Contact Information

Forescout Technologies, Inc.
190 West Tasman Drive
San Jose, CA 95134 USA

https://www.Forescout.com/support/
Toll-Free (US): 1.866.377.8771
Tel (Intl): 1.408.213.3191
Support: 1.708.237.6591

About the Documentation

- Refer to the Technical Documentation page on the Forescout website for additional documentation: https://www.Forescout.com/company/technical-documentation/
- Have feedback or questions? Write to us at documentation@forescout.com

Legal Notice

© 2020 Forescout Technologies, Inc. All rights reserved. Forescout Technologies, Inc. is a Delaware corporation. A list of our trademarks and patents can be found at https://www.Forescout.com/company/legal/intellectual-property-patents-trademarks. Other brands, products, or service names may be trademarks or service marks of their respective owners.
# Table of Contents

**About This Plugin** ................................................................. 5
  - Accessing and Managing Endpoints ........................................................ 5
  - Remote Inspection ............................................................................. 5
  - SecureConnector™ ........................................................................... 6
  - What to Do ..................................................................................... 7

**Requirements** ........................................................................ 7
  - Forescout Requirements ...................................................................... 7
  - Networking Requirements ................................................................... 8
  - Supported Operating Systems ............................................................ 8

**Configure the Plugin** ............................................................... 8
  - Ensure That the OS X Plugin Is Running .............................................. 13
  - Configuration for an Appliance or Group of Appliances ..................... 13

**Managing Endpoints Using Remote Inspection** ......................... 14
  - Define a Remote Inspection User on Endpoints .................................. 14
  - Distribute the Public Key ..................................................................... 14

**Managing Endpoints Using SecureConnector** ............................ 15
  - Deploying SecureConnector ................................................................ 15
  - Interactive Installation – the Start SecureConnector Action ................. 15
  - Background Installation of SecureConnector ........................................ 15
  - Upgrading SecureConnector on Endpoints Managed by SecureConnector .. 16
  - Stop SecureConnector ........................................................................ 16
  - Stopping SecureConnector from the Endpoint ...................................... 17
  - Defining Additional Sites .................................................................... 17
  - Endpoint Roaming ............................................................................. 17
  - SecureConnector Details ...................................................................... 18
  - Certificate-Based Rapid Authentication of Endpoints ............................ 18
  - Resolving Multi-homed Endpoints Managed by SecureConnector ........... 19

**Run Policy Templates** .............................................................. 20
  - Upgrade SecureConnector for OS X Policy Template ........................... 20
    - Prerequisites .................................................................................. 20
    - How Devices are Detected and Handled ........................................... 20
    - Main Rule ..................................................................................... 20
    - Sub-Rules ..................................................................................... 20
  - Multi Homed SecureConnector for OS X ............................................... 21
    - Prerequisites .................................................................................. 21
    - How Devices are Detected and Handled ........................................... 21
    - Main Rule ..................................................................................... 21
    - Sub-Rules ..................................................................................... 22

**Create Custom Policies** ............................................................ 22
Detecting OS X Devices – Policy Properties ....................................................... 22
Managing OS X Devices – Policy Actions .............................................................. 23
  Kill Process on Macintosh ........................................................................ 24
  Run Scripts on Macintosh ........................................................................ 24
  Send Notification (OS X) ........................................................................ 25
  Start Macintosh Updates ........................................................................ 26
  Upgrade OS X SecureConnector ................................................................. 26

Endpoint Module Information ......................................................................... 27

Additional Forescout Documentation .............................................................. 28
  Documentation Downloads ........................................................................ 28
  Documentation Portal ............................................................................... 29
  Forescout Help Tools ............................................................................... 29

Appendix 1: Troubleshooting Management of OS X Endpoints ...................... 30
  SecureConnector Client Log Files ............................................................ 30

Appendix 2: SecureConnector Installer Packages ........................................ 32
About This Plugin

The OS X Plugin is a component of the Forescout Endpoint Module. See Endpoint Module Information details about the module.

The OS X Plugin manages endpoints running Mac/OS X operating systems. It supports properties, actions and other management functionality for OS X endpoints. This plugin parallels the features of the HPS Inspection Engine which manages Windows endpoints, and the Linux Plugin which manages Linux endpoints.

Each OS X Plugin version provides the latest regularly updated version of SecureConnector that is native to OS X.

Accessing and Managing Endpoints

This section contains information common to plugins of the Endpoint Module.

Endpoint Module plugins access endpoints to learn detailed information about the endpoint, such as file metadata and operating system information. In addition, the plugins run scripts on endpoints and perform other remediation actions.

- The HPS Inspection Engine interacts with Windows endpoints.
- The Linux Plugin interacts with Linux endpoints.
- The OS X Plugin interacts with OS X endpoints.

When you configure these plugins, you determine the methods used to access and manage endpoints. When these access methods are successful, the endpoint is resolved as Manageable.

You can use the following methods to access endpoints:

- Remote Inspection
- SecureConnector™

Both methods can be deployed together in a single network environment.

Remote Inspection

Remote Inspection uses the SSH communications protocol to query the endpoint, and to run scripts and implement remediation actions on the endpoint.

Agentless

Remote Inspection is agentless - The Forescout platform does not install any applications on the endpoint to query it. This makes Remote Inspection useful when administrators or end users do not want to install utilities or other executables on the endpoint.

Specify Remote Inspection settings in the Remote Inspection tab of each plugin during plugin configuration.

The following properties indicate whether Remote Inspection is used to access and manage an endpoint:
For Windows endpoints (supported by the HPS Inspection Engine):
- Windows Manageable Domain
- Windows Manageable Domain (Current)
- Windows Manageable Local

For Linux endpoints (supported by the Linux Plugin):
- Linux Manageable (SSH Direct Access)

For OSX endpoints (supported by the OSX Plugin):
- Macintosh Manageable (SSH Direct Access)

**SecureConnector™**

SecureConnector is a small-footprint executable that runs on the endpoint. It reports endpoint information back to Forescout eyeSight, and implements Forescout actions on the endpoint. The *Start SecureConnector* action initiates SecureConnector installation on endpoints.

**Agent-Based**

The SecureConnector executable file must be installed and maintained on the endpoint. This may not be acceptable in certain network environments, or for some endpoints or users.

SecureConnector can be installed in several ways:

<table>
<thead>
<tr>
<th>SecureConnector installer package provided by:</th>
<th>Windows Endpoints</th>
<th>Linux Endpoints</th>
<th>OS X Endpoints</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPS Inspection Engine</td>
<td></td>
<td>Linux Plugin</td>
<td>OS X Plugin</td>
</tr>
<tr>
<td>Can install SecureConnector as a <strong>dissolvable utility</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Can install SecureConnector as a <strong>permanent application</strong></td>
<td>✔️</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Can install SecureConnector as a <strong>permanent service / system daemon</strong></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

The following properties indicate whether SecureConnector is used to access and manage an endpoint:

- For Windows endpoints (supported by the HPS Inspection Engine):
  - Windows Manageable SecureConnector
  - Windows Manageable SecureConnector (via any interface)

- For Linux endpoints (supported by the Linux Plugin):
  - Linux Manageable (SecureConnector)

- For OSX endpoints (supported by the OSX Plugin):
  - Macintosh Manageable (SecureConnector)
What to Do

Perform the following steps to work with this plugin:

1. Verify that you have met system requirements. See Requirements.

2. (SecureConnector only) Upgrade SecureConnector on OS X endpoints already managed by SecureConnector. New releases of the plugin often provide an updated version of SecureConnector native to OS X operating systems. This plugin does not automatically update SecureConnector on endpoints when a new release of the plugin is installed. Create one or more policies based on the Upgrade SecureConnector for OS X Policy Template that roll out SecureConnector upgrades to OS X endpoints managed by SecureConnector.

3. Make OS X endpoints manageable. The standard Primary Classification policy provided with Forescout identifies Mac/OS X endpoints, and assigns these endpoints to the Macintosh group. Create a policy that uses the Macintosh Manageable host properties to detect members of these groups that are not yet managed.
   
   - To make an endpoint manageable by Remote Inspection, use your network's administrative tools to define a user account on the endpoint, and use the network's PKI to distribute the public key used for Remote Inspection connections to the endpoint. See Managing Endpoints Using Remote Inspection.
   
   - Deploy SecureConnector on new, unmanaged OS X endpoints. You can use an interactive process to install SecureConnector, or install it silently using a background process. See Deploying SecureConnector.

4. Create Custom Policies that use the properties and actions provided by this plugin to manage endpoints.

Requirements

This section describes system requirements, including:

- Forescout Requirements
- Networking Requirements
- Supported Operating Systems

Forescout Requirements

The plugin requires the following:

- Forescout version 8.2.1
- Endpoint Module version 1.2.1 including the following components:
  - Linux Plugin
  - HPS Inspection Engine
• If you are using Flexx licensing, ensure that you have a valid Forescout eyeControl (ForeScout CounterACT Control) license, to use enforcement actions provided by the component. Refer to the Forescout Flexx Licensing How-to Guide for more information about managing Flexx licenses.

Networking Requirements
SecureConnector creates an encrypted tunnel from the endpoint to the Appliance through TCP port 10005. This port must be open on enterprise firewalls to support communication between SecureConnector and the Forescout platform.

Supported Operating Systems
For detailed information about endpoint operating system versions validated for integration with this Forescout component, refer to the Forescout Compatibility Matrix.

Configure the Plugin
The configuration options for this plugin duplicate similar configuration options of the HPS Inspection Engine, which are relevant to Windows endpoints. For uniform behavior across endpoints with different operating systems, the settings you define here should match the settings of the HPS Inspection Engine.

You can configure the plugin to:
• Define general SecureConnector settings
• Specify resolution methods and default values for various global parameters

Configuration by Region or Appliance
By default, the settings you define are applied to all Appliances. If required, you can create separate configurations for each Appliance or for a group of Appliances in the same geographical region. See Configuration for an Appliance or Group of Appliances for details.

To configure the plugin:
1. In the Forescout Console, select Options from the Tools menu.
2. Do one of the following:
   – In the Options tree, select OS X.
   – In the Options tree, select Plugins. In the Plugins table, select the OS X Plugin and select Configure.
The Remote Inspection tab of the OS X configuration pane is displayed.

### 3. The following options control how endpoints are accessed using Remote Inspection.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enable Remote Inspection</strong></td>
<td>Select this option to enable use of Remote Inspection methods to poll endpoints for information. Additional fields are relevant only if Remote Inspection is used. If you are not using Remote Inspection, disable this option to avoid unnecessary SSH network traffic. See <a href="#">Managing Endpoints Using Remote Inspection</a>.</td>
</tr>
<tr>
<td><strong>User</strong></td>
<td>Specify the administrator user account used to establish an SSH connection with endpoints. This user account must be defined on each endpoint.</td>
</tr>
<tr>
<td><strong>Password</strong></td>
<td>A valid password must be provided to use actions or properties that require privileged access, such as the <em>Software Updates Missing</em> property or the Run Interactive option of the <em>Run Script</em> action.</td>
</tr>
<tr>
<td><strong>Retype Password</strong></td>
<td>Select this option and select <strong>Apply</strong> to change the public key. The plugin changes the public key of the Enterprise Manager and synchronizes all Appliances with the new key. You must distribute the new key to endpoints. See <a href="#">Distribute the Public Key</a> for details. Consult your PKI/network security team to determine how frequently this key should be regenerated.</td>
</tr>
<tr>
<td><strong>Generate new public key for remote SSH access</strong></td>
<td>Select <strong>View</strong> to see the public key that is used for the SSH connection to endpoints. This key must be distributed to endpoints. See <a href="#">Distribute the Public Key</a> for details.</td>
</tr>
</tbody>
</table>
4. Select the SecureConnector tab to define how SecureConnector is deployed on endpoints.

<table>
<thead>
<tr>
<th>Enable SecureConnector Password Protection</th>
<th>SecureConnector Password Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Enable SecureConnector Password Protection</td>
<td>☐ SecureConnector Password Protection</td>
</tr>
</tbody>
</table>

Retype SecureConnector Password

<table>
<thead>
<tr>
<th>Require password for dissolvable deployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Require password for dissolvable deployment</td>
</tr>
</tbody>
</table>

Detect other interfaces of a managed endpoint

<table>
<thead>
<tr>
<th>Detect other interfaces of a managed endpoint</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Detect other interfaces of a managed endpoint</td>
</tr>
</tbody>
</table>

Client-Server Connection

<table>
<thead>
<tr>
<th>CountACT server verifies SecureConnector client certificate chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ CountACT server verifies SecureConnector client certificate chain</td>
</tr>
</tbody>
</table>

Check SecureConnector client certificate revocation status

Additional CDPs for CRL

<table>
<thead>
<tr>
<th>Soften OCSP requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Soften OCSP requests</td>
</tr>
</tbody>
</table>

Additional Sites:

<table>
<thead>
<tr>
<th>Appliance Description</th>
<th>Additional Site Info</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overlapping IP Addresses

<table>
<thead>
<tr>
<th>Specify a local Appliance interface for SecureConnector communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Specify a local Appliance interface for SecureConnector communication</td>
</tr>
</tbody>
</table>

Local Appliance interface name

The following settings control SecureConnector password protection on endpoints.

**Enable SecureConnector Password Protection**

When this option is selected, endpoint users must enter the password you specify here to exit SecureConnector on their endpoints. See [Stopping SecureConnector from the Endpoint](#).

**SecureConnector Password**

**Retype SecureConnector Password**

Enter the identical string in both fields to define the password that allows users to exit SecureConnector.

**Require password for dissolvable deployment**

When this option is selected and SecureConnector runs as a dissolvable application, it is password protected. A password is required to exit SecureConnector without logging out of the endpoint.

**Detect other interfaces of a managed endpoint.**

When this option is selected, you can use the Macintosh Manageable SecureConnector (via any interface) host property to identify other interfaces of an endpoint managed by SecureConnector. See [Resolving Multi-homed Endpoints Managed by SecureConnector](#).
CounterACT server verifies SecureConnector client certificate chain

When this option is enabled, SecureConnector clients on endpoints present a certificate when they connect to Forescout devices. The Forescout platform validates the certificate chain. When you select this option, additional settings are required.

To support certificate-based authentication of clients, endpoints managed by SecureConnector must have a signed client certificate and trust chain. Your PKI may define several certificates that can be used by SecureConnector, for example certificates defined by geographical location or endpoint roles and permissions. Use the Certificates pane of the Console to import the trust chain(s).

Check SecureConnector client certificate revocation status

Select this option if the certificate is in the Certificate Revocation List (CRL) of the issuing Certificate Authority.

Additional CDPs for CRL

Enter a comma-separated list of CRL distribution points that should be queried.

Soft-fail OCSP requests

When no response is received from the OCSP Responder, the certificate is considered valid. By default, hard-fail is applied.

Additional Sites

Use this table to specify CounterACT devices that SecureConnector connects to when it cannot connect to the managing Appliance of the endpoint. SecureConnector first tries to connect to the Enterprise Manager that manages the Appliance, and then to the CounterACT devices listed here. To populate this table, see Defining Additional Sites.

Specify a local Appliance interface for SecureConnector communication

Each Appliance’s installer uses a named local interface for SecureConnector communication. See the Working with Overlapping IP Addresses How-to Guide before enabling this option.

Local Appliance interface name

Enter the text label of a local interface on the Appliance. SecureConnector contacts the Appliance through this interface.

5. In the Advanced tab, the following settings are available:
### Learn endpoint user name from HTTP login

Specify how the **User** property is resolved. Typically, the username currently logged in locally is used. When the **HTTP Login** action is applied to an endpoint, the User property can be based on the username from the Forescout Login session.

### Use HTTP Login name when Sign in page is closed

If you choose options that resolve the **User** property based on a Forescout HTTP Login session on the endpoint, enable this option to retain that username even if the end user closes the Forescout Login Session window.

### Remember name for (hours)

Specify the length of time (in hours) after initial login that the Forescout platform retains this username.

### Automatic tuning of Remote Inspection Processes

You can tune the number of Remote Inspection and SecureConnector processes that run concurrently on each Appliance to resolve endpoint properties. You can use automatic tuning or customize tuning.

**To enable automatic tuning:**

Select **Automatic Tuning of Remote Inspection Processes**. For each Appliance to which this setting applies, the maximum number of concurrent Remote Inspection and SecureConnector processes is determined dynamically as memory usage changes.

**To customize tuning (for advanced use only):**

1. Clear the **Automatic Tuning of Remote Inspection Processes** checkbox.
2. In the **Concurrent Remote Inspection Processes** field, set the maximum number of processes which communicate with endpoints managed by Remote Inspection that can be active at one time.

   - **Configuring a higher maximum value allows more concurrent endpoint connections but consumes more Appliance resources. Tune these settings carefully. If Appliance performance is impacted, reduce these values.**

### 6. In the Test tab, enter the IP addresses of endpoints that are used to test the plugin. To test Remote Inspection, verify the following on the endpoint:

- The Remote Inspection user defined during plugin configuration exists.
- The public key used for Remote Inspection connections was installed.

<table>
<thead>
<tr>
<th>Remote Inspection</th>
<th>Secure Connector</th>
<th>Advanced</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>SecureConnector test</td>
<td>IP Address of SecureConnector test machine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote Inspection test</td>
<td>IP Address of SSH test machine</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 7. Select **Apply** to save settings.
**Ensure That the OS X Plugin Is Running**

After installing the OS X Plugin (and configuring it, if necessary), ensure that it is running.

**To verify:**

1. Select **Tools > Options > Modules**.
2. In the **Modules** pane, hover over the OS X Plugin name to view a tooltip indicating if it is running on Forescout devices in your deployment. The name is preceded by one of the following icons:
   - ![icon] - The OS X Plugin is stopped on all Forescout devices.
   - ![icon] - The OS X Plugin is stopped on some Forescout devices.
   - ![icon] - The OS X Plugin is running on all Forescout devices.
3. If the OS X Plugin is not running, select **Start**, and then select the relevant Forescout devices.
4. Select **OK**.

**Configuration for an Appliance or Group of Appliances**

You can create and apply configurations for individual Appliances, or for a group of Appliances.

Configurations are organized using a row of tabs. **Each tab duplicates all the configuration fields in the pane.**

Initially, only the Default tab is present. In the following example, an additional tab has been added, with the configuration for a specific Appliance.

Use the following controls to create and manage configurations:

- Select the Plus sign + to create a new configuration.
- When there are several configurations, it may be difficult to locate the configuration that applies to a specific device. Select the device from the **CounterACT Devices** drop-down. The configuration that applies to that device is highlighted for editing.

For more information about creating and applying configurations, see the **Forescout Administration Guide**.
Managing Endpoints Using Remote Inspection

You can inspect endpoints using SSH remote access. SSH remote access requires distribution of the Appliance's public key to managed endpoints.

If you are not using Remote Inspection to manage OS X endpoints, disable Remote Inspection when you configure the plugin. This avoids the unnecessary network overhead of establishing unused SSH connections. When you disable Remote Inspection, you can use SecureConnector to manage devices. See Managing Endpoints Using SecureConnector for information about SecureConnector setup.

Define a Remote Inspection User on Endpoints

Define an admin-level user on each endpoint that you want to manage. This user should have the name you entered in the User field of the Remote Inspection tab during plugin configuration.

Distribute the Public Key

The public key allows SSH-based inspection of the endpoint without the endpoint user's password. This section describes how to create a custom script that distributes the key to endpoints. You may need an endpoint password to distribute the key.

To create a script to distribute the public SSH key:

1. In the Forescout Console, open the plugin configuration pane. See Configure the Plugin.

2. In the Remote Inspection tab, select View in the CounterACT SSH Connection Details area.

3. Copy the key to a clipboard or another application.

4. Write a script that does the following on each endpoint you want to manage via Remote Inspection:
   a. Create the folder .ssh under the user defined in the Remote Inspection User field of the plugin Configuration pane.
   b. Change the .ssh folder permissions as follows:
      chmod 755 .ssh (there is a space between 755 and the .ssh suffix).
   c. Paste the public key into the file .ssh/authorized_keys. Save the file.
   d. Change the file .ssh/authorized_keys permissions as follows:
      chmod 644 authorized_keys
Managing Endpoints Using SecureConnector

This section describes how to use SecureConnector to query and manage OS X endpoints.

Deploying SecureConnector

SecureConnector can be installed on OS X endpoints in several ways:

- As a dissolvable utility
- As a permanent service

For both these installation types, you can specify SecureConnector visibility:

- Visible deployment – a SecureConnector icon appears in the task bar. This icon indicates endpoint connectivity to the Forescout platform, compliance with compliance policies, and other information.
- Invisible deployment – no icon appears in the task bar.

Use one of these methods to install SecureConnector for the first time:

- **Interactive Installation – the Start SecureConnector Action**
- **Background Installation of SecureConnector**

\[ For \textit{appliances that are configured with overlapping IP addresses}, \textit{SecureConnector installers are not uniform across the network}. \textit{In each overlapping site, SecureConnector must be downloaded from an Appliance in the site}. \textit{SecureConnector can only communicate with this Appliance}. \textit{For more information, see the Working with Overlapping IP Addresses How-to Guide}. \]

Interactive Installation – the Start SecureConnector Action

The Start SecureConnector action installs SecureConnector on endpoints. Endpoints are redirected to the HTML page, where end users can download the appropriate installer package. You can specify interaction and installation settings including:

- The text displayed to prompt end users to install the package
- Whether SecureConnector is deployed as a permanent service or as a dissolvable executable
- Whether the SecureConnector icon is visible in the task bar

For details about working with this action, see Working with Actions in the Forescout Administration Guide or online Help.

Background Installation of SecureConnector

This procedure installs SecureConnector on endpoints with no user interaction. Use this procedure for fresh (scratch) installation on endpoints that run OS X 10.8 or above.
You can use third-party endpoint management utilities such as Jamf Pro/Casper Suite to implement this procedure.

To install SecureConnector in the background:

1. Copy the installer update.tgz from Enterprise Manager. See Appendix 2: SecureConnector Installer Packages.
2. Distribute this file to target endpoints.
3. Use the command line interface or a script to perform the following:
   a. Unpack the archive.
   b. Run the ./Update.sh script in the archive, using the following syntax:
      To install SecureConnector as a dissolvable executable:
      ```bash
      ./Update.sh -t dissolvable -v {0|1}
      ```
      To install SecureConnector as a permanent service:
      ```bash
      sudo ./Update.sh -t daemon -v {0|1}
      ```
      Where -v determines if the SecureConnector icon is visible in the task bar:
      -v 1 installs SecureConnector with a visible task bar icon.
      -v 0 installs SecureConnector without a visible task bar icon.

   Invoke sudo mode only to install SecureConnector as a permanent service. Do not invoke sudo mode to install SecureConnector as a dissolvable executable.

Upgrading SecureConnector on Endpoints Managed by SecureConnector

To roll out regular updates of SecureConnector for OS X provided by releases of this plugin, do one of the following:

- Create one or more policies based on the Upgrade SecureConnector for OS X Policy Template
- Create custom policies that apply the Upgrade OS X SecureConnector action.

Stop SecureConnector

The Stop SecureConnector action stops the SecureConnector executable and removes all files related to SecureConnector from the endpoint. For details about working with this action, see Working with Actions in the Forescout Administration Guide or online Help.
Stopping SecureConnector from the Endpoint

By default, end users can stop SecureConnector on their devices as follows:

- By dragging the SecureConnector application to the OS X Trash Can on their device to uninstall.
- When the SecureConnector toolbar icon is visible, by selecting the icon and then selecting Exit. SecureConnector stops but is not uninstalled.

When you configure the plugin, you can enable password protection for SecureConnector on endpoints. When password protection is enabled, users who try to exit SecureConnector are prompted for a password.

Defining Additional Sites

Additional Sites are CounterACT devices that SecureConnector connects to when it cannot connect to the managing Appliance of the endpoint. Use the Additional Sites table in the SecureConnector tab to define a list of alternative CounterACT Appliances. SecureConnector first tries to connect to the Enterprise Manager that manages its managing Appliance, and then steps through this list of CounterACT devices.

Endpoint Roaming

Use this table to support endpoint roaming in geographically disperse environments with several independent, regional Enterprise Managers. In each region, specify the Enterprise Managers of other regions as Alternative Appliances. When endpoints roam from their network location, they step through this list to find the Enterprise Manager of their new location. This ensures that roaming endpoints remain manageable. For more information, refer to the SecureConnector Advanced Features How-to Guide.

To define an alternative Appliance:

1. On the Appliance that you want to use as an alternative:
   a. Log in to the fs-cli interface.
   a. From the command line prompt, submit the following command:
      `fstool osx additional_sites`
   b. A string is generated. Copy the string.

1. In the Forescout Console:
   a. Open the OS X Plugin configuration that you want to modify and select the SecureConnector tab. Refer to Configure the Plugin. Alternative appliances are listed in a table.
   b. Select an existing entry in the table. The new alternative Appliance is added below the selected entry.
   c. Select Add. The Add dialog box appears. Specify the following information:

| Appliance Description | A text description of this alternative Appliance. |
**Additional Site Info**
The string that you generated on the alternative Appliance.

d. Select **OK**. The alternative Appliance appears in the table.

## SecureConnector Details

<table>
<thead>
<tr>
<th>Item</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size on disk</strong></td>
<td>31.5 MB</td>
</tr>
<tr>
<td><strong>Endpoint memory utilization</strong></td>
<td>20 MB</td>
</tr>
<tr>
<td><strong>Deployment type</strong></td>
<td>Permanent service or dissolvable.</td>
</tr>
<tr>
<td><strong>Visibility options</strong></td>
<td>Visible (icon in task bar) or non-visible.</td>
</tr>
<tr>
<td><strong>Deployment options</strong></td>
<td>Interactive: HTTP redirection to download portal. Defined in the Start SecureConnector action. Background: Download and installation of setup file using shell script or third-party software distribution tool. See <a href="#">Background Installation of SecureConnector</a>.</td>
</tr>
<tr>
<td><strong>Endpoint privilege level</strong></td>
<td>Dissolvable: No privileges required. Installs and runs under currently active user session. Permanent service: Admin privileges required. Installed under root.</td>
</tr>
<tr>
<td><strong>Installation folder</strong></td>
<td>Dissolvable: $TMPDIR Permanent service: /Applications</td>
</tr>
<tr>
<td><strong>Script folder</strong></td>
<td>Folders are created for downloaded scripts under /var/folders/</td>
</tr>
<tr>
<td><strong>SecureConnector Starts</strong></td>
<td>Dissolvable: Runs once until user logout. No restart. Permanent service: System boot.</td>
</tr>
</tbody>
</table>

## Certificate-Based Rapid Authentication of Endpoints

Typically Forescout endpoint detection capabilities are combined with endpoint authentication and compliance policies to enforce network access control: Upon connection, network access of endpoints is restricted (typically to the DHCP and DNS servers and to the Forescout platform for detection and remediation interactions) until the user/endpoint is authenticated and compliance is proven. Only then is the necessary network access granted. However, authenticating endpoints and verifying compliance can cause a delay during which even legitimate endpoints have only restricted access. If complex compliance policies are in place, this delay in network access may be noticeable, resulting in an unsatisfactory user experience for corporate users.

**Certificate-based rapid authentication** provides a strong, secure and extremely fast endpoint authentication mechanism. It uses your corporate PKI (Public Key Infrastructure) to provide immediate, authenticated network access for corporate users and other known endpoints.
The following describes a typical scenario when endpoints connect to the network:

- Corporate endpoints and other trusted endpoints managed by SecureConnector immediately initiate certificate-based authentication as part of SecureConnector’s TLS interaction with the Forescout platform. Endpoints are granted immediate network access based on a signed X.509 digital certificate. The Forescout platform continues the compliance checks defined in active policies, and may revoke or change endpoint access if these checks fail.

- A corporate policy may grant limited network access to endpoints without a valid rapid authentication certificate, or with an expired or revoked certificate, or endpoints not managed by SecureConnector, until normal, policy-driven compliance checks are run.

For more information about implementing certificate-based rapid authentication in your environment, see the SecureConnector Advanced Features How-to Guide.

## Resolving Multi-homed Endpoints Managed by SecureConnector

To manage a device, SecureConnector always uses one network interface of the device.

When a device has multiple network interfaces (such as wired and wireless NICs), the Console lists each of these interfaces as a separate endpoint as they are detected – but only the endpoint corresponding to the interface used by SecureConnector is identified as Managed by SecureConnector. For this endpoint the Manageable SecureConnector property has the value Yes.

The other interfaces of the device are listed in the Console as endpoints Not Managed by SecureConnector. For these endpoints the Manageable SecureConnector property has the value No. This means that network access policies may apply restrictive actions to interfaces of a device that is managed by SecureConnector through another interface.

The optional Manageable SecureConnector via any interface property can be used to identify the interfaces of a managed endpoint that are not used by SecureConnector. This property has the value Yes for all interfaces detected on a device managed by SecureConnector. Use this property in policies that handle unmanaged or multi-homed devices.

To use this optional property, enable it when you Configure the Plugin. The Multi Homed SecureConnector for OS X policy template demonstrates use of this property.

When you view details for an interface of a multi-homed OS X endpoint managed by SecureConnector, the Macintosh SecureConnector Connection ID field shows a unique internal identifier used by the Forescout platform to track all interfaces of a single managed endpoint.
Run Policy Templates

This plugin provides the following policy template:

- Upgrade SecureConnector for OS X – This template creates a policy that upgrades SecureConnector on OS X endpoints managed by SecureConnector. Use this policy to roll out the newest version of SecureConnector for OS X each time you upgrade the OS X Plugin.

You should have a basic understanding of Forescout policies before working with the templates. See the Templates and Policy Management chapters of the Forescout Administration Guide.

Upgrade SecureConnector for OS X Policy Template

This template generates a policy to identify endpoints that are not running the most recent release of SecureConnector for OS X, and to upgrade SecureConnector on those endpoints. Use this policy to roll out the newest version of SecureConnector for OS X each time you upgrade the OS X Plugin.

Prerequisites

Policies you create with this template detect OS X endpoints. Before you run a policy based on this template, verify that you have run policies based on the Primary Classification policy template.

How Devices are Detected and Handled

This section describes the main rule and sub-rules of the policy created by this template. Policy rules detect and handle hosts defined in the policy scope.

Hosts that match the Main Rule pass to the policy’s sub-rules for further evaluation. Hosts that do not match the Main Rule are not passed to sub-rules.

When an endpoint matches the Main Rule, the condition of each sub-rule is evaluated in order. If the endpoint does not match the condition, evaluation moves to the next sub-rule. When a condition is matched, that sub-rule’s action is applied to the host.

Main Rule

The main rule of this policy uses the Network Function property to detect OS X endpoints.

Sub-Rules

Sub-rules of the policy examine the version of SecureConnector for OS X running on each endpoint, and upgrade SecureConnector if necessary.

1. Unmanaged Endpoints
This rule detects OS X endpoints that are not managed. No actions are applied to these endpoints.

2. SSH Managed Endpoints

This rule detects endpoints on that are managed using Remote Inspection. No actions are applied to these endpoints.

3. SC managed endpoints running the LATEST version of SC

This rule detects endpoints that are already running the latest version of SecureConnector for OS X. No actions are applied to these endpoints.

4. SC managed endpoints an earlier version of SC

This rule detects endpoints that are not running the latest version of SecureConnector for OS X.

The Upgrade OS X SecureConnector action is used to install the latest version of SecureConnector for OS X to these endpoints. By default, this action is disabled. After you verify that the policy correctly detects upgrade candidates in your environment, enable this action.

Multi Homed SecureConnector for OS X

This template creates a policy that lets you identify and manage multi-homed endpoints that are managed by SecureConnector.

Prerequisites

Policies you create with this template detect OS X endpoints. Before you run a policy based on this template, verify that you have run policies based on the Primary Classification policy template.

This policy uses the optional Macintosh Manageable SecureConnector (via any interface) property. You must enable this property before you deploy a policy based on this template. See Resolving Multi-homed Endpoints Managed by SecureConnector.

How Devices are Detected and Handled

This section describes the main rule and sub-rules of the policy created by this template. Policy rules detect and handle hosts defined in the policy scope.

Hosts that match the Main Rule pass to the policy’s sub-rules for further evaluation. Hosts that do not match the Main Rule are not passed to sub-rules.

When an endpoint matches the Main Rule, the condition of each sub-rule is evaluated in order. If the endpoint does not match the condition, evaluation moves to the next sub-rule. When a condition is matched, that sub-rule’s action is applied to the host.

Main Rule

The main rule of this policy uses the Network Function property to detect OS X endpoints. It also uses the Macintosh Manageable SecureConnector (via any interface) property to detect interfaces on endpoints managed by SecureConnector.
Sub-Rules
For each multi-homed endpoint detected by the main rule, sub-rules distinguish the interface used by SecureConnector from the other interfaces of the endpoint.

1. SecureConnector management interface
   This rule detects the endpoint interface that is used by SecureConnector to manage the endpoint.

2. Interface not used by SecureConnector
   This rule matches interfaces on an endpoint managed by SecureConnector that are not used to communicate with SecureConnector.

Create Custom Policies
Use the properties and actions provided by this plugin to detect and handle endpoints. You can use the policy to apply a policy action to endpoints that do or do not match property values defined in policy conditions.

Properties
Forescout properties let you create policy conditions that detect hosts with specific attributes. For example, create a policy that detect hosts running a certain Operating System or having a certain application installed.

Actions
Forescout actions let you instruct the Forescout platform how to control detected devices. For example, assign a detected device to a quarantine VLAN or send an email to the device user or IT team. For more information about working with policies, select Help from the policy wizard.

To create a custom policy:
1. On the Console toolbar, select the Policy tab. The Policy Manager opens.
2. Select Add to create a policy.

Detecting OS X Devices – Policy Properties
The OS X Plugin supports the following properties for OS X endpoints.

| Macintosh Expected Script Result | Runs a command or file that detects specific endpoint attributes, statuses, or any other information defined in the script or command. Commands and files can also be used to carry out actions on endpoints. Scripts must be in a Unix-based format. Convert scripts written on DOS-based platforms. When script evaluation times out (for example, if an endless loop results from running the script), the property is evaluated as Irresolvable. The Run Scripts on Macintosh action is also available. |
| **Macintosh Applications Installed** | Indicates the applications present on an endpoint.  
- For endpoints running OS X 10.8, the **Certificate** field is not reported. |
| **Macintosh File Date** | Indicates the last modification date and time of a defined file on an endpoint. |
| **Macintosh File Exists** | Indicates the existence of a specified file on an endpoint. |
| **Macintosh File Size** | Indicates the size (in bytes) of a specified file on an endpoint. |
| **Macintosh Hostname** | Indicates the OS X host name. |
| **Macintosh Manageable (SecureConnector)** **OSX SecureConnector Connected/Disconnected** | Indicates whether the endpoint is connected to the Forescout platform via SecureConnector.  
OSX SecureConnector Connected/Disconnected is the related Track Changes property. |
| **Macintosh Manageable SecureConnector (via any interface)** | This optional property can be used to identify the interfaces of a managed endpoint that are not used by SecureConnector. See [Resolving Multi-homed Endpoints Managed by SecureConnector](#). |
| **Macintosh Processes Running** | Indicates the processes running on an endpoint. |
| **Macintosh SecureConnector Version (OSX Plugin)** | Indicates the version of the SecureConnector package running on the endpoint. |
| **Macintosh Software Updates Missing** | Indicates OS X security and other updates that are missing on the detected endpoint.  
To resolve this property on endpoints running macOS 10.8, Forescout eyeSight must use an admin account to access the endpoint. |
| **Macintosh User** | Indicates all the users logged in to the endpoint. The list of usernames is comma-separated. |
| **Macintosh Version** | Indicates the version of OS X running on the endpoint. |
| **OS CPE Format** | Indicates the operating system running on the endpoint, in Common Platform Enumeration format. The plugin resolves this general Forescout property for OS X endpoints. |
| **OSX SecureConnector Connected/Disconnected** | OSX SecureConnector Connected/Disconnected is the related Track Changes property. |
| **User** | This is a general Forescout property. For OS X endpoints, the plugin populates this property with the username of the user currently logged in to the endpoint console. You can query the User Directory based on this value. |

---

**Managing OS X Devices – Policy Actions**

This section describes the actions that are supported by the OS X Plugin.

The plugin implements the following general actions on OS X endpoints managed by SecureConnector. See the *Forescout Administration Guide* for details.
- HTTP Login
- HTTP Localhost Login
- HTTP Notification
- HTTP Redirection to URL
- HTTP Sign Out
- Start SecureConnector
- Stop SecureConnector

In addition, this plugin provides the following actions specific to OS X endpoints.

- Kill Process on Macintosh
- Run Scripts on Macintosh
- Send Notification (OS X)
- Start Macintosh Updates
- Upgrade OS X SecureConnector

**Kill Process on Macintosh**

This action halts specific OS X processes. If the process name includes endpoint-specific or user-specific data such as the username, you can add it as a variable using the Add Tags option. For example, if you enter the \{user\} tag, the username of the endpoint is automatically inserted into the process name. See the *Forescout Administration Guide* for details.

If you are using Flexx licensing, ensure that you have a valid *Forescout eyeControl* license to use this action. Refer to the *Forescout Flexx Licensing How-to Guide* for more information about managing licenses.

![Policy/3.1.1: Macintosh AV Compliance --> Action](image)

**Run Scripts on Macintosh**

If you are using Flexx licensing, ensure that you have a valid *Forescout eyeControl* license to use this action. Refer to the *Forescout Flexx Licensing How-to Guide* for more information about managing licenses.
You can leverage scripts to:

- Automatically deploy vulnerability patches and antivirus updates.
- Automatically delete files.
- Create customized scripts to perform any action that you want.

To set this action:

1. Specify a command or script to run on endpoints. Do one of the following:
   - Enter a command in the **Command or Script** field. To run a file that already exists on the endpoint, enter its absolute path. You can use property tags to include endpoint-specific or user-specific values in this field. See the *Forescout Administration Guide* for details.
   - Select **Continue** to select from the repository of user-defined scripts and commands. See the *Forescout Administration Guide* for details.

2. (Optional) To run interactive scripts on OS X endpoints, select the **Run Interactive** option.
   - For endpoints managed by SecureConnector, scripts and commands always run in the user context when this option is selected, even when SecureConnector runs on the endpoint as a permanent service/daemon.

3. (Optional) In the Schedule tab, specify when the action is applied, to delay application of the action, or to specify repeat application of the action.

**Send Notification (OS X)**

This action sends an alert or banner notification message to an OS X endpoint managed by SecureConnector. The notification is handled by the Notification Center of the user currently logged in to the endpoint. This action parallels the Send Balloon Notification action for Windows endpoints.

You can use property tags to include endpoint-specific host property values in the notification. See the *Forescout Administration Guide* for details.

- Banner notifications appear briefly on screen. Alerts persist on screen until the user interacts with them.
This action is not supported by endpoints that run OS X 10.8.

**Start Macintosh Updates**

This action triggers automatic operating system updates on the endpoint. Use the action in policies that have incorporated the *Macintosh Software Updates Missing* property, which indicates the software updates that are missing on the endpoint.

If you are using Flexx licensing, ensure that you have a valid *Forescout eyeControl* license to use this action. Refer to the *Forescout Flexx Licensing How-to Guide* for more information about managing licenses.

To perform this action on endpoints running macOS 10.8, Forescout must use an admin account to access the endpoint.

**Upgrade OS X SecureConnector**

This action applies to endpoints already managed by the OS X Plugin.

- *For first time (scratch) installation of SecureConnector, use the Start SecureConnector action or Background Installation of SecureConnector.*

This action updates the SecureConnector package running on an OS X endpoint. Deployment type (permanent/dissolvable) and task bar visibility options are preserved during upgrade.
The OS X Plugin does not automatically update SecureConnector on endpoints when a new release of the plugin is installed. Use this action to update SecureConnector on OS X endpoints.

In the **Installer package URL** field, specify a valid network path to the `update.tgz` archive that is used to update endpoints. By default, this field points to the file that the OS X Plugin places on each CounterACT Appliance. If you copy this archive to a content distribution network or server, specify the full network path to this new location. See [Appendix 2: SecureConnector Installer Packages](#).

---

**Endpoint Module Information**

The OS X plugin is installed with the Forescout Endpoint Module.

The Forescout Endpoint Module provides connectivity, visibility, and control to network endpoints through the following Forescout components:

- **HPS Agent Manager**
- **HPS Inspection Engine**
- **Hardware Inventory Plugin**
- **Linux Plugin**
- **Microsoft SMS/SCCM Plugin**
- **OS X Plugin**

The Endpoint Module is a Forescout Base Module. Base Modules are delivered with each Forescout release. This module is automatically installed when you upgrade the Forescout version or perform a clean installation of the Forescout platform.

Components listed above are installed and rolled back with the Endpoint Module.
Additional Forescout Documentation

For information about other Forescout features and modules, refer to the following resources:

- Documentation Downloads
- Documentation Portal
- Forescout Help Tools

Documentation Downloads

Documentation downloads can be accessed from the Forescout Resources Page, and one of two Forescout portals, depending on which licensing mode your deployment is using.

- **Per-Appliance Licensing Mode** – Product Updates Portal
- **Flexx Licensing Mode** – Customer Portal

> **Software downloads are also available from these portals.**

To identify your licensing mode:

- From the Console, select **Help > About Forescout**.

Forescout Resources Page

The Forescout Resources page provides links to the full range of technical documentation.

To access the Forescout Resources page:


Product Updates Portal

The Product Updates Portal provides links to Forescout version releases, Base and Content Modules, and eyeExtend products, as well as related documentation. The portal also provides a variety of additional documentation.

To access the Product Updates Portal:


Customer Portal

The Downloads page on the Forescout Customer Portal provides links to purchased Forescout version releases, Base and Content Modules, and eyeExtend products, as well as related documentation. Software and related documentation only appear on the Downloads page if you have a license entitlement for the software.
To access documentation on the Forescout Customer Portal:

- Go to https://Forescout.force.com/support/ and select Downloads.

Documentation Portal

The Forescout Documentation Portal is a searchable, web-based library containing information about Forescout tools, features, functionality, and integrations.

To access the Documentation Portal:

- Go to https://updates.forescout.com/support/files/counteract/docs_portal/

Forescout Help Tools

Access information directly from the Console.

Console Help Buttons

Use context-sensitive Help buttons to access information about tasks and topics quickly.

Forescout Administration Guide

- Select Forescout Help from the Help menu.

Plugin Help Files

- After installing the plugin, select Tools > Options > Modules, select the plugin, and then select Help.

Online Documentation

- Select Online Documentation from the Help menu to access either the Forescout Resources Page (Flexx licensing) or the Documentation Portal (Per-Appliance licensing).
Appendix 1: Troubleshooting Management of OS X Endpoints

If, after deploying SecureConnector, the Console shows that particular endpoints are not being managed by SecureConnector, use the following procedures to verify that SecureConnector is running on the affected endpoints.

1. Confirm that the following processes are running:
   - When SecureConnector is installed as a service:
     ForeScout SecureConnector –daemon
     ForeScout SecureConnector –agent: one process for each logged-in user
   - When SecureConnector is running as a dissolvable application:
     ForeScout SecureConnector –local

2. Verify that SecureConnector is connecting to the IP address of the CounterACT Appliance that manages the endpoint.

3. To test SecureConnector connectivity to managed endpoints, log in as root to the Appliance that manages the endpoint, and run the following command:

   `fstool osx_test -h <ip> -p <property> [-f <file>] [-c '<command>' [-t]]`

   where

   `<ip>` is the IP address of an OS X endpoint managed by SecureConnector.

   `<property>` is the internal property tag of a property reported by this plugin. See Detecting OS X Devices – Policy Properties. The test returns the current value of the property on the endpoint.

   `<file>` is the pathname of a file on the endpoint. The test indicates whether the file exists at the specified location on the endpoint. This parameter is relevant when resolving properties that require a file path.

   `<command>` is a command expression that the test runs on the endpoint. The expression enclosed in quotes should include all parameters and flags, as in typical CLI usage. The test returns the output of the command. This parameter is relevant to the OS X Expected Script Result property.

   `-t` retrieves troubleshooting information from the endpoint.

SecureConnector Client Log Files

SecureConnector maintains a log file on managed endpoints. When SecureConnector is installed as a service, log files are located at:

`/Applications/ForeScout SecureConnector/Contents/log/`

When SecureConnector is deployed as a dissolvable executable, log files are located at:

`${TMPDIR/Applications/ForeScout SecureConnector/Contents/log/}`
A series of up to 10 files is maintained:
fs_sc.log, fs_sc.log.1, ...fs_sc.log.10
Each file contains up to 10MB of data. Files are rolled over on a FIFO basis.

To retrieve the most recent 500KB of data from these log files:

1. Log in as root to the Appliance that manages the endpoint.
2. Run the following command:
   `fstool osx_test -h <IP> -t <pathname>`
   Where
   <IP> is the IP address of the endpoint to query.
   <pathname> is the full pathname under root at which retrieved data is saved.
Appendix 2: SecureConnector Installer Packages

SecureConnector is agent-based – a small-footprint executable is installed on endpoints to make them manageable. When the plugin is installed, a set of SecureConnector installer packages is generated and placed on each CounterACT Appliance in your environment. The following file contains a script-based installer for SecureConnector:

https://<Appliance_IP>/sc_packages/update.tgz

where <Appliance_IP> is the IP address of Enterprise Manager or the Appliance that manages the endpoint.

When you launch this script on an endpoint, run-time flags set deployment options, such as permanent/dissolvable installation and SecureConnector toolbar icon visibility. See Background Installation of SecureConnector for details.

This installer also supports the Upgrade OS X SecureConnector action. When you use the action, you must specify a valid network path to an instance of the archive.