



# Extreme Management Center Secure Deployment Guide



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# Introduction

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This document describes how to install Extreme Management Center securely on a Windows 2008R2 server. Included in this document are instructions on how to configure the security features of the Windows 2008R2 server to ensure the security of the Extreme Management Center application. Following the procedures in this document makes the Extreme Management Center installation STIG (Security Technical Implementation Guide)-compliant.

## Text Conventions

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The following tables list text conventions that are used throughout this guide.

**Table 1: Notice Icons**

Icon	Notice Type	Alerts you to...
	General Notice	Helpful tips and notices for using the product.
	Note	Important features or instructions.
	Caution	Risk of personal injury, system damage, or loss of data.
	Warning	Risk of severe personal injury.
<i><b>New!</b></i>	New Content	Displayed next to new content. This is searchable text within the PDF.

**Table 2: Text Conventions**

Convention	Description
Screen displays	This typeface indicates command syntax, or represents information as it appears on the screen.
The words <b>enter</b> and <b>type</b>	When you see the word “enter” in this guide, you must type something, and then press the Return or Enter key. Do not press the Return or Enter key when an instruction simply says “type.”
<b>[Key]</b> names	Key names are written with brackets, such as <b>[Return]</b> or <b>[Esc]</b> . If you must press two or more keys simultaneously, the key names are linked with a plus sign (+). Example: Press <b>[Ctrl]+[Alt]+[Del]</b>
<i>Words in italicized type</i>	Italics emphasize a point or denote new terms at the place where they are defined in the text. Italics are also used when referring to publication titles.

## Providing Feedback to Us

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We are always striving to improve our documentation and help you work better, so we want to hear from you! We welcome all feedback but especially want to know about:

- Content errors or confusing or conflicting information.

- Ideas for improvements to our documentation so you can find the information you need faster.
- Broken links or usability issues.

If you would like to provide feedback to the Extreme Networks Information Development team about this document, please contact us using our short [online feedback form](#). You can also email us directly at [internalinfodev@extremenetworks.com](mailto:internalinfodev@extremenetworks.com).

## Getting Help

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If you require assistance, contact Extreme Networks using one of the following methods:

- **GTAC (Global Technical Assistance Center) for Immediate Support**
  - **Phone:** 1-800-998-2408 (toll-free in U.S. and Canada) or +1 408-579-2826. For the support phone number in your country, visit: [www.extremenetworks.com/support/contact](http://www.extremenetworks.com/support/contact)
  - **Email:** [support@extremenetworks.com](mailto:support@extremenetworks.com). To expedite your message, enter the product name or model number in the subject line.
- **Extreme Portal** — Search the GTAC knowledge base, manage support cases and service contracts, download software, and obtain product licensing, training, and certifications.
- **The Hub** — A forum for Extreme customers to connect with one another, answer questions, and share ideas and feedback. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.

Before contacting Extreme Networks for technical support, have the following information ready:

- Your Extreme Networks service contract number and/or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any action(s) already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental information)
- Network load at the time of trouble (if known)
- The device history (for example, if you have returned the device before, or if this is a recurring problem)
- Any related RMA (Return Material Authorization) numbers

## Related Publications

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### Extreme Management Center™ Documentation

Extreme Management Center (XMC) documentation, including release notes, are available at: <http://documentation.extremenetworks.com>.

Extreme Management Center online help is available by clicking the ? icon in all XMC pages. The online help provides detailed explanations of how to configure and manage your network using XMC.

For complete regulatory compliance and safety information, refer to the document *Intel® Server Products Product Safety and Regulatory Compliance*.  
*ExtremeAnalytics PV-A-305 Installation Guide*

# 1 Pre-Installation Configuration

## Configuring Server Account Settings to be STIG-Compliant Configuring Windows Users and Groups

### Installation Prerequisites

- Ensure the Windows 2008R2 server has a valid Windows key.
- Ensure Remote Desktop Services is properly installed and has a valid license.
- Verify that certificates, if any, have been created and installed on the server.

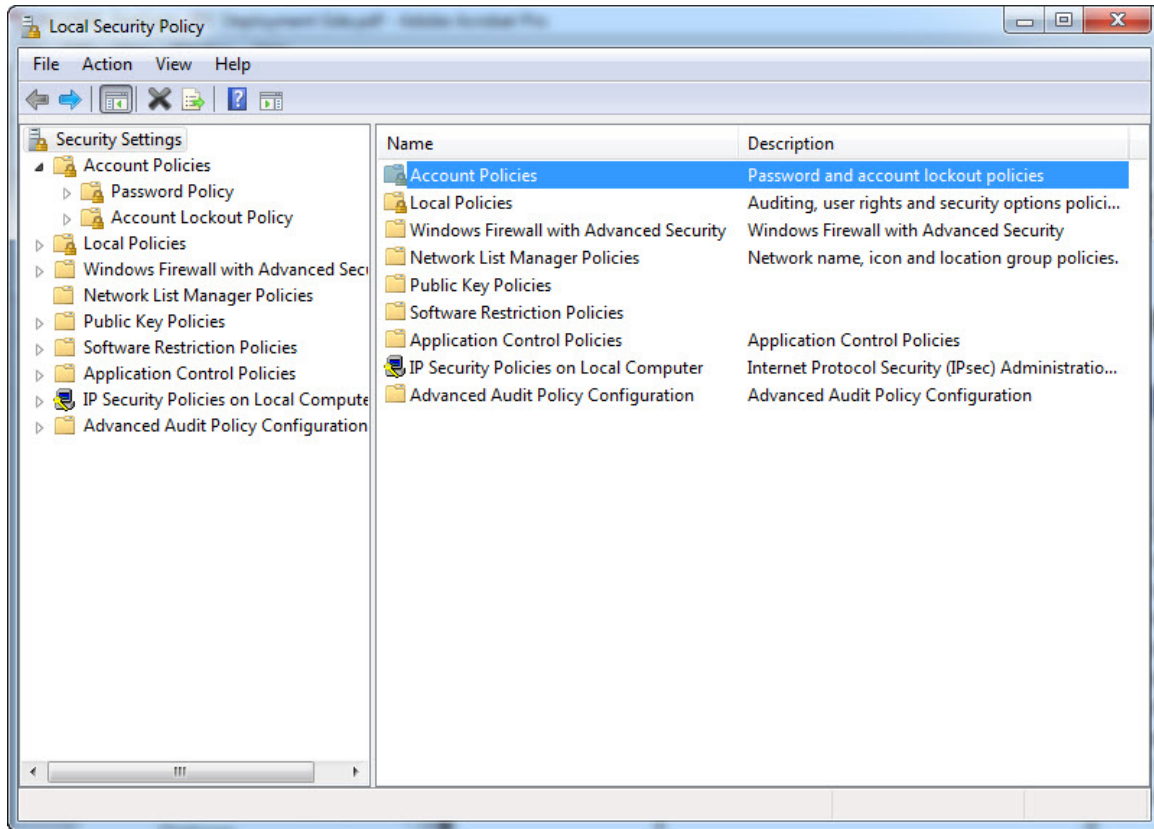
### User Accounts

The procedures in this document use the user accounts listed below. They are intended to be examples of various users with certain sets of privileges. User account setup is at the discretion of the Security Administrator.

- **netsightsv** — Extreme Management Center server administrator with full Remote Desktop privileges
- **netsightadmin** — Extreme Management Center administrator with only Extreme Management Center Remote Desktop privileges
- **netsightuser** — Extreme Management Center user with only Extreme Management Center Remote Desktop privileges
- **xadministrator** — non-default server administrator
- **xguest** — non-default guest account

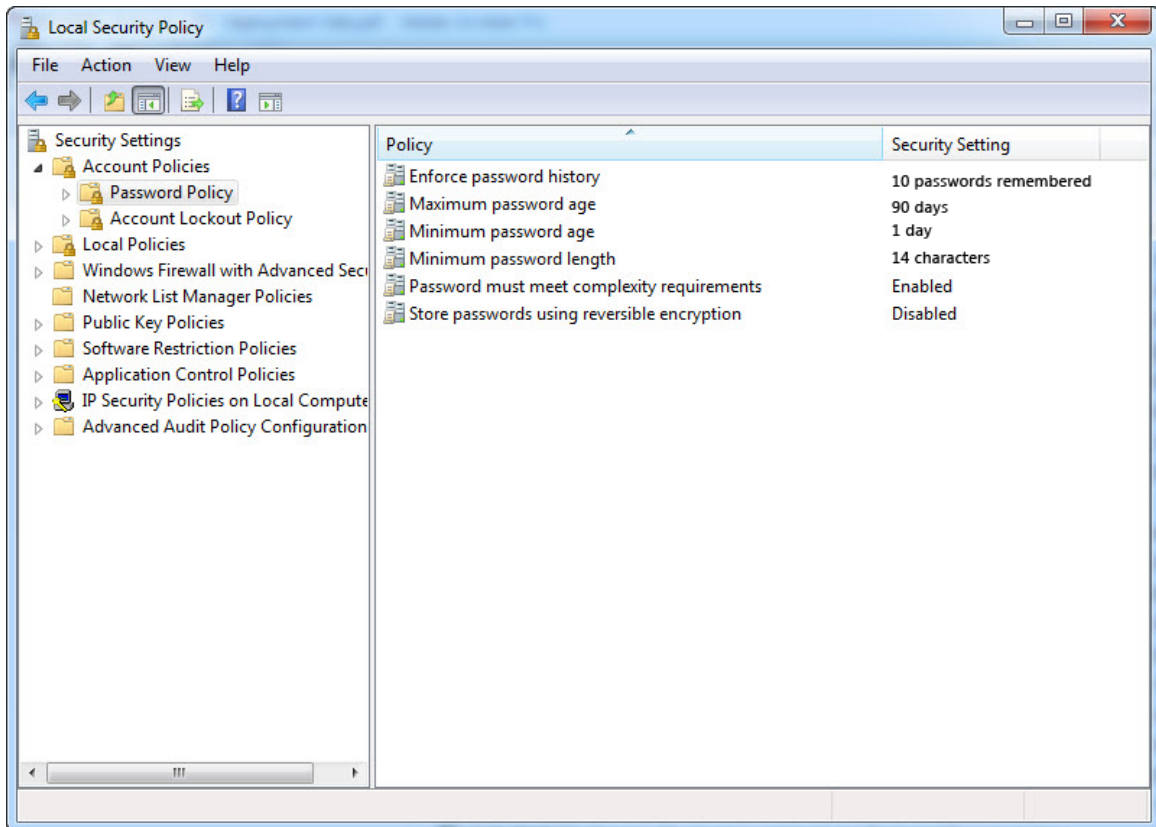
See [Configuring Extreme Management Center Users](#) on page 13 for setting up user accounts.

## Configuring Server Account Settings to be STIG-Compliant



### Setting the Password Policy

- 1 From your desktop, select **Start > Administrative Tools > Local Security Policy > Account Policies > Password Policy**.



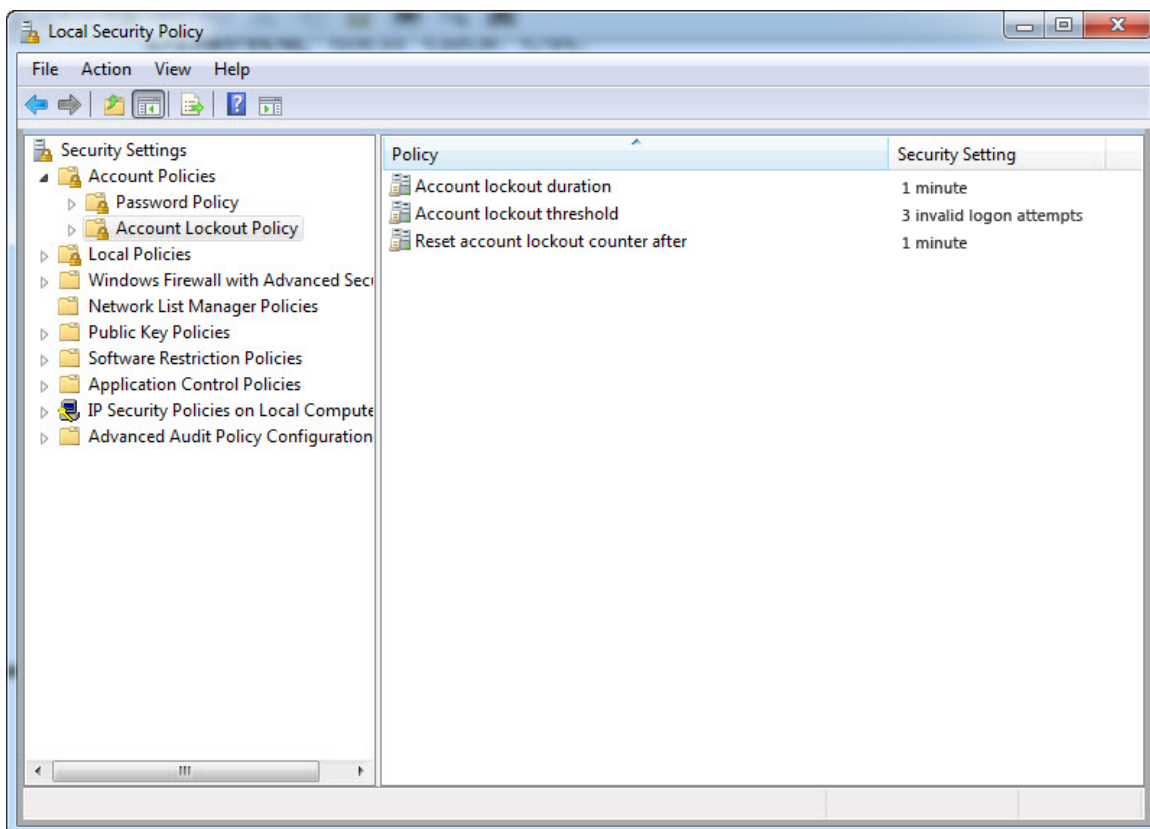
- 2 For each of the following policies, double-click the policy name, set the new policy, and then click **OK**.

For this policy...	Set to...
Enforce password history	10 passwords remembered
Maximum password age	90 days
Minimum password age	1 day
Minimum password length	14 characters
Password must meet complexity requirements	Enabled
Store passwords using reversible encryption	Disabled

## Setting the Account Lockout Policy



- 1 From your desktop, select **Start > Administrative Tools > Local Security Policy > Account Policies > Account Lockout Policy**.

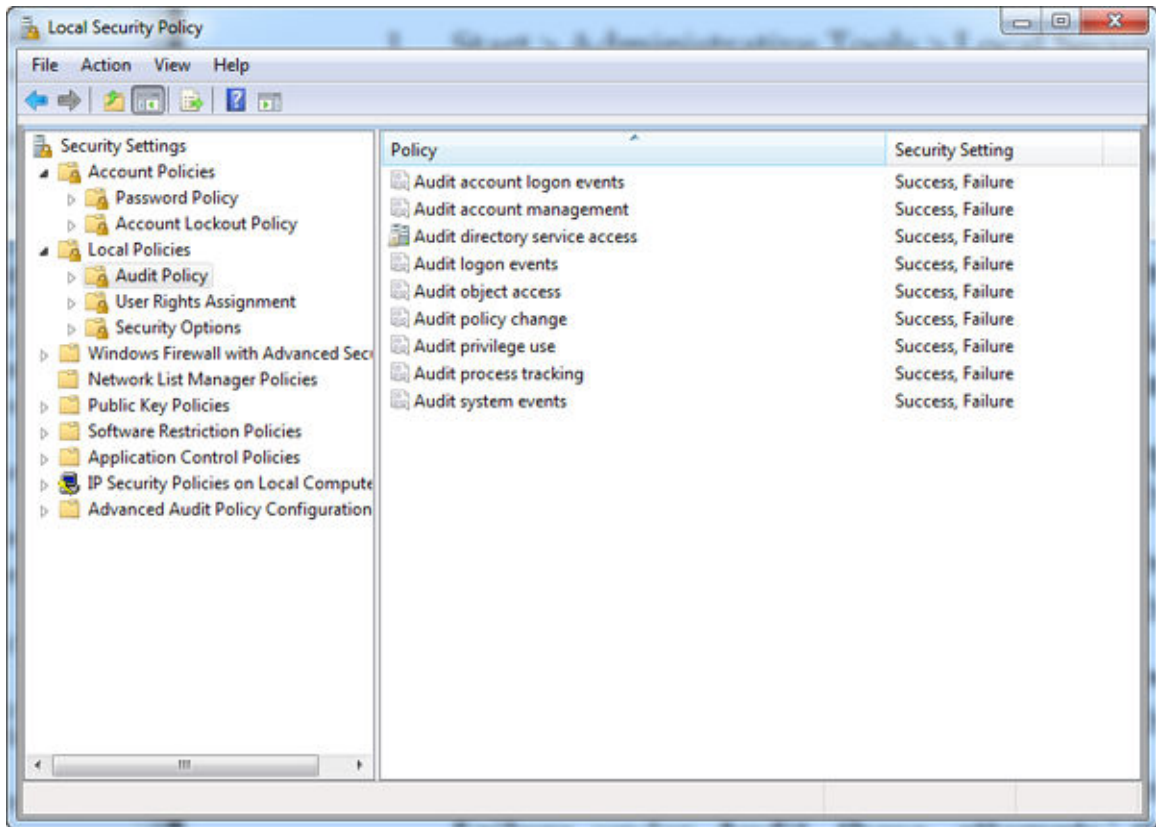


- 2 For each of the following policies, double-click the policy name, set the new policy, and then click **OK**.

For this policy..	Set to..
Account lockout duration	1 minute
Account lockout threshold	3 invalid logon attempts
Reset account lockout counter after	1 minute

## Setting the Audit Policy

- 1 From your desktop, select **Start > Administrative Tools > Local Security Policy > Local Policies > Audit Policy**.

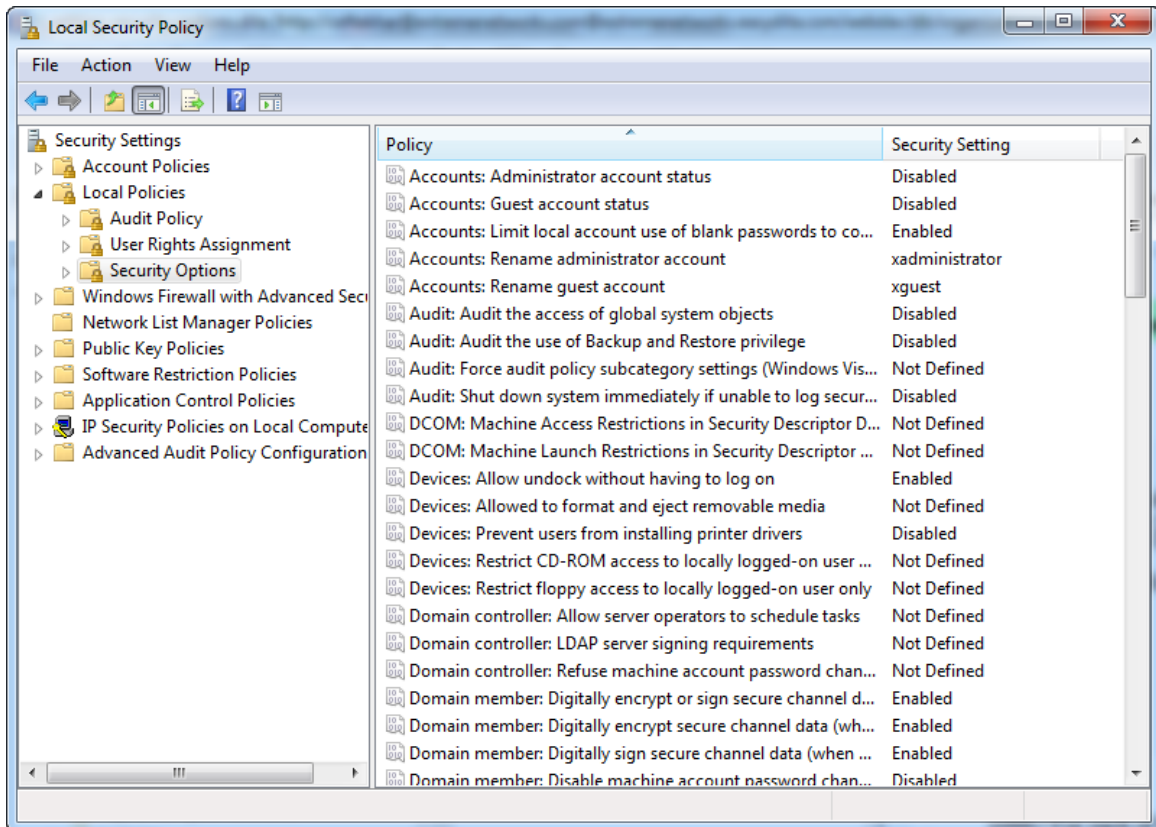


- 2 For each of the following policies, double-click the policy name, set the new policy, and then click **OK**.

For this policy...	Enable...
Audit account logon events	Success, Failure
Audit account management	Success, Failure
Audit directory service access	Success, Failure
Audit logon events	Success, Failure
Audit object access	Success, Failure
Audit policy change	Success, Failure
Audit privilege user	Success, Failure
Audit process tracking	Success, Failure
Audit system events	Success, Failure

## Setting the Security Options

- 1 From your desktop, select **Start > Administrative Tools > Local Security Policy > Local Policies > Security Options**.



- 2 For each of the following policies, double-click the policy name, set the new policy, and then click **OK**.

For this policy...	Set to...
Accounts: Rename administrator acco	xadministrator
Accounts: Rename guest account	xguest

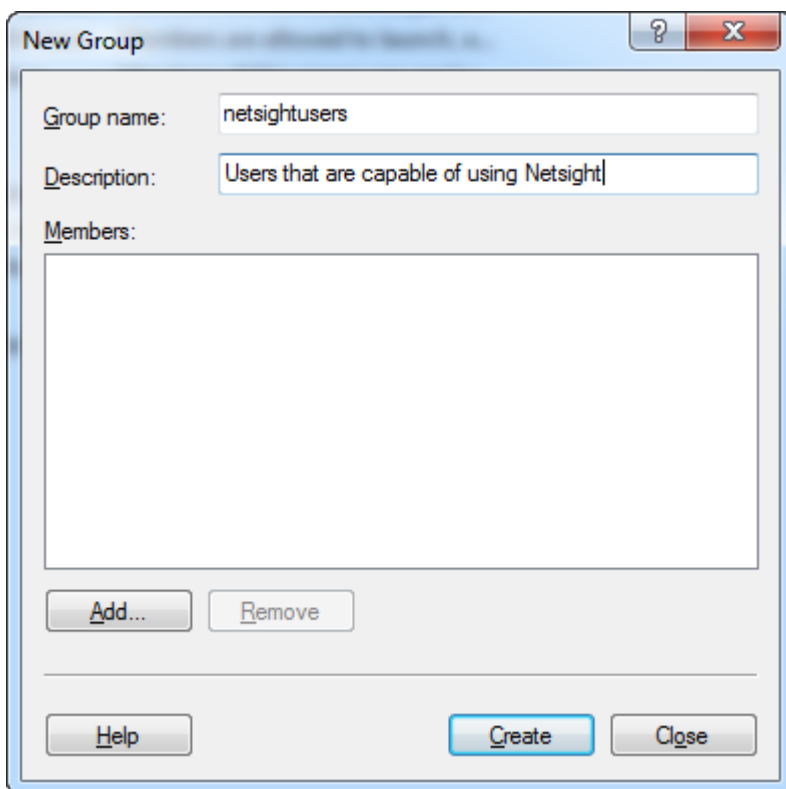
For this policy..	Set to..
Interactive logon: Message text for users attempting to log on	Enter the following text: You are accessing a U.S. Government (USG) Information System (IS) that is provided for USG authorized use only. By using this IS (which includes any device attached to this IS), you consent to the following conditions: The USG routinely intercepts and monitors communications on this IS for purposes including, but not limited to, penetration testing, COMSEC monitoring, network operations and defense, personnel misconduct (PM), law enforcement (LE), and counterintelligence (CI) investigations. At any time, the USG may inspect and seize data stored on this IS. Communications using, or data stored on, this IS are not private, are subject to routine monitoring, interception, and search, and may be disclosed or used for any USG-authorized purpose. This IS includes security measures (e.g., authentication and access controls) to protect USG interests--not for your personal benefit or privacy. Notwithstanding the above, using this IS does not constitute consent to PM, LE or CI investigative searching or monitoring of the content of privileged communications, or work product, related to personal representation or services by attorneys, psychotherapists, or clergy, and their assistants. Such communications and work product are private and confidential. See User Agreement for details.
Interactive logon: Message title for users attempting to log on	Enter the following text: U.S. Government (USG) Information System (IS) that is provided for USG authorized use only.
System cryptography: Use FIPS compliant algorithms for encryption, hashing and signing	Enable

## Configuring Windows Users and Groups

### Creating a Extreme Management Center User Group

- 1 From your desktop, select **Start > Administrative Tools > Sever Manager > Local Users and Groups > Groups**.
- 2 Select **Action > New Group**.

- 3 In the resulting dialog, enter the following information:
  - **Group name:** netsightusers
  - **Description:** Users that are capable of using Extreme Management Center

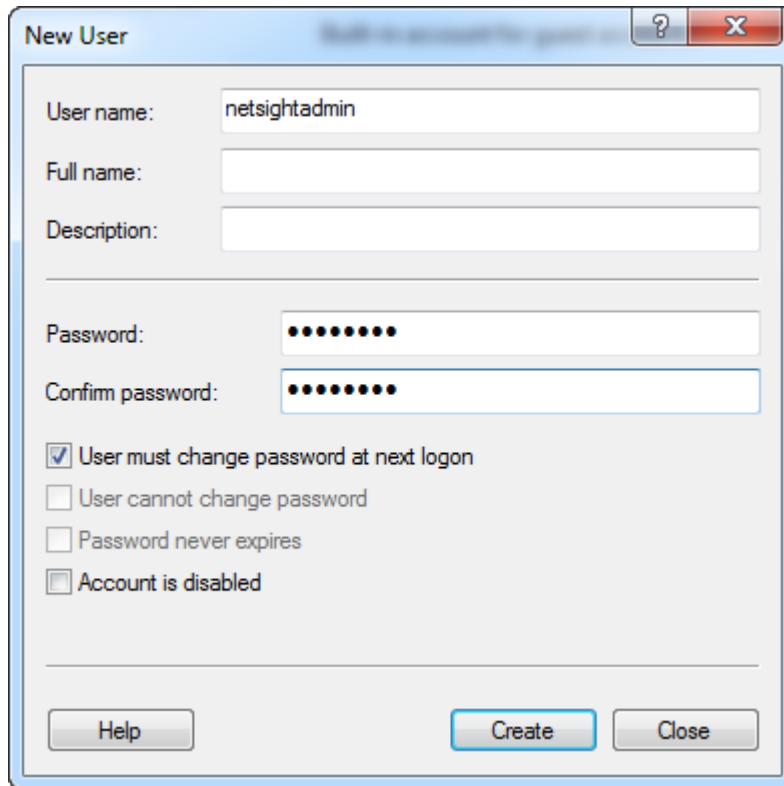


- 4 Click **Create** and **Close**.

## Configuring Extreme Management Center Users

- 1 From your desktop, select **Start > Administrative Tools > Server Manager > Local Users and Groups > Users**.
- 2 Select **Action > New User**.

- 3 In the resulting dialog, enter the following information:
  - **User name:** netsightadmin
  - **Password:** Enter a password
  - **Confirm password:** Confirm the password



The screenshot shows a "New User" dialog box with the following fields and options:

- User name:** netsightadmin
- Full name:** (empty)
- Description:** (empty)
- Password:** (masked with 10 dots)
- Confirm password:** (masked with 10 dots)
- User must change password at next logon
- User cannot change password
- Password never expires
- Account is disabled

Buttons at the bottom: Help, Create, Close.

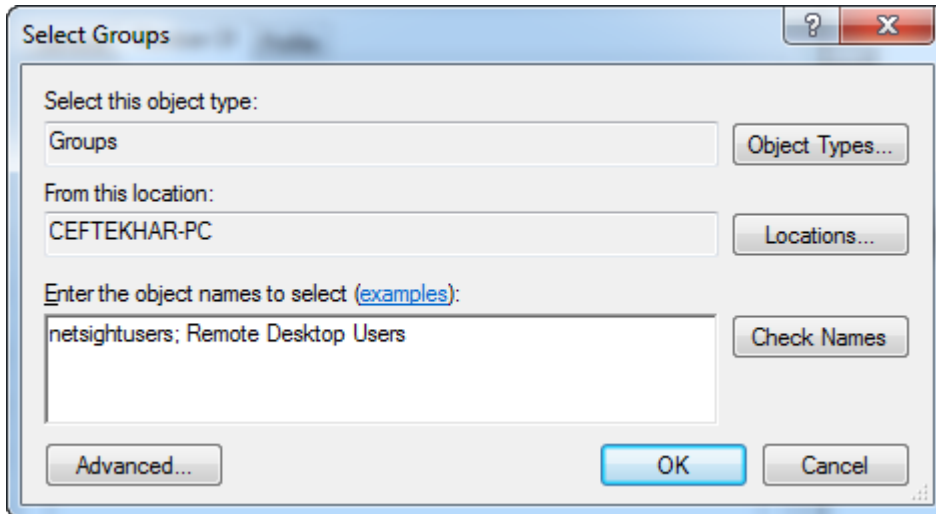
- 4 Click **Create** and **Close**.
- 5 Double-click the **netsightadmin** user.
- 6 In the resulting dialog, select the **Member of** tab.
- 7 Click **Add**.

- 8 In the resulting dialog, enter `netsightusers` and `Remote Desktop Users` separated by a semicolon.



**Note**

If this user is not already part of the "User" group, add it now.



- 9 Click **Check Names** to validate the groups.
- 10 Click **OK**.
- 11 Remove any other groups by selecting the group and clicking **Remove**.
- 12 From the **Environment** tab, enable **Start the following program at logon**.
- 13 In the **Profile file name** field, enter `logoff.exe`.
- 14 Click **OK**.
- 15 Select **Action > New User**
- 16 In the resulting dialog, enter the following information:
- **User name:** `netsightuser`
  - **Password:** Enter a password
  - **Confirm password:** Confirm the password
- 17 Click **Create** and **Close**.
- 18 Double-click the **netsightuser** user.
- 19 In the resulting dialog, select the **Member of** tab.
- 20 Click **Add**.
- 21 In the resulting dialog, enter `netsightusers` and `Remote Desktop Users` separated by a semicolon.
- 22 Click **Check Names** to validate the groups.
- 23 Click **OK**.
- 24 Remove any other groups by selecting the group and clicking **Remove**.
- 25 From the **Environment** tab, enable **Start the following program at logon**.
- 26 In the **Profile file name** field, enter `logoff.exe`.
- 27 Click **OK**.
- 28 Select **Action > New User**

29 In the resulting dialog, enter the following information:

- **User name:** netsightsrv
- **Password:** Enter a password
- **Confirm password:** Confirm the password

30 Click **Create** and **Close**.

31 Double-click the **netsightsrv** user.

32 In the resulting dialog, select the **Member of** tab.

33 Click **Add**.

34 In the resulting dialog, enter **netsightusers** and **Administrators** separated by a semicolon.

35 Click **Check Names** to validate the groups.

36 Click **OK**.

37 Remove any other groups by selecting the group and clicking **Remove**.

38 From the **Environment** tab, enable **Start the following program at logon**.

39 In the **Profile file name** field, enter **logoff.exe**.

40 Click **OK**.

41 Click **Apply** and **OK**.



# 2 Installing Extreme Management Center

## Creating Extreme Management Center Users and Groups

To install Extreme Management Center, you must be logged in as "netsightsrv".

- 1 Initiate the Extreme Management Center install by double-clicking the install package (via the .exe file) or install DVD.
- 2 From the Install GUI Welcome Screen, click **Next**.
- 3 Accept the terms of the license agreement, and click **Next**.
- 4 Enter your Extreme Management Center Product License, and then click **Next**.
- 5 From the next screen, clear **TFTP** and **BOOTP**, and then click **Next**.
- 6 Change the Install Folder to: `C:\Enterasys Networks\NetSight`, and then click **Next**.
- 7 If the folder does not exist, click **OK** to create folder when prompted.
- 8 Wait until the following status is shown: `Server is ready for connections`, and then click **Finish**.

## Creating Extreme Management Center Users and Groups

- 1 Select **Start > All Progras > Extreme Networks > Extreme Control Cnter > Clients > Console**.
- 2 When prompted to login, use the following credentials and click **OK**:
  - **Server:** localhost
  - **User name:** netsightsrv
  - **Password:** [password defined in [Configuring Extreme Management Center Users](#) on page 13]
- 3 Navigate to **Tools > Authorization/Device Access**.
- 4 Click **Add Group** and complete the following fields:
  - **Authorization Group name:** netsightuser
  - **Membership Criteria:** basic netsight capabilities
- 5 From the **Capabilities** tab, select or clear the user's capabilities depending on the user's privileges.
- 6 Click **Apply**.
- 7 Click **Add Group** and complete the following fields:
  - **Authorization Group name:** netsightadmin
  - **Membership Criteria:** admin netsight capabilities
- 8 From the **Capabilities** tab, select or clear the user's capabilities depending on the user's privileges.
- 9 Click **Apply** and **Close**.

- 10 Click **Add User** and complete the following fields:
  - **User name:** netsightuser
  - **Domain/Host name:** localhost
  - **Authorization group:** netsightuser
- 11 Click **Apply**.
- 12 Click **Add User** and complete the following fields:
  - **User name:** netsightadmin
  - **Domain/Host name:** localhost
  - **Authorization group:** netsightadmin
- 13 Click **Apply**.
- 14 Click **Close**.
- 15 Exit the Extreme Management Center Console Program.

# 3 Configuring Extreme Management Center

Configuring Extreme Management Center Services  
Configuring Access Control of Extreme Management Center Directory  
Encrypting the File System Service  
Encrypting the File System of the Extreme Management Center mysql Directory  
Configuring the Application Identity Service  
Configuring Application Control Policies  
Configuring AppLocker Executable Rules  
Configuring AppLocker Script rule  
Configuring RemoteApp Manager  
Windows Firewall Configuration  
Configuring IPsec

## Configuring Extreme Management Center Services

- 1 From your desktop, select **Start > Administrative Tools > Server Manager > Configuration > Services**.
- 2 Double-click **BootP Service**.
- 3 From the **General** tab, select **Disabled** from the Startup type drop-down menu.
- 4 From the **Log On** tab, enable **This account**.
- 5 Click **Browse** and enter the object name as `netsightsrv`.
- 6 Click **Check Names** to validate the object name.
- 7 Click **OK**.
- 8 Enter and confirm the password assigned in [Configuring Extreme Management Center Users](#) on page 13.
- 9 Click **OK**.
- 10 Repeat the above steps for the following services:

For this service...	Change Startup Type to...
Extreme Management Center Database Service	Automatic
Extreme Management Center Server Service	Automatic
Extreme Management Center SNMP Trap Service	Automatic
Extreme Management Center Syslog Service	Automatic
Extreme Management Center TFTP Service	Disabled

- 11 Click **OK**.
- 12 Restart the computer and log in again as user `netsightsrv`.

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## Configuring Access Control of Extreme Management Center Directory

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- 1 Navigate to the C:\ drive (**Start** > **Computer** > **OS (C:)**).
- 2 Right-click the directory named **Extreme Networks** and select **Properties**.
- 3 From the **Security** tab, click **Advanced**.
- 4 Click **Change Permissions**.
- 5 Clear the **Include inheritable permissions from this object's parent** checkbox.
- 6 Click **Add**.
- 7 Select **Replace all child object permissions with inheritable permissions from this object**.
- 8 Click **Add**.
- 9 In the **Enter the object name to select** field, type `netsightusers`.
- 10 Click **Check Names**.
- 11 Click **OK**.
- 12 Select **Allow** for the following permissions:
  - Traverse folder / execute file
  - List folder / read data
  - Read attributes
  - Read extended attributes
  - Create files / write data
  - Create folders / append data
  - Write attributes
  - Write extended attributes
  - Read permissions
- 13 Select **Apply these permissions to objects and/or containers within this container only**.
- 14 Click **OK**.
- 15 Select **Users (NETSIGHT-1\Users)** and then click **Remove**.
- 16 Click **OK**, **Yes**, and **OK** twice to exit.

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## Encrypting the File System Service

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- 1 From your desktop, select **Start** > **Administrative Tools** > **Server Manager** > **Configuration** > **Services**.
- 2 Double-click **Encrypting File System (EFS)**.
- 3 From the **General** tab, select **Automatic** from the Startup type drop-down menu.
- 4 Click **Start**.
- 5 Once the service starts, click **OK**.

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## Encrypting the File System of the Extreme Management Center mysql Directory

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- 1 From your desktop, select **Start > Administrative Tools > Sever Manager > Configuration > Services**.
- 2 Double-click **Database Service**.
- 3 From the **General** tab, click **Stop**.
- 4 Once the Service has stopped, click **OK**.
- 5 From your desktop, navigate to the C:\ directory (**Start > Computer > OS (C:)**).
- 6 Navigate to C:\Extreme Networks\NetSight.
- 7 Right-click on the **mysql** directory and select **Properties**.
- 8 Click **Advanced**.
- 9 Select **Encrypt contents to secure data**.
- 10 Click **Apply**.
- 11 When prompted, select **Apply changes to this folder, subfolders and files**.
- 12 Click **OK** twice to exit.
- 13 From your desktop, select **Start > Administrative Tools > Sever Manager > Configuration > Services**.
- 14 Double-click **Database Service**.
- 15 From the **General** tab, click **Start**.
- 16 Once the Service has started, click **OK**.

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## Configuring the Application Identity Service

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- 1 From your desktop, select **Start > Administrative Tools > Sever Manager > Configuration > Services**.
- 2 Double-click **Application Identity**.
- 3 From the **General** tab, select **Automatic** from the Startup type drop-down menu.
- 4 Click **Start**.
- 5 Once the service has started, click **OK**.

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## Configuring Application Control Policies

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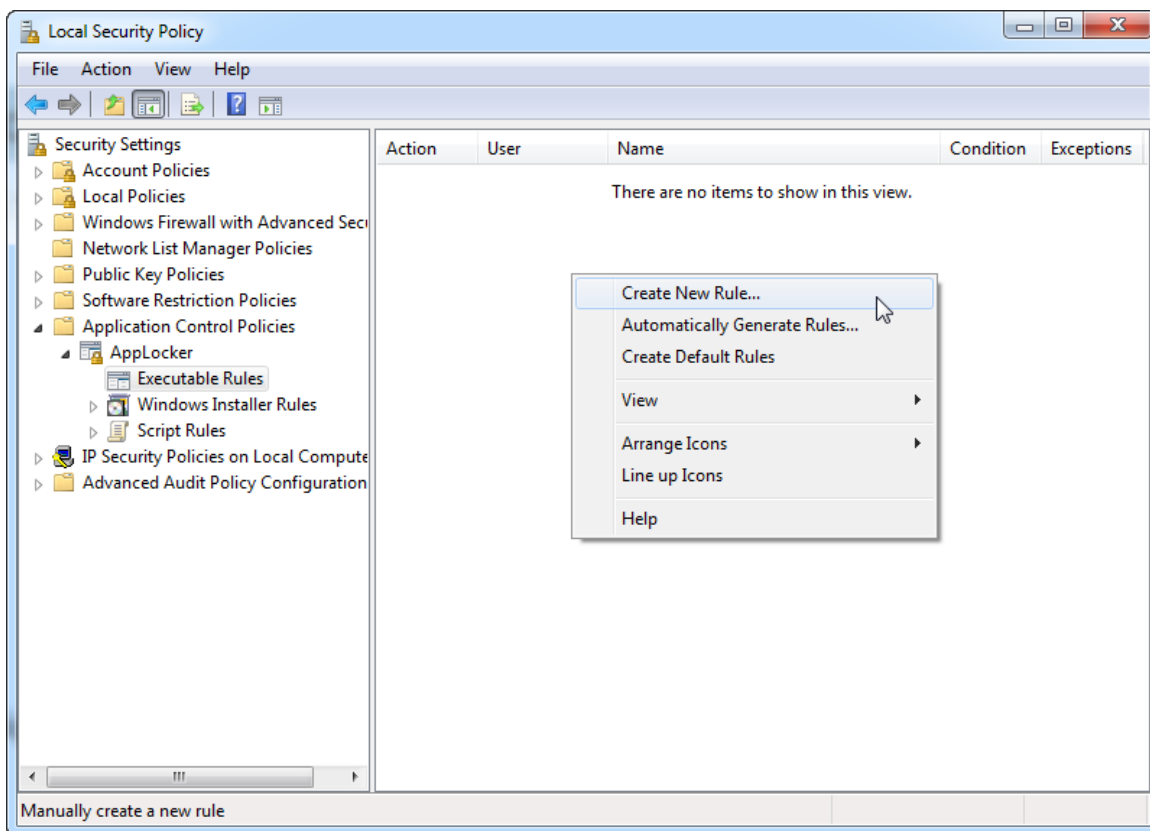
- 1 From your desktop, select **Start > Administrative Tools > Sever Manager > Configuration > Services**.
- 2 Right-click **AppLocker** and select **Properties**.
- 3 Select **Configured** from the following sections:
  - Executable rules
  - Windows Installer rules
  - Script rules
- 4 Click **OK**.

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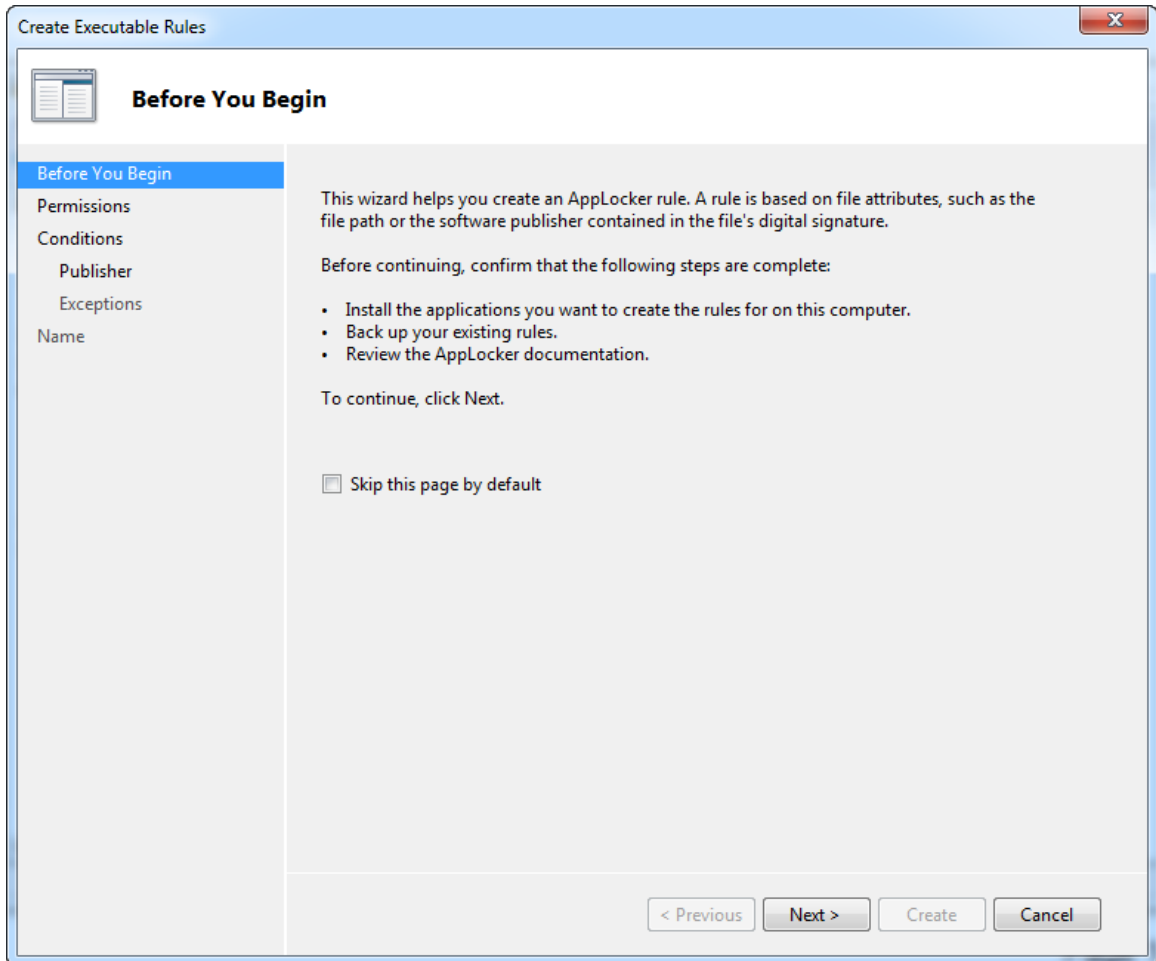
## Configuring AppLocker Executable Rules

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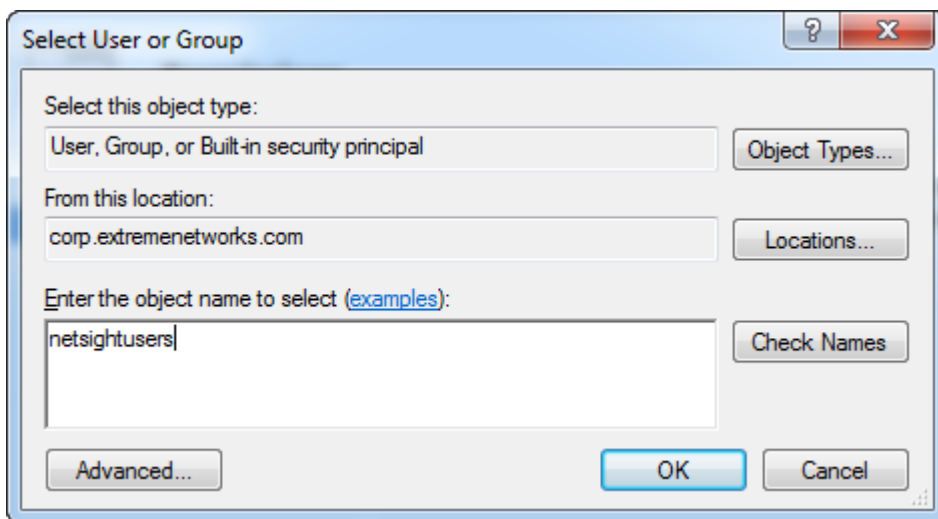
- 1 From your desktop, select **Start > Administrative Tools > Local Security Policy > Application Control Policies > AppLocker > Executable Rules**.
- 2 Right-click in blank area and select **Create New Rule...**



The Create Executable Rules wizard opens.

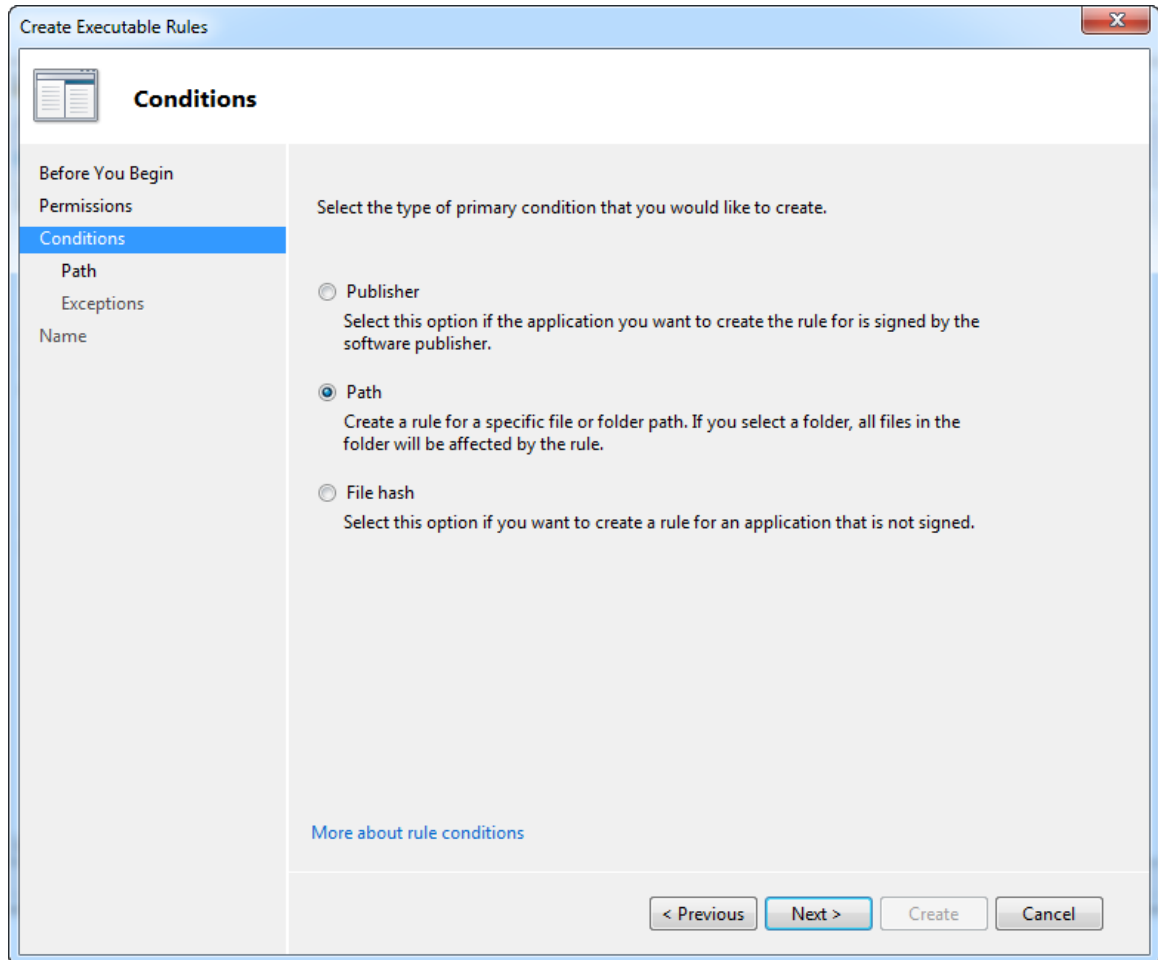


- 3 In the wizard click **Next** and then select **Allow** if not selected by default.
- 4 Click the **Select...** button.
- 5 In the resulting dialog, type `netsightusers`.



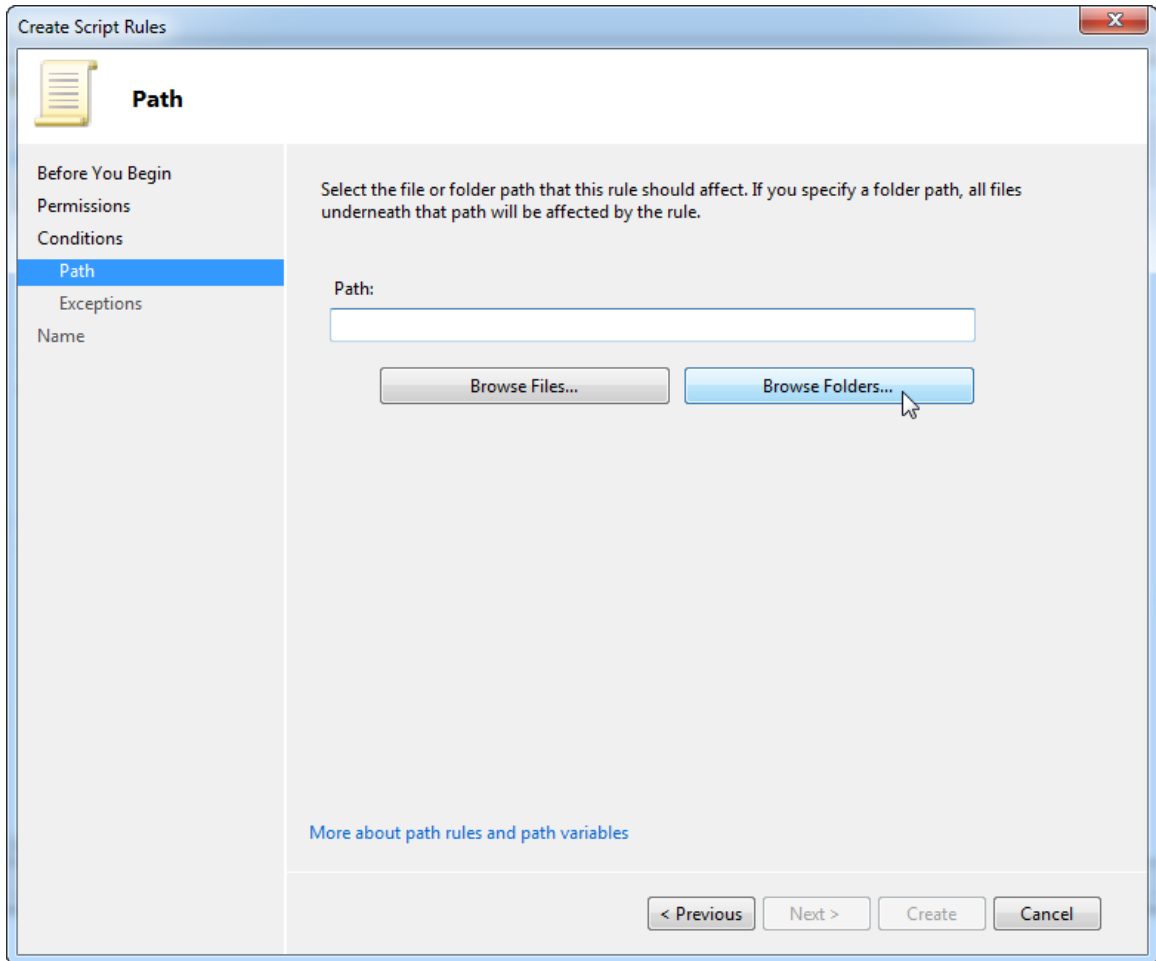
- 6 Click **Check Names**.
- 7 Click **OK**.

- 8 Click **Next**.
- 9 Select the **Path** option, and then click **Next**.



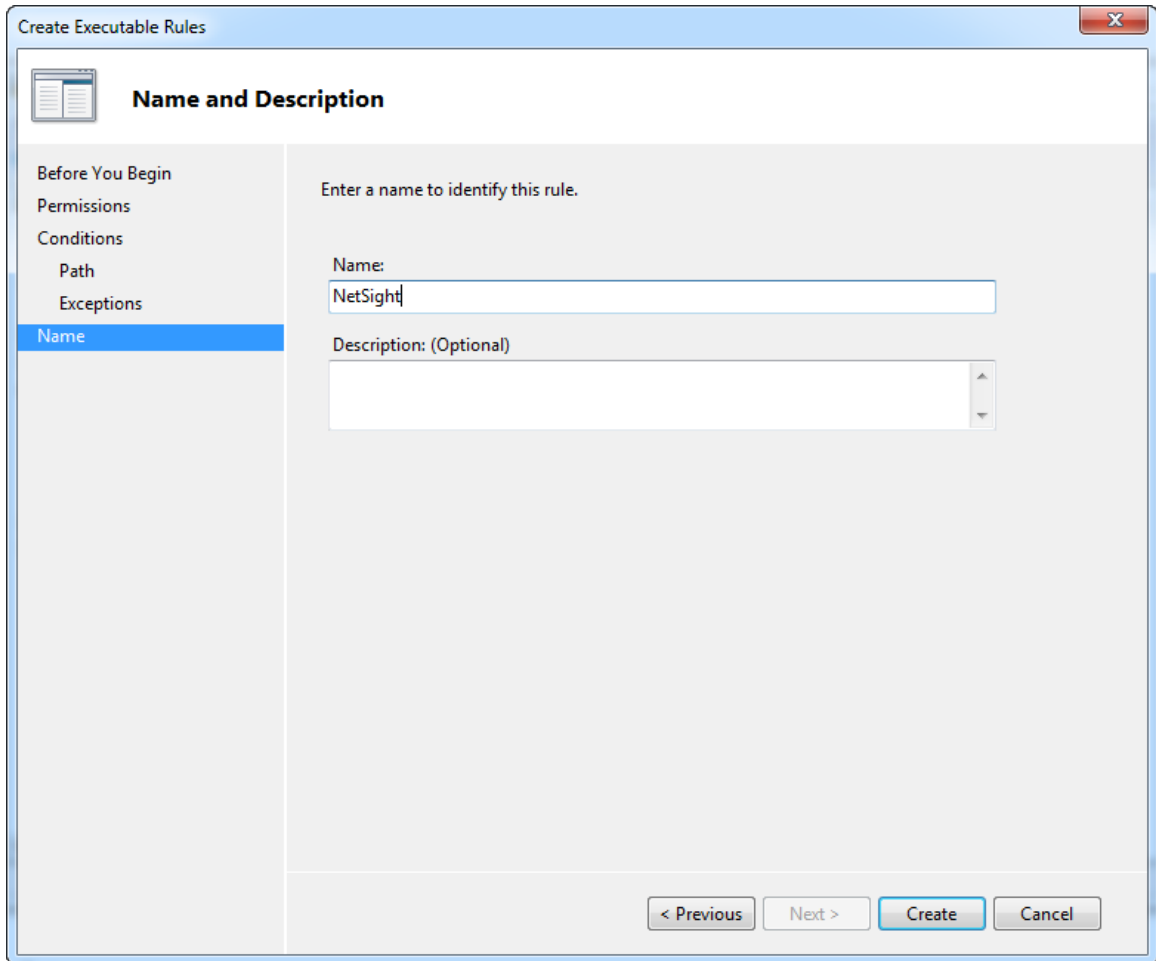


- 10 Click **Browse Folders...** and select the C:\Extreme Networks path.



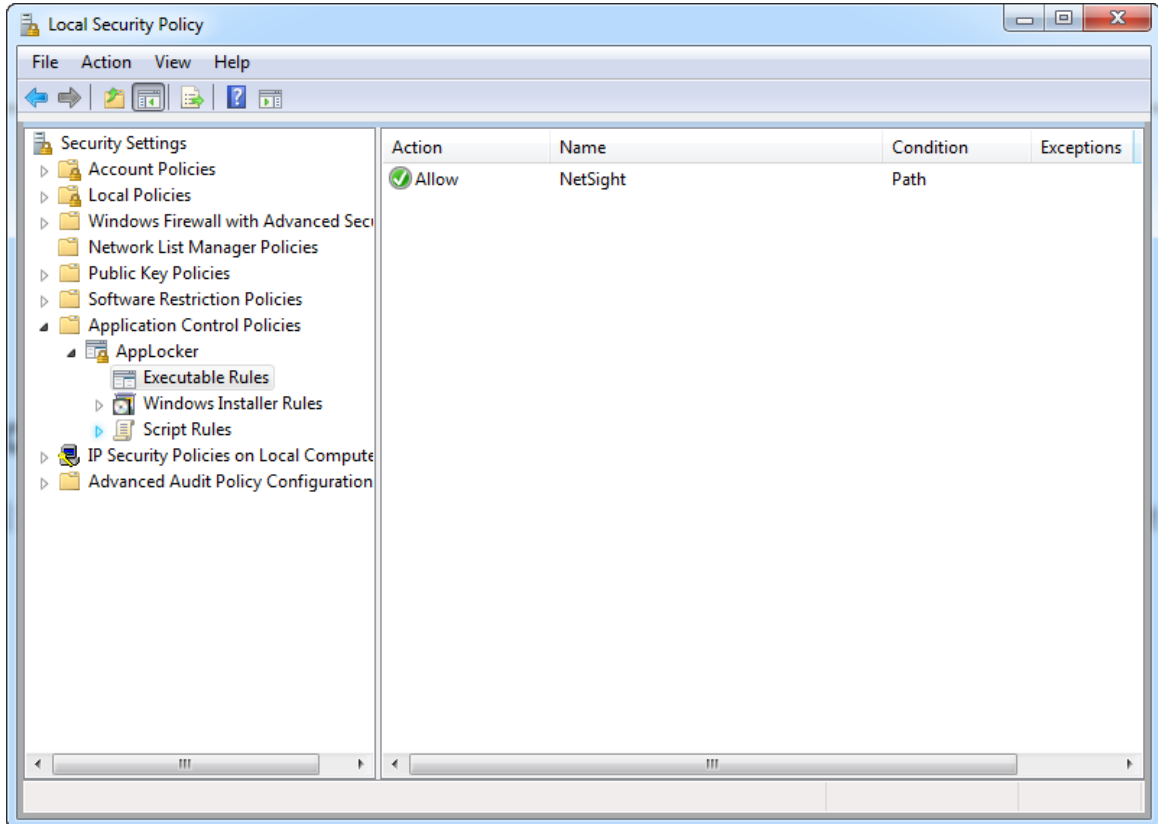
- 11 Click **OK** and then **Next** twice.

- 12 In the **Name** field, type `NetSight`, and then click **Create**.



The screenshot shows a window titled "Create Executable Rules" with a close button in the top right corner. The window is divided into two main sections. On the left is a vertical navigation pane with a list of steps: "Before You Begin", "Permissions", "Conditions", "Path", "Exceptions", and "Name". The "Name" step is currently selected and highlighted in blue. The main area on the right is titled "Name and Description" and contains the instruction "Enter a name to identify this rule." Below this instruction are two input fields: a "Name:" text box containing the text "NetSight" and a "Description: (Optional)" text area which is currently empty. At the bottom right of the window, there are four buttons: "< Previous", "Next >", "Create", and "Cancel".

The wizard closes and returns to the **Local Security Policy**.



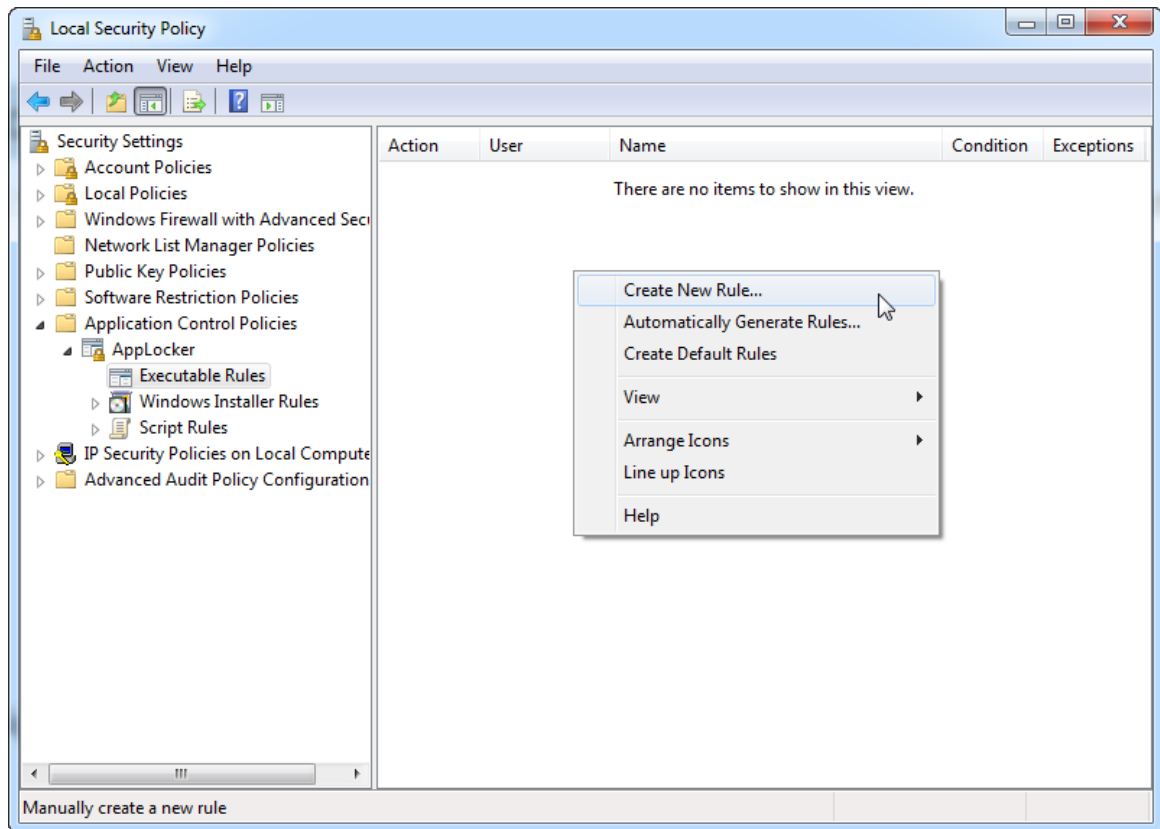
13 Repeat the steps above to create the following rules:

Rule Identification Name	File Path
netsightsrv	C:\Users\netsightsrv
netsightadmin	C:\Users\netsightadmin
netsightuser	C:\Users\netsightuser

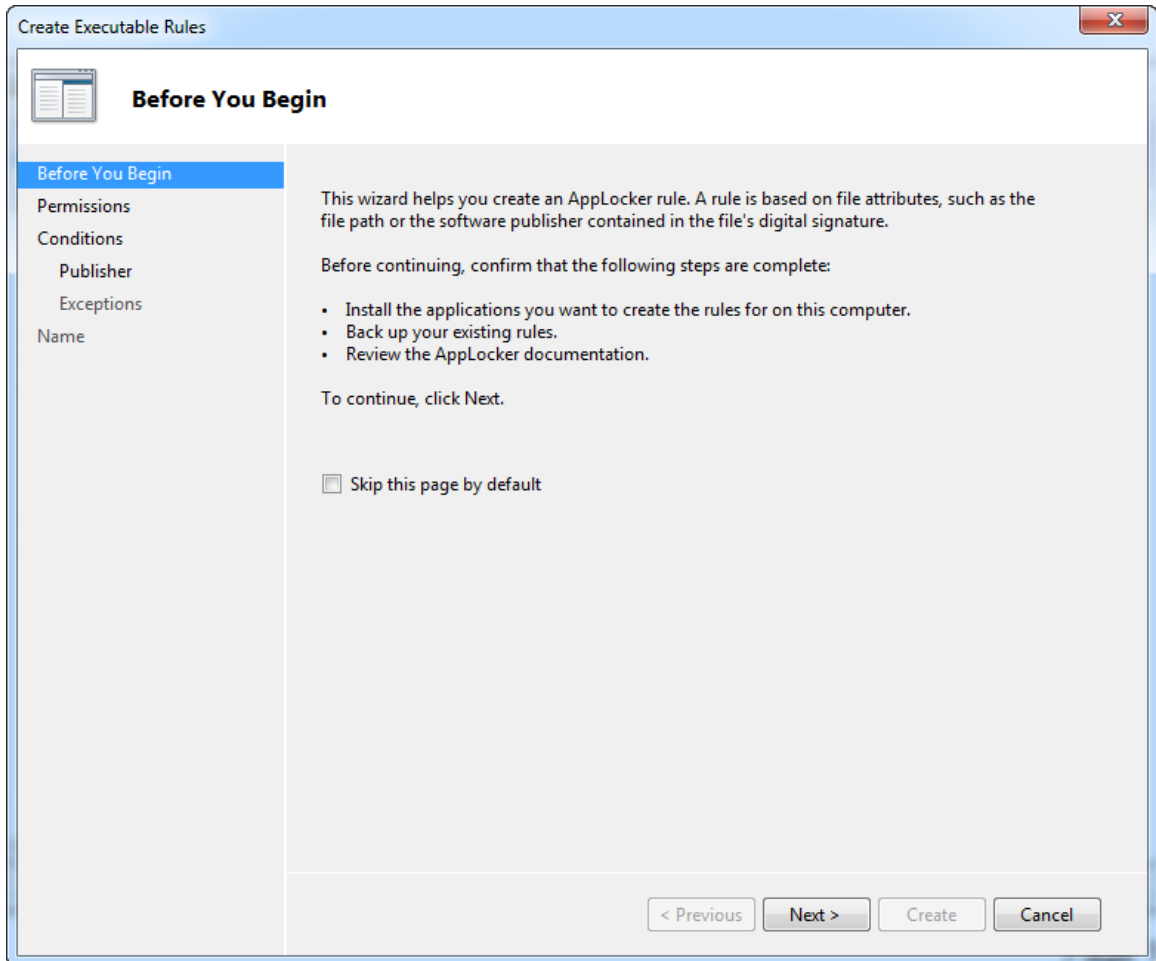
## Configuring AppLocker Script rule

- 1 From your desktop, select **Start > Administrative Tools > Local Security Policy > Application Control Policies > AppLocker > Script Rules**.

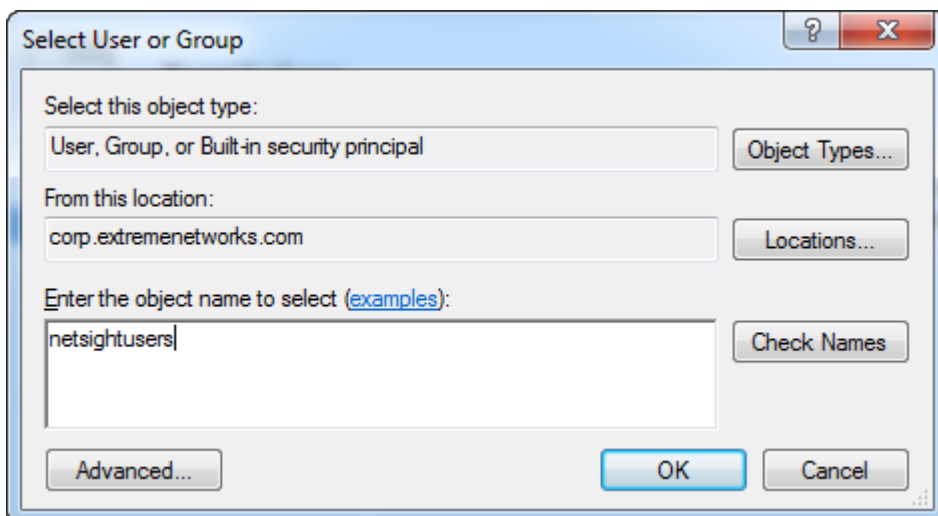
- 2 Right-click in blank area and select **Create New Rule...**



The **Create Executable Rules** wizard opens.

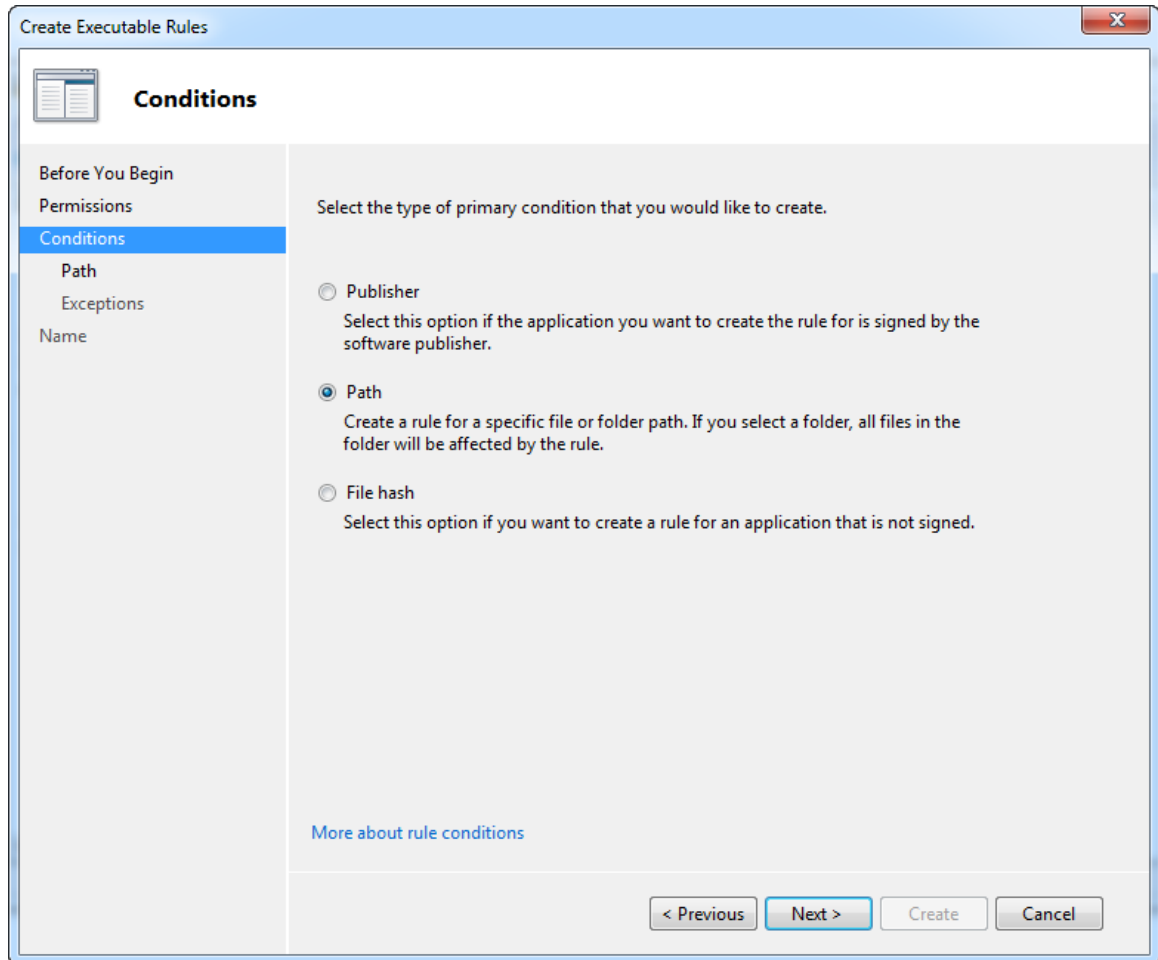


- 3 In the wizard click **Next** and then select **Allow** if not selected by default.
- 4 Click the **Select...** button.
- 5 In the resulting dialog, type `netsightusers`.

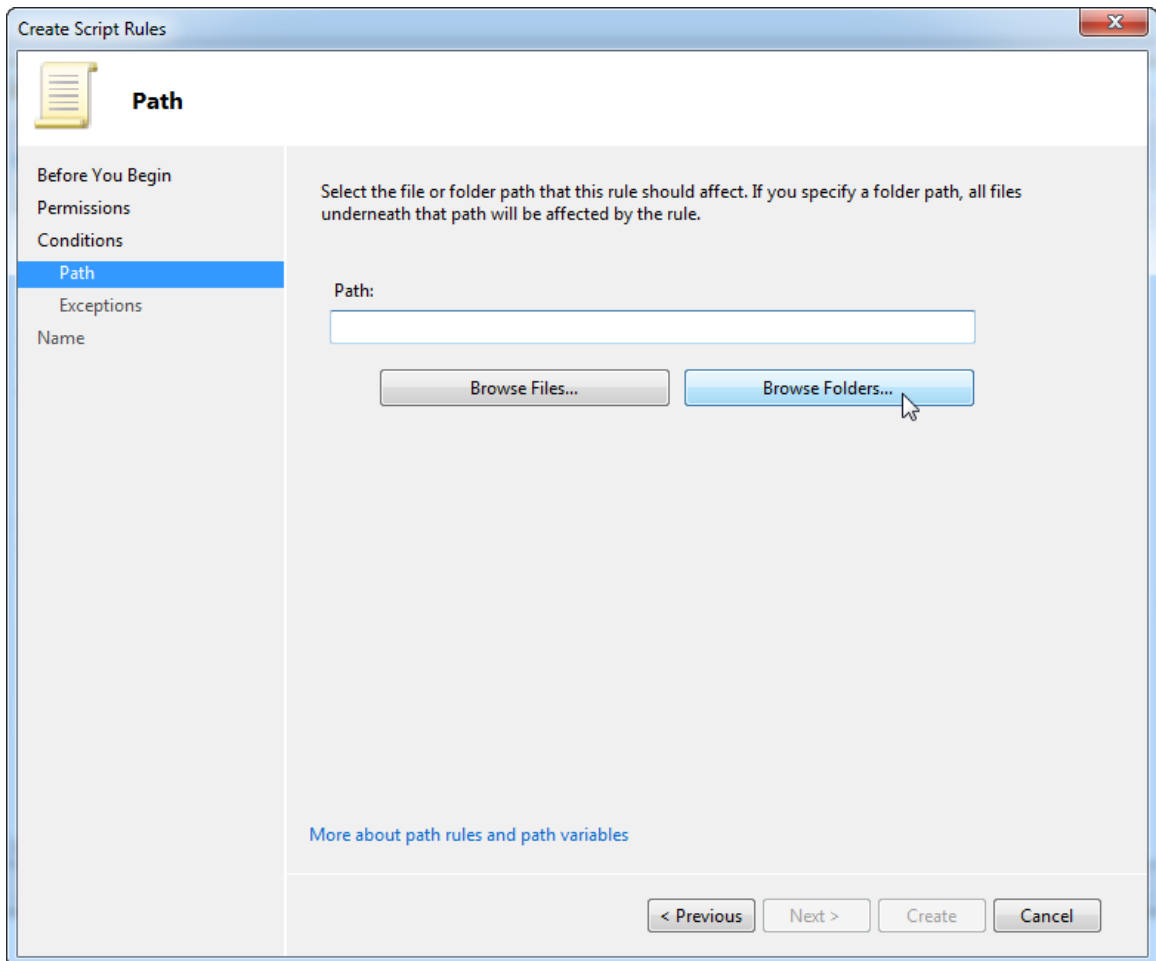


- 6 Click **Check Names**.
- 7 Click **OK**.

- 8 Click **Next**.
- 9 Select the **Path** option, and then click **Next**.

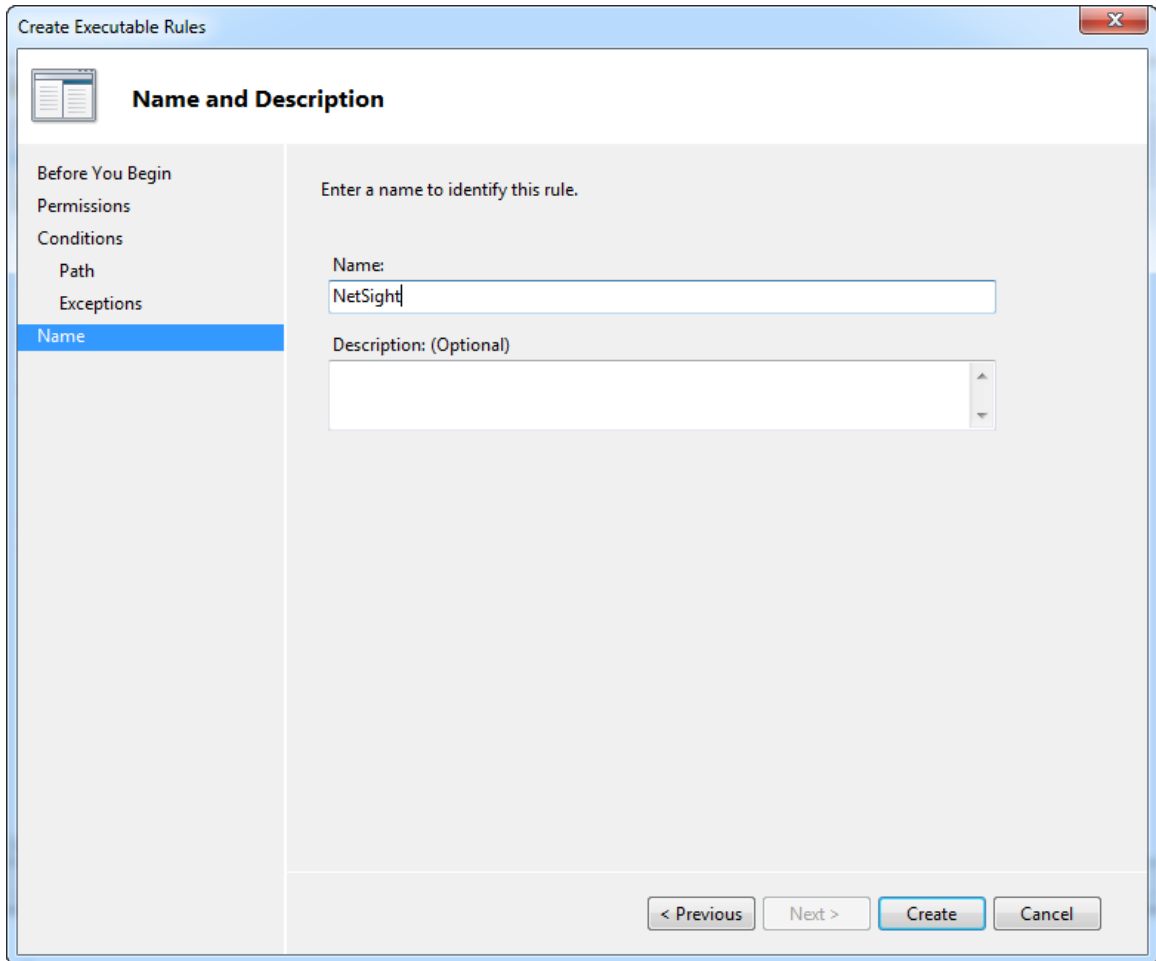


- 10 Click **Browse Folders...** and select the C:\Extreme Networks path.



- 11 Click **OK** and then **Next** twice.

- 12 In the **Name** field, type `NetSight`, and then click **Create**.

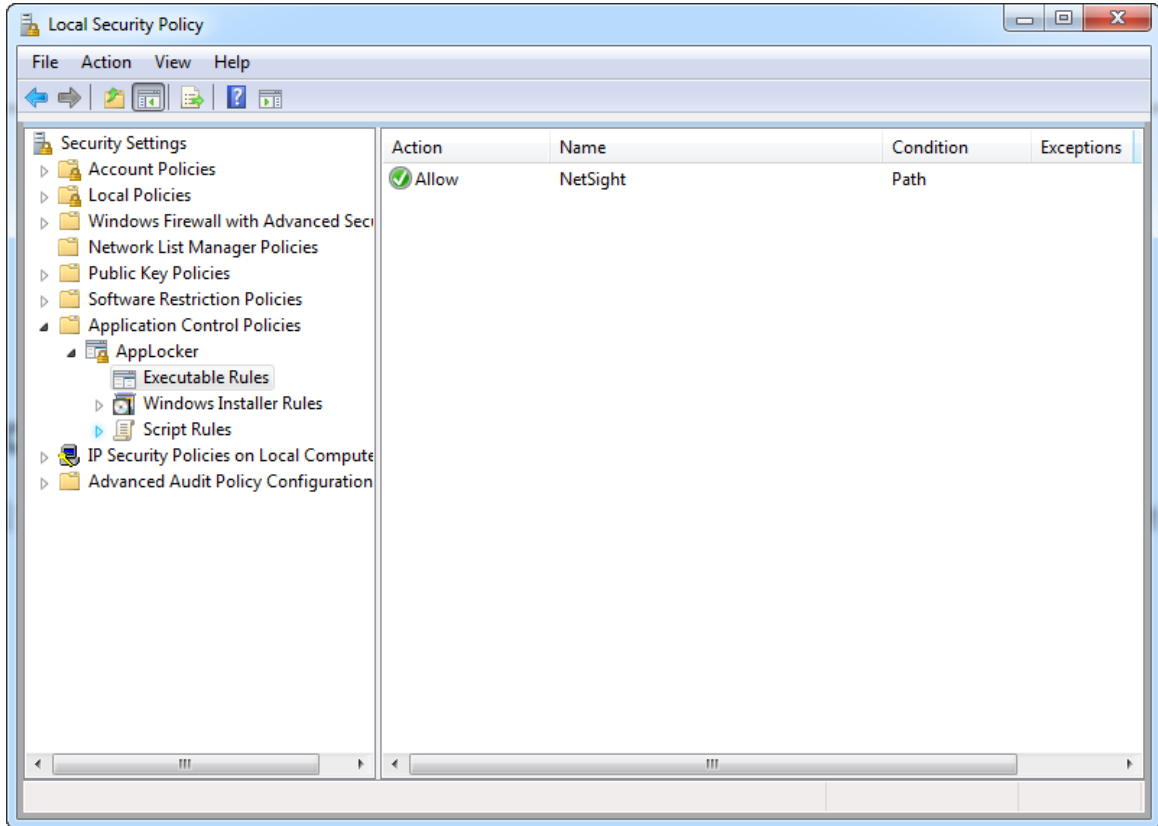


The screenshot shows a window titled "Create Executable Rules" with a close button in the top right corner. The window is divided into two main sections. On the left is a vertical navigation pane with a list of steps: "Before You Begin", "Permissions", "Conditions", "Path", "Exceptions", and "Name". The "Name" step is currently selected and highlighted in blue. The main area of the window is titled "Name and Description" and contains the following elements:

- A heading: "Enter a name to identify this rule."
- A "Name:" label followed by a text input field containing the text "NetSight".
- A "Description: (Optional)" label followed by a larger, empty text area with a vertical scrollbar on the right side.
- At the bottom right, there are four buttons: "< Previous", "Next >", "Create", and "Cancel". The "Create" button is highlighted in blue.

The wizard closes and returns to the **Local Security Policy**.





13 Repeat the steps above to create the following rules:

Rule Identification Name	File Path
netsightsrv	C:\Users\netsightsrv
netsightadmin	C:\Users\netsightadmin
netsightuser	C:\Users\netsightuser

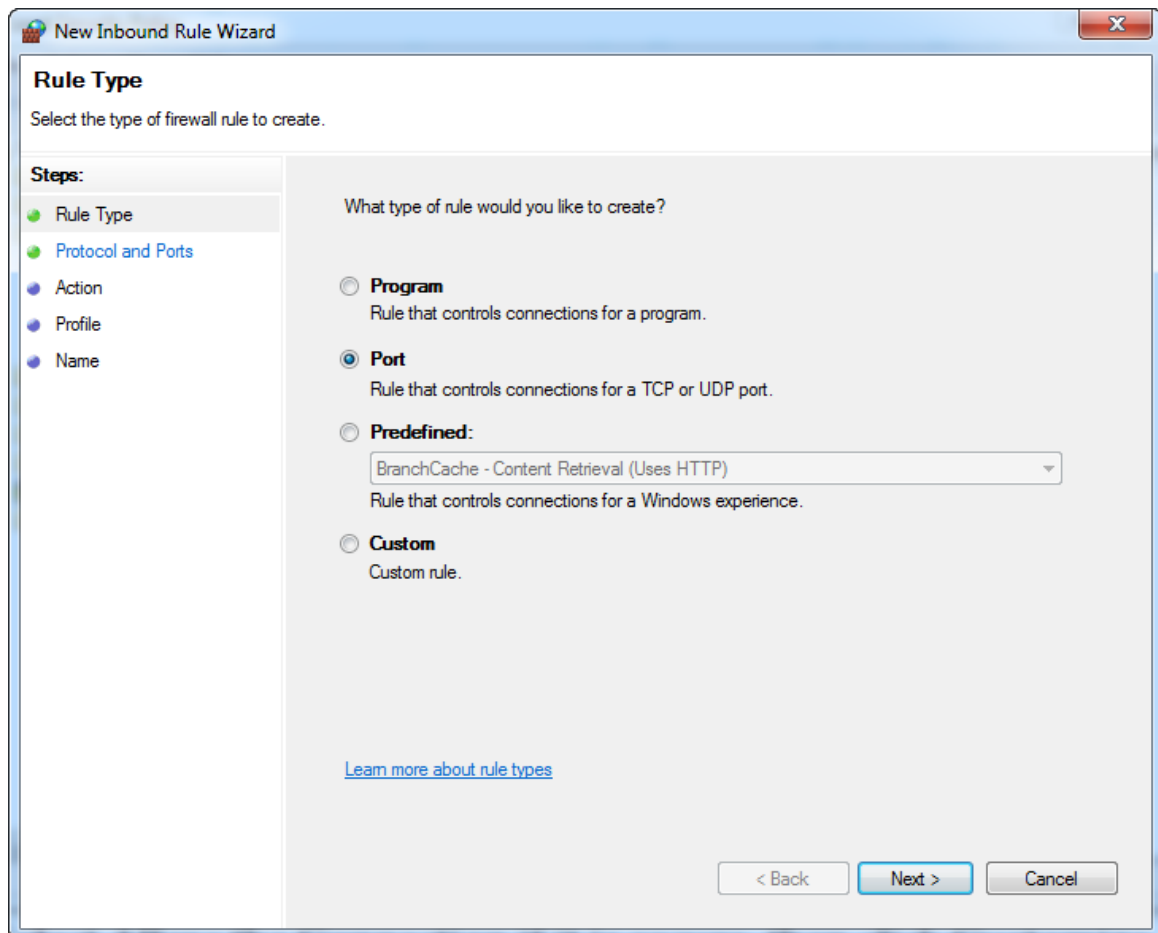
## Configuring RemoteApp Manager

- 1 From your desktop, select **Start** > **Administrative Tools** > **Server Manager** > **Roles** > **RemoteApp Manager**.
- 2 Right-click **RemoteApp Manager** and select **Add RemoteApp Programs**.
- 3 Click **Next**.
- 4 Select the following Apps:
  - Automated Security Manager
  - Console
  - Inventory Manager
  - NAC Manager
  - Policy Manager
- 5 Click **Next** and then **Finish**.

- 6 In the right column under **RemoteApp Programs**, perform the following steps for each Extreme Management Center program:
  - a Right-click the program and select **Create Windows Installer Package**.
  - b Click **Next** three times.
  - c Click **Finish**.
- 7 From your desktop, navigate to `C:\Program Files\Packaged Programs`.
- 8 Copy the MSI packages just created onto a USB drive or other storage medium.
- 9 Transfer and install MSI packages onto the Extreme Management Center client computer.

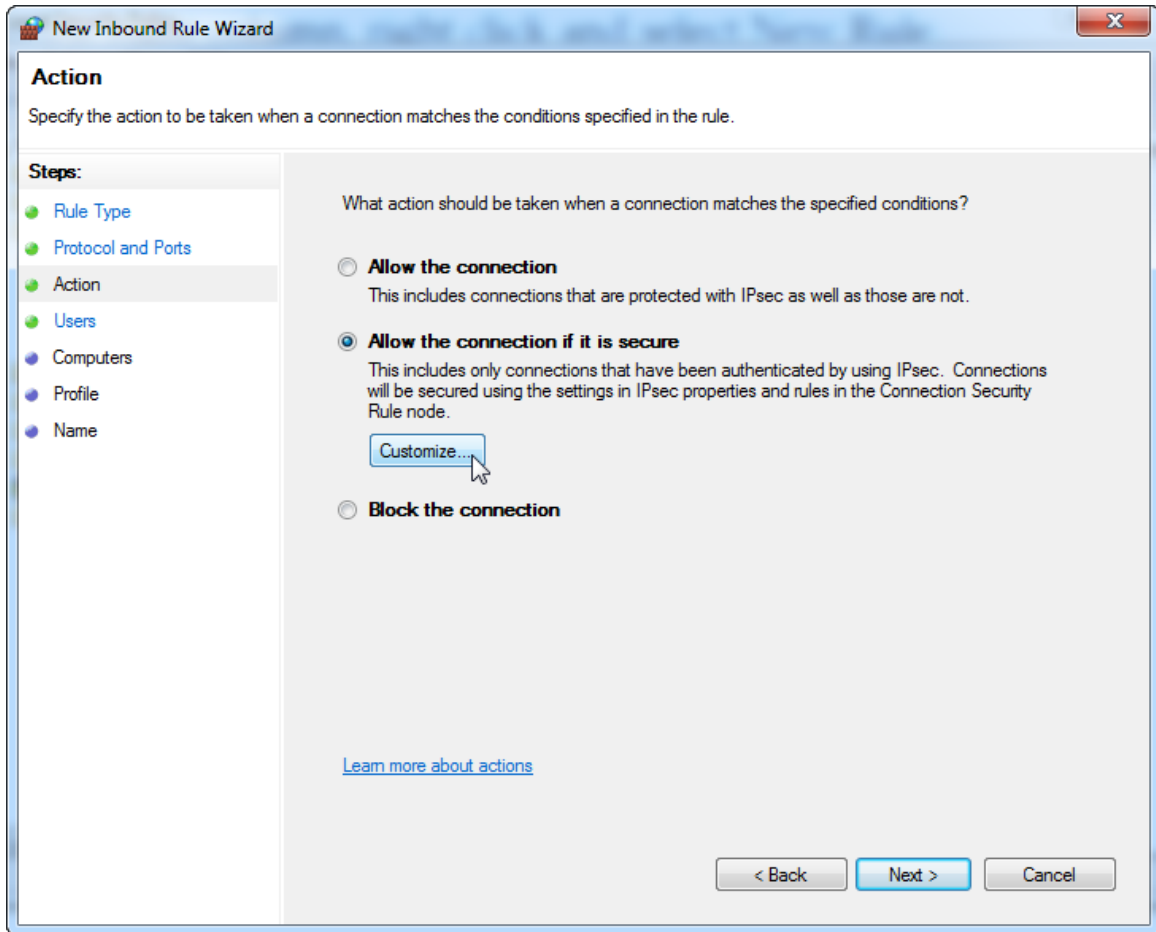
## Windows Firewall Configuration

- 1 From your desktop, select **Start > Administrative Tools > Local Security Policy > Windows Firewall with Advanced Security > (expand folder) > Inbound Rules**.
- 2 In the blank area, right-click and select **New Rule**.  
The New Inbound Rule Wizard opens.



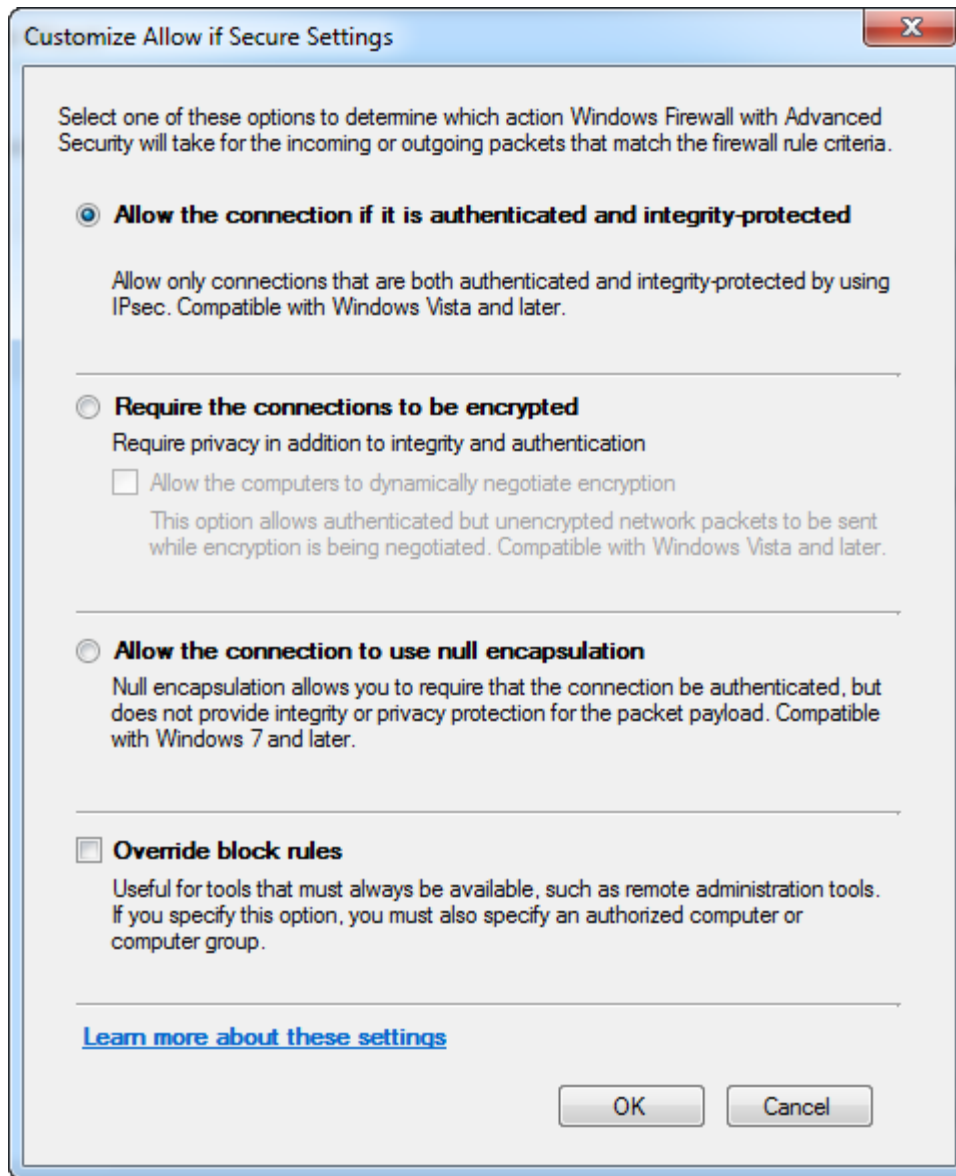
- 3 Select the **Port** option and then click **Next**.
- 4 If not already selected, choose the **TCP** option.
- 5 Type 135 in the **Specific local ports** field.

- 6 Click **Next**.
- 7 Select the second option, **Allow the Connection if it is secure**.



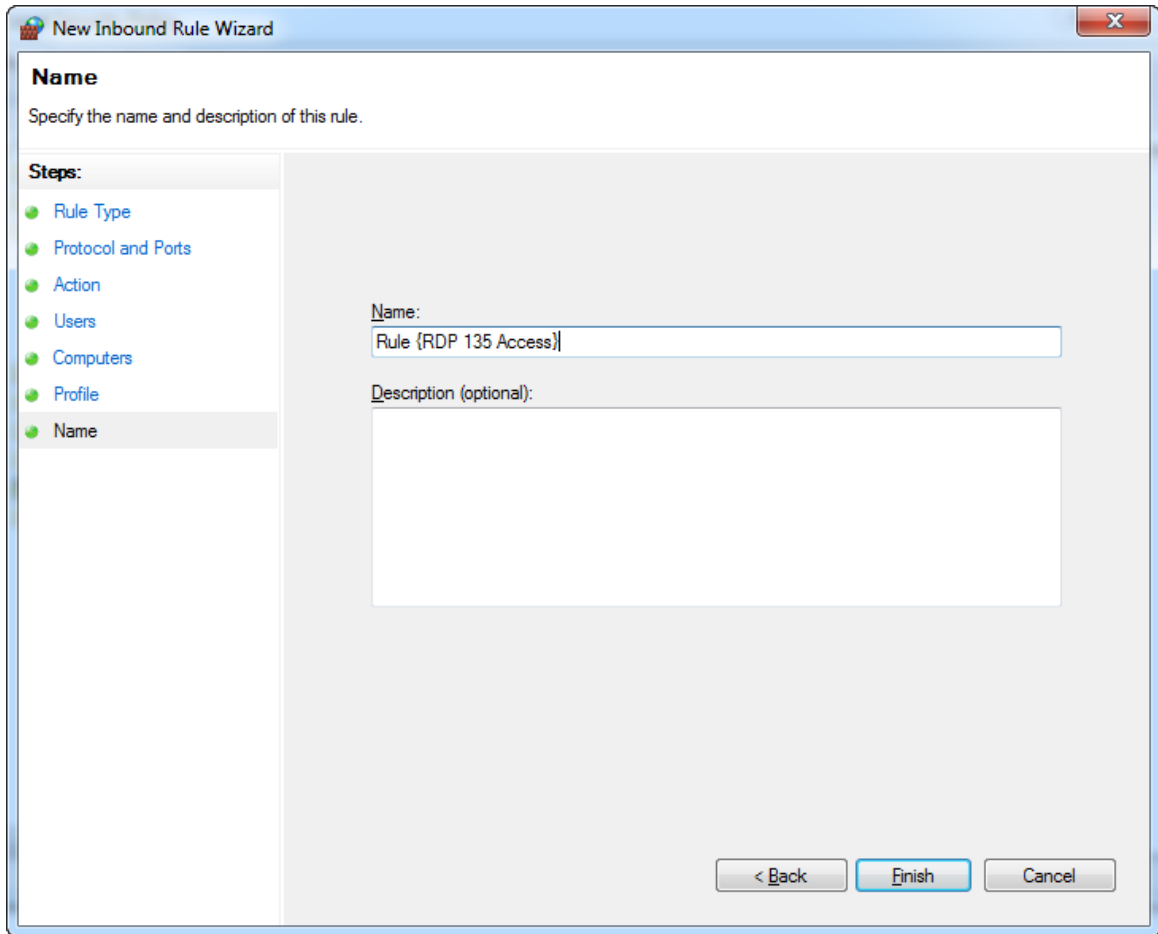
- 8 Click the **Customize...** button.

- In the resulting dialog, select the first option, **Allow the connection if it is authenticated and integrity-protected**.



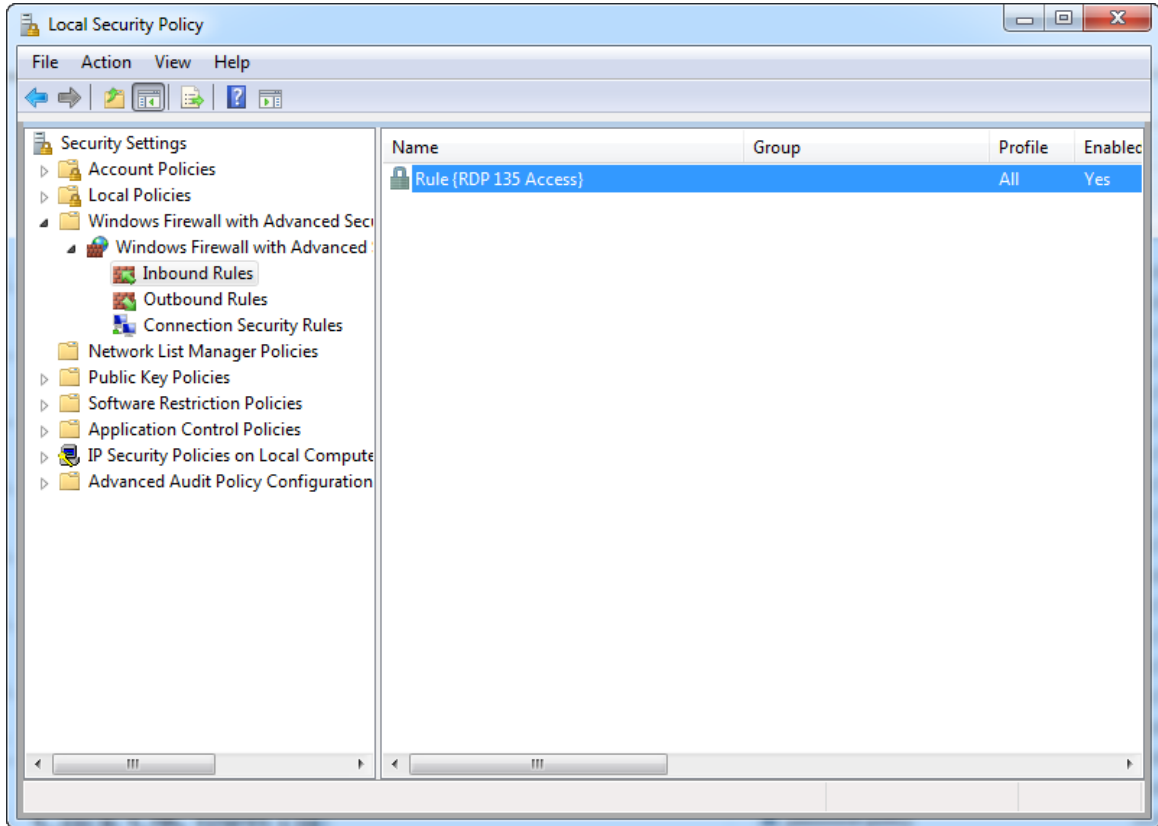
- Click **OK** and then **Next** three times.
- On the **Profile** page, leave **Domain**, **Private**, and **Public** selected, and then click **Next**.

- 12 In the **Name** field, type RDP 135 Access, and then click **Finish**.



The screenshot shows the 'New Inbound Rule Wizard' dialog box. The title bar reads 'New Inbound Rule Wizard'. Below the title bar, the text 'Name' is displayed, followed by the instruction 'Specify the name and description of this rule.' On the left side, there is a 'Steps:' list with the following items: Rule Type, Protocol and Ports, Action, Users, Computers, Profile, and Name. The 'Name' field is currently filled with 'Rule (RDP 135 Access)'. Below it, the 'Description (optional):' field is empty. At the bottom right, there are three buttons: '< Back', 'Finish', and 'Cancel'. The 'Finish' button is highlighted with a blue border.

The wizard closes and returns to the **Local Security Policy** window.



13 Repeat the steps above to create the following rules:

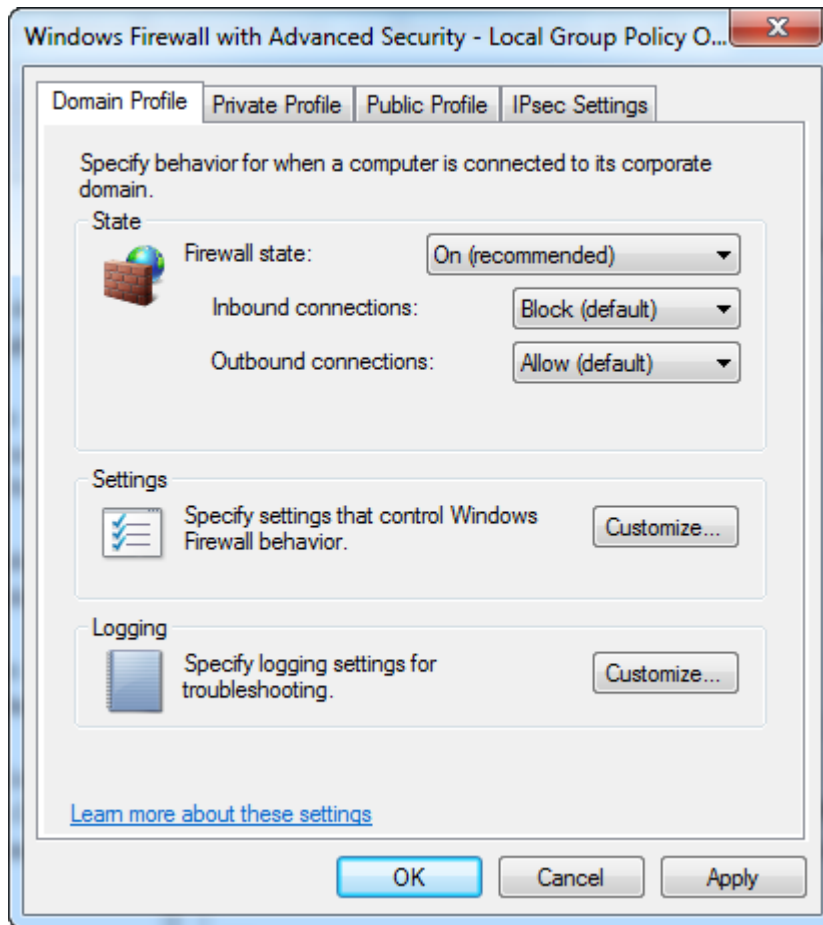
Port Type	Specific local port	Connection Type	Rule Name
TCP	3389	Allow the Connection if it is secure / Allow the connection if it is authenticated and integrity-protected	RDP 3389 Access
UDP	137	Allow the Connection	RDP UDP 137 Access
Custom	161	<ol style="list-style-type: none"> <li>On the <b>Protocols and Ports</b> page, select the following options: <ul style="list-style-type: none"> <li>Protocol type: UDP</li> <li>Local port: Specific Ports / 161</li> </ul> </li> <li>On the <b>Scope</b> page, select the following options: <ul style="list-style-type: none"> <li>Local IP addresses: <b>These IP addresses &gt; Add &gt; enter ECC server address [/64 or /24] &gt; OK</b></li> <li>Remote IP addresses: <b>These IP addresses &gt; Add &gt; enter management IP and 64 bit mask of Management Subnet addresses [/64 or /24] &gt; OK</b></li> </ul> </li> <li>Select <b>Allow the Connection</b>.</li> </ol>	SNMP Access

Port Type	Specific local port	Connection Type	Rule Name
Custom	162	<ol style="list-style-type: none"> <li>On the <b>Protocols and Ports</b> page, select the following options: <ul style="list-style-type: none"> <li>Protocol type: UDP</li> <li>Local port: Specific Ports / 162</li> </ul> </li> <li>On the <b>Scope</b> page, select the following options: <ul style="list-style-type: none"> <li>Local IP addresses: <b>These IP addresses &gt; Add &gt; enter ECC server address [/64 or /24] &gt; OK</b></li> <li>Remote IP addresses: <b>These IP addresses &gt; Add &gt; enter management IP and 64 bit mask of Management Subnet for router/switch [/64 or /24] &gt; OK</b></li> </ul> </li> <li>Select <b>Allow the Connection</b>.</li> </ol>	SNMP Trap
Custom	22	<ol style="list-style-type: none"> <li>On the <b>Protocols and Ports</b> page, select the following options: <ul style="list-style-type: none"> <li>Protocol type: TCP</li> <li>Local port: Specific Ports / 22</li> </ul> </li> <li>On the <b>Scope</b> page, select the following options: <ul style="list-style-type: none"> <li>Local IP addresses: <b>These IP addresses &gt; Add &gt; enter ECC server address [/64 or /24] &gt; OK</b></li> <li>Remote IP addresses: <b>These IP addresses &gt; Add &gt; enter management IP address and 64 bit mask of management subnet for router/switch [/64 or /24] &gt; OK</b></li> </ul> </li> <li>Select <b>Allow the Connection</b>.</li> </ol>	SSH Access
UDP	514	Allow the Connection	Syslog UDP 514 Access

## Configuring IPsec

- From your desktop, select **Start > Administrative Tools > Local Security Policy > Windows Firewall with Advanced Security**.
- Right-click **Windows Firewall with Advanced Security - Local Group Policy Object** and select **Properties**.
- From the **Domain Profile** tab, select **On** from the **Firewall state** drop-down menu.
- Select **Block** from the **Inbound connections** drop-down menu.

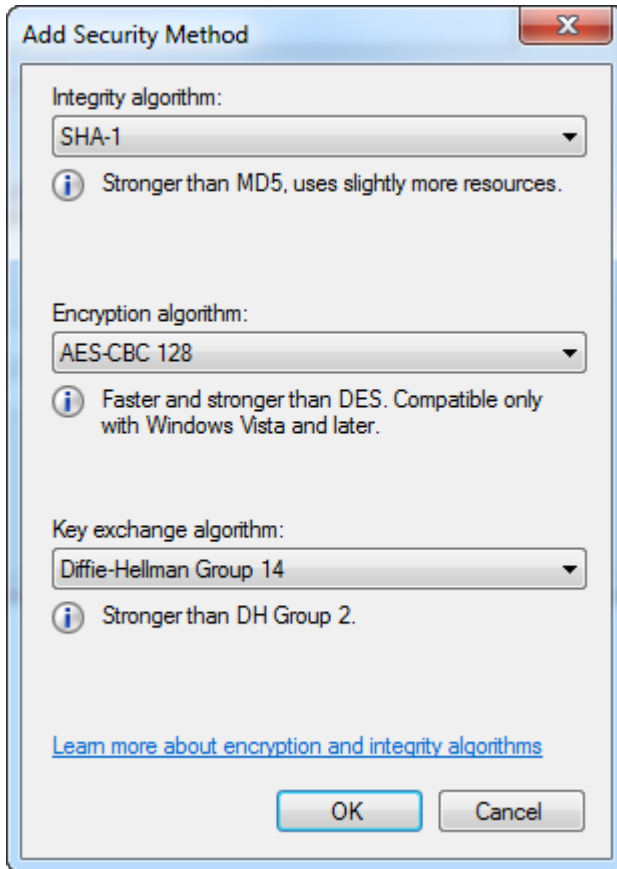
- 5 Select **Allow** from the **Outbound connections** drop-down menu.



- 6 From the **IPsec Settings** tab, click **Customize...** in the **IPSec Defaults** area.
- 7 In the resulting dialog, select the **Advanced** radio button in the **Key exchange (Main Mode)** area.
- 8 Click **Customize...**
- 9 In the resulting dialog, click **Add**.
- 10 Ensure the following security methods are selected: **SHA-1** is selected in the drop-down menu.

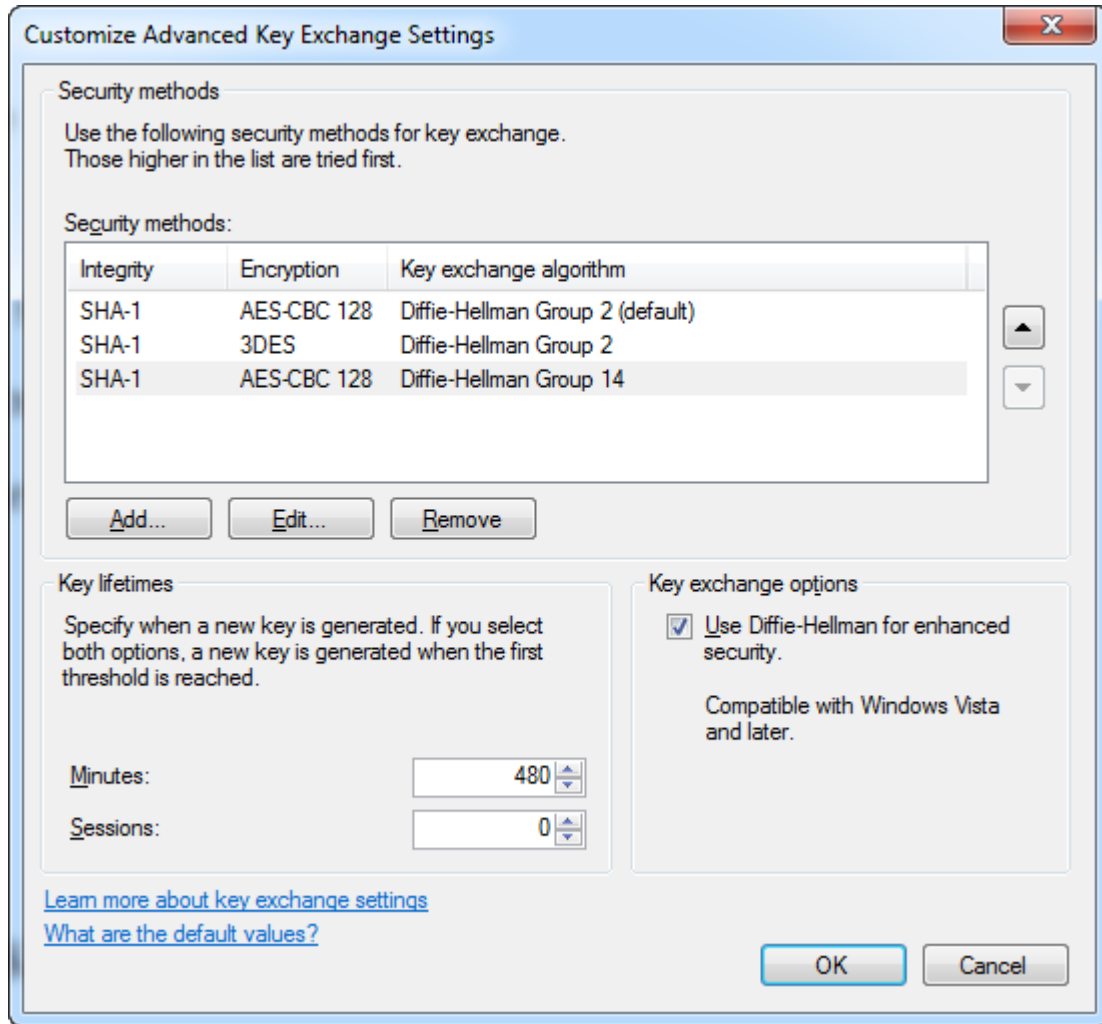
Drop-down Menu	Selection
Integrity algorithm	SHA-1
Encryption algorithm	AES-CBC 128
Key exchange algorithm	Diffie-Hellman Group 14





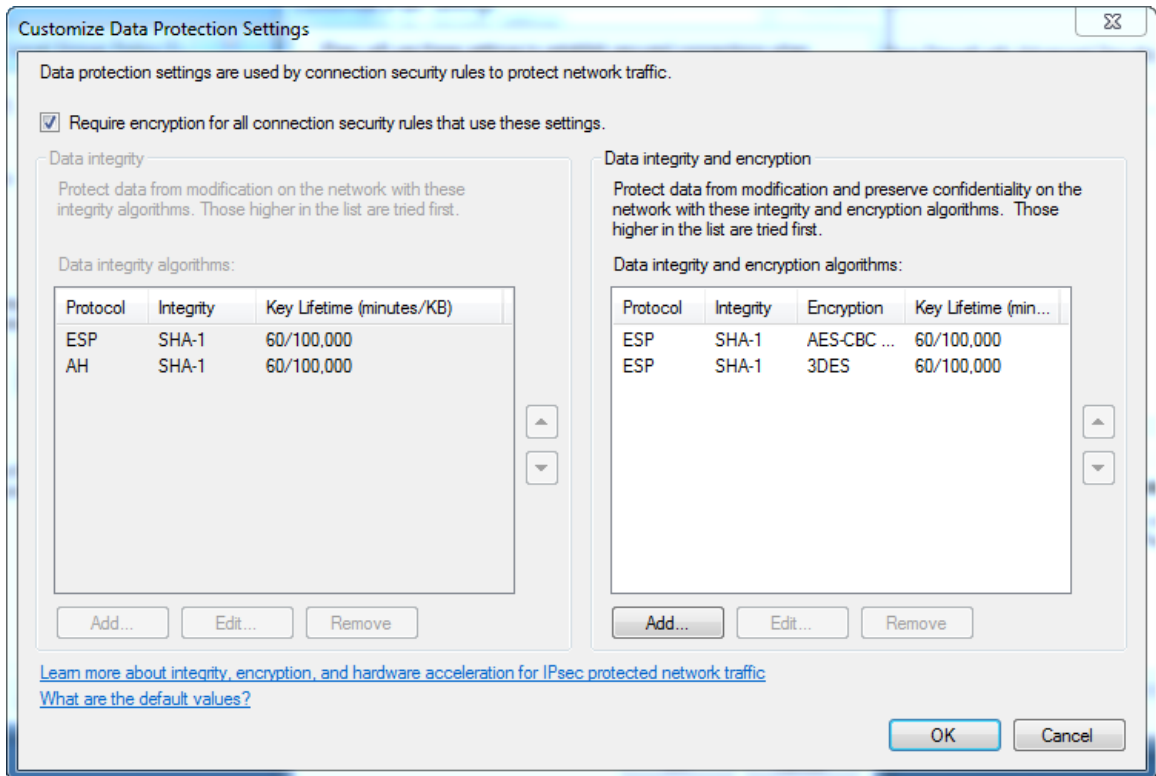
- 11 Click **OK** when finished.

- 12 Back on the **Customize Advanced Key Exchange Settings**, do the following:
  - a Enter 480 in the **Minutes** field (Key lifetimes area).
  - b Enter 0 in the **Sessions** field.
  - c Select the **Use Diffie-Hellman for enhanced security** checkbox.
  - d Click **OK**.



- 13 Select the **Advanced** radio button in the **Data protection (Quick Mode)** area.
- 14 Click **Customize...** and then **Add**.

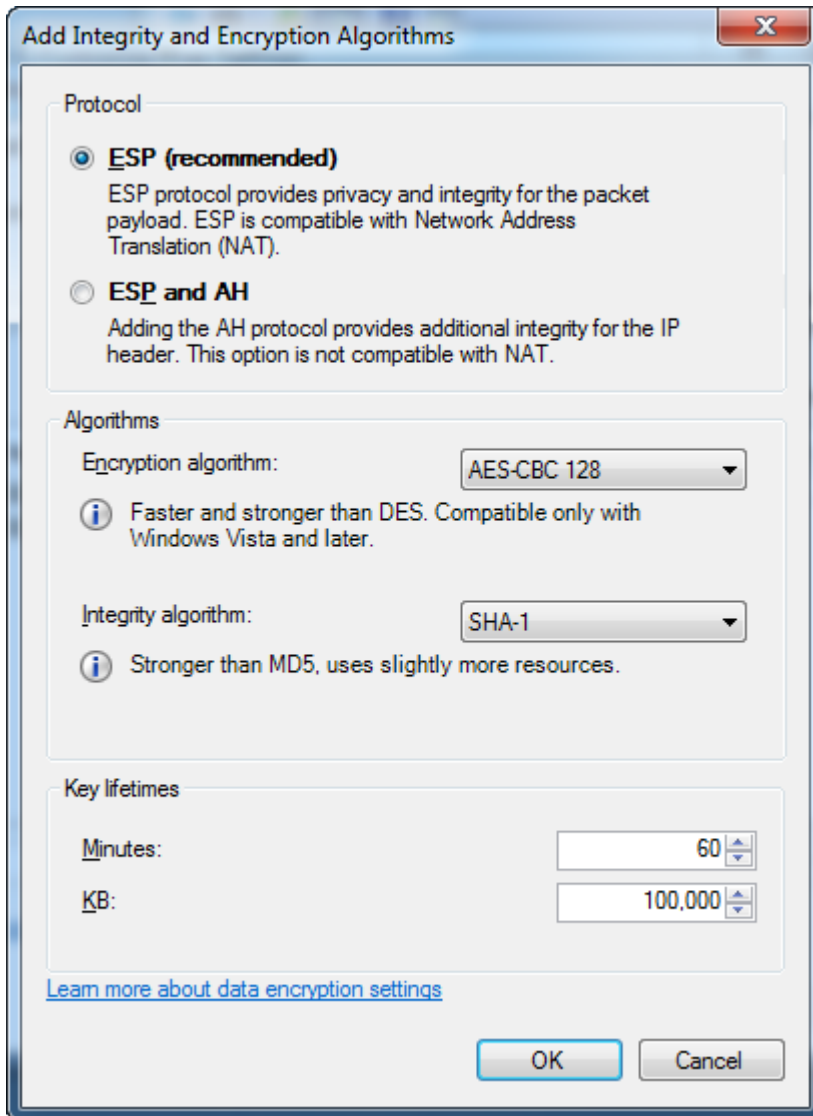
- 15 In the resulting dialog, select the **Require encryption for all connection security rules that use these settings** checkbox.



- 16 In the **Data integrity and encryption** area, click **Add**.

17 In the resulting dialog, select the following options:

- Select **ESP (recommended)**.
- Choose **AES-CBC 128** from the **Encryption algorithm** drop-down menu.
- Choose **SHA-1** from the **Integrity algorithm** drop-down menu.
- In the **Key lifetimes** area, type 60 for Minutes and 100,000 for KB.

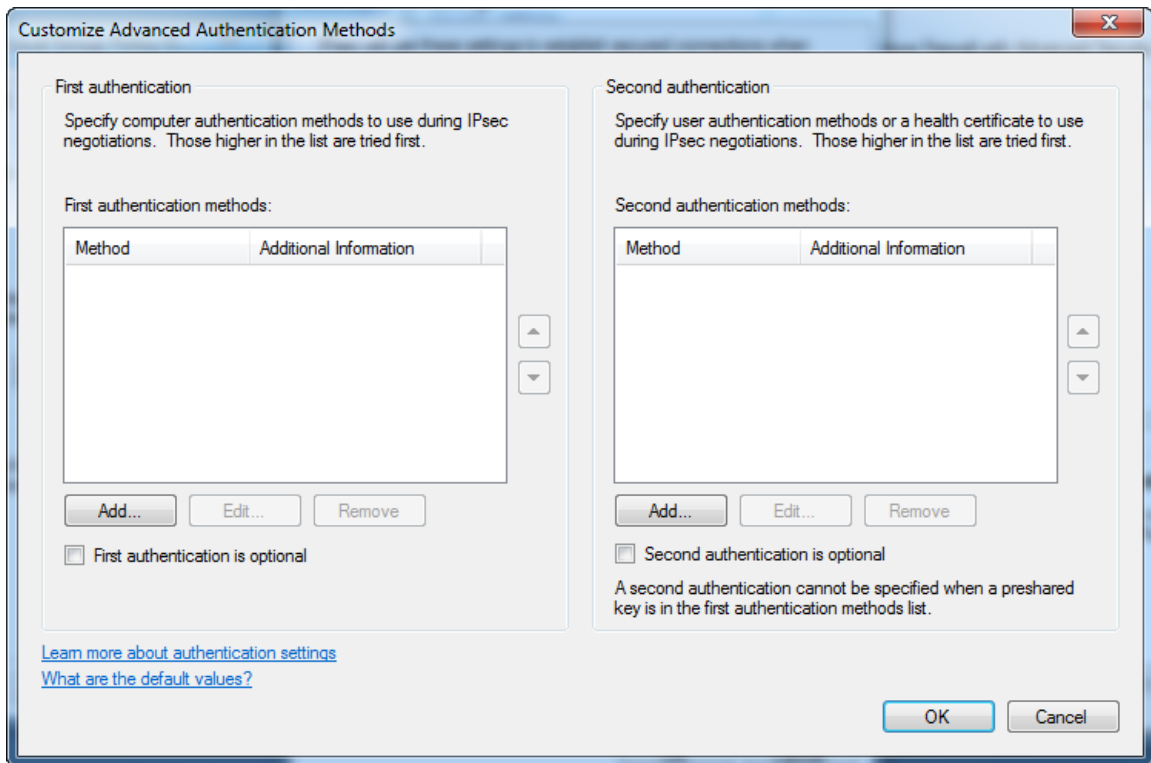


18 Click **OK** twice to exit.

19 Select **Advanced** for **Authentication method**, and then click **Customize**.

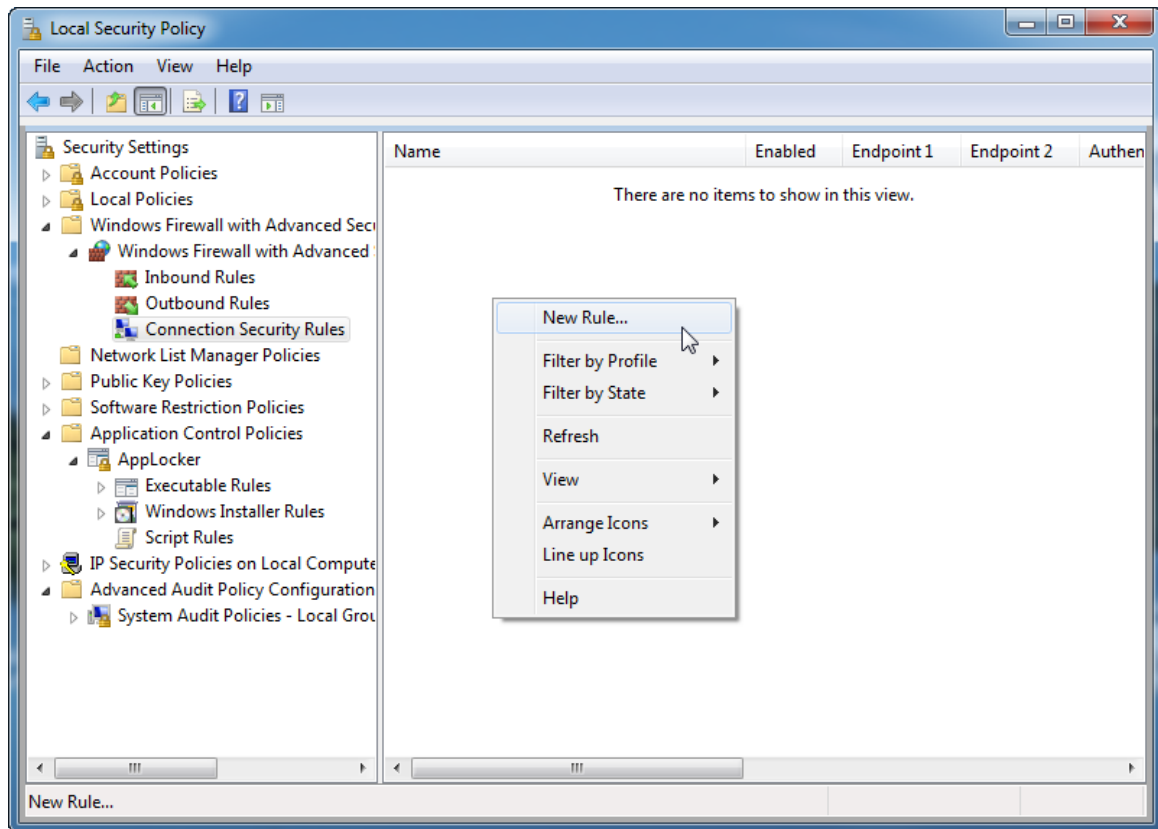
20 In the resulting dialog, click **Add**.

- 21 Ensure that the **First authentication is optional** is *not* selected, and then click **OK**.



- 22 Click **OK** again to exit the **Customize IPsec Settings** dialog.
- 23 Select **None** from the **IPsec tunnel authorization** area, and click **OK** to exit.
- 24 Back in the **Local Security Policy** window, click **Connection Security Rules**.

25 In the blank area, right-click and select **New rule...**



The New Connection Security Rule Wizard opens.

26 Select **Custom** and then click **Next**.

27 For **Which computers are in Endpoint 1?**, choose **These IP address** and then click **Add...**

28 In the **This IP address or subnet**, type the IP address of NetSight server in  
xxxx . xxxx . xxxx . xxxx format.

29 Click **OK**.

30 For **Which computers are in Endpoint 2?**, choose **These IP addresses** and click **Add**.

31 In the **This IP address or subnet**, type the IP address and 64-bit mask of Extreme Management Center client(s) in xxxx . xxxx . xxxx . xxxx . xxxx . xxxx . xxxx . xxxx / 64 or  
xxx . xxx . xxx . xxx / 24 format.

32 Click **OK** and then **Next**.

33 Select **Require authentication for inbound and outbound connections** (third option), and then click **Next**.

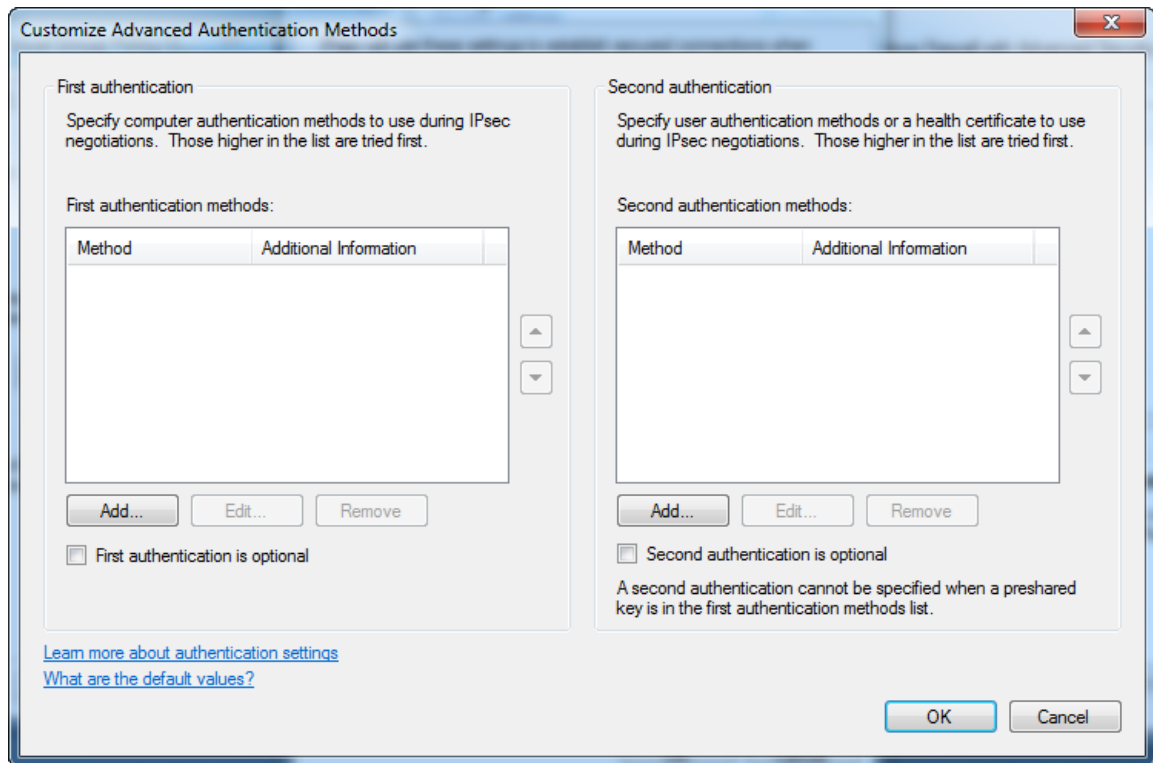
34 Select **Advanced** (fourth option), and then click **Customize...**

35 In the **First authentication** area, click **Add...**

36 In the resulting dialog, select **Preshared key**, and enter the key.

37 Click **OK** to exit.

38 Ensure that the **First authentication is optional** is *not* selected, and then click **OK**.



39 Click **Next**.

40 On the **Protocols and Ports** page, select the following options:

- **Protocol type:** Any
- **Endpoint 1 port:** All Ports
- **Endpoint 2:** All Ports

41 Click **Next**.

42 On the **Profile** page, leave **Domain**, **Private**, and **Public** selected, and then click **Next**.

43 On the **Name** page, enter the rule name and click **Finish**.

You are returned to the **Local Security Policy** dialog. If the new rule is not enabled, right-click the rule and select **Enable rule**.

44 Repeat the above configure IPsec for the NetSight client, but reverse the Endpoint 1 and Endpoint 2 IP addresses.