



ASWM Enterprise

System Web-based Management

User Manual

E8083

Cherry Edition V1.00

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About this guide

Audience

This user guide is intended for system integrators, and experienced users with at least basic knowledge of configuring a server.

Contents

This guide contains the following parts:

Chapter 1: Getting Started

This chapter introduces the ASWM Enterprise, and tells how to install and uninstall it under Windows platform.

Chapter 2: Deployment Management

This chapter describes how to deploy ASWM Enterprise agents and remove agents through AD or manually.

Chapter 3: Main Server Functions

This chapter describes the Main Server Functions, including Monitor, Account Management, Deployment Management, Remote Control, and Server Configuration.

Chapter 4: Client Monitor Information

This chapter describes system status and information of the client.

Appendix: Reference information

This appendix includes a glossary of terms used in this document.

Conventions

To make sure that you perform certain tasks properly, take note of the following symbols used throughout this manual.



WARNING: Information to prevent injury to yourself when trying to complete a task.



CAUTION: Information to prevent damage to the components when trying to complete a task.



IMPORTANT: Instructions that you **MUST** follow to complete a task.



NOTE: Tips and information to aid in completing a task.

Reference

Visit the ASUS websites worldwide that provide updated information for all ASUS hardware and software products. Refer to the ASUS contact information for details.

Chapter 1

This chapter introduces the ASWM Enterprise, and tells how to install and uninstall it under Windows platform.

Getting Started

1.1 Introduction to ASWM Enterprise

Welcome! Thank for buying our server products bundled with ASWM Enterprise System Web-based Management software. The ASWM Enterprise is a proprietary server management solution that gives a vital distinction to our servers.

In server management, system stability is a major factor, with efficiency, cost-effectiveness, and convenience following close behind. To comply with this, we have created a reliable and user-friendly ASWM Enterprise monitoring tool. The ASWM Enterprise is a web-based interface that allows system administrators to conveniently manage computers either locally (from the same server), or remotely (using a web-browser).

With its colorful, graphical, and informative interface, the ASWM Enterprise makes server management a delightful experience!

1.1.1 How ASWM Enterprise works

The ASWM Enterprise is composed of an “agent” that generally acts as a data collector, and a set of HTTP web pages that serve as the user interface (UI). The data collected by the agent, which are essential for the continuous monitoring operations performed by ASWM Enterprise, are displayed in the UI.

In the monitoring process, the agent basically keeps track of the hardware and software status of the system. The agent has “sensors” that monitor fan rotation speeds (in RPM), working voltages, motherboard and CPU temperatures, and the backplane (if present).

In addition, the agent also monitors hard disk drives health status through the SMART (Self-Monitoring, Analysis, and Reporting Technology) feature, space utilization of a file system, CPU or system memory loading, and even the traffic status of a network device.

The agent records the history of the detected status of all monitored hardware items. The status record includes the time of alert events (fan, voltage, or temperature), and the type of alert event (critical, warning, or normal).

You can also configure ASWM Enterprise to react to exceptional situations. For example, the administrator can be automatically notified by e-mail when a hard drive starts to malfunction or when a chassis intrusion is detected. In this way, ASWM Enterprise acts as an active guardian of the system’s key components.

1.1.2 Supported OS platforms

The ASWM Enterprise agent supports the following operating systems, You can choose the appropriate package depending on the primary OS installation of your server.

Main Server Support Operating System

Windows® Server 2003 32/64 bit

Windows® Server 2008 32/64 bit,

Windows® Server 2008 R2 64-bit

Windows® Server 2012 64bit

Agent Support Operating System

Windows® Server 2003 32/64 bit

Windows® Server 2008 32/64 bit,

Windows® Server 2008 R2 64-bit

Windows® 7® 32/64bit

Windows® Server 2012 64bit

Windows® 8® 32/64bit

RHEL 6.2 32/64bit

RHEL 6.3 32/64bit.

The ASWM Enterprise web pages are fully compatible with W3C HTML 4.0/DOM standard. The web browsers with Microsoft Silverlight support can work with ASWM Enterprise:

OS	Internet Explorer 10	Internet Explorer 9	Internet Explorer 8	Internet Explorer 7	Internet Explorer 6	Firefox 3.6+	Safari 4+	Chrome 12+
Windows® 8 Desktop	√*	-	-	-		√		√
Windows® Server 2012	√*	-	-	-		√		√
Windows® 7	-	√	√	-	-	√	-	√
Windows® 7 SP1	-	√*	√	-	-	√	-	√
Windows® Server 2008 SP2			-	√	-	√	-	√
Windows® Server 2008 R2 SP1		√*	√*	-	-	√		√
Windows® Vista™		√	√	√	-	√	-	√
Windows® Server 2003, Windows® XP SP2, SP3		-	√	√	-	√		√
Macintosh OS 10.5.7+ (Intel-based)		-	-	-	-	√	√	-

* Supports 64-bit mode.

Minimal Requirements

Components	Requirements
Windows®	x86 or x64 (64-bit mode support for IE only) 1.6-gigaherts (GHz) or higher processor with 512-MB of RAM

1.2 ASWM Enterprise installation

You can install ASWM Enterprise in Windows platform. Proceed to the succeeding sections for the instructions that are applicable to your operating system.

1.2.1 ASWM Enterprise main server requirement

System Requirement

- Microsoft SQL Server 2005 or above (Including Express version)
SQL Server 2005 ~ SQL Server 2008 r2 sp2
 - Web Server IIS 6 or above
 - .NET Framework 3.5 SP1
 - .NET Framework 4.0 (Full)
 - Active Directory (Deployment by Active Directory)
- * Time zone setting must be the same

For Windows Server 2008 or above

Ensure to add the following Features / Roles

- Features: .NET Framework 3.5.1
- Roles: Web Server (IIS)
- Role Services under WebServer(IIS):
 - (A) Common Http Features (and all sub-items) have to be selected.
 - (B) IIS 6 Management Compatibility (and all sub-items) have to be selected.
 - (C) Application Development
 - ASP.NET
 - .NET Extensibility
 - ISAPI Extensions
 - ISAPI Filters

For Windows Server 2012

Ensure to select the following Features

- Features:
 - .NET Framework 3.5 Features
 - .NET Framework 3.5 (include .NET 2.0 and 3.0)
 - HTTP Activation
 - .NET Framework 4.5 Features
 - .NET Framework 4.5
 - ASP .NET 4.5
 - WCF Services
 - HTTP Activation

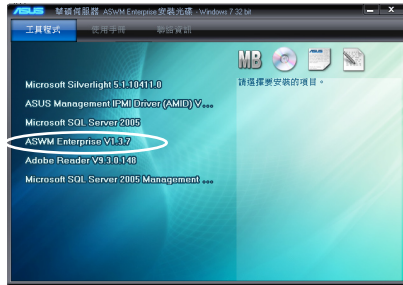
1.2.2 Installing ASWM Enterprise



Any user with administrator privileges on the local system can install ASWM Enterprise.

To install ASWM Enterprise in Windows:

1. Insert the support DVD into the optical drive and click **ASWM Enterprise V1.3.7**.



Ensure that your system meets the requirements mentioned in the previous page.

2. The ASWM Enterprise Setup program wizard appears. Click **Next** to continue.



3. Click **Next** to start installation.



4. The system is installing ASWM Enterprise.



5. The system is checking the installation requirements. Click **Next** to continue.



6. Select an **Authentication** type and click **Connection Test** to proceed.



7. After passing the Connection Test, click **OK** and **Next** to continue.



8. When the installation completes, click **Close** to exit the wizard.

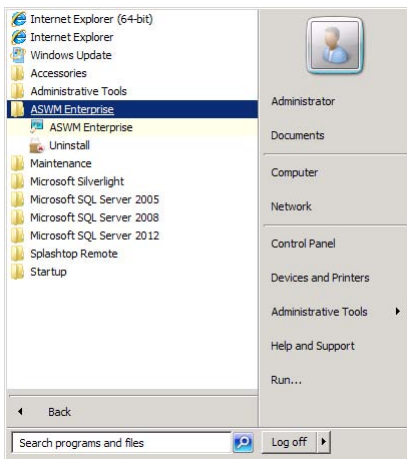


1.3 Uninstalling ASWM Enterprise

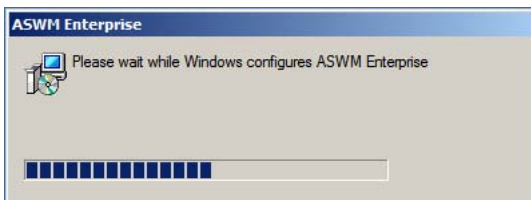
1.3.1 Uninstalling from Windows

To uninstall ASWM Enterprise from a Windows platform:

1. Click **Start > All Programs > ASWM Enterprise > Uninstall**.



2. The system automatically uninstalls ASWM Enterprise.



1.4 Login ASWM Enterprise

To login ASWM Enterprise:

1. Double-click the ASWM Enterprise shortcut on the desktop when you login from the local server. If you login from the remote server, enter the ASWM Enterprise website ([http://HostName\(IP\)/aswment](http://HostName(IP)/aswment)) through the web browser.
2. Click **Enter**.



3. Enter your **Name** and **Password**. Click **Login** to enter ASWM Enterprise.



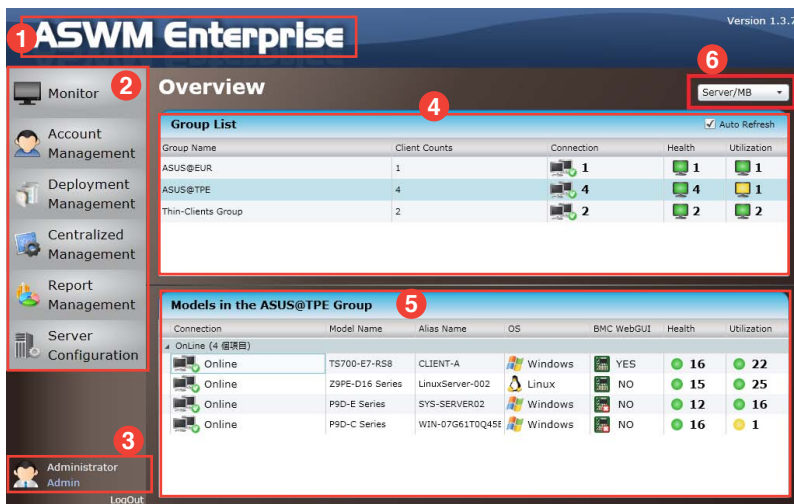
- The default **login name: Administrator**, **password: aswm**. Note that the login name and password are case sensitive. Refer to **Account Management** if you would like to change the password.
- In addition to **Administrator**, You can also login as a **User**. Note that users have only limited privileges. **Login name: User; password: user**.

Limitation when logging as a User

- Only limited functions, including **Monitor** and **Account Management** are available.
- **HW Sensor** is read-only. You cannot customize the threshold.
- You cannot delete the EventLog, but you are allowed to use the **Advanced Search** function.
- **Utilization** is read-only. You cannot customize the threshold.
- You can check the information of the installed software, but **Service** of starting, restarting or stopping the selected service is unavailable. Ending process is also unavailable.
- **Remote Control** is dimmed and unavailable.
- Deleting SEL information on BMC is not allowed.
- **BIOS Flash** is read-only. You cannot flash the BIOS.
- **Configuration in Monitor** is unavailable.

1.5 The main page

The main control panel of the ASWM Enterprise user interface is displayed as shown.



- 1 Full screen view** : Click this banner to switch to the full screen view and press <Esc> to return to the normal window view. You cannot input text in the full screen view.
- 2 Function buttons** : The overall functions of ASWM Enterprise, including health monitoring, account management, deployment management, centralized management, and server configuration. Refer to later chapters for details.
- 3 Login information** : This area displays the login ID. Different login users have different level of controlling ASWM Enterprise. Click **LogOut** to exit ASWM Enterprise.
- 4 Group List** : The Group List shows the existing groups. It is more convenient for administrator to manage a large number of computers through groups.
- 5 Models in the group** : This area shows the computers and their general information in your selected group above.
- 6 Switch Monitor View** : This area allows you to switch the monitor view between "Server/MB" and "Storage".

Chapter 2

This chapter describes how to deploy ASWM Enterprise agents and remove agents through AD or manually.

Deployment management

2.1 Deploying new ASWM Enterprise agent

Install new ASWM Enterprise agents on computer and add them the ASWM Enterprise server for convenient management, monitor and control.

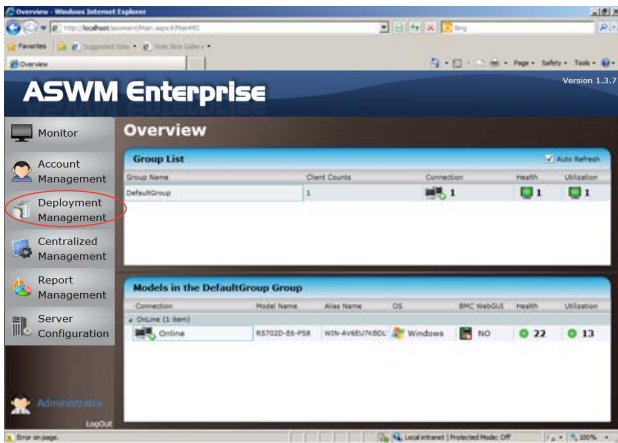
ASWM Enterprise client agent system requirement

- .NET Framework 3.5
- Requires ASUS Management IPMI Driver for all models with BMC device on Windows® 7 32/64bit
- Firewall Setting
 - Allow "Windows® Management Instrumentation (WMI)"
 - Allow "File And Printer Share"
 - Allow "ICMP Packet Response"
 - Add Outbound Rules "UDP Port" ranging from 50000 ~ 50100 if "Power control" is carried out through remote BMC

2.1.1 Automatically scanning the active directory

To deploy new agents

1. Click **Deployment Management** on the left.



2. Click **Deploy New ASWM Enterprise Agent**.



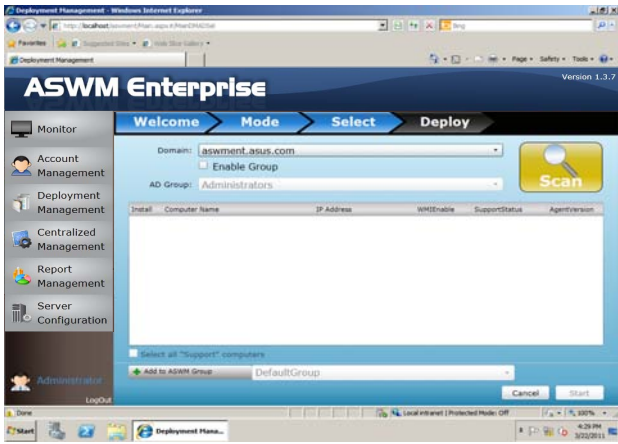
3. The wizard will guide you through the deployment process. Click **Start** to continue.



- Select **Automatically Scan the Active Directory** and click **Next** to continue. The system will automatically scan the directory for agents.



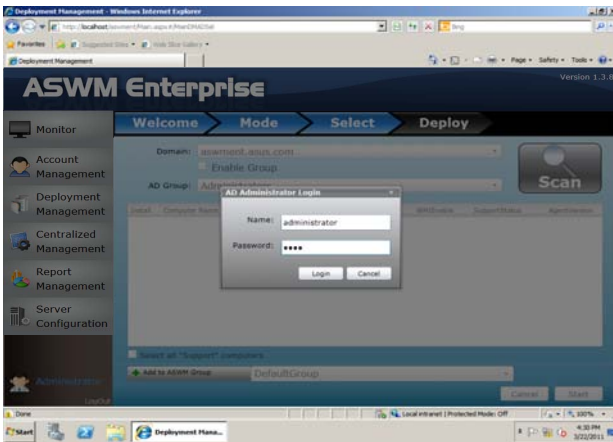
- Select a **Domain** and click **Scan** to start scanning.



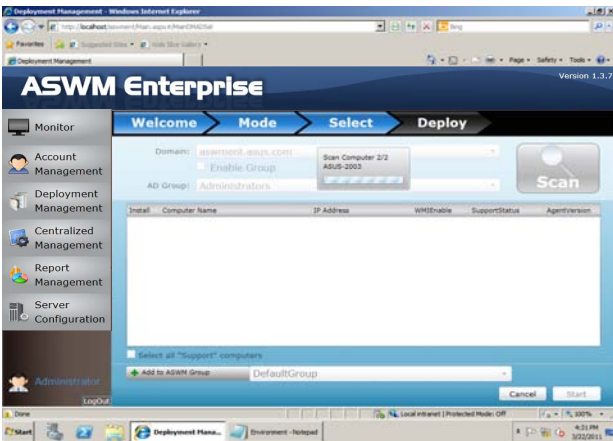
Click **Enable Group** and select a desired group to downsize the scanning range. Doing so shortens the time for agent deployment.



6. Enter the **Name** and **Passwrd** to login as the AD Administrator.



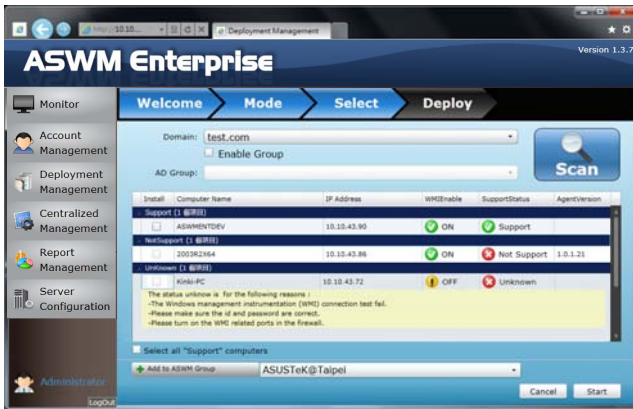
7. The system starts scanning.



8. Click wanted computers to deploy agents and click **Start**. The computer must be listed as **Support** in the **SupportStatus** field. Click the computer that shows **Not Support**, the reasons will be shown below.

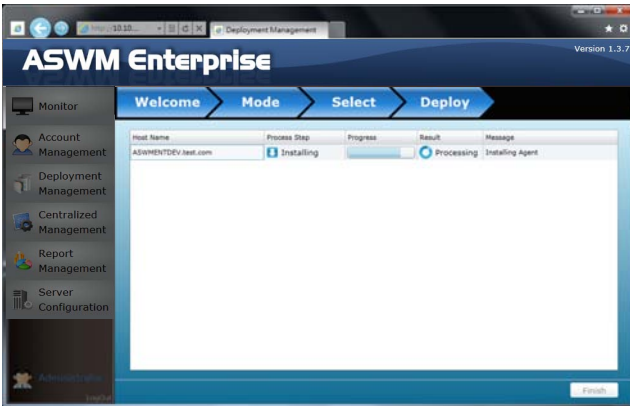
If your wanted computers are listed as **Not Support**. Double check the followings:

- If it is a supported model. Refer to the beginning of the section for details.
- If it has installed .NET 3.5
- If it has installed ASWM Enterprise Agent
- If old ASWM version existed



- Click **Select all "Support" computers** if you want to deploy agents on all Support Computers.
- Click **Add to ASWM Group** if you would like to categorize the selected computers to different groups.
- The **SupportStatus** shows **Unknown** when **WMIEnable** shows **OFF**.

9. The deployment starts.



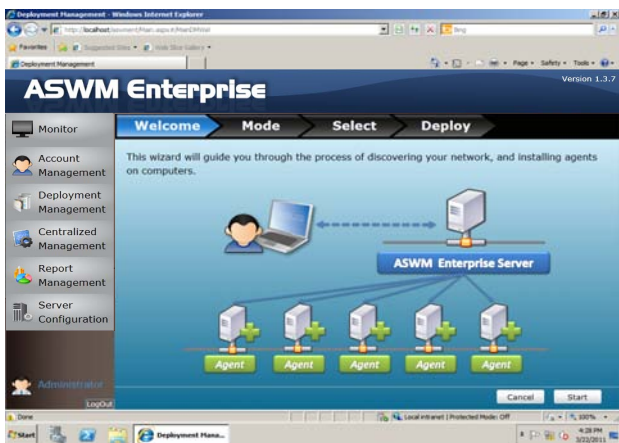
2.1.2 Manually deploying the ASWM Enterprise agents

To deploy new agents

1. Click **Deployment Management** on the left.
2. Click **Deploy New ASWM Enterprise Agent**.



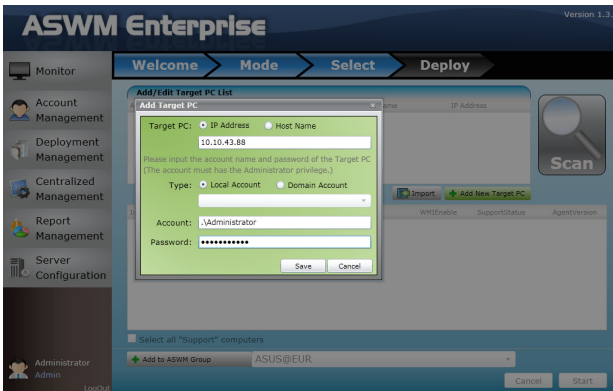
3. The wizard will guide you through the deployment process. Click **Start** to continue.



4. Select **Manual Deploy the ASWM Enterprise Agent** and click **Next** to continue.



5. Click **Add Target PC**. You can add the target PC through IP Address or Host Name. Fill in the required fields and click **Scan**.



You can also click the Import button to import a deploy table manually.

6. Follow the instructions in the previous section to install the agent when the scanning result is shown.

2.1.3 Discover Clients with preload service (ThinClient mode)

The ThinClient mode allows you to search for Thin Clients (eg.TC-710) in the same network for multiple client deployment via the ASWM Enterprise.

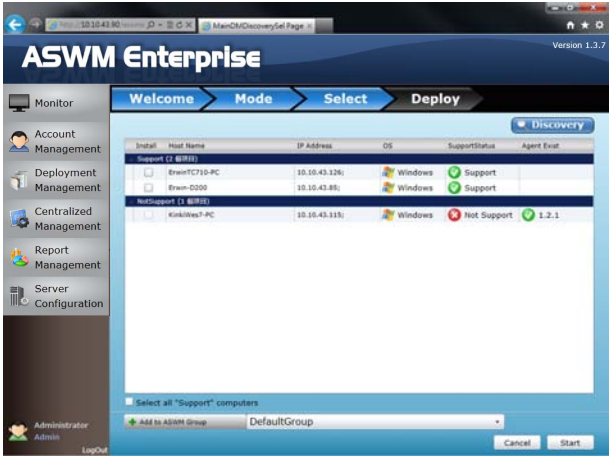


Ensure that the ThinClient has boot up and connected to the same network with the Main Server.

1. Select **Discover Clients with preload service (ThinClient mode)** and click **Next** to search for the ThinClient in the network.



2. The clients are classified into **Support** and **Not Support** in **SupportStatus** field.



Support: The ThinClient supports ASUS ASWM Enterprise agent.

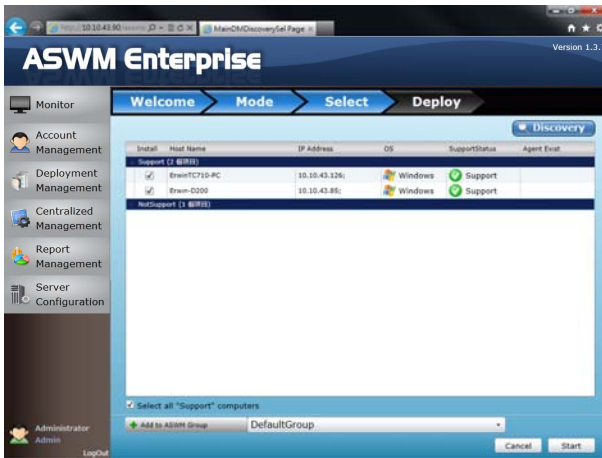
Not Support: The ThinClient has probably already installed ASUS ASWM Enterprise agent. Please remove it and re-install the agent.

3. Click **Discovery** to search again.



Set the firewall in the Main Server properly since the Discovery function will send broadcast packet through the Main Server.

4. Under the **Install** column, select the Thin Client, and click **Start** to install the agent.



5. Wait until the installation process is completed.



2.1.4 Manually Install the ASWM Enterprise Linux Agent

OS Support and Requirements

- **OS Support:**
 - RHEL 6.3 32/64 bit
 - RHEL 6.2 32/64 bit
- **System requirements**
 - Requires “sysstat”, “smartmontools”, “lshw”, “wireless tools”, “ethtool”, “impitool” software
 - Requires BMC



Ensure that your system environment meets the above requirements and the client is connected to the main server before installing ASWM Enterprise Linux Client Agent

To install the ASWM Enterprise Linux Agent manually:

- Use the root account to login Linux;
- Unzip the file, tar -zxvf ASWMLinuxAgent-XXX.tar.gz
- Type ./install.sh
- Choose the directory that you want to install or use the default directory **/root/ASWMLinuxAgent**
- Input the IP address of your main server
- Wait for 1 - 2 minutes for the installation to finish.

2.2 Removing ASWM Enterprise agent

You are allowed to remove the ASWM Enterprise agents from the main server or in Active Directory.

2.2.1 Scanning the self ASWM main server

To remove the existing agents

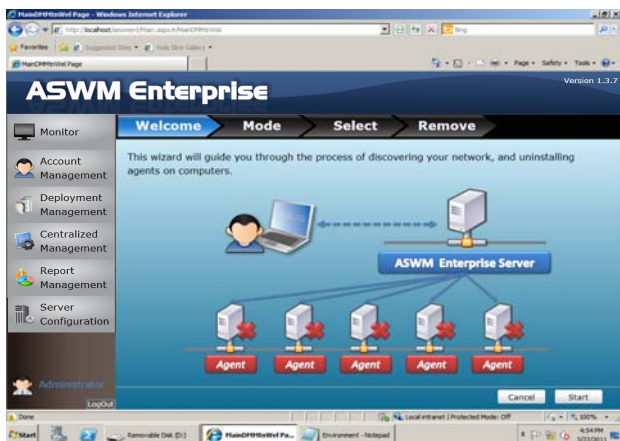
1. Click **Deployment Management** on the left.



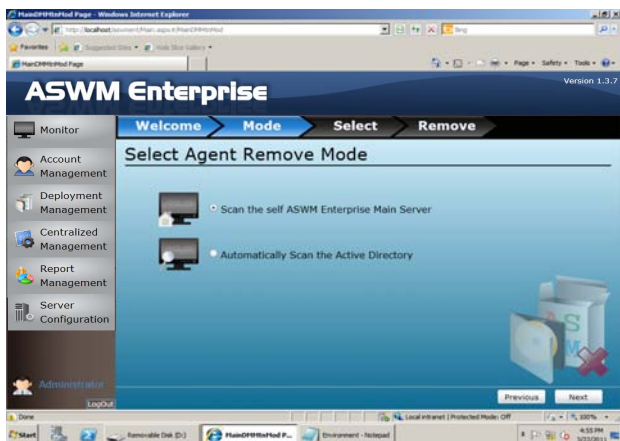
2. Click **Remove ASWM Enterprise Agent**.



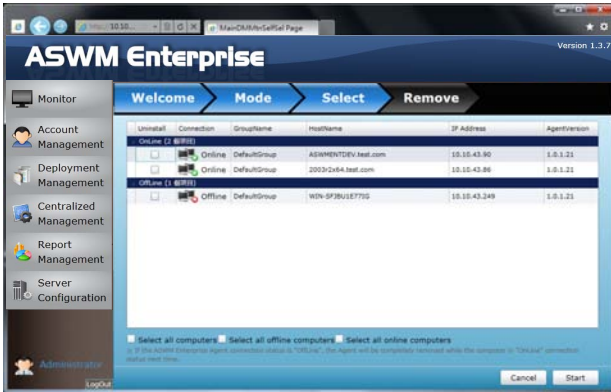
- The wizard will guide you through the uninstallation process. Click **Start** to continue.



- Click **Scan the self ASWM Enterprise Main Server** and click **Next** to continue. The system will scan the main server.

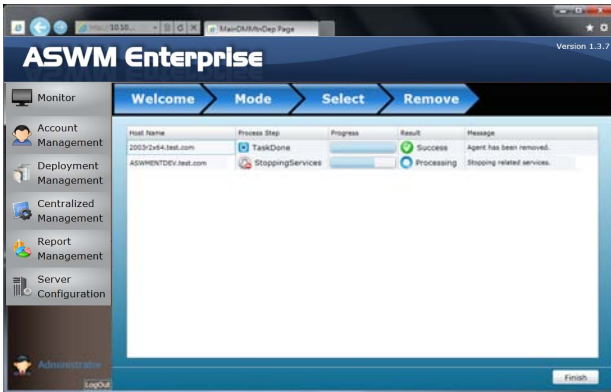


5. Select the desired computers for agent uninstallation and click **Start**.



You can easily select all computers, all offline computers or all online computers with the checkboxes on the bottom.

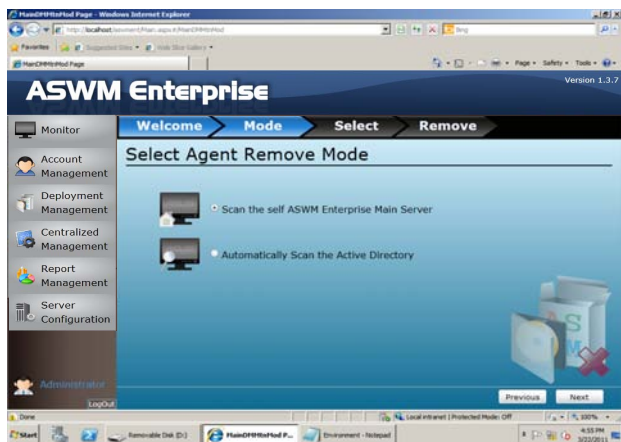
6. The server automatically removes the agents on the selected computers. When done, it shows **Success**. Click **Finish** to finish the process.



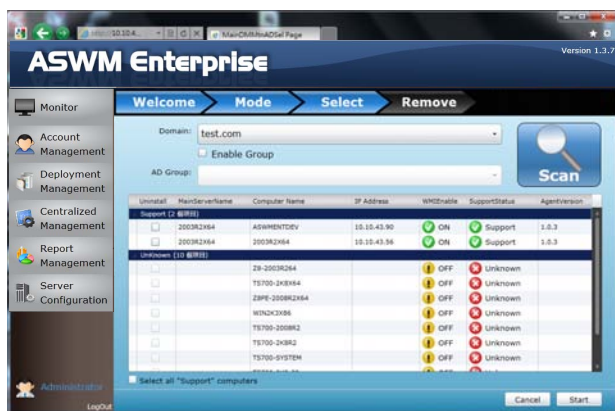
2.2.2 Automatically scanning the Active Directory

To remove the existing agents

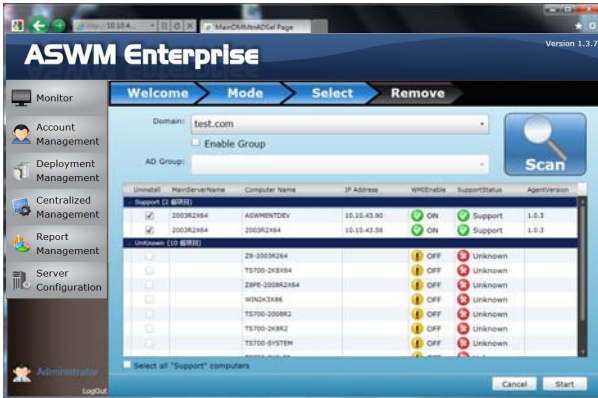
1. Repeat the step 1—3 in the previous section.
2. Click **Automatically Scan the Active Directory** and click **Next** to continue. The system will scan the Active Directory.



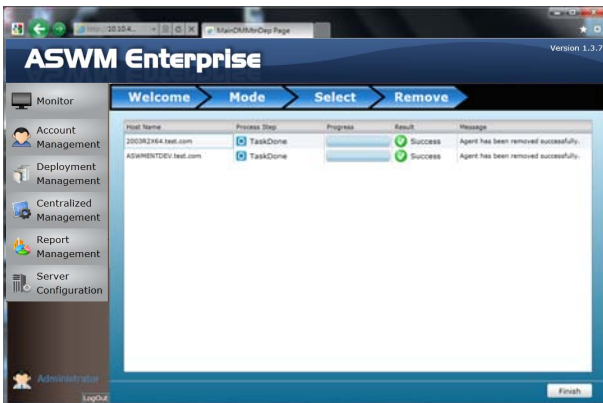
3. All the computers in Active Directory are shown here, grouped by Support Status.



4. Select the desired computers for agent uninstallation and click **Start**.



5. The server automatically removes the agents on the selected computers. When done, it shows **Success**. Click **Finish** to finish the process.



Chapter 3

This chapter describes the Main Server Functions, including Monitor, Account Management, Deployment Management, Centralized Management, and Server Configuration.

Main Server Functions

3.1 Monitor

The overview screen gives you a quick overall status check for all the computers. You are also allowed to shut down, restart or start the selected computers.

To see the monitor overview

1. Click **Monitor** on the left.



2. Select a desired group from the **Group List**. The group clearly shows the information of **Client Counts**, **Connection**, **Health**, and **Utilization** status. (Red: Critical; Yellow: Warning; Green: Normal)



3. In the **Models In the XXX Group**, the general monitoring information of all computer in this group is displayed as shown, including Connection status, Model Name, Alias Name, Operating system, BMC WebGUI status, Health status.

The screenshot displays the ASWM Enterprise interface. The main window is titled "Overview" and shows a "Group List" table and a "Models in the ASUS@TPE Group" table. A red circle highlights a row in the "Models in the ASUS@TPE Group" table where the BMC WebGUI status is "NO" and the Health status is "16" (with a red indicator).

Group Name	Client Counts	Connection	Health	Utilization
ASUS@GUR	1	1	1	1
ASUS@TPE	5	1	4	1
Thin-Clients Group	2	2	2	2

Connection	Model Name	Alias Name	OS	BMC WebGUI	Health	Utilization
Online (4 個項目)						
Online	T5700-E7-RS8	CLIENT-A	Windows	YES	16	22
Online	Z9PE-D16 Series	LinuxServer-002	Linux	NO	15	1
Online	P9D-C Series	WIN-07561TQ45E	Windows	NO	16	15
Online	Z9PA-U8 Series	WIN-PM1K6VRL5C	Windows	NO	17	9
Offline (1 個項目)						
Offline	P9D-E Series	SYS-SERVER02	Windows	NO		



- The crossed-out BMC card means that the BMC is not installed in that computer.
- If the status of BMC WebGUI shows **NO**, the WebGUI is inaccessible.
- When you click **BMC WebGUI**, a pop-up window appears. Ensure that your web browser does not block the pop-up window.

To shut down or restart the computer

1. Right-click the desired computer.



2. You can select **Restart** or **PowerOFF** if the computer appears online.



PowerON is available only when the selected computer appears **Offline** and you have installed BMC card on that computer.



You can also power off or restart the selected computer after entering the **Monitor**.



3.2 Account Management

Account Management allows you to see the current login account and edit the account.



Only limited functions, including **Monitor** and **Account Management** are available when you login as a user. Other functions will be dimmed and become unavailable.

The screenshot shows the ASWM Enterprise Overview page. It features a 'Group List' table and a 'Models in the ASWSITE Group' table.

Group Name	Chart Counts	Connection	Health	Utilized
ASWSITE	1	1	OK	1
ASWSITE	1	1	OK	1
Pre-Checks Group	2	2	OK	2

Model Name	Host Name	IP	OS	RPC	WSDD	Health	Utilized
ASWSITE	192.168.0.100	192.168.0.100	Windows	YES	NO	OK	16 / 23
ASWSITE	192.168.0.101	192.168.0.101	Windows	YES	NO	OK	15 / 1
ASWSITE	192.168.0.102	192.168.0.102	Windows	YES	NO	OK	15 / 1
ASWSITE	192.168.0.103	192.168.0.103	Windows	YES	NO	OK	15 / 1
ASWSITE	192.168.0.104	192.168.0.104	Windows	YES	NO	OK	17 / 9
ASWSITE	192.168.0.105	192.168.0.105	Windows	YES	NO	OK	17 / 9

3.2.1 Current Login Account

Click Account Management on the left to display the **Login Account**, **Account** and **Role Privilege** tab, then click **Login Account** tab to display current Login Account.

The screenshot shows the ASWM Enterprise Account Management page. The 'Account Management' section is active, and the 'Login Account' tab is selected. The page displays the current login account information for the user 'Administrator'.

Account Name: Administrator
Account Password: *****
Account E-Mail: test@gmail.com

Buttons: Edit Account, LogOut

Editing the Login Account

Click **Edit Account** to edit the login account. Click **Save** when done.



The **Account E-Mail** shows in the **Email Settings** of **Client Configuration**.

3.2.2 Account

Click **Account Management** on the left to display the **Login Account**, **Account** and **Role Privilege** tab, then click **Account** tab to display Account Role and Account Role members of the account information.



You can click **Add Account** to add a new account. In **Edit Account / Add Account** of the **Account Role** section, you can specify the **Account Role** for this Account. The Administrator also can check / uncheck Account to enable or disable the Account.



3.2.3 Role privilege

Click **Role Privilege** tab to display every role owns right of every model's function (a check mark indicate enable).

Administrator also can Add or modify the Role's right. (check / uncheck the role's right of there's function).

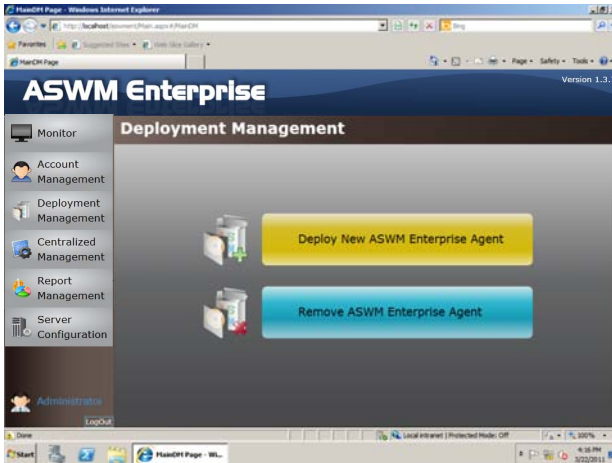


Click “Add New Role” shows as below.



3.3 Deployment Management

You can deploy ASWM Enterprise agents and remove agents through AD or manually. Refer to Chapter 2 for details.



3.4 Centralized Management

3.4.1 BIOS Flash Centralized Management

1. Click **Centralized Management** on the left and select **BIOS Flash Centralized Management**.

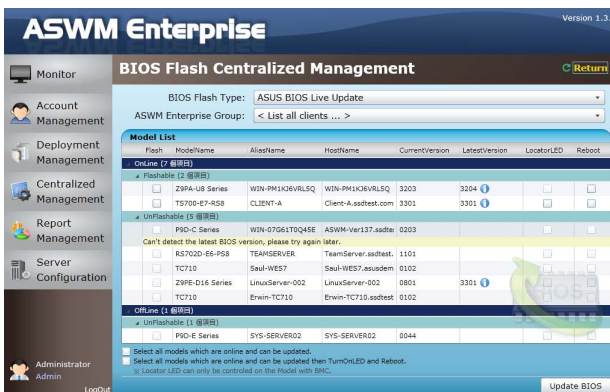


2. You can simultaneously on multiple Models for BIOS Flash. System will detect the latest BIOS files on ASUS official website and show the latest BIOS version in **LaestVersion** field.

User can use check box to:

Select all models which are online and can be update.

Select all models which are online and can be update then TurnOnLED (LocatorLED) light and Reboot. (Locator LED can only be controlled on the Model with BMC)



The Live Update function of BIOS Flash automatically detects the latest BIOS in ASUS support site. The new BIOS information will be displayed in the column of **LatestVersion**. Click the blue bar to view the release note of the BIOS version.

- Click **Update BIOS** button to start BIOS Flash and show all models progress.



3.4.2 Remote Control Centralized Management

- Click **Centralized Management** on the left and select **Remote Control Centralized Management**.



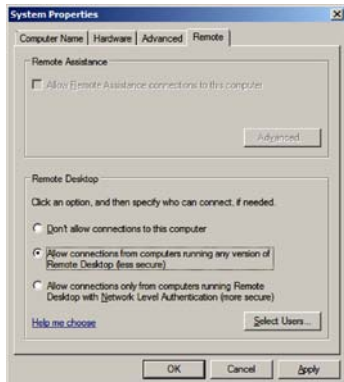
2. This show will follow the group under each Group based information.



3. Click **Connect** button can remote control the model.



You have to enable the Remote Desktop on your client computer before using the remote control function.



3.4.3 Power Control Centralized Management

1. Click **Centralized Management** on the left and select **Power Control Centralized Management**.



2. You can simultaneously on multiple Models for **Power Control**.



3. Click **Start** button to start Power Control and show all models progress.



3.5 Report Management

This function allows you to configure report management.

3.5.1 Asset Report Management

To configure asset report management:

1. Click **Report Management** on the left of the screen and select **Asset Report Management**.



2. View the Asset Tag, Serial Number, Processor, Memory, Disk, RAID and NIC Information.

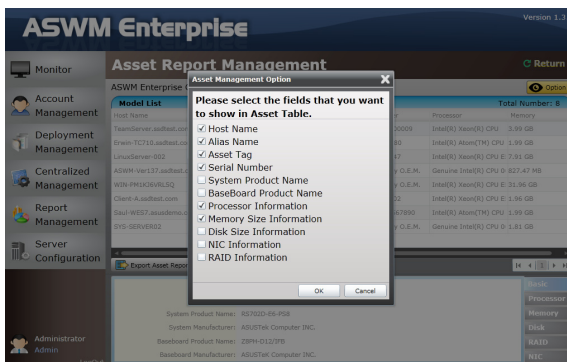
The screenshot shows the 'Asset Report Management' interface. At the top, it says 'ASWM Enterprise Group: < List all clients ... >' and 'Return'. Below this is a 'Model List' table with 8 total numbers. The table has columns for Host Name, Alias Name, Asset Tag, Serial Number, Processor, and Memory. Below the table, there is a detailed view of an asset with the following information:

Host Name	Alias Name	Asset Tag	Serial Number	Processor	Memory
TeamServer.sasbest.com	TEAMSERVER	Asset-1234567890	102116330000009	Intel(R) Xeon(R) CPU	3.99 GB
Erwin-TC710.sasbest.com	Erwin-TC710	0x00000000	C2PEA5013780	Intel(R) Atom(TM) CPU	1.99 GB
LinuxServer-002	LinuxServer-002	SYS-Lin-002	896228943447	Intel(R) Xeon(R) CPU E	7.91 GB
ASWIN-04177.sasbest.com	WIN-0106117040E	To be filled by O.E.M.	To be filled by O.E.M.	Genuine Intel(R) CPU	0 827.47 MB
WIN-PM13C6VRLSQ	WIN-PM13C6VRLSQ	To be filled by O.E.M.	To be filled by O.E.M.	Intel(R) Xeon(R) CPU	0 21.96 GB
Client-A.sasbest.com	CLIENT-A	SYS-TS700-87468	289434470002	Intel(R) Xeon(R) CPU	E 1.94 GB
Saul-WEB7.sasdemo.com	Saul-WEB7	0x00000000	EeePC-1234567890	Intel(R) Atom(TM) CPU	1.99 GB
SYS-SERVER02	SYS-SERVER02	To be filled by O.E.M.	To be filled by O.E.M.	Genuine Intel(R) CPU	D 1.81 GB

Below the table, there is a 'Export Asset Report' button. A detailed view of an asset is shown below the table, with the following information:

Asset Tag:	Asset-1234567890	Basic
Serial Number:	102116330000009	Processor
System Product Name:	ASUTek-66-PS8	Memory
System Manufacturer:	ASUTek Computer INC.	Disk
Baseboard Product Name:	Z8RH-Q127P6	RAID
Baseboard Manufacturer:	ASUTek Computer INC.	NIC

3. Click the **Option** button to select the field that you want to show in the table.



3.6 Server Configuration

You are allowed to do general server configurations, including SMTP server, SNMP Trap, security, etc..

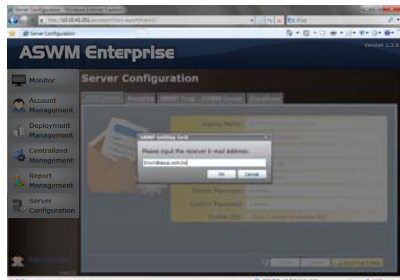
3.6.1 SMTP Server

To set up the SMTP server

1. Setting up the correct SMTP server information if you would like to send the notification through Email. Click **Edit SMTP Setting** to fill in the fields.



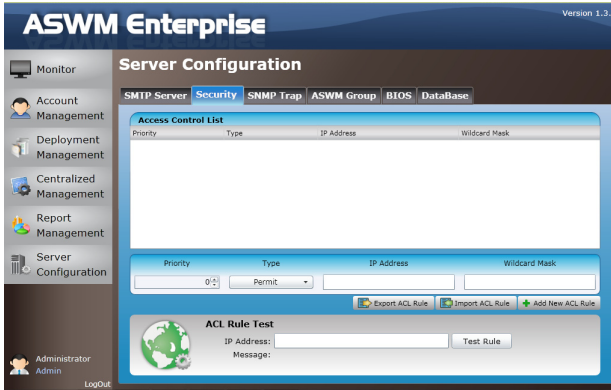
2. Click **Send Test E-Mail** and enter a receiver's E-Mail to see if the SMTP server has been successfully set up. If so, click **Save** to save the configuration.



3.6.2 Security

You can set the Access Control List, which permits or denies the specific IPs' access.

The ACL settings is based on Cisco router settings. Fill in the blank fields and click **Add New ACL Rule** to add a IP on the control list. Use the **ACL Rule Test** on the bottom to test if it has been added successfully.



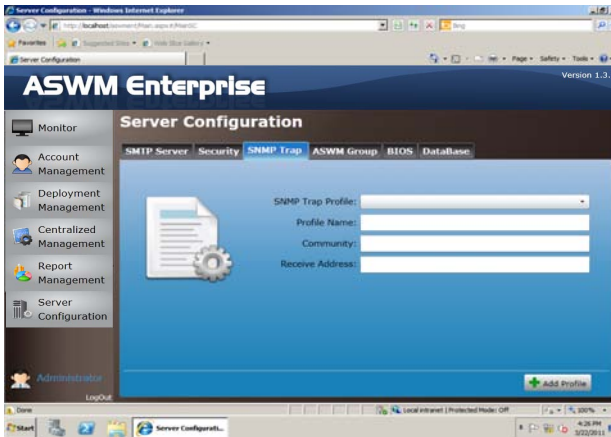
Click **Export ACL Rule** or **Import ACL Rule** to export or import ACL Rule.

Examples of ACL settings

- If you want to permit Class C IP addresses 192.168.0.0–192.168.0.255
Rules:
Permit: IP 192.168.0.0 Wildcard Mask: 0.0.0.255
Deny: IP 0.0.0.0 Wildcard Mask: 255.255.255.255
- If you want to permit IP 192.168.0.200 only
Rules:
Permit: IP 192.168.0.200 Wildcard Mask: 0.0.0.0
Deny: IP 0.0.0.0 Wildcard Mask: 255.255.255.255
- If you want to deny IP 192.168.0.200 only
Rules:
Deny: IP 192.168.0.200 Wildcard Mask: 0.0.0.0
Permit: IP 0.0.0.0 Wildcard Mask: 255.255.255.255

3.6.3 SNMP Trap

Fill in the blank fields and click **Add Profile** to add the SNMP Trap profile. If you would like to edit the profile, click **Edit Profile**.



The SNMP profile information is used for sending notification.

3.6.4 ASWM Group

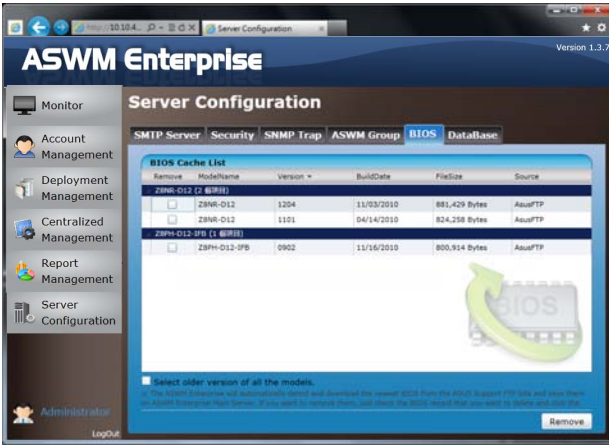
You can add new ASWM Groups or edit the existing groups. The information of computers in each group is displayed when the group is selected.



You cannot delete the **DefaultGroup** and all the clients will be regrouped under **DefaultGroup** when their groups are deleted.

3.6.5 BIOS

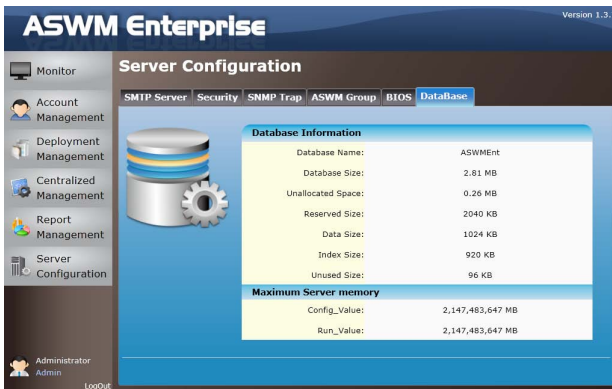
The BIOS screen displays all the BIOS cache information. The ASWM Enterprise automatically detect and download the newest BIOS from the ASUS support site.



It is more convenient to click the check box on the bottom to select the older version BIOS if you want to remove the older ones.

3.6.6 DataBase

You can view the database information of ASWM Enterprise here.



Chapter 4

This chapter describes system status and information of the client.

4.1 Monitor Overview

You can have detailed monitoring information of each client in realtime.

1. Click **Monitor** on the left.



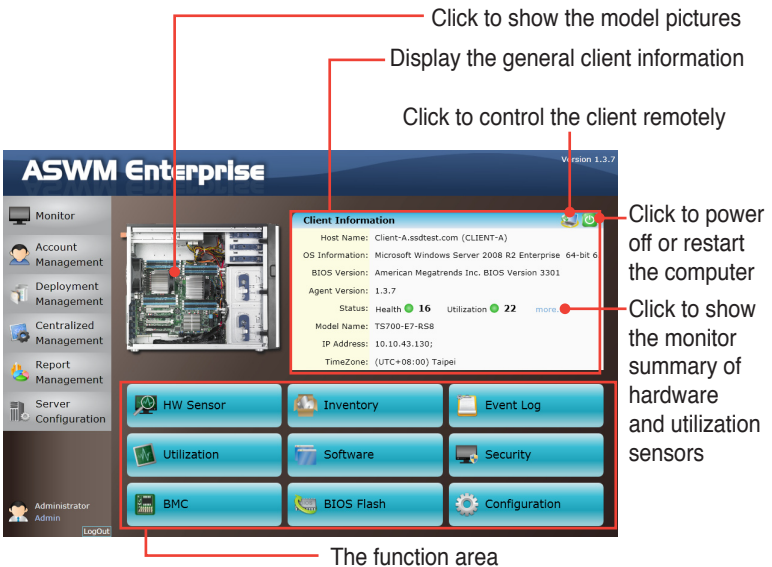
2. Select a desired group from the **Group List**.



3. Select a desired client for monitoring in the **Group**



4. The Client Information of the selected computer is displayed as shown.



4.2 HW Sensor

Hardware sensors are responsible for voltage, fans, temperature and backplanes monitoring. You can have a realtime notification of each component with colored signals or customize your warning threshold.

Return the previous Client Information screen

Click to switch sensor tabs. The colored signal and the number indicate the health status of the sensors (critical or warning).

Click to set the threshold

Scroll down for more sensors

Display the realtime value. The colored border shows the default or your customized threshold for sending critical, warning or normal notifications.

4.2.1 Setting thresholds

Click the dashboard to customized your own threshold value, including **High Critical**, **High Warning**, **Low Warning**, and **Low Critical**.

To set the threshold

1. Click a desired dashboard for customizing.
2. Move the slider to adjust the threshold value.
3. Click **OK** to save the configuration.



The value of **High Warning** must be lower than **High Critical** and the **Low Warning** must be higher than **Low Critical**.

4.2.2 Hardware sensor tabs

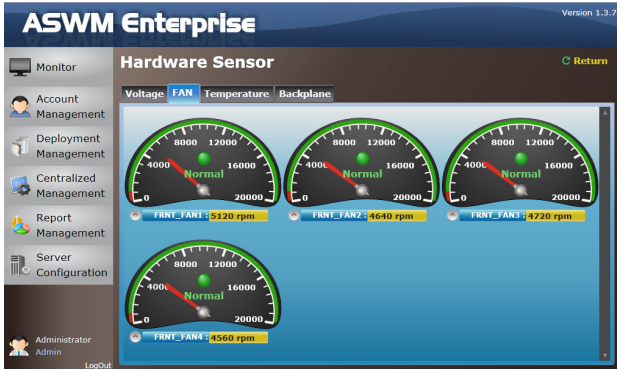
Voltage

Scroll down for more voltage dashboards or click **Return** to the previous Client Information screen.



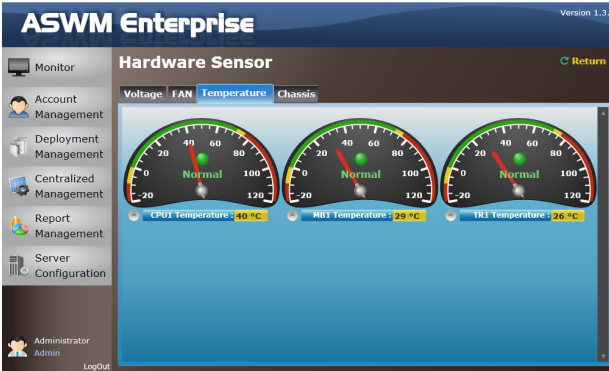
Fan

This screen displays the fan status. Click **Return** to the previous Client Information screen.



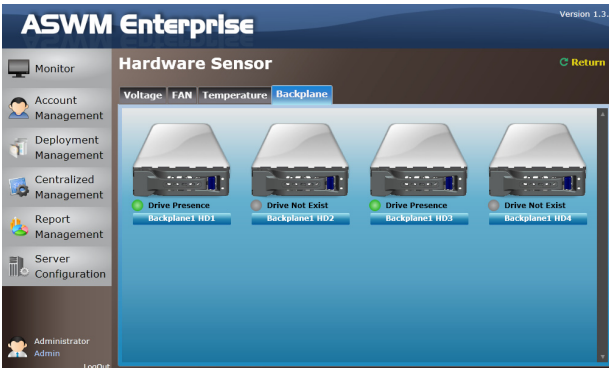
Temperature

This screen displays the device temperature. Click **Return** to the previous Client Information screen.



Backplane

This screen displays the backplane status, including **Drive Presence**, **Drive Not Exist**, **Fault**, and **Rebuild**. Click **Return** to the previous Client Information screen.



This tab is only available when your system is equipped with backplanes.

Chassis

This screen displays the chassis status. If the chassis of the client computer is opened, the ChassisIntrusion Lock icon will appear unlocked. Click **Return** to the previous Client Information screen.



4.3 Inventory

Inventory shows the general disk info of your installed Hard disk drive, optical disk drive and the connected external disk drive.

4.3.1 Disk Info

Disk Information

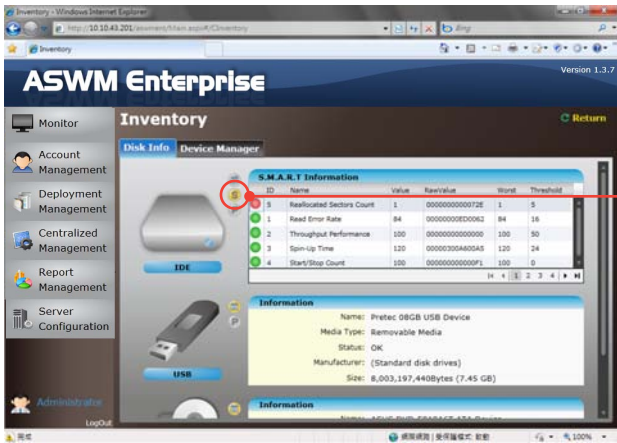
The disk information screen includes **Name**, **Media Type**, **Status**, **Manufacturer**, **Size**, **S.M.A.R.T Support** and **S.M.A.R.T Status**.



Scroll down for more items.

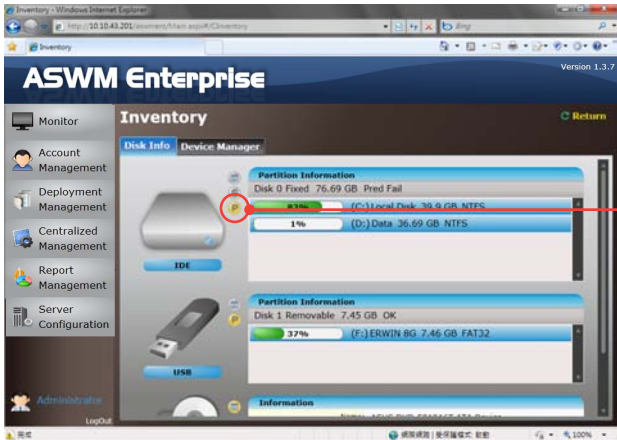


S.M.A.R.T Information



Click to show SMART information

Partition Information

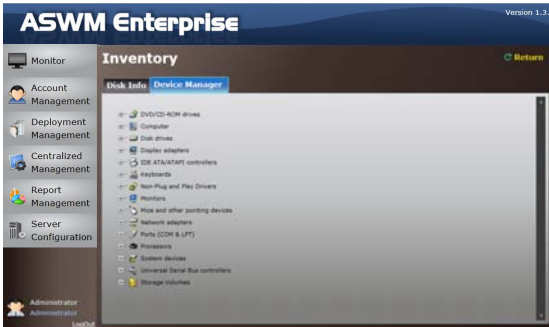


Click to show Partition information

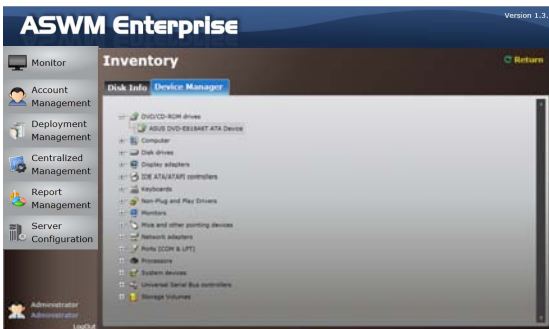
4.3.2 Device Manager

The Device Manager displays all the devices installed on the client PC. To check device properties

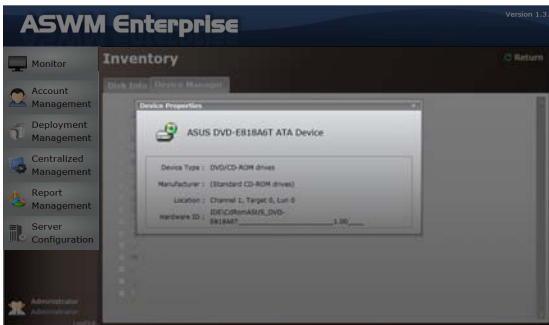
1. Click **Device Manager** tab on the top.



2. Click the desired category to expand and show the devices.

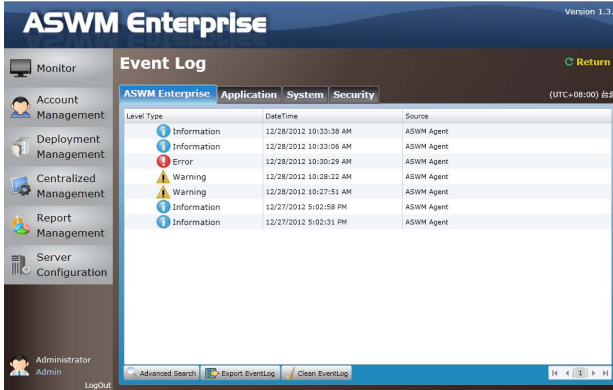


3. Click the device to show the device properties.

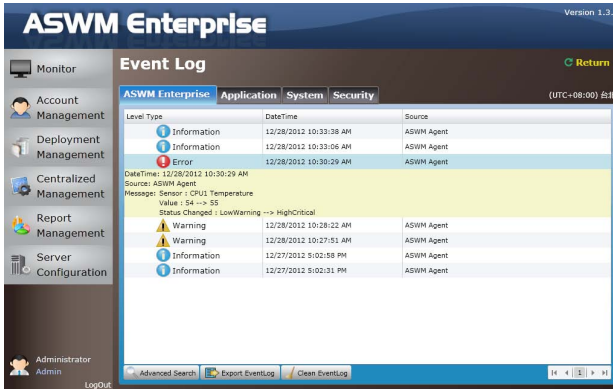


4.4 Event Log

ASWM Enterprise automatically creates and records all the significant events happening on your system in the event logs. Click the tabs (**ASWM Enterprise**, **Application**, **System**, and **Security**) on the top to browse different categories. The level types are **Information**, **Warning** and **Error**.

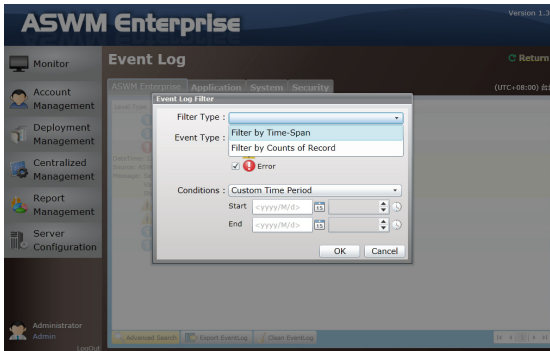


Click a desired log to see the detailed information.



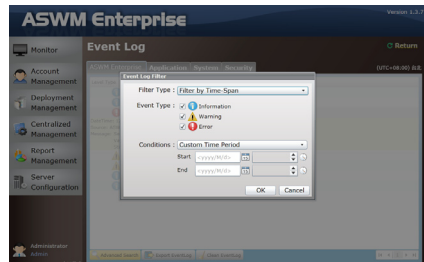
Advanced Search

Click **Advanced Search** to use the **Event Log Filter** to locate your desired log more quickly.



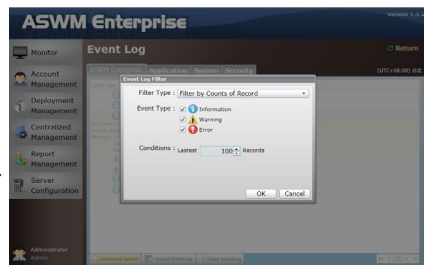
Filtering by Time Span

If you select **Filter by Time Span**, you can decide and search your desired time period for the logs.



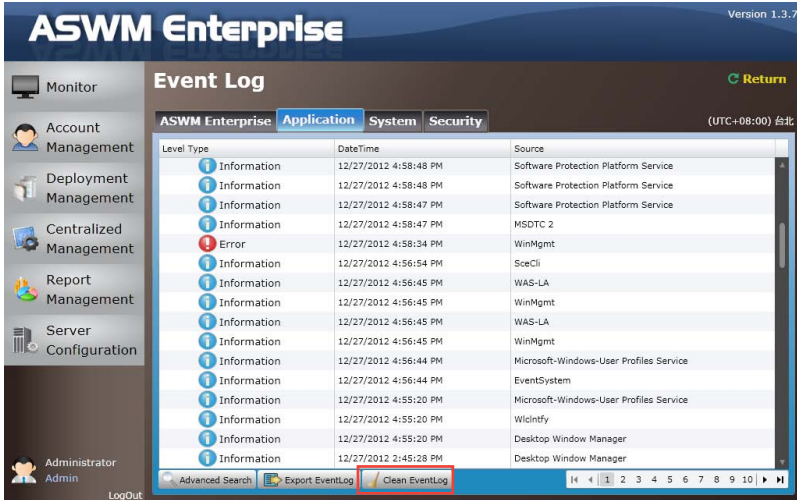
Filtering by Counts of Record

If you select **Filter by Counts of Record**, you can decide the number of the logs you would like to see. Click the arrow buttons to increase or decrease the number, or you can enter a desired number directly.



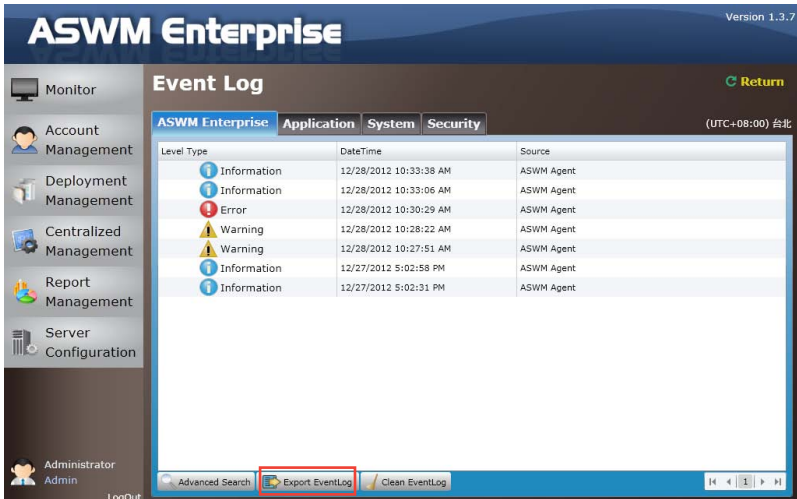
Clean EventLog

Click **Clean EventLog** to clear all the event logs stored in your client PCs.



Export EventLog

Click **Export EventLog** to export a *.csv file to your client PC.

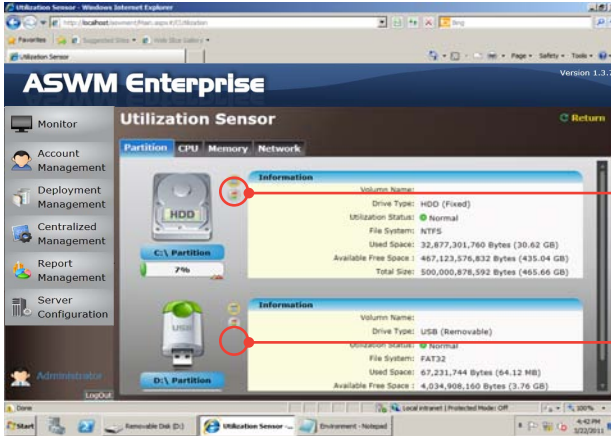


4.5 Utilization

Utilization Sensor shows the utilization status of disk drives, CPU, Memory and Network. You can customized the threshold value of each sensor for sending notifications.

4.5.1 Partition

The Partition screen shows the information of your installed hard disk drives and the connected external storage devices. Move the slider under each disk drive to set the warning threshold.



Click to show general information

Click to set the threshold value

4.5.2 CPU

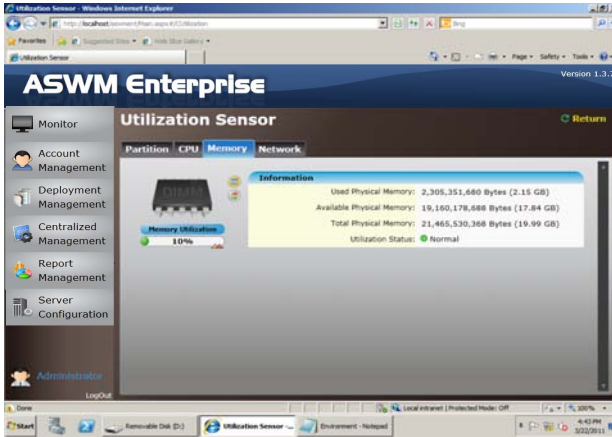
This screen shows the CPU usage of each installed CPU.



The number of the CPU here is the logical number of the CPU, not the number of the installed CPU.

4.5.3 Memory

This screen shows the total physical memory, used memory, the available memory, and the memory utilization status.



4.5.4 Network

This screen shows the general information of the network and the network utilization status.



4.6 Software



Click **Auto Refresh** to refresh the monitoring screen automatically.

4.6.1 Application

Displays all the installed applications on this client and their general information.

The screenshot shows the ASWM Enterprise interface with the 'Software Information' page selected. The 'Application' tab is active, displaying a table of installed applications. The table has columns for Display Name, Display Version, Publisher, and Install Date.

Display Name	Display Version	Publisher	Install Date
Microsoft Report Viewer Redistributable 2008 SP2		Microsoft Corporat...	
Microsoft SQL Server 2005		Microsoft Corporat...	
Remote Desktop Web Connection			
Microsoft SQL Server 2005 Express Edition (SQLSERVER)	9.3.4033.00	Microsoft Corporat...	20110310
ASWM Agent	1.0.5	ASUS	20110310
Microsoft SQL Server Compact 3.5 SP2 ENU	3.5.8080.0	Microsoft Corporat...	20110309
Microsoft Visual Studio Tools for Applications 2.0 - ENU	9.0.35191	Microsoft Corporat...	20110309
Hotfix for Microsoft Visual Studio 2007 Tools for Applications - ENU	1	Microsoft Corporat...	
Hotfix for Microsoft Visual Studio 2007 Tools for Applications - ENU	1	Microsoft Corporat...	
Hotfix for Microsoft Visual Studio 2007 Tools for Applications - ENU	1	Microsoft Corporat...	
Hotfix for Microsoft Visual Studio 2007 Tools for Applications - ENU	1	Microsoft Corporat...	
Microsoft SQL Server Setup Support Files (English)	9.00.4033.00	Microsoft Corporat...	20110310
ASWM Enterprise	1.0.3	ASUS	20110310
Microsoft Silverlight	4.0.50951.0	Microsoft Corporat...	20110309

4.6.2 Service

Displays the status of each installed applications. Right-click a desired service and you can start, restart or stop the selected service.



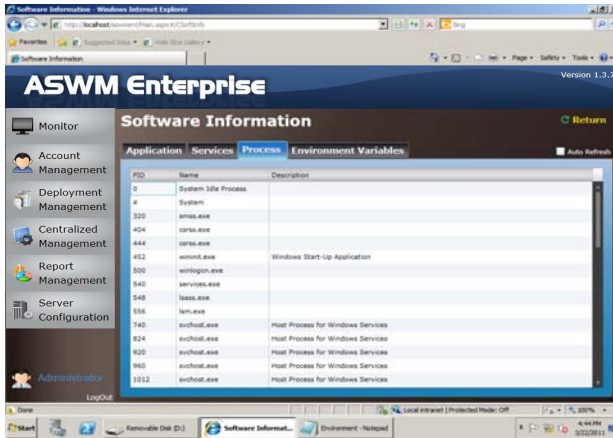
If the **Start Mode** of the selected service shows **Disabled**, you cannot control that service.

The screenshot shows the ASWM Enterprise interface with the 'Services' page selected. The 'Services' tab is active, displaying a table of installed services. The table has columns for Display Name, Description, Start Mode, and State. A context menu is open over the 'Application Host Helper Service' row, showing options: Start, Stop, and Restart.

Display Name	Description	Start Mode	State
Application Experience	Processes application compatibility cache requests for applica...	Manual	Stopped
Application Layer Gateway Service	Provides support for 3rd party protocol plug-ins for Internet...	Manual	Stopped
Application Host Helper Service	Provides administrative services for IIS, for example of configura...	Manual	Running
Application Identity	Determines and verifies the identity of an application. Disab...	Manual	Stopped
Application Information	Facilitates the running of interactive applications with addo...	Manual	Stopped
Application Management	Processes installation, removal, and enumeration requests f...	Manual	Stopped
Windows Audio Endpoint Builder	Manages audio devices for the Windows Audio service. If t...	Manual	Stopped
Windows Audio	Manages audio for Windows-based programs. If this servic...	Manual	Stopped
Base Filtering Engine	The Base Filtering Engine (BFE) is a service that manages fi...	Auto	Running
Background Intelligent Transfer Service	Transfers files in the background using idle network bandw...	Manual	Running
Computer Browser	Maintains an updated list of computers on the network and	Disabled	Stopped

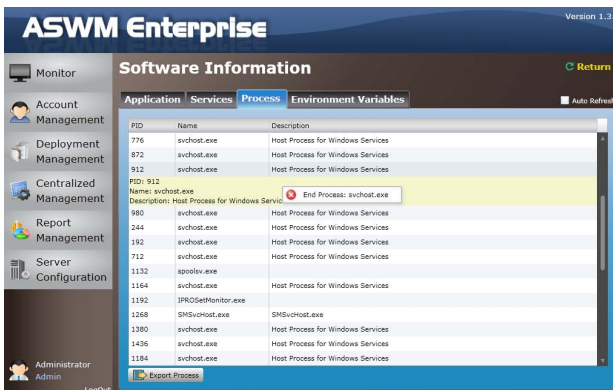
4.6.3 Process

Displays the process of the running applications.



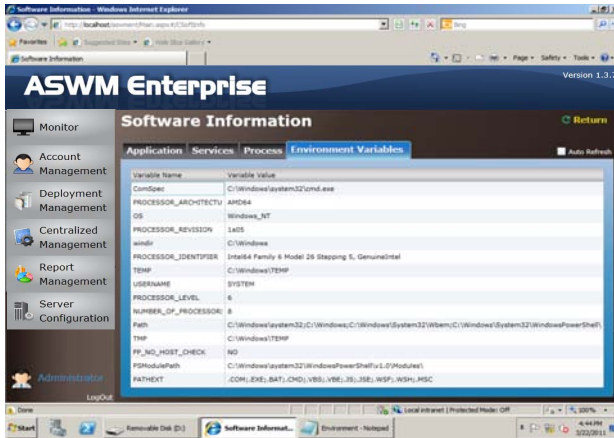
To end the process of the running application

1. Right-click the application that you would like to end the process.
2. Select **End Process:XXXXX** to stop the application running.



4.6.4 Environment Variables

Displays the environment variables.



4.6.5 Export function

Click **Export** button to export a *.csv file.



4.7 Security

Security function allows you to manage your USB Flash and Registry Tool safely.

USB Flash management

Use this function to prevent other users from copying the files in the Client to their USB flash disks. Follow the steps below:

1. Click **USB Flash** tab to view the status of the uSB flash disk.



2. Click **Edit USB Flash Setting** if you want to change the current status. When done, click **Save**.



Regedit Tool

Regedit.exe is a built-in registry editor in Windows OS. To improve the system security, follow the steps to disable the Regedit.exe in Windows OS:

1. Click the **Regedit Tool** tab to view the status in Regedit Tool.



2. Click **Edit Regedit Tool Setting** to change the current setting. When done, click **Save**.



4.8 BMC

BMC Information displays the general information of the installed BMC card.



This button is available only when you BMC card to the client computer.

The screenshot shows the 'BMC Information' page in ASWM Enterprise. The page displays the following information:

- BMC Information:**
 - IPMI Model Name: ASMB6-iKVM
 - Version: 1.0.0
 - SEL Number: 114 (BMC:114, File:0)
 - Card Type: OnBoard
 - Flash Type: Aged 2300
 - LED Status: (M) (L) (E)
- LAN1 DM LAN1 SEL Setting:**
 - IP Address: 10.10.43.164
 - IP Source: DHCP
 - MAC Address: 00:EC:18:77:2A:0C
 - Mask: 255.255.255.0
 - Gateway: 10.10.43.1

Callouts indicate the following actions:

- Click to check or delete the SEL information (points to SEL Number 114)
- Left: system message LED (points to LED Status M)
- Right: system locator LED. Click to turn on/off the locator LED (points to LED Status L)
- Click to connect BMC Web-GUI (points to IP Address 10.10.43.164)



- Only when there is an IP Address, you can click to access the BMC Web-GUI.
- Ensure that your web browser does not block the pop-up window.

Click 114 to check the SEL (System Event Log) records of BMC, click **Export to SEL Records** to export the SEL to a CSV file, or click **Clean SEL Records** to clean the SEL of BMC.

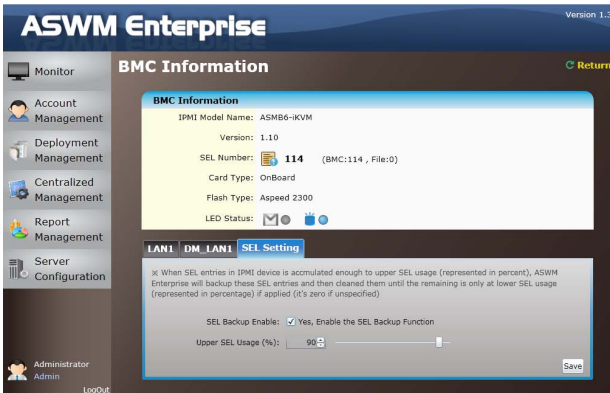
The screenshot shows the 'SEL Information' page in ASWM Enterprise. The page displays the following information:

- SEL Information List:**

TimeStamp	SensorNo	SensorType	SensorName	Description
BMC (100 @ 114)				
12/27/2012 10:10:04 PM	49	Temperature	CPU1 Temperature	Assertion event: Upper Non-critical going high
12/27/2012 10:09:53 PM	49	Temperature	CPU1 Temperature	Assertion event: Upper Non-critical going high
12/27/2012 10:09:24 PM	49	Temperature	CPU1 Temperature	Assertion event: Upper Non-critical going high
12/27/2012 3:12:31 PM	156	Power Supply	PSU2 AC Lost	Assertion event: Power Supply AC lost
12/27/2012 3:12:28 PM	156	Power Supply	PSU2 AC Lost	Assertion event: Power Supply AC lost
12/27/2012 1:59:24 AM	156	Power Supply	PSU2 AC Lost	Assertion event: Power Supply AC lost
12/27/2012 1:59:22 AM	156	Power Supply	PSU2 AC Lost	Assertion event: Power Supply AC lost
12/26/2012 6:41:02 PM	156	Power Supply	PSU2 AC Lost	Assertion event: Power Supply AC lost
12/26/2012 6:41:00 PM	156	Power Supply	PSU2 AC Lost	Assertion event: Power Supply AC lost
12/26/2012 5:45:36 PM	156	Power Supply	PSU2 AC Lost	Assertion event: Power Supply AC lost
12/26/2012 5:45:33 PM	156	Power Supply	PSU2 AC Lost	Assertion event: Power Supply AC lost
12/26/2012 12:52:00 AM	52	Memory	VCORE1	Assertion event: Lower Non-recoverable going low
12/26/2012 12:51:59 AM	52	Memory	VCORE1	Assertion event: Lower Critical going low
12/26/2012 12:51:59 AM	52	Memory	VCORE1	Assertion event: Lower Non-critical going low
12/26/2012 12:51:46 AM	52	Memory	VCORE1	Assertion event: Lower Non-recoverable going low
12/26/2012 12:51:45 AM	52	Memory	VCORE1	Assertion event: Lower Critical going low

Buttons at the bottom: **Export SEL Records** and **Clean SEL Records**.

SEL Setting allows you to enable or disable the SEL Backup Function, and set the upper limit of SEL usage.

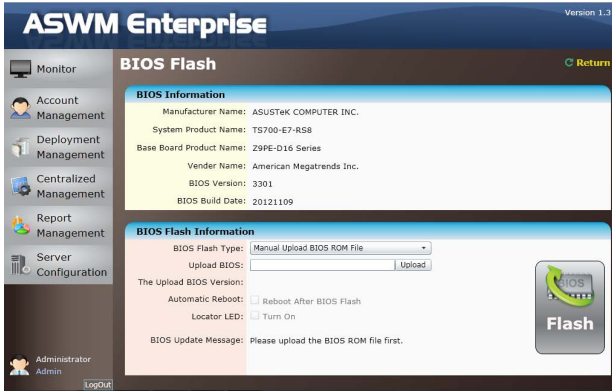


When SEL entries in IPMI device reach the upper limit of SEL Usage (in percent), the ASWM Enterprise will backup and then clean them until the remaining occupies a lower ratio (in percent) of SEL usage.

4.9 BIOS Flash

BIOS Flash screen displays your current BIOS information and you can configure the settings of BIOS Flash.

Click **BIOS Flash Type > Manual Upload BIOS ROM File** to manually upload the BIOS ROM, or select **ASUS BIOS Live Update** to automatically detect and download the latest BIOS from ASUS Support Website.



- Click **Reboot After BIOS Flash** if you would like to reboot your system after updating the BIOS.
- If you have installed BMC card to your system, you can click to turn on the **Locator LED** if needed.

The latest BIOS version will be displayed if the new BIOS is detected. You can also click **The Latest BIOS Version: 3301** to check the release note of this version.



4.10 Configuration

4.10.1 Information

Click **Edit Information** to relocate this client computer to another group or change its **Alias Name**.

Click **Uninstall Client** if you want to remove the ASWM Enterprise Agent from this computer.

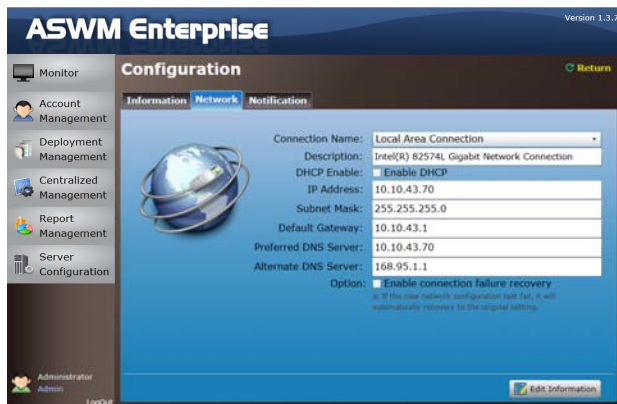


Add or delete groups in **Server Configuration > ASWM Group**.

4.10.2 Network

You can remotely control the network to enable / disable the DHCP, configure IP addresses and DNS, and change the Subnet Mask and Default Gateway.

The **Enable connection failure recovery** setting ensures that if the network configuration test fails, the system will automatically revert to the original network settings.

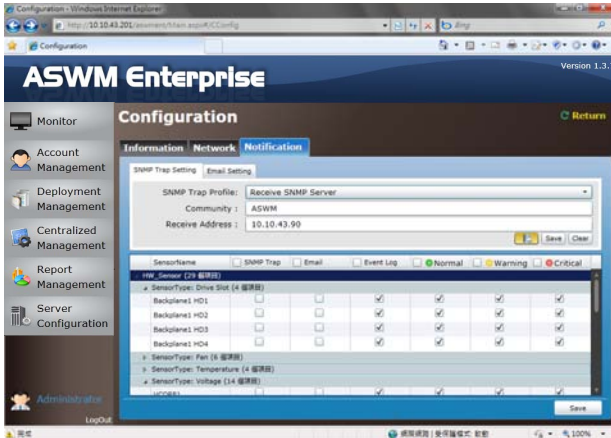


4.10.3 Notification

You can set up the notification types, including sending SNMP Traps and Emails, or you can just keep the event logs.

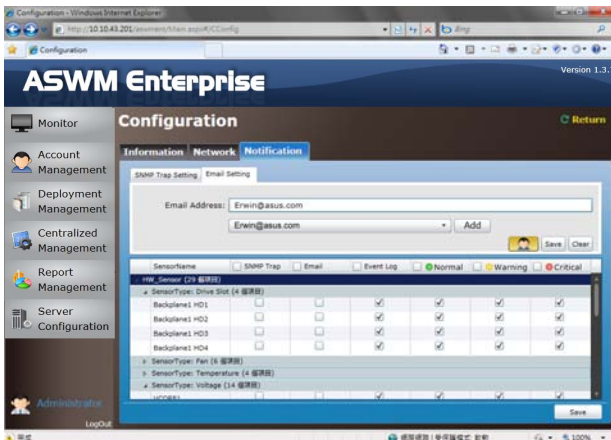
SNMP Trap Setting

You can manually enter the **Community** and **Receive Address** of SNMP Trap or click the amplifier button to select the built SNMP Trap profile.



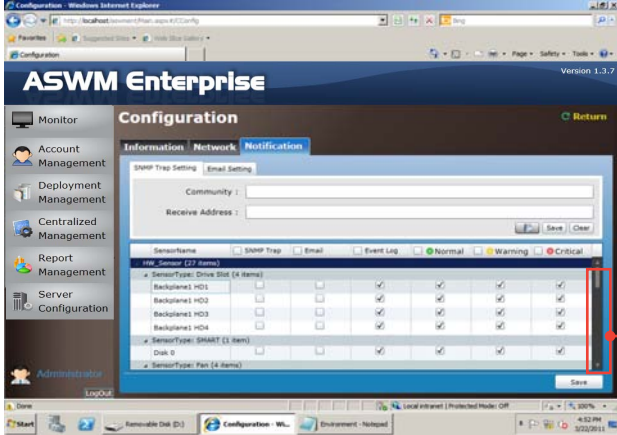
Email Setting

You can select the E-mail address from your contacts or manually enter the E-mail address. Use semicolons if you have more than one receivers.



Customizing notifications for each sensor

You can select the notification methods of each sensor, Hardware and Utilization.

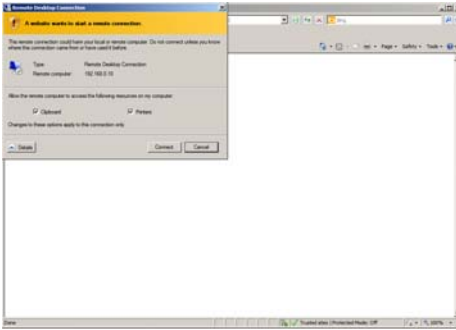


Scroll down for more sensors

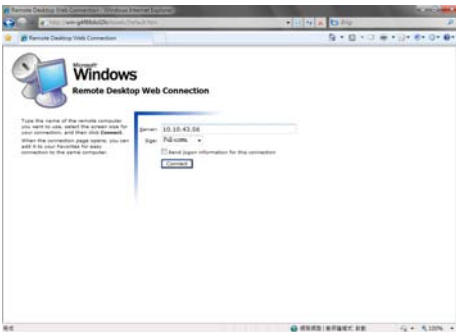
4.11 Remote Control

Remote Control allows you to open the Remote Desktop and control the client remotely.

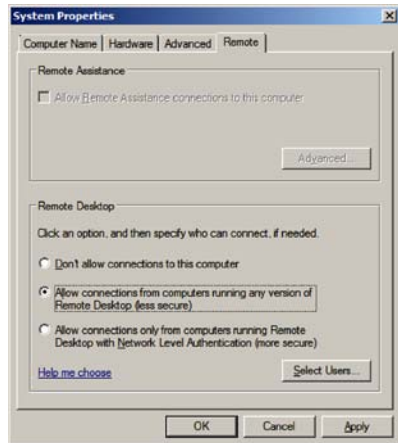
1. Click **Connect** to allow the **Remote Desktop Connection**.



2. Confirm the name of the remote computer and click **Connect** to start the connection.



You have to enable the Remote Desktop on your client computer before using the remote control function.



4.12 ThinClient features

When monitoring a ThinClient, the Function Area will be different from that of a Server's function area in the following:

1. **HW sensor** changes to **EFW** (see below)
2. **BMC** changes to **Security** (see below)



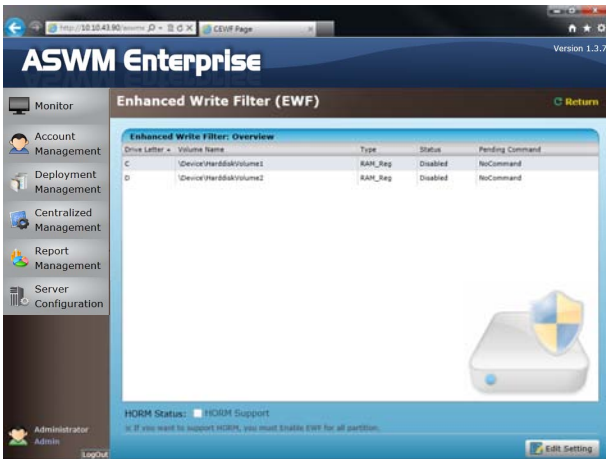
The ThinClient is powered on through WOL, ensure that the Switch / Router can forward WOL packet.

4.12.1 EWF (Enhanced Write Filter)

When monitoring the ThinClient, you can view and configure the EWF (Enhanced Write Filter).

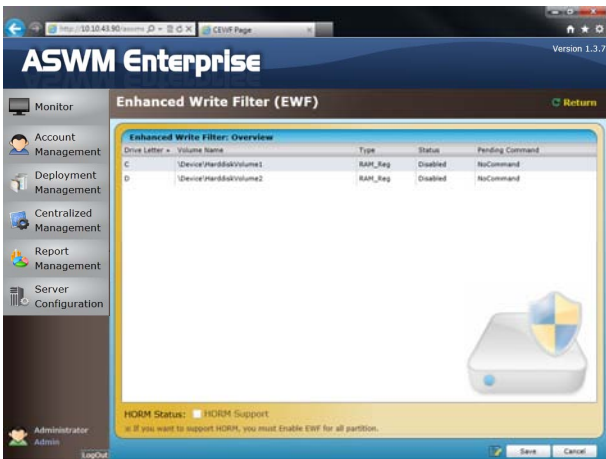


EWF (Enhanced Write Filter) function protects one or several partitions against from being writing in.

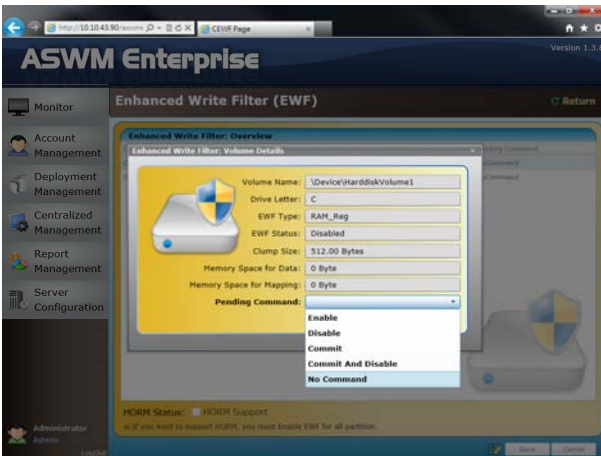


To configure the EWF:

1. Click **Edit Setting** to configure EWF. The background turns to yellow and the EWF become configurable.



2. Double-click the Partition that you want to change the EWF. When the EWF configuration dialog box appears, select different options from the Pending Command dropdown list to change the partition's EWF status, including:
 - No Command: Keeps current EWF or removes the previous Pending Command).
 - Enable: Enables EWF.
 - Disable: Disables EWF.
 - Commit And Disable: Write the changes of all the files to the hard drive and disable EWF.



3. When finish, click **Save** to save the changes.



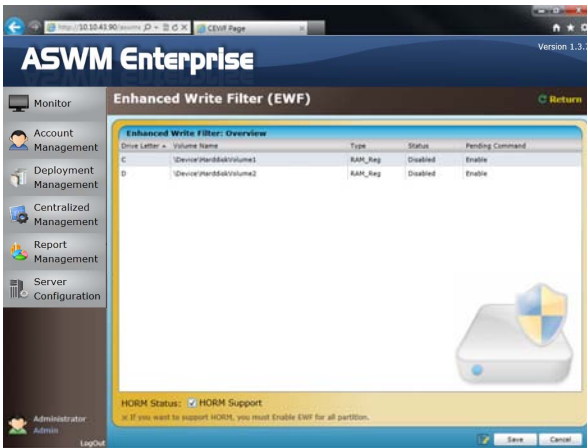
Configure HORM (Hibernate Once, Resume Many)

1. You can configure HORM while setting EWF. Ensure to enable EWF of each partition when enabling HORM function.



While enabling the HORM function, put the system to hibernate mode..

2. After finish configuring EWF and HORM, click **Save** and the Client settings will update immediately.



The Client may reboot for one or several times for the EWF configuration to take effect.

Appendix

This appendix includes a glossary of terms used in this document.

Reference information

A.1 Glossary

Community

Users can define their own SNMP trap community for a clearer categorization and convenient management of SNMP traps.

Backplane

A circuit board with sockets in which additional devices can be plugged.

Event Notifier

This sends a message to administrators/users When sensors detect changes in the system.

IIS

Internet Information Server. A web server built into Windows NT and later.

IPMI

Intelligent Platform Management Interface. It is a type of firmware which continues to monitor the system's hardware even after a crash or the system has shut down.

Service

A Windows program that runs in the background to perform a certain function when required such as programs for handling print jobs, e-mail or network connectivity.

SMTP

Simple Mail Transfer Protocol. The protocol used for transferring e-mail over a network.

SNMP

Simple Network Management Protocol. A TCP/IP protocol that transmits hardware or software status messages over the Internet.

A.2 Agent Function Comparison Table

Function Category	Modules	Sub-items	Agent Type		
			Win (Server)	Win (TC)	Linux
Monitor	OverView		•	•	•
	Client Detail Information		•	•	•
	HW Sensor	FAN	•	-	•
		Temperature	•	-	•
		Voltage	•	-	•
		Backplane	•	-	•
		Chassis Intrusion	•	-	•
	Inventory	Disk Information	•	•	•
		Device Management	•	•	-
		ASWM Log	•	•	-
	Event Log	System	•	•	-
		Application	•	•	-
		Security	•	•	-
	Utilization	CPU	•	•	•
		DIMM	•	•	•
		Network	•	•	•
		Partition	•	•	•
	Software	Application	•	•	-
		Service	•	•	-
		Process	•	•	-
		Environment Variables	•	•	-
		Remote Control		•	•
	BMC	Basic Information	•	-	•
		LAN Information	•	-	•
		BMC SEL	•	-	-
	BIOS Flash	SEL Setting	•	-	-
		BIOS Information	•	•	•
	Power Control	WinFlash	•	•	-
		Reboot	•	•	•
		Shutdown	•	•	•
	EWF	Power On	•	•	•
			-	•	-
	Security	USB Control	•	•	-
Registry Control		•	•	-	
Configuration	Notification	•	•	-	
	Network	•	•	-	
	Client Information	•	•	•	

Function Category	Modules	Sub-items	Agent Type		
			Win (Server)	Win (TC)	Linux
Deployment Management	Deploy New Agent	Automatically Deploy	•	•	-
		Manually Deploy	•	•	-
		Discover Clients with preload service	-	•	-
	Remove Agent	Remove Agent on main server	•	•	•
		Remove Agent by Scanning the AD	•	•	-
Centralized Management	BIOS Flash		•	-	-
	Remote Control		•	•	-
	Power Control		•	•	•
Report Management	Asset Report Management	Basic Information	•	•	•
		Processor	•	•	•
		Memory	•	•	•
		Disk	•	•	•
		RAID	•	•	•
		NIC	•	•	•

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