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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

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About ServiceNow Integration

Forescout eyeExtend for ServiceNow® enables the exchange of information between the Forescout platform and the ServiceNow cloud service as well as the integration of IT Service Management and Security Operations in ServiceNow. ServiceNow sends action requests to the Forescout platform and triggers policy actions.

With Forescout eyeExtend for ServiceNow, you can:

Send selected tags to ServiceNow. You can configure and schedule mapping to the Configuration Management Database (CMDB).

Import device properties and get real-time updates from ServiceNow.

Create incidents in ServiceNow and receive real-time updates for them.

Provide a Web service to ServiceNow to send action requests.

ServiceNow uses the Forescout policy engine to report incidents. It cooperates with the Forescout platform to take actions on devices and issue action requests in ServiceNow workflows and business rules.

The following are the scoped certified applications:

- Forescout App for Asset Management
- Forescout App for IT Incidents
- Forescout App for SOC Incidents
- Service Graph Connector for Forescout

Forescout App for Asset Management

The Forescout App for Asset Management supports integration between the Forescout platform and ServiceNow. The Configuration Management Database (CMDB) is enriched and supplemented by the bi-directional data exchange between the Forescout platform and ServiceNow. Through adding or updating of device properties on ServiceNow’s CMDB configuration item tables, the Forescout platform triggers the ServiceNow workflow by applying Forescout policies. These policies are based on the Forescout platform properties and the properties exchanged with the ServiceNow instance.

The data exchange is as follows:

Identify devices on network segments using Forescout Appliance(s)

Update ServiceNow tables with device properties captured by the Forescout platform

Import device properties from ServiceNow of which the Forescout platform was not aware

The Forescout App for Asset Management also includes tables, import sets, and scripts needed by the Forescout App for IT Incidents and the Forescout App for SOC Incidents. These additional objects let the Forescout App for Asset Management push updates to the Forescout platform.
**Forescout App for IT Incidents**

The Forescout App for IT Incidents is for Information Technology (IT) personnel. The app lets you create IT service incidents in ServiceNow from the Forescout platform. The use case is available through a Forescout action.

The app also lets a ServiceNow user send action requests to the Forescout platform based on controls available in the Incident table.

The app contains a business rule to send information about an IT incident to the Forescout platform, in the event of an update. The information sent for an IT incident includes the incident number, category, subcategory, impact, urgency, priority, short description, and state.

This app is dependent on the Forescout App for Asset Management.

**Forescout App for SOC Incidents**

The Forescout App for SOC Incidents is for Security Operations Center (SOC) personnel. The app lets you create SOC incidents in ServiceNow from the Forescout platform. The use case is available through a Forescout action.

The app also lets a ServiceNow user send action requests to the Forescout platform based on controls available in the Security Incident table.

The app contains a business rule to send information about a SOC incident to the Forescout platform, in the event of an update. The information sent for a SOC incident includes the incident number, category, subcategory, business impact, priority, short description, and state.

This app is dependent on the Forescout App for Asset Management and the Security Incident Response plugin from ServiceNow.

**Service Graph Connector for Forescout**

The Service Graph Connector for Forescout app works in conjunction with the Forescout App for Asset Management. With the ServiceNow’s introduction of Service Graph, data transfer and transformation are more standardized and batched data payload processing is supported so the performance of CMDB Add/Update is improved.

This app is dependent on the Forescout App for Asset Management for user credential validation.

The table below provides a comparison between the Service Graph Connector and Asset Management Apps.

<table>
<thead>
<tr>
<th>Functionality</th>
<th>Service Graph Connector for Forescout</th>
<th>Forescout App for Asset Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Import</td>
<td>Batch requests – default value; 100</td>
<td>Single request</td>
</tr>
<tr>
<td>Data Processing</td>
<td>Parallel</td>
<td>Serial – one request at a time</td>
</tr>
<tr>
<td>Request Response</td>
<td>Single HTTP response for the batch request</td>
<td>Single request result</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Data Transformation</td>
<td>IntegrationHub ETL</td>
<td>Script based</td>
</tr>
<tr>
<td>Add/Update CMDB</td>
<td>Automatic add/update CMDB</td>
<td>Requires policy to query [Host Status in CMDB] to add/update asset</td>
</tr>
</tbody>
</table>

**About this Module**

The Forescout platform integrates with ServiceNow instances to provide complete visibility of assets. ServiceNow integration lets you send selected host information from the Forescout platform to ServiceNow instances and trigger Forescout platform actions based on properties.

Forescout eyeExtend for ServiceNow integrates the Forescout platform and ServiceNow so that you can:

- Use policies and actions provided by the eyeExtend module to update current asset information (such as switch port, open ports, or VLAN) to ServiceNow. See [ServiceNow Policy Templates](#).
- Use policy templates for action intents and ticketing. See [ServiceNow Policy Templates](#).

Forescout eyeExtend for ServiceNow and the Forescout App for Asset Management work together to support full functionality between the Forescout platform and ServiceNow. You must install and configure both components to work with the features described in this document. For example, Forescout policies and actions provided by the eyeExtend module are used to populate the import set table in the Forescout App for Asset Management with Forescout data, then the application transfers the data to ServiceNow CMDB.

In addition, there are Forescout apps for IT incidents and SOC incidents.

Read this document together with the installation and configuration guides for the Forescout App for Asset Management, Forescout App for IT Incidents, and Forescout App for SOC Incidents.

You must install and configure both the Forescout platform and ServiceNow to work with the features described in this document.

**To access the Forescout Apps:**

1. Go to [https://store.servicenow.com](https://store.servicenow.com).
2. Search for **Forescout App**. The following apps are available:
   - Forescout App for Asset Management
   - Forescout App for IT Incidents
   - Forescout App for SOC Incidents
3. Select **More** to view the details of each app.
4. Select **Get** to download the Forescout apps you want.
5. Download and read the installation and configuration guides for each app you download. The guides are located under Supporting Links & Docs.

**About Certification Compliance Mode**

Forescout eyeExtend for ServiceNow supports Certification Compliance mode. For information about this mode, refer to the *Forescout Installation Guide*. See [Additional Forescout Documentation](#) for information on how to access this guide.

**About Support for Dual Stack Environments**

The Forescout platform detects endpoints and interacts with network devices based on both IPv4 and IPv6 addresses. However, *IPv6 addresses are not yet supported by this eyeExtend module*. The functionality described in this document is based only on IPv4 addresses. IPv6-only endpoints are typically ignored or not detected by the properties, actions, and policies provided by this eyeExtend module.

**Use Cases**

This section describes important use cases supported by Forescout eyeExtend for ServiceNow. Be sure to review the [Best Practices](#).

To understand how this module helps you achieve these goals, see [About this Module](#).

- **Asset Identification**
- **Asset Inventory True-up**
- **IT Service Management**
- **Security Operations**

**Asset Identification**

ServiceNow’s IT Asset Management and CMDB components are widely used. The Forescout asset identification and remediation functionality both benefit from each other’s rich information.

**Workflow**

1. A device on the network is identified through admission events, and scanning activity by the Forescout platform, which captures additional properties. This device information is shared with ServiceNow.

2. ServiceNow adds this information in its repository and provides additional properties from its repository.

3. The Forescout platform adds these ServiceNow properties to its repository and leverages them for policy decisions.

4. Forescout and ServiceNow users view updated and correlated device information.
Asset Inventory True-up
The continuous monitoring function in the Forescout platform can play a role of “auditor” and help equalize and bring both the Forescout platform and the ServiceNow system up-to-date. The Forescout platform enriches asset attributes with additional context, such as the switch port to which the device is connected, VLAN information, network segment information, location, compliance status, and so on. The Forescout platform monitors and updates information in the asset inventory from the time a device enters the network until it leaves the network. The result is real-time asset monitoring and management that reduces the effort required to monitor and manage the assets and increases overall network asset compliance.

Workflow
1. A device’s information is captured upon scan activity.
2. The Forescout platform gets the device’s information from ServiceNow, points out discrepancies, and helps ServiceNow update its repository.
3. The Forescout platform can also verify if the device has the latest patches; if not, it can inform ServiceNow and take remediation actions.
4. Depending on the configuration, additional remediation actions may be taken.

For example, a software update is pushed out from ServiceNow and CMDB information is updated. The Forescout platform scans and finds that the device did not apply the update. The Forescout platform informs ServiceNow and a different pre-defined workflow is initiated, which updates or reissues the software update based on the Forescout policy.

IT Service Management
Actions in the Forescout platform, such as create an IT incident, result in incidents being created in ServiceNow.

Workflow
1. The Forescout user identifies an endpoint for which an IT incident must be created through a policy or manually.
2. The Forescout user triggers a Create IT Incident action from Forescout eyeExtend for ServiceNow.
3. An IT incident is added to the ServiceNow IT Incidents table, corresponding to the endpoint in the Forescout platform on which the Create IT Incident action was triggered.
4. ServiceNow sends the incident number, category, subcategory, impact, urgency, priority, short description, and state updates back to the Forescout platform.
5. The ServiceNow user creates an action request to the Forescout platform.

Security Operations
Actions in the Forescout platform, such as create a SOC incident, result in incidents being created in ServiceNow.
**Workflow**

1. The Forescout user identifies an endpoint for which a SOC incident must be created through a policy or manually.

2. The Forescout user triggers a Create SOC Incident action from Forescout eyeExtend for ServiceNow.

3. A SOC incident is added to the ServiceNow Security Incidents table, corresponding to the endpoint in the Forescout platform on which the Create SOC Incident action was triggered.

4. ServiceNow sends the incident number, category, subcategory, business impact, priority, short description, and state updates back to the Forescout platform.

5. The ServiceNow user creates an action request to the Forescout platform.

**Additional ServiceNow Documentation**

Refer to the following online documentation for more information about the ServiceNow solution:

**CMDB:**

https://docs.servicenow.com/bundle/orlando-servicenow-platform/page/product/configuration-management/concept/c_ConfigurationManagementDatabase.html

**IT Service Management:**


**Security Operations:**


Or, refer to the following link and select the version:

https://docs.servicenow.com/search?facetreset=yes&q=
Concepts, Components, Considerations

This section provides a basic overview of the architecture of ServiceNow and the Forescout platform:

Concepts – Basic integration concepts and deployment options.
Components – Devices in your network that participate in the integration.
Considerations – Setup details and common network structure issues to keep in mind when you implement this module.

Concepts

Integration lets you connect one or more Forescout Appliances or Enterprise Managers to a unique ServiceNow instance. When multiple Forescout Appliances are mapped to a single ServiceNow instance, they are grouped into a connecting Forescout Appliance cluster. These devices handle communication between the ServiceNow instance and the rest of Forescout Appliances in your environment. As part of the configuration, Forescout eyeExtend for ServiceNow lets you control the rate of insertion and update from the Forescout platform to the ServiceNow instance, thus avoiding the processing limit of ServiceNow.

Typically, there is only one ServiceNow production instance per customer hosted in the cloud. Forescout Appliances are connected to this ServiceNow instance using logical URL and user credentials.

Deployment Options

There are two topologies that can be used to set up multiple Forescout Appliances to a ServiceNow instance. For both topologies, a single Forescout Appliance can be assigned to only one ServiceNow instance.

- The actual deployments can be designed to combine both topologies to meet particular network requirements.
**Peer-to-Peer:** Each Forescout Appliance communicates directly with a ServiceNow instance. This is a one-to-one relationship, where each Forescout Appliance or Enterprise Manager initiates queries whenever required. This is often the topology for remote sites.
**Appliance Proxy:** One connecting Forescout Appliance serves as a channel to a ServiceNow instance. The connecting Forescout Appliance controls the number of requests to ensure more efficient traffic control and to avoid overloading the ServiceNow instance.

![Diagram of appliance proxy](image)

**Components**

A **ServiceNow instance** is a cloud instance typically referenced by one logical URL per company (for example, mycompany.servicenow-instance.servicenow.com). The ServiceNow instance is already created and used by the company independent of the Forescout platform.

A **Forescout Connecting Appliance cluster** is a group of one or more Forescout Appliances connecting to the ServiceNow instance through the logical URL associated with the ServiceNow instance. There may be more than one connecting Appliance cluster in a company, typically set up by geographical region, business unit, or functional separation.

**Forescout Appliances** manage or monitor devices based on the network segments assigned to a particular Forescout Appliance. When these Appliances reach out to ServiceNow, they go through the CounterACT Connecting Appliance cluster(s).

**Devices on the network** are the hardware assets whose information has to be exchanged between the Forescout platform and ServiceNow. The Forescout platform continuously monitors the devices – not just when they enter and leave the network.

In this context, when Forescout eyeExtend for ServiceNow is installed on Forescout connecting Appliance clusters (each Forescout Appliance individually), you can configure connection parameters to the ServiceNow instance. These connection
parameters include logical URL (for example, mycompany.servicenow-instance.servicenow.com), user credentials (this user would have the right privileges/permissions to perform the necessary operations), proxy settings, and advanced settings.

**Considerations**

This section addresses any additional considerations for Forescout eyeExtend for ServiceNow.

Be sure to also review the Best Practices.

**ServiceNow Instance Account**

Contact your ServiceNow administrator to get the username to connect to the ServiceNow instance. This is required to configure Forescout eyeExtend for ServiceNow. The user account should contain:

`x_ftpp_now_plat.integration`

To use IT Service Management, the user account should also contain:

`x_ftpp_incident_m.integration`

To use Security Operations, the user account should also contain:

`x_ftpp_sec_inc_m.integration`

For instructions on creating user credentials, refer to the Forescout App for Asset Management, Forescout App for IT Incidents, and Forescout App for SOC Incidents installation and configuration guides.

**Upgrade from ServiceNow 1.x to 2.1 or 2.2**

If you previously installed ServiceNow 1.x, you can upgrade to 2.1 or 2.2. After the upgrade:

1. On the Forescout platform, stop policies.

2. On ServiceNow, install the Forescout App for Asset Management 2.1. You can leave the 1.x Forescout App for CMDB installed or you can uninstall it.

If there are assets populated in CMDB:

a) Go to Forescout App for Asset Management > Scheduled Jobs.

b) Select Initialize Network Adaptor for Configuration Item.
c) Edit the Run this script section by adding any necessary queries after line 13 and replacing ‘forescout platform tenant id’ in line 10 with the Tenant ID displayed in Options > ServiceNow > General Settings.

d) In Run as, select an appropriate user that will be populated to the Created by or Updated by column if the script creates or updates a record in ServiceNow.

e) Select Update and Execute Now.

f) On ServiceNow, add a new role for the user x_ftpp_now_plat.integration. Refer to the Forescout App for Asset Management installation and configuration guide for managing users.

g) On the Forescout platform, edit the actions in the 1.x policies as follows:

- Replace the Add Asset to CMDB (Deprecated) action with the Add Asset to CMDB action.
- Replace the Update Asset to CMDB (Deprecated) action with the Update Asset to CMDB action.

Optional Upgrade Steps
Refer to the following sections in the Forescout App for Asset Management installation and configuration guide for optional upgrade steps:

- Modify Forescout Classification Mapping table
- Modify Forescout CI Transform Map

Upgrade from ServiceNow 2.0 to 2.1 or 2.2
If you previously installed ServiceNow 2.0, you can upgrade to 2.1 or 2.2.
1. On the Forescout platform, stop policies.
2. On ServiceNow, upgrade to the Forescout App for Asset Management 2.1.
If there are assets populated in CMDB:

a) Go to **Forescout App for Asset Management > Scheduled Jobs**.

b) Select Initialize Network Adaptor for Configuration Item.

c) Edit the **Run this script** section by adding any necessary queries after line 13 and replacing ‘forescout platform tenant id’ in line 10 with the Tenant ID displayed in **Options > ServiceNow > General Settings**.

d) In **Run as**, select an appropriate user that will be populated to the **Created by** or **Updated by** column if the script creates or updates a record in ServiceNow.

e) Select **Update** and **Execute Now**.

f) On ServiceNow, create a choice for “Forescout” discovery source and modify CI identifiers. Refer to the **Forescout App for Asset Management** installation and configuration guide for details.

g) On the Forescout platform, edit the actions in the ServiceNow 2.0 policies as follows:

- For the Add Asset to CMDB action, there are two more options for the Properties Mapping parameter: `{vendor_classification}` to Vendor and `Model(vendor_classification)` to Operating System(os_classification). Select these options based on your use case.
- For the Update Asset to CMDB action, there are two more options for the Properties Mapping parameter: \{vendor\_classification\} to Vendor and Model(vendor\_classification) and \{os\_classification\} to Operating System(os\_classification). Select these options based on your use case.

Optional Upgrade Steps
Refer to the following sections in the Forescout App for Asset Management installation and configuration guide for optional upgrade steps:

- Modify Forescout Classification Mapping table
- Modify Forescout CI Transform Map

Upgrade from ServiceNow 2.1 to 2.2
You can upgrade from ServiceNow 2.1 to 2.2 without any additional steps.

Upgrade from ServiceNow 2.1 or 2.2 to 3.0
Before upgrade, the existing assets do not have the IP address records in the IP address table and the MAC addresses in the "cmdb_ci_network_adapter" table may not be in the colon format. After upgrade, the script converts the MAC addresses into the colon format and populates the IP address in the "cmdb_ci_ip_address" table. The migration script is rerun safe.

Ensure that you have installed ServiceNow 2.1 or 2.2 to upgrade to 3.0.

1. On the Forescout platform, stop policies.
3. On ServiceNow instance, install the Service Graph Connector for Forescout 1.0.5.
4. If there are assets populated in CMDB:
   a) Go to Forescout App for Asset Management > Scheduled Jobs.
   b) Click Cleanse MAC address and Populate IP Address Records.
   c) In Run as, select an appropriate user that will be populated to the Created by or Updated by column if the script creates or updates a record in ServiceNow.
d) Select **Update** and **Execute Now**.

5. On ServiceNow, create a choice for “SG-Forescout” discovery source and modify CI identifiers. Refer to the *Forescout App for Asset Management Configuration Guide* for more information.

**Optional Upgrade Steps**

Refer to the following sections in the *ServiceNow Graph Connector for Forescout Configuration Guide* for optional upgrade steps:

- Modify Forescout Classification Lookup table
- Modify Forescout SG Data Source

**How to Work with eyeExtend for ServiceNow Module**

Once Forescout eyeExtend for ServiceNow has been configured, you can view and manage the virtual devices from the Asset Inventory view in the Console. This provides activity information, accurate at the time of the poll, on cloud endpoints based on certain instances’ properties.

The Asset Inventory lets you:

Complement a device-specific view of the organizational network with an activity-specific view

View virtual machine endpoints that were detected with specific attributes

Incorporate inventory detections into policies

**What to Do**

Perform the following steps to set up this integration:

1. Verify that requirements are met. See **Requirements** for details.
2. Review the Best Practices.


4. Optionally, download and install the Forescout App for IT Incidents and/or the Forescout App for SOC Incidents. Refer to the Forescout App for IT Incidents or Forescout App for SOC Incidents installation and configuration guides.


6. Define a target ServiceNow instance. Assign Forescout Appliances to it. See Establish Connection to ServiceNow Instance for details.

7. Create policies for the Forescout platform to update ServiceNow assets. See ServiceNow Policy Templates.

8. When the configurations have been tested and the policies created, you are ready to start Work with Forescout eyeExtend for ServiceNow.

Requirements

Verify that the following requirements are met:

- Forescout Requirements
- Service Graph Connector for Forescout Requirements
- Forescout eyeExtend (Extended Module) Licensing Requirements
- ServiceNow Requirements

Forescout Requirements

The module requires the following Forescout releases and other components:

Forescout version 8.1 or 8.2.

A module license for Forescout eyeExtend for ServiceNow. See Forescout eyeExtend (Extended Module) Licensing Requirements.

Service Graph Connector for Forescout Requirements

- Ensure that you have selected the Use Service Graph Connector option under Advanced Settings as shown below. After this feature is enabled, the Forescout assets data is imported into ServiceNow CMDB using only the Service Graph Connector for Forescout.
Forescout eyeExtend (Extended Module) Licensing Requirements

This Forescout eyeExtend module requires a valid license. Licensing requirements differ based on which licensing mode your deployment is operating in:

- **Per-Appliance Licensing Mode**
- **Flexx Licensing Mode**

**To identify your licensing mode:**
From the Console, select **Help > About Forescout**.
Per-Appliance Licensing Mode

When installing the module, you are provided with a 90-day demo license.

If you would like to continue exploring the module before purchasing a permanent license, you can request a demo license extension. Consult with your Forescout representative before requesting the extension. You will receive email notification and alerts at the Console before the demo period expires.

To continue working with the module after the demo period expires, you must purchase a permanent module license.

Demo license extension requests and permanent license requests are made from the Console.

This module may have been previously packaged as a component of an Integration Module which contained additional modules. If you already installed this module as a component of an Integration Module, you can continue to use it as such. Refer to the section about module packaging in the Forescout Administration Guide for more information.

Requesting a License

When requesting a demo license extension or permanent license, you are asked to provide the device capacity requirements. This is the number of devices that you want this license to handle. You must define at least the number of devices currently detected by the Forescout platform. You can request a license that handles more to ensure that you are licensed for support on additional devices as your deployment grows.

Enter this number in the Devices pane of the Module License Request wizard, in the Console Modules pane.
To view the number of currently detected devices:

1. Select the **Home** tab.
2. In the Views pane, select the **All Hosts** folder. The number in parentheses displayed next to the **All Hosts** folder is the number of devices currently detected.

**Flexx Licensing Mode**

When you set up your Forescout deployment, you must activate a license file containing valid licenses for each feature you want to work with in your deployment, including eyeExtend modules. After the initial license file has been activated, you can update the file to add additional eyeExtend licenses or change endpoint capacity for existing eyeExtend modules. For more information on obtaining eyeExtend licenses, contact your Forescout sales representative.

- **No demo license is automatically installed during system installation.**

License entitlements are managed in the **Forescout Customer Portal**. After an entitlement has been allocated to a deployment, you can activate or update the relevant licenses for the deployment in the Console.

Each eyeExtend license has an associated capacity, indicating the number of endpoints the license can handle. The capacity of each eyeExtend license varies by module but does not exceed the capacity of the Forescout eyeSight license.

- **Integration Modules, which package together groups of related licensed modules, are not supported when operating in Flexx Licensing Mode. Only eyeExtend modules, packaging individual licensed modules are supported. The eyeExtend Connect Module is an **eyeExtend** module even though it packages more than one module.**
More License Information

For more information on eyeExtend (Extended Module) licenses:

**Per-Appliance Licensing.** Refer to the *Forescout Administration Guide.*

**Flexx Licensing.** Refer to the *Flexx Licensing How-to Guide.*

You can also contact your Forescout sales representative for more information.

ServiceNow Requirements

- ServiceNow Cloud Service version New York and above for Asset Management, IT, and SOC.
- ServiceNow Cloud Service version Orlando and above for Service Graph Connector for Forescout.
- For information about the vendor models (hardware/software) and versions (product/OS) that are validated for integration with this Forescout component, refer to the *Forescout Compatibility Matrix.*
- Verify connectivity between the Forescout Appliance and the target ServiceNow servers on the configured HTTPS port.

**HTTPS is always assumed for this connection.**

- If traffic from the ServiceNow cloud instance to the Forescout platform is not allowed in a corporate firewall, a MID Server is required. Otherwise, the Forescout platform is not able to receive real-time ServiceNow properties updates, IT/SOC incidents updates, or Forescout action requests on IT/SOC incidents.

Install eyeExtend for ServiceNow Module

To install the module:

1. Navigate to one of the following Forescout download portals, depending on the licensing mode your deployment is using:
   - e) [Product Updates Portal](#) - **Per-Appliance Licensing Mode**
   - f) [Customer Portal, Downloads Page](#) - **Flexx Licensing Mode**

To identify your licensing mode, select Help > About ForeScout from the Console.

2. Download the module .fpi file.
3. Save the file to the machine where the Console is installed.
4. Log into the Console and select Options from the Tools menu.
5. Select Modules. The Modules pane opens.
6. Select Install. The Open dialog box opens.
7. Browse to and select the saved module .fpi file.
8. Select Install. The Installation screen opens.
9. Select **I agree to the License Agreement** to confirm that you have read and agree to the terms of the License Agreement and select **Install**. The installation cannot proceed unless you agree to the license agreement.

- The installation begins immediately after selecting Install and cannot be interrupted or canceled.
- In modules that contain more than one component, the installation proceeds automatically one component at a time.

10. When the installation completes, select **Close** to close the window. The installed module is displayed in the Modules pane.

- Some components are not automatically started following installation.
- This module interacts with the Forescout App for Asset Management. If you install only this module, you can send information from the Forescout platform to ServiceNow. However, you must install and configure both components to work with all the features described in this document, including bidirectional interaction with ServiceNow Cloud Service.

## Start the Module

When Forescout eyeExtend for ServiceNow is initially installed, the recommendation is to start the module on the Enterprise Manager for the purpose of generating the necessary IDs, such as Tenant ID and authorization tokens. In addition, start Forescout eyeExtend for ServiceNow on the Appliances that manage the hosts and the connecting Appliance configured in the module configuration.
Configure eyeExtend for ServiceNow Module

Configure the module to ensure that the Forescout platform can communicate with the ServiceNow instance.

Perform this procedure after Forescout eyeExtend for ServiceNow is installed on your targeted Forescout Appliance.

To complete the configuration of some of these connections, you must perform the following configuration steps on the ServiceNow instance:

1. Set up a ServiceNow Instance Account
2. Establish Connection to ServiceNow Instance
3. Define General Settings
4. Define Outbound Mapping
5. Define ServiceNow Tables
6. Define Host Properties
7. Define ServiceNow Lookup Properties
8. Verify the Configuration

Establish Connection to ServiceNow Instance

You need to map your Forescout Appliance to a ServiceNow instance to ensure that the Forescout platform can communicate with the ServiceNow instance.

To add a ServiceNow connection:

1. In the Console, select Options from the Tools menu.
2. From the Options pane, select **ServiceNow**.

![Options pane with ServiceNow selected](image)

3. In the ServiceNow Connections tab, select **Add**.

![Add ServiceNow Connection](image)
4. Configure the connection as follows:

| Instance URL | Enter the URL for your online ServiceNow account, followed by the port number. The port number is optional. If no port number is provided, the Forescout platform uses port 443. For example: servicenow.com:443. |
| Username | Enter the username used to access ServiceNow Cloud Service. |
| Password | Enter the password used to access ServiceNow Cloud Service. ServiceNow password restrictions will apply. |
| Verify Password | Re-enter the password to verify it. |
| Validate Server Certificate | Select this option to validate the identity of the third-party server before establishing a connection, when the eyeExtend module communicates as a client over SSL/TLS. To validate the server certificate, either of the following certificate(s) must be installed:  
  - Self-signed server certificate – the server certificate must be installed on the Forescout Appliance  
  - Certificate Authority (CA) signed server certificate – the CA certificate chain (root and intermediate CA certificates) must be installed on the Forescout Appliance  
  Use the Certificates > Trusted Certificates pane to add the server certificate to the Trusted Certificate list. For more information about certificates, refer to the appendix, "Configuring the Certificate Interface" in the Forescout Administration Guide. |
| Description | (Optional) Enter text that describes the ServiceNow connection, such as a nickname. This is helpful if you have more than one ServiceNow connection. |
5. Select **Next**.

6. Configure the Forescout Appliance assignment as follows:

<table>
<thead>
<tr>
<th>Connecting Forescout Appliance</th>
<th>In an environment where more than one Forescout Appliance is assigned to a single ServiceNow instance, the connecting Forescout Appliance functions as a middleman between the ServiceNow instance and the Forescout Appliance. The connecting Forescout Appliance forwards all queries and requests to and from the ServiceNow instance. Select the IP address of the connecting Forescout Appliance.</th>
</tr>
</thead>
</table>
| Assign specific devices       | This Forescout Appliance is assigned to a ServiceNow instance, but it does not communicate with it directly. All communication between the ServiceNow instance and its assigned Forescout Appliance is handled by the connecting Forescout Appliance defined for the ServiceNow instance. All the IP addresses handled by an assigned Appliance must also be handled by the ServiceNow instance the Appliance is assigned to.  
1. Select **Available Devices** and then select an item in the Available Devices list.  
2. Select **Add**. The selected device will send its requests to the ServiceNow server through the connecting Appliance. |
| Assign all devices by default | This is the connecting Appliance that Forescout Appliances are assigned to by default if they are not explicitly assigned to another connection Appliance. Select **Assign all devices by default** to make this connecting Appliance the middleman for all Forescout Appliances not assigned to another connecting device. |
For more information, see Deployment Options.

7. Select Next.

8. (Optional) Configure a proxy server.

   To use a proxy server with Basic Authentication, you must provide the proxy server’s credentials.

   | **Use Proxy Server** | If your environment routes Internet communications through proxy servers, select this option. |
   | **Proxy Server** | Enter the Fully Qualified Domain Name (FQDN) of the proxy server or the IPv4 address. |
   | **Proxy Server Port** | Select the port number of the proxy server. |
   | **Proxy Server Username** | Enter the administrator username used to access the proxy server. |
   | **Proxy Server Password** | Enter the administrator password used to access the proxy server. |
   | **Verify Password** | Re-enter the administrator password to verify it. |
9. Select Next.

10. Configure the advanced settings as follows:

<table>
<thead>
<tr>
<th>Maximum number of actions allowed within a period of 10 minutes</th>
<th>The Forescout platform limits the number of actions sent to this ServiceNow instance. Rate limiting prevents the ServiceNow instance from becoming inundated.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>▪ Select Use Default to use the default setting of 3,000 action items per 10-minute timeframe.</td>
</tr>
<tr>
<td></td>
<td>▪ Select Specify and set the number of action items per 10-minute timeframe.</td>
</tr>
</tbody>
</table>

11. Select Finish. The server is displayed in the ServiceNow pane.

The best practice is to perform a Test after setting up a connection. See Test ServiceNow Connection.

**Edit ServiceNow Connection**

You can change the connecting device or assign a different Forescout Appliance to the connecting device.

**To edit a ServiceNow connection:**

1. In the Modules pane, select ServiceNow. The ServiceNow pane opens.
2. In the ServiceNow pane, select the instance and select **Edit**.

![Image of Edit ServiceNow Connection dialog box]

3. Edit the parameters in the ServiceNow Connection, Assign Forescout Appliances, Proxy, and Advanced Settings tabs.

4. Select **OK** to save your changes.

**Test ServiceNow Connection**

Testing the ServiceNow connection retrieves table and column information.

**To test a ServiceNow connection:**

1. In the Modules pane, select **ServiceNow**. The ServiceNow pane opens to the ServiceNow Connections tab.
2. Select the connection and select **Test**.

   ![Test successful](image)

3. The status of the test is displayed. If the test failed, check your configurations and re-test. If the test passed, repeat step 2 for any additional connections.

4. Select **Close**.

---

**Define General Settings**

Use general settings for communication and interaction with ServiceNow and to change default mappings.

After an initial installation, the Tenant ID and tokens are not available until you start Forescout eyeExtend for ServiceNow.

**To define General Settings:**

1. Select **Options** and select **ServiceNow**.
2. In the ServiceNow pane, select the **General Settings** tab.
3. Configure the general settings as follows:

<table>
<thead>
<tr>
<th>Forefront Platform Data Submission Settings</th>
<th>The settings are as follows:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Tenant ID</strong>: A unique tenant ID included in the messages the Forescout platform sends to ServiceNow.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Forefront Platform Web Service Settings</th>
<th>The following three tokens are generated after the Forescout platform is installed and started:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>CMDB Authorization Token</strong></td>
</tr>
<tr>
<td></td>
<td><strong>IT Incidents Authorization Token</strong></td>
</tr>
<tr>
<td></td>
<td><strong>SOC Incidents Authorization Token</strong></td>
</tr>
</tbody>
</table>

4. Select **Apply**.

**Define Outbound Mapping**

Use outbound mapping to define the mapping between Forescout host properties and the ServiceNow database table. You can add or edit mappings. The Forescout CI Staging Table contains a default mapping that you can edit.

- If there are existing policies using the Add Asset to CMDB action or the Update Asset to CMDB action, the newly configured mapping will not be selected in the policy actions. Update the existing actions when you add new fields to the outbound mapping.

To send additional properties to ServiceNow (those not included in the pre-loaded Outbound Mapping configuration), see [Send Additional Properties](#).

In the following procedure, you select the destination table, then add the mapping by selecting the Forescout Platform Tag as the source and the ServiceNow column as the destination.

**To define Outbound Mapping:**

1. Select **Options** and select **ServiceNow**.
2. In the ServiceNow pane, select the Outbound Mapping tab.
3. Select a ServiceNow database table name and select Add.

4. From the ServiceNow Table drop-down menu, select a ServiceNow database table. Optionally, add a description.

5. Select Next.
6. Select Add.

7. Select Browse and select the Forescout Platform Tag (the property) and the ServiceNow column to which to map. Select OK.

8. Repeat steps 6 and 7 for each property.

9. In the Add Outbound Mapping pane, select Finish.

The newly created mapping will not be selected in the existing policy or the policy template. You need to select it in the policy.

**Define ServiceNow Tables**

The Configuration Management Database (CMDB) is enriched and supplemented by the bi-directional data exchange between the Forescout platform and ServiceNow. The ServiceNow table definitions are optional and are used to bring properties from ServiceNow to the Forescout platform. You can create policies based on the Forescout platform properties exchanged with the ServiceNow instance. The workflow is as follows:

Add host properties in the Forescout platform with values from ServiceNow table records.

Use these properties as dynamic properties in policy decisions through custom policies. When data is updated in ServiceNow, it is sent to the Forescout platform.

**To add ServiceNow tables:**

1. Select Options and select ServiceNow.
2. In the ServiceNow pane, select the **ServiceNow Tables** tab.

3. Select **Sync**. The tables from ServiceNow are synchronized.

4. Select **Edit**. The Forescout platform connects with the ServiceNow server and pulls in the available tables. These tables are displayed in the Manage ServiceNow Table dialog box.
5. In the Manage ServiceNow Table dialog box, you determine which ServiceNow tables you want to be able to view in the Forescout platform.

   g) Select a table in the Available Tables field and then select Add. The table is added to the Selected Tables list. These tables will be imported into the Forescout platform.

   h) To remove a table, select the table in the Selected Tables list and then select Remove. The table returns to the Available Tables list.

6. Select OK.

7. In the ServiceNow Tables tab, select a table and select Test. The Forescout platform checks if the user has read permission to that table.

8. Select Close.

Remove ServiceNow Tables

Sometimes, you might need to remove the ServiceNow tables. For example, when you no longer need to get any column values in that table, you can remove it, or when you change to using another ServiceNow instance, you need to remove the tables, select Sync, and add the tables again.

To remove ServiceNow Tables:

1. In the Console, select Options from the Tools menu.

2. In the left pane, select ServiceNow, and in the right pane, select the ServiceNow Tables tab.

3. Select one or more ServiceNow tables and then select Remove.

   You cannot remove tables that are used by properties.

4. When prompted for confirmation, select OK.

Define Host Properties

Host properties are information stored in the Forescout platform for each device identified on the network. When you work with Forescout eyeExtend for ServiceNow, you create new host properties to hold data extracted by querying the ServiceNow instance. This makes retrieved data available for use in Forescout policies.
You can create single-value properties, for example, a string property that contains the GUID of the device, or composite properties, for example, a location that contains a city and state.

Track Changes properties let you define policy conditions that identify changes in the values of custom properties. You can define track changes properties for single-value, list, or Record Exists properties that you create.

**To define host properties:**

1. In the ServiceNow pane, select the ServiceNow Properties tab.
2. Select **Add**.

3. Configure the general settings as follows:

<table>
<thead>
<tr>
<th><strong>ServiceNow Table</strong></th>
<th>Select a ServiceNow table.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ServiceNow Column</strong></td>
<td>Select the column name within the selected ServiceNow table.</td>
</tr>
<tr>
<td><strong>Label</strong></td>
<td>Create a name to refer to the name of the ServiceNow column.</td>
</tr>
<tr>
<td><strong>Tag</strong></td>
<td>Enter a tag, which is a unique text string using ASCII characters. The Forescout platform references the property using this unique identification string.</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>(Optional) Insert text, for example, the nickname of the host property you are creating.</td>
</tr>
<tr>
<td><strong>Single property</strong></td>
<td>Select this option to define a single property, which is a property that contains one value. Then, select <strong>String</strong>, <strong>Integer</strong>, <strong>Boolean</strong>, or <strong>Date</strong> from the <strong>Type</strong> drop-down menu.</td>
</tr>
<tr>
<td><strong>Composite property</strong></td>
<td>Select this option to define a composite property, which contains a custom table that combines several retrieved columns. It can be a group of all available types.</td>
</tr>
</tbody>
</table>
4. If you select **Composite property**, select **Add** to load the column list.

5. Configure the sub-properties as follows:

<table>
<thead>
<tr>
<th><strong>ServiceNow Column</strong></th>
<th>Select a ServiceNow column.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Property Name</strong></td>
<td>Enter a name for the property.</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>(Optional) Enter a description for the property.</td>
</tr>
<tr>
<td><strong>Data Type</strong></td>
<td>Select a data type (<strong>String</strong>, <strong>Integer</strong>, <strong>Boolean</strong>, or <strong>Date</strong>).</td>
</tr>
<tr>
<td><strong>Is this subproperty an asset inventory group-by key</strong></td>
<td>Select this option if this sub-property is used to generate asset inventory counts.</td>
</tr>
</tbody>
</table>

6. Select **OK**.

7. In the General pane, select **Next**.
Configure the following properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Display ServiceNow</strong>&lt;br&gt;<strong>Property in Asset Inventory View</strong></td>
<td>Select this option to display this property in the Console Asset Inventory tab.</td>
</tr>
<tr>
<td><strong>Asset Inventory Description</strong></td>
<td>Enter a description of the property you want to display in the Console Asset Inventory. This description is displayed only if <strong>Display ServiceNow Property in Asset Inventory View</strong> is selected.</td>
</tr>
<tr>
<td><strong>Display ServiceNow</strong>&lt;br&gt;<strong>Property in Host Profiles Pane of Home View</strong>&lt;br&gt;and in Assets Portal</td>
<td>Select this option to list this property in the Profiles tab of the Home view and in the Assets Portal.</td>
</tr>
<tr>
<td><strong>Enable Track Changes</strong></td>
<td>The Track Changes properties let you define policy conditions that identify changes in the value of the custom properties you define. You can define track changes properties for single-value, list, or Record Exists properties. Select <strong>Enable Track Changes</strong> to create a second, parallel change property under the Track Changes folder of the Properties tree. Use the change property in policies to identify changes in the property values retrieved from the ServiceNow instance. This is applicable to single-value and list properties only.</td>
</tr>
<tr>
<td><strong>Track Name</strong></td>
<td>The name of the item you want to track. The text entered in the <strong>Label</strong> field in the General pane populates this field and cannot be edited.</td>
</tr>
<tr>
<td><strong>Track Description</strong></td>
<td>The description of the item you want to track. The text entered in the <strong>Tag</strong> field in the General pane populates this field and cannot be edited.</td>
</tr>
</tbody>
</table>

9. Select **Finish**. The property is added to the table in the Property tab.

10. Repeat steps 2 to 9 for every host property you want to create and use.

11. In the ServiceNow pane, select **Apply**. The Forescout platform saves the configuration, updates the internal database, and restarts Forescout eyeExtend for ServiceNow. It may take 1-2 minutes for the changes to take effect.

12. (Optional) Refer to *Forescout App for Asset Management* to create cross-scope access to allow the Forescout app to read the ServiceNow table in scripts.

**Define ServiceNow Lookup Properties**

Use ServiceNow lookup properties to configure user-defined fields to query CMDB tables. Define the lookup table and lookup column using the ServiceNow Lookup Properties tab. You can use custom columns as a key to look up data from cmdb_ci tables.
To define lookup properties:

1. In the ServiceNow pane, select the ServiceNow Lookup Properties tab.

2. Select Add.

3. Configure the settings as follows:

<table>
<thead>
<tr>
<th>Table/Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ServiceNow Table</td>
<td>Select from the list of tables defined in the ServiceNow Tables tab. Examples: Security Incident(sn_si_incident), Incident(incident), Configuration Item(cmdb_ci). Once you select a ServiceNow Table, the lists for ServiceNow Target Lookup Table and ServiceNow Lookup Column are initially populated.</td>
</tr>
</tbody>
</table>
| ServiceNow Target Lookup Table | For the selected ServiceNow Table, select a target lookup table for which to query. In many cases, it is same as the ServiceNow Table. Examples:  
  - Select Configuration Item if you want to query based on Name  
  - Select Network Adapter if you want to query based on IP address or MAC address |
| ServiceNow Lookup Column | For the selected ServiceNow Target Lookup Table, select a ServiceNow lookup column from the list. |
| Forescout Lookup Column | Enter the Forescout lookup column or select Browse to search for a Forescout column. See step 4. This column is related to the ServiceNow Lookup Column. |
4. To browse for a column on the Forescout platform, select the **Browse** button. Type in a filter such as `mac`, then select the column name, such as `MAC Address`.

![Tags dialog box](image)

5. Select **OK** in the Tags dialog box.

![Add Property dialog box](image)

- **If the lookup property is not defined for any of the tables listed in the Add Property dialog box, by default, the MAC address is used as the lookup.**
6. Select **OK** in the Add Property dialog box.

7. Select **Apply** in the ServiceNow pane.

**Verify the Configuration**

After configuring Forescout eyeExtend for ServiceNow, verify that the asset information is displayed.

**To verify the configuration:**

1. In the Console, select the Asset Inventory tab.

   If you did not select **Display ServiceNow Property in Asset Inventory View** when you configured the properties, your ServiceNow properties are not displayed in the Views pane of the Asset Inventory tab.
2. In the Views pane, expand the ServiceNow folder and select an item in the list to view its properties.

3. Select a row in the upper pane to view additional information in the lower pane.

Delete ServiceNow Instance

If you have multiple connecting Appliances configured to the ServiceNow instance, and one or more of them are no longer of use, they can be removed.

For example, the ServiceNow instance is connecting to Appliance A, with Appliances B and C also assigned to Appliance A. The instance is also connecting to Appliance D, with Appliance E and F also assigned to Appliance D. Later, when you want to assign Appliance D, E, and F to use Appliance A to communicate with the instance as well, you can remove the instance configuration that is connecting to Appliance D, and edit the first configuration to assign Appliances D, E, and F to Appliance A.

The process for deleting a ServiceNow Instance is as follows:

- **Remove ServiceNow Properties** associated with the ServiceNow tables.
- **Remove ServiceNow Tables**.
- **Remove ServiceNow Connection**.

Remove ServiceNow Properties

You need to remove the ServiceNow properties before you can remove the ServiceNow tables.

**To remove ServiceNow properties:**

1. In the Console, select **Options** from the **Tools** menu.
2. Select **ServiceNow**. The ServiceNow pane opens to the ServiceNow Connections tab.
3. Select the ServiceNow Properties tab.
4. Select a property and then select **Remove**.

![ServiceNow Properties Tab](image)

5. Select **OK**.
6. Repeat steps 3 to 5 for other properties, as necessary.
7. In the ServiceNow dialog box, select **Apply**.

**Remove ServiceNow Tables**

After you delete the ServiceNow properties, you can remove the ServiceNow tables from the Forescout platform.

**To remove a ServiceNow table:**

1. In the Console, select **Options** from the **Tools** menu.
2. Select **ServiceNow**. The ServiceNow pane opens to the ServiceNow Connections tab.
3. Select the ServiceNow Tables tab.
4. Select a table and then select **Remove**.

![ServiceNow Tables Tab](image)

5. Select **OK**.
6. Repeat steps 3 to 5 for other tables, as necessary.
7. In the ServiceNow pane, select **Apply**.

**Remove ServiceNow Connection**

After you delete the ServiceNow tables, you can remove the ServiceNow instance from the Forescout platform.

**To remove a ServiceNow instance:**

1. In the Console, select **Options** from the **Tools** menu.
2. Select **ServiceNow**. The ServiceNow pane opens to the ServiceNow Connections tab.
3. Select an instance name and then select **Remove**.
4. Select **OK**.
5. In the ServiceNow pane, select **Apply**.

**Configure Forescout Apps**

To configure the Forescout Apps, the Forescout Platform entry needs to be configured. For more information, refer to the following:

- Forescout App for Asset Management – See the *Forescout App for Asset Management Configuration Guide*.
- Forescout App for IT incidents – See the *Forescout App for IT Incidents Configuration Guide*.
- Forescout App for SOC incidents – See the *Forescout App for SOC Incidents Configuration Guide*.
- Service Graph Connector for Forescout – See the *Service Graph Connector for Forescout Configuration Guide*.
Create ServiceNow Policies

Forescout policies use a wide range of host conditions to trigger various management and remediation actions. When the conditions of the policy are met, the actions are implemented. With Forescout eyeExtend for ServiceNow, policies can include adding and updating ServiceNow tables as an action.

This section describes how to use ServiceNow policy templates to create policies to detect, manage, and remediate devices in a ServiceNow environment. Refer to the following sections:

Name the Policy
How Devices Are Detected and Handled
ServiceNow Policy Templates
Create an Add Asset Identification Information to CMDB Policy
Create an Update Asset Identification Information to CMDB Policy
Create an Assign to VLAN Stage 1 Policy
Create an Assign to VLAN Stage 2 Policy
Create a Switch Block Stage 1 Policy
Create a Switch Block Stage 2 Policy
Create a Switch Block Stage 3 Policy
Create a SecOps Ticketing Policy

Name the Policy

Policy names appear in the Policy Manager, the Views pane, NAC Reports, and in other features. Precise names make working with policies and reports more efficient.

Define a unique name for the policy and enter a description. Some best practices are as follows:

Make sure names are accurate and clearly reflect what the policy does. For example, do not use a generic name such as My_Compliance_Policy.

Use a descriptive name that indicates what your policy verifies and the actions to be taken.

Ensure that the name indicates whether the policy criteria must be met or not met.

Avoid having another policy with a similar name.

How Devices Are Detected and Handled

Policy rules instruct the Forescout platform how to detect and handle devices defined in the policy scope.
Hosts that match the Main Rule are included in the policy inspection. *Hosts that do not match this rule are not inspected for this policy.* Sub-rules automatically follow up with hosts after initial detection and handling, streamlining separate detection and actions into one automated sequence.

Sub-rules are performed in order until a match is found. When a match is found, the corresponding action is applied to the host. If the host does not match the requirements of the sub-rule, it is inspected by the next rule.

**ServiceNow Policy Templates**

Forescout eyeExtend for ServiceNow provides policy templates for asset identification, action intents, and ticketing.
## Asset Identification Templates

The following asset identification templates are provided:

<table>
<thead>
<tr>
<th>Template</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Add Asset Identification Information to CMDB</strong></td>
<td>This policy template adds assets not found in the CMDB. The asset existence check compares the IP address or MAC address identified by the Forescout platform to the information in the CMDB. If the asset does not exist, the selected properties are added in the CMDB. The set of properties per device type is defined in the Forescout App for Asset Management. Note: If the Service Graph Connector for Forescout is enabled, querying the Asset for its existence is not required since the IntegrationHub ELT will perform the check and inserts or updates assets accordingly.</td>
</tr>
<tr>
<td><strong>Update Asset Identification Information to CMDB</strong></td>
<td>This policy template updates asset properties in the CMDB, as captured by the Forescout platform. The asset existence check compares the IP address or MAC address identified by the Forescout platform to the information in the CMDB. If the asset exists and its property value has changed, the selected properties are updated in the CMDB. The set of properties per device type is defined in the Forescout App for Asset Management.</td>
</tr>
</tbody>
</table>

## Action Intents Templates

The following action intents templates are provided:

<table>
<thead>
<tr>
<th>Template</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Assign to VLAN Stage 1: Add to Action group** | This policy template shows how to handle action requests from ServiceNow using groups. This template represents one such action, Add to Group.  
  - The main rule captures all ServiceNow Add to Group action requests within the last hour.  
  - The first sub-rule adds an endpoint to the Assign to VLAN Action group when an Add to Group request is received from ServiceNow with an Action Parameter 1 value of VLAN. The endpoint is part of the group for one hour (by default).  
  - The second sub-rule is a catch-all, which covers other endpoints that do not match the above action request within the last hour (by default). |
| **Assign to VLAN Stage 2: Execute Action**    | This policy template shows how to execute the action request from ServiceNow using groups. This policy template represents one such action, Add to Group with an Action Parameter 1 value of VLAN.  
  - The main rule looks for endpoints that belong to a specific action group. The condition is re-evaluated every eight hours (by default).  
  - The action assigns the filtered endpoints to the Guest VLAN. |
Switch Block Stage 1: Add Label

This policy template shows how to handle action requests from ServiceNow using labels. This policy template represents one such action, Add Label.

- The main rule captures all ServiceNow Add Label action requests.
- The first sub-rule assigns a Switch Block label when an Add Label request is received from ServiceNow with an Action Parameter 1 value of Switch Block (by default).
- The second sub-rule is a catch-all, which covers other endpoints that do not match the above action request (by default).

Switch Block 2: Execute Action

This policy template shows how to execute the action request from ServiceNow using labels. This template represents one such action, Add Label with an Action Parameter 1 value of Switch Block.

- The main rule looks for endpoints with a specific assigned label.
- The condition is re-evaluated every eight hours (by default).
- The action executes the Switch Block action on the filtered endpoints.

Switch Block 3: Delete Label

This policy template deletes the Switch Block label added by the Switch Block Stage 1: Add Label policy in order to undo the Switch Block action applied to the corresponding endpoints.

Ticketing Template

The following ticketing template is provided:

**SecOps Ticketing**

This policy template creates SOC incidents for any endpoint that is not compliant.

Create an Add Asset Identification Information to CMDB Policy

Use the Add Asset Identification Information to CMDB template to create policies that add assets not found in the CMDB. For example, if endpoint information is not in the CMDB, the Forescout platform will send it.

When the add or update operation fails, this policy template has criteria to retry the operation.

The policy adds the ServiceNow record based on your mapping of the Forescout properties to the ServiceNow tables.

To create the policy:

1. Log in to the Console and select Policy.
2. Select Add from the Policy Manager. The Policy Wizard opens.
3. Expand the ServiceNow folder and select **Add Asset Identification Information to CMDB**.

4. Select **Next**.

5. Define a unique name for the policy and enter a description.

6. Select **Next**. Both the IP Address Range dialog box and the Scope pane open.

7. Use the IP Address Range dialog box to define which endpoints are inspected.
The following options are available:

i) **All IPs**: Include all IP addresses in the Internal Network.

j) **Segment**: Select a previously defined segment of the network. To specify multiple segments, select **OK** or **Cancel** to close this dialog box, and select **Segments** from the Scope pane.

k) **Unknown IP addresses**: Apply the policy to endpoints whose IP addresses are not known. Endpoint detection is based on the endpoint MAC address.

8. Select **OK**. The range is displayed in the Scope pane.

9. Select **Next**.

   The main rule of this policy detects admission events, including:
l) 802.1x admission event
m) Authentication via Forescout HTTP Login action
n) AWS EC2 New Endpoint
o) DHCP Request
p) External host became internal
q) External SecureConnector Connected
r) Host Connected to a Switch Port
s) IP Address Change
t) Linux SecureConnector Connected
u) Login to an authentication server
v) Macintosh SecureConnector Connected
w) New Host
x) New IPv6 Address
y) New VPN User
z) Offline host became online
aa) Property administrative deletion event
bb) SecureConnector Connected
c) VMware vSphere New Endpoint
d) Windows CE HP SecureConnector Connected
e) Wireless Host Connected
ff) WLAN lightweight AP connected

10. The Condition Criteria section is populated by default. To add a condition, select Add in the Condition section. See Policy Properties.

11. To add an action, select Add in the Actions section. See Policy Actions.

12. Select Next.
13. The sub-rules of the Add Asset Identification Information to CMDB policy list the items the Forescout platform is to check when applying the Main Rule. Double-click the Add Device to CMDB sub-rule to open it.

14. To add a condition, select Add in the Condition section. See Policy Properties.

15. To add an action, select Add in the Actions section. See Policy Actions.

16. Select OK. In the Policy dialog box, select OK.

17. Repeat steps 13 to 16 to make changes to other sub-rules.


19. In the Console, select Apply to save the policy.
Create an Update Asset Identification Information to CMDB Policy

Use the Update Asset Identification Information to CMDB template to create policies that update existing asset properties in the CMDB, as captured by the Forescout platform, such as an update to endpoint information.

- When the add or update operation fails, this policy template has criteria to retry the operation.

The policy updates the ServiceNow record based on your mapping of the Forescout properties to the ServiceNow tables.

To create the policy:

1. Log in to the Console and select Policy.
2. Select Add from the Policy Manager. The Policy Wizard opens.
3. Expand the ServiceNow folder and select Update Asset Identification Information to CMDB.
4. Select **Next**.

![Policy Wizard Step 2 of 5](image)

5. Define a unique name for the policy and enter a description.

6. Select **Next**. Both the IP Address Range dialog box and the Scope pane open.

7. Use the IP Address Range dialog box to define which endpoints are inspected.

![IP Address Range](image)

The following options are available:

- **All IPs**: Include all IP addresses in the Internal Network.
- **Segment**: Select a previously defined segment of the network. To specify multiple segments, select **OK** or **Cancel** to close this dialog box, and select **Segments** from the Scope pane.
- **Unknown IP addresses**: Apply the policy to endpoints whose IP addresses are not known. Endpoint detection is based on the endpoint MAC address.

8. Select **OK**. The range is displayed in the Scope pane.
9. Select **Next**. The main rule of this policy detects admission events, by default there are no rules in this pane. However, you can add a rule, such as Host Status in CMDB.

10. To add a condition, select **Add** in the Condition section. See Policy Properties.
11. To add an action, select **Add** in the Actions section. See Policy Actions.
12. Select **Next**. The sub-rules of the Update Asset Identification Information to CMDB policy list the items the Forescout platform is to check when applying the Main Rule.
13. Double-click the Update Asset to CMDB sub-rule to open it.

14. To add a condition, select Add in the Condition section. See Policy Properties.
15. To add an action, select Add in the Actions section. See Policy Actions.
16. Select OK. In the Policy dialog box, select OK.
17. In the Sub-Rules pane of the Policy Wizard, select Finish.
18. In the Console, select Apply to save the policy.

Create an Assign to VLAN Stage 1 Policy

Use the Assign to VLAN Stage 1: Add to Action group template to create policies that handle action requests from ServiceNow using groups. This template represents one such action, Add to Group.

To create the policy:

1. Log in to the Console and select Policy.
2. Select **Add** from the Policy Manager. The Policy Wizard opens.

3. Expand the **ServiceNow** folder and select **Assign to VLAN Stage 1: Add to Action group**.

4. Select **Next**.

5. Define a unique name for the policy and enter a description.

6. Select **Next**. Both the IP Address Range dialog box and the Scope pane open.
7. Use the IP Address Range dialog box to define which endpoints are inspected.

![IP Address Range dialog box]

The following options are available:

jj) **All IPs**: Include all IP addresses in the Internal Network.

kk) **Segment**: Select a previously defined segment of the network. To specify multiple segments, select **OK** or **Cancel** to close this dialog box, and select **Segments** from the Scope pane.

ll) **Unknown IP addresses**: Apply the policy to endpoints whose IP addresses are not known. Endpoint detection is based on the endpoint MAC address.

8. Select **OK**. The range is displayed in the Scope pane.

9. Select **Next**. The main rule filters out all endpoints for which an action intent has been received with an Add to Group action in the last hour.
10. To add a condition, select **Add** in the Condition section. See Policy Properties.

11. To add an action, select **Add** in the Actions section. See Policy Actions.

12. Select **Next**. The sub-rules of the policy list the items the Forescout platform is to check when applying the Main Rule.
13. Double-click the Assign to VLAN Action Group sub-rule to open it.

The Assign to VLAN Action Group sub-rule filters out endpoints for which a ServiceNow action intent for an Add to Group action has been received with Action Parameter 1 value of VLAN within the last hour. If the sub-rule condition has been met, the filtered endpoints are added to the group Assign to VLAN Action. The All other endpoints sub-rule acts as a catch-all that will contain all endpoints not matching the Assign to VLAN Action Group sub-rule.

14. To add a condition, select Add in the Condition section. See Policy Properties.
15. To add an action, select Add in the Actions section. See Policy Actions.
16. Select OK in each dialog box you open. In the Policy dialog box, select OK.
17. In the Sub-Rules pane of the Policy Wizard, select Finish.
18. In the Console, select Apply to save the policy.
Create an Assign to VLAN Stage 2 Policy

Use the Assign to VLAN Stage 2: Execute Action template to create policies that execute action requests from ServiceNow using groups. This template represents one such action, Add to Group with an Action Parameter 1 value of VLAN.

To create the policy:

1. Log in to the Console and select Policy.
2. Select Add from the Policy Manager. The Policy Wizard opens. Expand the ServiceNow folder and select Assign to VLAN Stage 2: Execute Action.
3. Select **Next**.

![Policy Wizard Step 2 of 5](image)

4. Define a unique name for the policy and enter a description.

5. Select **Next**. Both the IP Address Range dialog box and the Scope pane open.

6. Use the IP Address Range dialog box to define which endpoints are inspected.

![IP Address Range](image)

The following options are available:

mm) **All IPs**: Include all IP addresses in the Internal Network.

nn) **Segment**: Select a previously defined segment of the network. To specify multiple segments, select **OK** or **Cancel** to close this dialog box, and select **Segments** from the Scope pane.

oo) **Unknown IP addresses**: Apply the policy to endpoints whose IP addresses are not known. Endpoint detection is based on the endpoint MAC address.

7. Select **OK**. The range is displayed in the Scope pane.
8. Select **Next**. The main rule filters out all endpoints that are members of the group, Assign to VLAN Action. The Assign to VLAN in the Actions section is not enabled by default but can be used to assign the filtered endpoints to Guest VLAN.

9. To add a condition, select **Add** in the Condition section. See [Policy Properties](#).
10. To add an action, select **Add** in the Actions section. See [Policy Actions](#).
11. Select **OK** in each dialog box you open.
12. In the Main Rule pane, select **Next**. The sub-rules of the policy list the items the Forescout platform is to check when applying the Main Rule.

13. In the Sub-Rules pane of the Policy Wizard, select **Finish**.

14. In the Console, select **Apply** to save the policy.

**Create a Switch Block Stage 1 Policy**

Use the Switch Block Stage 1: Add Label template to create policies that handle action requests from ServiceNow using labels. This policy template represents one such action, Add Label.

**To create the policy:**

1. Log in to the Console and select **Policy**.
2. Select **Add** from the Policy Manager. The Policy Wizard opens.
3. Expand the **ServiceNow** folder and select **Switch Block Stage 1: Add Label**.

4. Select **Next**.

5. Define a unique name for the policy and enter a description.

6. Select **Next**. Both the IP Address Range dialog box and the Scope pane open.

7. Use the IP Address Range dialog box to define which endpoints are inspected.
The following options are available:

**pp)** **All IPs**: Include all IP addresses in the Internal Network.

**qq)** **Segment**: Select a previously defined segment of the network. To specify multiple segments, select **OK** or **Cancel** to close this dialog box, and select **Segments** from the Scope pane.

**rr)** **Unknown IP addresses**: Apply the policy to endpoints whose IP addresses are not known. Endpoint detection is based on the endpoint MAC address.

8. Select **OK**. The range is displayed in the Scope pane.

9. Select **Next**. The main rule filters out all endpoints for which an action intent is received with an Add Label action.

10. To add a condition, select **Add** in the Condition section. See **Policy Properties**.
11. To add an action, select **Add** in the Actions section. See *Policy Actions*.

12. Select **Next**. The sub-rules of the policy list the items the Forescout platform is to check when applying the Main Rule.
13. Double-click the Switch Block sub-rule to open it.

The Switch Block sub-rule filters out all endpoints received with an Add Label action and Action Parameter 1 value of Switch Block. The Add Label action is not enabled by default but can be used to assign a Switch Block label for endpoints filtered by the sub-rule. The second sub-rule is a catch-all, which covers other endpoints that do not match the above action request (by default).

14. To add a condition, select Add in the Condition section. See Policy Properties.

15. To add an action, select Add in the Actions section. See Policy Actions.

16. Select OK in each dialog box you open. In the Policy dialog box, select OK.

17. In the Sub-Rules pane of the Policy Wizard, select Finish.

18. In the Console, select Apply to save the policy.
Create a Switch Block Stage 2 Policy

Use the Switch Block Stage 2: Execute Action template to create policies that execute the action request from ServiceNow using labels. This template represents one such action, Add Label with an Action Parameter 1 value of Switch Block.

To create the policy:

1. Log in to the Console and select Policy.
2. Select Add from the Policy Manager. The Policy Wizard opens.
3. Expand the ServiceNow folder and select Switch Block Stage 2: Execute Action.
4. Select **Next**.

5. Define a unique name for the policy and enter a description.

6. Select **Next**. Both the IP Address Range dialog box and the Scope pane open.

7. Use the IP Address Range dialog box to define which endpoints are inspected.

The following options are available:

- **All IPs**: Include all IP addresses in the Internal Network.
- **Segment**: Select a previously defined segment of the network. To specify multiple segments, select **OK** or **Cancel** to close this dialog box, and select **Segments** from the Scope pane.
- **Unknown IP addresses**: Apply the policy to endpoints whose IP addresses are not known. Endpoint detection is based on the endpoint MAC address.

8. Select **OK**. The range is displayed in the Scope pane.
9. Select **Next**. The main rule filters out all endpoints that contain an Assigned Label of Switch Block. The Switch Block in the Actions section is not enabled by default but can be used to turn off the switch port for endpoints filtered out by the main rule.

10. To add a condition, select **Add** in the Condition section. See **Policy Properties**.
11. To add an action, select **Add** in the Actions section. See **Policy Actions**.
12. Select **OK** in each dialog box you open.
13. In the Main Rule pane, select **Next**. The sub-rules of the policy list the items the Forescout platform is to check when applying the Main Rule.

14. In the Sub-Rules pane of the Policy Wizard, select **Finish**.

15. In the Console, select **Apply** to save the policy.

**Create a Switch Block Stage 3 Policy**

Use the Switch Block Stage 3: Delete Label template to create policies that delete the Switch Block label added by the Switch Block Stage 1: Add Label policy in order to undo the Switch Block action applied to the corresponding endpoints.

**To create the policy:**

1. Log in to the Console and select **Policy**.
2. Select **Add** from the Policy Manager. The Policy Wizard opens.
3. Expand the ServiceNow folder and select **Switch Block Stage 3: Delete Label**.

4. Select **Next**.

5. Define a unique name for the policy and enter a description.

6. Select **Next**. Both the IP Address Range dialog box and the Scope pane open.

7. Use the IP Address Range dialog box to define which endpoints are inspected.
The following options are available:

vv) **All IPs**: Include all IP addresses in the Internal Network.

ww) **Segment**: Select a previously defined segment of the network. To specify multiple segments, select **OK** or **Cancel** to close this dialog box, and select **Segments** from the Scope pane.

xx) **Unknown IP addresses**: Apply the policy to endpoints whose IP addresses are not known. Endpoint detection is based on the endpoint MAC address.

8. Select **OK**. The range is displayed in the Scope pane.
9. Select **Next**. The main rule filters out all endpoints for which an action intent has been received with a Delete Label action and Action Parameter 1 value of Switch Block. The Delete Label action is not enabled by default but can be used to delete the Switch Block label for endpoints filtered by the sub-rule.

10. To add a condition, select **Add** in the Condition section. See **Policy Properties**.
11. To add an action, select **Add** in the Actions section. See **Policy Actions**.
12. Select **OK** in each dialog box you open.
13. In the Main Rule pane, select **Next**. The sub-rules of the policy list the items the Forescout platform is to check when applying the Main Rule.

14. In the Sub-Rules pane of the Policy Wizard, select **Finish**.

15. Select **Apply** to save the policy.

**Create a SecOps Ticketing Policy**

Use the SecOps Ticketing template to create policies that create SOC incidents for an endpoint that is not compliant.

**To create the policy:**

1. Log in to the Console and select **Policy**.
2. Select **Add** from the Policy Manager. The Policy Wizard opens.
3. Expand the **ServiceNow** folder and select **SecOps Ticketing**.

4. Select **Next**.

5. Define a unique name for the policy and enter a description.

6. Select **Next**. Both the IP Address Range dialog box and the Scope pane open.

7. Use the IP Address Range dialog box to define which endpoints are inspected.
The following options are available:

yy) **All IPs**: Include all IP addresses in the Internal Network.

zz) **Segment**: Select a previously defined segment of the network. To specify multiple segments, select **OK** or **Cancel** to close this dialog box, and select **Segments** from the Scope pane.

aaa) **Unknown IP addresses**: Apply the policy to endpoints whose IP addresses are not known. Endpoint detection is based on the endpoint MAC address.

8. Select **OK**. The range is displayed in the Scope pane.
9. Select **Next**. The main rule filters out endpoints that are not compliant. The Create SOC Incident in the Actions section is not enabled by default but can be used to open SOC incidents on ServiceNow for endpoints filtered by the main rule.

![Policy Wizard Step 4 of 5]

**Main Rule**
- Use this screen to review policy sub-rule definitions.
- Hosts are inspected by each sub-rule in the order shown. When a match is found, the action defined is applied. If no match is found, the host is inspected against the next sub-rule.

**Condition**
- A host matches this rule if it meets the following condition:
  - **All criteria are True**
  - **Compliance Status - Not Compliant**

**Actions**
- Actions are applied to hosts matching the above condition.
  - **Enable** | **Action** | **Details**
  - [ ] Create SOC Incident

10. To add a condition, select **Add** in the Condition section. See [Policy Properties](#).
11. To add an action, select **Add** in the Actions section. See [Policy Actions](#).
12. Select **OK** in each dialog box.
13. In the Main Rule pane, select **Next**. The sub-rules of the policy list the items the Forescout platform is to check when applying the Main Rule.

14. In the Sub-Rules pane of the Policy Wizard, select **Finish**.

15. In the Console, select **Apply** to save the policy.

---

**Create Custom ServiceNow Policies**

Forescout policies contain a series of rules. Each rule includes:

- Conditions based on host property values. The Forescout platform detects hosts with property values that match the conditions of the rule. Several conditions based on different properties can be combined using Boolean logic.

- Actions can be applied to hosts that match the conditions of the rule.

**To create a custom policy:**

1. In the Console, select **Policy**. The Policy Manager opens.

2. Select **Add** to create a policy, then select **Custom**, or select **Help** for more information about working with policies.
Policy Properties

In addition to the bundled Forescout properties and actions available for adding and updating ServiceNow tables, you can work with policy properties to create custom policies. These items are available when you install the module.

To access properties:

1. In the Policy Conditions dialog box, search for and expand the ServiceNow folder in the Properties tree.

   The following properties are available:

<table>
<thead>
<tr>
<th>ServiceNow Action Intents</th>
<th>Indicates information for action intents received from ServiceNow for an endpoint. The following sub-properties are available:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>▪ Action Name: The action name. The possible values are: Add Label, Add to Group, Delete Label, and Recheck host.</td>
</tr>
<tr>
<td></td>
<td>▪ Action Parameter 1: The action parameter 1.</td>
</tr>
</tbody>
</table>

   | Host Status in CMDB | Indicates the host status in the ServiceNow CMDB. It checks whether the IP address or MAC address on a device exists in the ServiceNow CMDB. When the scheduled add/update occurs, the ServiceNow app also sends back existence to the Forescout platform. The possible values are: Does Not Exist in CMDB, Exists in CMDB, Last Add Action Failed, and Last Update Action Failed. |
**ServiceNow SOC Incidents**
Indicates SOC incidents created by the Forescout platform.
The following sub-properties are available:
- **Number**: The incident number.
- **Category**: The category.
- **Subcategory**: The sub-category.
- **Business Impact**: The business impact.
- **Priority**: The priority.
- **Short Description**: The short description.
- **State**: The state.
- **Update Time**: The time of the update received on the Forescout platform.

**ServiceNow IT Incidents**
Indicates IT incidents created by the Forescout platform.
The following sub-properties are available:
- **Number**: The incident number.
- **Category**: The category.
- **Subcategory**: The sub-category.
- **Impact**: The impact.
- **Urgency**: The urgency.
- **Priority**: The priority.
- **Short Description**: The short description.
- **State**: The state.
- **Update Time**: The time of the update received on the Forescout platform.

To learn about ServiceNow properties, see *Define Host Properties*.

2. Select the property you want and select **OK**.

**Policy Actions**
In addition to the bundled Forescout properties and actions available for adding and updating ServiceNow tables, you can work with policy actions to create customized policies. For example, a policy action could be used to apply mappings between existing properties on the Forescout platform and ServiceNow table columns.

To access the ServiceNow actions:
1. Log in to the Console, select **Home**, and select **All Hosts**.
2. In the All Hosts pane, select a host entry.
3. Right-click an endpoint and select **ServiceNow**.

4. Expand the ServiceNow folder in the Actions tree. The following actions are available:

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Asset to CMDB</td>
<td>Adds asset information to CMDB.</td>
</tr>
<tr>
<td>Create IT Incident</td>
<td>Creates an IT incident in ServiceNow with domain name, host name, IP address, MAC address, and description.</td>
</tr>
<tr>
<td>Create SOC Incident</td>
<td>Creates a SOC incident in ServiceNow with domain name, host name, IP address, MAC address, and description.</td>
</tr>
<tr>
<td>Update Asset to CMDB</td>
<td>Updates asset information in the CMDB.</td>
</tr>
</tbody>
</table>
Add or Update Asset to CMDB

Use this action to add or update an asset to the CMDB.

To use the Add/Update Asset to CMDB action:

1. In the Actions tree, select ServiceNow and then select Add Asset to CMDB or Update Asset to CMDB.

2. Use the Parameters tab to map properties in the Forescout platform to ServiceNow table columns, for use within the scope of the selected policy. Select a table from the ServiceNow Table drop-down menu. The available tags for that table are listed.

3. Select the relevant Forescout Platform Tags and select OK.
**Create IT Incident**

Use this action to create an IT incident in ServiceNow. You can specify the category, impact, urgency, and priority for the incident. You can also add tags.

Refer also to the *Forescout App for IT Incidents* installation and configuration guide in the section, Modify Transform Map.

**To use the Create IT Incident action:**

1. In the Actions tree, select **ServiceNow** and then select **Create IT Incident**. The Specify Create IT Incident parameters dialog box opens to the Parameters tab.

![Specify Create IT Incident parameters dialog box](image)
2. Enter a short description and a description. You can add tags to the description or select Add Tags.

3. In the Specify Create IT Incident parameters dialog box, select the Schedule tab.

4. Schedule the action and select OK.

5. In the All Hosts pane, select a host with the ServiceNow action icon. Hold your cursor over the icon to view the action status. The incident number appears in the Details pane.
Create SOC Incident

Use this action to create a SOC incident in ServiceNow.

Refer also to the *Forescout App for SOC Incidents* installation and configuration guide in the section, Modify Transform Map.

**To use the Create SOC incident action:**

1. In the Actions tree, select **ServiceNow** and then select **Create SOC Incident**. The Specify Create SOC Incident parameters dialog box opens to the Parameters tab.

![Specify Create SOC Incident parameters](image)
2. Enter a short description and a description. You can add tags to the description or select **Add Tags**.

3. In the Specify Create SOC Incident parameters dialog box, select the Schedule tab.

4. Schedule the action and select **OK**.

5. In the All Hosts pane, select a host with the ServiceNow action icon. Hold your cursor over the icon to view the action status. The incident number appears in the Details pane.

### Set Action Thresholds

Use **Action Thresholds** to restrict the number of actions. Action thresholds are designed to automatically implement safeguards. An action threshold is the maximum percentage of endpoints that can be controlled by a specific action type defined at a single device.

The **Create IT Incident** and the **Create SOC Incident** actions have a default 2% action threshold, which can be scaled up to 100%.
For information about action thresholds, refer to the *Forescout Administration Guide*. See [Additional Forescout Documentation](#) for information on how to access this guide.

**To change an action threshold:**

1. In the Options pane, select **NAC > Action Thresholds**.

2. In the Actions table, select **Create IT Incident** or **Create SOC Incident**.

3. In the Threshold Details section, select the Configuration tab, select **Custom**, and type a value in the field.

4. Select **Apply**.
Send Additional Properties for Forescout App for Asset Management

Additional properties are those not included in the pre-loaded Outbound Mapping configuration described in Define Outbound Mapping. Additional properties can be sent to ServiceNow.

**To send additional properties:**

1. Log in to the ServiceNow instance and go to Forescout App for Asset Management > Settings > Forescout CI Staging Table Definition.

2. To create a new table column, select **New**.

3. Configure the Type, Column label, Column name, and other parameters, and then select **Submit**.
4. (Optional) To display the column in the Forescout CI Staging Table list view, go to Forescout App for Asset Management > Troubleshooting > Forescout CI Staging Table and select 🕵️‍♂️. In the Personalize List Columns, move Example to Selected, and then select OK.

The Example column is displayed in the list view.

5. (Optional) To create a new column in the target table, go to System Definition > Tables, and then select the target table, for example, Configuration Item.
6. (Optional) Repeat steps 2 to 3 to create a new column in the target table.

7. Go to **Forescout App for Asset Management > Settings > Transform Maps** and select **Forescout CI Transform Map**.

8. Select the active **onBefore** in the Transform Scripts tab.
9. Modify the script to map the newly created column to the target column, then select **Update**.

10. Log in to the Console, open the Options pane, and go to **ServiceNow** > **Outbound Mapping**. To edit the Forescout CI Staging Table, select **Edit**.
11. Select the Map Data tab.

12. Select Add.
13. To browse Forescout Platform Tags, select the adjacent **Browse** button.

![Tags](image)

14. Select the tag to send, then select **OK**.

15. To browse ServiceNow Column, select the adjacent **Browse** button.

![Add Mapping](image)
16. Select the column created in step 3, then select **OK**.

17. To add the mapping, select **OK**.
18. Edit the Add Asset to CMDB and Update Asset to CMDB actions in policies to include the new property.

Send Additional Properties for Service Graph Connector for Forescout

When the Service Graph Connector for Forescout feature is enabled, the CI staging table definitions are defined in the Forescout SG Data Source table. Ensure that both CI staging tables contain the same changes.

To create a new column in Import Table:

The installed Forescout Import Table includes commonly-used properties. If it covers all the properties you need for Forescout Appliance to update, please skip this section.

1. In the ServiceNow Console, under System Definition, select Tables. Run a search for Forescout SG Data Source. Select Forescout SG Data Source.

2. Select New to create a new column.
3. After filling the definition for the new column, select **Submit** to apply the changes.

**Modify Forescout Transform Map**

Service Graph Connector for Forescout utilizes the ServiceNow IntegrationHub ETL to define the data asset mappings from Forescout Appliance to ServiceNow. The IntegrationHUB ETL plugins should be installed or subscribed before it can be used. The payload data is required to be sent to ServiceNow from Forescout prior to configure the import mappings. Refer to *Forescout eyeExtend for ServiceNow Configuration Guide* for data outbound configuration details.

To configure the data mappings:

1. In the ServiceNow Console, search ETL, select **SG-Forescout Hardware**.

2. Select **Specify Basic Details**.
3. Select the latest import set data just received, then select **Mark as Complete**.

4. Go back to ETL page and select **Preview and Prepare Data**.
5. Verify all property columns and values are generated. Make changes or standardized the data contents as needed and then select **Mark as Complete**.

6. Go back to ETL page and select **Select CMDB Classes to Map Source Data**.

7. Select Computer **Edit Mappings**.
8. Click **Add Attribute**, choose desired column from list, then pick the corresponding source data under **Data**, drag the data onto the added attribute to complete the mapping.

9. Go back to ETL page, once all mappings are done, select **Mark as Complete**.
Best Practices

Appliance Sizing
We recommend one CT10000/VCT 10000 Appliance per 40,000 endpoints, as determined by peak traffic loads. If, for example, peak load is approximately 70,000 users logged on at the same time, two ServiceNow focal Appliances would be appropriate. For customers with lower peak loads, a single Appliance would be appropriate for handling the ServiceNow connection.

Appliance Clustering
Clustering Appliances for ServiceNow connections is purely an administrative function. Clustering is done to organize communications between ServiceNow and the Forescout platform and does not provide any failover benefits.

The endpoints in the IP address ranges handled by the Forescout Appliances in a cluster must also be handled by the instance of ServiceNow the cluster is associated with.

ServiceNow Tables
The CMDB tables that will be used to host properties received from the Forescout platform must be defined in ServiceNow prior to their configuration in Forescout eyeExtend for ServiceNow. The same guidance applies for columns in existing tables which will have the Forescout platform properties mapped to them. By default, there are 177 properties the Forescout platform sends to the Forescout CI Staging Table in ServiceNow. However, the Forescout Classification Mapping table needs to be modified to take the data and move it to the appropriate table within the CMDB (for example, \texttt{cmdb_ci_computer}). You can also find this information on the ServiceNow instance Forescout App for Asset Management under \textbf{Forescout Classification Mappings}.

It is recommended that you import device information according to function, as determined by the Forescout platform. Those functions include Information Technology and Operational Technology, with each of those categories further subdivided.

Information Technology is broken down into the categories: Accessory, Appliance, Computer, Mobile, Multimedia, Networking, Storage, and Wearable. Operational Technology categories include Energy & Power, Gaming, Healthcare, Metal & Allied, Mining, Non-Industry Specific, Retail & Financial, and Traffic & Parking Management. Each of these categories is further divided into sub-categories. Organizations may consider building tables for sub-categories or may find that certain categories may not apply to their network. It is recommended that you use the Function classification as a starting point for organizing the data on the Forescout platform that will be brought into ServiceNow.

When selecting properties to import into the Forescout platform, if a ServiceNow property is not a String, Integer, Date, or Boolean value, it cannot share that property with the Forescout platform. Reference type 2.0 is also supported.
Additional Properties

You can send additional properties outside the default 177. This requires some effort on the Forescout CI Staging Table, Transform Maps, and the **Add Asset Identification Information to CMDB** policy.

Best Practice would be to define those columns in ServiceNow *before* adding the properties to the Forescout platform in the policy.

General Guidance

ServiceNow tables should be set up in advance to receive fields from the Forescout platform.

**Key Value in ServiceNow**

Forescout strongly recommends using the device IP address or MAC address as a key value for endpoints in ServiceNow, as the IP address or MAC address is the default means that the Forescout platform identifies a device. Using a different value in ServiceNow as a key is not a best practice.

**Visibility of IP address or MAC Address**

Because the Forescout platform reconciles ServiceNow data using an endpoint IP address or MAC address as a key, it is vital that all of your network devices be configured to send accurate and timely IP address or MAC address information to the Forescout platform. Endpoints in the Forescout platform without an associated IP address or MAC address will not automatically be associated with data from ServiceNow.

Refer to the *Forescout Network Module: Wireless Plugin Configuration Guide* and/or the *Forescout Network Module: Switch Plugin Configuration Guide* regarding proper configuration of devices. See *Additional Forescout Documentation* for information on how to access these guides.

**Forescout Account in ServiceNow**

The default permissions (rights) associated with the Forescout account in ServiceNow are sufficient for most deployments. It is not recommended to add the *Delete* permission to the Forescout account in ServiceNow.