parts to ensure compatibility.

Qty	Item	Manf	Model
1	Motherboard	Intel	945GTPLKR
1	Chassis		
1	Power Supply		550W
1	CPU	Intel	Intel®

			Pentium® processor, 3.2Gz
2	RAM		2x512 MB
1	CDROM		standard
1	Hard Drive		SATA HDD 120GB

## Software Configuration and Recommendation

SyAM software can be installed on both Windows and Linux. Below is a list of all the software the user needs to build this solution on Windows:

Server Software:

Qty	ISV	Application Name	Version
1	SyAM	SyAM Server Monitor Central	3.1
1	Microsoft	Windows Server 2003 Enterprise x64 Edition	R2
1	Microsoft	IE Browser	6.0 or higher

Client Software:

Qty	ISV	Application Name	Version
1	SyAM	SyAM Desktop/Laptop Monitor Central	3.1
1	Microsoft	Windows XP Professional	SP2
1	Microsoft	IE Browser	6.0 or higher
1	Intel	KCS driver	

# Before You Begin Software Installation

---

To install SyAM System Management Software 3.1, you need:

1. SyAM 3.1 installation CD, which includes:
  - The Central Management products
2. Or you can download SyAM Server Monitor Central software package from SyAM software website, which includes:
  - Server Monitor Central product
  - Desktop Monitor Central product
3. Dual-Core Intel® Xeon® processor-based server that meets the system requirements for SyAM software

# Preparing to Install

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## Server Side Installation

Before you can use SyAM management software, you have to install SyAM Server Monitor Central on Dual-Core Intel® Xeon® processor-based server first. For detailed information, please see the section on Installing SyAM Server Monitor Central on Dual-Core Intel® Xeon® processor-based server.

## General Information for Installing SyAM Server Monitor Central

- During the evaluation period the Central Management System can only manage 3 Desktops/Notebooks and 2 Servers.
- A reboot may be required after uninstalling and before reinstalling the software.
- Unformatted disks connected to a system will appear in red (critical). Formatting the drive or removing that drive from the listing of monitored devices will clear this condition.
- The software will open up the required firewall ports on Windows 2003 and XP Professional.

## Client Side Installation

Before you can manage the Intel® 945 Express chipset-based client system, you must install SyAM Desktop Monitor Central software on the client machine.

For detailed information, please reference the section on Installing SyAM Desktop Monitor Central Software on an Intel® 945 Express Chipset-based client.

# Installing Software

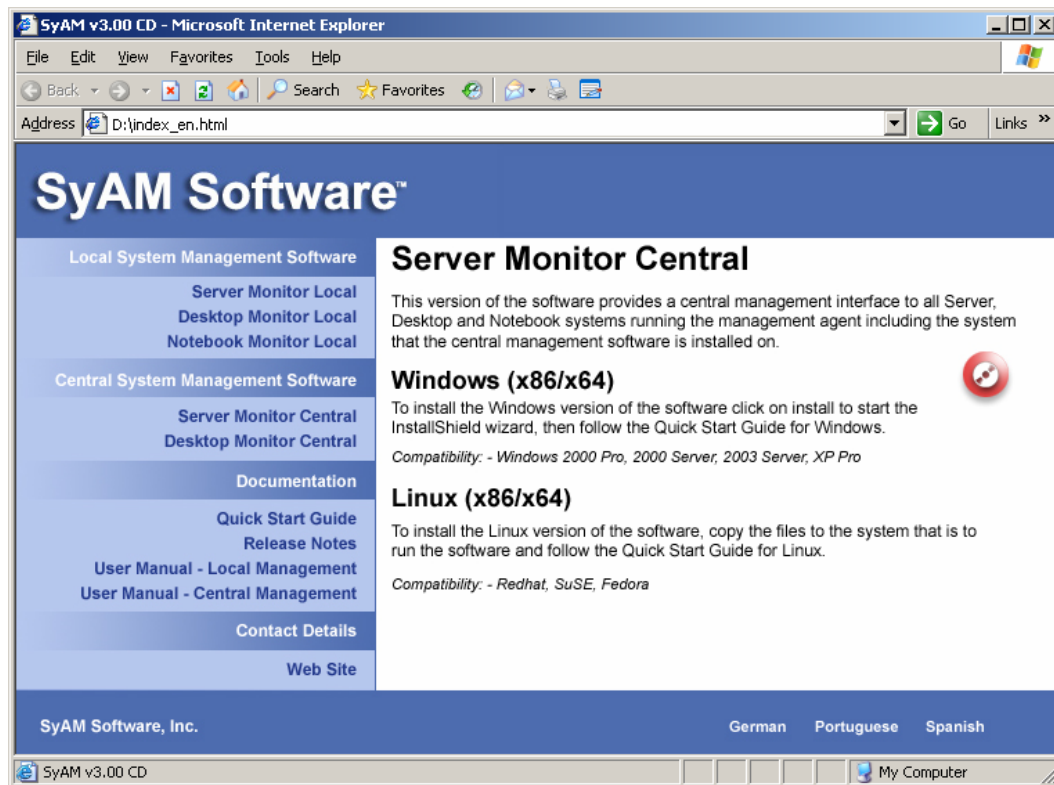
## Installation Instructions – Windows


### Install SyAM Server Monitor Central Software on Dual-Core Intel® Xeon® processor based server

1. Either load the SyAM Software CD and from the on screen menu select Server Monitor Central you want to install or double click the downloaded SyAM executable.

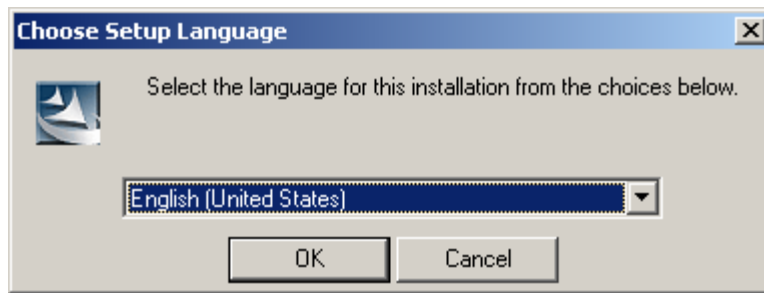
If the Autorun doesn't launch the installation program, please browse to the CD and double click **index\_en.html** to launch the installation program.

Here is a screenshot of installing the SyAM software from the CD.



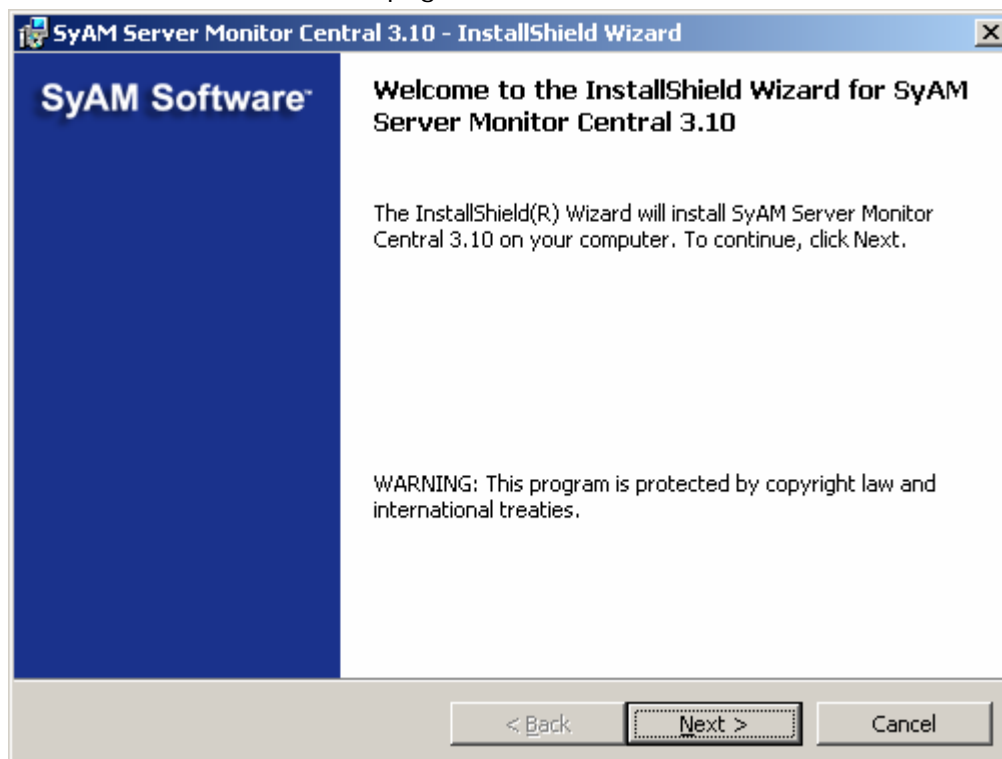
2. Select the Server Monitor Central on the left panel, click the red CD icon  on the right, then just follow the installation wizard instructions

3. Select the proper language. The default language is English.

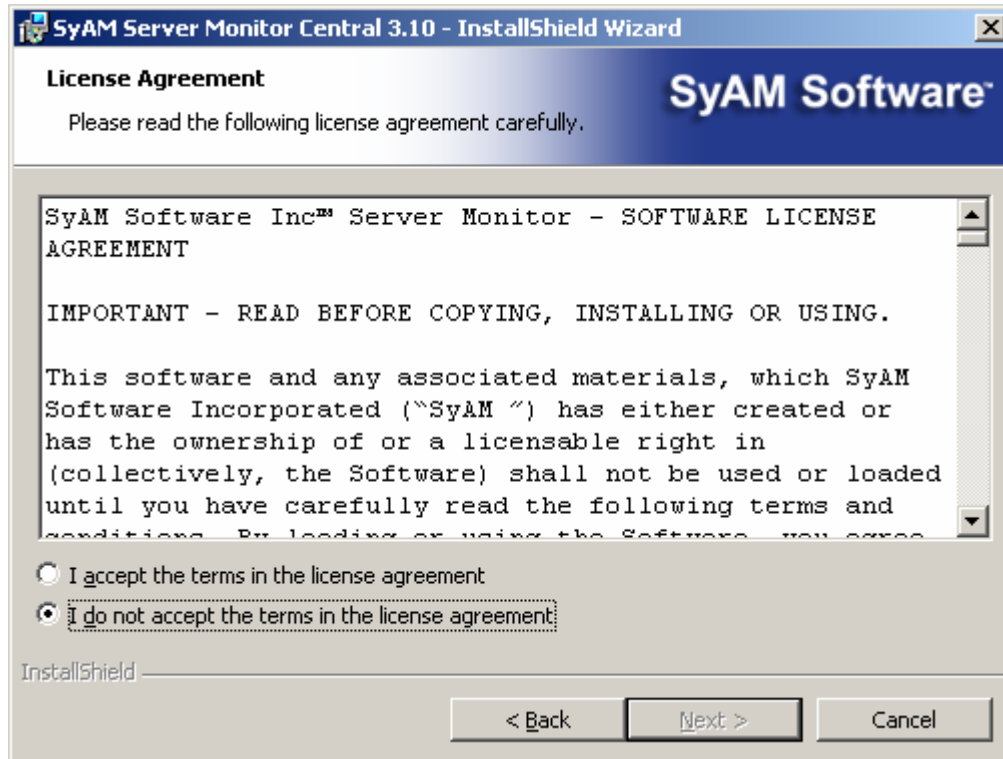


Click **OK** to continue.

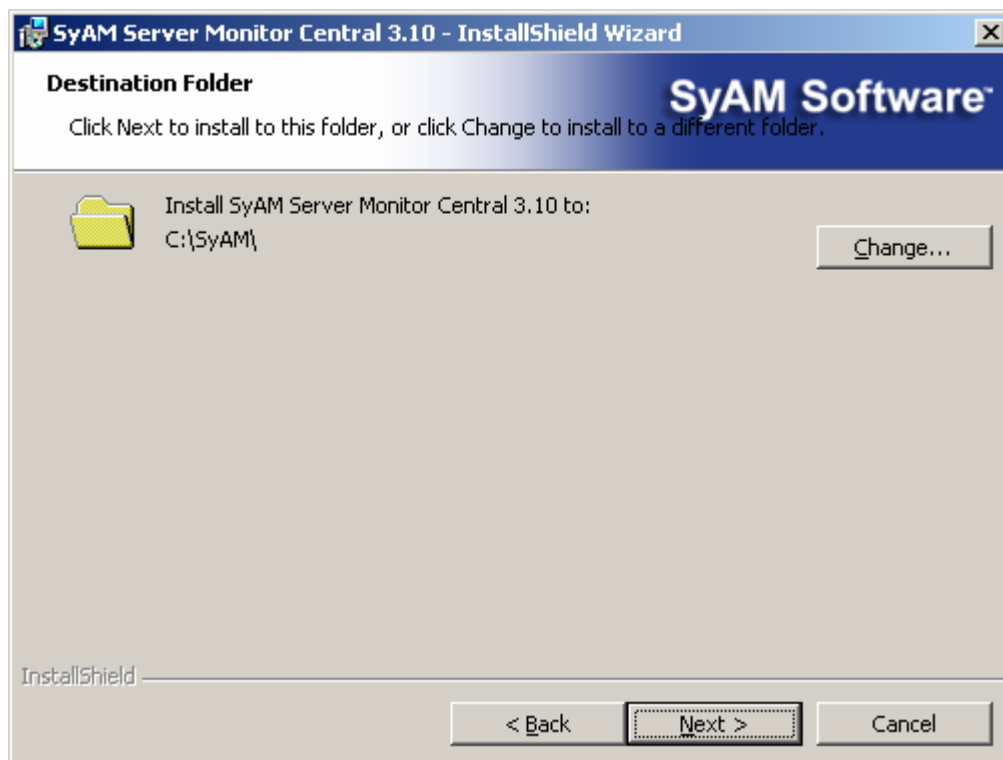
4. Click **Next** on the Welcome page.



5. Select **I accept the terms in license agreement**, click **Next** to continue.

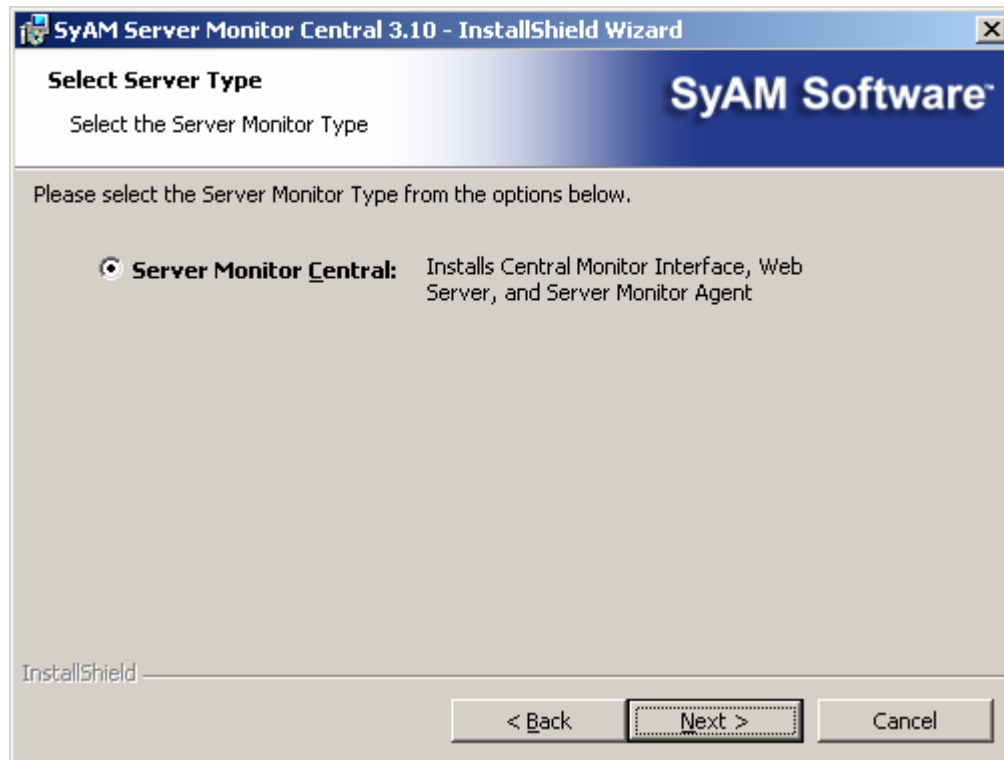


6. Choose the destination folder

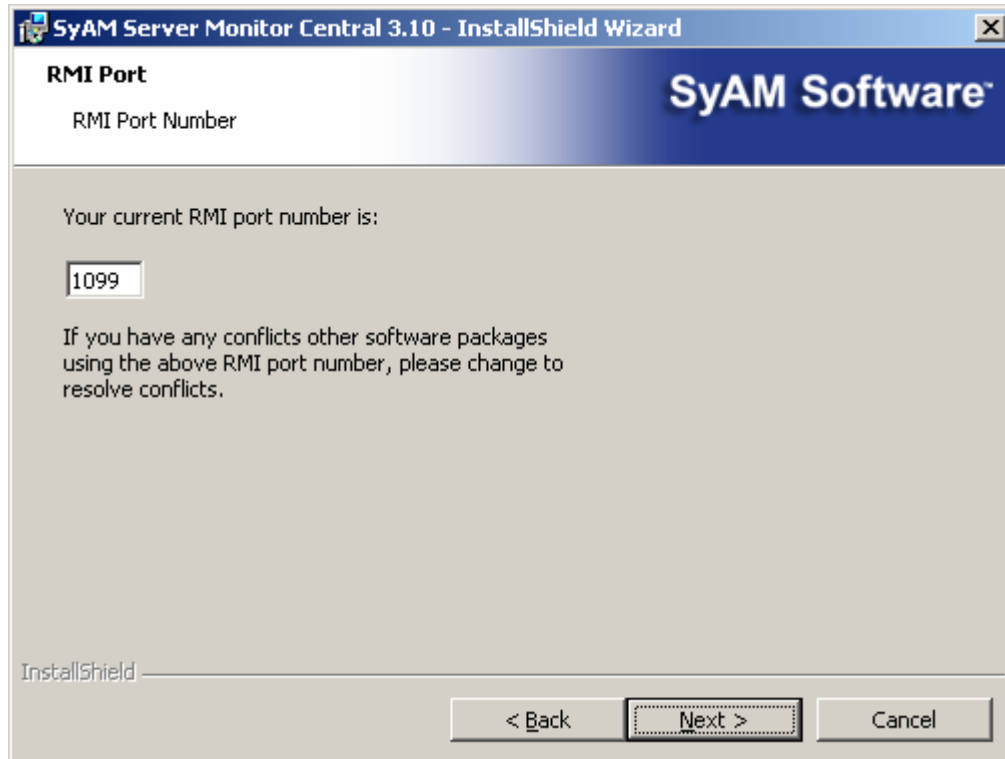


If you want to make a change, click on **Change** button; otherwise click **Next** to continue. The default directory is c:\SyAM for the SyAM software.

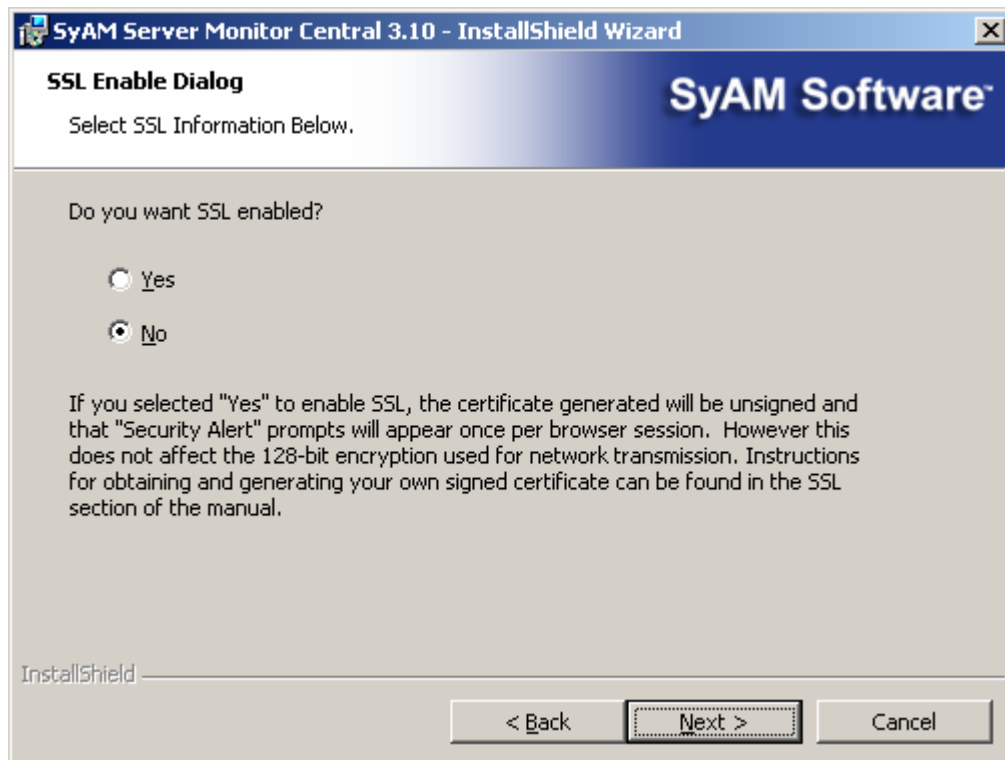
7. Select Server Monitor type



8. Do not change the RMI port default value of 1099 unless you know that value is already in use



9. SSL Enable Dialog



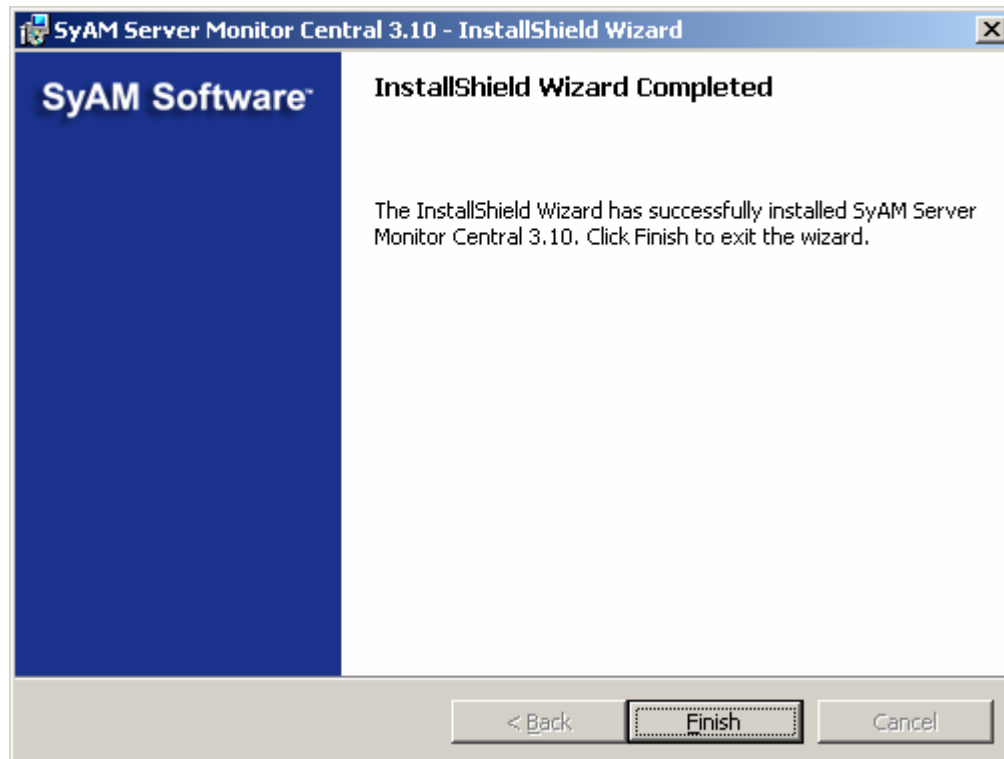
The default value is **No**. If you want more security, choose **Yes**.

10. Click **Install** if you are ready to install the SyAM Software



By clicking on **Install**, it will install all the components required to run SyAM Server Monitor Central on your hard disk.

11. Click **Finish** to complete the SyAM Software installation.



The SyAM services will start and dynamically discover and configure your system's monitoring environment in the background.

## Install SyAM Desktop Monitor Central Software on Intel® 945 Express Chipset-Based Client

To install SyAM Desktop Monitor Central on Intel 945 Express Chipset-based client is very similar to the Server Monitor Central installation on Dual-Core Intel® Xeon® processor-based server.

Launch the installation program if autorun doesn't work.

Select Desktop Monitor Central to install and follow the installation wizard instructions.

Below is a screenshot of the installation program.

**SyAM Software™**

Local System Management Software

- Server Monitor Local
- Desktop Monitor Local
- Notebook Monitor Local

Central System Management Software

- Server Monitor Central
- Desktop Monitor Central

Documentation

- Quick Start Guide
- Release Notes
- User Manual - Local Management
- User Manual - Central Management

Contact Details

Web Site

## Server Monitor Central

This version of the software provides a central management interface to all Server, Desktop and Notebook systems running the management agent including the system that the central management software is installed on.

### Windows (x86/x64)

To install the Windows version of the software click on install to start the InstallShield wizard, then follow the Quick Start Guide for Windows.

*Compatibility: - Windows 2000 Pro, 2000 Server, 2003 Server, XP Pro*

### Linux (x86/x64)

To install the Linux version of the software, copy the files to the system that is to run the software and follow the Quick Start Guide for Linux.

*Compatibility: - Redhat, SuSE, Fedora*

SyAM Software, Inc.      German    Portuguese    Spanish

SyAM v3.00 CD      My Computer

## Successful Installation Indicator

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After SyAM software has been successfully installed on a Windows system:

1. You should see C:\SyAM directory if you have not changed the destination folder during installation.
2. Click on **Start -> All Programs** and you should see SyAM program group and should be able to launch SyAM Server Monitor Console.
3. In Server Monitor Console, on Remote Management page, if you have configured Intel AMT correctly on the managed system, and entered correct username and password for Intel AMT, the Intel AMT page should come up.
4. Click on **Start-> Control Panel->Administrative Tools->Services**. Confirm that the following services are running on Windows Server 2003:
  - Server Monitor Agent
  - Server Monitor Central Manager
  - Server Monitor Web Server

# Configuration

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Before you can manage a client system, there are some configurations you need to do. Follow each sections listed below in order to configure your client system.

## Configure IP address

Before you can add a managed system to the server Management Tree, you should configure your servers and clients with static IP addresses first.

Consult your operating system's user manual for how to set up static IP on that system.

### NOTE:

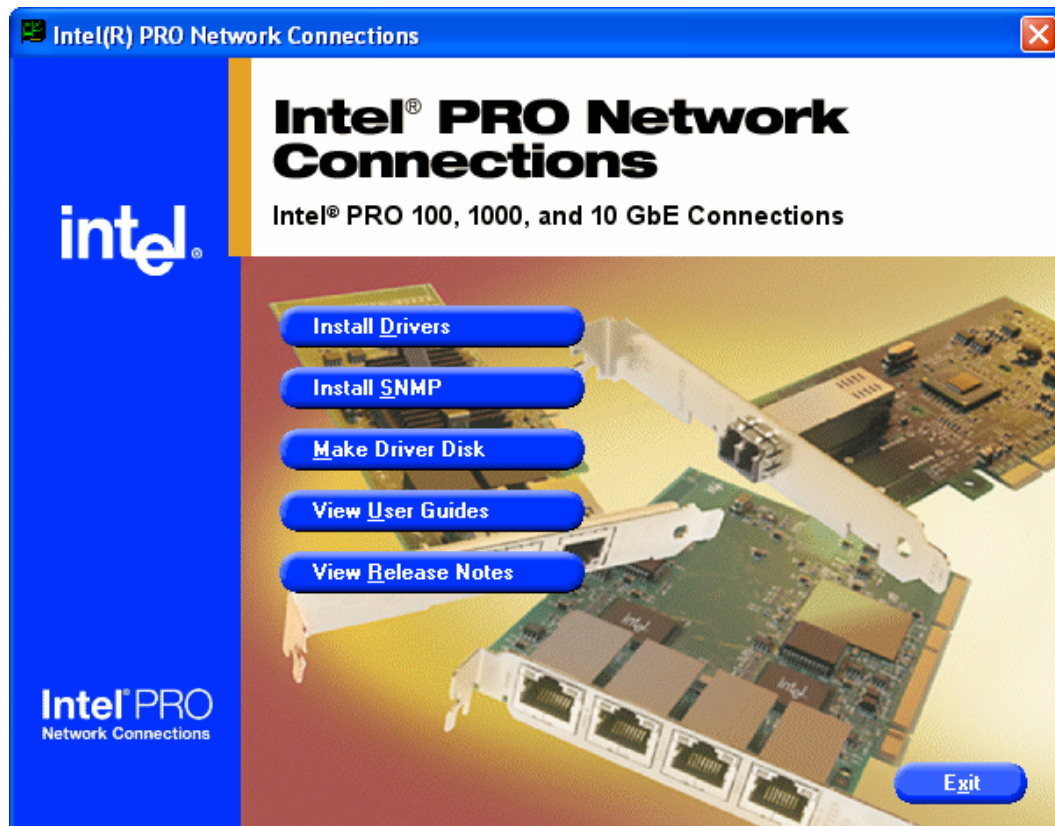
*You need to set up a static IP on the server as well.*

## Install KCS Driver

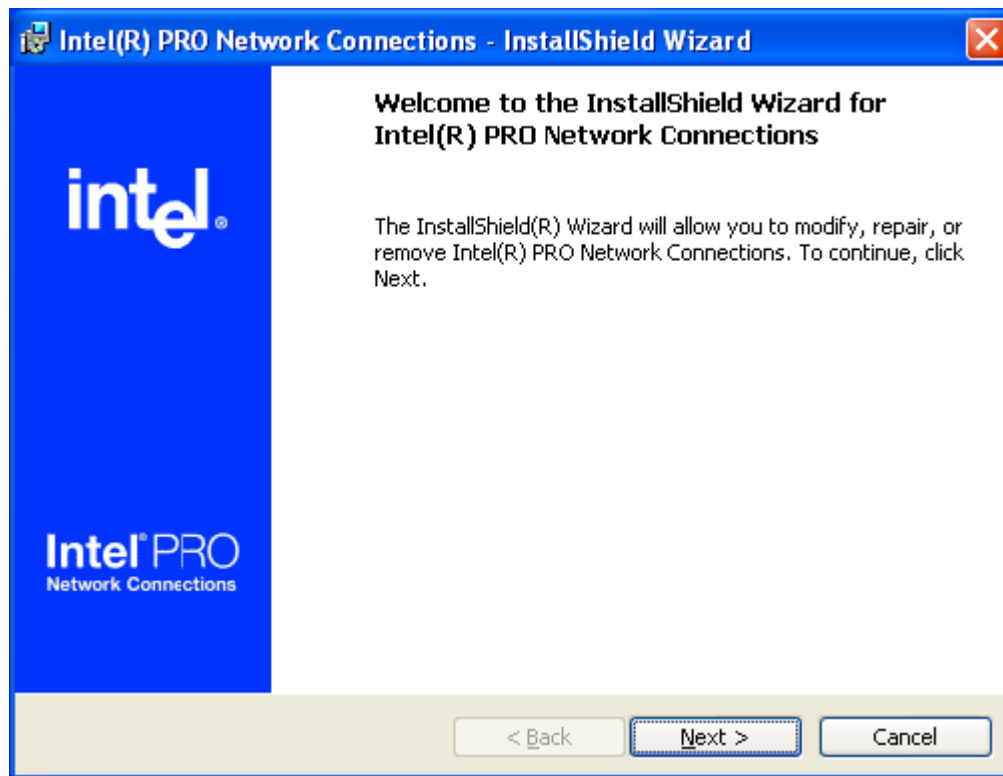
In order for the SyAM agent to identify the platform that has Intel AMT support, the Intel AMT local interface must be present. For AMT1 platforms this means the KCS driver must be loaded.

Follow the instructions below to install KCS driver.

1. Click on **Autorun** to launch the KCS installation program. A screenshot is shown below.

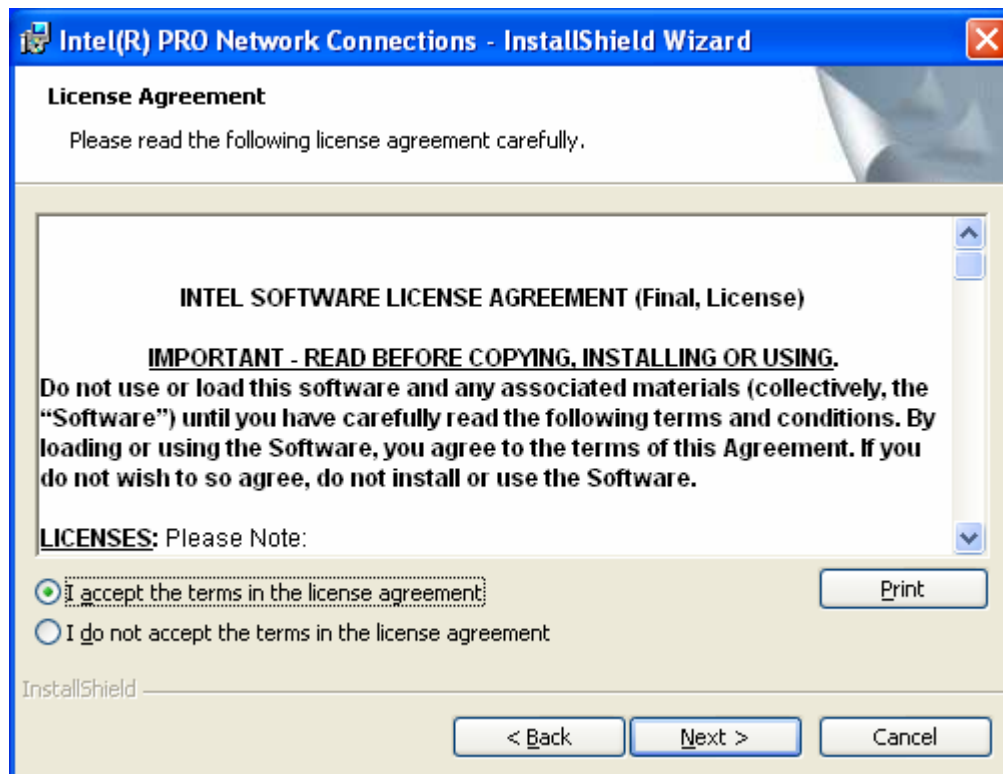


2. Click on **Install Drivers** button.



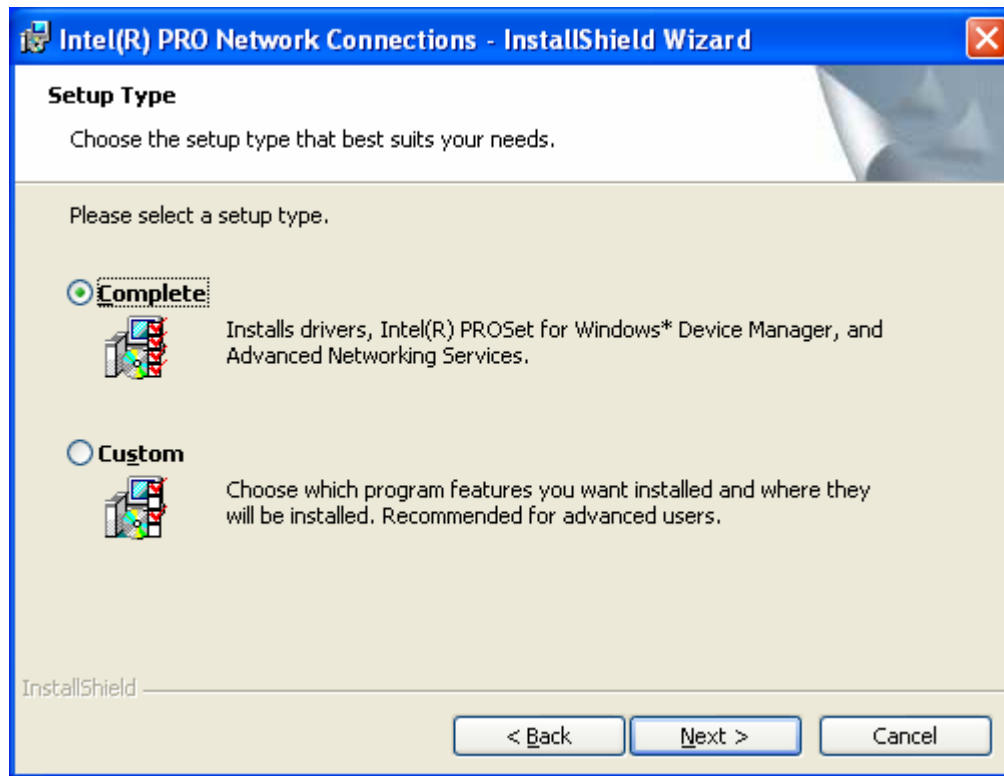
3. Click **Next** to continue.

Select **I accept the terms in the license agreement** option.



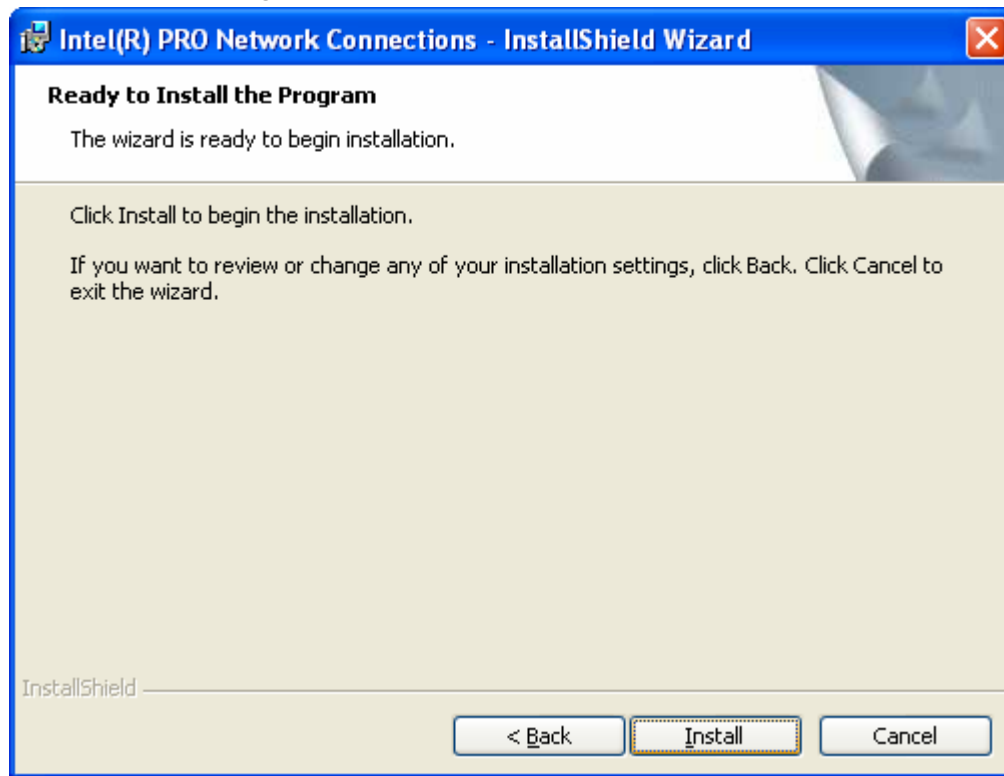
Click **Next** to continue.

4. Select **Complete** option to install all the drivers.

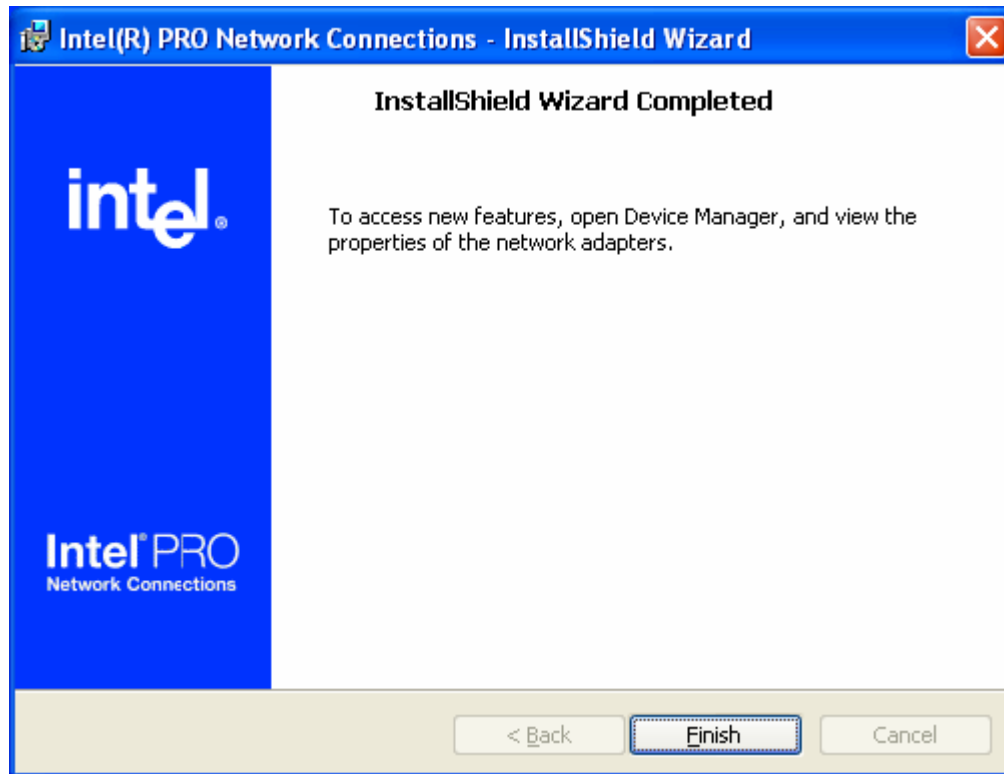


Click **Next** to continue.

5. Click **Install** to begin the driver installation.



6. Click **Finish** to complete the installation. After the KCS driver is successfully installed, the next step is to enable Intel AMT support in the BIOS and configure Intel AMT.



## Enable Intel® AMT in BIOS

In order to use the Intel AMT feature on Intel 945 chipset based platforms, you must enable the Intel AMT in BIOS first. Please follow the steps below to enable Intel AMT in the BIOS.

1. Reboot the system, Press **F2** to enter the BIOS setup.
2. Select **Advanced** on the top menu bar.
3. Scroll down to highlight **Management Configuration**, then press **Enter**.
4. Scroll down to highlight **Enter AMT BX Setup** and press **Enter**.
5. A window pops up with two options.
6. Select **Enable**, press **Enter** to save the selection.
7. Press **F10** to save changes and exit BIOS setup.

## Configure Intel® AMT

After the Intel AMT is enabled in BIOS, your system will automatically enter Intel AMT configuration screen. Please follow the on screen instructions to configure Intel AMT settings.

1. It first prompts you for administrator password, please enter **admin**. Press **Enter** to continue.
2. If this is the first time you are configuring Intel AMT, you will be asked to change the administrator password. Please enter a new password and make sure you remember it for later use.
3. Scroll down to TCP/IP option, press **Enter**.
4. It will prompt you with **Disable Network Interface (Y/N)?** Type **N** to continue.
5. Next you will see **Enable DHCP (Y/N)?** Type **N** to continue.
6. When prompted to enter IP address and netmask, enter the system IP address and corresponding netmask. Press **Enter** to submit all the changes.
7. Scroll down to highlight **Exit** and press **Enter**.
8. When prompted to save changes, type **Y** to save all the change and exit the Intel AMT configuration screen.

After a minute or two, the Intel AMT tab on the Server Monitor Console on the server will display the Remote Management page.

# How to Use This Solution

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## Logging In

This section provides detailed information on how to log into the SyAM Monitor Central interface.

There are two ways to access the SyAM user interface on Windows 2003 Server.

One way is to click **Start->All Programs->Server Monitor Central**.

The other way is to open a web browser on Windows 2003 Server with the SyAM Monitor Central installed.

[http://server\\_IP\\_Address\\_or\\_server\\_machinename:3930/](http://server_IP_Address_or_server_machinename:3930/)

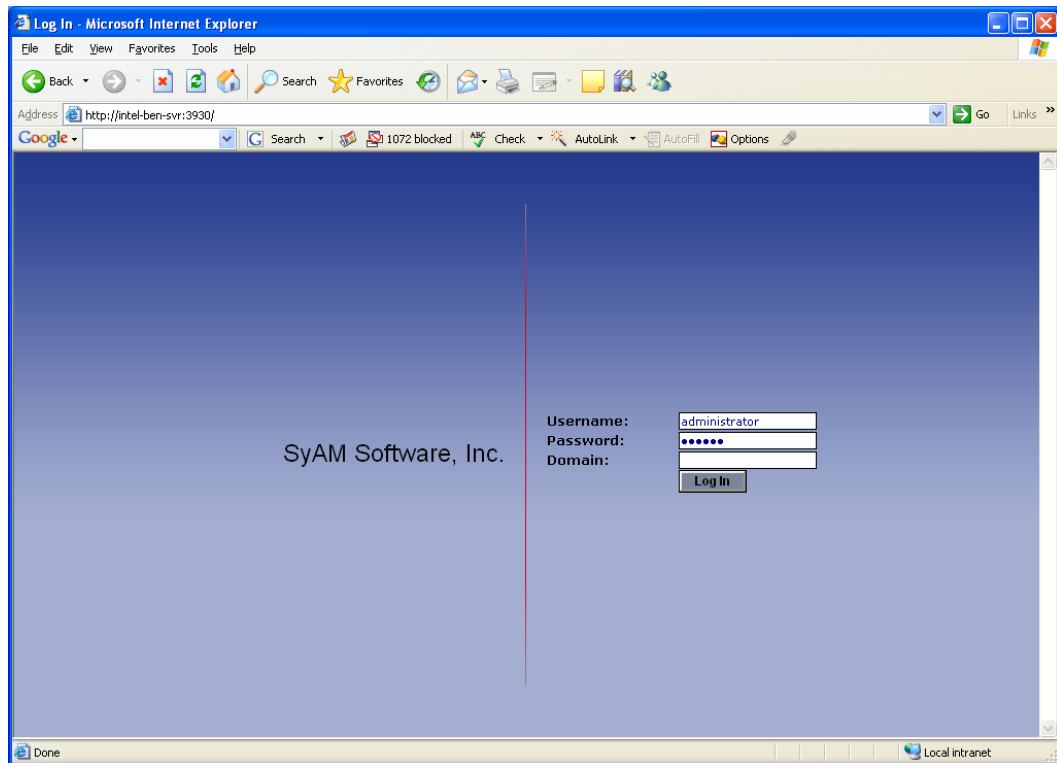
Example <http://192.168.10.10:3930/>

Example <http://bensley-svr-4:3930/> (in this example **bensley-svr-4** is the server machine name).

If you enabled SSL during installation, you are required to use https instead of http in the above examples.

Example [https:// 192.168.10.10:3930/](https://192.168.10.10:3930/)

You should see the login screen like the following:



**Figure 1: Login window**

### **Standalone Systems** (not in a Windows Domain)

- The user name and password must be valid on the system you are logging into.
- The user must have administrator rights on the system.

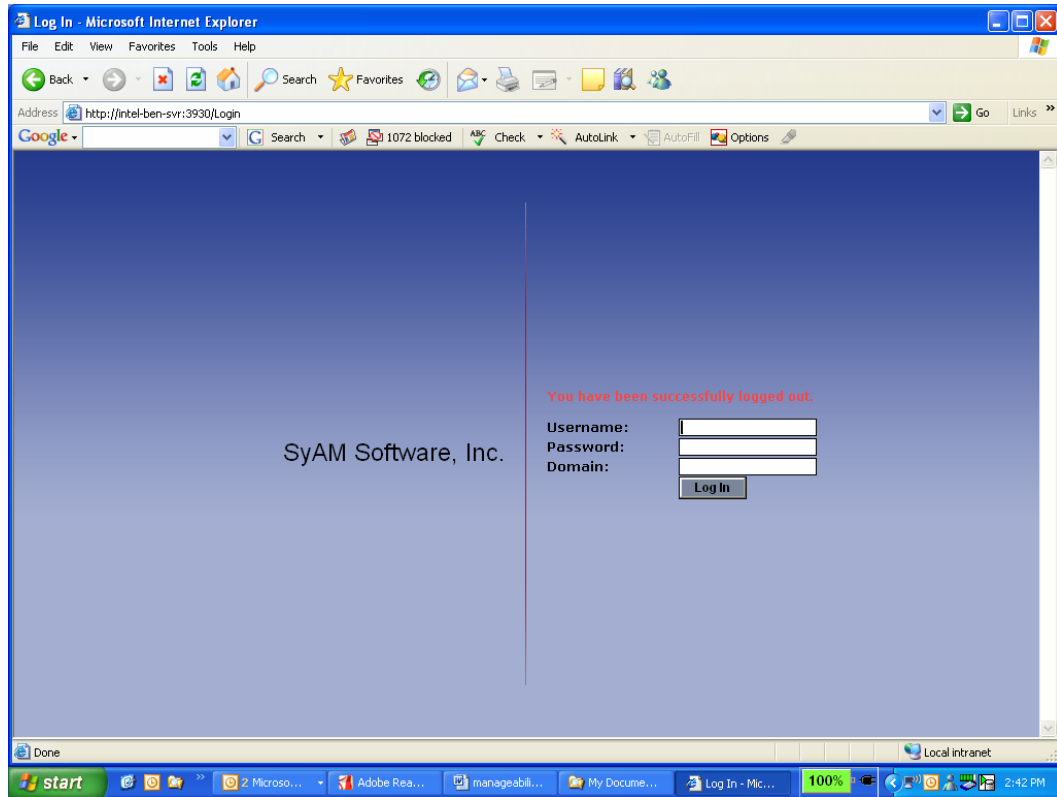
### **Systems On a Windows Domain**

- The user name and password must be valid on the domain
- The user must have "Domain Admin" rights within the Windows Domain.

A valid domain name must be entered in the domain field.

## Ending the Session

When you have completed your management session, choose **Log Out** on the main header. Successful logout returns you to the login window.



**Figure 2: Successful Logout window**

For added security you will be logged out automatically after 30 minutes of inactivity.

## Adding a System to Management Tree

Systems must be added to the Management Tree before they can be managed centrally through the Sever Monitor Central software.

You can only add systems that are running SyAM Agent which is part of SyAM Server (Desktop/Notebook) Monitor Central software package, and may only add those systems up to the limit set by your license key.

**NOTE:**

*Please make sure the servers and clients being managed are configured with static IP addresses and are on the same network.*

To add a system or discover systems to be added to the Server Monitor Central, choose Add Managed Systems from the drop down menu on the header bar.

1. Enter the IP address in the **From** and **To** fields
2. Enter the **Location** and **Function** that is to be applied to the discovered systems  
To add a single system, enter the same IP address in the **From** and **To** field.  
To add discover systems across a network address range, enter the lower IP address in the **From** field and higher IP address in the **To** field.
3. Click the **Apply** button
4. Once the discovery process has been completed the **Status** will show the amount of systems successfully added.

Below is a screenshot of Add Managed Systems window.

**Add Managed Systems**

**Add Managed Systems**

**Add Systems to be Managed**

You may add systems up to the maximums permitted by your license. Select License Management for details on licensing.

**IP Address Range:** From:  To:

**Enter the information to be used for grouping the managed systems within the tree**

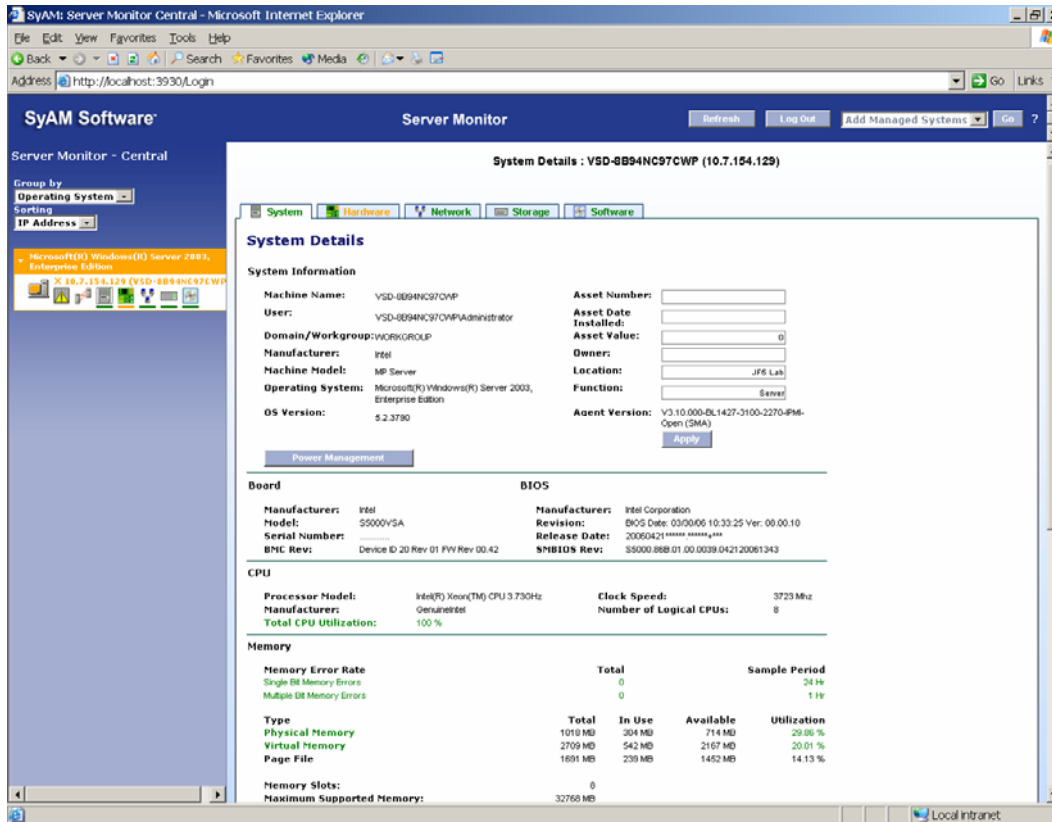
**Location:**

**Function:**

**Status**

# Server Monitor User Interface


## System Details Tab



## Remote Management

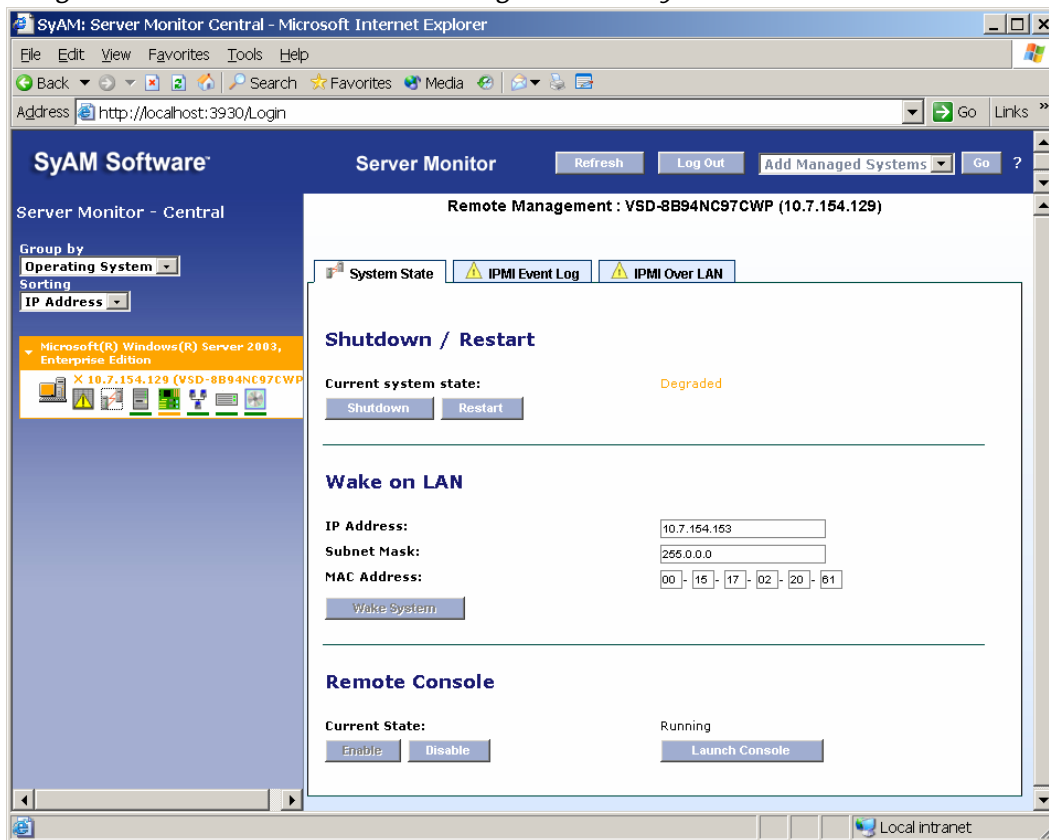
This section describes how to use the Remote Management capabilities in the Server Monitor Central.

Server Monitor Central provides remote management functions for its management systems, including Wake on LAN, Shutdown, Restart, Remote Console, and IPMI Log and IPMI over LAN for IPMI enabled systems, Intel AMT for Intel AMT enabled systems.

To access Remote Management, first click on the IP address of the managed system shown in the Management Tree, then click on this icon: 

## NOTE:

*In order to use Shutdown, Restart, Remote Console options, the Local System Management software must be running on those systems.*

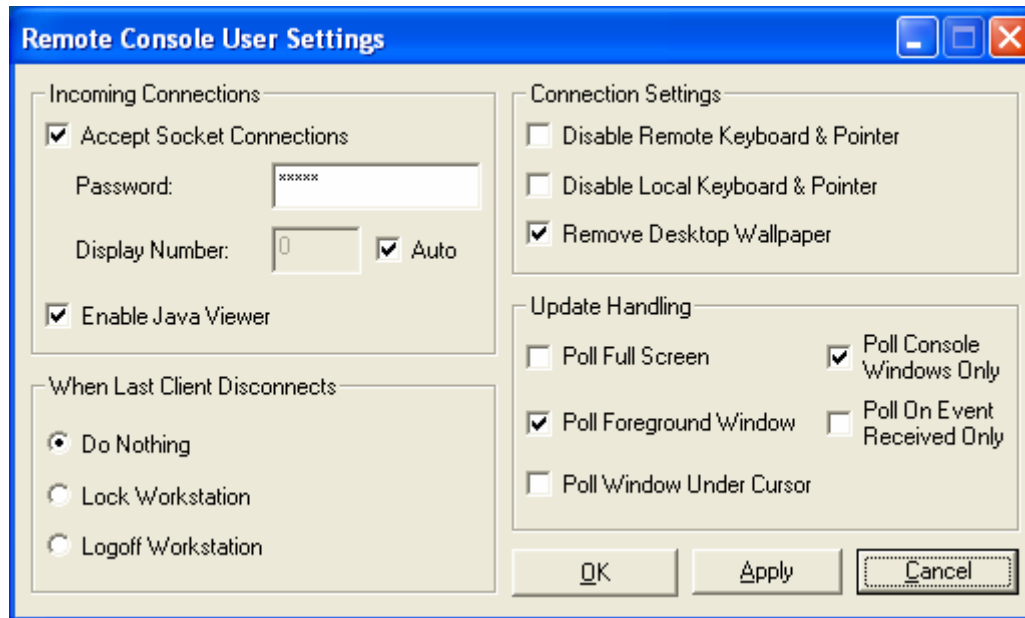


## Remote Console

Remote Console provides mechanisms to take control of a managed systems local screen, mouse, keyboard through Server Monitor Central interface.

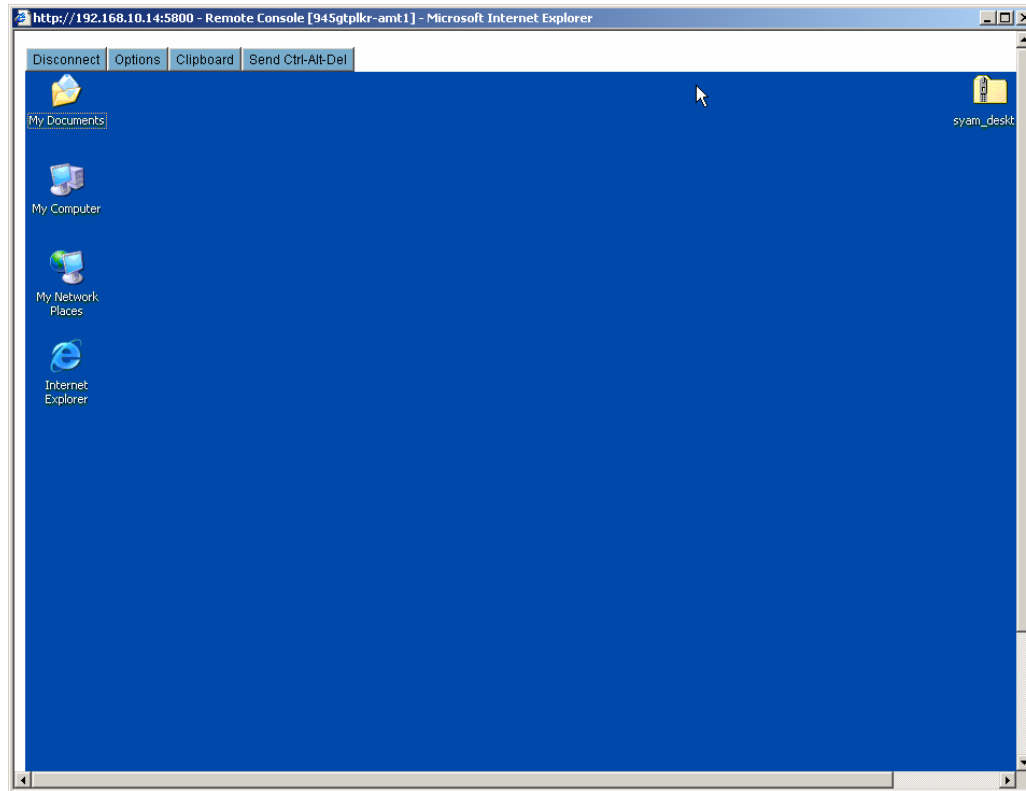
Before you can successfully launch the remote console, you have to set up the password on the managed system. Here is how to do it.

1. Click on **Start->All Programs->SyAM->Remote Console User Settings**. The window below will come up. Please enter a new password in the Password field, click **OK** to save the change.



2. Now you are ready to launch remote console.  
First click **Enable** to start service on the remote managed system and enable the Launch Console.
3. Next click **Launch Console** to establish a remote console session.  
Once the console launched, it will prompt you to enter password for the remote system.

After you entered the correct password, the screen of the remote system should look like the screenshot below. You can use the remote system as if you logged on it directly.

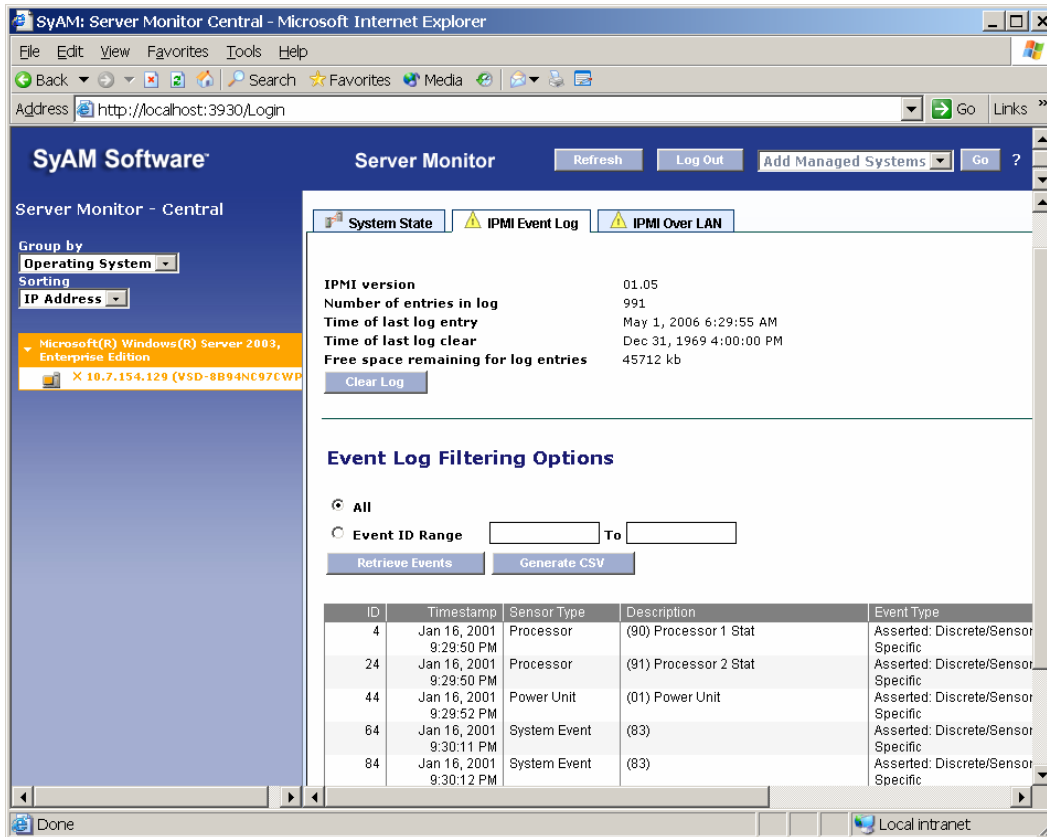


Now the window presents the managed system. Once finished click on the Disconnect button to close the window.

## IPMI Event Log

Server Monitor can monitor physical events occurring on **IPMI enabled servers** that are being managed.

The IPMI event log allows administrators to retrieve and view all events occurring reported by a specific server. In order to access the IPMI even log, the system must be IPMI enabled and running a valid Server Monitor Agent.



**NOTE:**

*IPMI tabs appear only when servers with IPMI support are enabled.*

## IPMI Event Retrieval

The IPMI Event Log provides the administrator with the option of retrieving and viewing some or all the event logs.

To retrieve all the logs, select the radio button All, then click on Retrieve Events button.

To retrieve partial logs, enter a beginning and ending event ID, click on Retrieve Events button.

## IPMI Over LAN

Server Monitor provides IPMI Over LAN power management and event log capabilities.

## SyAM Management

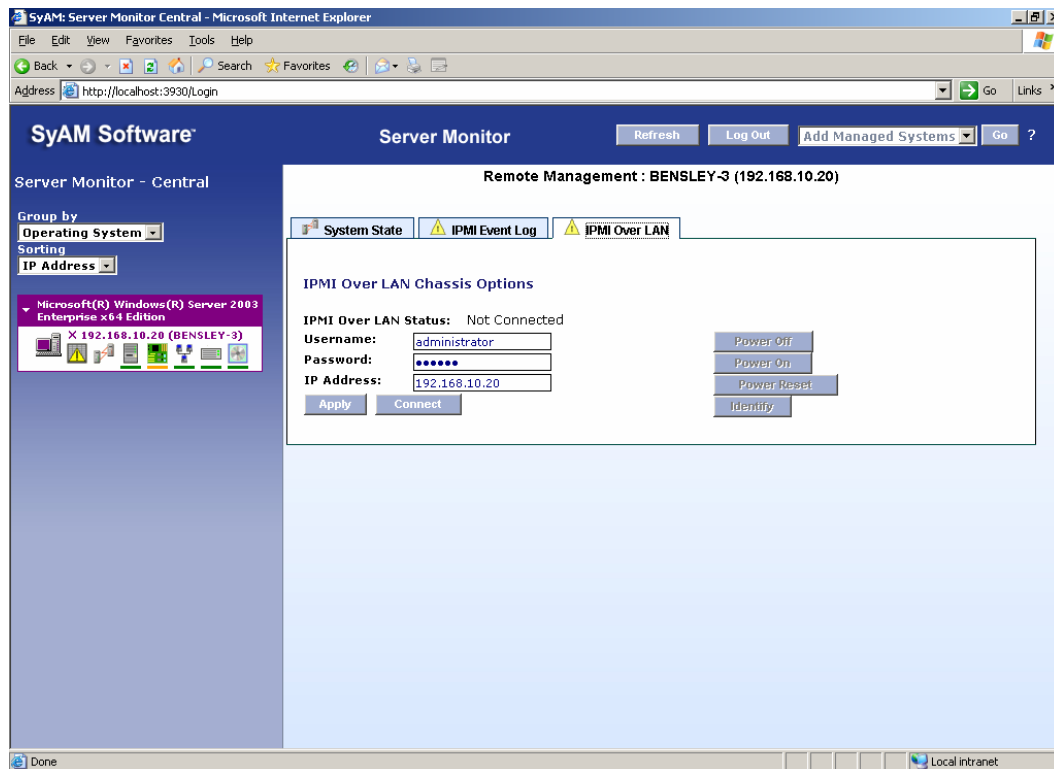
You must first configure the BMC's IP address and password before you can use this IPMI Over LAN feature.

Enter the user name, password and IP address of the BMC for the managed system, then click on Apply button to save the data.

Once you save user name, password, and IP address information, you can click on Connect button to access the managed system's BMC over LAN.

Once connected, you can perform the following actions.

- Power On
- Power Off – This varies by hardware platform
- Power Reset – This varies by hardware platform
- Identify
- Event Log – This varies by hardware platform



## Intel® AMT

Systems have Intel AMT hardware presences provide an additional tab called AMT under the Remote Management page.

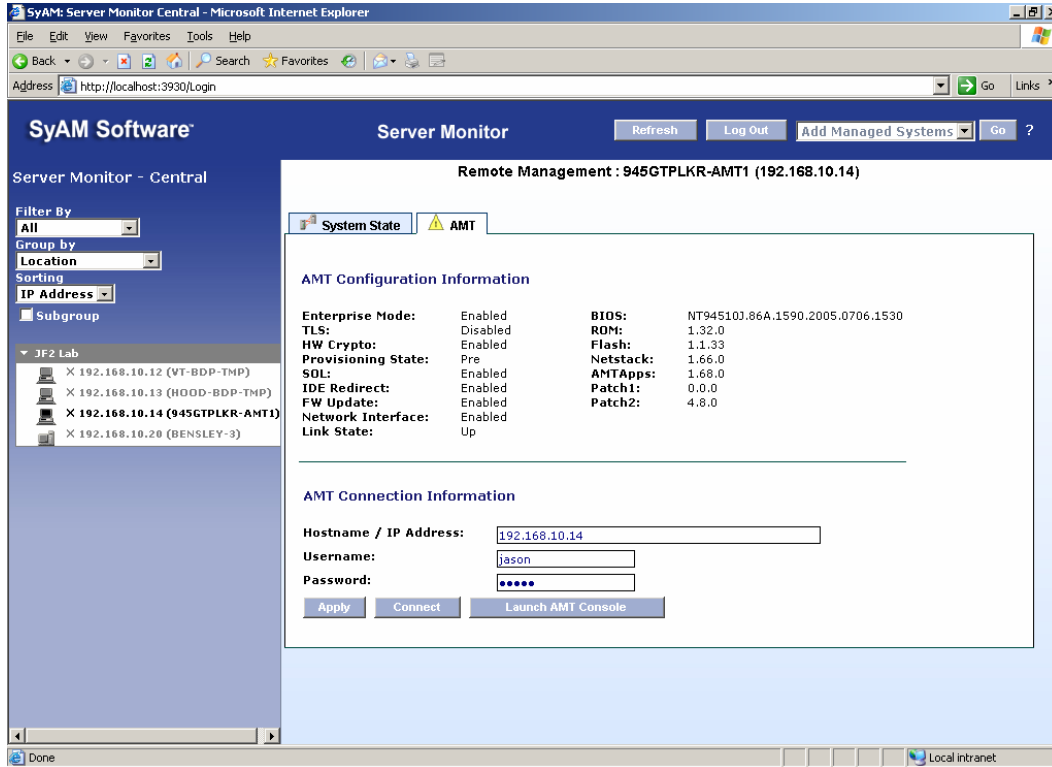
From this page the user must configure the Intel AMT connection information with the details for out of band access to the Intel AMT platform.

- IP address – this is the IP address you entered in section **Configure AMT**

## SyAM Management

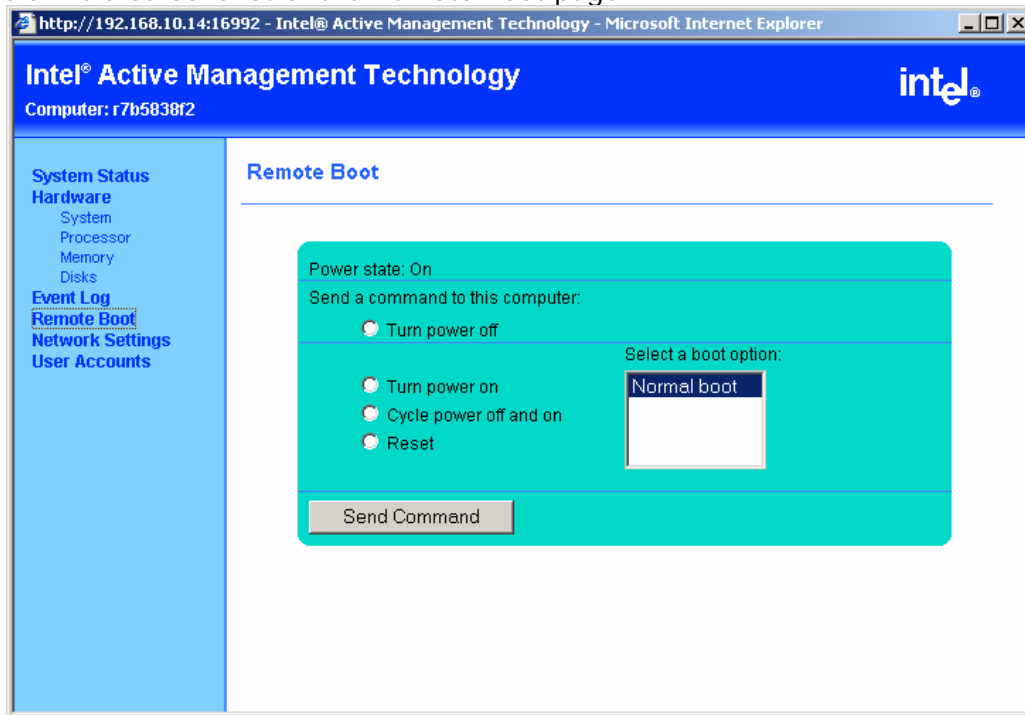
- Username – Enter “admin”
- Password – Enter the password for Intel AMT configuration page

Click **Apply** to save all the information entered by the user.



Now you can launch the Intel AMT console by clicking **Launch AMT Console**. Once the Intel AMT console comes up, the following features are available.

Below is a screenshot of the Remote Boot page.



Here are some functions the user can perform on the client using AMT1.

- Turn power on
- Turn power off
- Cycle power off and on
- Reset

## System Alert Matrix

The System Alert Matrix provides a detailed, color-coded view of the status of all monitored components in a specific managed system.

To select individual instances, click on the appropriate boxes for each instance.

To select the entire category, click on the bolded header.

If you would like to receive email notifications, please enter the required information in the notification setting section and click on Apply button to save changes. Click **Test Notification** to send a test email and ensure your configuration is accurate.

SyAM: Server Monitor Central - Microsoft Internet Explorer

Address: http://localhost:3930/Login

## SyAM Software Server Monitor

Refresh Log Out Add Managed Systems

### System Alert Matrix

Server Monitor - Central

Group by: Operating System  
 Sorting: IP Address

Microsoft Windows Server 2003, Enterprise Edition  
 X 18.7.154.128 (V50-8B94NC97LWP)

Physical Sensors	Lower Threshold			Upper Threshold			Warning Alerts					Critical Alerts						
	Description	Critical	Warning	Current	Warning	Critical	Email	SMS /Pager	SMC /Message	Network /Trap	SNMP /Trap	System /Event Log	Email	SMS /Pager	SMC /Message	Network /Trap	SNMP /Trap	System /Event Log
Physical Security							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fans (RPM)							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Temperature (°C)							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Voltages (v)							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Restore Physical Sensor Thresholds

Logical Sensors	Description	Current	Threshold	Alerts					Intervals		
				Email	SMS /Pager	SMC /Message	Network /Trap	SNMP /Trap	System /Event Log	Sample Period	Repeat Period
Network Adapters				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Physical Disks				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Logical Disks			90	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	8	100
CPU Utilization (%)			90	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	15
Memory Utilization (%)			90	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	15
Memory Error Rate			2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	24	24

### Notification Settings

Example

Email Address: admin@company.com

SMS/Pager Address: \_\_\_\_\_

Network Message Machine Name: 192.168.1.1

SNM System: 10.7.154.81 | 192.168.1.1

Username: \_\_\_\_\_ | Username

Sender's Email Address: Local.Admin@company.com

Sender's Email Password: \_\_\_\_\_

Mail Server: smtp.company.com

SNMP Trap Receiver: snmp.company.com

Reset Form Test Notifications Apply

Local Intranet

# Troubleshooting and Known Issues

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- Central management licensing is not initialized.  
This is due to the BIOS and BMC firmware too old. Updating to the latest BIOS and BMC firmware should fix this problem.
- Why can't I see the AMT tab?  
In order for you to see AMT tab, you need SyAM Server Monitor Central 3.1 and SyAM Desktop Monitor Local 3.1 or above on an Intel 945 executive motherboard that has AMT1 support.
- Why can't I see the IPMI tab?  
IPMI is used to manage servers. In order for you to see IPMI tab, you need an IPMI-enabled system to be able to see some of the IPMI tab.
- Why is one of the managed systems in red?  
Hardware health issues, such as Fan not working.
- For Linux installations you can not run the installation process directly from the CD.
- For Linux installations you can not install the software into the directory from which you are running the installation.

# Solution Support

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Intel has thoroughly tested and verified the components in this deployment guide. Please continue to use your existing [Intel® Support Services](http://www.intel.com/go/Channel/Support) (<http://www.intel.com/go/Channel/Support>) for information on Intel®-based hardware, including Intel® Processors, Intel® Desktop and Server Boards, and associated drivers.

For your convenience, Intel has worked with the following independent software vendors, open source vendors, and application vendors to streamline technical support for this solution. For more information on the third-party software products, please visit the following links.

Company	Link
SyAM Software	<a href="http://www.syamsoftware.com">www.syamsoftware.com</a>