



ZENworks[®]

Patch Management

User Guide

Agent Management Center v6.4

Novell[®]

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Preface

This Agent Management Center v6.4 User Guide is a resource written for all users of the Novell Agent Management Center (AMC). This guide defines the concepts and procedures for installing, implementing, and using the AMC.

About This Guide

This guide contains the following chapters and appendices.

- **Chapter 1, “Installing the Agent Management Center”** - Walks you through the installation of the Agent Management Center
- **Chapter 2, “Getting Started with the AMC”** - Walks you through the configuration and usage of the Agent Management Center
- **Chapter 3, “Discovering Available Nodes”** - Defines the various methods to discover nodes
- **Chapter 4, “Installing ZENworks Patch Management Agents”** - Defines the various methods to install your ZENworks Patch Management Agents
- **Appendix A, “Index”**



Tip: This document is updated on a regular basis. To acquire the latest version of this document please refer to the Novell Support Web site (www.novell.com/support)



Document Conventions

The following conventions are used throughout this document to help you identify various information types:

Table 0.1 Document Conventions

Convention	Usage
bold	Command names, database names, options, wizard names, window and screen objects (i.e. Click the OK button)
<i>italics</i>	New terms, variables, and window and page names
UPPERCASE	SQL commands and keyboard keys
monospace	File names, path names, programs, executables, command syntax, and property names

The icons used throughout this document identify the following types of information:

Table 0.2 Icons Used

Icon	Alert Label	Description
	Note:	Identifies paragraphs that contain notes or recommendations.
	Tip:	Identifies paragraphs that contain tips, shortcuts, or other helpful product information.
	Warning:	Identifies paragraphs that contain vital instructions, cautions or critical information.



1 Installing the Agent Management Center

The Novell ZENworks Patch Management Server features an enterprise-wide agent distribution and management utility. The Agent Management Center (AMC) utility allows you to perform network discovery tasks, install and uninstall ZENworks Patch Management Agents, and perform other agent management functions, such as removing agents from the ZENworks Patch Management Server database.

The AMC allows you to automatically discover computers through Reverse DNS Lookup, within a Windows domain, or within an LDAP Organizational Unit. The results of the discovery will then identify which computers have the ZENworks Patch Management Agent installed, and facilitate the installation of the agent on those computers which do not.

Installation Pre-requisites

Supported Operating Systems

The AMC is supported on the following operating systems:

- Microsoft Windows Server™ 2003, Standard Edition with SP1
- Windows Server 2003, Enterprise Edition with SP1
- Windows Server 2003 R2, Standard Edition
- Windows Server 2003 R2, Enterprise Edition
- Microsoft Windows XP Professional with SP2



Note: Microsoft Vista is not a supported platform for the AMC.



Minimum Installation Requirements

- Single Intel Pentium 4 (or equivalent) Processor
- 512 MB of RAM
- 200 MB of Free Disk Space (During Installation)
- 100 MB of Disk Space (After Installation)
- Single 100 MB NIC with access to the Internet
- Local / Domain Administrator or Administrator Equivalent
- Microsoft .NET Framework 1.1 with SP1

Installing the Agent Management Center

The Agent Management Center can be installed on your ZENworks Patch Management Server or any computer that can connect to your Patch Management Server. For performance reasons, we recommend you install the AMC on a computer other than your Patch Management Server.



Note: The Agent Management Center Installer will detect the existence of Agent Management Center 6.3 and automatically upgrade to version 6.4.

To Download the Agent Management Center Installer

1. Log on to the target computer as the local **administrator** (or a member of the **LOCAL_ADMINS** group).
2. Launch your web browser.
3. Type your ZENworks Patch Management Server URL in your web browser's *Address* field. Press **Enter**.
4. Type your **User Name** in the *User name* field. Press **TAB**.
5. Type your **password** in the *Password* field.
6. Click **OK**.
The *ZENworks Patch Management Server Home* screen opens.
7. Select **Devices**.



- Click **Install**.
The *Agent Installers* page opens.

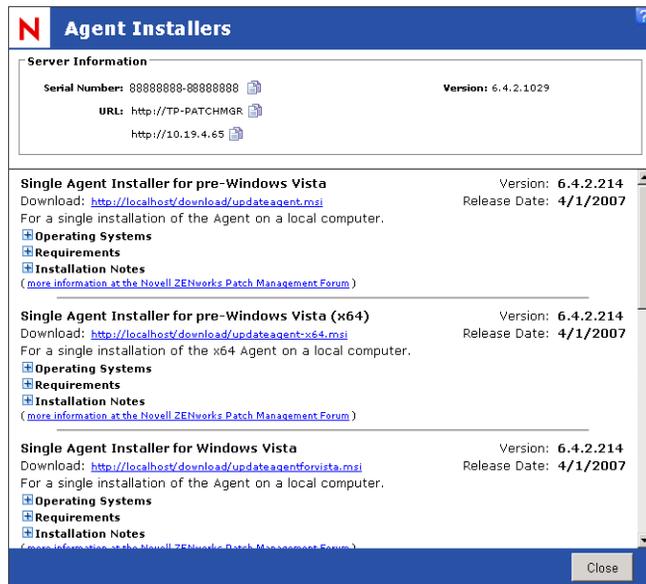


Figure 1.1 Agent Installers

- Select the *Agent Management Center Installer* download link to start the download.
The *Download* dialog box opens.
- Click **Save**.
The **Agent Management Center Installer** file downloads to the location you specify.
- On the Agent Installers page, click **Close**.
The *Agent Installers* page closes.

To install the Agent Management Center

- From the downloaded location, select the **Agent Management Center Installer** file to extract the *Agent Management Center InstallShield Wizard*.
The *Agent Management Center Installation Wizard* opens to the *Welcome* page.



2. Click **Next**.
The *License Agreement* page opens.

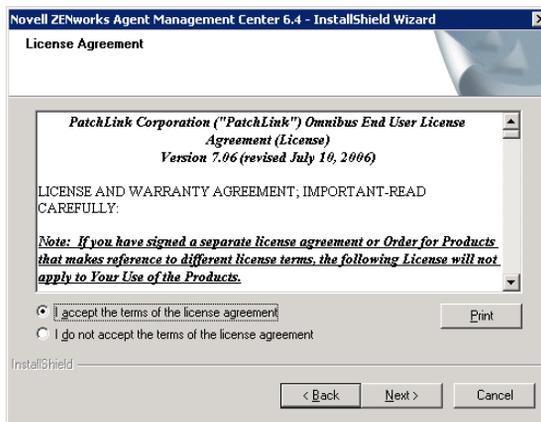


Figure 1.2 License Agreement page

3. If you agree to the license terms, select the **I accept the terms of the End User License Agreement** option
4. Click **Next**.
The *Setup Type* page opens.

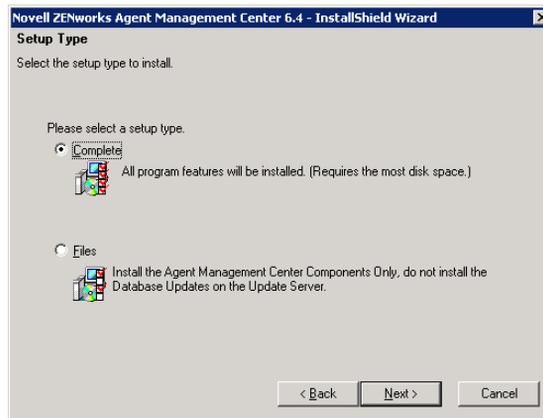


Figure 1.3 Setup Type page

5. Select one of the following options:



- **Complete** - Installs **all** Agent Management Center components including the database and the necessary ZENworks Patch Management Server components.
The first time you install (or upgrade) the AMC you must select this option.
 - **Files** - Installs only the local Agent Management Center components.
6. Click **Next**.
The *Database Server Login* page opens.



Figure 1.4 Database Server Login page

7. Select the name of your ZENworks Patch Management Server database from the **Database Server** drop-down.
If your ZENworks Patch Management Server's database server is not listed in the **Database Server** drop-down you can:
- a. Click **Browse...** to search for the server.
 - b. Type the name of your ZENworks Patch Management Server's database server in the **Database Server** field.
8. Select to connect to the Database Server using either **Windows Authentication** or **SQL Server Authentication**.
- Using **SQL Authentication** requires that you have a SQL user account on the ZENworks Patch Management Server which has admin level access to the **PLUS**, **PLUS_Staging**, and **PLAMS** databases (the **PLAMS** database is created during a complete installation of Agent Management Center).
 - Using **Windows Authentication** requires that you establish a trusted connection to your ZENworks Patch Management Server.



9. Click **Next**.
The *Ready to Install* page opens.

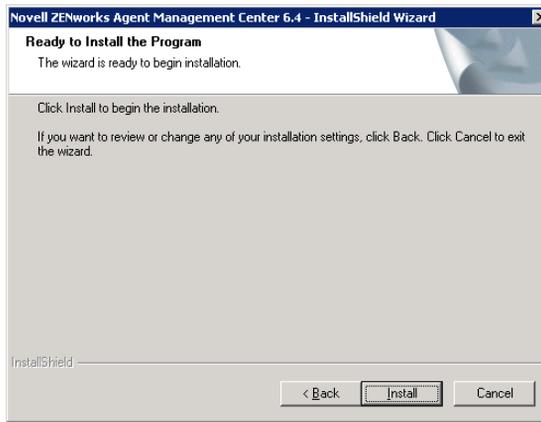


Figure 1.5 Ready to Install page

10. Click **Install** to begin the installation.
Following the Installation, the *Installation Complete* page will display.

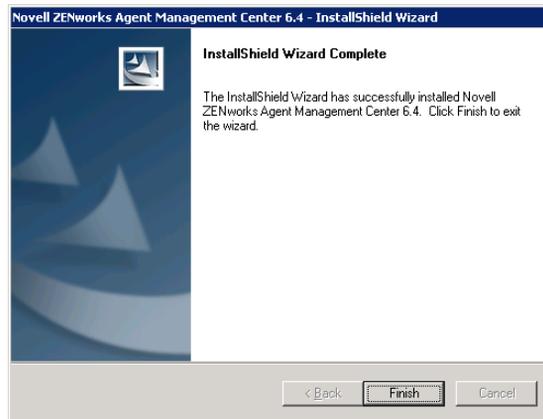


Figure 1.6 Installation Complete page

11. Click **Finish** to exit the Installation Wizard.



2 Getting Started with the AMC

When opening the Agent Management Center (AMC), you will be asked to connect to your ZENworks Patch Management Server using either Windows Authentication, or SQL Authentication.

Logging In to the Agent Management Center

1. Launch the AMC by double-clicking the Novell Agent Management Center icon. The Select an Authentication Mode window opens.

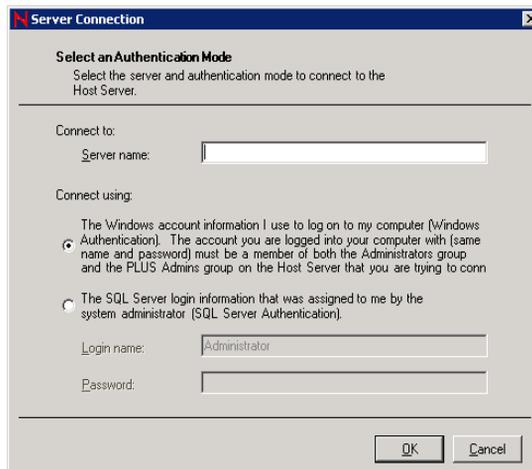


Figure 2.1 Select an Authentication Mode

2. Type the name of your ZENworks Patch Management Server in the **Server Name** field.
3. Select to **Connect using** either *Windows Authentication* or *SQL Server Authentication*. If you are using SQL Server Authentication:
 - a. In the **Login name** field, type the SQL login.
 - b. In the **Password** field, type the SQL password.



4. Click **OK**.
The Agent Management Center Welcome page opens.

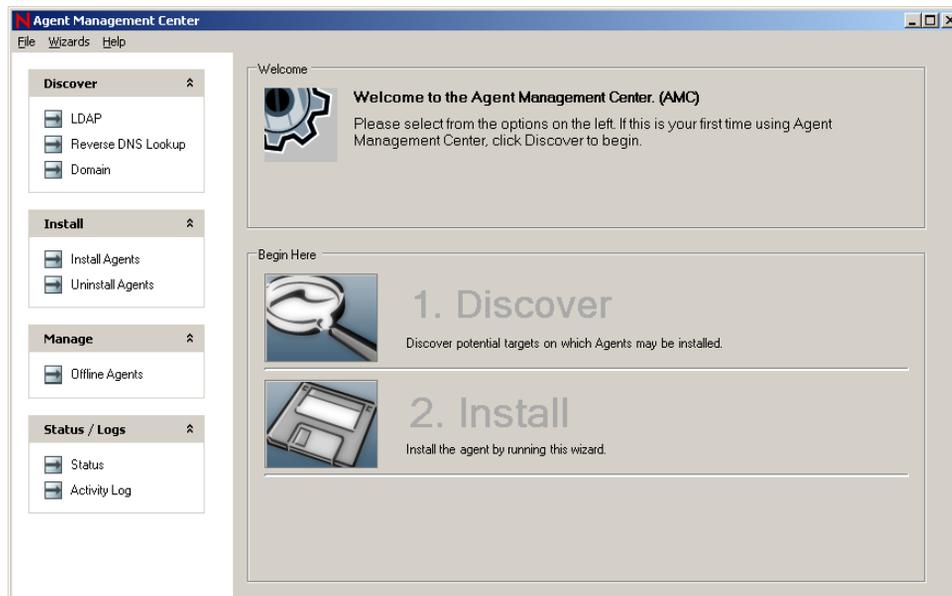


Figure 2.2 Agent Management Center Welcome page

The Agent Management Center Welcome page guides you through the steps required to successfully discover, install and manage your agents.



Managing Credentials

Because installing the ZENworks Patch Management Agent requires administrator level access to each device, the AMC will prompt you to define the credentials that will facilitate the install. These credentials will then be validated and re-validated to insure that the credentials are current.



Note: You must add a credential that not only has local administrator privileges but also has domain or LDAP access.

Adding Credentials to the AMC

To discover devices and install the ZENworks Patch Management Agent you must add a credential that has both local administrator privileges and Domain or LDAP access.

To Add a New Credential

1. Select **File > Credentials**.
The Manage Credentials window opens.

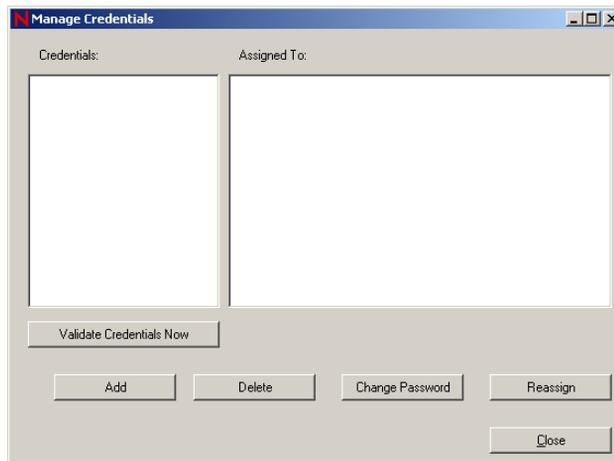


Figure 2.3 Manage Credentials window



2. Click **Add**.
The *Add New Credential* window opens.

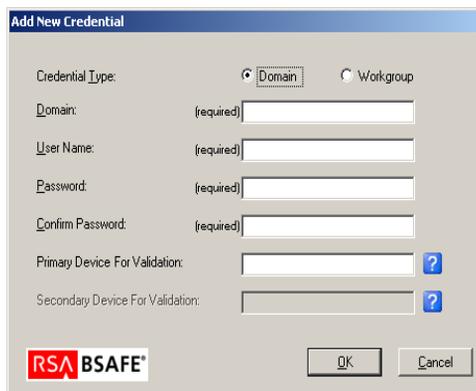


Figure 2.4 Add New Credentials

3. Select a **Credential Type** of **Domain** or **Workgroup**.
 - a. If **Domain** is selected, type the Domain name in the **Domain** field.
 - b. If **Workgroup** is selected, the **Domain** field will be unavailable.
4. Type a user name in the **User Name** field.
5. Type the password in the **Password** and **Confirm Password** fields.
6. [Optional] If a credential type of Workgroup was selected, type the name of a device, which can validate the credential, in the **Primary Device for Validation** and **Secondary Device for Validation** fields.
7. Click **OK** to add the credential.
The *Add New Credential* window will close.
8. Repeat steps 2 through 7 for any additional credentials.
9. Click **Close**.
The *Manage Credentials* window will close.



Reassigning Credentials

When a network discovery is successful, the credentials used to discover that device are stored as its default credentials. If required, you can reassign the credentials assigned to one or more devices.

Reassigning Credentials

1. Select **File > Credentials**.
The *Manage Credentials* window opens.

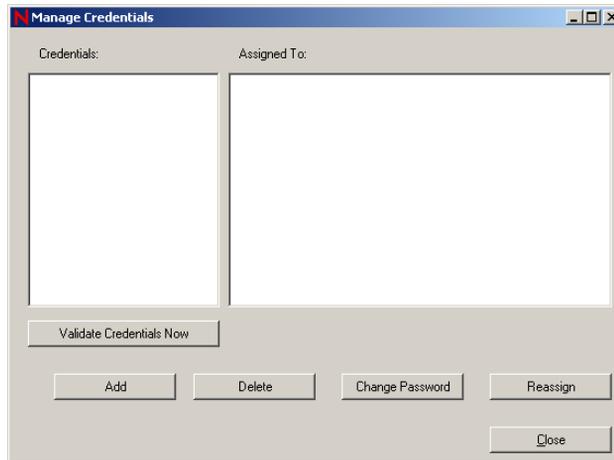


Figure 2.5 Manage Credentials window

2. Select the desired credential.



3. Click **Reassign**.
The *Change Assigned Credential* window opens.

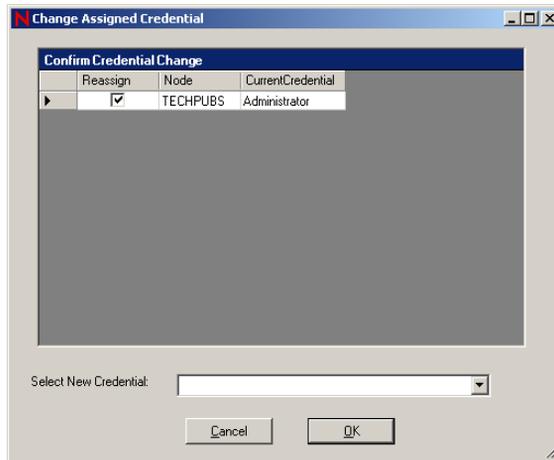


Figure 2.6 Change Credential screen

4. Select the **Reassign** checkbox next to each of the devices to reassign.
5. Select a new credential from the **Select New Credential** field.
6. Click **OK**.
The *Change Assigned Credential* window closes.



Reassigning Credentials from the Devices Window

1. From the *Install Agents* page, right-click on a device and select **Change Credential**.

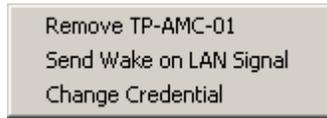


Figure 2.7 Right-Mouse Menu -- Install Agents Tree-View

The *Change Assigned Credential* window opens.

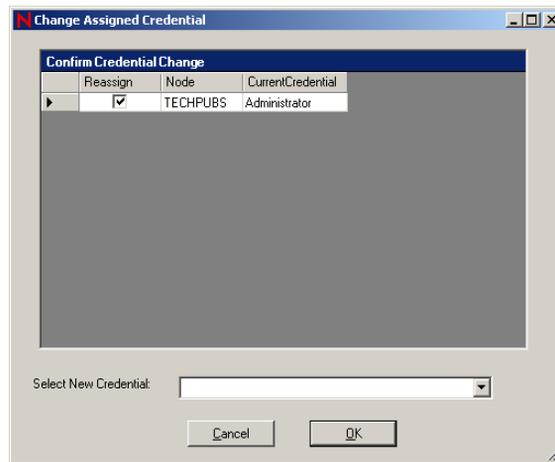


Figure 2.8 Change Assigned Credential

2. Ensure that the **Reassign** checkbox is selected for each device whose credentials will change.
3. Select a new credential from the **Select New Credential** field.
4. Click **OK**.
The *Change Assigned Credential* window closes.



Deleting Credentials

Prior to deleting a credential, you must reassign all of the devices assigned to the credential.

Deleting a Credential

1. Select **File > Credentials**.
The *Manage Credentials* window opens.

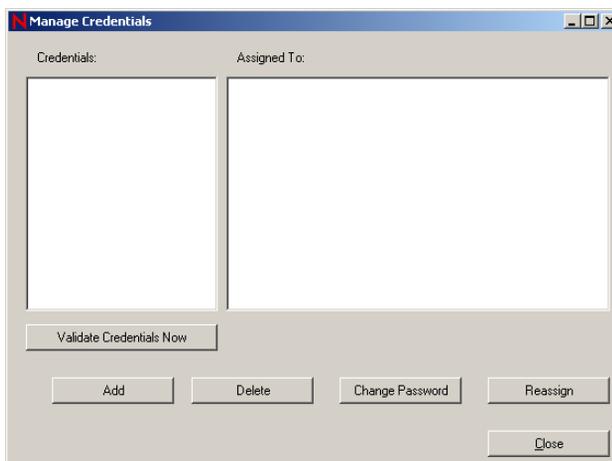


Figure 2.9 Manage Credentials window

1. Select the credential to delete.
2. Reassign the credential as defined under **“Reassigning Credentials”**.
3. After reassigning all of the devices associated with the credential, reselect the credential.
4. Click **Delete**.
A Delete confirmation dialog will display.
5. After confirming the deletion, click **Close**.
The *Manage Credentials* window closes.



Validating Credentials

If you select to disable the *Verify Credentials* option, you can manually validate the credentials using the *Validate Credentials Now* function of managing credentials.

Validating Credentials

1. Select **File > Credentials**.
The *Manage Credentials* window opens.

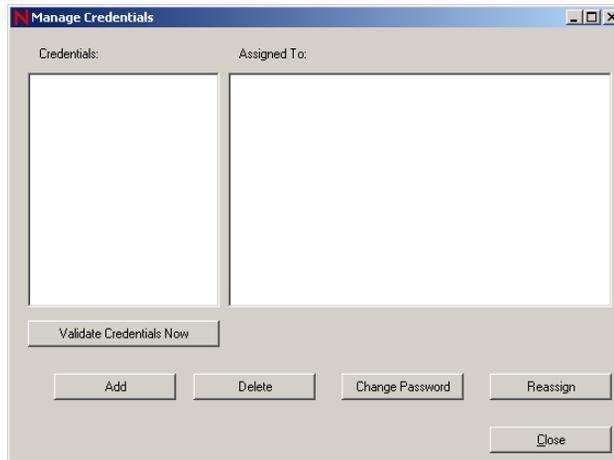


Figure 2.10 Manage Credentials window

1. Click **Validate Credentials Now**.
A *Validating Credentials* dialog will display.
2. After the credentials are validated, the *Validating Credentials* dialog will close.
If any credentials fail, the Agent Management Center will automatically reassign those devices to a different credential whenever possible.



Configuring the AMC

In most cases the default Agent Management Center Configuration will not require modification. However, if required, these settings can be modified through the *Configuration* page.

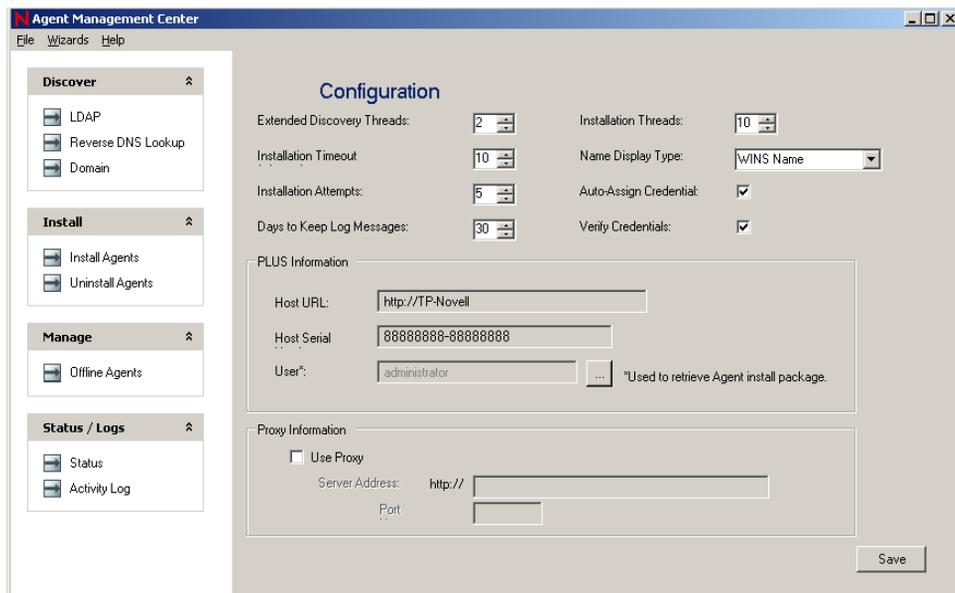


Figure 2.11 Configuration screen

Configuring the Agent Management Center

1. Select **File > Configuration**.
The Configuration page opens.
2. Define the following configuration options:



Table 2.1 Agent Management Center Configuration Options

Field	Description
Extended Discovery Threads	The Extended Discovery Thread is a process that attempts to identify additional information about discovered devices. This process runs in the background, on a per-device basis. The Extended Discovery Threads setting, allows you to define the number of simultaneous threads.
Install Threads	Allows you to set the maximum number of simultaneous agent installations. If you are attempting to install more agents than available threads, all subsequent installation attempts will be suppressed until an agent completes the installation and releases a thread. Warning: A large number of simultaneous installations can cause performance delays.
Install Timeout	Allows you to define the maximum number of minutes the Agent Management Center will spend attempting to install an agent before aborting the installation.
Name Display Type	Allows you to define how each discovered device will be displayed. Available options are: <ul style="list-style-type: none"> • WINS Name • Fully Qualified Domain Name • IP Address
Install Attempts	Allows you to define the number of times the Agent Management Center will attempt to install an agent.
Auto-Assign Credential	Automatically assigns device credentials based upon which credential was used during discovery.
Days to Keep Log Messages	Allows you to define the number of days log messages will be retained.
Verify Credentials	Forces a credential validation when the Agent Management Center is opened. Insures that only valid credentials are used to search for and connect to devices. Clear this check box to disable the automatic validation of credentials.



To ensure that the AMC and your ZENworks Patch Management Agents are able to communicate with your ZENworks Patch Management Server, confirm that the following settings. Click **Save** when complete.

Table 2.2 Agent Management Center Communication Settings

Field	Description
PLUS Information	
Host URL	This is the URL of your ZENworks Patch Management Server.
Host Serial Number	Your Novell ZENworks Patch Management serial number (as entered during the installation of ZENworks Patch Management).
Proxy Information	
Use Proxy	Select to enable the use of a proxy when the ZENworks Patch Management Agents communicate with your ZENworks Patch Management Server. Selection of this check box will enable the Server Address and Port fields.
Server Address	This is your Proxy servers URL.
Port	The port which your ZENworks Patch Management Agents will communicate with your proxy server.



3 Discovering Available Nodes

The AMC allows you to automatically discover devices within a specified Windows Domain, IP address range, or a LDAP Organizational Unit. The results of this discovery will then tell you whether the discovered device has the ZENworks Patch Management Agent installed, and allow you to install or uninstall agents, and remove offline agents.

Discovering Devices and Installing Agents Using the Wizard

The *Discovery and Installation Wizard* allows you to search for devices within a Windows Domain, IP range, or LDAP Organizational Unit and install an ZENworks Patch Management Agent on those devices.

Using the Wizard to Perform an LDAP Scan

If your Agent Management Center is installed on a computer within domain using LDAP, you can use the *Discovery and Installation Wizard* to search for other devices within that domain.

Performing an LDAP Scan

1. Select **Wizards > Discovery and Agent Installation** to open the *Discovery and Installation Wizard*.
The *Welcome* page opens.

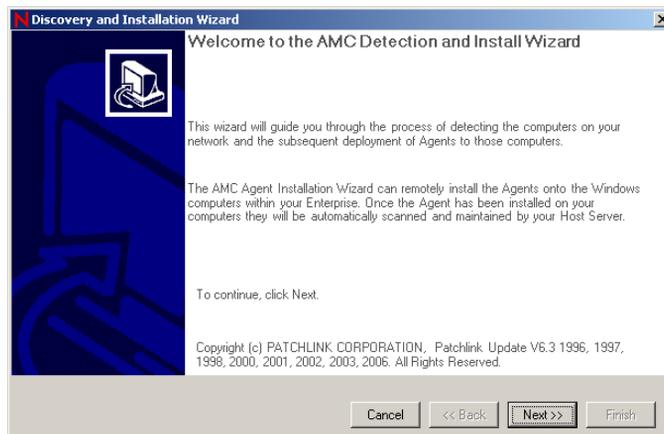


Figure 3.1 Welcome page



2. Click **Next**.
The *Detection Type* page opens.



Figure 3.2 Detection Type page

3. Select **LDAP** and click **Next**.
The *LDAP Type* page opens.

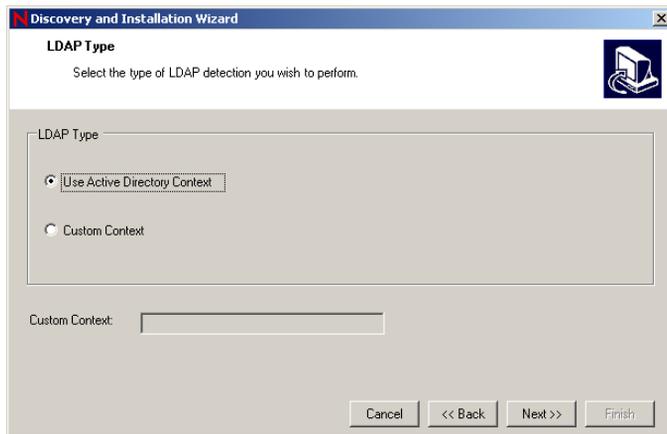


Figure 3.3 Select LDAP Type



4. Select **Use Active Directory Context**.
If you would rather type your own LDAP string, select **Custom Context** and type a valid LDAP string in the **Custom Context** field.
5. Click **Next**.
The *LDAP Filter* page opens.



Figure 3.4 Define LDAP Filter

6. Type a valid LDAP object type in the **Filter** field to apply a filter to your LDAP results.



7. Click **Next**.
The *LDAP Detection Credentials* page opens.

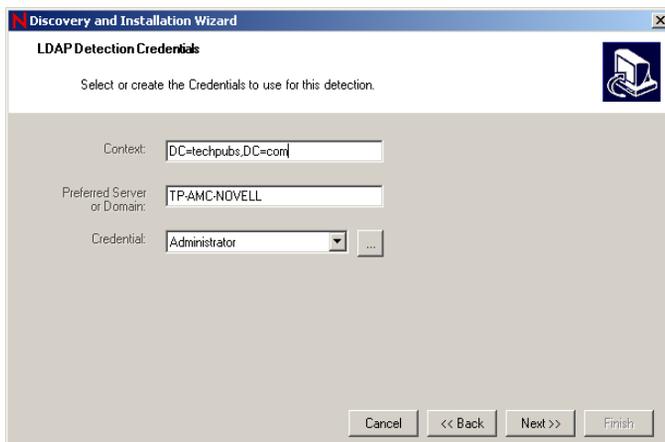


Figure 3.5 Define LDAP Detection Credentials

8. Type an LDAP context value in the **Context** field.
9. Type the name of your LDAP Server or Domain in the **Preferred Server or Domain** field.
10. Select the discovery credentials from the **Credential** list.
11. Click **Next**.
The LDAP Context, Server, and Credentials will be validated. If the LDAP verification is successful you can continue with the discovery.



12. Click Next.

The *Select Machines to Install* page will open.

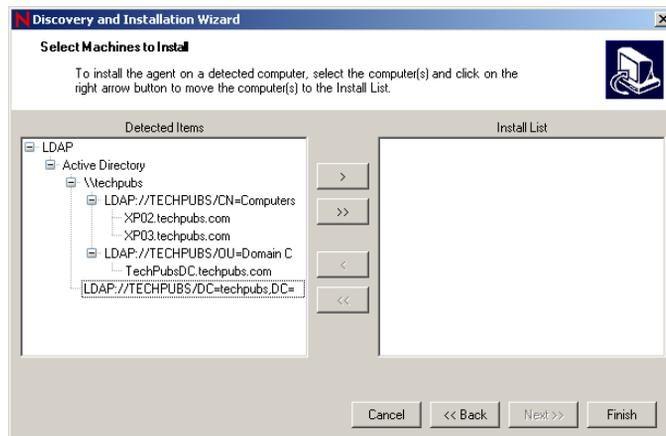


Figure 3.6 Select Target Machines

13. Select one or multiple devices on which to install the ZENworks Patch Management Agent.

- To Add individually selected computers click the right arrow (>) button.
- To Add All computers click the double right arrow (>>) button.
- To Remove a selected computer click the left arrow (<) button.
- To Remove All selected computers click the double left arrow (<<) button.



14. Click **Next**.

The *Install to All or New Machines* page opens.

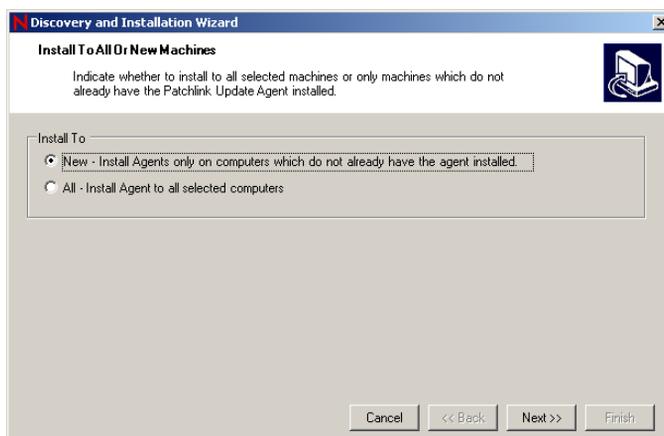


Figure 3.7 Install to All or New Machines

15. Select whether to install the ZENworks Patch Management Agent on **All** selected devices, or only **New** devices that do not already have an agent installed.

16. Click **Next**.

The *Agent Installation Credentials* page opens.

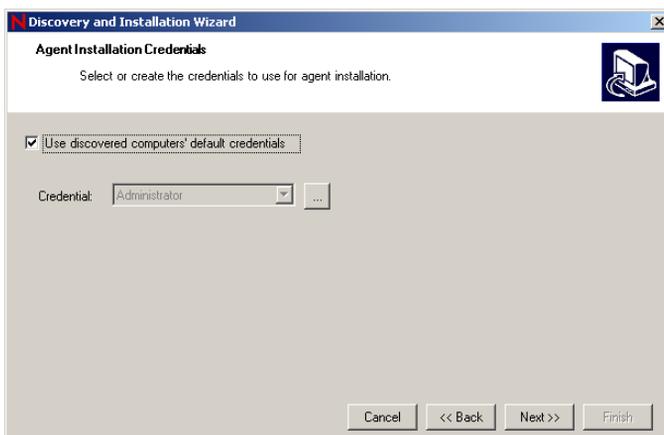


Figure 3.8 Agent Installation Credentials



17. If credentials other than those used during the discovery are required for agent installation, clear the **Use discovered computers' default credentials** option and select the appropriate credentials from the **Credential** list.
18. Click **Next**.
The *Agent Installation Results* page opens displaying the Agent installation progress in the Current Status grid.

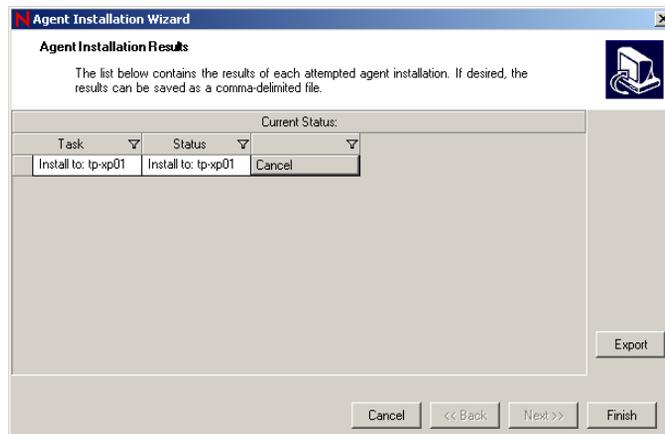


Figure 3.9 Agent Installation Results

You may cancel the installation on an per device basis, using the **Cancel** button shown in grid, or cancel all installations using the **Cancel** button at the bottom of the page.

The installation results can be exported to a comma separated (csv) file using **Export**.



Note: It is **not** necessary to wait for all of the tasks to show as completed prior to exiting the wizard. If you close the wizard before all tasks have completed, you can see the progress by selecting to view the AMC Status or Activity Log.

19. To exit the wizard, click **Finish**.



Using the Wizard to Perform a Domain Scan

If your Agent Management Center is installed on a computer within domain, you can use the *Discovery and Installation Wizard* to search for other devices within that domain.

Performing a Domain Scan

1. Select **Wizards > Discovery and Agent Installation** to open the *Discovery and Installation Wizard*.
The *Welcome* page opens.



Figure 3.10 Welcome page



2. Click **Next**.
The *Detection Type* page opens.

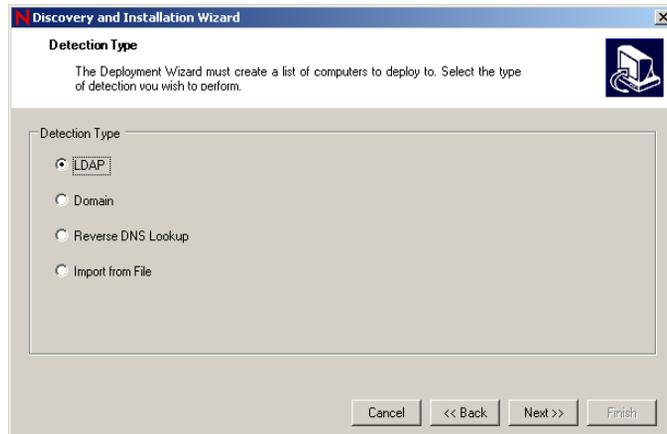


Figure 3.11 Detection Type page

3. Select **Domain** and click **Next**.
The *Credentials* page opens.

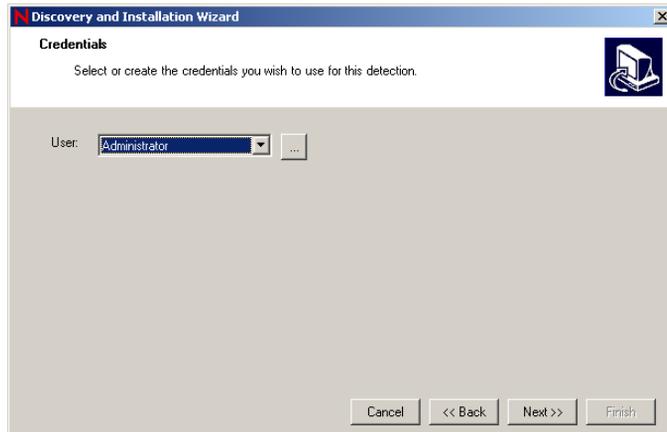


Figure 3.12 Domain Credentials

4. Select a credential, with the rights to search your domain, from the **User** list.



5. Click **Next**.
The *Domain Selection* page opens.

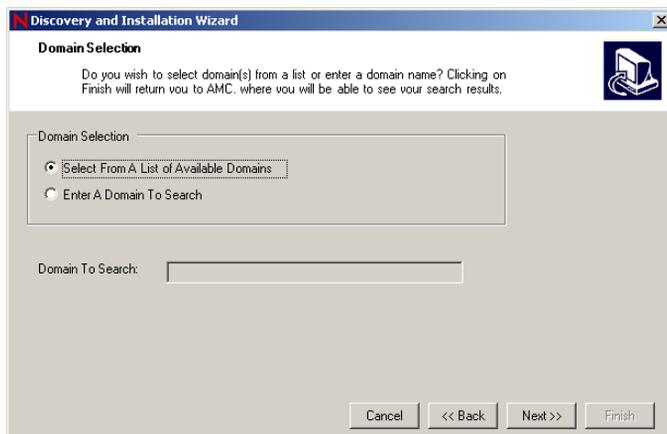


Figure 3.13 Domain Selection

6. To select from a list of domains:
 - a. Select the **Select from a List of Available Domains** option.
 - b. Click **Next**.
The *Domain Selection* page opens.



Figure 3.14 Select From Domain List



- c. Select one or multiple domains.
- d. Click **Next**.
The selected domains are searched and the *Select Machines to Install* page opens displaying a list of available devices.

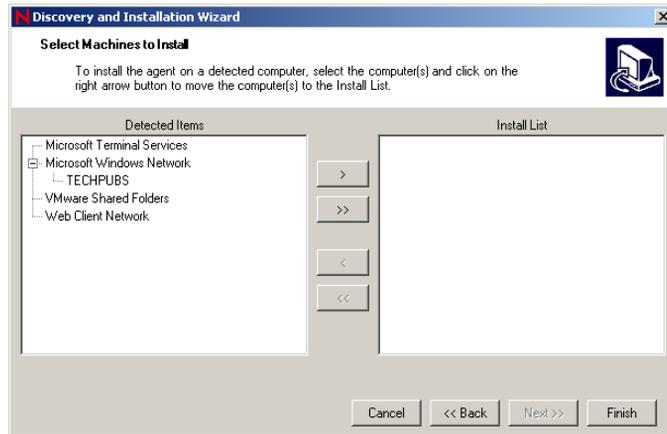


Figure 3.15 Select Target Machines

7. To search as specific domain only:
 - a. Select **Enter a Domain to Search**.
 - b. Type the domain name in the **Domain to Search** field



c. Click **Next**.

The specified domain is searched, and the Select Machines to Install page opens displaying a list of available devices.

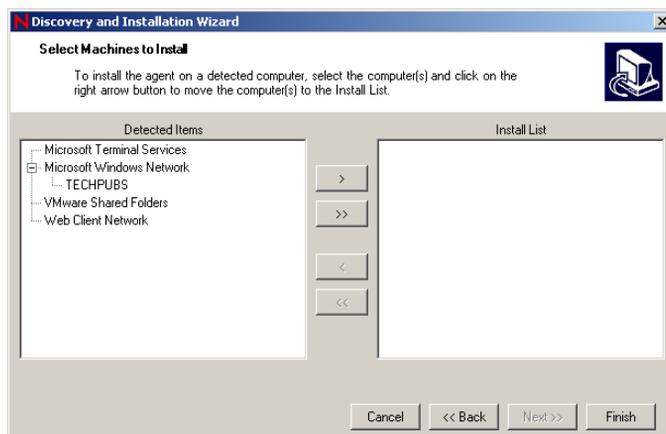


Figure 3.16 Select Target Machines

8. Select one or multiple devices on which to install the ZENworks Patch Management Agent.
 - To Add individually selected computers click the right arrow (>) button.
 - To Add All computers click the double right arrow (>>) button.
 - To Remove a selected computer click the left arrow (<) button.
 - To Remove All selected computers click the double left arrow (<<) button.



9. Click **Next**.
The *Install to All or New Machines* page opens.

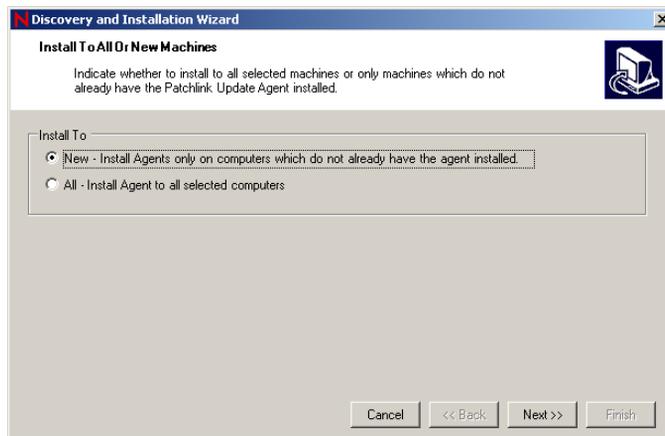


Figure 3.17 Install to All or New Machines

10. Select whether to install the ZENworks Patch Management Agent on **All** selected devices, or only **New** devices that do not already have an agent installed.
11. Click **Next**.
The *Agent Installation Credentials* page opens.

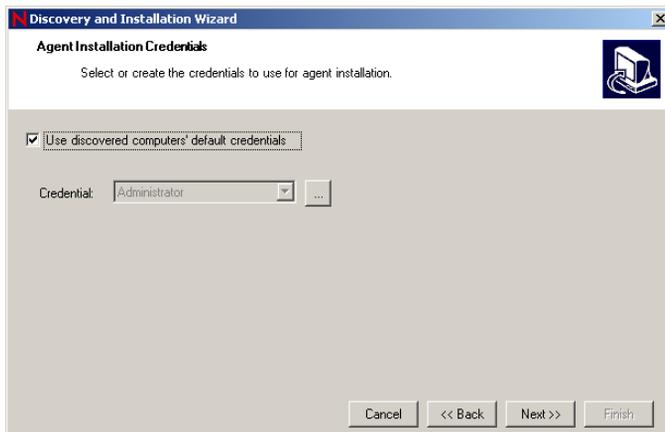


Figure 3.18 Agent Installation Credentials



- If credentials other than those used during the discovery are required for agent installation, clear the **Use discovered computers' default credentials** option and select the appropriate credentials from the **Credential** list.
- Click **Next**.
The *Agent Installation Results* page opens displaying the Agent installation progress in the Current Status grid.

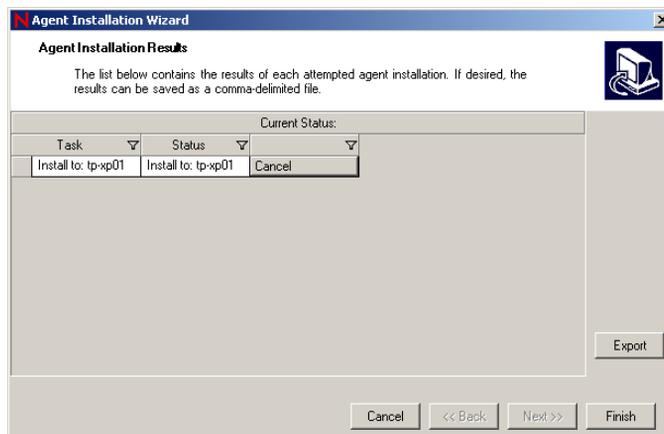


Figure 3.19 Agent Installation Results

You may cancel the installation on an per device basis, using the **Cancel** button shown in grid, or cancel all installations using the **Cancel** button at the bottom of the page.

The installation results can be exported to a comma separated (csv) file using **Export**.



Note: It is **not** necessary to wait for all of the tasks to show as completed prior to exiting the wizard. If you close the wizard before all tasks have completed, you can see the progress by selecting to view the AMC Status or Activity Log.

- To exit the wizard, click **Finish**.



Using the Wizard to Perform Reverse DNS Lookup

Whether or not your Agent Management Center is installed on a computer within domain, you can use the *Discovery and Installation Wizard* to search for other devices using a reverse DNS scan and querying your DNS Server.

Performing Reverse DNS Lookup

1. Select **Wizards > Discovery and Agent Installation** to open the *Discovery and Installation Wizard*.

The *Welcome* page opens.

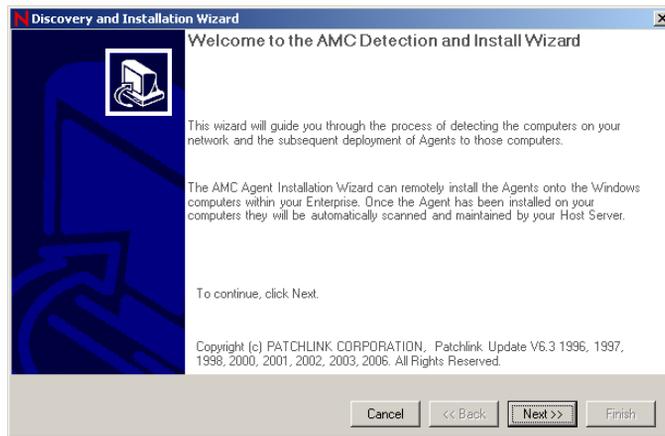


Figure 3.20 Welcome page



2. Click **Next**.
The *Detection Type* page opens.

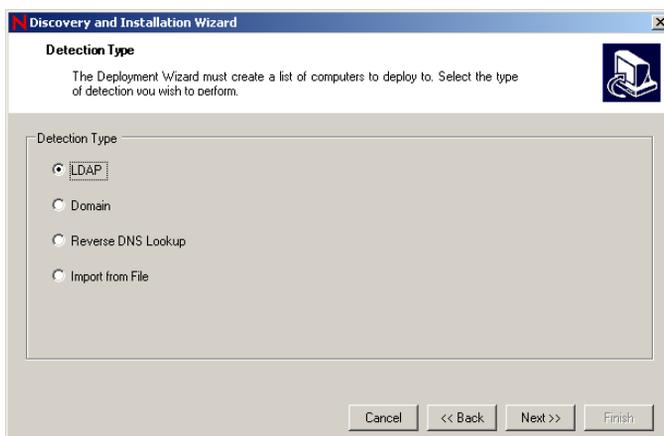


Figure 3.21 Detection Type page

3. Select **Reverse DNS Lookup** and click **Next**.
The *Credentials* page opens.

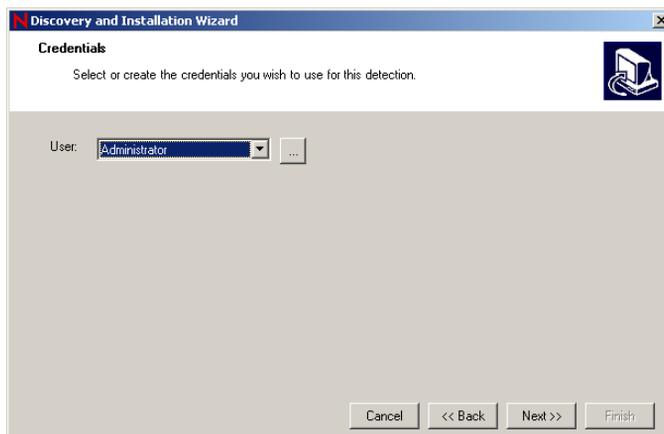


Figure 3.22 Credentials

4. Select a credential, with the rights to search your network, from the **User** list.



5. Click **Next**.
The *Reverse DNS Lookup* page opens.

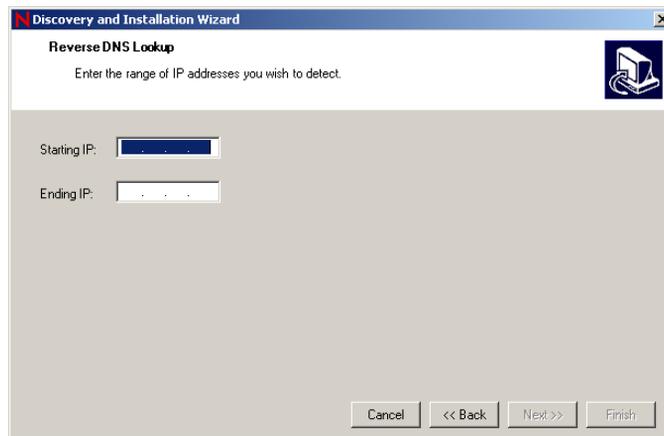


Figure 3.23 Reverse DNS Lookup

6. Define both a **Starting IP** and **Ending IP** value.
7. Click **Next**.
The *DNS Server* page opens.



Figure 3.24 DNS Server

8. To use the default DNS Server, select the **Use Default DNS** option.



9. To define a specific DNS Server, select the **Use Specified DNS** option and type the DNS Server name in the **Specified DNS** field.
10. Click **Next**.
The DNS Server is searched and the *Select Machines to Install* page opens displaying a list of available devices.

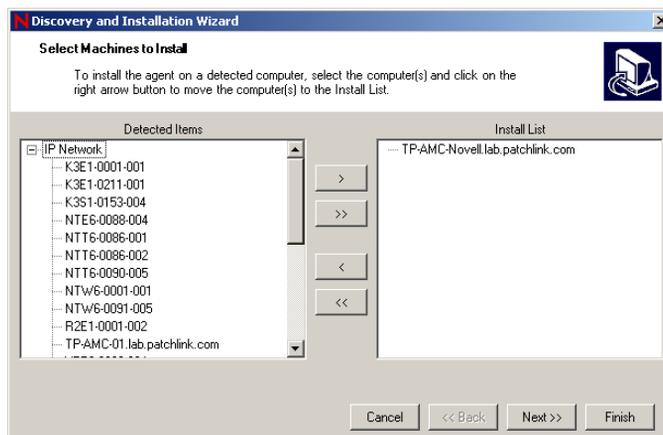


Figure 3.25 Select Target Machines

11. Select one or multiple devices on which to install the ZENworks Patch Management Agent.
 - To Add individually selected computers click the right arrow (>) button.
 - To Add All computers click the double right arrow (>>) button.
 - To Remove a selected computer click the left arrow (<) button.
 - To Remove All selected computers click the double left arrow (<<) button.



12. Click Next.

The *Install to All or New Machines* page opens.

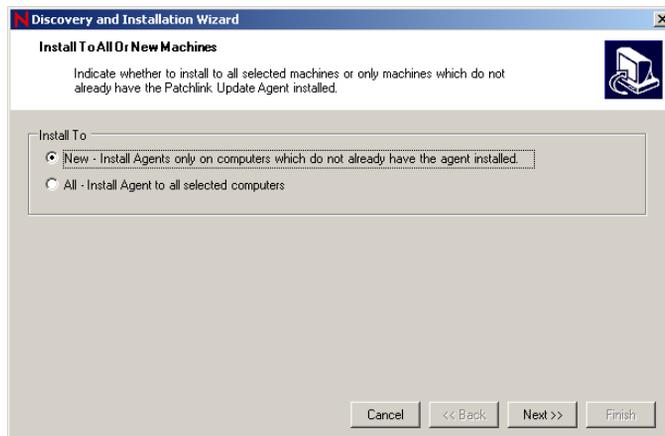


Figure 3.26 Install to All or New Machines

13. Select whether to install the ZENworks Patch Management Agent on **All selected devices, or only **New** devices that do not already have an agent installed.****14. Click Next.**

The *Agent Installation Credentials* page opens.

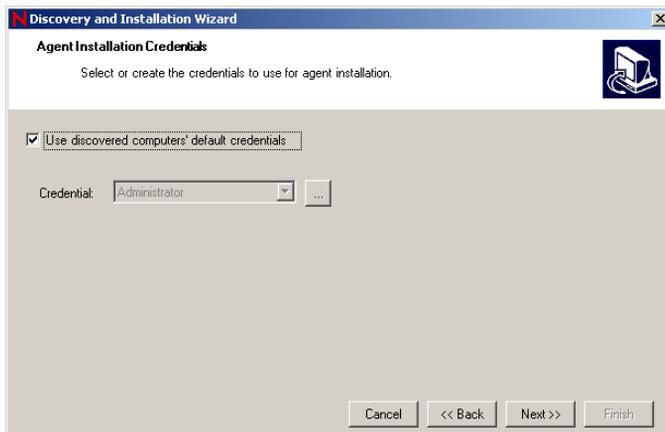


Figure 3.27 Agent Installation Credentials



- If credentials other than those used during the discovery are required for agent installation, clear the **Use discovered computers' default credentials** option and select the appropriate credentials from the **Credential** list.
- Click **Next**.
The *Agent Installation Results* page opens displaying the Agent installation progress in the Current Status grid.

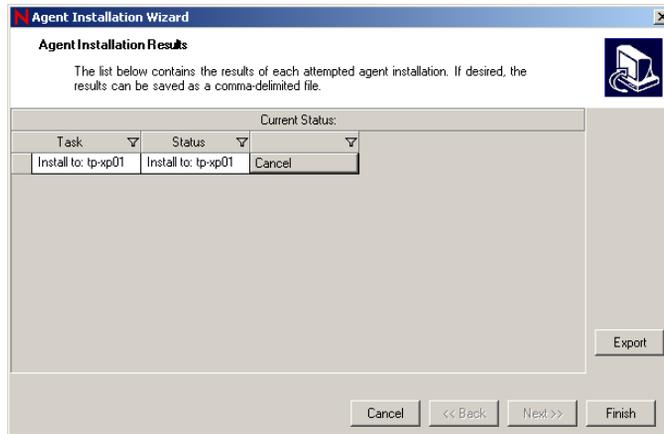


Figure 3.28 Agent Installation Results

You may cancel the installation on an per device basis, using the **Cancel** button shown in grid, or cancel all installations using the **Cancel** button at the bottom of the page.

The installation results can be exported to a comma separated (csv) file using **Export**.



Note: It is **not** necessary to wait for all of the tasks to show as completed prior to exiting the wizard. If you close the wizard before all tasks have completed, you can see the progress by selecting to view the AMC Status or Activity Log.

- To exit the wizard, click **Finish**.

Using the Wizard to Import Devices From a File

Whether or not your Agent Management Center is installed on a computer within a domain, you can use the *Discovery and Installation Wizard* to import a list of devices.

Importing a List of Devices

1. Select **Wizards > Discovery and Agent Installation** to open the *Discovery and Installation Wizard*.

The *Welcome* page opens.

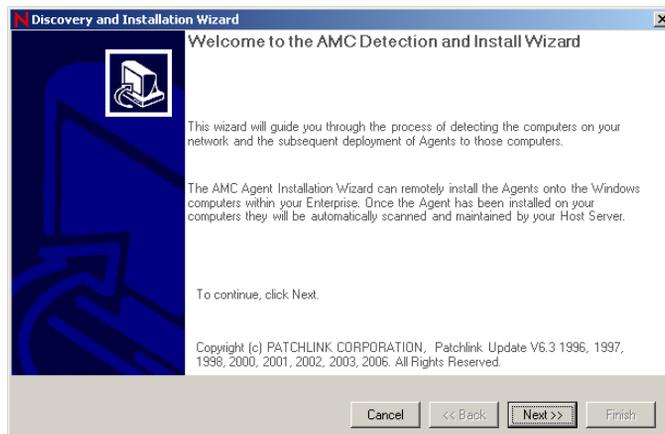


Figure 3.29 Welcome page



2. Click **Next**.
The *Detection Type* page opens.

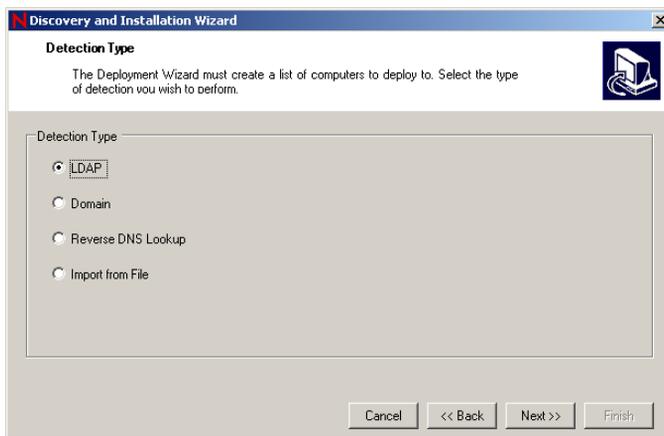


Figure 3.30 Detection Type page

3. Select **Import From File** and click **Next**.
The *Credentials* page opens.

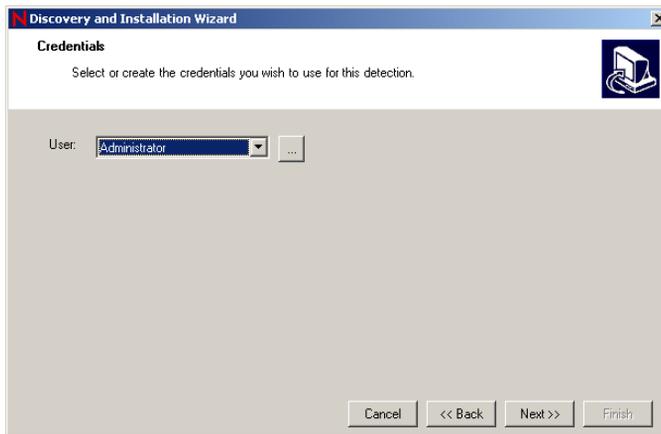


Figure 3.31 Select Credentials

4. Select a credential from the User list.



5. Click **Next**.
The *Import from File* page opens.

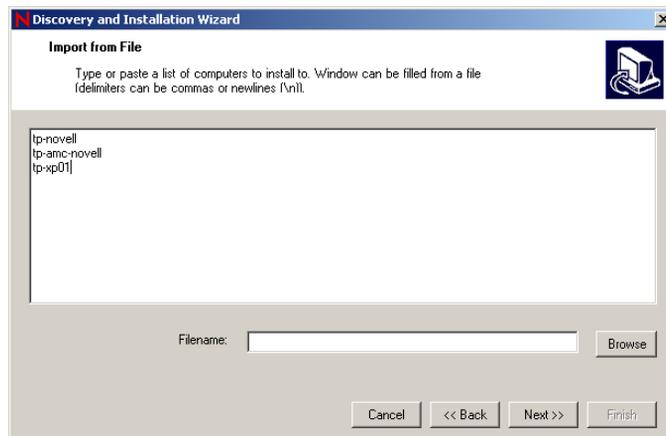


Figure 3.32 Import From File

6. Type or paste the device details, or click **Browse** to open an existing text (`.txt`) file that contains the list of devices.



Note: You must include either a valid *WINS Computer Name*, *Fully Qualified Domain Name*, or *IP Address* for each device. In the text (`.txt`) file, valid delimiters are commas or `\n` (for a newline).



7. Click Next.
The Select Machines to Install page will open.

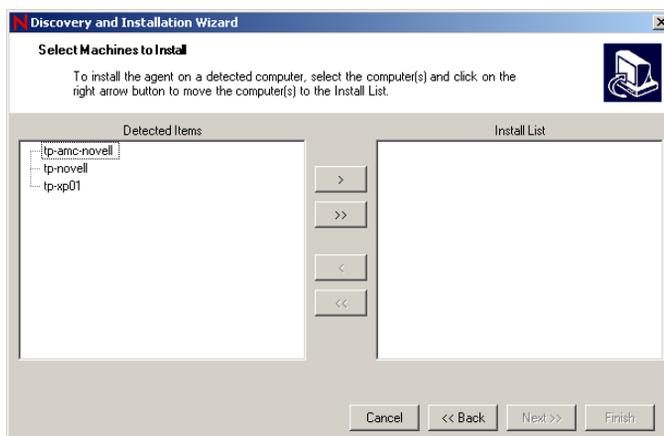


Figure 3.33 Select Target Machines

8. Select one or multiple devices on which to install the ZENworks Patch Management Agent.
 - To Add individually selected computers click the right arrow (>) button.
 - To Add All computers click the double right arrow (>>) button.
 - To Remove a selected computer click the left arrow (<) button.
 - To Remove All selected computers click the double left arrow (<<) button.



9. Click **Next**.
The *Install to All or New Machines* page opens.

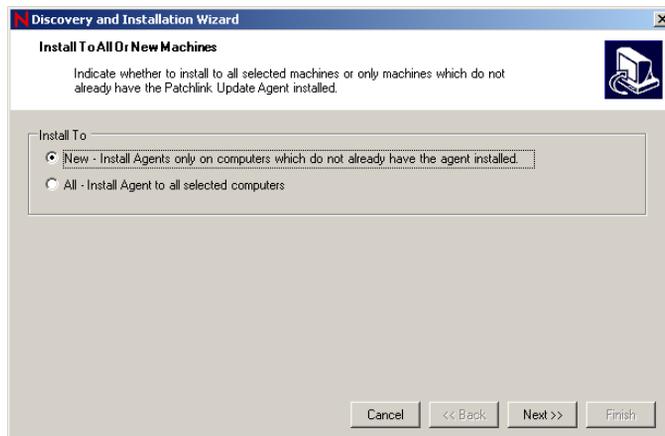


Figure 3.34 Install to All or New Machines

10. Select whether to install the ZENworks Patch Management Agent on **All** selected devices, or only **New** devices that do not already have an agent installed.
11. Click **Next**.
The *Agent Installation Credentials* page opens.

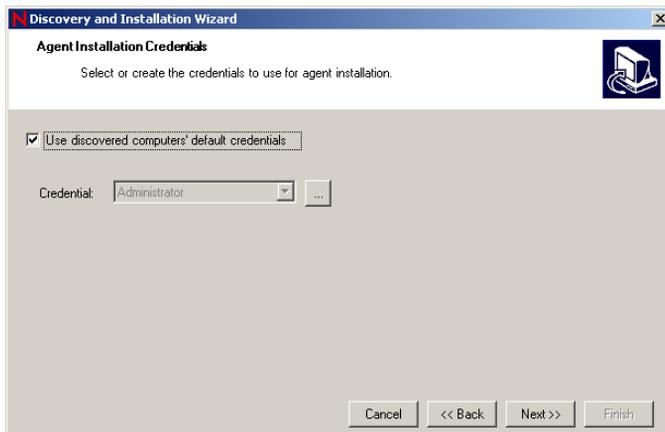


Figure 3.35 Agent Installation Credentials



- If credentials other than those used during the discovery are required for agent installation, clear the **Use discovered computers' default credentials** option and select the appropriate credentials from the **Credential** list.
- Click **Next**.
The *Agent Installation Results* page opens displaying the Agent installation progress in the Current Status grid.

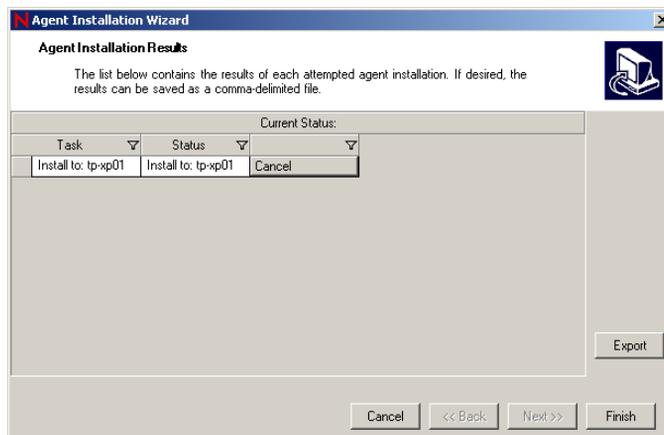


Figure 3.36 Agent Installation Results

You may cancel the installation on an per device basis, using the **Cancel** button shown in grid, or cancel all installations using the **Cancel** button at the bottom of the page.

The installation results can be exported to a comma separated (csv) file using **Export**.



Note: It is **not** necessary to wait for all of the tasks to show as completed prior to exiting the wizard. If you close the wizard before all tasks have completed, you can see the progress by selecting to view the AMC Status or Activity Log.

- To exit the wizard, click **Finish**.



Manually Discovering Nodes

The Agent Management Center Discovery and Installation Wizard is only one of the methods in which to search for devices. Users of the Agent Management Center also have the ability to perform a search manually.

Manually Performing an LDAP Scan

If your Agent Management Center is installed on a computer within domain using LDAP, you can perform a manual LDAP scan for devices within that domain.

Manually Performing an LDAP Scan

1. Select **LDAP** from the **Discover** section of the left navigation bar. The *LDAP Scan* page opens.

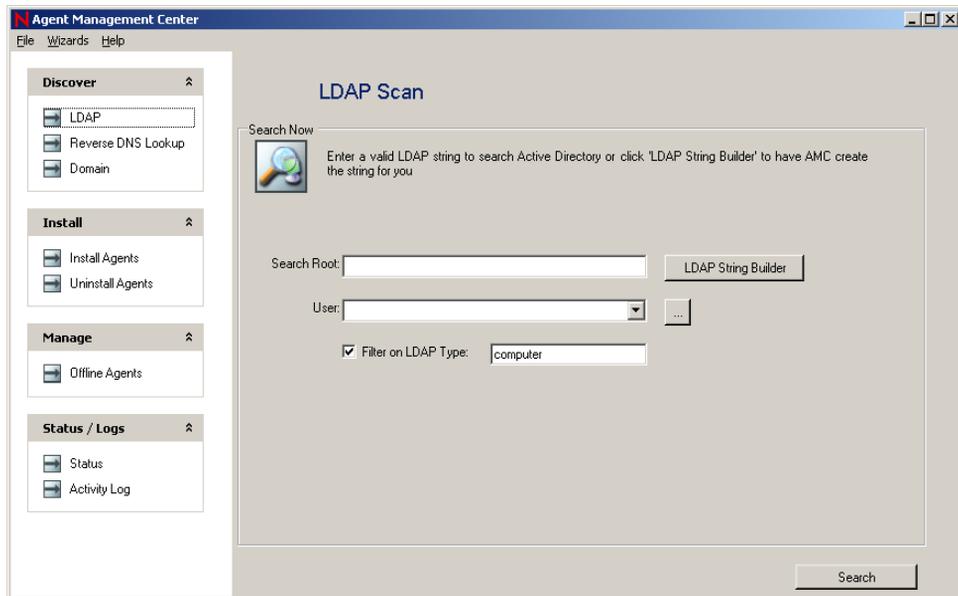


Figure 3.37 Manual LDAP Scan



2. Type a valid LDAP search string in the **Search Root:** field or use the *LDAP String Builder* to create a LDAP search string.
To use the *LDAP String Builder*:
 - a. Click **LDAP String Builder**.
The *Active Directory Browser* window opens.

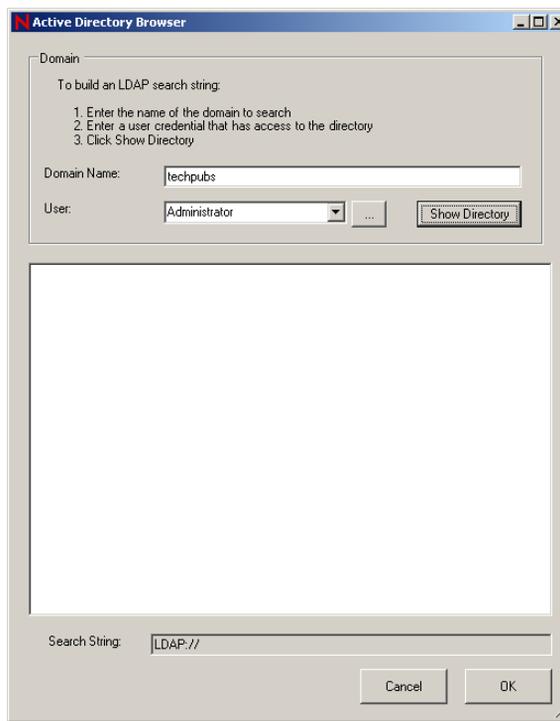


Figure 3.38 Active Directory Browser

- b. Type the name of the domain to search in the **Domain Name** field.
 - c. Select a credential that has access to the domain from the **User** list.
 - d. Click **Show Directory**.
The LDAP Tree will display.
 - e. Select the desired LDAP node to populate the **Search String** field.
 - f. Click **OK**.
The *Active Directory Browser* window closes, returning to the *LDAP Scan* page.
3. Select a credential that has access to the domain from the **User** list.
4. If desired, type a valid LDAP object type in the Filter on LDAP Type field to apply a filter to your LDAP results.



5. Click **Search**.
The LDAP directory will be searched for valid devices.
6. Following the scan, you can view the discovered devices by opening the *Install Agents* page and expanding the LDAP tree.

Manually Performing a Reverse DNS Lookup

Whether or not your Agent Management Center is installed on a computer within a domain, you can perform a reverse DNS lookup to search your entire network based upon an IP Address range.

Manually Performing a Reverse DNS Lookup

1. Select **Reverse DNS Lookup** from the **Discover** section of the left navigation bar.
The *Reverse DNS Lookup* page opens.

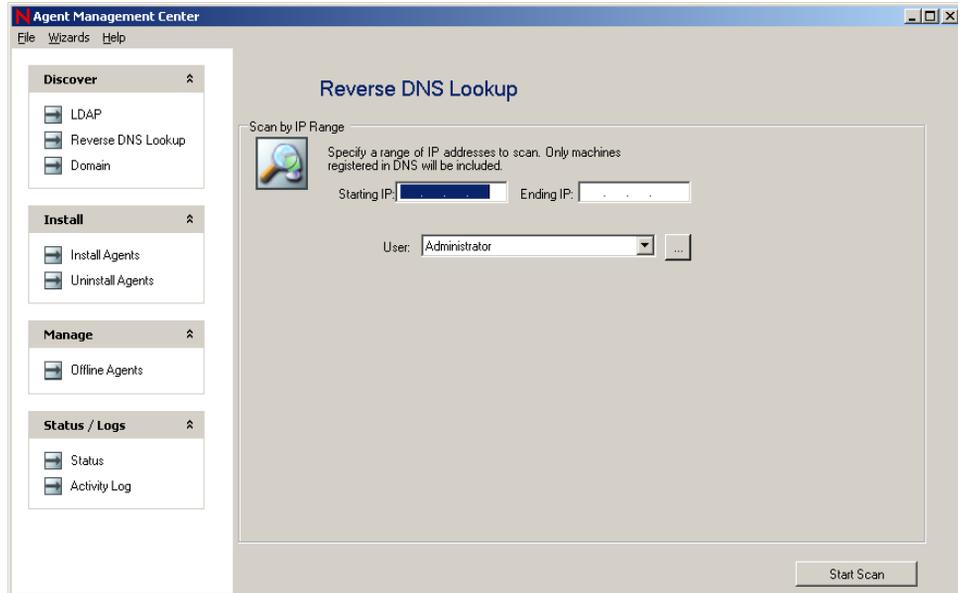


Figure 3.39 Manual Reverse DNS Lookup

2. Type a **Starting IP** and **Ending IP** value.
3. Select a credential from the **User** list.
4. Click **Start Scan**.
The IP range will be searched for valid devices.



- Following the scan, you can view the discovered devices by opening the *Install Agents* page and expanding the IP Network tree.

Manually Performing a Domain Scan

If your Agent Management Center is installed on a computer within a domain, you can perform a domain scan to search for other devices within the domain.

Manually Performing a Domain Scan

- Select **Domain** from the **Discover** section of the left navigation bar. the *Domain Scan* page opens.

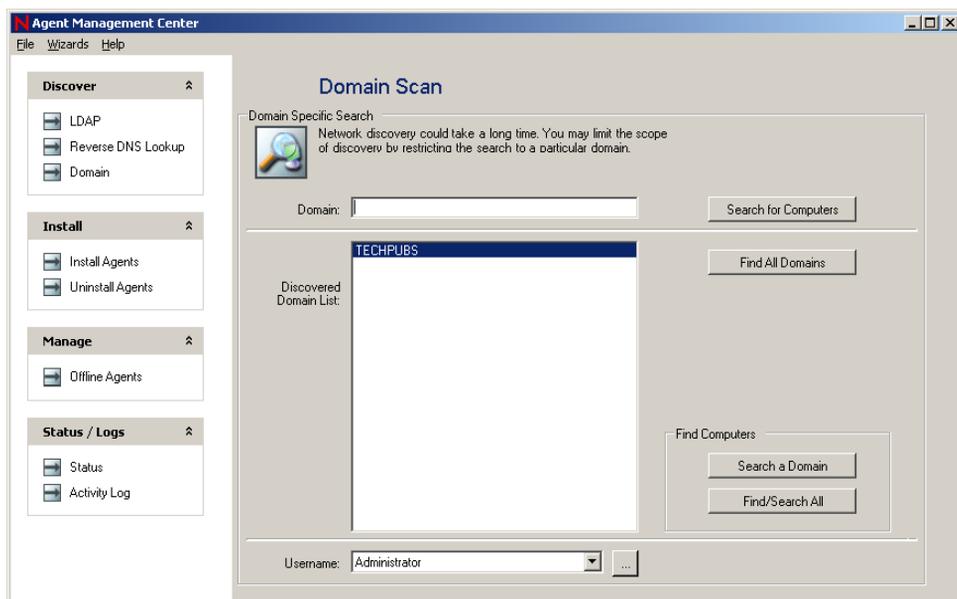


Figure 3.40 Manual Domain Scan

- Select a credential that has access to the domain from the **Username** list.
- To search a specific domain:
 - Type a domain name in the **Domain** field
 - Click **Search for Computers**.
The domain will be searched for valid devices.



4. To populate the **Discovered Domain List** and search one or multiple domains:
 - a. Click **Find All Domains**.
The discovered domains populate the **Discovered Domain List**.
 - b. Select one or multiple domains.
 - c. Click **Search a Domain**.
The selected domains will be searched for valid devices.
5. To search all domains:
 - a. Click **Find/Search All** without typing or selecting a domain.
All domains, the defined credential can access, will be searched for valid devices.
6. Following the scan, you can view the discovered devices by opening the *Install Agents* page and expanding the Domain tree.





4 Installing ZENworks Patch Management Agents

A function of the Agent Management Center is installing agents on the devices found within your network. Agents can be installed on all of the devices found, or only on those devices which do not already have the ZENworks Patch Management Agent installed.

Supported Agent Operating Systems

The Agent Management Center will install the ZENworks Patch Management Agent on the following platforms:

- Microsoft Windows XP Professional
- Microsoft Windows XP Professional x64 edition
- Microsoft Windows 2000 Professional
- Microsoft Windows 2000 Server
- Microsoft Windows 2000 Advanced Server
- Microsoft Windows 2000 Datacenter Server
- Microsoft Windows Server™ 2003, Standard Edition
- Microsoft Windows Server 2003, Enterprise Edition
- Microsoft Windows Server 2003, Web Edition
- Microsoft Windows Server 2003, Datacenter Edition
- Microsoft Windows Server™ 2003, Standard x64 Edition
- Microsoft Windows Server 2003, Enterprise x64 Edition
- Microsoft Windows Server 2003, Datacenter x64 Edition
- Microsoft Windows Server 2003 R2, Standard Edition
- Microsoft Windows Server 2003 R2, Enterprise Edition
- Microsoft Windows Server 2003 R2, Datacenter Edition
- Microsoft Windows Server 2003 R2, Standard x64 Edition
- Microsoft Windows Server 2003 R2, Enterprise x64 Edition
- Microsoft Windows Server 2003 R2, Datacenter x64 Edition



Note: The Agent Management Center does not support installing the Novell ZENworks Patch Management Agent on Microsoft Windows Vista.



Determining Device Status

Following the device discovery, the discovered devices will be available from the Install Agents section. Prior to installing agents using the Agent Management Center, an understanding of how the AMC determines if the ZENworks Patch Management Agent can be installed on a device is required.

```
Remote Computer Connection: Successful
Open Remote Registry: Successful
Copy Files: Successful
Open Service Control Manager: Successful
Ping: Successful
Default Name = TECHPUBS
NodeID = 74
Fully Qualified Name: TECHPUBS
WINS Name: TECHPUBS
IP Address: 10.10.10.10
LDAP Name:
Distinguished Name:
Domain:
MAC Address: 00-03-FF-5F-55-C5
Credential: administrator
Node Type: Computer
LDAP Type:
OS Type: Microsoft(R) Windows(R) Server 2003, Standard Edition
```

Figure 4.1 Device Status

Understanding Installation Tests

Following the initial Agent discovery, the Agent Management Center continues to run installation tests on each of the discovered devices. These tests determine whether the credentials assigned to the device have the required user rights, and if the device meets the requirements for a remote installation. These five tests are ran against each discovered device:

- Remote Device Connection
- Open Remote Registry
- Copy Files
- Open Service Control Manager
- Ping

If any one of these tests fail, the Agent Management Center will not be able to install the ZENworks Patch Management Agent on that device. Due to the nature of these tests, it is not possible to determine whether a device failed due to it's configuration or the use of credentials with insufficient user rights.



Defining the Device Status

Depending upon the results of the installation tests, each device will display one of the following icons:

Table 4.1 Device Status Icons

Icon	Description
	The installation tests have not been run on this device.
	The installation tests have ran and were successful. An ZENworks Patch Management Agent has not been installed on this device. Note: If you have multiple Patch Management Servers, the AMC could incorrectly indicate that an agent does not exist if that agent were registered with a different Patch Management Server.
	The installation tests have ran and were successful. An ZENworks Patch Management Agent is already installed on this device.
	The installation tests ran but were unsuccessful. An agent cannot be remotely installed on this device. Note: The AMC will continue to run the installation tests against this device. Therefore, if the cause of the failure is corrected, the agent can be installed at a later date.

Unresponsive Devices

If a device displays a gray or yellow icon for an extended period of time, it may be because the device is in off or in a sleep state. If the device's network card and BIOS have been configured to respond to a Wake on LAN signal, you may be able to remotely boot or wake the device.



Sending a Wake on LAN Signal

1. Select **Install Agents** from the **Install** section of the left navigation bar.
The *Install Agents* page opens.

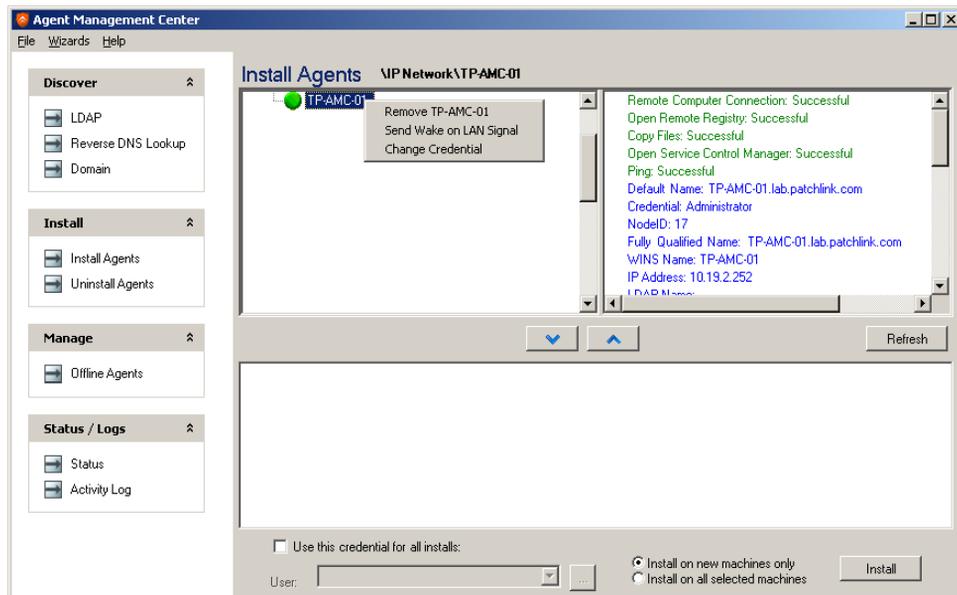


Figure 4.2 Send Wake on LAN signal

2. Right-click on an unresponsive device.
The *Right Mouse Menu* displays.
3. Select **Send Wake On LAN Signal**.
The *Wake on LAN* signal is sent to the device.
4. If the device both supports *Wake on LAN* and *Wake on LAN* is enabled, the device should resume normal operation.



Using the Agent Installation Wizard

Following the device discovery (either via the Discovery Wizard or manually), you can use the Agent Installation Wizard to install ZENworks Patch Management Agents on the devices within your network.

Installing Agents Using the Agent Installation Wizard

1. Select **Wizards > Agent Installation** to open the *Agent Installation Wizard*. The Welcome page opens.



Figure 4.3 Agent Installation Wizard - Welcome page



2. Click **Next**.
The *Display Computers or Discovery Type* page opens.

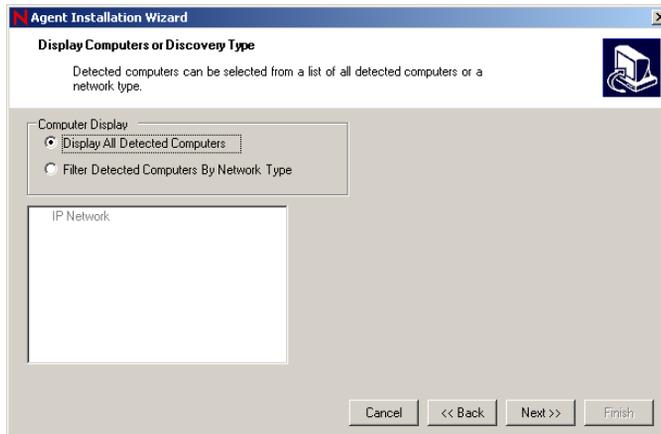


Figure 4.4 Display Computers or Discovery Type

3. Select **Display all detected computers**.
If you would rather filter by network type, select **Filter detected computers by network type**, and select the specific network type.
4. Click **Next**.
The *Select Machines to Install* page opens.

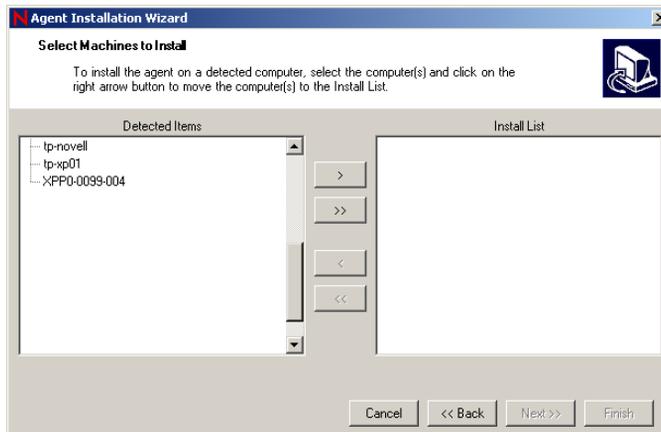


Figure 4.5 Select Target Machines



5. Select one or multiple devices on which to install the ZENworks Patch Management Agent.
 - To Add individually selected computers click the right arrow (>) button.
 - To Add All computers click the double right arrow (>>) button.
 - To Remove a selected computer click the left arrow (<) button.
 - To Remove All selected computers click the double left arrow (<<) button.
6. Click **Next**.

The *Install to All or New Machines* page opens.

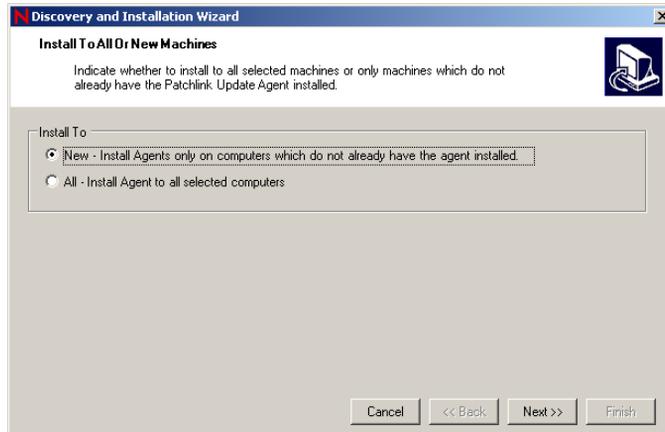


Figure 4.6 Install to All or New Machines

7. Select whether to install the ZENworks Patch Management Agent on **All** selected devices, or only **New** devices that do not already have an agent installed.



8. Click **Next**.
The *Agent Installation Credentials* page opens.

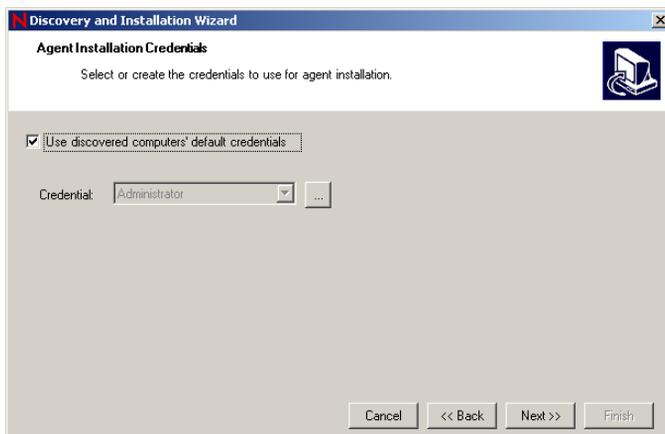


Figure 4.7 Agent Installation Credentials

9. If credentials other than those used during the discovery are required for agent installation, clear the **Use discovered computers' default credentials** option and select the appropriate credentials from the **Credential** list.
10. Click **Next**.
The *Agent Installation Results* page opens displaying the Agent installation progress in the Current Status grid.

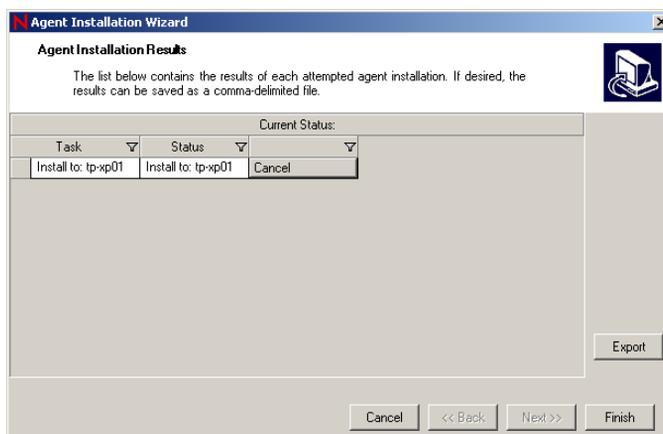


Figure 4.8 Agent Installation Results



You may cancel the installation on an per device basis, using the **Cancel** button shown in grid, or cancel all installations using the **Cancel** button at the bottom of the page.

The installation results can be exported to a comma separated (csv) file using **Export**.



Note: It is **not** necessary to wait for all of the tasks to show as completed prior to exiting the wizard. If you close the wizard before all tasks have completed, you can see the progress by selecting to view the AMC Status or Activity Log.

11. To exit the wizard, click **Finish**.

Manually Installing Agents

After discovering the devices within your network, you can manually install ZENworks Patch Management Agents on those devices.



Warning: If the number of devices selected exceeds the number of available licenses, an warning message will display and you will be unable to continue the installation.



Manually Installing Agents

1. Select **Install Agents** from the **Install** section of the left navigation bar.
The *Install Agents* page opens.

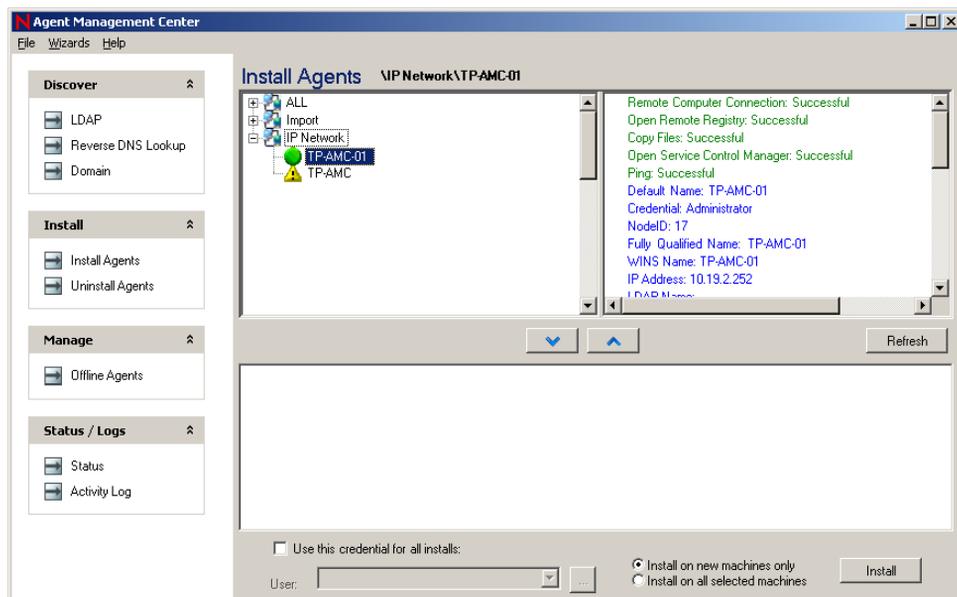


Figure 4.9 Install Agents

2. Select one or multiple devices on which to install the ZENworks Patch Management Agent, adding them to the from the *Selected Devices* list.
 - To add individually selected devices, select the device and click the down arrow button.
 - You can add entire groups of devices, select the grouping (i.e. IP Network) and click the down arrow button.
 - To remove a selected device, select the device and click the up arrow button.
3. To install using credentials other than those used to discover the device, select **Use this credential for all installs**, and select a credential from the **User** list.
4. Select whether to **Install on all selected machines**, or to **Install on new machines only**.
5. Click **Install**.
The *Current Status* page opens, displaying the installation status.



Manually Uninstalling Agents

In addition to installing agents, the Agent Management Center also supports uninstalling agents on the devices found within your network.

Uninstalling an ZENworks Patch Management Agent

1. Select **Uninstall Agents** from the **Install** section of the left navigation bar. The *Uninstall Agents* page opens.

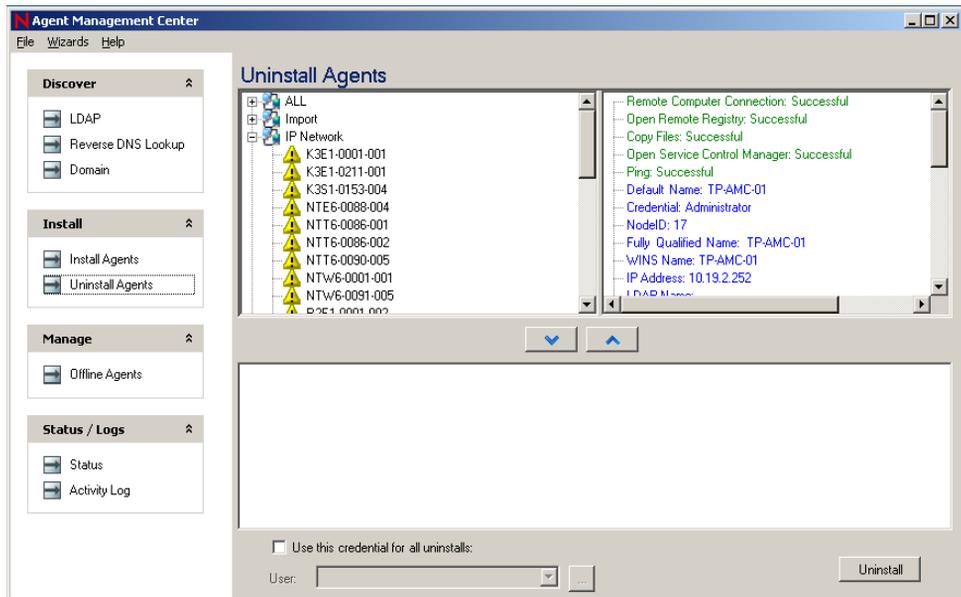


Figure 4.10 Uninstall Agents

2. Select one or multiple devices that will have the agent uninstalled, adding them to the *Selected Devices* list.
 - To add individually selected devices, select the device and click the down arrow button.
 - You can add entire groups of devices, select the grouping (i.e. IP Network) and click the down arrow button.
 - To remove a selected device, select the device and click the up arrow button.
3. To uninstall using credentials other than those used to discover the device, select **Use this credential for all uninstalls**, and select a credential from the **User** list.
4. Click **Uninstall**. The *Current Status* page opens, displaying the uninstallation status.



Working With Offline Agents

Viewing Offline agents is one of the functions you can perform using the AMC.

Viewing Offline Agents

1. Select **Offline Agents** from the **Manage** section of the left navigation bar.
The *Offline Agents* page opens.

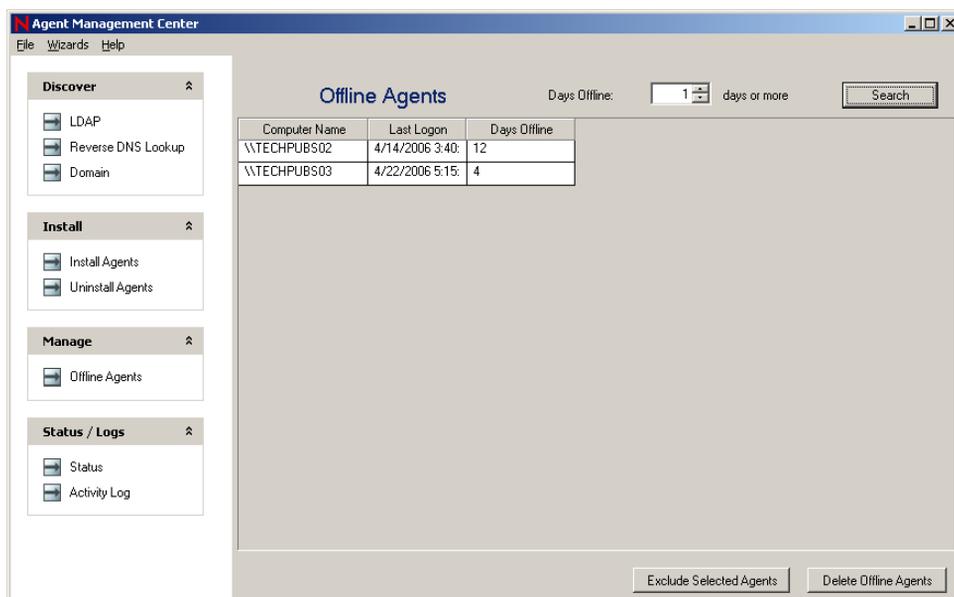


Figure 4.11 Offline Agents

2. Define the **Days Offline** value.
3. Click **Search**.
The agents that have been offline for the defined number of days will display.
4. With the resulting list of Offline Agents you can:
 - a. Select an agent and click **Exclude Selected Agents** to remove it from the list.



Note: The **Exclude Selected Agents** function will remove the agent from this list until the next time it matches the criteria of the *Days Offline* search.

- b. Click **Delete Offline Agents** to remove the remaining devices from your Patch Management Server and release the licenses used by those agents.

Viewing the AMC Activity Logs

The AMC *Activity Log* page, allows you to view activity within a custom date range.

Viewing the Activity Log

1. Select **Activity Log** from the **Status / Logs** section of the left navigation bar. The *Activity Log* page opens.

Job start-time between 09/19/2006 and 09/27/2006

Job Type	Start Time	End Time	Status
Discover domains	9/26/2006 12:10:1	9/26/2006 12:10:4	Finished
Discover by domain	9/26/2006 12:11:1	9/26/2006 12:13:0	Cancelled
Discover by IP rang	9/26/2006 12:15:5	9/26/2006 12:17:1	Finished
Discover Import File	9/26/2006 12:27:1	9/26/2006 12:27:1	Finished
Install agent	9/26/2006 12:28:0	9/26/2006 12:28:0	Started
Discover Import File	9/26/2006 12:28:4	9/26/2006 12:28:5	Finished

Figure 4.12 Activity Log

2. Click the start date drop-down arrow to select a **Start** date.
3. Click the end date drop-down arrow to select an **End** date.
4. Click **Get Log**.
The activity log for the defined date range displays.
5. Filter the *Activity Log* by clicking the funnel icon (found at the top of each column) for each column you want to filter.
6. Clear all filters by clicking **Clear Filters**.
7. Click **Export** to export the activity log to an Microsoft Excel Workbook.





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