Novell®
ZENworks® Asset Management

3.3

May 2005

INSTALLATION GUIDE

Novell®

Table of Contents

Installation Overview

ZENworks Asset Management Version 3.3
Document version: 3.3.6-050417
May 2005

The procedure for installing and setting up ZENworks® Asset Management depends on whether you are installing the Standalone or Enterprise deployment.

> **Note:** If you are evaluating ZENworks Asset Management, see the *ZENworks Asset Management Evaluation Guide*, available as a PDF on the ZENworks Asset Management installation CD or CD image.

Installation Choices

The major functions of ZENworks Asset Management are distributed among several independent applications. This arrangement is intended to provide you with flexibility as you customize ZENworks Asset Management to your organization's needs, and with scalability to let you expand your ZENworks Asset Management system as your enterprise grows. ZENworks Asset Management is available as two kinds of installations:

Standalone deployment: The Standalone deployment is the simpler version of ZENworks Asset Management. All ZENworks Asset Management applications are installed on the same machine and a database server is installed and configured for you. For more information, see About Standalone Deployment

Enterprise deployment: The Enterprise deployment is the "full power" ZENworks Asset Management installation. You can choose to install ZENworks Asset Management applications on several different machines and you can install more than one instance of some applications in order to distribute work load. For more information, see About Enterprise Deployment .

You must provide your own database server in the form of Microsoft SQL Server or Oracle Server. For a complete list of requirements, see System Requirements - Enterprise deployment.

ZENworks Asset Management Applications

The following applications work together to perform your ZENworks Asset Management inventories:

- **ZENworks Asset Management Manager** lets you set up your ZENworks Asset Management enterprise, customize it through schedules and collection option sets, and manage it through domains. You also use the Manager to analyze the inventory data through queries and reports as well as edit the data when necessary. In addition, the Manager lets you control who can use ZENworks Asset Management.

- A **Collection Server** is responsible for automatically collecting inventory data according to a particular schedule and collection option set from a particular group of workstations and loading the data into the inventory database.

- A **Task Server** manages tasks, for example, database purges, scheduled reports, network discovery, and scheduled Product Recognition Updates (PRUs).

- The **inventory database** is a Microsoft Data Engine (MSDE) database, a Microsoft SQL Server database, or an Oracle database in which ZENworks Asset Management stores and maintains the data collected from workstations.

- The **File Store** is a directory on the LAN or on an FTP server that is accessible to all applications and contains non-database files that are necessary to the ZENworks Asset Management system, such as Collector-related files and recognition data.

- The **ZENworks Asset Management Web Console** is the main access point for all Web-based ZENworks Asset Management features and reports. The Web Console gives you access to your network device inventory data, Web reports, and ZENworks Asset Management Software Compliance**.** You can access the Web Console directly from Internet Explorer or from the Manager.

The **client applications** are installed on the workstations that you want to inventory. There are three client applications:

- The **Collection Client** runs on a workstation and manages the inventory process on the workstation according to instructions received from the Collection Server with which the workstation is associated. For example, the Collection Client ensures that a collection occurs when scheduled and that any required files are updated automatically as necessary.

- The **Collector** gathers hardware and software data from a workstation when instructed by the Collection Client. This inventory data is stored in a **workstation inventory file** (a file with the extension .wif), which is then automatically loaded into the inventory database by the Collection Server.

- The **Collection Editor** can run on a workstation during the inventory process so that the workstation user can review and edit the inventory data gathered by the Collector and stored in a workstation inventory file. A collection option set in the Manager controls whether the Collection Editor runs.

Note: For information about automating the process of installing the client applications on all your workstations, see *ZENworks Asset Management Collection Client* in the *Inventory Preparations* book of the ZENworks Asset Management Manager help.

See Also

Installing an Evaluation Copy of ZENworks Asset Management

Adding Applications to an Enterprise deployment

Glossary

Installing an Evaluation Copy of ZENworks Asset Management

An evaluation installation of ZENworks Asset Management lets you familiarize yourself with the product so you can decide whether to purchase it.

For detailed information on installing an evaluation copy of ZENworks Asset Management, see the *ZENworks Asset Management Evaluation Guide*. This document is available as a PDF. It is available from the ZENworks Asset Management Installation Wizard, and from your installation CD or CD image.

Standalone Deployment

About Standalone Deployment

Use a Standalone Deployment if you want to run ZENworks Asset Management on one machine.

For a step-by-step procedure, see Installing the Standalone deployment of ZENworks Asset Management.

System Requirements

- For Standalone deployments, see System Requirements - Standalone Deployments

- For Collection Clients, see System Requirements - Collection Clients

Advantages

- Simple installation: all ZENworks Asset Management applications (except for the client applications) are installed and configured in a single installation procedure.

- Easy database installation: Microsoft Data Engine (MSDE) is included with the Standalone deployment of ZENworks Asset Management, and all the database installation and configuration tasks are taken care of for you.

Standalone deployment is recommended if:

- You are just beginning your evaluation of ZENworks Asset Management and want to see basic product functionality as quickly as possible. (If you are evaluating ZENworks Asset Management, see the *ZENworks Asset Management Evaluation Guide*, available as a PDF on the ZENworks Asset Management installation CD.)

- Your organization is relatively small (for example, fewer than 1000 workstations) and exists at a single site.

- You do not want to share data among different sites (in which case you might have a separate ZENworks Asset Management Standalone deployment at each site).

Standalone deployment is *not* recommended if:

- You want users to be able to monitor and administer ZENworks Asset Management from more than one computer.

- Your organization exists at several sites and you want to share data among them (for example, you want to run reports that include data from more than one site).

- You want to distribute processing power among multiple installations of any ZENworks Asset Management application, as described in About Enterprise Deployments.

See Also

Installing Client Applications

System Requirements - Standalone Deployment

The machine on which you install ZENworks Asset Management must meet the following minimum requirements:

Hardware requirements	- Pentium III 800 MHz processor 512 MB of memory 500 MB hard disk storage (plus space for database expansion)

Display Setting	• A minimum display resolution of 1024 x 768 • Small fonts.
Operating System	Windows 2000 Windows XP Windows Server 2003
TCP/IP Connection	A TCP/IP connection to workstations is required to support automatic inventories.

Installing the Standalone Deployment of ZENworks Asset Management

Preparing to Install

Before you can install the ZENworks Asset Management Standalone deployment, you need to make some important preparations.

To prepare for installation:

1. Choose a machine for the ZENworks Asset Management installation. (See System Requirements - Standalone Deployments.

2. If you are planning a full installation, make sure that you have your ZENworks Asset Management license diskette. You do not need a license diskette for an evaluation installation.

3. Close any applications that are running on the installation machine.

Installing the Standalone Deployment of ZENworks Asset Management

Once you have completed the steps above, you are ready to begin your ZENworks Asset Management Standalone deployment.

> **Note:** If you are installing an evaluation version, please follow the procedure to Step 5 below, then open the *Evaluation Guide* as described in that step, and follow the installation procedure there. You can also open the *Evaluation Guide* directly from the installation CD. It is found in the *Docs* folder.

To install the Standalone deployment of ZENworks Asset Management

1. Insert the ZENworks Asset Management CD into your CD drive. The ZENworks Asset Management Setup program may start automatically. If it does not, start Setup manually:
    a) Click on the Windows Start menu and click on Run.
    b) In the Run dialog, specify the location of the ZENworks Asset Management Setup program (for example, if your CD drive is D:, enter `D:\Setup`).
    c) Click *OK*.

2. Read the Welcome screen and click *Next*.

3. Read the license agreement and accept its terms by clicking **Yes** and click click *Next*. (You cannot continue if you do not accept the license agreement.)

4. If you would like to view any of the documentation, click the button for the document you want to view.

    • *Evaluation Guide* – provides a quick, hands-on introduction to ZENworks Asset Management

    • *Installation Guide* – provides comprehensive, step-by-step procedures for all types of installations, including Standalone Deployment, Enterprise Deployment (including Microsoft SQL Server and Oracle database configuration steps) and upgrades.

- *User's Guide* – provides a complete product reference and covers all aspects of product administration and use.

  These documents are also located in the *Docs* directory of the evaluation CD image.

5. In the Choose Installation Type dialog, select ***Install/Upgrade Standalone Deployment*** and click ***Next***.

6. In the Choose Setup Type dialog, choose ***Initial Installation*** and click ***Next***.

7. Choose whether you have a license code, or if you want to use an evaluation license, and click ***Next***.

8. If you have a license code, enter it and click ***Next***.

9. In the Choose Destination Location dialog, accept the default destination folder
    (C:\ \Program Files\Novell\ZENworks\Asset Management)
   for your ZENworks Asset Management files, or click ***Browse…*** and specify a different folder on the local drive.

   Once the destination folder that you want is displayed in the Destination Folder section, click ***Next***.

10. In the Select Program Folder dialog, accept the name of the program folder that Setup suggests (ZENworks Asset Management), enter the name of a new program folder, or select one of the folders that already exists in your Start menu from the list in the Existing Folders box.

   Once the program folder that you want is displayed in the Program Folders box, click ***Next***.

11. In the ZENworks Asset Management Services Setup dialog, select a network user account to be used by the ZENworks Asset Management services to gain access to network resources such as printers:
   a) Enter an existing user in the ***User Account*** box in the format Network Domain\User or select a user by clicking ***Browse…*** and completing the Select User dialog.

   Note: This user must have Administrator rights to the machine on which you are installing ZENworks Asset Management. (Only users with Administrator rights will be available in the Select User dialog.)

   b) Enter the existing password for the user account in the ***Password*** and ***Confirm Password*** boxes.
   c) Click ***Next***.

   - In the Configure ZENworks Asset Management TCP/IP Ports page, click ***Next*** to accept the default values, (recommended) or review and edit the port assignments.

     By default, the Collection Server uses 7460, the client applications use 7461, the ZENworks Asset Management Manager uses 7462, and the Task Server uses 7465.

     Note: Edit the ports only if you know that other applications are currently using the TCP/IP ports assigned to the ZENworks Asset Management application and you want to change them.

12. In the Microsoft Data Engine Setup dialog, accept the default folder for the SQL database (C:\MSSQL7) or specify a new destination folder by clicking ***Browse…*** and completing the Choose Folder dialog.

   Once the destination folder that you want is displayed in the Destination Folder section, **click on the Next button.**

13. If you do not have Java 2 SDK installed on your computer, the Java 2 SDK Setup dialog appears. (This is a requirement for the ZENworks Asset Management Web Console.) Either accept the default folder for Java 2 SDK v1.3.1 (C:\jdk1.3.1) or specify a new destination folder by clicking ***Browse…*** and completing the Choose Folder dialog.

14. If you do not have TomCat v4.0 installed on your computer, the TomCat Setup dialog appears. (This is a requirement for the ZENworks Asset Management Web Console.) Either accept the default folder for TomCat v4.0 (C:\Tomcat4) or specify a new destination folder by clicking ***Browse…*** and completing the Choose Folder dialog.

   If you already have TomCat v4.0 installed, select the root folder of your TomCat installation as the destination folder.

15. Review your selections in the Current Settings box in the Start Copying Files dialog. Click **_Back_** to make changes or **_Next_** to continue.

Note: It may be necessary to restart your computer during the installation so that files can be updated. If this is the case, Setup will give you the choice of restarting your machine now or later. If you choose to restart now, the restart will take place and Setup will continue. If you choose to restart later, Setup will exit, and your ZENworks Asset Management installation will be incomplete. You will need to run Setup again.

16. If you do not want to view the Release Notes and/or start the Manager right away, clear the options in the Setup dialog and click on the Finish button. _It is strongly recommended, however, that you take this opportunity to look at the ZENworks Asset Management Release Notes for late-breaking information on your ZENworks Asset Management installation._

Your initial ZENworks Asset Management installation is now complete. For information on what to do next, see Next Steps.

Enterprise Deployment

About Enterprise Deployment

Use an Enterprise Deployment when you need distribute tasks, collections, or collected data. There are many possibilities for Enterprise deployment, depending on your organization's needs.

For step-by-step procedures, see Preparing for Installation.

System Requirements and the Pre-installation Worksheet

Before starting your installation, see the following:

- The ZENworks Asset Management Enterprise Deployment Pre-Installation Worksheet

- For Enterprise deployment, see System Requirements - Enterprise Deployment .

- For Collection Clients, see System Requirements - Collection Clients.

Advantages of Enterprise Deployment

- ZENworks Asset Management data is centralized while data management can be distributed by installing multiple copies of ZENworks Asset Management Manager.

- Multiple Collection Servers and Collection Domains help organize inventory data.

- Multiple Collection Servers accommodate large or growing organizations.

- A Collection Server at each site increases the speed of collections.

- Multiple Tasks Servers help you manage tasks such as database purges, scheduled reports, network discovery, and Production Recognition Updates (PRUs). The Task Servers can be set up so they are public (available to the entire enterprise) or associated with a specific Collection Domain.

Enterprise deployment is recommended if:

- You want users to be able to monitor and administer ZENworks Asset Management from more than one computer.

- You have a large organization with more than 1000 workstations.

- Your organization exists at several sites and you want to share data among them (for example, you want to run reports that include data from more than one site).

- You want to distribute processing power between multiple installations of any ZENworks Asset Management application.

Configuration Choices for Enterprise Deployment

- **Distributed Control** – If you want to give users at each site control over their own inventories while consolidating all inventory data into the same database, you can distribute ZENworks Asset Management applications according to how you want to organize your ZENworks Asset Management system. Your installations will have only *one inventory database* and *one File Store*, but can include **multiple Managers, Collection Servers, and Task Servers** at different locations. This means that data from all the sites is integrated, for example, reports and queries can be run on data from all the sites at the same time.

  For example, a company in Philadelphia has branch offices in Boston and San Diego.

  - ZENworks Asset Management Manager, a Collection Server, and a public (enterprise-level) Task Server are installed on a machine in Philadelphia.

  - The inventory database and the File Store are installed on a second machine in Philadelphia. Machines in Boston and San Diego each have a Manager, a Collection Server, and a Task Server installed.

- **Centralized Control** – If you want to collect inventory data from several different sites while centralizing the administration of ZENworks Asset Management, you can *install ZENworks Asset Management at a central site* and install *additional Collection Servers at subsidiary sites*.

  For example, a company has headquarters in Dallas and offices in Atlanta and San Francisco.

  - ZENworks Asset Management Manager is installed only on the Information Technology Supervisor's machine in Dallas.

  - The Task Server, the inventory database, and the File Store are installed on a dedicated machine in the server room, along with the Collection Server for the Dallas office.

  - The Collection Servers for Atlanta and San Francisco are installed on machines at each site.

- **Centralized Control, Distributed Access** – This scenario is similar Distributed Control, above, except that *remote sites have access to ZENworks Asset Management data* while *overall control remains centralized*.

  For example, a company has its main headquarters in Boston and regional headquarters in Chicago and Seattle. Each region includes several additional sites, so *Collection Domains are used* to organize the ZENworks Asset Management data.

  - The main ZENworks Asset Management installation and database are at a central site in Boston.

  - Additional Managers are installed with Collection Servers and Task Servers at subsidiary sites in Chicago and Seattle.

  - In this scenario, *ZENworks Asset Management user roles* determine how people at different sites can work with the inventory data. For example, the IT Supervisor in Boston takes on the role of an enterprise administrator, giving him full access to all ZENworks Asset Management Manager functions. The IT Supervisors in Chicago and Seattle are assigned the roles of domain analysts because they need access only to ZENworks Asset Management data from their own regions. They can query and report on the data from their collection domains, but full administrative control remains in the enterprise administrator's hands in Boston. To make the reporting more efficient, the domain analysts have their own domain-level Task Servers.

To install the Enterprise deployment of ZENworks Asset Management

1. Make sure you meet the installation requirements listed in System Requirements - Enterprise Deployment . In particular, you must install a supported version of Microsoft SQL Server or Oracle before you can run Setup. (Contact Novell Technical Support for help in estimating the storage requirements for your database.)

2. Follow the instructions for running Setup in Initial Enterprise Deployment.

See Also

Adding Applications to an Enterprise Deployment

Installing Client Applications

System Requirements - Enterprise Deployment

The machines on which you install ZENworks Asset Management applications must meet the following minimum requirements. Requirements may vary according to the amount of data that you store, processor speeds, and processor usage by other applications installed on these computers.

The initial ZENworks Asset Management installation has one set of requirements; individual ZENworks Asset Management applications have their own separate requirements. Refer to the specific sections that follow.

Note: Before you can install **any** ZENworks Asset Management applications, a Microsoft SQL Server or Oracle server must already be installed.

Initial Installation Requirements

During initial Enterprise deployment, you set up the inventory database and the File Store. The machine on which you run Setup to perform the initial installation must meet the following requirements:

Hardware requirements	• Pentium III 800 MHz processor • 512 MB of memory • 500 MB hard disk storage (plus space for database expansion)
Display Setting	• A minimum display resolution of 1024 x 768 • Small fonts.
Operating System	Windows 2000 Windows XP Windows Server 2003
Database Server Client	*Microsoft SQL Server:* Microsoft SQL Server 7.0 Client Microsoft SQL Server 2000 Client Microsoft SQL Server 2000 Oracle: Oracle Programmer's Client and MDAC 2.1 with Service Pack 2
TCP/IP Connection	**Note:** In order for the ZENworks Asset Management applications to communicate with each other, the name of the machine on which you perform the initial installation must resolve to an IP address.
File Store	*LAN-based:* • 200 MB of free storage on a shared network drive • Access as a user with administrator rights under Windows NT or Windows 2000/XP. *FTP-based:* • 150 MB of storage on an FTP server • Anonymous FTP access configured to allow full access to your FTP site, or An authenticated FTP account with full access to the FTP site.

Installation Requirements for ZENworks Asset Management Manager

The machines on which you install the Manager must meet the following requirements:

Hardware requirements	• Pentium III 650 MHz processor • 256 MB of memory • 100 MB hard disk storage (plus space for database expansion)
Display Setting	• A minimum display resolution of 1024 x 768

	• Small fonts.
Operating System	Windows 2000 Windows XP Windows Server 2003
TCP/IP	TCP/IP with LAN or TCP/IP connection to the File Store. **Notes:** In order for the ZENworks Asset Management applications to communicate with each other, the name of the machine on which the Manager is installed must resolve to an IP address. The network user account for running the Manager must have full control access to the File Store folder.
Database Access	*Microsoft SQL Server:* Microsoft SQL Server 7.0, MDAC 2.1 with Service Pack 2. (You can install the MDAC from the ZENworks Asset Management CD by running \Desktop\Extprod\Mdac_typ.exe.) or Microsoft SQL Server 2000, MDAC 2.6 or higher and Internet Explorer 4.01 with Service Pack 2. **Note:** You can install the MDAC from the ZENworks Asset Management CD by running \Desktop\Extprod\Sqlredis.exe. Microsoft SQL Server 2000 *Oracle:* Oracle Client The appropriate Oracle ODBC driver (see below) MDAC 2.1 with Service Pack 2. **Notes:** Installation files for ODBC drivers and MDAC are available on the ZENworks Asset Management CD in the \Desktop\Extprod\ folder. You must use the Oracle Configuration Assistant to configure the net service name on the machine so that it points to your Oracle server.

Oracle Drivers	*Server Version*	*ODBC Driver*
	8.1.7	8.1.7.3 (or higher)
	9.0.1	9.00 11.00
	9.2	9.02.00.00

Installation Requirements for Collection Servers

The machines on which you install Collection Servers must meet the following requirements:

Hardware requirements	• Pentium III 650 MHz processor
	• 256 MB of memory
	• 100 MB hard disk storage (plus space for database expansion)
	Note: Using the minimum hardware above, Novell recommends one Collection Server per 2,000 workstations. The Collection server supports up to 10,000 workstations, but increased hardware resources are required to support the additional clients.
Display Setting	A minimum display resolution of 1024 x 768
	Small fonts.
Operating System	Windows 2000
	Windows XP
	Windows Server 2003
TCP/IP	TCP/IP with LAN or TCP/IP connection to the File Store.
	Notes:
	In order for the ZENworks Asset Management applications to communicate with each other, the name of the machine on which the Manager is installed must resolve to an IP address.
	The network user account for running the Collection Server must have full control access to the File Store folder.
Database Access	*Microsoft SQL Server:*
	Microsoft SQL Server 7.0, MDAC 2.1 with Service Pack 2.
	Microsoft SQL Server 2000, MDAC 2.6 or higher and Internet Explorer 4.01 with Service Pack 2.
	Note: You can install the MDAC from the ZENworks Asset Management CD by running \Desktop\Extprod\Sqlredis.exe.
	Microsoft SQL Server 2000
	Oracle:
	Oracle Client
	The appropriate Oracle ODBC driver (see below)
	MDAC 2.1 with Service Pack 2.
	Notes:
	Installation files for ODBC drivers and MDAC are available on the ZENworks Asset Management CD in the \Desktop\Extprod\ folder.
	You must use the Oracle Configuration Assistant to configure the net service name on the machine so that it points to your Oracle server.

Oracle Drivers	Server Version	ODBC Driver
	8.1.7	8.1.7.3 (or higher)

9.0.1	9.00 11.00
9.2	9.02.00.00

Installation Requirements for Task Servers

The machines on which you install Task Servers must meet the following requirements:

Hardware requirements	• Pentium III 650 MHz processor • 256 MB of memory • 100 MB hard disk storage (plus space for database expansion) **Note:** Novell recommends that the Task Server be installed on the same machine as a ZENworks Asset Management Collection Server.
Display Setting	A minimum display resolution of 1024 x 768 Small fonts.
Operating System	Windows 2000 Windows XP Windows Server 2003
TCP/IP	TCP/IP with LAN or TCP/IP connection to the File Store. **Notes:** In order for the ZENworks Asset Management applications to communicate with each other, the name of the machine on which the Manager is installed must resolve to an IP address. The network user account for running the Task Server must have full control access to the File Store folder.
Database Access	*Microsoft SQL Server:* Microsoft SQL Server 7.0, MDAC 2.1 with Service Pack 2. (You can install the MDAC from the ZENworks Asset Management CD by running \Desktop\Extprod\Mdac_typ.exe.) or Microsoft SQL Server 2000, MDAC 2.6 or higher and Internet Explorer 4.01 with Service Pack 2. **Note:** You can install the MDAC from the ZENworks Asset Management CD by running \Desktop\Extprod\Sqlredis.exe. *Oracle:* Oracle Client The appropriate Oracle ODBC driver (see below) MDAC 2.1 with Service Pack 2.

	Notes:	
	Installation files for ODBC drivers and MDAC are available on the ZENworks Asset Management CD in the \Desktop\Extprod\ folder.	
	You must use the Oracle Configuration Assistant to configure the net service name on the machine so that it points to your Oracle server.	
Oracle Drivers	*Server Version*	*ODBC Driver*
	8.1.7	8.1.7.3 (or higher)
	9.0.1	9.00 11.00
	9.2	9.02.00.00

Installation Requirements for ZENworks Asset Management Web Console

The machine on which you install the Web Console must meet the following requirements:

Hardware requirements	- Pentium III 650 MHz processor - 256 MB of memory - 100 MB hard disk storage (plus space for database expansion) **Note:** Novell recommends that the Task Server be installed on the same machine as a ZENworks Asset Management Collection Server.
Display Setting	A minimum display resolution of 1024 x 768 Small fonts.
Operating System	Windows 2000 Windows XP Windows Server 2003
TCP/IP	TCP/IP with LAN or TCP/IP connection to the File Store. **Notes:** In order for the ZENworks Asset Management applications to communicate with each other, the name of the machine on which the Manager is installed must resolve to an IP address. The network user account for running the Task Server must have full control access to the File Store folder.
Database Access	*Microsoft SQL Server:* Microsoft SQL Server 7.0, MDAC 2.1 with Service Pack 2. (You can install the MDAC from the ZENworks Asset Management CD by running \Desktop\Extprod\Mdac_typ.exe.) or Microsoft SQL Server 2000, MDAC 2.6 or higher and Internet Explorer 4.01

	with Service Pack 2. **Note:** You can install the MDAC from the ZENworks Asset Management CD by running \Desktop\Extprod\Sqlredis.exe. *Oracle:* Oracle 9i, (9.0.1 or higher) Oracle Client The appropriate Oracle ODBC driver (see below) MDAC 2.1 with Service Pack 2. **Notes:** Installation files for ODBC drivers and MDAC are available on the ZENworks Asset Management CD in the \Desktop\Extprod\ folder. You must use the Oracle Configuration Assistant to configure the net service name on the machine so that it points to your Oracle server.	
Oracle Drivers	*Server Version*	*ODBC Driver*
	9.0.1	9.00 11.00
	9.2	9.02.00.00

Preparing for Installation

Before you can install the ZENworks Asset Management Enterprise deployment, you need to make some important preparations.

To prepare for installation:

1. Complete the ZENworks Asset Management Enterprise Deployment Pre-Installation Worksheet.

2. Choose a machine for the main ZENworks Asset Management installation.

3. Choose or create a shared network folder for a LAN-based File Store, or, create a user account for access to your FTP server for an FTP-based File Store.

4. If you are using Microsoft SQL Server,

   - Install Microsoft SQL Server version 7.0 or 2000. You will need to know the server's system administrator (sa) user name and password to complete the ZENworks Asset Management installation. The account used for SQL Server 7.0 or 2000 must be set up to use SQL Server authentication.

   - Make sure that your Microsoft SQL Server settings match the recommendations in Configuring Microsoft SQL Server.

   - Install the client for Microsoft SQL Server on the machine on which you are planning to have the main ZENworks Asset Management installation and make sure that it has access to the database server.

5. If you are using Oracle,

   - Install Oracle. (Supported versions include 8.1.7, 9.0.1, and 9.2.) You will need to know the system user ID and password to complete the ZENworks Asset Management installation.

   - Make sure that your Oracle settings match the requirements and recommendations in Configuring Oracle.

- Install the *programmer's* client for Oracle on the machine on which you are planning to have the main ZENworks Asset Management installation and make sure that it has access to the database server.

- On any machine where you plan to install a ZENworks Asset Management application (for example, Collection Server or Manager), use the Oracle Configuration Assistant to configure a net service name that points to your Oracle server.

6. Make sure that you have a ZENworks Asset Management Enterprise Deployment license diskette or Enterprise Deployment evaluation license diskette.

7. Close any applications that are running on the installation machine.

You are now ready to perform an Initial Enterprise Deployment .

ZENworks Asset Management Enterprise Deployment Pre-Installation Worksheet

Use this worksheet to gather and consolidate the information you will need to complete a successful Enterprise deployment of ZENworks Asset Management. Check to make sure the systems on which you are installing ZENworks Asset Management meet the minimum system requirements as described in System Requirements - Enterprise Deployment.

General

☐ **Obtain a ZENworks Asset Management Enterprise Deployment license diskette**

(Call your Novell sales representative to obtain one, if you haven't already.)

☐ **List the workstations or servers on which you want to install each ZENworks Asset Management application**

You will install only one inventory database and one File Store. You may install as many ZENworks Asset Management Managers, Collection Servers, and Task Servers as necessary to suit the needs of your enterprise.

☐ **On the machine on which you will run Setup to perform the initial installation:**

- Check the system requirements and settings for Initial Installations.

- Depending on your database type, either install
    A supported version of Microsoft SQL server
  or
    A supported version of Oracle Server and Oracle Programmer's Client and a supported MDAC version.

Inventory Database: Microsoft SQL Server

☐ **Install a supported version of Microsoft SQL Server**

Database Server Name/Physical Location _____

Database Name (TS_Census, by default) _____

System Administrator User Name _____

Password _____

Database Owner (create a new user while running Setup) _____

Password (your choice) _____

☐ **Configure Microsoft SQL Server as recommended in Configuring Microsoft SQL Server**

☐ **Make available for simple installation a minimum of 14 connections for Microsoft SQL Server**

- Add 6 for each additional ZENworks Asset Management Manager

- Add 4 for each additional Collection Server or Task Server

Inventory Database: Oracle

☐ **Install a supported version of Oracle.**

Database Server Name/Physical Location

Net Service Name

System User Password

Schema Owner Password

☐ **Configure Oracle as recommended in Configuring Oracle**

File Store

☐ **Decide whether you will use a shared network folder (which will need to be accessed by any ZENworks Asset Management Managers, Collection Servers, and Task Servers installed) or an FTP site**

_____Shared network folder   or   _____FTP site

Computer Name/Physical Location _____

Share Folder Name (must be 8 characters or less) or

IP address of FTP server (numeric) _____

☐ **If using FTP, choose whether you will use anonymous login or authenticated login for access by ZENworks Asset Management Managers, Task Servers, or Collection Servers**

_____Anonymous Login   or   _____Authenticated Login

User Name: _____

Password: _____

ZENworks Asset Management Manager(s)

☐ **Install a supported version of Microsoft SQL Server or Oracle Server**

☐ **If using Oracle, configure a net service name that points to your Oracle server**

☐ **Make sure the network user account for running ZENworks Asset Management Manager has full control access to the File Store**

ZENworks Asset Management Collection Server(s)

☐ **Install a supported version of Microsoft SQL Server or Oracle Server**

☐ **If using Oracle, configure a net service name that points to your Oracle server**

☐ **Associate the Collection Server with an account that has the ability to run services (full administrative privileges)**

☐ **Set up full control access (on the network account used for the service) to the shared folder**

on which the File Store will reside

Computer Name/Location	Account for Service	Password

ZENworks Asset Management Task Server(s)

☐ **Install a supported version of Microsoft SQL Server or Oracle Server**

☐ **If using Oracle, configure a net service name that points to your Oracle server**

☐ **Associate the Task Server with an account that has the ability to run services (full administrative privileges) and has access to the printers to which the ZENworks Asset Management Manager(s) will print reports**

☐ **Set up full control access (on the network account used for the service) to the shared folder on which the File Store will reside**

Computer Name/Location	Account for Service	Password

ZENworks Asset Management Web Console

☐ **Install a supported version of Microsoft SQL Server or Oracle Server**

☐ **If using Oracle, configure a net service name that points to your Oracle server**

What Happens During an Enterprise deployment?

When you perform an initial Enterprise deployment, the Setup application does the following:

- Creates an empty inventory database on a specified Oracle server or Microsoft SQL Server.

- Creates the ZENworks Asset Management File Store on a specified machine.

- Installs ZENworks Asset Management applications as required by your ZENworks Asset Management system: ZENworks Asset Management Manager, Collection Server, Task Server, Web Console, and client applications.

  Note: To install additional copies of ZENworks Asset Management applications, run Setup again. See Installing Individual ZENworks Asset Management Applications for more information.

- Sets up registry keys.

- Configures ODBC data sources.

Initial Enterprise Deployment

Once you have completed the activities listed in Preparing for Installation, you are ready to begin your ZENworks Asset Management Enterprise deployment.

Running Setup

When you first run Setup, the inventory database will be installed and initialized, and the File Store will be installed. You will also have the option of installing ZENworks Asset Management applications as described in Installing Individual ZENworks Asset Management Applications.

Note: Initial installation must be performed from a workstation or a server running Windows 2000/XP or Windows NT 4.0 with Service Pack 5.

To run Setup:

1. Insert the ZENworks Asset Management CD into your CD drive. The ZENworks Asset Management Setup program may start automatically. If it does not, start Setup manually:
   a) Click on the Windows Start menu and click on Run.
   b) In the Run dialog, specify the location of the ZENworks Asset Management Setup program (for example, if your CD drive is D:, enter D:\Setup).
   c) Click on the OK button.

2. Read the Welcome screen and click on the Next button. Read the license agreement and accept its terms by clicking on the Yes button and click on the Next button. (You cannot continue if you do not accept the license agreement.)

3. In the Choose Installation Type dialog, select Install/Upgrade Enterprise Deployment and click on the Next button.

4. In the Choose Setup Type dialog, select Initial Installation and click on the Next button.

5. If you have a license diskette and you would like to install a full or evaluation version of ZENworks Asset Management, insert the license diskette into the floppy drive when prompted and click on the Yes button. (You will be prompted for a license diskette only if Setup does not detect one in your disk drive.)

   Note: You must have an Enterprise Deployment license diskette to complete a full installation or an Enterprise Deployment evaluation license diskette to install an evaluation copy. If you do not have any kind of license diskette, you can install only the Standalone deployment evaluation version of ZENworks Asset Management.

6. In the Choose Destination Location dialog, accept the default destination folder
       (C: \Program Files\Novell\ZENworks\Asset Management)
   for your ZENworks Asset Management files, or specify a different folder by clicking on the Browse button and completing the Choose Folder dialog. Once the destination folder that you want is displayed in the Destination Folder section, click on the Next button.

7. In the Choose File Store Installation Type dialog, choose the type of File Store installation you want.

Note: A LAN-based File Store is recommended unless you have one or more remote server sites that are not connected to your local or wide area network.

8. If you chose to install a LAN-based File Store in step 7, provide information for creating the ZENworks Asset Management File Store in the ZENworks Asset Management File Store Setup dialog and then continue to step 11 of this procedure.
a) Click on the Browse button, and browse to the location for the File Store in the Network Neighborhood. You must choose a shared network drive that will be accessible to any ZENworks Asset Management Managers, Collection Servers, or Task Servers you plan to install and click on the OK button. The File Store will be created in a folder in that shared drive.

Note: The network user account for running the Manager, Collection Servers, and Task Servers must have full control access to the File Store folder.

b) Click on the Next button to continue.

9. If you chose to install an FTP-based File Store in step 7, provide information for creating the ZENworks Asset Management File Store in the Specify FTP Server and Access Method dialog.
a) Enter the IP address of the FTP server.
b) Choose whether you will use Anonymous or Authenticated FTP access to the FTP-based File Store.
c) If you chose Authenticated FTP, enter the user name and password to be used when ZENworks Asset Management Managers, Collection Servers, and Task Servers access the File Store.
d) Click on the Next button to continue.

10. For an FTP-based File Store, indicate in the ZENworks Asset Management Component Installation Setup dialog whether you want setup files copied to your network. If you copy the setup files to your network, you will be able to install ZENworks Asset Management applications by running Setup from the network. Do one of the following:

- To copy the setup files, leave the Copy ZENworks Asset Management component setup files to the network option selected, specify a location on the network for the files, and click on the Next button.

- To continue without copying the setup files, select the Continue without copying setup files option and click on the Next button.

11. Review your selections in the Current Settings box in the Start Copying Files dialog. Click on the Back button to make changes or click on the Next button to continue. Setup will begin copying files in preparation for running the Database Creation and Setup Tool.

12. Use the Database Creation and Setup Tool to create your ZENworks Asset Management inventory database. The steps involved depend on whether you are using Microsoft SQL Server or Oracle. If you are using Microsoft SQL Server, see Database Setup for Microsoft SQL Server for details. If you are using Oracle, see Database Setup for Oracle. Once you have created and set up your database, Setup will continue to install additional files to create and initialize your File Store.

13. The License Configuration dialog will display your license information. Confirm that this information is correct and click on the OK button.

Note: If you do not need to use all of the available licenses at this time, you can reduce the number in the License Limit section of the License Configuration dialog, but you cannot increase the number of licenses. If you need more licenses, you should contact your Novell sales representative.

14. If you want to continue to install ZENworks Asset Management applications on the computer on which you are running Setup, click on the Yes button and refer to Installing ZENworks Asset Management Applications During Initial Installation. Otherwise, click on the No button.

Note: You can install applications on this computer or any other computer at a later time following the instructions in Installing ZENworks Asset Management Applications Later.

15. Click on the Finish button. If you installed ZENworks Asset Management Manager, you have the option of viewing the Release Notes and/or starting the Manager right away. If you do not want to view the Release Notes or start the Manager, clear the check boxes in the Setup dialog and click on the Finish button. *It is strongly recommended, however, that you take this opportunity to look at the ZENworks Asset Management Release Notes for late-breaking information on your ZENworks Asset Management installation.*

Your initial ZENworks Asset Management installation is now complete. For information on installing other ZENworks Asset Management applications to complete the installation, see Installing ZENworks Asset Management Applications Later. For information on what to do if the installation is complete, see Next Steps.

Installing Task Servers

The number of Task Servers that you need will depend on factors specific to your organization, such as network configuration, the number of ZENworks Asset Management users running reports, and the speed of the machine where the Task Server is installed. You will need to add another Task Server (or upgrade the machines for existing Task Servers) if performance becomes unsatisfactory, for example, if scheduled tasks are routinely running late.

> **Note:** Since a Task Server is installed as a service, it must be associated with a network user account that has full control access to the Windows NT or Windows 2000/XP server on which you are installing the Task Server. If you want to gather WMI (Windows Management Instrumentation) information, you must also have one of the following:

- domain administration level rights for every domain containing a subnet you wish to scan
  or

- a valid account on each WMI-enabled machine found in the network scan.

To install a Task Server

1. Be sure you are at the computer on which you want the Task Server installed. You cannot perform a remote installation.

   Note: If you are using Oracle, be sure you have configured a net service name that points to your Oracle server.

2. Stop all ZENworks Asset Management services, then run Setup as described in Installing ZENworks Asset Management Applications Later.

3. In the Select Components dialog, clear all applications except for ZENworks Asset Management Task Server. Setup will suggest an installation folder. If you want to install the Task Server in another folder on a *local* drive, enter the folder name or browse to the folder and click on the Next button.

4. In the Database Information dialog, provide information about your ZENworks Asset Management database:

   - For Microsoft SQL Server, select Microsoft SQL Server 7.0 or Microsoft SQL Server 2000 in the Database Type box, enter the name of the server on which you installed your inventory database in the Database Server box, enter the name of your database in the Database Name box, and click on the Next button.

   - For Oracle, select Oracle 8i or Oracle 9i in the Database Type box, enter the net service name, and click on the Next button.

5. In the ZENworks Asset Management Task Server Setup dialog, accept the default TCP/IP port number for the Task Server (7465) or enter a new port number if you know that another application uses this port number. Then click on the Next button.

6. In the next ZENworks Asset Management Task Server Setup dialog, enter the existing user account (in Network Domain\User format) and password information necessary to gain access to network resources, such as printers. Once this information has been entered, click on the Next button.

7. Review your selections in the Current Settings box of the Start Copying Files dialog. Click on the Back button to make changes or click on the Next button to start copying files. Then click on the Finish button to exit Setup.

Installing Collection Servers

The number of Collection Servers that you need is determined by your locations and how they are connected (via LAN or WAN), the number of workstations at each site, the frequency of inventory cycles, and the way you want to organize your data. (For more information, see the section on Collection Servers in Expanding ZENworks Asset Management.)

Note: Since a Collection Server is installed as a service, it must be associated with a network user account that has full control access to the Windows NT or Windows 2000/XP server on which you are installing the Collection Server.

To install the Collection Server

1. Be sure you are at the computer on which you want the Collection Server installed. You cannot perform a remote installation.

   Note: If you are using Oracle, be sure you have configured a net service name that points to your Oracle server.

2. Stop all ZENworks Asset Management services, then run Setup as described in Installing ZENworks Asset Management Applications Later.

3. In the Select Components dialog, clear all applications except for ZENworks Asset Management Collection Server. Setup will suggest an installation folder. If you want to install the Collection Server in another folder on a *local* drive, enter the folder name or browse to the folder and click on the Next button.

4. In the Database Information dialog, provide information about your ZENworks Asset Management database:

   - For Microsoft SQL Server, select Microsoft SQL Server 7.0 or Microsoft SQL Server 2000 in the Database Type box, enter the name of the server on which you installed your inventory database in the Database Server box, enter the name of your database in the Database Name box, and click on the Next button.

   - For Oracle, select Oracle 8i or Oracle 9i in the Database Type box, enter the net service name, and click on the Next button.

5. Complete the first of two ZENworks Asset Management Collection Server Setup dialogs:
   a) In the Collection Domain Name box, either type the name of a new Collection Domain, or select an existing Collection Domain from the list in the drop-down box.
   b) In the Collection Server Name box, type a name for the Collection Server you are about to install.
   c) Accept the default TCP/IP port number for the Collection Server (7460) or enter a new port number if you know that another application uses this port number.
   d) Click on the Next button.

6. In the next ZENworks Asset Management Collection Server Setup dialog, enter the existing network user account (in Network Domain\User format) and password information. Click on the Next button.

7. Review your selections in the Current Settings box of the Start Copying Files dialog. Click on the Back button to make changes or click on the Next button to start copying files.

8. Click on the Finish button to exit Setup.

Installing ZENworks Asset Management Manager

The number of copies of ZENworks Asset Management Manager that you install is related to the number of people you want to use the Manager, and is mostly determined by what is convenient for you.

To install ZENworks Asset Management Manager

1. Be sure you are at the computer where you plan to run the Manager.

   Note: If you are using Oracle, be sure you have configured a net service name that points to your Oracle server.

2. Run Setup as described in Installing ZENworks Asset Management Applications Later.

3. In the Select Components dialog, clear all applications except for ZENworks Asset Management Manager. Setup will suggest an installation folder. If you want to install the Manager in another folder on a *local* drive, enter the folder name or browse to the folder and then click on the Next button.

4. In the Database Information dialog, provide information about your ZENworks Asset Management database:

   - For Microsoft SQL Server, select Microsoft SQL Server 7.0 or Microsoft SQL Server 2000 in the Database Type box, enter the name of the server on which you installed your inventory database in the Database Server box, enter the name of your database in the Database Name box, and click on the Next button.

   - For Oracle, select Oracle 8i or Oracle 9i in the Database Type box, enter the net service name, and click on the Next button.

5. In the Select Program Folder dialog, accept the name of the program folder that Setup suggests (ZENworks Asset Management), enter the name of a new program folder, or select one of the folders that already exists in your Start menu from the list in the Existing Folders box.

    Once the program folder that you want is displayed in the Program Folders box, click on the Next button.

6. In the ZENworks Asset Management Manager Setup dialog, accept the default TCP/IP port number for the Manager (7462) or enter a new port number if you know that another application uses this port number. Then click on the Next button.

7. Review your selections in the Current Settings box of the Start Copying Files dialog. Click on the Back button to make changes or click on the Next button to start copying files.

8. You have the option of viewing the Release Notes and/or starting ZENworks Asset Management Manager. Make your selections and click on the Finish button to exit Setup.

Installing the ZENworks Asset Management Web Console

The ZENworks Asset Management Web Console is the main access point for all Web-based ZENworks Asset Management features and reports. During setup, all the necessary programs and files will be installed, including Apache TomCat (which creates a Web server for you) and the Java Development Kit (JDK).

Tip: If you have a Standalone deployment of ZENworks Asset Management and want to install the Web Console on another machine, select Microsoft SQL Server 7.0 as your database type in step 4 of Installing Task Servers.

To install ZENworks Asset Management Web Console:

1. Be sure you are at the computer on which you want the Web Console installed. You cannot perform a remote installation.

    Note: If you are using Oracle, be sure you have configured a net service name that points to your Oracle server.

2. Run Setup as described in Installing ZENworks Asset Management Applications Later.

3. In the Select Components dialog, clear all applications except for the ZENworks Asset Management Web Console. Setup will suggest an installation folder. If you want to install the Web Console in another folder on a *local* drive, enter the folder name or browse to the folder and click on the Next button.

4. In the Database Information dialog, provide information about your ZENworks Asset Management database:

    - For Microsoft SQL Server, select Microsoft SQL Server 7.0 or Microsoft SQL Server 2000 in the Database Type box, enter the name of the server on which you installed your inventory database in the Database Server box, enter the name of your database in the Database Name box, and click on the Next button.

    - For Oracle, select Oracle 9i in the Database Type box, enter the net service name, and click on the Next button. (Oracle 8i is not supported for the Web Console.)

5. If you do not have Java 2 SDK installed on your computer, the Java 2 SDK Setup dialog appears. Either accept the default folder for Java 2 SDK v1.3.1 (C:\jdk1.3.1) or specify a new destination folder by clicking on the Browse button and completing the Choose Folder dialog.

6. If you do not have TomCat v4.0 installed on your computer, the TomCat Setup dialog appears. Either accept the default folder for TomCat v4.0 (C:\Tomcat4) or specify a new destination folder by clicking on the Browse button and completing the Choose Folder dialog.

    If you already have TomCat v4.0 installed, select the root folder of your TomCat installation as the destination folder.

7. Review your selections in the Current Settings box of the Start Copying Files dialog. Click on the Back button to make changes or click on the Next button to start copying files.

8. Click on the Finish button to exit Setup.

Installing ZENworks Asset Management Applications During Initial Installation

These instructions assume that you are installing all of the ZENworks Asset Management applications on the same machine on which you installed the database and File Store. The first step describes what you would do immediately after clicking on the Yes button in step 14 of the Initial Enterprise Deployment procedure. If you want to install applications on different computers at a later time, see Installing ZENworks Asset Management Applications Later.

To install all ZENworks Asset Management applications

1. In the Select Components dialog, leave all of the applications selected. Setup will suggest an installation folder. To change the installation folder to another folder on a *local* drive, enter the folder name or browse to the folder and click on the Next button.

2. In the Database Information dialog, provide information about your ZENworks Asset Management database:

   - For Microsoft SQL Server, select Microsoft SQL Server 7.0 or Microsoft SQL Server 2000 in the Database Type box, enter the name of the server on which you installed your inventory database in the Database Server box, enter the name of your database in the Database Name box, and click on the Next button.

   - For Oracle, select Oracle 8i or Oracle 9i in the Database Type box, enter the net service name, and click on the Next button.

3. In the Select Program Folder dialog, accept the name of the program folder that Setup suggests (ZENworks Asset Management), enter the name of a new program folder, or select one of the folders that already exists in your Start menu from the list in the Existing Folders box.

   Once the program folder that you want is displayed in the Program Folders box, click on the Next button.

4. In the ZENworks Asset Management Manager Setup dialog, accept the default TCP/IP port number for the Manager (7462) or enter a new port number if you know that another application uses this port number. Then click on the Next button.

5. Complete the first of two ZENworks Asset Management Collection Server Setup dialogs:
   a) In the Collection Domain Name box, enter the name of the Collection Domain you are about to install.
   b) In the Collection Server Name box, type the name of the Collection Server you are about to install.
   c) Accept the default TCP/IP port number for the Collection Server (7460) or enter a new port number if you know that another application uses this port number.
   d) Click on the Next button.

6. In the next ZENworks Asset Management Collection Server Setup dialog, enter the existing network user account (in Network Domain\User format) and password information.

7. In the ZENworks Asset Management Task Server Setup dialog, accept the default TCP/IP port number for the Task Server (7465) or enter a new port number if you know that another application uses this port number. Then click on the Next button.

8. In the next ZENworks Asset Management Task Server Setup dialog, enter the existing user account (in Network Domain\User format) and password information necessary to gain access to network resources, such as printers. Once this information has been entered, click on the Next button.

   Note: If you want to gather WMI (Windows Management Instrumentation) data, the user account you specify must have local administration level permissions with file store access rights. It must also have one of the following: 1) domain administration level rights for every domain containing a subnet you wish to scan or 2) a valid account on each WMI-enabled machine found in the network scan.

9. In the ZENworks Asset Management Client Applications Setup dialog, do the following:
a) The computer on which you are installing the client applications must be associated with a Collection Server. In the Collection Server Name box, enter the name of the computer on which the Collection Server resides. Either type the name or use the Browse button to help you locate it.
b) In the Local Client TCP/IP Port box, accept the default TCP/IP port number for the client applications (7461) or enter a new port number if another application uses this port number.
c) If you changed the port number for the Collection Server you specified in step 4a, enter the changed number in the Remote Collection Server TCP/IP Port box. (You should change the number here only if you changed the default port number when installing the Collection Server.)
d) Click on the Next button to continue.

10. In the next ZENworks Asset Management Client Applications Setup dialog, determine how you would like the Collection Client to be installed and configured.
a) To install the Collection Client as a service, select the "as a service" option; to install the Collection Client as a standard program, select the "as a standard executable program" option.
b) Select the Start the Collection Client automatically option if you want the Collection Client to start each time the system is started (if the Collection Client is installed as a service) or Windows is started (if the Collection Client is installed as a standard program). If you do not want the Collection Client to start automatically, clear this option.
c) Select the Start the Collection Client now option if you want the Collection Client to start when Setup finishes. If you do not want the Collection Client to start when Setup finishes, clear this option.
d) Click on the Next button to continue.

11. If you do not have Java 2 SDK installed on your computer, the Java 2 SDK Setup dialog appears. (This is a requirement for the ZENworks Asset Management Web Console.) Either accept the default folder for Java 2 SDK v1.3.1 (C:\jdk1.3.1) or specify a new destination folder by clicking on the Browse button and completing the Choose Folder dialog.

12. If you do not have Apache TomCat v4.0 installed on your computer, the TomCat Setup dialog appears. (This is a requirement for the ZENworks Asset Management Web Console.) Either accept the default folder for TomCat v4.0 (C:\Tomcat4) or specify a new destination folder by clicking on the Browse button and completing the Choose Folder dialog.

If you already have TomCat v4.0 installed, select the root folder of your TomCat installation as the destination folder.

13. Review your selections in the Current Settings box of the Start Copying Files dialog. Click on the Back button to make changes or click on the Next button to start copying files.

14. You have the option of viewing the Release Notes and/or starting ZENworks Asset Management Manager right away. Make your selections and click on the Finish button to exit Setup.

Installing Individual ZENworks Asset Management Applications

For more information on determining when you need additional applications, see Expanding ZENworks Asset Management.

Once the Enterprise deployment of ZENworks Asset Management and the File Store have been installed, you will need to install at least one Manager, one Collection Server, and one Task Server on logical servers within your enterprise. You can install as many Managers, Collection Servers, and Task Servers as you need, based on your company's requirements. *You cannot, however, install more than one inventory database or File Store.*

You will also need to install the **ZENworks Asset Management Web Console** if you want to run Web-based reports of your inventory data, see your network discovery data (if you are using the **ZENworks Asset Management Network Discovery Engine**), or use **ZENworks Asset Management Software Compliance**.

During initial installation, you have the option of installing ZENworks Asset Management applications (see step 14 of Initial Enterprise Deployment), or completing Setup and installing additional applications later.

If you choose to install additional applications during initial installation, follow the instructions described in Installing ZENworks Asset Management Applications During Initial Installation.

If you want to install applications on different computers later, see Installing ZENworks Asset Management Applications Later.

Tips:

- For optimal performance, Novell recommends installing each ZENworks Asset Management application on a separate computer.

- If you are using Oracle, you must configure a net service name that points to your Oracle server on any computer where you plan to install a ZENworks Asset Management application. (Use the Oracle Configuration Assistant to configure the net service name. This utility is installed automatically when you install the Oracle client.

Installing ZENworks Asset Management Applications Later

These instructions assume that you have already installed an Enterprise deployment of ZENworks Asset Management and you want to install one or more ZENworks Asset Management applications on a computer other than the one on which you performed the initial ZENworks Asset Management installation. (If you have not already installed an Enterprise deployment of ZENworks Asset Management, refer to Initial Enterprise Deployment .)

To install any of these applications, you *must* be at the computer on which you want the application to run. Go to the computer on which you want to install applications and start Setup again as described in the following instructions.

Tip: Once you have performed the initial installation of the Enterprise deployment of ZENworks Asset Management, you can run Setup from the Setup folder located in the File Store installation folder. (If you run Setup from the File Store folder, the Choose Installation Type and Choose Setup Type dialogs will not appear.)

To run Setup

1. Insert the ZENworks Asset Management CD into your CD drive. The ZENworks Asset Management Setup program may start automatically. If it does not, you can start Setup manually:
   a) Click on the Windows Start menu and click on Run.
   b) In the Run dialog, specify the location of the ZENworks Asset Management Setup program (for example, if your CD drive is D:, enter `D:\Setup`).
   c) Click on the OK button.

2. Read the Welcome screen and click on the Next button. Read the license agreement, select Yes to accept its terms and click on the Next button. (You cannot continue if you do not accept the license agreement.)

3. Choose Install/Upgrade Enterprise Deployment in the Choose Installation Type dialog and click on the Next button.

4. Choose Components Only in the Choose Setup Type dialog and click on the Next button.

5. Depending on which applications you want to install, refer to the appropriate section(s) for details on how to install each component individually:

   - Installing ZENworks Asset Management Manager.

   - Installing Collection Servers

   - Installing Task Servers

   - Installing the ZENworks Asset Management Web Console

Adding Applications to an Enterprise Deployment

An Enterprise deployment of ZENworks Asset Management has a single inventory database and File Store, but can have more than one Collection Server, Task Server, and/or ZENworks Asset Management Manager. (The installation must have one of each, however.) You will also need to install the ZENworks Asset Management Web Console if you plan to run Web reports, the ZENworks Asset Management Network Discovery Engine, or ZENworks Asset Management Software Compliance.

Multiple Collection Servers

Consider the following when trying to determine the number of Collection Servers that you will need:

- Sites with large numbers of workstations require multiple Collection Servers. At a minimum, install one Collection Server for every 10,000 workstations. More Collection Servers may be required in special situations, for example, if all data must be collected within a one day period, if you are collecting auxiliary data such as configuration files, or if you want different parts of your organization to be on different schedules.

- Separate sites at your enterprise may require separate Collection Servers. Sites that are connected by a local-area network (LAN) can be handled by one Collection Server. Sites that are connected by a wide-area network on the other hand, should have their own Collection Servers.

- Additional Collection Servers can help organize your ZENworks Asset Management data. For example, at a site with 4,500 users divided among three buildings, it might make sense to set up a Collection Server for each building.

Multiple Task Servers

When you perform a task such as purging the database, running a scheduled report, or incorporating a scheduled Product Recognition Update (PRU), you can assign the task to a specific Task Server. Task Servers can be set up so they are public (available to the entire enterprise) or associated with a specific Collection Domain. How you set up the Task Servers is up to you, but for optimal performance it is a good idea to install Task Servers on machines that are close to where you want to run reports.

The number of Task Servers that you need will depend on factors that are specific to your organization, such as your network configuration, number of ZENworks Asset Management users running reports, and the speed of the machine on which your Task Server is installed. You will need to add another Task Server (or upgrade the machines for existing Task Servers) if performance becomes unsatisfactory, for example, if scheduled tasks are routinely running late.

Multiple ZENworks Asset Management Managers

The number of copies of ZENworks Asset Management Manager that you install is related to the number of ZENworks Asset Management users that you plan to have, and is mostly determined by what is convenient for you. You may want a large number of Manager installations so that ZENworks Asset Management users have easy access to inventory data at all times. On the other hand, you may want to limit the number of Manager installations to maintain centralized control over your ZENworks Asset Management enterprise. (You can also limit access to inventory data through user roles.)

To install additional ZENworks Asset Management applications

1. Be sure you are at the machine where you want to install the application; you cannot install the applications remotely.

2. Stop all services and then follow the instructions for running Setup in Installing ZENworks Asset Management Applications Later.

Next Steps

Now that you have completed your initial ZENworks Asset Management installation, do the following:

Install the client applications on the workstations from which you want to collect data. You will then be ready to start collecting data. See *Installing Collection Client Software* in the **ZENworks Asset Management Collection Client** book found in the **Inventory Preparations** book of the Manager's online help.

Perform a pilot inventory: If you are ready to start collecting inventory data with ZENworks Asset Management, it is strongly recommended that you start with a pilot inventory, as described in Pilot Inventories.

Pilot Inventories

Especially in large organizations, Novell strongly recommends that you start by using ZENworks Asset Management on a small group of representative workstations. By examining the inventory data for these workstations you will see what kind of customizing you may need to perform. For example,

Any internally-developed products will not be recognized during the inventory cycle but you can define them as **local products**. Some local products will then be recognized automatically during future inventory cycles; others can be selected by workstation users from a list of available products.

If you decide you want additional information such as a purchase date or a workstation user's home telephone number, you can define a field (known as a **user-defined field**) for this information.

You can control what workstation users can view or do with the **Collection Editor**. By default, this application runs on workstations right after inventory data has been collected so users can review and change it.

By defining local products and your own fields up-front and making some decisions about the kind of data you want workstation users to provide or change, your inventory data will be far more complete when you start using ZENworks Asset Management on a large scale.

To conduct a pilot inventory

1. Select a group of workstations (about 25 to 30) that represents a good cross-section of the hardware and software at your company.

2. Inform workstation users of any data you want them to enter as part of the scan, for example, their department name and telephone number.

3. Use any of the methods described in the Enterprise Deployment topics to install the client applications and start up the Collection Client on your selected workstations. For example, you may want to set up your Web server so that workstation users can install the client applications from the Internet or you may want to use System Policies or a logon script.

4. When you are ready to start collecting data, edit the default collection schedule provided by Novell to activate it. (See *Reviewing and Editing a Collection Schedule* in the **Collection Schedules** book of the Manager Help's **Inventory Preparations** book.) The schedule will then ensure that inventory data is gathered from each workstation when it logs on/starts up. (Whether this occurs at log on or start up depends on the method you selected to start up the Collection Client.)

    The default collection option set provided by Novell will ensure that hardware and software data is gathered from the workstations and that the workstation users have an opportunity to provide the data you asked them to provide. This option set will also result in FNI data being gathered.

5. **Note:** If you do not use the default collection option set for your pilot inventories, it will be up to you to specify that FNI data should be gathered in the collection option set you define. By default, this data is not gathered. Keep in mind also that FNI data adds overhead to the inventory process.

6. Run a workstation detail report for each workstation you scanned and examine the data. You will be able to see what kind of data is available for each workstation and what additional data you may want to include. For example, the section labeled **FNI** (files not identified) in the report will indicate which software was not identified automatically. You may want to define local products for these software products, or you may choose to exclude these files from future scans.

7. To track additional data such as the purchase date of the system or the user's home telephone number, define your own fields. You will be able to view and print this data by using queries or by creating your own custom reports.

8. To control which inventory data workstation users can see and edit during an inventory cycle with the Collection Editor, create a collection option set. For example, you may want users to provide information only about their printers, phone numbers, or departments. With a collection option set you can control not only what the Collection Editor displays, but also what data users can change and how they can change it. You can also make some data required.

9. For any products that were not identified during the pilot inventory, define local products in one of these ways:

    -   Use ZENworks Asset Management Manager to define local products for software. By doing so you will be able to include recognition data for the products so that they are identified by the Collector during subsequent inventory cycles on other workstations.

    -   If a system was identified as "unknown," have the workstation user provide the correct information with the Collection Editor during the next scan of the workstation. The system will then be recognized correctly during subsequent scans.

    Note: The default schedule included with ZENworks Asset Management ensures that workstations are scanned once a week. If you do not want to wait, you can scan one or more workstations "on demand."

    -   Use the Manager to define local products for any hardware *except* systems. Although these products will not be recognized during subsequent inventories, they will be available in list boxes for users to select.

10. Repeat the following steps until you are satisfied with the data you are getting:
a) Scan the pilot group of workstations again using the "scan on demand" feature or an accelerated collection schedule.
b) Take another look at the collected data using both queries and reports.
c) Define any additional local products or fields that you need.

11. Slowly expand the pilot group (for example, by 25 workstations at a time) and repeat the steps above until you are satisfied that you are accounting for as much data as possible ahead of time.

12. Before you start using ZENworks Asset Management on a large scale, be sure you have done the following:
a) Identified and created your ZENworks Asset Management users.
b) Defined your own fields if you want to gather additional inventory data.
c) Defined Collection Domains and Collection Servers and assigned your ZENworks Asset Management users to them. (This does not apply to a Standalone deployment of ZENworks Asset Management.)
d) Established collection schedules and collection option sets (or had your domain administrators do so).
e) Ensured that all the workstations you want scanned can start the Collection Client automatically.

Workflow

After you have done some pilot inventories, completed any customization (such as local products or user-defined fields), and set up the Collection Client on your workstations, your inventory cycles will follow a pattern. Typically,

Workstations will be scanned at regular intervals, depending on the collection schedules you have established. Collection Domains and Collection Servers may not all be using the same schedule, in which case inventory data will be collected from different parts of the enterprise at different times.

After the inventory data has been collected, but before the next scheduled inventory, you will generally want to examine the data using queries and reports and make any necessary changes. For example, you may need to add, change, or delete inventory data; initiate a scan of a particular workstation with instructions to the user to provide some data you need; define additional local products; or reconcile discrepancies in local products.

If you need to provide upper management with any reports, you would run them after you have reviewed and edited the inventory data.

The cycle would then repeat itself at its next scheduled time.

Troubleshooting

If you encounter problems while installing ZENworks Asset Management or are not sure how to accomplish something, check the list of commonly-asked questions below for answers and possible solutions. If the problem you are having is not listed, or if you still cannot solve it after reading the recommended solutions, contact Novell Technical Support.

I have installed ZENworks Asset Management correctly, but the Collection Servers and Task Servers do not have access to the database. Why?

The Collection Servers and Task Servers may belong to different workgroups. Try logging onto the database server using the IP address or host name.

Why can I not install ZENworks Asset Management applications, other than the client applications, remotely?

You cannot install ZENworks Asset Management applications remotely because registry entries and services would be installed on the machine from which Setup is running while the files would be copied to a remote location. In order for ZENworks Asset Management applications to run, files must be installed on the same machine on which registry entries are made.

Expanding ZENworks Asset Management

In an Enterprise deployment, you can adapt ZENworks Asset Management to the needs of large or growing organizations by distributing processing among multiple copies of ZENworks Asset Management applications while maintaining a central database. For example, if you have a very large number of workstations, you can install multiple copies of the Collection Server to ensure that your inventories are completed in a timely manner.

Note: A Standalone deployment of ZENworks Asset Management has a single Manager, Collection Server, and Task Server, all of which reside on one machine.

ZENworks Asset Management Manager

The number of copies of ZENworks Asset Management Manager that you install is related to the number of ZENworks Asset Management users that you plan to have, and is mostly determined by what is convenient for you. You may want to allow a large number of Manager installations so that ZENworks Asset Management users have easy access to inventory data at all times. On the other hand, you may want to limit the number of Manager installations in order to maintain centralized control over your ZENworks Asset Management enterprise. (Use this strategy in conjunction with user roles.)

For more information on controlling access to ZENworks Asset Management using user roles, see *ZENworks Asset Management User Roles* in the Manager's online help.

Collection Server

Consider the following when trying to determine the number of Collection Servers that you will need:

- Sites with large numbers of workstations require multiple Collection Servers. At a minimum, install one Collection Server for every 10,000 workstations. More Collection Servers may be required in special situations, for example, if all data must be collected within a one day period, if you are collecting **auxiliary data** such as IRQ data or DMAs, or if you want different parts of your organization to be on different schedules.

- Separate sites at your enterprise may require separate Collection Servers. Sites that are connected by a local-area network (LAN) can be handled by one Collection Server. Sites that are connected by a wide-area network (WAN) on the other hand, should have their own Collection Servers.

- Additional Collection Servers can help organize your ZENworks Asset Management data. For example, at a site with 1,500 users divided among three buildings, it might make sense to install a Collection Server for each building.

Task Server

When you perform a task, you can assign it to a specific Task Server. Task Servers can be set up so they are public (available to the entire enterprise) or associated with a specific Collection Domain. You can also specify whether a Task Server runs all types of tasks or just selected types of task.

How you set up the Task Servers is up to you, but for optimal performance when running reports it is a good idea to install Task Servers on machines that are close to where you want to run the reports. Also, if you designate one Task Server for performing database purges, you should choose a Task Server that can handle infrequent but intensive database activity.

The number of Task Servers that you need will depend on factors that are specific to your organization, such as your network configuration, number of ZENworks Asset Management users running reports, and the speed of the machine on which your Task Server is installed. You will need to add another Task Server (or upgrade the machines for existing Task Servers) if performance becomes unsatisfactory, for example, if scheduled tasks are routinely running late. In addition, if you are using the ZENworks Asset Management Network Discovery Engine, you may want to consider a dedicated Task Server for it.

Database Creation and Setup Tool

Database Setup for Oracle

The Database Creation and Setup Tool will create a new ZENworks Asset Management inventory database for you. The tool is started automatically while you are running Setup. (See step 12 of the Initial Enterprise Deployment procedure.)

To create an inventory database for Oracle:

1. In the Database Creation and Setup Tool for ZENworks Asset Management dialog, select Oracle 8i or Oracle 9i as your database type and then click on the Next button.

2. In the Connect to Database Server dialog, enter the net service name and the password of the system user. Then click on the Next button.

3. Review your selections in the Confirm Database Selections dialog and click on the Next button. If a connection cannot be made to the database server, you will receive an error message. Database creation will not continue until a successful connection is made. If necessary, use the Back button to make changes.

4. In the Configure Oracle Temporary File dialog, specify where you want to create the TSCTEMP tablespace and click on the Next button. For Windows NT, enter a full path.

    Note: If you are creating the temporary file remotely, the path that you specify is relative to the Oracle server, not the local machine on which you are running the Database Creation and Setup Tool.

5. In the Configure Oracle Data File dialog, specify sizing and location information about the TSCDATA tablespace.

    Note: To improve performance, keep the data and the index files on separate physical disks.
    a) Enter the initial size of the tablespace. (1 GB is the recommended minimum.)
    b) Enter the name you want to give the data file and specify where you want to create it. For Windows NT, enter a full path.

    Note: If you are creating the database remotely, the path that you specify is relative to the Oracle server, not the local machine on which you are running the Database Creation and Setup Tool.
    c) Click on the Next button to continue.

6. Specify how you want to manage the TSCDATA tablespace:
    a) In the Extent Management section, either select the Automatic allocation option or leave the Uniform extent allocation by increments of option selected. 5 MB is the recommended allocation amount. Less than that is likely to degrade performance; more than that will consume large amounts of disk space.

    Caution: The amount that you specify for extent allocation applies to **each** database table. With over 100 database tables, 20 MB, for example, would translate to over 2 GB.

    b) In the Data File Management section, if you want the data file to grow automatically as the need arises, leave the Automatically extend data file in increments of option selected and specify the amount by which you want to increase the data file's size. (300 MB is recommended.) If you do not want the data file to grow automatically, select the Do not automatically extend data file option.
    c) Click on the Next button.

7. In the Configure Oracle Index File dialog, specify sizing and location information about the TSCIDX (index) tablespace. (This dialog is identical to the one in step 5 above, except it is for the index file.)

    Note: To improve performance, keep the data and index files on separate physical disks.

    a) Enter the initial size of the tablespace. (1 GB is the recommended minimum.)
    b) Enter the name you want to give the index file and specify where you want to create it. For Windows NT, enter a full path.

    Note: If you are creating the index file remotely, the path that you specify is relative to the Oracle server, not the local machine on which you are running the Database Creation and Setup Tool.
    c) Click on the Next button to continue.

8. Specify how you want to manage the TSCIDX tablespace. (This dialog is identical to the one mentioned in step 6 above, except that it is for the index file.)
a) In the Extent Management section, either select the Automatic allocation option or leave the Uniform extent allocation by increments of option selected. 5 MB is the recommended allocation amount. Less than that is likely to degrade performance; more than that will consume large amounts of disk space.

   Caution: The amount that you specify for extent allocation applies to **each** database table. With over 100 database tables, 20 MB, for example, would translate to over 2 GB.

   b) In the Data File Management section, if you want the index file to grow automatically as the need arises, leave the Automatically extend data file by increments of option selected and specify the amount by which you want to increase the data file's size. (300 MB is recommended.) If you do not want the data file to grow automatically, select the Do not automatically extend data file option.
   c) Click on the Next button.

9. In the Create Schema Owner dialog, specify and verify a password for the user named NCSystem who will own the ZENworks Asset Management schema and have all the necessary permissions to maintain it. Then click on the Next button to continue.

10. Review your selections in the Confirm Database Creation Settings dialog and click on the Next button to continue. If necessary, use the Back button to make changes.

11. The Database Creation and Setup Tool will create your inventory database and start the initialization tool, which will initialize the tables in the database. This process may take several minutes. Once the initialization is complete, click on the Close button.

12. In the Enterprise Deployment Database Setup Completion dialog, review the results of the database creation process and click on the Finish button to return to step 13 of the Initial Enterprise Deployment procedure.

Database Setup for Microsoft SQL Server

The Database Creation and Setup Tool will create a new ZENworks Asset Management inventory database for you. The tool is started automatically while you are running Setup. (See step 12 of the initial Enterprise deployment procedure in Initial Enterprise Deployment .)

To create an inventory database for SQL Server:

1. In the Database Creation and Setup Tool for ZENworks Asset Management dialog, select Microsoft SQL Server 7.0 or Microsoft SQL Server 2000 as your database type and click on the Next button.

2. In the Connect to Database Server dialog, enter the name of your database server, provide the user name and password for the system administrator account, and click on the Next button.

   Note: The system administrator account must be set up to use SQL Server authentication.

3. Review your selections in the Confirm Database Selections dialog and click on the Next button. If a connection cannot be made to the database server, you will receive an error message; processing will not continue until this connection is successful. If necessary, use the Back button to make changes.

4. In the Enter Database Name dialog, accept the default name (TS_Census) for your inventory database or enter a different name in the Name box and click on the Next button. The name you choose cannot be the same as an existing database.

5. In the Specify Database Owner dialog, specify a user without Microsoft SQL Server administrator rights who will own and maintain the inventory database.

   - If you want to create a new user to manage the database, select the Create New User option and enter the new user's name in the Logon Name box. Enter the password in the Enter Password section.

   - If you want an existing user to manage the database, select the option labeled Select From a List of Existing Users, select the user's name from the list, and enter the user's password information. The Select From a List of Existing Users option will appear only if you have existing users defined.

   Once you have entered the user name and password that you want, click on the Next button.

6. In the Configure Database File for SQL Server dialog, click on the Sizing Assistant button to help you calculate the initial size for the inventory database based on the criteria you specify in the Sizing Assistant dialog.

7. In the Define Database File Growth for SQL Server dialog, enter settings that will control the automatic expansion of the database file when the initial file size is exceeded. By default, the database grows by increments of 10%, and has no restrictions on its growth.
a) In the Percentage of File Growth section, accept the default or change the percentage by which the database should expand, if necessary.
b) In the Maximize File Size section, choose Do Not Restrict File Growth to give the database unlimited ability to expand, or choose Restrict File Growth and enter a value in the Restrict File Growth to (MB) box to limit the maximum size that the database can attain automatically.
c) Click on the Next button.

8. In the Configure Transaction Log File Server for SQL Server dialog, accept the default for the initial size for the transaction log in the Initial Size box and click on the Next button. (Novell recommends *not* changing the initial size for the transaction log since it is based on the Sizing Assistant calculations in step 6 of Database Setup for Microsoft SQL Server.)

   Note: The transaction log file should reside on a different physical drive from the database file. By default, the Database Creation and Setup Tool suggests the folder C:\Mssql7\data. If, however, you previously accepted this default location for the database file step 6 of Database Setup for Microsoft SQL Server, it is strongly recommended that you change the location of the transaction log file.

9. In the Define Transaction Log File Growth for SQL Server dialog, enter settings that will control the automatic expansion of the transaction log file when the initial file size is exceeded. By default, the transaction log file grows by increments of 10%, and has no restrictions on its growth.
a) In the Percentage of File Growth section, accept the default or change the percentage by which the transaction log file should expand, if necessary.
b) In the Maximize File Size section, choose Do Not Restrict File Growth to give the transaction log file unlimited ability to expand, or choose Restrict File Growth and enter a value in the Restrict File Growth to (MB) box to limit the maximum size that the transaction log file can attain automatically.
c) Click on the Next button.

10. Review your selections in the Confirm Database Creation Settings dialog and click on the Next button to continue. If necessary, use the Back button to make changes.

11. The Database Creation and Setup Tool will create your inventory database and start the initialization tool, which will initialize the tables in the database. This process may take several minutes. Once the initialization is complete, click on the Close button.

12. In the Enterprise Deployment Database Setup Completion dialog, review the results of the database creation process and click on the Finish button to return to step 13 of the Initial Enterprise Deployment procedure.

Configuring Oracle

Before you install the ZENworks Asset Management Enterprise deployment, you should verify that Oracle is configured to optimize the way ZENworks Asset Management performs. Novell requires or recommends the following settings. For additional information, see your Oracle documentation.

Multiple processors: Oracle will take advantage of multiple processors, so consider setting it up that way. (The minimum processor speed is 400 MHz.)

Memory allocation: 512 MB memory is recommended; allocate it as follows:

Shared pool	80 MB
Buffer	75 MB
Large pool	56 MB
Java pool	30 MB

Total SGA	Set to 50% - 65% of total physical memory
Sort area size	1024 KB

Disk space: Have 2 GB of disk space available where you are planning to install the tablespace files.

DB block size: Set this to a minimum of 8192 KB (highly recommended).

Control files: Keep these files on different physical disks (recommended).

Rollback segment tablespace: Set up a minimum of five with eight extents of 4 MB each. *Be sure to remove any smaller ones so they cannot be used.*

Instant compatibility parameter: If you are running Oracle 8.1.7, set the instant compatibility parameter to 8.1.0 so you can create tablespaces with locally managed options. Local management avoids recursive space management operations and automatically tracks adjacent free space, eliminating the need to coalesce free extents.

Configuring Microsoft SQL Server

Before you install the Enterprise deployment of ZENworks Asset Management, you should verify that Microsoft SQL Server is configured to optimize the way ZENworks Asset Management performs. Novell recommends the following settings for optimal performance. For additional information, see your Microsoft SQL Server documentation.

- **International use of the Microsoft SQL Server character set**: During Microsoft SQL Server installation, you have the option of choosing a character set. You should confirm that this character set is compatible with localized software and keyboards on the database server and ZENworks Asset Management servers and clients.

  Caution: You can change the character set in an existing Microsoft SQL Server installation, but this will affect other databases attached to the server, and is not recommended. See your Microsoft SQL Server documentation for more information.

- **Net library compatibility**: During Microsoft SQL Server installation, you have the option of choosing the net library that Microsoft SQL Server will use to communicate with its clients. Novell recommends using the TCP/IP Sockets net library.

- **Microsoft SQL Server 6.5 compatibility**: Microsoft SQL Server 6.5 compatibility for your ZENworks Asset Management Microsoft SQL Server 7.0 or 2000 database should be turned *off*. (This option is off by default.) ZENworks Asset Management does not support Microsoft SQL Server 7.0 or 2000 databases in 6.5 compatibility mode.

- **Number of database connections**: To run ZENworks Asset Management, you must have a minimum of six server connections for each Manager installed, four server connections for each Task Server installed, and four server connections for each Collection Server.

- **Number of Microsoft SQL Server Client Access Licenses** (CALs): You need one CAL per machine that attaches to SQL Server. For example, if you have a Collection Server and Task Server installed on one machine and the Manager installed on another, you require two CALS. If you have two Collection Servers, one Task Server, and three Managers, each installed on separate machines, you require six CALs. If you are running the ZENworks Asset Management Web reports (see the *Reports* book in the *Analysis and Maintenance* book of the Manager's online help), you also need a CAL for the machine where you installed the Web Console (if it is a machine without any other ZENworks Asset Management applications).

- **Case Sensitivity:** ZENworks Asset Management does not support SQL Server installations with the case-sensitive sorting option turned on. (By default, this option is off.)

- **SQL Service Pack requirements**: No service packs are required for Microsoft SQL Server if you are using version 7.0 or 2000.

Installing Client Applications

Installing Client Applications

The ZENworks Asset Management client applications include the Collection Client, Collector, and Collection Editor. They are designed to reside on each Windows workstation that you want to be part of your automated inventory process. See System Requirements - Collection Clients for more information.

Although you can install the client applications by running Setup from the ZENworks Asset Management CD or CD image, doing so may not be practical for large numbers of workstations because it requires a visit to each workstation.

A number of other methods are available for automating the process of installing the client applications on workstations:

- Remote Client Install utility

- System Policies

- Group Policies

- Downloading from a Web page

- Logon script

For complete details of all these methods (including using the ZENworks Asset Management CD) see *Installing ZENworks Asset Management Collection Client Software* in the **Inventory Preparation** book of the Manager's online help system.

System Requirements - Clients

The machines on which you install the **client applications** must meet the following minimum requirements:

Hardware requirements	• 90 MHz processor • 32 MB of RAM • 13 MB hard disk storage (plus space for database expansion) If you plan to run the **ZENworks Asset Management Usage Monitor**, client machines require: • An additional 1 MB of hard disk storage for the application • Approximately 20 KB of hard disk storage for each daily log file. (The contents of the log files are transferred to the database as part of an inventory cycle. For more information, see *About the ZENworks Asset Management Usage Monitor* in the **Administration** book of the ZENworks Asset Management Manager help.)
Display Setting	A minimum display resolution of 1024 x 768 Small fonts.
Operating System	Windows 95/98 Windows NT Windows 2000 Windows XP Windows Server 2003

TCP/IP	TCP/IP with LAN or TCP/IP connection to the File Store. **Note:** In order for the client applications to communicate with other ZENworks Asset Management applications, the name of the client machine must resolve to an IP address.

Removing ZENworks Asset Management

Removing ZENworks Asset Management

Use the Windows *Add/Remove Programs* command, available from the Windows Control Panel, to remove a ZENworks Asset Management Standalone deployment or any of the ZENworks Asset Management applications in an Enterprise Deployment.

Before you can remove the programs, you must stop the ZENworks Asset Management services.

- For instructions on how to stop ZENworks Asset Management services, see Stopping ZENworks Asset Management Services.

- Once you have stopped the ZENworks Asset Management services, and you are ready to remove the applications, see Removing the ZENworks Asset Management Applications.

Stopping ZENworks Asset Management Services

The Collection Server and Task Server run as services on Windows NT/2000/XP. The Collection Client can also run as a service. You must stop these services before you can uninstall any of the ZENworks Asset Management applications. If you are uninstalling the Web Console, you must also stop the Apache TomCat service.

To stop a ZENworks Asset Management service

1. Click on the Windows Start button.

2. Point to Settings and click on Control Panel.

3. On Windows NT, double-click on Services. On Windows 2000/XP, double-click on Administrative Tools, then Services.

4. Select ZENworks Asset Management Collection Server and click on the Stop button.

5. Select ZENworks Asset Management Task Server and click on the Stop button.

6. Select ZENworks Asset Management Collection Client and click on the Stop button.

7. If the Collection Client is running as a standard executable on the workstation (not as a service), shut down the client by doing one of the following:

    - From the Manager, click with the right mouse button on the associated server in the process control panel, then select Shutdown Collection Clients.

    - From the Processes tab in Windows NT Task Manager, select Cclient.exe and click on the End Process button.

Removing the ZENworks Asset Management Applications

To remove the ZENworks Asset Management applications, you use the Add/Remove Programs feature in Windows.

To remove the ZENworks Asset Management applications

1. Click on the Windows Start button.

2. Point to Settings and click on Control Panel.

3. Double-click on Add/Remove Programs.

4. Select the ZENworks Asset Management applications that you want to remove and click on the Change/Remove button.

5. **Standalone deployment:**

   - ZENworks Asset Management Enterprise

   - Microsoft Data Engine (MSDE) *(only if you are not using it for any other applications)*

6. **Enterprise Deployment:**
   If you have installed the Enterprise deployment of ZENworks Asset Management, and have installed more than one component on the same machine, you may need to remove any of the following ZENworks Asset Management applications:

   - ZENworks Asset Management Manager

   - ZENworks Asset Management Collection Server

   - ZENworks Asset Management Task Server

   - ZENworks Asset Management Client Applications

   - ZENworks Asset Management Web Console

   - ZENworks Asset Management Database Creation Utility.

7. Delete the ZENworks Asset Management installation folder or folders (the folders in which the program is installed) and any files in these folders. If you installed more than one application on the same machine, you may need to delete more than one folder and any files in these folders.

   Caution: Be sure you have uninstalled a program before you delete it's folder from the Program Files folder.

8. Delete the File Store folder and any files in it.

9. If you need to uninstall the Web Console repeat steps 1 to 4 and remove both ZENworks Asset Management Web Console and Apache TomCat.

   Note: When you remove a ZENworks Asset Management installation, a registry key pertaining to the Collection Client is left. The key is left to avoid duplicate workstations in the database should you later reinstall the Collection Client on the workstation.

Dialog Reference

Choose File Store Installation Type

In the Choose File Store Installation Type dialog you indicate the type of File Store you want to use.

NOTE: A LAN-based file store is recommended unless you have one or more remote server sites that are not connected to your local or wide-area network.

Choose Setup Type

If you are installing the Standalone deployment of ZENworks Asset Management, the Choose Setup Type dialog lets you choose between:

- Initial Installation - select this to install the entire Standalone deployment.

- Install Client Applications – select this if you want to install the client applicationsclient_applications on a workstation.

If you are installing the **Enterprise deployment** version of ZENworks Asset Management, the Choose Setup Type dialog lets you choose between:

- Initial Installation - select this to install the core Enterprise deployment. The initial installation always includes the inventory database and File Storefile_store and may include ZENworks Asset Management Manager,ZENworks_Asset_Management_Manager the Collection Server,Collection_Server the Task Server,Task_Server and the ZENworks Asset Management Web ConsoleZENworks_Asset_Management_Web_Console.

- Components Only – select this to install ZENworks Asset Management Manager, the Collection Server, and the Task Server on different machines after the initial installation or to install additional copies of these applications. (You can have multiple Managers, Collection Servers, and Task Servers in your enterprise.)

- Also select the Components Only option to install the client applications or the ZENworks Asset Management Web Console.

- Software Upgrade – select this if you are upgrading from an [earlier version of TS.Census].

After you make your selection, click on the Next button to continue.

Database Information

In the Database Information dialog you must provide information about your ZENworks Asset Management inventory database so that the Collection Server, Task Server, Manager, or Web Console that you are installing can connect to the database.

NOTE: The names you need to provide in this dialog should be the same names you specified when running the Database Creation and Setup Tool to create the inventory database.

For Microsoft SQL Server, select one of the listed Microsoft SQL Server types in the Database Type box, enter the name of the server on which you installed your inventory database, enter the name of the database in the Database Name box, and click on the Next button to continue.

For Oracle, select one of the listed Oracle types in the Database Type box, enter the net service name, and click on the Next button.

Select Type of Client Installation

The Select Type of Client Installation dialog lets you choose between a typical or compact installation. Unless you have concerns about bandwidth when installing the client applications, select Typical. If you select Compact, only the files required to connect to a Collection Server are installed; additional files are installed automatically by the Collection Server when the workstation first connects to it.

Specify FTP Server and Access Method

If you are using an FTP-based File Store in an **Enterprise deployment**, you must enter the IP address and login information in the Specify FTP Server and Access Method dialog.

1. Enter the IP address of the FTP server.

2. Choose whether you will use Anonymous or Authenticated FTP access to the FTP-based file store.

3. If you chose Authenticated FTP, enter the user name and password to be used when ZENworks Asset Management Managers, Collection Servers, and Task Servers access the File Store.

4. Click on the Next button to continue.

User Account Information

In a number of situations Setup will request information about a network user account so that ZENworks Asset Management can use this account to gain access to certain network resources such as printers.

- During a Standalone deployment, you must provide user account information in the ZENworks Asset Management Services Setup dialog.

- During Collection Server installation, you must provide user account information in the ZENworks Asset Management Collection Server Setup dialog.

- During Task Server installation, you must provide user account information in the ZENworks Asset Management Task Server Setup dialog.

No matter what the context, the procedure is the same. You must specify a valid network user account, including the password. If Setup cannot verify the account information, you will not be able to continue with installation until you specify a valid account.

To provide information about a network user account

1. In the User Account box, do one of the following:

    - Click on the browse button and select a user in the Select User dialog.

    - Enter the name of an existing user in the format Network Domain\User, for example, TC2323\administrator.

    NOTE: The user you specify must have administrative rights to the machine on which you are installing ZENworks Asset Management. (Only users with administrative rights will be listed as choices in this dialog.)

2. Enter and confirm the password for the account. Note that the password is case-sensitive.

3. Click on the Next button to continue.

4. Setup will check the account information you provided. If Setup cannot verify the account, you will receive an error message. Enter the account information again. *You will not be able to continue with installation until you provide a valid account.*

ZENworks Asset Management Client Applications Setup

The ZENworks Asset Management Client Applications Setup dialog lets you determine how you would like the Collection Client to be installed and configured. You have the choice of installing the Collection Client as a service or as a standard executable program. You can also configure the Collection Client to start whenever the system or Windows is started. In addition, you have the option of starting the Collection Client when Setup finishes.

To set up the Collection Client

1. To install the Collection Client as a service, select the as a service option

2. To install the Collection Client as a standard program, select the as a standard executable program option.

3. Select the Start the Collection Client automatically option if you want the Collection Client to start each time the system is started (if the Collection Client is installed as a service) or Windows is started (if the Collection Client is installed as a standard program). If you do not want the Collection Client to start automatically, clear this option.

4. Select the Start the Collection Client now option if you want the Collection Client to start when Setup finishes. If you do not want the Collection Client to start when Setup finishes, clear this option.

5. Click on the Next button to continue.

ZENworks Asset Management File Store Setup

In the ZENworks Asset Management File Store Setup dialog you must indicate where you want to install the File Store For a Standalone deployment or a LAN-based File Store, the File Store must reside in a shared network folder that is accessible to all the Collection Servers, Task Servers, and Managers you plan to install.

1. Click on the Browse button and locate a folder for the File Store in the Network Neighborhood.

   NOTE: The network user account for running any Collection Server, Task Server, or Manager must have full control access to the File Store folder.

2. Click on the Next button to continue.

ZENworks Asset Management Manager Setup

The ZENworks Asset Management Manager Setup dialog indicates the TCP/IP port number that has been assigned to the Manager. Accept this port number unless you know that another application is using it. In that case, specify a different port number for the Manager.

Do one of the following:

To accept the proposed TCP/IP port number, click on the Next button.

If you know another application is using the proposed TCP/IP port number, enter a different port number in the TCP/IP Port box and click on the Next button.

ZENworks Asset Management Task Server Setup

The ZENworks Asset Management Task Server Setup dialog indicates the TCP/IP port number that has been assigned to the Task Server. Accept this port number unless you know that another application is using it. In that case, specify a different port number for the Task Server.

Do one of the following:

- To accept the proposed TCP/IP port number, click on the Next button.

- If you know another application is using the proposed TCP/IP port number, enter a different port number in the TCP/IP Port box and click on the Next button.

   Note: If you want to gather WMI (Windows Management Instrumentation) data, the user account you specify must have local administration level permissions with file store access rights. It must also have one of the following:

   - domain administration level rights for every domain containing a subnet you wish to scan,

      or

   - a valid account on each WMI-enabled machine found in the network scan.

ZENworks Asset Management Collection Server Setup

In the ZENworks Asset Management Collection Server Setup dialog you must do the following:

- Assign the Collection Server to a Collection Domain.Collection_Domain If you have not created any Collection Domains yet, you can specify the name of a new Collection Domain, and Setup will create it for you.

- Give the Collection Server a name.

- You may also need to change the TCP/IP port number that has been assigned to the Collection Server if you know that another application is using it.

To set up the Collection Server

1. Either select an existing Collection Domain to which you want to assign the Collection Server or enter the name of a new Collection Domain. (Setup will create it for you.)

2. Enter a name for the Collection Server. (This is how the Collection Server will be identified on the Collection locator tab in the Manager.)

3. If you know another application is using the proposed TCP/IP port number, enter a different port number in the TCP/IP Port box.

4. Click on the Next button.

TIP

If you decide later that you want the Collection Server assigned to a different Collection Domain, you can use the Manager to move the Collection Server. You can also use the Manager to rename Collection Servers and Collection Domains. See *Moving a Collection Server* in the *Inventory Preparations>Collection Servers* book of the Manager's online help.

Technical Support

Contacting Novell Technical Support

Before you contact Novell Technical Support, please do the following:

- Check the Release Notes by clicking on the Release Notes icon in the ZENworks Asset Management program folder.

- Review the system requirements topics to make sure you are meeting system requirements and/or completing a procedure correctly:
  System Requirements - Collection Clients
  System Requirements - Standalone Deployment
  System Requirements - Enterprise Deployment

Then contact Novell Technical Support at:

http://support.novell.com