



Junos[®] Space

Security Design User Guide

Release

11.1



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Documentation Conventions

Table 1 on page xvii defines notice icons used in this documentation.

Table 1: Notice Icons

Icon	Meaning	Description
	Informational note	Indicates important features or instructions.
	Caution	Indicates a situation that might result in loss of data or hardware damage.
	Warning	Alerts you to the risk of personal injury or death.
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For quick and easy problem resolution, Juniper Networks has designed an online self-service portal called the Customer Support Center (CSC) that provides you with the following features:

- Find CSC offerings: <http://www.juniper.net/customers/support/>
- Search for known bugs: <http://www2.juniper.net/kb/>
- Find product documentation: <http://www.juniper.net/techpubs/>
- Find solutions and answer questions using our Knowledge Base: <http://kb.juniper.net/>
- Download the latest versions of software and review release notes: <http://www.juniper.net/customers/csc/software/>
- Search technical bulletins for relevant hardware and software notifications: <https://www.juniper.net/alerts/>

- Join and participate in the Juniper Networks Community Forum:
<http://www.juniper.net/company/communities/>
- Open a case online in the CSC Case Management tool: <http://www.juniper.net/cm/>

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool: <https://tools.juniper.net/SerialNumberEntitlementSearch/>

Opening a Case with JTAC

You can open a case with JTAC on the Web or by telephone.

- Use the Case Management tool in the CSC at <http://www.juniper.net/cm/> .
- Call 1-888-314-JTAC (1-888-314-5822 toll-free in the USA, Canada, and Mexico).

For international or direct-dial options in countries without toll-free numbers, see <http://www.juniper.net/support/requesting-support.html> .

PART 1

Security Design Overview

- Security Design Overview on page 3
- Security Design Dashboard Overview on page 5
- Security Design Gadgets Overview on page 7

CHAPTER 1

Security Design Overview

- Security Design Overview on page 3

Security Design Overview

Security Design is a Junos Space application that you can use to design your network security using a bottom-up approach. It significantly reduces your intervening time because you can create subconfiguration objects that you can use across multiple configurations. You can customize these for a specific configuration in which this object is used. A set of gadgets displayed on the dashboard graphically illustrate the critical factors related to your security design. These gadgets help you keep track of the objects created and their usage across security configurations easily and effectively.

The Security Design application is divided across two workspaces: Object Builder and Security Whiteboard.

- You can use the Object Builder workspace to prepare yourself for the security configuration
- You can use the Security Whiteboard workspace to configure your network security.

With the Object Builder workspace you can create subconfiguration Application, Network Address, and Security Domain objects and store them in the Junos Space database. You can access these objects from an inventory panel. You can clone objects easily without having to re-enter similar object parameters all over again. You can reuse these objects across multiple security configurations.

With the Security Whiteboard workspace you can create the actual security configurations. You can create a security topology to represent your physical network using a whiteboard-based design. You can drag and drop objects on the whiteboard and link them logically using a set of toolbar icons. You can also create IPsec VPNs and security policies using this workspace.

You can preview the Hub-And-Spoke or Site-To-Site VPN, as an overlay of the security topology, to ensure that you place the VPN strategically in your network. Security Design helps you create security policies in two ways. You can quickly create a security policy using a generic security policy profile object and a set of domain rules from the security domains that constitute a security policy. You can also create a detailed security policy which uses a customized security policy profile and customized rules which are applicable only to this security policy. You can also differentiate inherited rules versus additional

rules and generic security policy profile settings versus customized security policy profile settings using visual indicators.

For information about the using the Security Design application, see “Security Designer Dashboard Overview” on page 5.

CHAPTER 2

Security Design Dashboard Overview

- Security Design Dashboard Overview on page 5





Security Design Dashboard Overview

The Security Design dashboard graphically illustrates the devices used in the security topology. You can navigate to the Security Design dashboard in the following ways:

- Selecting Security Design from the Junos Space home page
- Selecting Security Design from the Application Switcher
- Selecting the Home icon from any page within the Security Design workspaces

The Security Design dashboard includes the Object Builder and Security Whiteboard workspaces. Table 2 on page 5 shows the workspace icons and the tasks that they perform.

Table 2: Security Design Workspaces

Icons	Workspace Name	Tasks
	Devices	Manage, discover, and add devices.
	Object Builder	Create, modify, delete, and copy security domains, addresses and applications.
	Security Whiteboard	Create security topology and security policies. Also used to create VPN proposals, VPN profiles and IPsec VPNs.
	Job Management	Manage and view job status.

The dashboard also includes gadgets that display information about objects and security configurations. To read more about gadgets in Security Design, see “Security Design Gadgets Overview” on page 7.

CHAPTER 3

Security Design Gadgets Overview

- Security Design Gadgets Overview on page 7

Security Design Gadgets Overview

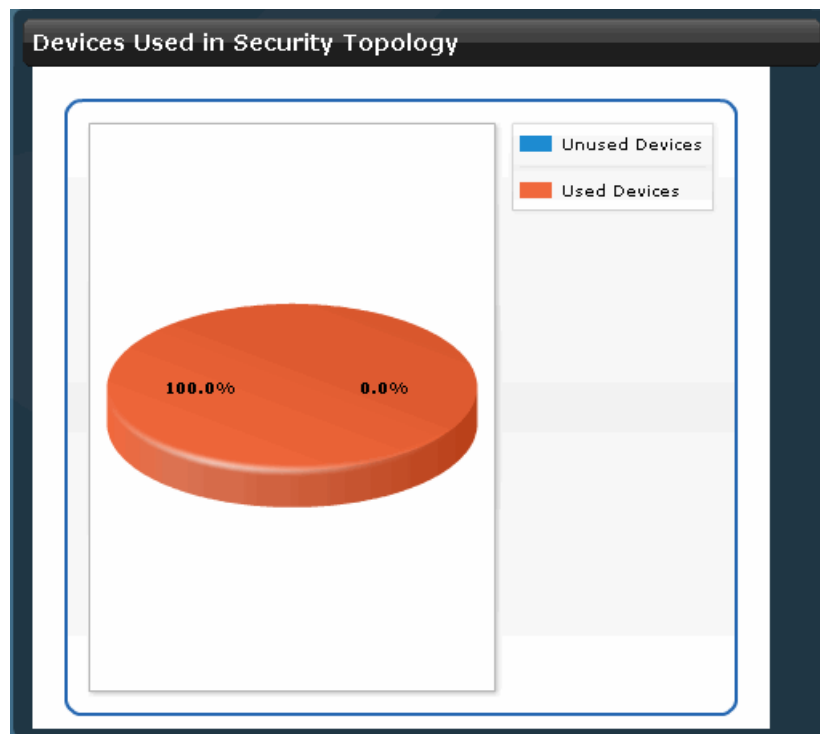
The Security Design dashboard displays gadgets with information that is updated automatically and immediately. You can move gadgets on the dashboard and resize them. These changes persist when you log out and log in to the Security Design application. The gadgets displayed on the Security Design dashboard are:

1. Devices Used in Security Topology on page 7
2. Object Count on page 8
3. Address Types on page 9
4. Object Usage on page 9
5. Devices in Security Topology on page 10
6. Job Types on page 10
7. State of Jobs Run on page 11
8. Average Execution Time per Completed Job on page 11

Devices Used in Security Topology

You can view the Devices Used in the Security Topology gadget, as shown in Figure 1 on page 8, to learn the number of devices that are part of the security topology. You can use this gadget to keep a track of the number of devices used in your topology design.

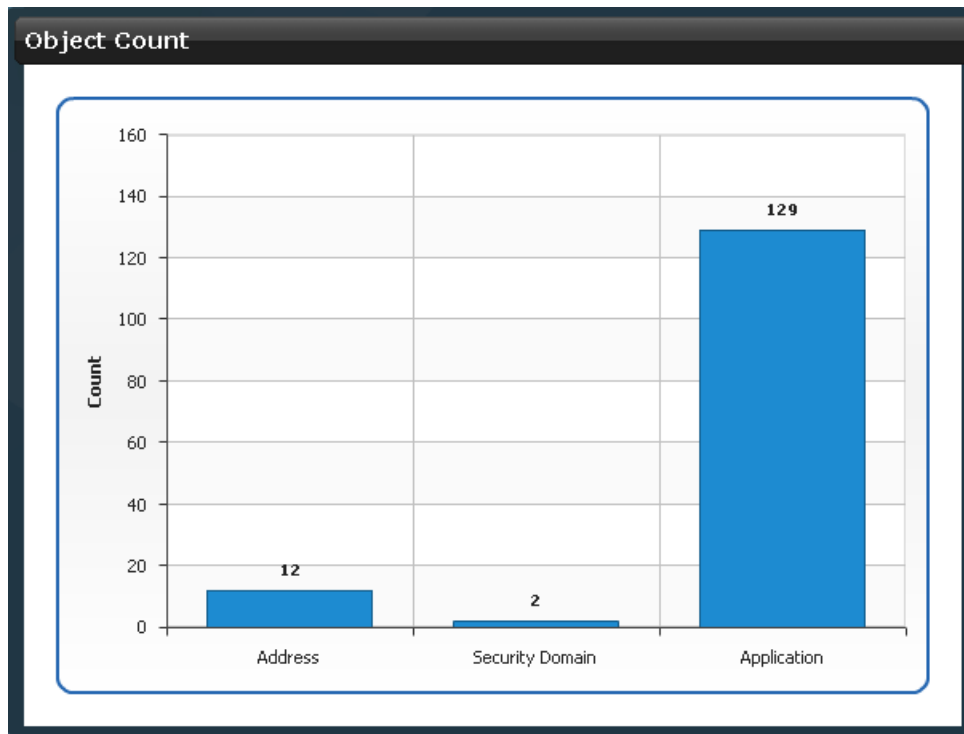
Figure 1: Dashboard Gadget: Devices Used in Security Topology



Object Count

You can view the Object Count gadget, as shown in Figure 2 on page 9, to learn the number of objects that are created from the Object Builder workspace. You can use this gadget to keep a track of the objects available to create a security topology, IPsec VPNs, or security policies.

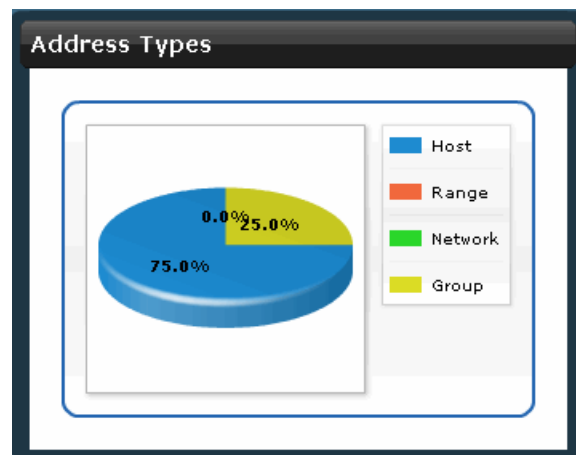
Figure 2: Dashboard Gadgets: Object Count



Address Types

You can view the Address Types gadget, as shown in Figure 3 on page 9, to learn the distribution among the different address types created using the Address Creation Wizard.

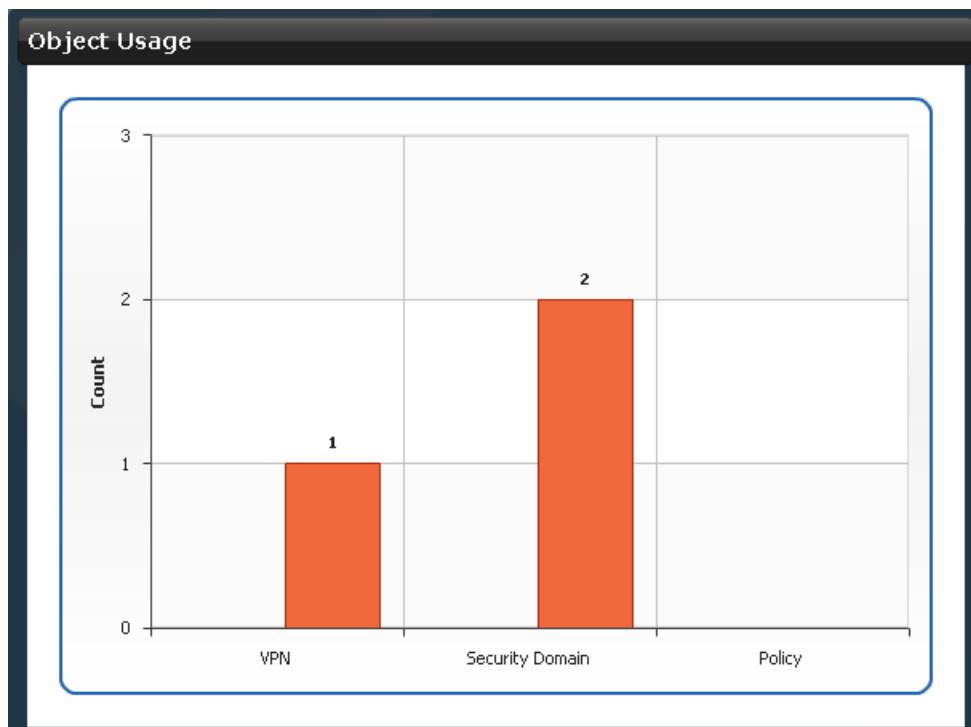
Figure 3: Dashboard Gadget: Address Types



Object Usage

You can view the Object Usage gadget, as shown in Figure 4 on page 10, to learn the number of objects used to create VPNs, security domains, or security policies.

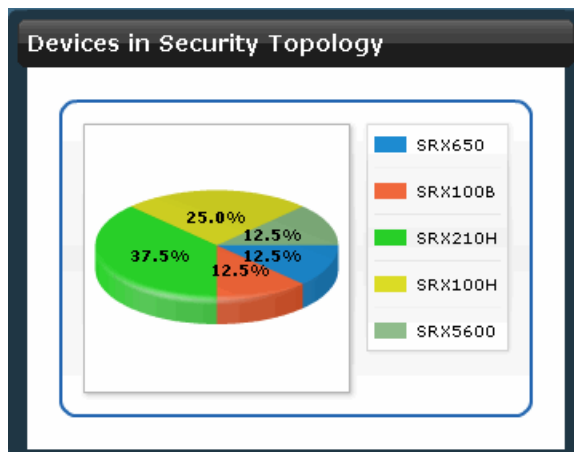
Figure 4: Dashboard Gadget: Object Usage



Devices in Security Topology

You can view the Devices in Security Topology gadget, as shown in Figure 5 on page 10, to learn the different types of devices used to create the security topology.

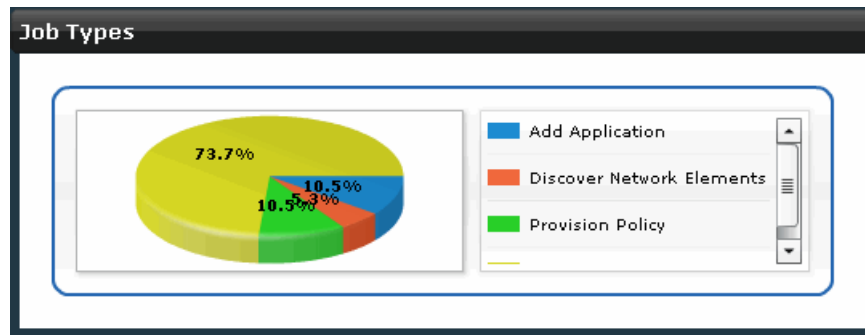
Figure 5: Dashboard Gadgets: Devices in Security Topology



Job Types

You can view the Job Types gadget, as shown in Figure 6 on page 11, to learn the type of jobs performed using Security Design.

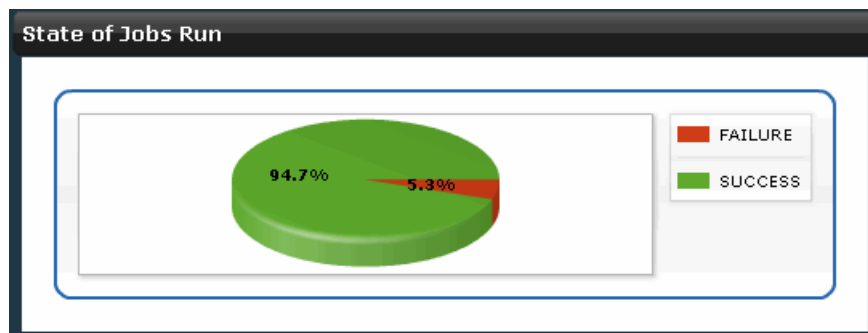
Figure 6: Dashboard Gadgets: Job Types



State of Jobs Run

You can view the State of Jobs Run gadget, as shown in Figure 7 on page 11, to learn the status of the jobs that your Security Design tasks have initiated.

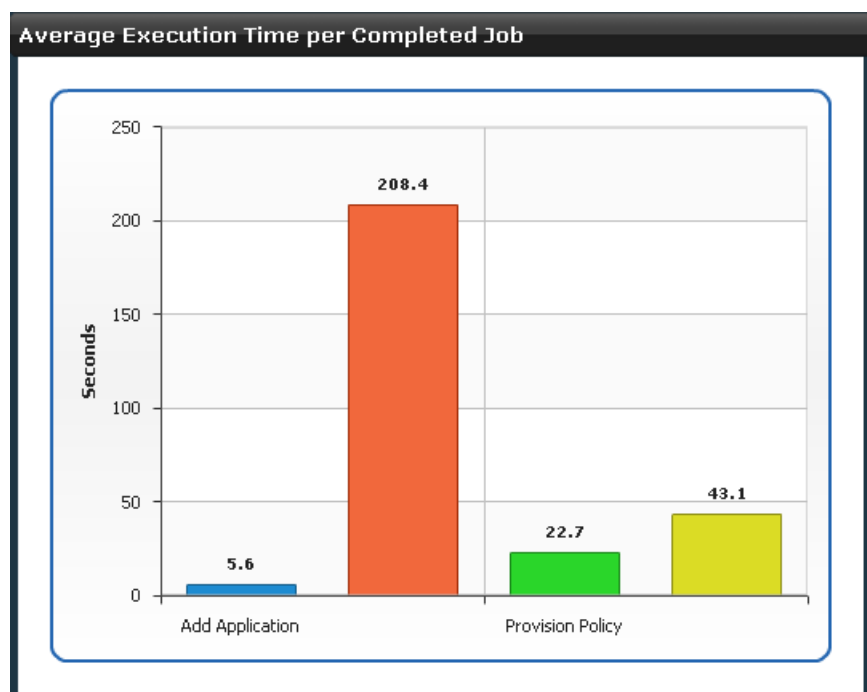
Figure 7: Dashboard Gadgets: State of Jobs Run



Average Execution Time per Completed Job

You can view the Average Execution Time per Completed Job gadget, as shown in Figure 8 on page 12, to learn the average time that your Security Design tasks have taken to run specific job types.

Figure 8: Dashboard Gadgets: Average Execution Time per Completed Job



PART 2

Getting Started

- [Getting Started with Security Design on page 15](#)

CHAPTER 4

Getting Started with Security Design

- Getting Started with Security Design on page 15

Getting Started with Security Design

The **Getting Started** assistant is a section on the sidebar that provides instructions on how to perform tasks related to IPsec VPN configuration and security policy configuration in Security Design.

The **Getting Started** section displays instructions on how to:

1. Provisioning an IPsec VPN on page 15
2. Provisioning Firewall Policies on page 16

Provisioning an IPsec VPN

In general, to provision an IPsec VPN::

1. Discover devices.
For information about how to discover devices, see the Discovering Devices section in the Junos Space Network Application Platform User Guide.
2. Create addresses.
For information about how to create addresses, see “Creating Addresses” on page 44.
3. Create security domains.
For information about how to create security domains, see “Creating Security Domains” on page 32.
4. Create a security topology.
For information about how to create a security topology, see “Creating a Security Topology” on page 59.
5. Create a VPN profile.
For information about how to create a VPN profile, see “Creating VPN Profiles” on page 130.
6. Create a VPN proposal.
For information about how to create a VPN proposal, see “Creating VPN Proposals” on page 122.
7. Create an IPsec VPN.

For information about how to create an IPsec VPN, see “Creating IPsec VPNs” on page 141.

8. Provision the IPsec VPN.

For information about how to provision the IPsec VPN, see “Deploying IPsec VPNs” on page 146.

Provisioning Firewall Policies

The steps to provision firewall policies are:

1. Discover devices.

For information about how to discover devices, see the Discovering Devices section in the Junos Space Network Application Platform User Guide.

2. Create addresses.

For information about how to create addresses, see “Creating Addresses” on page 44.

3. Create security domains.

For information about how to create security domains, see “Creating Security Domains” on page 32.

4. Create a security topology.

For information about how to create a security topology, see “Creating a Security Topology” on page 59.

5. Create a policy profile.

For information about how to create a policy profile, see “Creating Security Policy Profiles” on page 77.

6. Create a applications.

For information about how to create an application, see “Creating Applications” on page 20.

7. Create firewall policies.

For information about how to create firewall policies, see “Creating Security Policies” on page 87.

8. Provision firewall policies.

For information about how to provision firewall policies, see “Deploying Security Policies” on page 93.

PART 3

Object Builder

- [Object Builder Overview on page 17](#)
- [Applications and Application Groups on page 19](#)
- [Security Domains on page 31](#)
- [Addresses and Address Groups on page 43](#)

Object Builder Overview

You can use the Object Builder workspace in Security Design to create security policy-related objects like security domains, addresses, and applications. These objects are stored in the Junos Space database. You can reuse them with multiple security policies. This makes the security policy design more structured and avoids the need to create the security policy-related objects during the whiteboard-based security policy design.

You can use the Object Builder workspace to create, modify, and delete the following objects:

- Addresses
- Applications and application groups
- Security domains

Related Documentation

- [Address and Address Groups Overview on page 43](#)
- [Application and Application Groups Overview on page 19](#)
- [Security Domains Overview on page 31](#)

CHAPTER 5

Applications and Application Groups

- Application and Application Groups Overview on page 19
- Creating Applications on page 20
- Managing Applications on page 23
- Creating Application Groups on page 25
- Managing Application Groups on page 27

Application and Application Groups Overview

You can use the Application Creation Wizard to create an application object based on the protocols the application uses. The protocols that are used to create an application object include:

- TCP
- UDP
- MS-RPC
- SUN-RPC
- ICMP

You can group application objects to form an application group using the Application Group Creation Wizard. Junos Space creates an object in the Junos Space database to represent an application or an application group. Security domains use these objects to allow or block applications in the domain.

Junos Space provides Juniper Networks defined application objects for commonly used applications.



NOTE: You cannot modify or delete Juniper Networks defined application objects.

Related Documentation

- Creating Applications on page 20
- Creating Application Groups on page 25
- Managing Applications on page 23

- Managing Application Groups on page 27

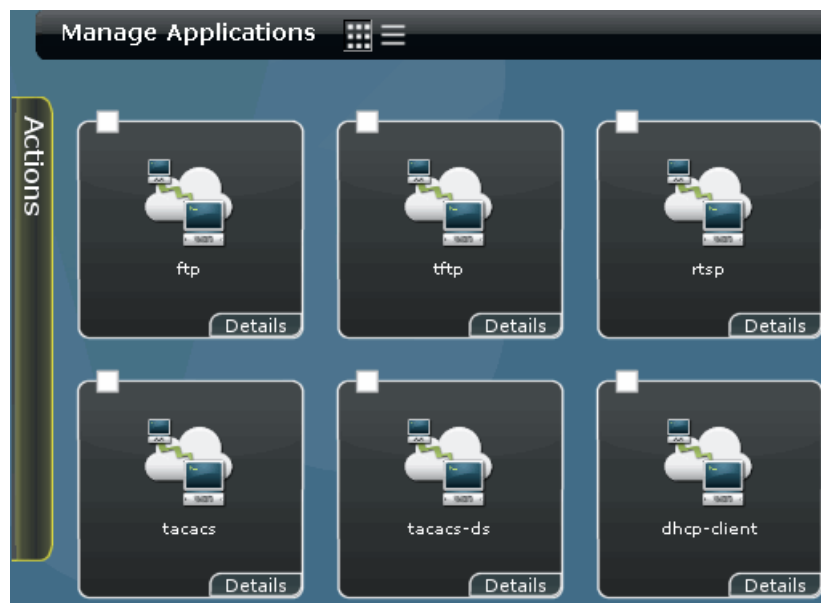
Creating Applications

To create a new application:

1. From the **Security Design** task ribbon, select **Object Builder > Applications**.

The **Manage Applications** inventory panel is displayed with the icons for all the applications, as shown in Figure 9 on page 20.

Figure 9: Manage Applications Inventory Panel



2. From the task ribbon, select the **Create Application** icon.

The **Create Application** window is displayed, as shown in Figure 10 on page 21.

Figure 10: Create Application Window

Create Application

Name:

Category:

Description:

Protocols: + ✎ ✖

Name	Detail
------	--------

3. In the **Name** field, enter a name for the new application.
4. In the **Category** field, enter a category for the new application.
5. In the **Description** field, enter a description for the new application.
6. In the **Protocols** section, click the **Add** icon to add a new protocol.

The **New Protocol** dialog box is displayed with default values.

7. In the **Name** section, enter a name for the new protocol.
8. In the **Inactivity Timeout** section, enter a value in seconds.

The default value is 60 seconds.

9. From the **Type** drop-down menu, select a protocol type.

You can select the following protocol types from the **Type** drop-down menu:

- TCP - Transmission Control Protocol
 - a. From the **Type** drop-down menu, select **TCP** as the protocol type.

The **New Protocol** dialog box displays the fields relevant to the protocol type.

- b. From the **ALG** drop-down menu, select the protocol you want to use.

- c. In the **Source Port** field, enter a range of TCP source ports the application uses.
- d. In the **Destination Port** field, enter a range of TCP destination ports the application uses.
- UDP - User Datagram Protocol
 - a. From the **Type** drop-down menu, select UDP as the protocol type.

The **New Protocol** dialog box displays the fields relevant to the protocol type.
 - b. From the **ALG** drop-down menu, select the protocol you want to use.
 - c. b. In the **Source Port** field, enter a range of UDP source ports the application uses.
 - d. In the **Destination Port** field, enter a range of UDP destination ports the application uses.
- ICMP - Internet Control Message Protocol
 - a. From the **Type** drop-down menu, select **ICMP** as the protocol type.

The **New Protocol** dialog box displays the fields relevant to the protocol type.
 - b. In the **ICMP Type** field, enter a value pertaining to the ICMP message you want to display.
 - c. In the **ICMP Code** field, enter a value associated with the ICMP type you have specified.
- SUN - RPC - Remote Procedure Call
 - a. From the **Type** drop-down menu, select **SUN—RPC** as the protocol type.

The **New Protocol** dialog box displays the fields relevant to the protocol type.
 - b. In the **RPC Program Number** field, enter a value corresponding to the RPC service you want to use.
 - c. Select the **TCP** or **UDP** radio button to specify an appropriate protocol type in the **Protocol Type** field.
- MS - RPC - Remote Procedure Call
 - a. From the **Type** drop-down menu, select **MS—RPC** as the protocol type.

The **New Protocol** dialog box displays the fields relevant to the protocol type.
 - b. In the **uuid** field, enter the universally unique ID corresponding to the RPC service you want to use.
 - c. Select the **TCP** or **UDP** radio button to specify an appropriate protocol type in the **Protocol Type** field.
- Other Protocols

- a. From the **Type** drop-down menu, select **Other** as the protocol type.

The **New Protocol** dialog box displays the fields relevant to the protocol type.

- b. From the **ALG** drop-down menu, select the protocol you want to use.
- c. In the **Source Port** field, enter a range of TCP source ports the application uses.
- d. In the **Destination Port** field, enter a range of TCP destination ports the application uses.
- e. In the **Protocol Number** field, enter the protocol number of the protocol you want to use.

This number is specified in the Protocol field for IPv4 packets and the Next Header field for IPv6 packets.

10. Click **Add** in the **New Protocol** dialog box.

11. Click **Create** to create a new application.

The new application you have created is displayed in the **Manage Applications** inventory panel.

Related Documentation

- Application and Application Groups Overview on page 19
- Managing Applications on page 23
- Creating Application Groups on page 25
- Managing Application Groups on page 27

Managing Applications

You can view, delete, or modify applications listed in the **Manage Application** inventory panel.

To open the **Manage Application** inventory panel:

- From the **Security Design** task ribbon, select **Object Builder > Applications**.

The **Manage Applications** inventory panel is displayed. All applications created are listed by default, in the graphical view.

You can either right-click or use the Actions Drawer to manage an application. For more information about using the Actions Drawer, see [Inventory Pages Overview](#)

You can perform the following tasks in the **Manage Applications** space:

1. Viewing the Details of an Application on page 24
2. Modifying an Application on page 24
3. Deleting an Application on page 24
4. Searching for an Application on page 25

Viewing the Details of an Application

To view the details of an application:

1. From the **Security Design** task ribbon, select **Object Builder > Applications**.

The **Manage Applications** inventory panel is displayed.

2. Double-click the icon for the application whose details you intend to view.

The details of the application are displayed in the **Application Detailed View** window.

The **Application Detailed View** window lists the name, category, description and protocols used in this application.

3. Click **Close**.

Modifying an Application

To modify an application you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Applications**.

The **Manage Applications** inventory panel is displayed.

2. Right-click the application you want to modify and click the **Modify Application** link from the contextual menu.

This action redirects you to the window that you used to create a new application.

You can modify all the fields on this window, except the **Name** field.

3. In the **Category** field, enter a new category.
4. In the **Description** field, enter a new description.
5. Make necessary changes in the **Protocols** section.

You can also edit or modify the existing protocols in the **Protocols** section.

- To edit a protocol, select the protocol you want to edit and click the **Edit** icon. Make the necessary changes and click **OK**.
- To delete a protocol, select the protocol you want to delete and click the **Delete** icon.

6. Click **Modify** to save the changes made to this application.

Deleting an Application

To delete an application you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Applications**.

The **Manage Applications** inventory panel is displayed.

2. Right-click the application you want to delete and click the **Delete Applications** link from the contextual menu.

The **Delete** dialog box is displayed

3. Select the application you want to delete and click **Delete**.

Searching for an Application

To search for an application you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Applications**.

The **Manage Applications** inventory panel is displayed.

2. In the **Search** field, enter the name of application you want to search.

3. Click the magnifying glass icon next to **Search** field.

The **Manage Application** inventory panel is populated with the applications matching your search criterion.

Related Documentation

- Application and Application Groups Overview on page 19
- Creating Applications on page 20

Creating Application Groups

To create a new application group:

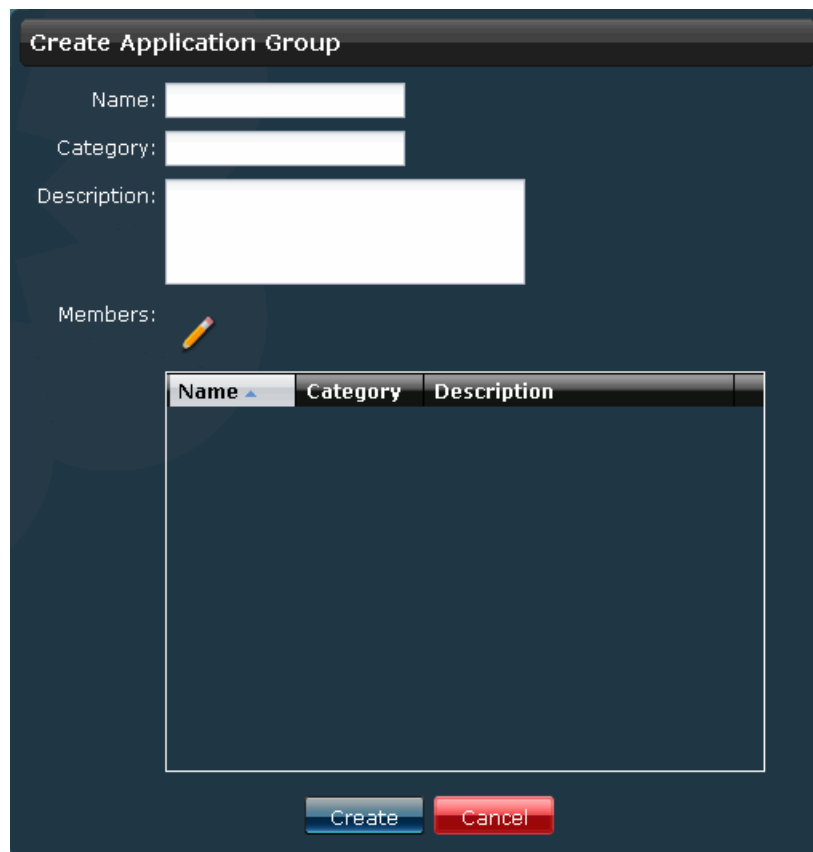
1. From the **Security Design** task ribbon, select **Object Builder > Applications**.

The **Manage Applications** inventory panel is displayed with the icons for all the applications and application groups.

2. From the task ribbon, select the **Create Application Group** icon.

The **Create Application Group** window is displayed, as shown in Figure 11 on page 26.

Figure 11: Create Application Groups Window



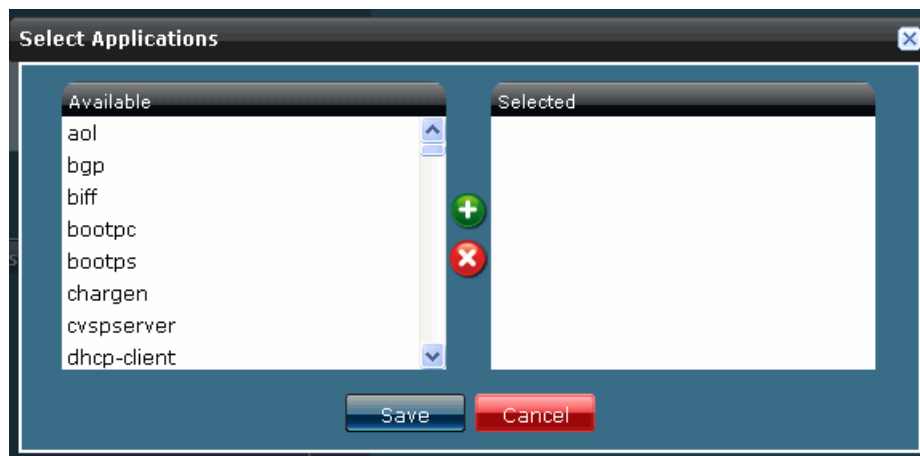
The 'Create Application Group' dialog box features a dark blue background. At the top, the title 'Create Application Group' is displayed in a dark bar. Below the title, there are three input fields: 'Name:' with a single-line text box, 'Category:' with a single-line text box, and 'Description:' with a larger multi-line text box. Under the 'Description' field is the 'Members:' label followed by a small yellow pencil icon. Below this is a table with three columns: 'Name', 'Category', and 'Description'. The table is currently empty. At the bottom of the dialog, there are two buttons: a blue 'Create' button and a red 'Cancel' button.

Name	Category	Description
------	----------	-------------

3. In the **Name** field, enter a name for the new application group.
4. In the **Description** field, enter a description for the new application group.
5. In the **Members** section, click the Add icon to add a new application to this application group.

The **Select Applications** dialog box is displayed, as shown in Figure 12 on page 27.

Figure 12: Select Applications Window



6. From the **Available** section of the dialog box, select the application you want to group, and click the Add icon.

The application you have selected is displayed in the **Selected** section of the dialog box. Repeat Steps 5 and 6 to add more applications in this application group.

7. Click **Create**.

The application group you have created is displayed in the **Manage Applications** inventory panel.

Related Documentation

- Application and Application Groups Overview on page 19
- Managing Application Groups on page 27
- Creating Applications on page 20
- Managing Applications on page 23

Managing Application Groups

You can view, delete, or modify application groups listed in the **Manage Applications** inventory panel.

To open the **Manage Applications** inventory panel:

- From the **Security Design** task ribbon, select **Object Builder > Applications**.

The **Manage Applications** inventory panel is displayed. All application groups created are listed by default, in the graphical view.

You can either right-click or use the Actions Drawer to manage an application group. For more information about using the Actions Drawer, see [Inventory Pages Overview](#)

You can perform the following tasks in the **Manage Applications** space:

1. Viewing the Details of an Application Group on page 28
2. Modifying an Application Group on page 28
3. Deleting an Application Group on page 29
4. Searching for an Application Group on page 29

Viewing the Details of an Application Group

To view the details of an application group:

1. From the **Security Design** task ribbon, select **Object Builder > Applications**.

The **Manage Applications** inventory panel is displayed.

2. Double-click the icon for the application group whose details you intend to view.

The details of the application group are displayed in the **Application Detailed View** window. The **View** window lists the name, description, category and the protocols used in this application group.

3. Click **OK**.

Modifying an Application Group

To modify an application group you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Applications**.

The **Manage Applications** inventory panel is displayed.

2. Right-click the application group you want to modify and click the **Modify Application** link from the contextual menu.

This action redirects you to the window that you used to create a new application group. You can modify all the fields on this window, except the **Name** field.

3. In the **Description** field, enter a new description.
4. In the **Category** field, enter a new category.
5. In the **Members** section, make appropriate changes to the applications used in this group.
6. Click **Modify** to save the changes made to this application group.

Deleting an Application Group

To delete an application group you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Applications**.
The **Manage Applications** inventory panel is displayed.
2. Right-click the application group you want to delete and click the **Delete Applications** link from the contextual menu.
The **Delete** dialog box is displayed.
3. Select the application group you want to delete and click **Delete**.

Searching for an Application Group

To search for an application group you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Applications**.
The **Manage Applications** inventory panel is displayed.
2. In the **Search** field, enter the name of application group you want to search.
3. Click the magnifying glass icon next to **Search** field.
The **Manage Applications** inventory panel is populated with the application groups matching your search criterion.

Related Documentation

- Application and Application Groups Overview on page 19
- Creating Application Groups on page 25

CHAPTER 6

Security Domains

- [Security Domains Overview on page 31](#)
- [Creating Security Domains on page 32](#)
- [Managing Security Domains on page 34](#)
- [Viewing Security Domain Hierarchy on page 37](#)
- [Deploying Security Domains on page 38](#)
- [Decommissioning Security Domains on page 41](#)

Security Domains Overview

You can use the Security Domain Creation Wizard to create a security domain that contains applications hosted by the domain and applications that are blocked to and from the domain. You can also choose to allow intra-domain traffic in a domain that is spread across different locations.

Junos Space creates an object in the Junos Space database to represent the security domain. You can use these security domain objects as endpoints to create a security policy. After the security policy is created, you can configure the direction in which the application data flows between two domains for that policy.

Related Documentation

- [Creating Security Domains on page 32](#)
- [Managing Security Domains on page 34](#)
- [Viewing Security Domain Hierarchy on page 37](#)

Creating Security Domains

To create a new security domain:

1. From the **Security Design** task ribbon, select **Object Builder > Security Domains**.

The **Manage Security Domain** inventory panel is displayed with the icons for all security domains, as shown in Figure 13 on page 32.

The inventory panel also lists a predefined Internet security domain which is associated with the predefined Internet address. This security domain is used to signify an untrusted security domain and is not associated with any parent domain. The **Allow intra domain traffic** option is disabled and the blacklisted applications are not listed in this security domain.

Figure 13: Manage Security Domains Inventory Panel



2. From the task ribbon, select the **Add New Security Domain** icon.

The **Create Security Domain** window is displayed, as shown in Figure 14 on page 33.

Figure 14: Create Security Domain Window

Create Security Domain

Name:

Description:

☐

Allow Intra-Domain Traffic

Blacklisted Applications:

Name	Category	Description
------	----------	-------------

Domain Association

Parent Domain:

Please select ...

Create

Cancel

3. In the **Name** field, enter a name for the new security domain.
4. In the **Description** field, enter a description for the new security domain.
5. If you want to allow intra-domain traffic in a domain that is spread across different locations, select the **Allow Intra-Domain Traffic** check box.



NOTE: You can use the **Allow Intra-Domain Traffic** option to enable seamless communication across all subnets located across your network.

6. In the **Blacklisted Applications** section of the **Create Security Domain** window, click the **Add** icon to add the applications you want to blacklist in this domain.

The **Select Applications** window is displayed.

7. From the **Available** section of the dialog box, select the application you want to host, and click the right arrow.

The application you have selected is displayed in the **Selected** section of this dialog box.



NOTE: This action restricts access to these applications in both directions for the domain they are hosted in. This cannot be overridden by security policies.

8. From the **Parent Domain** drop-down menu in the **Domain Association** section, select the parent domain for this security domain.

The security domain you are now creating will be a subdomain to the parent domain you select from the drop-down menu.

9. Click **Create**.

The security domain you have created is displayed in the **Manage Security Domain** inventory panel.



NOTE: If you migrating to version 2.0 from previous versions, the hosted applications will be migrated as user rules.

Related Documentation

- Security Domains Overview on page 31
- Managing Security Domains on page 34
- Viewing Security Domain Hierarchy on page 37

Managing Security Domains

You can view, delete, or modify security domains listed in the **Manage Security Domain** inventory panel.

To open the **Manage Security Domain** inventory panel:

- From the **Security Design** task ribbon, select **Object Builder > Security Domain**.

The **Manage Security Domain** inventory panel is displayed. All security domains created are listed by default, in the graphical view.

You can either right-click or use the Actions Drawer to manage a security domain. For more information about using the Actions Drawer, see [Inventory Pages Overview](#)

You can perform the following tasks in the **Manage Security Domain** space:

1. Viewing the Details of a Security Domain on page 35
2. Modifying a Security Domain on page 35
3. Deleting a Security Domain on page 36
4. Searching for a Security Domain on page 36
5. Viewing Security Policies related to a Security Domain on page 36

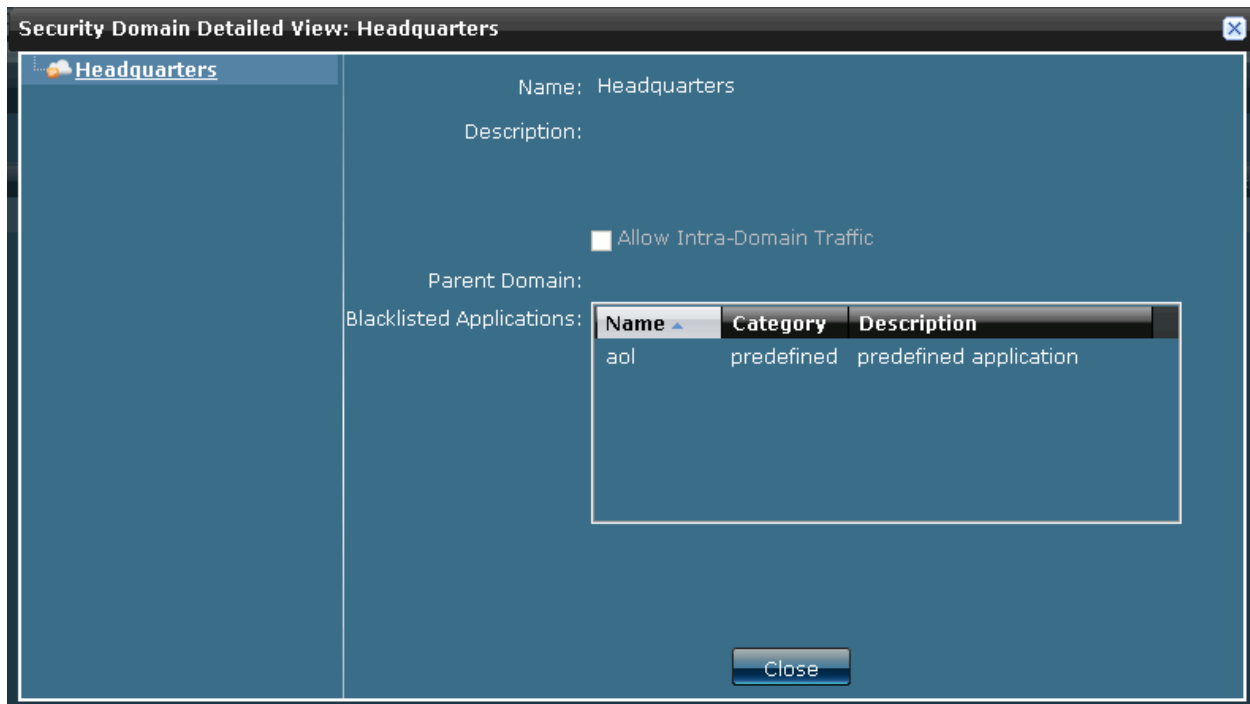
Viewing the Details of a Security Domain

To view the details of a security domain:

1. From the **Security Design** task ribbon, select **Object Builder > Security Domain**.
The **Manage Security Domain** inventory panel is displayed.
2. Double-click the icon for the security domain whose details you intend to view.

The details of the security domain are displayed in the **Security Domain Detailed View** window, as shown in Figure 15 on page 35. The **Security Domain Detailed View** window lists the name, description, hosted applications and the blacklisted applications in this security domain.

Figure 15: Security Domain Detailed View



3. Click **Close**.

Modifying a Security Domain

To modify a security domain you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Security Domain**.
The **Manage Security Domain** inventory panel is displayed.
2. Right-click the security domain you want to modify and click the **Modify Security Domain** link from the contextual menu.

This action redirects you to the window that you used to create a new security domain. You can modify all the fields in this window, except the **Name** field.

3. In the **Description** field, enter a new description.
4. Make appropriate changes in the **Hosted Applications** section of the **Create Security Domain** window.
5. Make appropriate changes in the **Blacklisted Applications** section of the **Create Security Domain** window.
6. Click **Modify** to save the changes made to this security domain.

Deleting a Security Domain

To delete a security domain you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Security Domain**.
The **Manage Security Domain** inventory panel is displayed.
2. Right-click the security domain you want to delete and click the **Delete Security Domain** link from the contextual menu.
The **Delete** dialog box is displayed.
3. Select the security domain you want to delete and click **Delete**.

Searching for a Security Domain

To search for a security domain you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Security Domain**.
The **Manage Security Domain** inventory panel is displayed.
2. In the **Search** field, enter the name of security domain you want to search.
3. Click the magnifying glass icon next to the **Search** field.
The **Manage Security Domain** inventory panel is populated with the security domains matching your search criterion.

Viewing Security Policies related to a Security Domain

To view all security policies related to a security domain:

1. From the **Security Design** task ribbon, select **Object Builder > Security Domain**.
The **Manage Security Domains** inventory panel is displayed.
2. Right-click the security domain whose related policies you want to view and click the **View Related Policies** link from the contextual menu.

This action redirects you to the **View All Rules** page, as shown in Figure 16 on page 37. This page displays all rules in the security policy associated with this security domain. You can view the direction of traffic, action performed on the traffic in the given direction, and if the rule is enabled or not.

Figure 16: View All Rules Page

View All Rules						
Filtered by:						
Endpoint 1	Endpoint 2	Direction	Applications	Action	Settings	Enabled
Policy: D1						
D1			aol			<input checked="" type="checkbox"/>
D1			bcp			<input checked="" type="checkbox"/>
D1			biff			<input checked="" type="checkbox"/>



NOTE: The rules that you view are shown if it has the domain or any ancestor domain as its source or destination.

Related Documentation

- Security Domains Overview on page 31
- Creating Security Domains on page 32
- Viewing Security Domain Hierarchy on page 37

Viewing Security Domain Hierarchy

To view the security domain hierarchy:

1. From the **Security Design** task ribbon, select **Object Builder > Security Domains**.

The **Manage Security Domain** inventory panel is displayed with the icons for all security domains.

2. Click the security domain whose domain hierarchy you want to view and click the **View Domain Hierarchy** link from the Actions drawer.

The **Security Domain Hierarchy** window is displayed, as shown in Figure 17 on page 38. This window lists the hierarchy of the security domains.

Figure 17: Security Domain Hierarchy



- Related Documentation**
- Security Domains Overview on page 31
 - Creating Security Domains on page 32
 - Managing Security Domains on page 34

Deploying Security Domains

To deploy or provision a security domain that you created:

1. From the Security Design task ribbon, select **Object builder > Security Domain**.
The **Manage Security Domains** inventory panel is displayed.
2. Right-click the security domain that you want to provision and select **Provision Security Domain**.

The **Provision Security Domain** page displays the devices that are affected by provisioning this security domain, as shown in Figure 18 on page 39. You can view the device name, device IP address, platform, OS version, configuration state, connection status, and the XML commands.

Figure 18: Provision Security Domain Page

Provision Security Domain: Finance

Name	Device IP	Platform	OS Version	Configuration Status	Managed Status	Connection Status	Configuration
10.205.119.1	10.205.119.1	SRX650	10.4B3.5	New	In Sync	up	View
10.205.119.11	10.205.119.11	SRX100H	10.4B3.5	New	In Sync	up	View
10.205.119.15	10.205.119.15	SRX100B	10.4B3.5	New	In Sync	up	View
10.205.119.8	10.205.119.8	SRX240B	10.4B3.5	New	In Sync	up	View

Page 1 of 1 | Displaying 1 - 4 of 4 | Show 20 items

☐ Schedule at a later time

[Provision](#) [Cancel](#)

The states displayed in the **Configuration** column specify whether the configuration pushed to the device is new, a modified one, or one that will be removed.

- If you want to preview the configuration changes pushed to the device, click the **View** link in the **Configuration** column corresponding to the device. The **XML Edit Configuration** tab is displayed by default. You can view the configuration details, as shown in Figure 19 on page 39.

Figure 19: Provision Security Domain: XML Configuration

Provision Security Domain: HR

Security Domain Configuration For Device - 10.204.77.42

CLI Configuration XML Edit Configuration

```

<policy>
  <name>2</name>
  <match>
    <application operation="delete">junos-ymsg</application>
  </match>
  <application>junos-aol</application>
</policy>

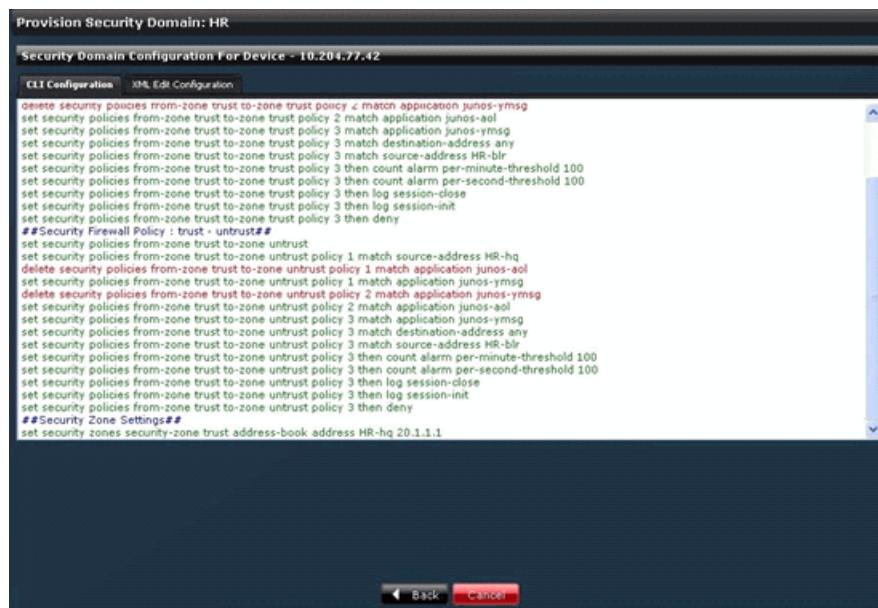
<policy operation="create">
  <name>3</name>
  <match>
    <application>junos-ymsg</application>
    <destination-address>any</destination-address>
    <source-address>HR-blr</source-address>
  </match>
  <then>
    <count>
      <alarm>
        <per-minute-threshold>100</per-minute-threshold>
        <per-second-threshold>100</per-second-threshold>
      </alarm>
    </count>
    <log>
      <session-close/>
      <session-init/>
    </log>
  </then>
</policy>

```

[Back](#) [Cancel](#)

- If you want to the CLI Configuration, click the **CLI Configuration** tab. You can view the configuration details, as shown in Figure 20 on page 40.

Figure 20: Provision Security Domain: CLI Configuration



5. Select the check box next to the **Schedule Provisioning** field to schedule the provisioning to a later time and date.
6. Select appropriate values from the **Date** and **Time** fields.
7. Click **Provision**.

A new job is created and the job ID is displayed in the **Job Information** dialog box.

8. Click the job ID to view more information about the job created.

This action directs you to the Job Management work space.

The **Device Provisioning Status** page is displayed with the status of the security domain that you provisioned on each device. You see appropriate error messages in the Message column of this page, if the provisioning fails. The error messages include:

- Connection Status is not up: This indicates that there is no active connection to the device from Junos Space.
- Managed Status is not In Sync: This indicates that the latest device configuration is not synchronized with Junos Space.
- Configuration Update Failed: This indicates configuration commit errors. This error message includes the error message sent by the device.

A security domain is placed in a specific state based on whether it is provisioned, not provisioned, or partially provisioned. An overlay icon is placed over the security domain icon to depict the different states.



NOTE: If you try to provision a security domain and the provision job fails, the security domain is placed in the Not Provisioned state. It may also be placed in the Partially Provisioned state if the configuration is passed onto at least one device before the provisioning job failed. You can provision or delete this security domain by using the appropriate workflow.

Related Documentation

- Security Domains Overview on page 31
- Managing Security Domains on page 34
- Viewing Security Domain Hierarchy on page 37
- Decommissioning Security Domains on page 41

Decommissioning Security Domains

To decommission a security domain that you provisioned:

1. From the Security Design task ribbon, select **Object builder** > **Security Domain**.

The **Manage Security Domains** inventory panel is displayed.

2. Right-click the security domain that you want to decommission and select **Decommission Security Domain**.

The **Decommission Security Domain** page displays the devices on which this security domain is provisioned.

3. Select the **Delete service after job succeeds** check box to automatically delete the security domain from Junos Space after the security domain is decommissioned.
4. Select the check box next to the **Schedule at a later time** field to schedule the decommissioning to a later time and date.
5. Click **Next**.
6. Select appropriate values from the **Date** and **Time** fields.
7. Click **Decommission**.



NOTE: If a provision job on a security domain partially succeeds, (that is, the provision job does not push the configuration details to all devices), the security domain is placed in the Partially Provisioned state. You can provision or decommission the security domain by using the appropriate workflow.



NOTE: : If you try to delete a security domain that is in the Provisioned state, a pop-up window confirming that you want to decommission the security domain is displayed. You can click Yes to decommission the security domain before deleting it or click No to delete the security domain without decommissioning it.

**Related
Documentation**

- Security Domains Overview on page 31
- Managing Security Domains on page 34
- Viewing Security Domain Hierarchy on page 37
- Deploying Security Domains on page 38

CHAPTER 7

Addresses and Address Groups

- [Address and Address Groups Overview on page 43](#)
- [Creating Addresses on page 44](#)
- [Managing Addresses on page 46](#)
- [Creating Address Groups on page 49](#)
- [Managing Address Groups on page 51](#)
- [Viewing the Security Policies Related to an Address on page 53](#)

Address and Address Groups Overview

You can use the Address Creation Wizard to create an address object that specifies an IP address or a hostname. You can specify a hostname and use the address resolution option to resolve it to an IP address. You can also resolve an IP address to the corresponding hostname.

You can group address objects to form an address group using the Address Group Creation Wizard. Junos Space creates an object in the Junos Space database to represent an address or an address group. You can use these addresses and address groups to create a security topology.

Related Documentation

- [Creating Addresses on page 44](#)
- [Managing Addresses on page 46](#)
- [Creating Address Groups on page 49](#)
- [Managing Address Groups on page 51](#)
- [Viewing the Security Policies Related to an Address on page 53](#)

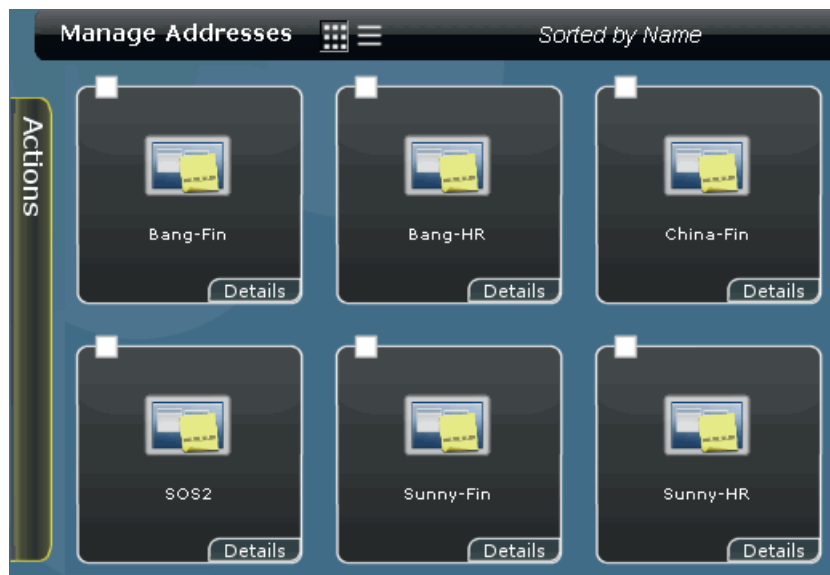
Creating Addresses

To create a new address:

1. From the **Security Design** task ribbon, select **Object Builder > Address**.

The **Manage Address** inventory panel is displayed with the icons for all addresses and the address groups, as shown in Figure 21 on page 44.

Figure 21: Manage Address Inventory Panel



2. From the task ribbon, select the **Create Address** icon.

The **Create Address** window is displayed, as shown in Figure 22 on page 45.

Figure 22: Create Address Window

The screenshot shows the 'Create Address' window. It has a title bar 'Create Address'. Below it are fields for 'Name' and 'Description'. The 'Type' section has three radio buttons: 'Host' (selected), 'Range', and 'Network'. Below 'Type' are fields for 'IP' and 'Host name'. Between these fields are two green circular arrows with 'Get IP' and 'Get Hostname' text. Below these is a 'Security Domain Association' section with a 'Domains' drop-down menu showing 'Please select ...'. At the bottom are 'Create' and 'Cancel' buttons.

3. In the **Name** field, enter a name for the new address.
4. In the **Description** field, enter a description for the new address.
5. You can direct Junos Space to resolve an IP address to a hostname or resolve a hostname to an IP address.
 - To specify an IP address as the address type, select the **Host** radio button and enter the IP address in the **IP** field.
 - To specify a hostname as the address type, select the **Host** radio button and enter the hostname in the **Host Name** field.
 - To specify an IP address range, select the **Range** radio button and enter the IP ranges in the **Start IP** and **End IP** fields.
 - To specify a network as an address type, select the **Network** radio button and enter the network address in the **IP** and **Netmask** fields.



NOTE: You can resolve an IP address to a hostname and a hostname to an IP address using the green arrows next to the IP and Host Name fields.

6. From the **Domains** drop-down menu in the **Security Domain Association** section, select the security domains you want to associate this address with.

You can view the security domains with which this address is associated in the **Domains** drop-down menu.
7. Click **Create** to create a new address.

The new address you have created is displayed in the **Manage Address** inventory panel.

- Related Documentation**
- Address and Address Groups Overview on page 43
 - Managing Addresses on page 46
 - Creating Address Groups on page 49
 - Managing Address Groups on page 51
 - Viewing the Security Policies Related to an Address on page 53

Managing Addresses

You can view, delete, or modify addresses listed in the **Manage Address** inventory panel.

To open the **Manage Address** inventory panel:

- From the **Security Design** task ribbon, select **Object Builder > Address**.

The **Manage Address** inventory panel is displayed. All addresses created are listed by default, in the graphical view.

You can either right-click or use the Actions Drawer to manage an address. For more information about using the Actions Drawer, see [Inventory Pages Overview](#)

You can perform the following tasks in the **Manage Address** space:

1. Viewing the Details of an Address on page 46
2. Modifying an Address on page 47
3. Deleting an Address on page 48
4. Searching for an Address on page 48

Viewing the Details of an Address

To view the details of an address:

1. From the **Security Design** task ribbon, select **Object Builder > Address**.

The **Manage Address** inventory panel is displayed.

2. Double-click the icon for the address whose details you intend to view.

The details of the address are displayed in the **Address Detailed View** window. The **Address Detailed View** window lists the name, description, and the IP address/host name specified for this address.

3. Click **Close**.

Modifying an Address

To modify an address you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Address**.

The **Manage Address** inventory panel is displayed.

2. Right-click the address you want to modify and click the **Modify Address** link from the contextual menu.

This action redirects you to the window that you used to create a new address. You can modify all the fields in this window, except the **Name** field.

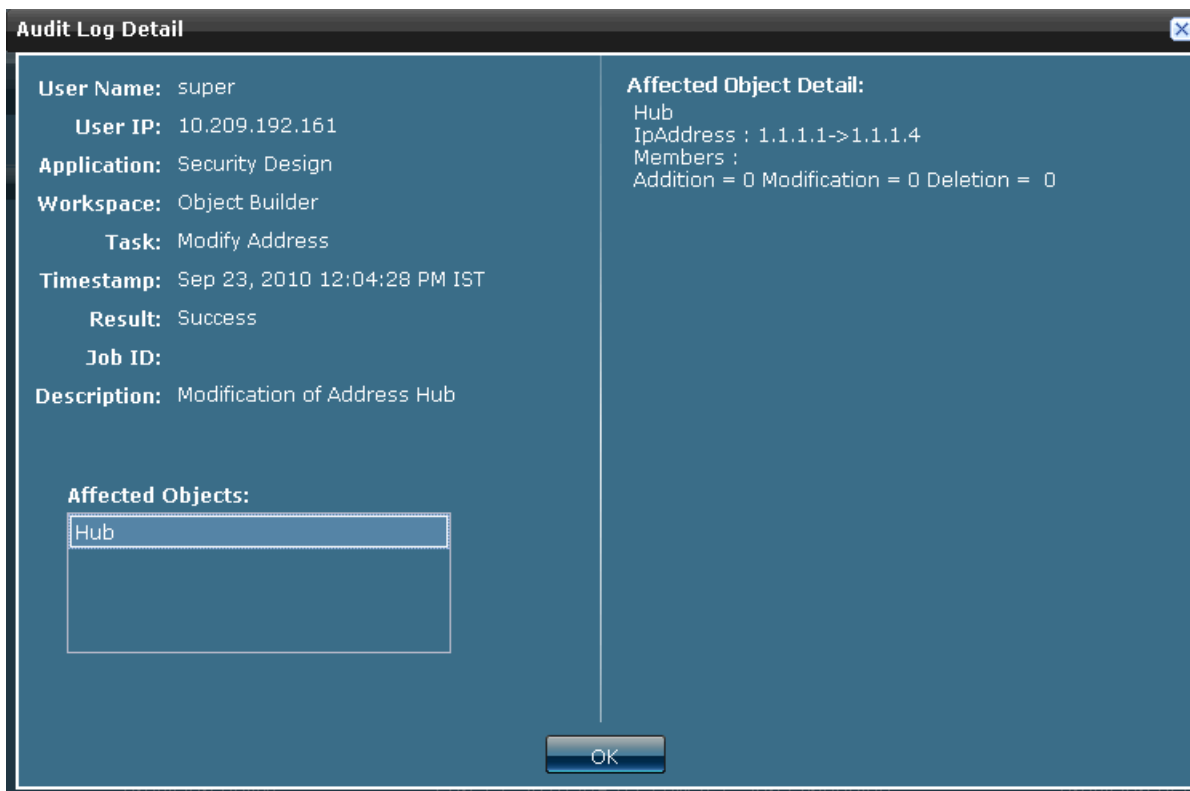
3. In the **Description** field, enter a new description.
4. Enter a new value for the **Address Type** you specified earlier in the appropriate field (**IP Address** field if you have chosen IP Address as the **Address Type** or hostname if you have chosen **Host Name** as the **Address Type**).
5. Click **Modify** to save the changes made to this address.



NOTE: You can view the details of the modified object in the Audit Logs workspace in the Network Application Platform application. You can see the difference in the object before and after the modification. For more information about viewing the Audit Logs, see [Viewing Audit Logs](#).

To view the audit log pertaining to the Modify Address task, double-click the audit log entry. The **Audit Log Detail** popup is displayed, as shown in Figure 23 on page 48.

Figure 23: Audit Log Detail Popup Window



Deleting an Address

To delete an address you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Address**.
The **Manage Address** inventory panel is displayed.
2. Right-click the address you want to delete and click the **Delete Addresses** link from the contextual menu.
The **Delete** dialog box is displayed.
3. Select the address you want to delete and click **Delete**.

Searching for an Address

To search for a address you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Address**.
The **Manage Address** inventory panel is displayed.
2. In the **Search** field, enter the name of address you want to search.
3. Click the magnifying glass icon next to **Search** field.

The **Manage Address** inventory panel is populated with the addresses matching your search criterion.

- Related Documentation**
- Address and Address Groups Overview on page 43
 - Creating Addresses on page 44
 - Creating Address Groups on page 49
 - Managing Address Groups on page 51
 - Viewing the Security Policies Related to an Address on page 53

Creating Address Groups

To create a new address group:

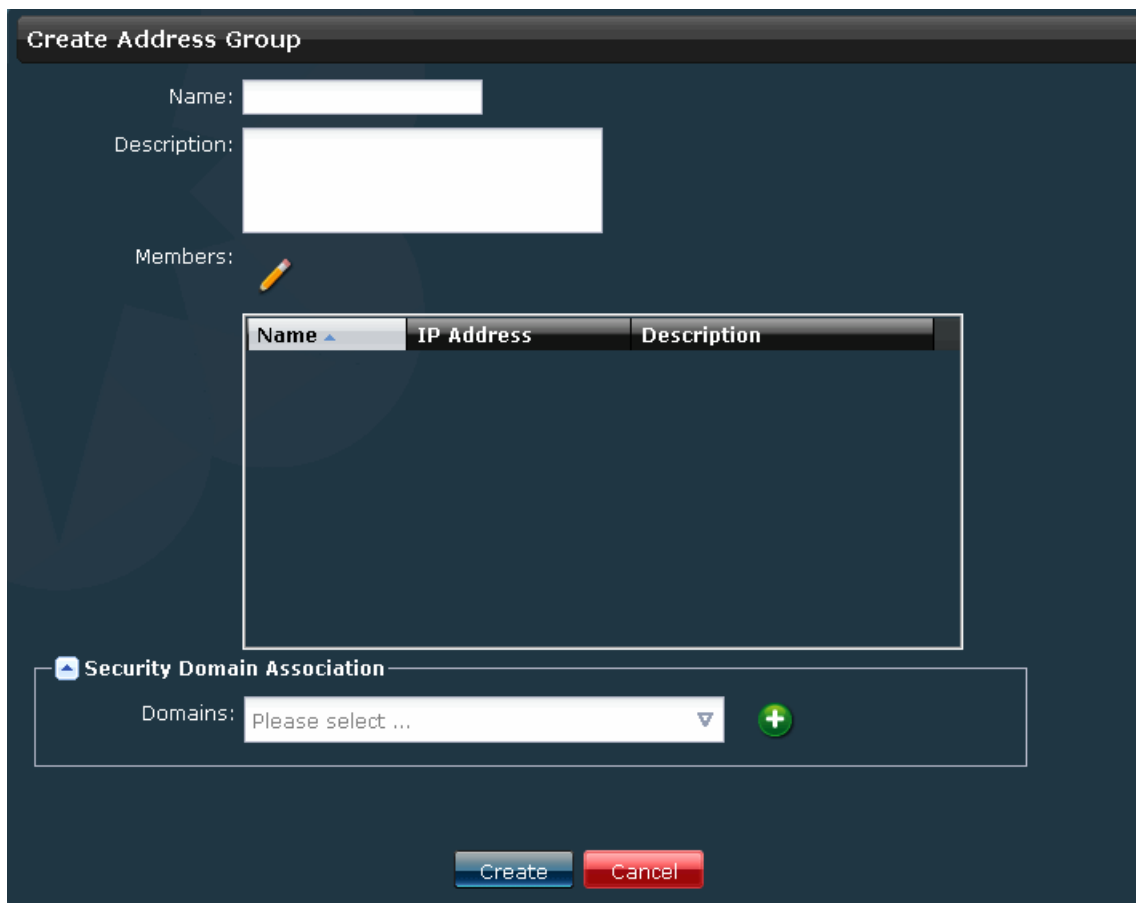
1. From the **Security Design** task ribbon, select **Object Builder > Address**.

The **Manage Address** inventory panel is displayed with the icons for all the addresses and address groups.

2. From the task ribbon, select the **Create Address Group** icon.

The **Create Address Group** window is displayed, as shown in Figure 24 on page 50.


Figure 24: Create Address Group Window



Create Address Group


Name:

Description:

Members: 

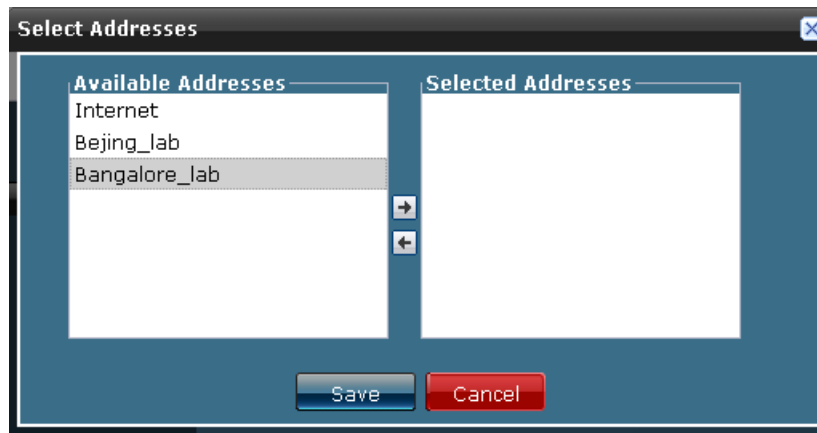
Name	IP Address	Description
------	------------	-------------

Security Domain Association

Domains: 

3. In the **Name** field, enter a name for the new address group.
4. In the **Description** field, enter a description for the new address group.
5. In the **Members** section of the **Create Address Group** window, click the **Add** icon to add a new address to this address group.
The **Select Addresses** dialog box is displayed.
6. From the **Available Addresses** section of the dialog box, select the address you want to group, and click the right arrow, as shown in Figure 25 on page 51.

Figure 25: Select Addresses Window



The address you have selected is displayed in the **Selected Addresses** section of the dialog box. Repeat Steps 5 and 6 to group more addresses in this address group.

7. Click **Create**.

The address group you have created is displayed in the **Manage Address** inventory panel.



NOTE: You cannot add an address group into a security topology. Address groups can only be associated to a security domain.

Related Documentation

- Address and Address Groups Overview on page 43
- Managing Address Groups on page 51
- Creating Addresses on page 44
- Managing Addresses on page 46
- Viewing the Security Policies Related to an Address on page 53

Managing Address Groups

You can view, delete, or modify address groups listed in the **Manage Address** inventory panel.

To open the **Manage Address** inventory panel:

- From the **Security Design** task ribbon, select **Object Builder > Address**.

The **Manage Address** inventory panel is displayed. All address groups created are listed by default, in the graphical view.

You can either right-click or use the Actions Drawer to manage an address group. For more information about using the Actions Drawer, see [Inventory Pages Overview](#)

You can perform the following tasks in the **Manage Address** space:

1. Viewing the Details of an Address Group on page 52
2. Modifying an Address Group on page 52
3. Deleting an Address Group on page 52
4. Searching for an Address Group on page 53

Viewing the Details of an Address Group

To view the details of an address group:

1. From the **Security Design** task ribbon, select **Object Builder > Address**.

The **Manage Address** inventory panel is displayed.

2. Double-click the icon for the address group whose details you intend to view.

The details of the address group are displayed in the **Address Detailed View** window.

The **Address Detailed View** window lists the name, description, and the addresses used in this address group.

3. Click **Close**.

Modifying an Address Group

To modify an address group you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Address**.

The **Manage Address** inventory panel is displayed.

2. Right-click the address group you want to modify and click the **Modify Address** link from the contextual menu.

This action redirects you to the window that you used to create a new address group. You can modify all the fields in this window, except the **Name** field.

3. In the **Description** field, enter the new description.
4. In the **Members** section, make appropriate changes to the addresses used in this group.
5. Click **Modify** to save the changes made to this address group.

Deleting an Address Group

To delete an address group you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Address**.

The **Manage Address** inventory panel is displayed.

2. Select the address you want to delete and click the **Delete Addresses** link from the **Actions** panel located on the left corner of the inventory panel.

The **Delete** dialog box is displayed.

3. Select the address group you want to delete and click **Delete**.

Searching for an Address Group

To search for an address group you have created:

1. From the **Security Design** task ribbon, select **Object Builder > Address**.

The **Manage Address** inventory panel is displayed.

2. In the **Search** field, enter the name of address group you want to search.
3. Click the magnifying glass icon next to **Search** field.

The **Manage Address** inventory panel is populated with the address groups matching your search criterion.

Related Documentation

- Address and Address Groups Overview on page 43
- Creating Address Groups on page 49
- Creating Addresses on page 44
- Managing Addresses on page 46
- Viewing the Security Policies Related to an Address on page 53

Viewing the Security Policies Related to an Address

To view all security policies related to an address:

1. From the Security Design task ribbon, select **Object Builder > Addresses**.

The **Manage Addresses** inventory panel is displayed.

2. Right-click the address whose related policies you want to view and click the **View Related Policies**.

This action redirects you to the **View All Rules** page. This page displays all rules that are associated with the address. You can view the direction of traffic, action performed on the traffic in the given direction, and whether the rule is enabled or disabled.



NOTE: For address, the domains of the selected addresses or its ancestor domain are searched in the source or destination of the rule.

To provision, decommission, modify, or delete the policy from the Actions drawer on the **View All Rules** page:

1. Select the check box next to the security policy that you want to provision, decommission, delete, or modify.
2. Click the Actions drawer and select the appropriate option from the drawer.

**Related
Documentation**

- [Address and Address Groups Overview on page 43](#)
- [Creating Addresses on page 44](#)
- [Managing Addresses on page 46](#)
- [Creating Address Groups on page 49](#)
- [Managing Address Groups on page 51](#)

PART 4

Security Whiteboard

- Security Whiteboard Overview on page 55
- Security Topology on page 57
- Security Policies on page 75
- NAT on page 103
- IPsec VPNs on page 121

Security Whiteboard Overview

You can use the Security Whiteboard workspace in Security Design to create a security topology, IPsec VPNs, and security policies.

With the Security Topology Designer you can create a graphical view of the security aspect of the network, which you can use as a base to create IPsec VPNs and security policies on the network.

You can also create Hub-And-Spoke and Site-To-Site VPNs in your security topology. The following objects are used to create an IPsec VPN:

- A VPN proposal, which defines a set of IKE proposals and IPsec proposals used for an IPsec VPN
- A VPN profile, which defines a VPN proposal, IKE settings, IPsec settings, and connectivity parameters used for an IPsec VPN

The Security Policy Designer Whiteboard is used to create security policies among multiple security domains. You can associate the applications hosted by a security domain and the addresses associated with the security domain in real time.

Related Documentation

- Security Topology Overview on page 57
- Security Policy Profiles Overview on page 75
- Security Policies Overview on page 83
- NAT Overview on page 103
- VPN Proposals Overview on page 121
- VPN Profiles Overview on page 130
- IPSec VPNs Overview on page 141

CHAPTER 8

Security Topology

- Security Topology Overview on page 57
- Creating a Security Topology on page 59
- Changing Topology Scapes on page 73

Security Topology Overview

Security topology is a logical map that depicts the interconnectivity between security devices, networks that are protected by security devices, and security domains that host these networks. Security topology serves as a foundation to create IPsec VPNs on your network and to configure firewall policies on your security devices.

You can use the Security Topology Designer to drag and drop security devices, networks, and security domains on the Security Topology Whiteboard. You can create links between networks and security devices and also between security devices. You can also use the Security Topology Designer to associate multiple networks to a security domain. This helps you to logically partition the network into various security domains based on your organization's security requirements.

A toolbar on the Security Topology Designer provides the functionality to save and edit a topology design, delete the components of a topology, and shrink the entire topology to a visible area in case you host a large topology. You can choose security devices, security domains, and addresses from their individual object chooser panels. You can configure the interfaces used for communication after the components are linked in the topology design.

Security Topology Designer provides the following features to make your topology design flexible and easy:

- Device groups
- Address groups
- Aggregate links between security devices
- CSV Import of addresses and security domains
- Search functionality to search specific objects in the topology

- Related Documentation**
- [Creating a Security Topology on page 59](#)
 - [Changing Topology Scapes on page 73](#)

Creating a Security Topology

You can view the Security Topology Designer Whiteboard in the Physical view or the Logical view. The Physical view has two representations: Topology and Tabular. The Logical view is represented only as a topology.

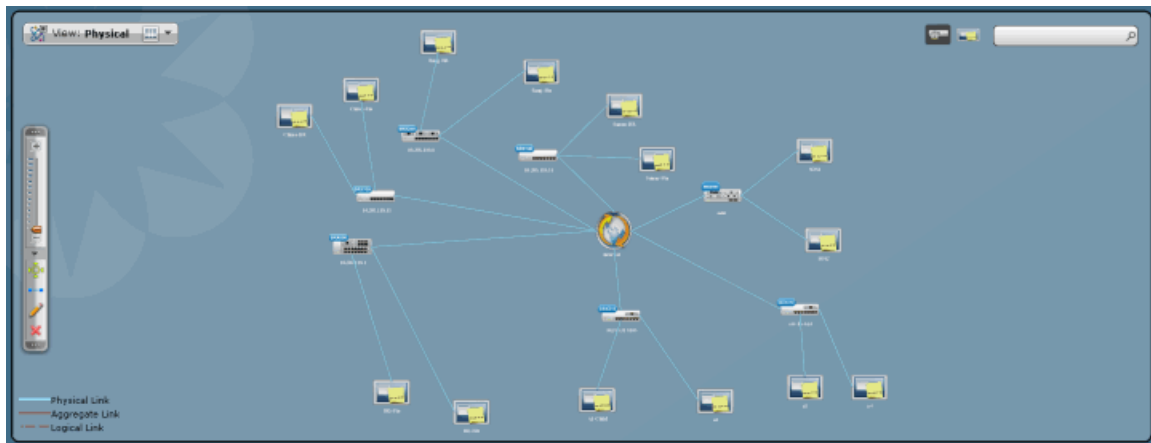
By default, the Security Topology Designer Whiteboard is displayed in the Physical view. You can add addresses and devices in this view and associate them with one another. To change to the Logical view, which displays the respective domain associations, click the drop-down on the floating toolbar and select the Logical view. For more information about changing the view, see “Changing Topology Scapes” on page 73.

To navigate to the Security Topology Designer Whiteboard:

1. From the **Security Design** task ribbon, select **Security Whiteboard** > **Security Topology**.

The **Security Topology Designer Whiteboard** is displayed, as shown in Figure 26 on page 60.

Figure 26: Security Topology: Physical View



The toolbar on the left displays a set of functionalities used to design the security topology, as listed in Table 3 on page 60.

Table 3: Security Topology Designer Toolbar Icons

Toolbar Icon	Icon Name	Description
	Show All	Fit the topology graph on the Security Topology Designer Whiteboard. This shrinks the entire topology to a visible area.
	Create Link	Create links between security devices or between a device and an address in the topology design.
	Modify	Modify the selected item of a topology design. For example, modify the interface on a link or modify an address.
	Delete	Delete links, security devices, or addresses in the topology design.

The Object chooser panel on the right displays the addresses and security devices that are available for creating the security topology.

You can use the Select:Page and Select:All links to select multiple objects simultaneously. You can use the Clear:Page and Clear:All links to de-select the objects that you have selected.

You can use the Search option, next to the Object chooser panel, to search for specific security devices, addresses, and device groups used to create the topology.

To view the security topology in the tabular view, click the Tabular view icon on the floating toolbar. The tabular view provides two display options: Devices and Links. By default, the tabular view displays the links in the security topology, as shown in Figure 27 on page 61.

Figure 27: Security Topology: Tabular View

Connected Interface	Connected Address/Device	Peer Device Interface	Actions
Cluster: 10.205.119.19 (2 Links)			
fe-1/0/3.0	10.205.119.11	fe-0/0/2.0	[Edit Icon]
reth0.0	Internet		[Edit Icon]
Device: 10.205.119.1 (0 Link)			
Device: sd-src240-1 (0 Link)			
Device: 10.205.119.11 (2 Links)			
fe-0/0/3.0	Internet		[Edit Icon]
fe-0/0/2.0	10.205.119.19	fe-1/0/3.0	[Edit Icon]

To view the links created to and from the device, click the Links icon on the floating toolbar. The columns available when the links are displayed, are listed in Table 4 on page 61.

Table 4: Tabular View: Link Columns

Connected Interface	Displays the interface of the device that forms the link.
Connected Address/Device	Displays the name of the address object or device that forms the link with the selected device.
Peer Device Interface	Displays the interface of the peer device used to interconnect the current device.
Actions	Displays an Edit icon that allows you to modify the interfaces used to form the link.

To view the devices in the security topology, click the Devices icon on the floating toolbar. The columns available in the tabular view when the devices are displayed, are listed in Table 5 on page 61

Table 5: Tabular View: Device Columns

Column	Description
Name	Displays the name of the device.
OS Version	Displays the version of the operating system on the device.
Platform	Displays the platform of the device.
IP Address	Displays the IP address of the device.
Connection Status	Displays the connection status of the device.

Table 5: Tabular View: Device Columns (*continued*)

Column	Description
Managed Status	Displays the managed status of the device.

You can drag and drop and interconnect the devices and addresses in the following ways:

1. Dragging and Dropping Security Devices in the Physical View on page 62
2. Connecting Security Devices and Device Clusters in the Physical View on page 64
3. Dragging and Dropping Addresses in the Physical View on page 65
4. Associating Addresses with Security Devices and Device Clusters in the Physical View on page 65
5. Creating Device Groups in the Physical View on page 66
6. Moving Ungrouped Devices into a Device Group in the Physical View on page 66
7. Removing Devices from a Device Group in the Physical View on page 67
8. Searching for Devices and Addresses in the Topology in the Physical View on page 67
9. Creating Group Links on Device Groups in the Physical View on page 68
10. Importing Objects in the Physical View on page 68
11. Exporting the Security Topology in the Physical View on page 69
12. Adding Security Devices in the Tabular View on page 70
13. Interconnecting Security Devices in the Tabular View on page 70
14. Connecting Addresses in the Tabular View on page 70
15. Modifying Interfaces in the Tabular View on page 71
16. Deleting Links in the Tabular View on page 71
17. Deleting Devices in the Tabular View on page 71
18. Searching for Devices in the Topology in the TabularView on page 71
19. Searching for Links in the Topology in the TabularView on page 71
20. Exporting Security Device Links in the Tabular View on page 72
21. Exporting Security Devices in the Tabular View on page 72
22. Importing Objects in the Tabular View on page 73

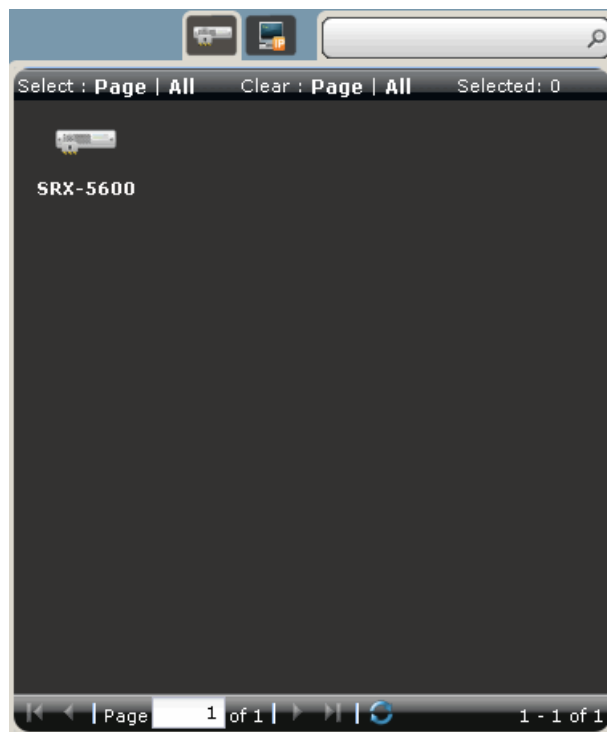
Dragging and Dropping Security Devices in the Physical View

To drag and drop security devices:

1. From the Object chooser panel, click the **Device** object icon.

All devices available to create the security topology are listed in the collapsible Device chooser, as shown in Figure 28 on page 63.

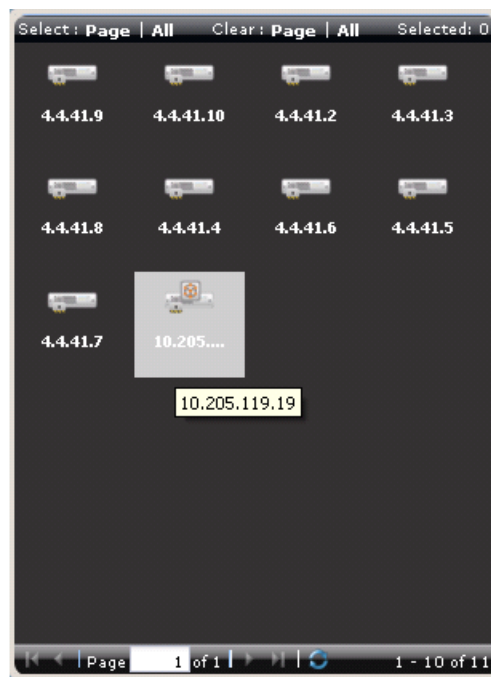
Figure 28: Device Chooser Panel



2. From the Device chooser panel, drag the security devices to the Security Topology Whiteboard.

In case of a device cluster, you can identify the device cluster by an overlay icon, as shown in Figure 29 on page 64. Also, cluster devices are displayed with a Cluster tag when they are a part of any provisioning process.

Figure 29: Cluster Devices Overlay



Connecting Security Devices and Device Clusters in the Physical View

To connect security devices:

1. Click the Create Link icon on the toolbar and draw a line between security devices. This line represents the link between these security devices.

The link created between security devices is a logical link that may pass through other networking devices such as routers and switches.

2. Right-click the link between the security devices and select **Configure Interface**.

The **Link Properties** page is displayed.

3. On the **Link Properties** page, add an interface from the **Available Interfaces** section to the **Selected Interfaces** section on one end of the link.
4. Repeat Step 2 and Step 3 for the other end of the link and click **Configure**.



NOTE: The overlay icons indicate whether the device interfaces are configured. For example, a yellow triangle with a black exclamation point specifies that the device interface is not configured and a green circle with a white check mark specifies that the device interface is configured.

Dragging and Dropping Addresses in the Physical View

To drag and drop addresses:

1. From the Object chooser panel, select the **Address** object icon.

All address groups available to create a security topology are listed in the collapsible Address chooser panel.
2. From the Address chooser panel, drag and drop addresses and address groups to the Security Topology Designer Whiteboard.



NOTE: You can use the Internet address object to define a topology that is spread across multiple branches or locations. If the branches are connected through the Internet, you can use the Internet address object as a common point for all your branch topologies to connect to each other and constitute the entire topology.

Associating Addresses with Security Devices and Device Clusters in the Physical View

To associate addresses with security devices:

1. Click the Create Link icon on the toolbar and draw a line between the security device and the address object. This line represents the link between the security device and the address object.

The link created between a security device and an address is a logical link that may pass through other networking devices such as routers and switches.

2. Right-click the link between a security device and address object and select **Configure Interface**.

The **Link Properties** page is displayed.

3. On the **Link Properties** page, add an interface from the **Available Interfaces** section to the **Selected Interfaces** section on the endpoint that has a device.
4. Click **Configure**.

This link specifies that the address is protected by the firewall through the specified interface.

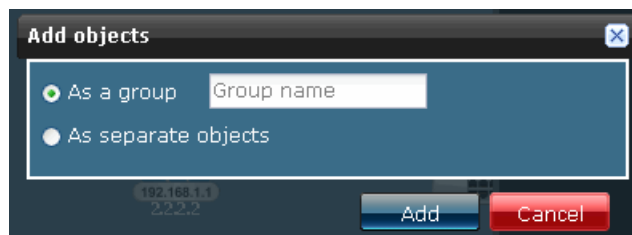
Creating Device Groups in the Physical View

To create device groups:

1. Select multiple devices from the Device chooser panel and drag and drop them to the Security Topology Designer Whiteboard.

The **Add Objects** page is displayed, as shown in Figure 30 on page 66.

Figure 30: Add Objects Window



2. Enter a name for the device group.
3. Click **Add**.

The device group is displayed on the Security Topology Designer Whiteboard.

4. Click the + symbol on the upper-left corner of the device group in the Security Topology Designer Whiteboard To view the devices associated with a device group.

A blue rectangular box is displayed; this box bounds all devices associated with this device group.



NOTE: You can also add devices that are already a part of the security topology to a device group.

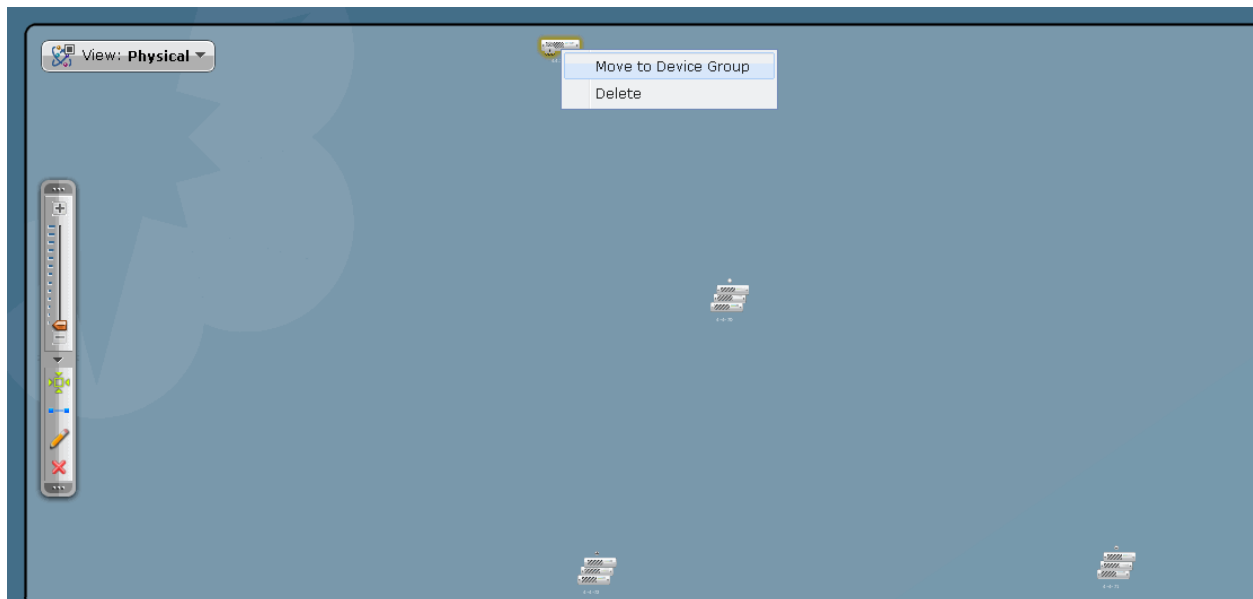
Moving Ungrouped Devices into a Device Group in the Physical View

To move an ungrouped device on the topology whiteboard to a device group:

1. Right-click the ungrouped device and select **Move to Device Group**, as shown in Figure 31 on page 67.

The **Move to Device Group** pop-up window is displayed.

Figure 31: Adding Ungrouped Devices into a Group



2. From the **Device Group** list, select the device group to which you want to move this device.
3. Click **Move**.

The device is moved into the selected device group.

Removing Devices from a Device Group in the Physical View

To remove devices from a device group, right-click the device you want to delete from the device group and select **Detach Device from Device Group**.

The device is removed from the device group.

Searching for Devices and Addresses in the Topology in the Physical View

To search for devices or addresses in the topology:

1. In the Search field next to the object chooser icons, enter the name of the device or address that you want to search for.
2. Click the magnifying glass icon next to the Search field.

All devices or addresses that match the search criteria are highlighted on the Security Topology Designer Whiteboard.

If your search criteria corresponds to a device within a device group, the group hosting the object searched for expands and highlights the object.



NOTE: You can also use search expressions such as *, + and ? to perform a search.

Creating Group Links on Device Groups in the Physical View

To create group links on device groups:

1. Click the Create Link icon on the toolbar and draw a line between the device group and the device that you want to link.

The interfaces that are shown in the device group are a union of all available interfaces in the device group.

2. Right-click the link between the device group and the device and select **Configure Interface**.

The **Link Properties** page is displayed.



NOTE: If you use the **Configure Interface** option for the entire device group, all device interfaces in the device group are configured on a global basis. To configure unique interfaces for each device on the device group, expand the device group by clicking the + symbol on the top left corner of the device group, and configure the interface for each device.

3. On the **Link Properties** page, add an interface from the **Available Interfaces** section to the **Selected Interfaces** section on the endpoint that has a device.
4. Repeat Step 2 and Step 3 for the other end of the link and click **Configure**.

This link is displayed in a different color.



NOTE: You can view the number of individual links configured by placing the cursor on the link.

Importing Objects in the Physical View

To add addresses and security domains by using CSV import:

1. Right-click the Security Topology Designer Whiteboard and select **Import Topology from CSV**.

The **Select CSV File** page is displayed.

2. Click **Browse** and upload the CSV file from your storage location.

This CSV file contains the addresses associated with the respective devices and security domains. The addresses and security domains uploaded are available in the respective Object chooser panels. It also contains the device-to-thadevice group associations.

3. You can also choose to view a sample CSV file by clicking the **View Sample CSV** link in the **Select CSV File** window.

The fields available in the sample CSV file are as described in Table 6 on page 69

Table 6: Adding Addresses and Security Domains Using CSV Import

Field Name	Field Description
Name	Name of the address object.
Description	Description of the address object.
Type	Type of address that you want to add to the topology.
IP Address	IP address of the network. It is used if the address type is an IP Address.
Subnet Mask	Subnet mask of the network specified by the address. This field is used if the address type is a Network.
IP Range Min	First IP address in the range of IP addresses specified. It is used if the address type is IP Range.
IP Range Max	Last IP address in the range of IP addresses specified. It is used if the address type is IP Range.
Hostname	Hostname, if the address type is a Hostname.
Security Domain	Security domain with which the address is associated.
Device	Security device that you want to use to protect the network. In case of a device cluster, you can specify either the primary or the secondary device.
Interface	Interface through which the address is associated with the security device.
Endpoint 1	First endpoint of a link that is a device.
Endpoint 2	Second endpoint of a link that is a device or an address.
Interface List 1	The interface of the first device.
Interface List 2	The interface of the second device. This need not be populated if the second endpoint is an address.



NOTE: You cannot upload address groups by using the CSV import functionality. You can upload the IP address, network, IP range, and hostname.

Exporting the Security Topology in the Physical View

To export the security topology:

1. Right-click the Security Topology Designer Whiteboard and select **Import Topology to CSV**.

The **Export Security Topology** dialog box is displayed.

2. Click **Export All**.

A new job is created and the job ID is displayed in the Job Status dialog box.

3. Click the **Download** link to download the security topology.

Adding Security Devices in the Tabular View

To add security devices in the tabular view:

1. Click the **Add Device** tab in the tabular view of the security topology.

The **Select Devices** page is displayed.

2. Select the check boxes next to the security devices that you want to add.
3. Click **Add**.

All security devices that you have added are now available in the tabular view.

Interconnecting Security Devices in the Tabular View

To interconnect security devices in the tabular view:

1. Click the Links icon on the floating toolbar.
2. Click the **Connect Device** link corresponding to the link of the security device that you want to interconnect to another security device.

The **Select Device** page is displayed. This page displays all devices that are discovered and are in sync.

3. Select the radio button next to the device that you want to interconnect and click **Next**.

The **Configure Interfaces** page is displayed.

4. Configure the device interfaces on this page and click **Create**.

The link is displayed under the appropriate security device, in the tabular view.



NOTE: You can also use the Search functionality on the **Select Devices to Connect** page to search for specific devices that you want to add.

Connecting Addresses in the Tabular View

To connect a link of the security device to an address in the tabular view:

1. Click the Links icon on the floating toolbar.
2. Click the **Connect Address** link corresponding to the link of the security device to which you want to connect the address.

The **Select Address** page is displayed.

3. Select the radio button next to the address that you want to connect to the security device and click **Next**.

The **Configure Interfaces** page is displayed.

4. Configure the device interface on this page and click **Create**.

The link is displayed under the appropriate link of the security device, in the tabular view.

Modifying Interfaces in the Tabular View

To modify a link on a security device:

1. Click the Links icon on the floating toolbar.
2. Click the Edit icon corresponding to the security device link that you want to modify.

The **Link Properties** dialog box is displayed.

3. Make necessary changes to the link and click **Configure**.

Deleting Links in the Tabular View

To delete a link on a security device:

1. Click the Links icon on the floating toolbar.
2. Select the check box next to the link of the security device that you want to delete and click the **Delete** tab.

Deleting Devices in the Tabular View

To delete a link on a security device:

1. Click the Devices icon on the floating toolbar.
2. Select the check box next to the security device that you want to delete and click the **Delete** tab.

Searching for Devices in the Topology in the TabularView

To search for devices in the topology in the tabular view:

1. Click the Devices icon on the floating toolbar.
2. Enter the name of the device that you want to search for in the Search field.
3. Click the magnifying glass icon next to the Search field.

All devices that match the search criteria are displayed in the tabular view.

Searching for Links in the Topology in the TabularView

To search for links in the topology in the tabular view:

1. Click the Links icon on the floating toolbar.
2. Enter the name of the link that you want to search for in the Search field.
3. Click the magnifying glass icon next to the Search field.

All links that match the search criteria are displayed in the tabular view.

Exporting Security Device Links in the Tabular View

To export a set of security device links from the security topology:

1. Click the Links icon on the floating toolbar.
2. Select the check boxes next to the security device links that you want to export and click the **Export** tab.

The **Export Security Topology** dialog box is displayed, as shown in Figure 32 on page 72.

Figure 32: Export Security Topology Dialog Box



3. Click **Export Selected** to export only those links that you have selected currently.
4. Click **Export All** to export all links in the security topology.

A new job is created and the job ID is displayed in the Job Status dialog box.

5. Click the **Download** link to download the security device links.

Exporting Security Devices in the Tabular View

To export a set of security devices from the security topology:

1. Click the Devices icon on the floating toolbar.
2. Select the check boxes next to the security devices that you want to export and click the **Export** tab.

The **Export Security Topology** dialog box is displayed.

3. Click **Export Selected** to export only those security devices that you have selected currently.
4. Click **Export All** to export all security devices in the security topology.

A new job is created and the job ID is displayed in the Job Status dialog box.

5. Click the **Download** link to download the security devices.

Importing Objects in the Tabular View

To add objects by using CSV import:

1. Go to the tabular view of the security topology.
2. Click the **Import** tab.

The **Select CSV File** page is displayed.

3. Click **Browse** and upload the CSV file from your storage location.

This CSV file contains the addresses associated with the respective devices and security domains. The addresses and security domains uploaded are available in the respective Object chooser panels. It also contains the device-to-device group associations.

4. Click the **View Sample CSV** link on the **Select CSV File** page to view a sample CSV file by clicking.



NOTE: You cannot upload address groups by using the CSV import functionality. You can upload the IP address, network, IP range, and hostname.

Related Documentation

- Security Topology Overview on page 57
- Changing Topology Scapes on page 73

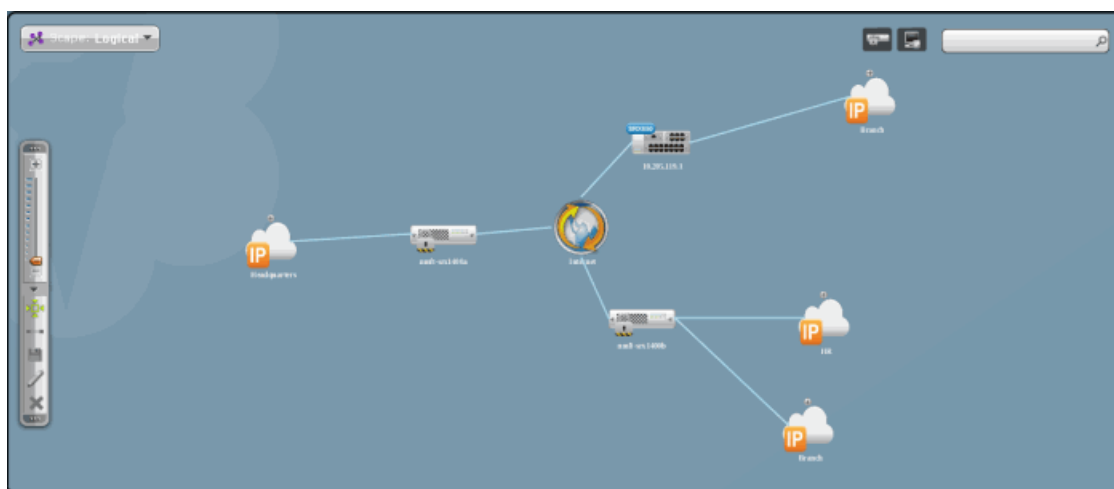
Changing Topology Scapes

To change the scape in the Security Topology Designer Whiteboard:

1. From the **Security Design** task ribbon, select **Security Whiteboard > Security Topology**.
The Security Topology Designer Whiteboard is displayed in the Physical scape.
2. From the scape selector on the top-left side of the whiteboard, select **Logical**.

The Logical scape of the topology is displayed, as shown in Figure 33 on page 74. You can view the device association with the security domains, based on the address associations with security domains.

Figure 33: Security Topology Designer Whiteboard: Logical Scape



- Related Documentation**
- Security Topology Overview on page 57
 - Creating a Security Topology on page 59

CHAPTER 9

Security Policies

- Security Policy Profiles Overview on page 75
- Creating Security Policy Profiles on page 77
- Managing Security Policy Profiles on page 80
- Security Policies Overview on page 83
- Managing Security Policies on page 84
- Creating Security Policies on page 87
- Deploying Security Policies on page 93
- Decommissioning Security Policies on page 98
- Viewing all Rules for a Security Policy on page 100
- Ordering the Rules in a Security Policy on page 101

Security Policy Profiles Overview

You can use the Policy Profile Wizard to create an object that specifies the basic settings of a security policy. You can configure these basic settings using the Policy Profile Wizard:

- Log options
 - Log at session initiation
 - Log at the close of a session
 - Enable counting for the number of packets, bytes, and sessions that enter the firewall for a given policy.
- Firewall authentication schemes
 - Pass through authentication
 - Web authentication
- Traffic redirection options
 - No traffic redirection
 - Redirect Wx — Wx redirection for packets that arrive from the LAN

- Reverse Redirect Wx — Wx redirection for the reverse flow of packets that arrive from the WAN.

When a policy profile is created, Junos Space creates an object in the Junos Space database to represent the policy profile. You can use this object to create security policies.

Junos Space provides two Juniper Networks defined policy profiles:

1. All logging enabled — This policy profile has all logging options enabled. Logging is enabled at session initiation and the close of the session. Counters are also enabled to collect the number of packets, bytes, and sessions that enter the firewall for a given policy. The alarm thresholds are set to 100 Bytes/second and 100 Kilobytes/minute.
2. All logging disabled — This policy profile has all logging options disabled.



NOTE: You cannot modify or delete Juniper Networks defined policy profiles. You can only copy them and create new policy profiles.

**Related
Documentation**

- [Creating Security Policy Profiles on page 77](#)
- [Managing Security Policy Profiles on page 80](#)

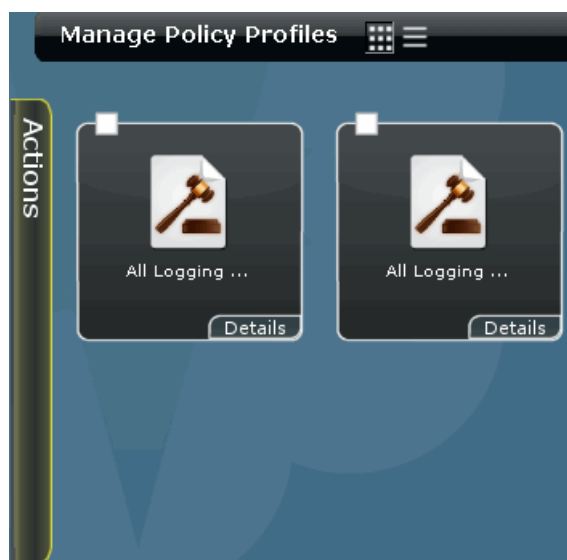
Creating Security Policy Profiles

To create a new security policy profile, perform the following steps:

1. From the **Security Design** task ribbon, select **Security Whiteboard > Security Policy > Policy Profiles**.

The **Manage Policy Profiles** inventory panel is displayed with the icons for all the policy profiles, as shown in Figure 34 on page 77. The first two policy profiles listed here are Juniper Networks defined policy profiles.

Figure 34: Manage Policy Profiles Inventory Panel



2. From the task ribbon, select the **Create Profile** icon.

The **New Policy Profile** window is displayed, as shown in Figure 35 on page 78.

Figure 35: New Policy Profile Window

New Policy Profile

Name:

Description:

Logging **Authentication** **Redirect**

☐ Log At Session Init Alarm Threshold: Bytes/Second

☐ Log At Session Kilobytes/Minute

☐ Enable Count

3. In the **Name** field, enter a name for the new policy profile.
4. In the **Description** field, enter a description for the new policy profile.
5. Use the **Logging** section of the **New Policy Profile** window to configure the log options for this policy profile. You can configure the following log options:
 - If you want to log the events when the session is created, select the **Log at Session Init** check box.
 - If you want to log the events when the session is closed, select the **Log at Session Close** check box.
 - If you want to enable counting, select the **Enable Count** check box.

If counting is enabled, counters are collected for the number of packets, bytes, and sessions that enter the firewall for a given policy
6. Use the **Authentication** section of the **New Policy Profile** window to provide authentication to clients. You can configure the following authentication options:
 - a. If you want to use Web Authentication, select **Web** in the **Authentication Type** drop-down menu and enter the host name or IP address of the client used to perform Web authentication in the **Web Authentication Client** field.
 - b. If you want to use Pass Through Authentication, select **Pass Through** in the **Authentication Type** drop-down menu and enter the host name or IP address of the client used to perform Pass Through authentication in the **Pass Through Client** field.

- c. If you do not want to use any authentication, select **None** in the **Authentication Type** drop-down menu.
- d. If you want to use Infranet Authentication, select **Infranet** in the **Authentication Type** drop-down menu and enter the Redirect URL in the **Redirect URL** field. You can also select the appropriate redirect options from the respective checkboxes, as shown in Figure 36 on page 79.

Figure 36: New Policy Profile: Infranet Authentication

The screenshot shows the 'New Policy Profile' window with a dark blue background. At the top, there's a title bar 'New Policy Profile'. Below it, there are two text input fields: 'Name:' and 'Description:'. Underneath these fields are three tabs: 'Logging' (with a calendar icon), 'Authentication' (with a key icon), and 'Redirect' (with a red X icon). The 'Authentication' tab is selected. Inside this tab, there's a dropdown menu for 'Authentication Type' with 'Infranet' selected. Below the dropdown, there are three radio buttons for 'Redirect': 'None' (selected), 'All Traffic', and 'Unauthenticated Traffic'. At the bottom of the tab, there's a text input field for 'Redirect URL' with the placeholder text 'Eg: http://juniper.net'. At the very bottom of the window, there are two buttons: 'Create' (blue) and 'Cancel' (red).

- 7. Use the **Redirect** section of the **New Policy Profile** window to configure the traffic redirection options for this policy profile, as shown in Figure 37 on page 80:

Figure 37: New Policy Profile: Redirect Section

New Policy Profile

Name:

Description:

Logging Authentication **Redirect**

Redirect: ☒ None
☐ Redirect Wx
☐ Reverse Redirect Wx

Create Cancel

- If you want traffic to be redirected, select the **None** check box.
- If you want to enable Wx redirection for packets that arrive from the LAN, select the **Redirect Wx** check box.
- If you want to enable Wx redirection for the reverse flow of packets that arrive from the WAN, select the **Reverse Redirect Wx** check box.

8. Click **Create**.

The new security policy profile you have created is displayed in the **Manage Policy Profiles** inventory panel.



NOTE: You can select a security policy profile as a default profile used to create security policies. The default profile is automatically populated in the Policy drop-down menu during security policy creation. To select a security policy profile as default, right-click the policy profile and select **Set as Default** from the contextual menu. All subsequent policy creation tasks will show the default policy profile automatically, in the Policy drop-down menu.

Related Documentation

- Security Policy Profiles Overview on page 75
- Managing Security Policy Profiles on page 80

Managing Security Policy Profiles

You can view, modify, copy or delete security policy profiles listed in the **Manage Policy Profiles** inventory panel.

To open the **Manage Policy Profiles** inventory panel:

- From the **Security Design** task ribbon, select **Security Whiteboard > Security Policy > Policy Profiles**.

The **Manage Policy Profiles** inventory panel is displayed. All security policy policies created is listed by default, in the graphical view.

You can either right-click or use the Actions Drawer to manage a security policy profile. For more information about using the Actions Drawer, see [Inventory Pages Overview](#)

You can perform the following tasks in the **Manage Policy Profiles** space:

1. Viewing the Details of a Security Policy Profile on page 81
2. Modifying a Security Policy Profile on page 82
3. Copying a Security Policy Profile on page 82
4. Deleting a Security Policy Profile on page 82
5. Searching for a Security Policy on page 83

Viewing the Details of a Security Policy Profile

To view the details of a security policy profile:

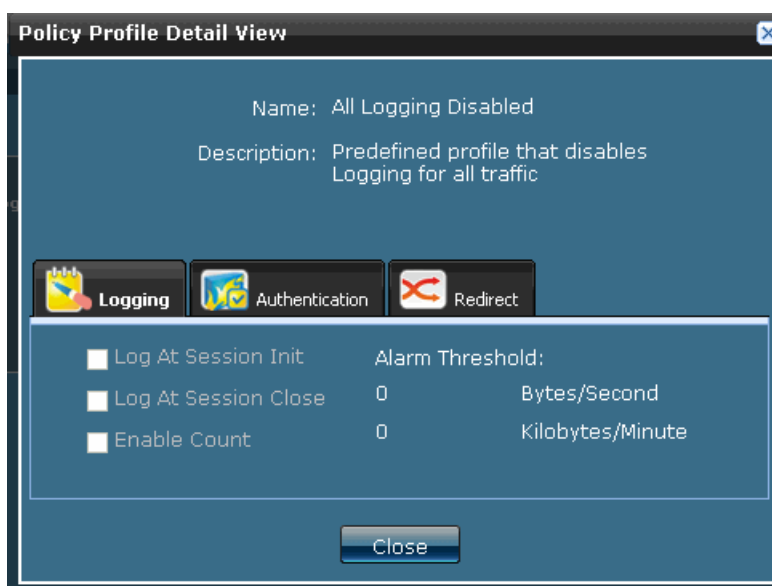
1. From the **Security Design** task ribbon, select **Security Whiteboard > Security Policy > Policy Profiles**.

The **Manage Policy Profiles** inventory panel is displayed.

2. Double-click the icon for the security policy profile whose details you intend to view.

The details of the security policy profile are displayed in the **Policy Profile Detail View** window, as shown in Figure 38 on page 81.

Figure 38: Policy Profile Detail View Window



3. Click **Close**.

Modifying a Security Policy Profile

To modify a security policy profile you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > Security Policy > Policy Profiles**.

The **Manage Policy Profiles** inventory panel is displayed.

2. Right-click the security policy profile that you want to modify and select **Modify Policy Profile** from the contextual menu.

The **Modify Policy Profile** window is displayed. You can modify all the fields on this window, except the **Name** field.

3. Make appropriate changes to security policy and click **Modify**.

Copying a Security Policy Profile

To copy a security policy profile you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > Security Policy > Policy Profiles**.

The **Manage Policy Profiles** inventory panel is displayed.

2. Right-click the security policy profile that you want to copy and select **Copy Policy Profile** from the contextual menu.

The **Copy Policy Profile** window is displayed.

3. In the **Name** field, enter a name for the new security policy profile.
4. Edit the other fields of the security policy profile if you intend to do so.
5. Click **Create** to create a new security policy profile.

The new security policy profile you have created is displayed in the **Manage Policy Profiles** Inventory panel.

Deleting a Security Policy Profile

To delete a security policy profile you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > Security Policy > Policy Profiles**.

The **Manage Policy Profiles** inventory panel is displayed.

2. Right-click the security policy profile that you want to delete and select **Delete Policy Profile** from the contextual menu.

The **Delete Policy Profile** window is displayed.

3. Select the security policy profile you want to delete and click **Delete**.

Searching for a Security Policy

To search for a security policy profile you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > Security Policy > Policy Profiles**.

The **Manage Policy Profiles** inventory panel is displayed.

2. In the **Search** field, enter the name of security policy profile you want to search.
3. Click the Magnifying glass icon next to **Search** field.

The **Manage Policy Profiles** inventory panel is populated with the security policy profiles matching your search criterion.

Related Documentation

- Security Policy Profiles Overview on page 75
- Creating Security Policy Profiles on page 77

Security Policies Overview

You can use the Policy Designer Whiteboard to create security policies between security domains. A security policy is a collection of rules defined to permit or deny application data between two security domains. You can use security policies to control the flow of application data from one security domain to another by specifying the applications that are allowed or denied to pass data to a security domain. You can also specify the direction in which the application data is allowed or denied i.e. from domain 1 to domain 2 or domain 2 to domain 1.

The basic settings of a security policy are obtained from the policy profile. The basic settings include log options, firewall authentication schemes, and traffic redirection options.

The advanced settings of a security policy include rule action (permit/deny) and rule direction (both directions/one direction) for a security policy.

In general, to configure a security policy using the Policy Designer Whiteboard:

1. Drag and drop the security domains that are the end points of a security policy.
2. Create a policy between the security domains that are the end points of a security policy.
3. Configure a security policy that defines rules to allow or deny application data in specific directions.

Related Documentation

- Creating Security Policies on page 87
- Managing Security Policies on page 84
- Deploying Security Policies on page 93
- Decommissioning Security Policies on page 98

- Viewing all Rules for a Security Policy on page 100

Managing Security Policies

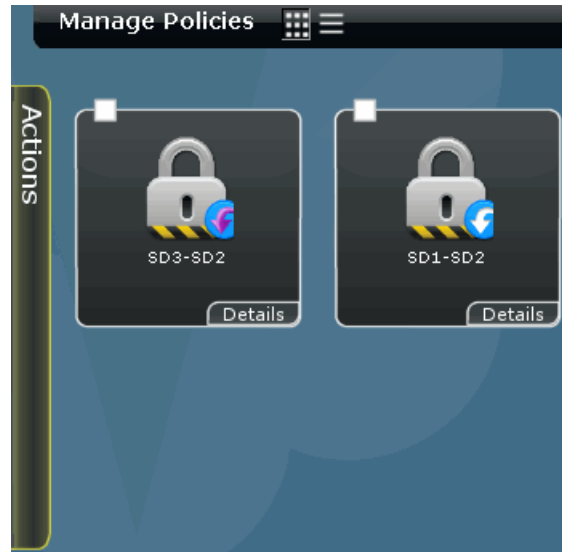
You can view, modify or delete security policies listed in the **Manage Policies** inventory panel.

To open the **Manage Policies** inventory panel:

- From the **Security Design** task ribbon, select **Security Whiteboard > Security Policy**.

The **Manage Policies** inventory panel is displayed, as shown in Figure 39 on page 84. All security policies created are listed by default, in the tabular view.

Figure 39: Manage Policies Inventory Panel



You can either right-click or use the Actions Drawer to manage a security policy. For more information about using the Actions Drawer, see Inventory Pages Overview

You can perform the following tasks in the **Manage Policies** space:

1. Viewing the Details of a Security Policy on page 84
2. Modifying a Security Policy on page 85
3. Deleting a Security Policy on page 85
4. Searching for a Security Policy on page 85
5. Viewing Job Details on page 85

Viewing the Details of a Security Policy

To view the details of a security policy you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard>Security Policy**.

The **Manage Policies** inventory panel is displayed.

2. Double-click the icon for the security policy whose details you intend to view.

The details of the security policy are displayed in the **Security Policy Details** window.

3. Click **Close**.

Modifying a Security Policy

To modify a security policy you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > Security Policy**.

The **Manage Policies** inventory panel is displayed.

2. Right-click the security policy which you want to modify and select **Modify Policy** from the contextual menu.

The **Modify Policy** window is displayed. You can modify all the fields on this window, except the **Name** field.

3. Make appropriate changes to security policy and click **Modify**.

Deleting a Security Policy

To delete a security policy you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > Security policy**.

The **Manage Policies** inventory panel is displayed.

2. Right-click the security policy which you want to delete and select **Delete Policy** from the contextual menu.

The **Delete Policy** window is displayed.

3. Select the security policy you want to delete and click **Delete**.

Searching for a Security Policy

To search for a security policy you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > Security Policy**.

The **Manage Policies** inventory panel is displayed

2. In the **Search** field, enter the name of security policy you want to search.
3. Click the magnifying glass icon next to **Search** field.

The **Manage Policies** inventory panel is populated with the security policies matching your search criterion.

Viewing Job Details

To view the job details of the policy that is provisioned:

1. From the **Security Design** task ribbon, select **Job Management > Manage Jobs**.

The **Manage Jobs** inventory panel is displayed

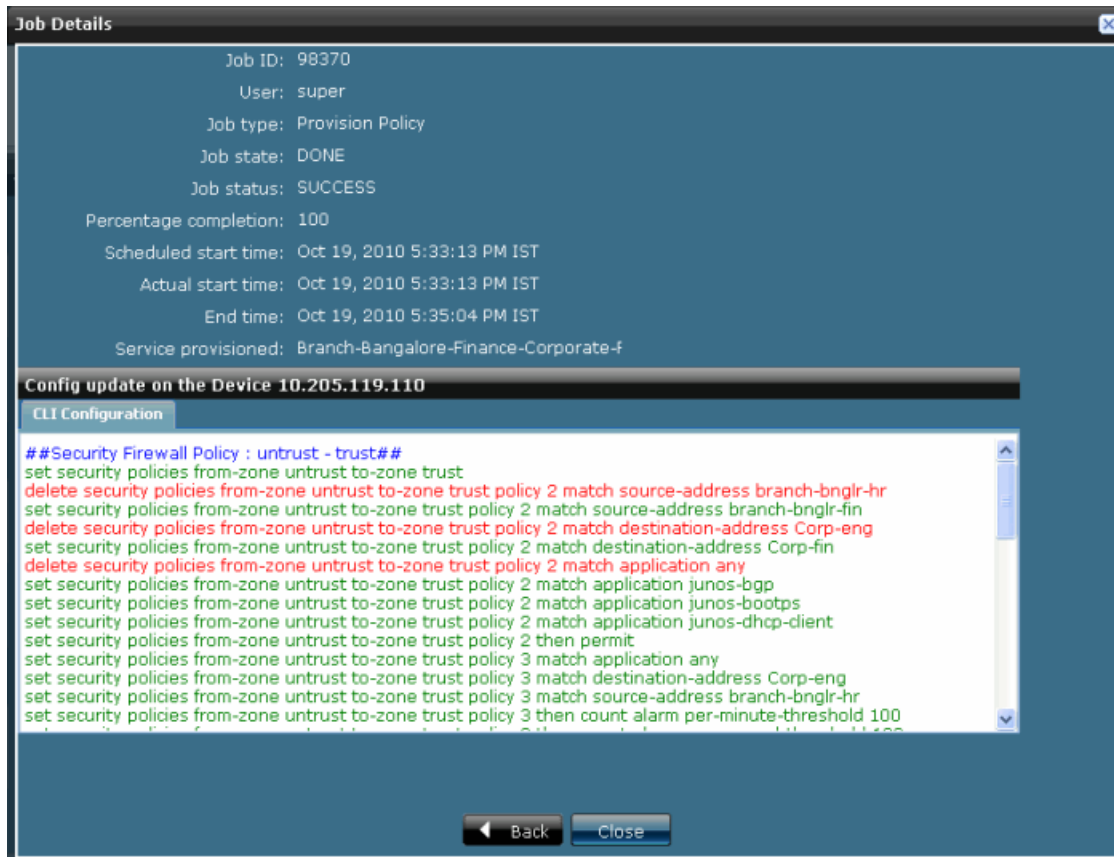
2. Double-click the security policy whose job details you want to view.

The **Job Details** window is displayed.

3. In the **Device Provisioning Details** section, click the **View** link corresponding to the device.

The CLI format of the configuration pushed to the device is displayed, as shown in Figure 40 on page 86.

Figure 40: Job Details Window



Related Documentation

- Security Policies Overview on page 83
- Creating Security Policies on page 87
- Deploying Security Policies on page 93
- Decommissioning Security Policies on page 98
- Viewing all Rules for a Security Policy on page 100

Creating Security Policies

To create security policies between security domains:

1. From the **Security Design** task ribbon, select **Security Whiteboard** > **Security Policy** > **Design Policy**.





The **Security Policy Designer Whiteboard** is displayed, as shown in Figure 41 on page 87.

Figure 41: Security Policy Designer Whiteboard



The toolbar on the left displays a set of functions you can perform to design security policies, as listed in Table 7 on page 87.

Table 7: Security Policy Designer Toolbar Icons

Toolbar Icon	Icon Name	Description
	Show All	Fit the policy graph on the Policy Designer Whiteboard
	Create Policy	Create a policy between security domains
	Save Coordinates	Save a security policy design
	Delete	Delete security policies or security domains in the security policy design

2. From the right panel, click the Security Domains object icon.
All security domains and sub-domains are available to create a security policy are listed in the Security Domain chooser.
3. Drag and drop the first security domain that is a part of the security policy to the Policy Designer Whiteboard.

4. Drag and drop the second security domain that is a part of the security policy to the Policy Designer Whiteboard.
5. Select the Create Policy icon and draw a line between security domains.
This line represents the security policy that is created between the security domains.
6. To configure a policy between the security domains, right-click the line and select **Create Policy** from the contextual menu.

The **Create Policy** window is displayed, as shown in Figure 42 on page 88.

Figure 42: Create Policy Window

Create Policy

HQ IP — Finance IP

Name: HQ-Finance

Description:

Deployment State: Not Provisioned

Profile: HQ

Rules

Direction	Applications	Action	Settings	Enabled
Any Unmatched Application	Any Unmatched Application	Deny		<input checked="" type="checkbox"/>
Any Unmatched Application	Any Unmatched Application	Deny		<input checked="" type="checkbox"/>

Create Cancel

7. In the **Name** field, enter an appropriate name for this security policy.
8. In the **Description** field, enter a description for this security policy.
9. From the **Profile** field, select an appropriate policy profile.

The **Rules** section of the **Create Policy** window lists the rules that are a part of the security domain.

The **Rules** section displays the following attributes for each rule displayed:

- The first column (from the left) displays whether the rule is inherited from the security domains or added from the **Rules** section.
- The **Direction** column displays the direction in which the traffic flows.
- The **Applications** column displays the applications that are a part of the rule.
- The **Action** column displays whether traffic is permitted or denied in the given direction.

- The **Settings** column displays whether the policy profile settings are customized for this rule.
- The **Enabled** column displays whether the rule is disabled or enabled. The rule can be disabled by unchecking the checkbox.



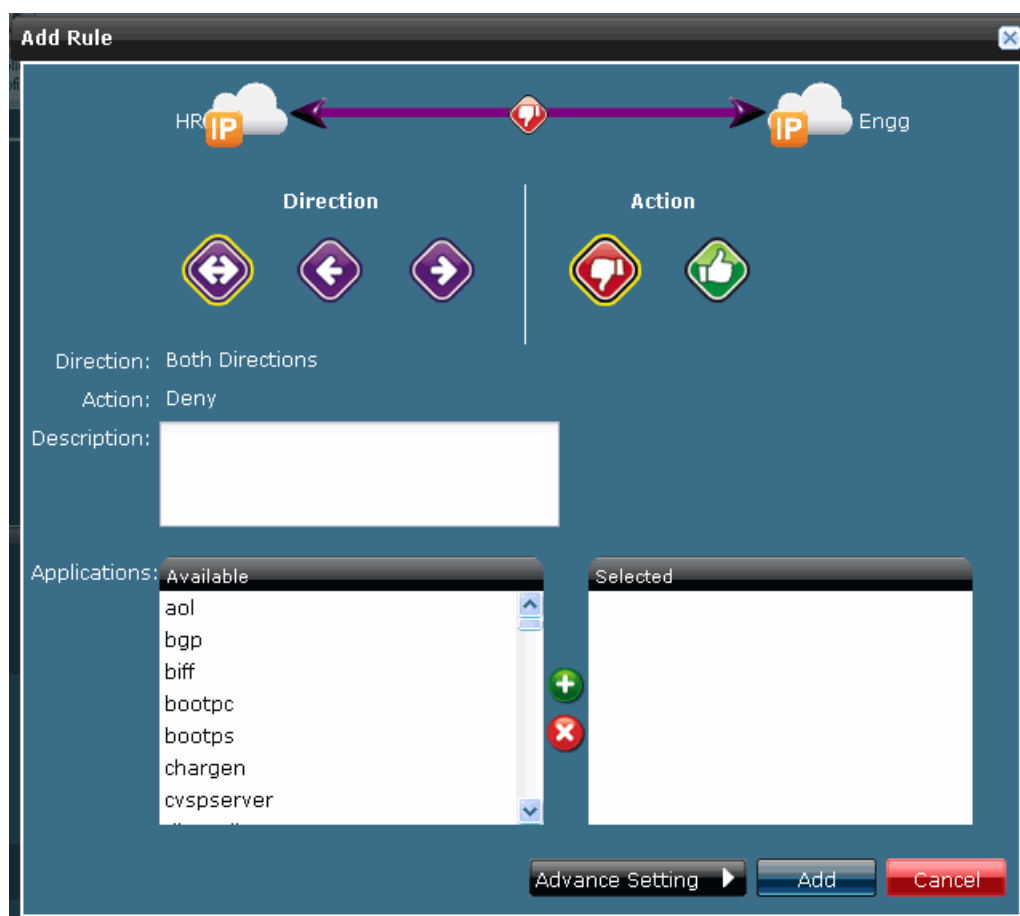
NOTE: If you inherit a rule from a security domain, the rule displays an icon in the first column from the left. If you add a rule from the Rules section, this icon is not displayed.

10. You can choose to add, edit or delete a rule in the table.

- To add a rule:
 - a. Select the Add icon.

The **Add Rule** window is displayed, as shown in Figure 43 on page 89.

Figure 43: Add Rule Window



- b. In the **Description** field, enter an appropriate description.

- c. Select one or more applications from the **Available** section of the dialog box and click the Add icon.

The application you have selected are displayed in the **Selected** section of this dialog box.

- d. From the **Direction** section of the **Add Rule** window, select the direction of traffic.
- e. From the **Action** section of the **Add Rule** window, select the action to be performed on the traffic.
- f. To make any specific changes to the policy profile settings used in this rule, click **Advanced Setting**.

The **Rule Details** window displays the policy profile settings used for this rule.

- g. Select the **Use Custom Settings for This Rule** check box to ensure that the changes made to the policy profile settings in the **Rule Details** window affect only this rule.
- h. Click **Add**.



NOTE: A rule that is added in the **Create Policy** window displays a red triangle at top left corner of the cell.



NOTE: If any changes are made to the policy profile for a specific rule, an icon is displayed in the **Settings** column of the rule.

- To delete a rule:
 - Select the rule you want to delete and click the **Delete** icon.
- To edit a rule:
 - a. Select the rule you want to edit and click the **Edit** icon.

The **Rule Details** window is displayed.
 - b. In the **Direction** section, make appropriate changes to the direction of traffic.
 - c. In the **Action** section, make appropriate changes to the action performed by the security policy.
 - d. To add more applications to this rule move the applications from the **Available** section to the **Selected** section.
 - e. To make any specific changes to the policy profile settings used in this rule, click **Advanced Setting**.

The **Rule Details** window displays the policy profile settings used for this security policy.

- f. To ensure that the changes made to the policy profile settings in the **Rule Details** window affect only this rule, select the **Use Custom Settings for This Rule** check box.
- g. Make appropriate changes to the policy profile settings and click **OK**.

The **Settings** column for the rule that was edited displays the section of the policy profile that was edited. For example, if you made changes to the **Firewall Authentication** section of the policy profile, the **Settings** column displays **Authentication**.



NOTE: You cannot change the action or the direction of traffic for rules that are inherited from a security domain.

- 11. Click **Create**.

The new security policy you have created is displayed in the **Manage Policies** inventory panel

- 12. To add more security domains to this security policy design, drag and drop security domains to the Policy Designer Whiteboard. Repeat Steps 4 through 10.



NOTE: You can deploy or delete a security policy from the Policy Designer Whiteboard.

To deploy a security policy:

- Right-click the security policy between security domains and select **Deploy Policy** from the contextual menu. To know more about how to deploy a security policy, click “Deploying Security Policies” on page 93.

To delete a security policy:

- Right-click the security policy between security domains and select **Delete Policy** from the contextual menu. To know more about how to delete a security policy, click “Managing Security Policies” on page 84.



NOTE: You can clear a security policy design from the Policy Designer Whiteboard. You must first delete the security policy to be able to delete the security domains that are the end points of a security policy.

To clear a security policy design from the Policy Designer Whiteboard:

1. Select the security policy between the security domains that you want to delete.
2. Select the **Delete** icon from the Policy Designer toolbar.
3. Select one of the two security domains that are the end points of the security policy.
4. Select the **Delete** icon from the Policy Designer toolbar.
5. Select the other security domain that is the end point of the security policy.
6. Select the **Delete** icon from the Policy Designer toolbar.

**Related
Documentation**

- Security Policies Overview on page 83
- Managing Security Policies on page 84
- Deploying Security Policies on page 93
- Decommissioning Security Policies on page 98
- Viewing all Rules for a Security Policy on page 100

Deploying Security Policies

To deploy or provision a security policy you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > Security policy**.
The **Manage Policies** inventory panel is displayed.
2. Right-click the security policy that you want to provision and select **Provision Policy** from the contextual menu.

The **Provision Policy** window displays the devices on which this policy is provisioned. You can view the device name, device IP address, platform, OS version, configuration state, connection status, and the XML commands, as shown in Figure 44 on page 93.

Figure 44: Provision Security Policy Window

Provision Policy: Branch-HQ

Name	Device IP	Platform	OS Version	Configuration Status	Managed Status	Connection Status	Configuration
10.205.119.11	10.205.119.11	SRX100H	10.4B3.5	New	In Sync	up	View
10.205.119.15	10.205.119.15	SRX100B	10.4B3.5	New	In Sync	up	View
sd-srx650-4	10.205.119.4	SRX650	10.1R3.7	New	Connecting	down	View

Page 1 of 1 | Displaying 1 - 3 of 3 | Show 10 items

☐ Schedule at a later time

[Provision](#) [Cancel](#)

The states displayed in the **Configuration** column specify whether the configuration pushed to the device is new, a modified one, or one that will be removed.



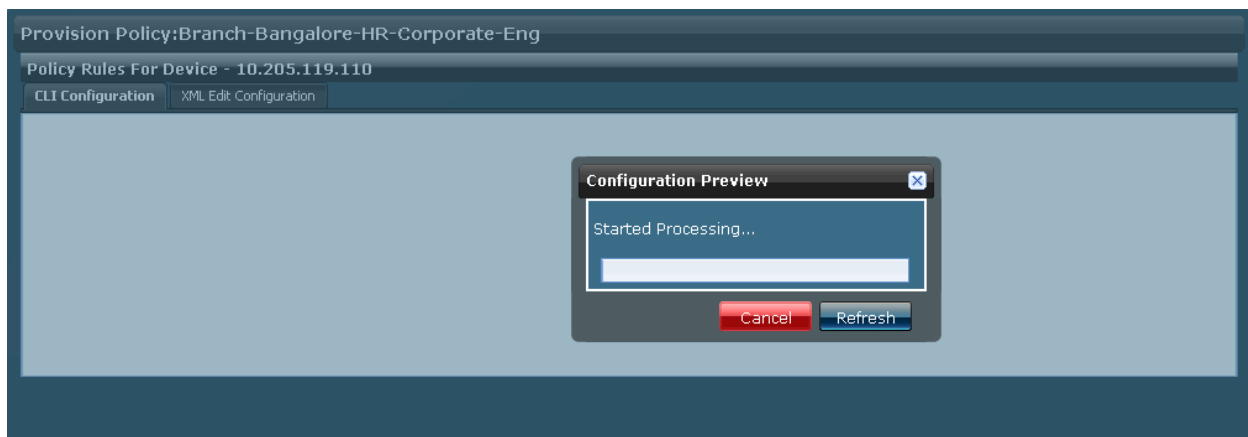
NOTE: You can search for a specific device on which the policy is provisioned by entering the search criteria in the search field, on the right hand top corner of the **Provision Policy** window. You can search the devices by their name, IP address or the OS version.



NOTE: If the policy is to be provisioned on a large number of devices, the devices are displayed across multiple pages. You can use the pagination and display options available on the lower ribbon, just below the list of devices to view all devices on which the policy is provisioned.

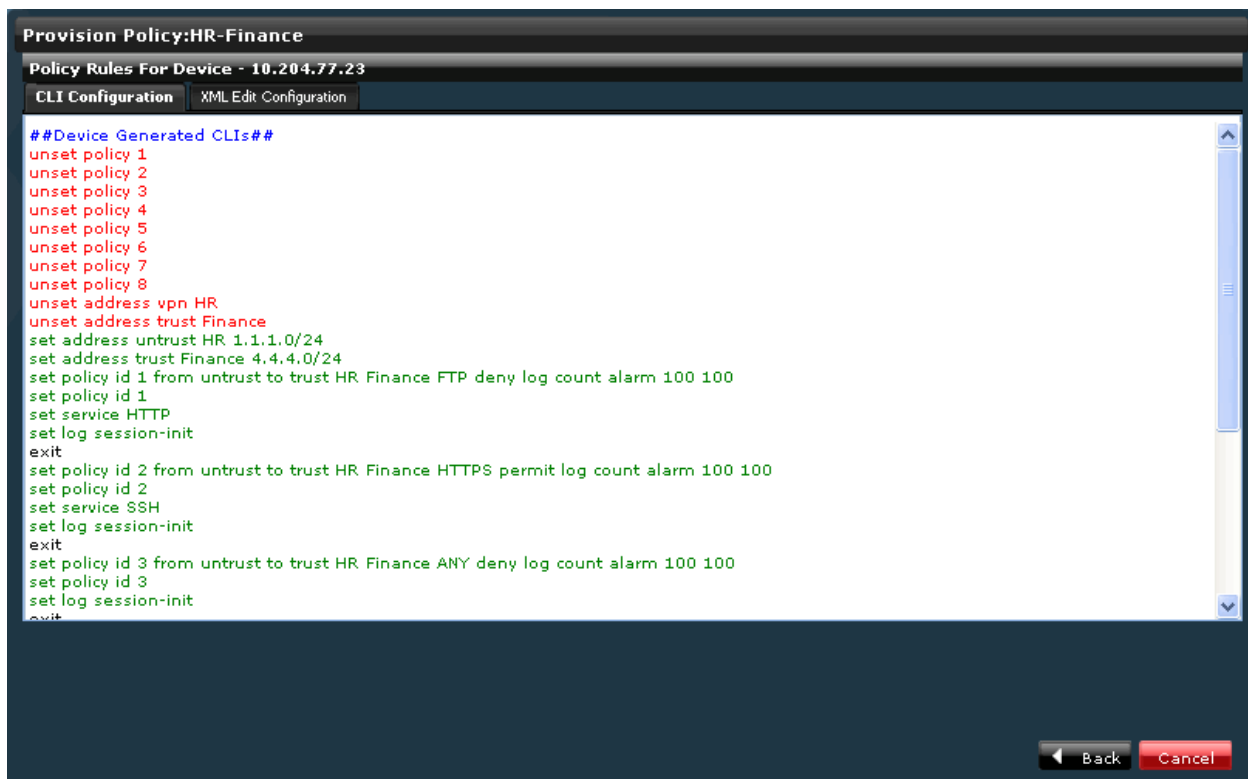
3. If you want to preview the configuration changes pushed to the device, click the **View** link in the **Configuration** column corresponding to the device. A **Configuration Preview** progress bar is shown while the configuration pushed to the device is generated, as shown in Figure 45 on page 94.

Figure 45: Configuration Preview



The **CLI Configuration** tab is displayed by default. You can view the configuration details, as shown in Figure 46 on page 94.

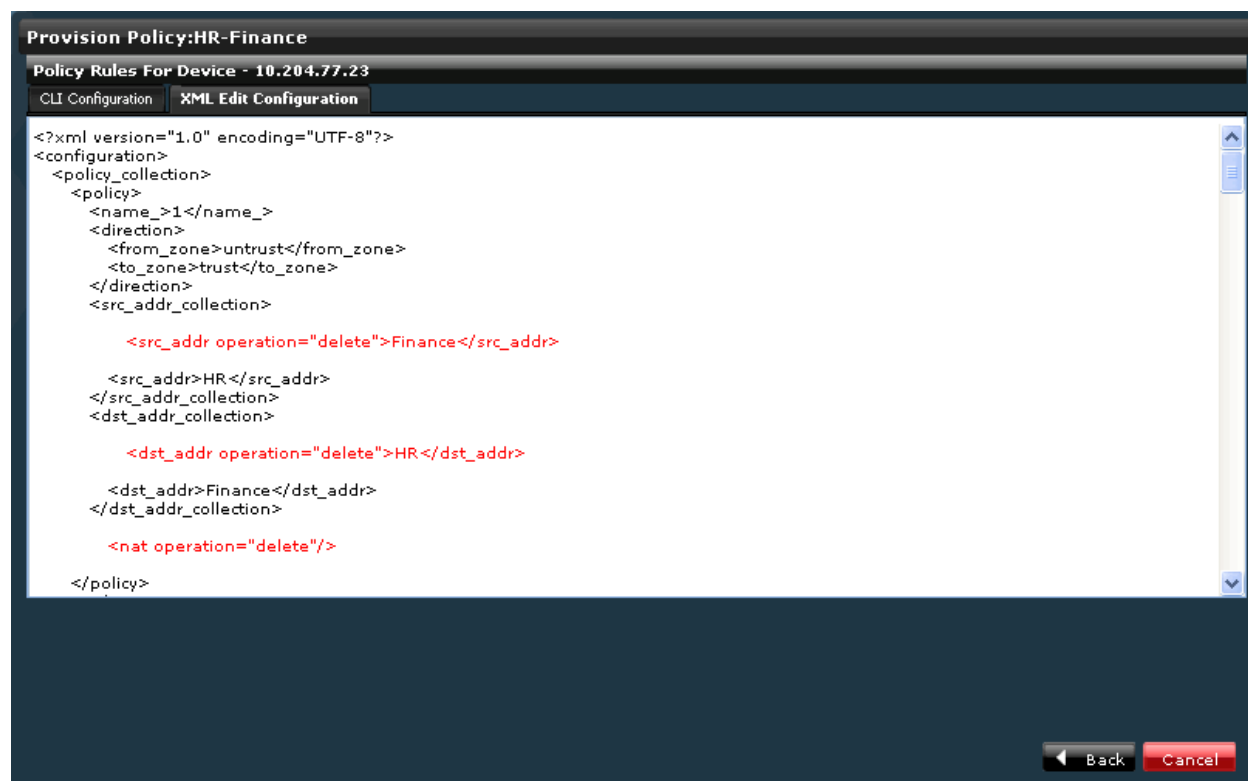
Figure 46: Viewing CLI Commands: Policy



4. To view the XML format of the configuration, click the **CLI Configuration** tab.

You can view the configuration details, as shown in Figure 47 on page 95.

Figure 47: View XML Commands: Policy



5. Select the check box next to the **Schedule Provisioning** field to schedule the provisioning to a later time and date.
6. Select appropriate values from the **Date and Time** fields.
7. Click **Provision**.

The security policy is provisioned on the devices that are a part of this policy. A new job is created and the job ID is displayed in the **Job Information** dialog box.

8. Click the job ID to view more information about the job created. This action directs you to the **Job Management** work space.




The **Device Provisioning Status** window is displayed with the status of the security policy you have provisioned on each device. You will see appropriate error messages in the Message column of this window, if the provisioning fails. The error messages include:

- Connection Status is not up: This indicates that there is no active connection to the device from Junos Space.
- Managed Status is not In Sync: This indicates that the latest device configuration is not synchronized with Junos Space.
- Configuration Update Failed: This indicates configuration commit errors. This error message includes the error message sent by the device.

- No Interface Selected in topology: This indicates that the interface on which the address is connected is not selected when an address link is created to a device.
- Address not associated with any device in topology: This indicates that the address exists in a domain but is not associated with any device in the topology.

A security policy is placed in a specific state based on whether it is provisioned, not provisioned, or partially provisioned. An overlay icon is placed over the security policy icon to depict the different states. The different states that a security policy is placed in are shown in Table 8 on page 97.

Table 8: Security Policy Provision States

State	Overlay Icon
Provisioned	
Not Provisioned	
Partially Provisioned	



NOTE: You can also provision the policy from the Policy Designer Whiteboard. To do so right-click the line between security domains and select **Provision Policy** from the contextual menu. Perform Step 3 through Step 6 to provision the security policy.



NOTE: If you try to provision a security policy and the provision job fails, the security policy is placed in the Not Provisioned state. It may also be placed in the Partially Provisioned state if the configuration is passed onto at least one device before the provisioning job failed. You can provision or delete this security policy using the appropriate workflow.



NOTE: When a security policy between two security domains is provisioned, the policy uses the paths defined by the IPsec VPN created between the security devices associated with the security domains.



NOTE: When a security policy is provisioned, a check is performed to validate if all related domain policies are provisioned. If all related domain policies are not provisioned, a warning message is displayed.

Related Documentation

- Security Policies Overview on page 83
- Creating Security Policies on page 87
- Managing Security Policies on page 84
- Decommissioning Security Policies on page 98
- Viewing all Rules for a Security Policy on page 100

Decommissioning Security Policies

To decommission a security policy you have provisioned:

1. From the **Security Design** task ribbon, select **Security Whiteboard** > **Security policy**. The **Manage Policies** inventory panel is displayed.
2. Right-click the security policy you want to decommission and select **Decommission Policy** from the contextual menu.

The **Decommission Policy** window displays the devices on which this security policy is provisioned, as shown in Figure 48 on page 98.

Figure 48: Decommissioning a Security Policy

Name	Device IP	Platform	OS Version	Connection Status	XML Commands
10.205.61.61	10.205.61.61	SRX210H	10.2R1.4	down	view
10.205.61.62	10.205.61.62	SRX210H	10.2R1.4	down	view

Page 1 of 1

☒ Delete service after job succeeds

☒ Schedule at a later time

Date and Time: 07/07/10 1:54 PM IST

Decommission Cancel

3. To automatically delete the security policy from Junos Space after the security policy is decommissioned, select the **Delete service after job succeeds** check box.

4. To schedule the decommissioning to a later time and date, select the check box next to the **Schedule at a later time** field.
5. Click **Next**.
6. Select appropriate values from the **Date and Time** fields.
7. Click **Decommission**.



NOTE: If a provision job on a security policy partially succeeds, (that is, the provision job does not push the configuration details to all devices in the security policy), the security policy is placed in the Partially Provisioned state. You can provision or decommission the security policy using the appropriate workflow.



NOTE: If you try to delete a security policy that is in the Provisioned state, a popup window confirming whether you want to decommission the security policy is displayed. You can click Yes to decommission the security policy before deleting it or click No to delete the security policy without decommissioning it.

Related Documentation

- Security Policies Overview on page 83
- Creating Security Policies on page 87
- Managing Security Policies on page 84
- Deploying Security Policies on page 93
- Viewing all Rules for a Security Policy on page 100

Viewing all Rules for a Security Policy

To view all rules for a security policy:

- From the Security Design task ribbon, select **Security Whiteboard > Security Policy > Policy Rules**.

The **View All Rules** page is displayed, as shown in Figure 49 on page 100. This page displays all rules associated with all security policies created in Security Design. It lists the two endpoints of the policy, the direction in which the traffic is configured, and the action performed on the traffic.

Figure 49: View All Rules Page

Policy	Endpoint 1	Endpoint 2	Direction	Applications	Action	Settings	Enabled
Policy: D1 (3 Rules, Provisioned)							
D1	D1	Any	↔	bgp	Deny		<input checked="" type="checkbox"/>
D1	D1	Any	←	aol	Deny		<input checked="" type="checkbox"/>
D1	D1	Any	→	biff	Deny		<input checked="" type="checkbox"/>
Policy: D1-D2 (3 Rules, Not Provisioned)							
D1-D2	D1	D2	↔	chargen	Deny		<input checked="" type="checkbox"/>
D1-D2	D1	D2	→	Any Unmatched Application	Deny		<input type="checkbox"/>
D1-D2	D1	D2	←	Any Unmatched Application	Deny		<input type="checkbox"/>
Policy: D2 (2 Rules, Not Provisioned)							
D2	D2	Any	↔	srikant-parent	Deny		<input checked="" type="checkbox"/>
D2	D2	Any	←	bootpc	Deny		<input checked="" type="checkbox"/>

You can filter items in the columns by clicking the down arrow to the right of the column heading and selecting the appropriate filter values. You can also apply multiple filters at the same time to arrive at specific results. An example of how filters can be applied is shown in Figure 50 on page 101.

Figure 50: View All Rules: Filtering Columns

Policy	Endpoint 1	Endpoint 2	Direction	Applications	Action	Settings	Enabled
Policy: D1 (3 Rules, Provisioned)							
D1	D1	Any	↔		🔴		☑
D1	D1	Any	↔		🔴		☑
D1	D1	Any	→		🔴		☑
Policy: D1-D2 (3 Rules, Not Provisioned)							
D1-D2	D1	D2	↔	chargen	🔴		☑
D1-D2	D1	D2	→	Any Unmatched Application	🔴		☐
D1-D2	D1	D2	↔	Any Unmatched Application	🔴		☐
Policy: D2 (2 Rules, Not Provisioned)							
D2	D2	Any	↔	snikant-parent	🔴		☑
D2	D2	Any	↔	bootpc	🔴		☑



NOTE: You cannot sort or filter the Settings, Enabled, and Description columns on the Policy Rules page.

To provision, decommission, modify, or delete the policy from the Actions drawer on the **View All Rules** page:

1. Select the check box next to the security policy that you want to provision, decommission, delete, or modify.
2. Click the Actions drawer and select the appropriate option from the drawer.

Related Documentation

- Security Policies Overview on page 83
- Creating Security Policies on page 87
- Managing Security Policies on page 84
- Deploying Security Policies on page 93
- Decommissioning Security Policies on page 98

Ordering the Rules in a Security Policy

To reorder the rules in a security policy:

1. From the **Security Design** task ribbon, select **Security Whiteboard** > **Security Policy**. The **Manage Policies** inventory panel is displayed.
2. Right-click the security policy that you want to modify and select **Modify Policy**.
The **Modify Policy** page is displayed. This page lists all the rules that are a part of the security policy.
3. Select the rule that you want to reorder and click the Up or Down arrow.

The rule is now positioned accordingly. When the policy is provisioned, the rules are provisioned to the devices in the order you have specified.



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NOTE: You cannot reorder the terminal rules in a policy. Terminal rules are those that are inherited from the security domains that are a part of the security policy. Terminal rules always appear at the bottom of the rule table.

You can also reorder the rules in a security policy when you are creating a security policy. Select the rules you want to reorder and click the Up or Down arrow.

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CHAPTER 10

NAT

- NAT Overview on page 103
- Creating a NAT Policy on page 105
- Provisioning a NAT Policy on page 113
- Decommissioning a NAT Policy on page 115
- Managing NAT Policies on page 116
- Managing NAT Pools on page 118

NAT Overview

Network Address Translation (NAT) is a form of network masquerading where you can hide devices in the “trust zone” from the “untrust zone.” A trust zone is a segment of the network where security measures are applied. It is usually assigned to the internal local area network. An untrust zone is the Internet. NAT modifies the IP addresses of the packets moving between the trust and untrust zones.

NAT is usually configured on gateway devices such as SRX Series Services Gateways and ScreenOS devices in order to translate traffic between the trust and untrust zones. Whenever a packet comes to the NAT device, the device performs a translation on the packet’s IP address by rewriting it with an IP address that was specified for external use. After translation, the packet appears to have originated from the gateway rather than from the original device within the network. This helps you hide internal IP addresses from the other networks and keep your network secure.

Using NAT also allows you to use more internal IP addresses. Since these IP address are hidden, there is no risk of conflict with an IP address from a different network. This helps you conserve IP addresses.

Junos Space supports two types of NAT:

- Source NAT: Translates the source IP address of a packet leaving the trust zone (outbound traffic). It translates the traffic originating from one side of the network (only source). Using source NAT, an internal device can access the network by using the IP addresses specified in the NAT policy.
- Static NAT: Always translates a private IP address to the same public IP address. It translates traffic from both sides of the network (both source and destination). For

example, a web server with a private IP address can access the Internet using a static, one-to-one address translation.

Junos Space Security Design provides you with a workflow where you can create and provision NAT policies on devices in a network.

There are three main steps in configuring NAT on a device:

a. Define a NAT pool.

A NAT pool is range of continuous IP addresses that you can use to create a NAT policy. NAT policies perform address translation by translating internal IP addresses to the external IP addresses specified in these pools.

For more information about defining a NAT pool, see “Managing NAT Pools” on page 118.

b. Define a NAT policy.

A NAT policy is a collection of rules that defines how the device should translate addresses.

You use NAT rules to specify conditions that the traffic must match in order for address translation to take place. When a packet matching the criteria specified in a NAT rule arrives, the device translates the address of the packet according to the specified rules. The address can be translated to a constant IP address range or to a range of IP addresses picked randomly from an address pool.

NAT policies also maintain information about the devices to which the NAT policies were applied.

For more information about defining a NAT policy, see “Creating a NAT Policy” on page 105.

c. Provision the NAT policy to the device.

For more information about provisioning a NAT policy, see “Managing NAT Policies” on page 116.

To go to the NAT task:

1. From the application chooser, click **Security Design**.
The **Security Design** dashboard appears.
2. From the Security Design task ribbon, select **Security Whiteboard > NAT**.
The **Manage NAT Policies** page appears (Figure 51 on page 104).

Figure 51: Manage NAT Policies Page

Name	Description	End Point 1	End Point 2	Devices	Deployment Status
test		1.1.1.1	2.2.2.2	4.4.80.1	Not Provisioned

Here you can perform the following actions:

- Create a NAT policy
- Modify a NAT policy
- Delete a NAT policy
- Provision a NAT policy
- Decommission a NAT policy

**Related
Documentation**

- [Creating a NAT Policy on page 105](#)
- [Provisioning a NAT Policy on page 113](#)
- [Decommissioning a NAT Policy on page 115](#)
- [Managing NAT Policies on page 116](#)
- [Managing NAT Pools on page 118](#)

Creating a NAT Policy

A NAT policy is a collection of rules that defines how a device should translate addresses.

To create a NAT policy:

1. From the Security Design task ribbon, select **Security Whiteboard > NAT > Create NAT Policy**.

The **Create NAT Policy** page appears (Figure 52 on page 106).

Figure 52: Create NAT Policy Page

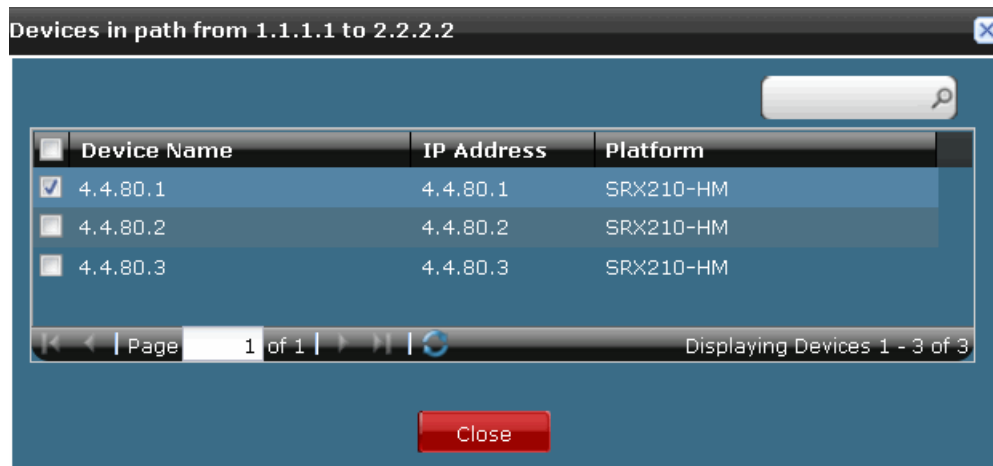
2. Enter a name for the NAT policy in the **Policy Name** field.
3. Enter a description for the NAT policy in the **Description** field. This is optional.
4. Select either **Any address**, **IP address/Subnet**, or **Domain Name** and enter the appropriate values of the traffic endpoints in the fields provided.



NOTE: Security Design interprets an empty traffic endpoint field as **Any address**. While you can choose to enter the details of only one of the endpoints, you cannot leave both fields empty.

5. Click **Search Devices** to search for all devices that lie between the two specified endpoints.
The Device list dialog box appears displaying the devices according to name and IP address (Figure 53 on page 107).

Figure 53: List of Devices Between the Specified Endpoints



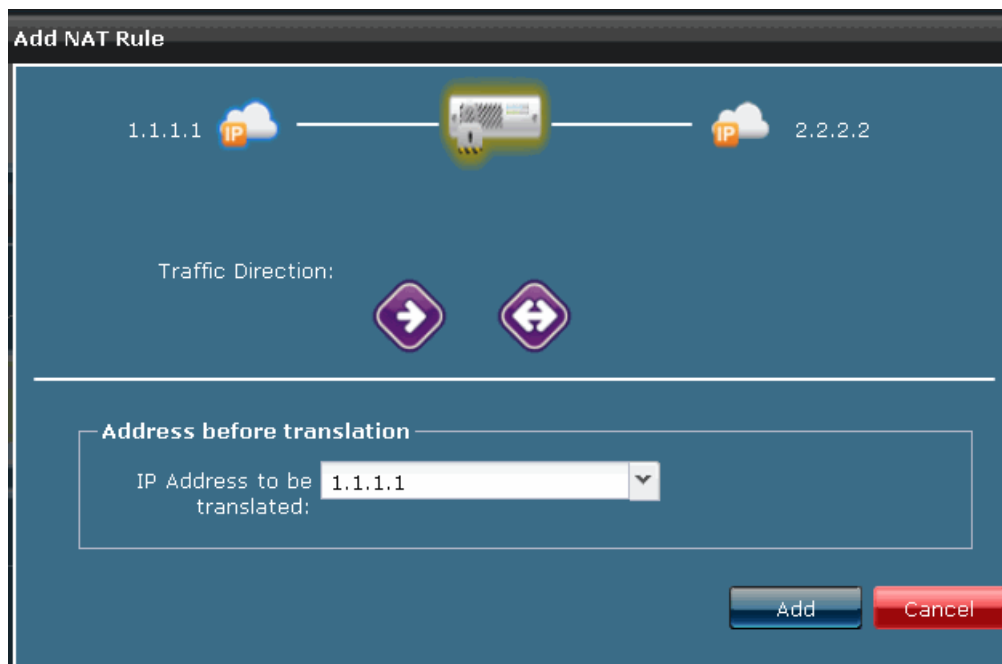
6. Select the devices on which you want to apply the NAT policy.
7. Click **Close** to close the dialog box and return to the **Create NAT Policy** page. The selected devices are displayed in the cloud and a new table called **NAT Rules** is displayed at the bottom of the page. The **NAT Rules** table (Figure 54 on page 107) displays all the NAT rules according to the original IP address, traffic direction, translated IP address, and whether port translation is enabled.

Figure 54: NAT Rules

Original IP	Direction	Translated IP	Port Translation
2.2.2.2		Interface	

8. Click the **Add** button to open the **Add NAT Rule** dialog box (Figure 55 on page 108).

Figure 55: Add NAT Rule Dialog Box



The dialog box is titled "Add NAT Rule". It features a network diagram at the top showing a router icon with a yellow highlight. To the left of the router is a cloud icon with the IP address "1.1.1.1" and an "IP" label. To the right is another cloud icon with the IP address "2.2.2.2" and an "IP" label. Below the diagram, the text "Traffic Direction:" is followed by two purple diamond-shaped buttons: one with a right-pointing arrow and one with a double-headed arrow. A horizontal line separates this section from the "Address before translation" section below. This section contains a label "IP Address to be translated:" followed by a text input field containing "1.1.1.1" and a dropdown arrow. At the bottom right, there are two buttons: "Add" (blue) and "Cancel" (red).

9. Here you can perform the following actions:

- Create a Source NAT Rule. See “Create a Source NAT Rule” on page 108.
- Create a Static NAT Rule. See “Create a Static NAT Rule” on page 111.

10. After you have specified all the NAT rules for the NAT policy, click **Create** to save the NAT policy.

The **Manage NAT Policies** page appears displaying the newly created NAT policy.



NOTE: You can also modify or delete NAT rules.

To modify a NAT rule, select the NAT rule and click the **Modify** button. Make the appropriate changes in the **Modify NAT Rule** dialog box.

To delete a NAT rule, select the NAT rule and click the **Delete** button. This removes the rule from the list.

Create a Source NAT Rule

To create a source NAT rule:

1. In the **Create Rule** dialog box, enter the IP address that you want to translate in the **IP Address to be translated** field.
2. Select the unidirectional arrow button to make the selected endpoint the source. The **Translation panel** appears (Figure 56 on page 109).

Figure 56: Add Source NAT Rule

Add NAT Rule

1.1.1.1 — — 2.2.2.2

Traffic Direction:

Address before translation

IP Address to be translated: 1.1.1.1

Translation Parameters

☒ Interface ☐ IP/Subnet ☐ NAT Pool

☒ Port Translation

Advance Settings Add Cancel

3. Here, you can select one of the following options:

- **Interface:** Select **Interface** if you want the original address to be translated to the IP address of the egress interface. Source port addresses are translated by default. When port translation is used, multiple hosts can share the same IP address.
- **IP/Subnet:** Select **IP/Subnet** if you want the original address to be translated to a specific IP address (Figure 57 on page 110), and specify the following details:
 - Select the egress interface that is bound to the untrust zone from the **Egress interface** list.



NOTE: For Screen OS devices, the **Egress interface** list displays all the egress interfaces. You need to select an egress interface and configure the pool.

For SRX devices, you can select the All option if you want to configure a common pool for all the interfaces. You can also select one egress interface and configure the pool.

- Enter the IP address that the address must translate to in the **IP/Subnet** field.
- Select the **Port Translation** check box to enable Port Address Translation (PAT), which uses the source address of the port to identify the devices.

Figure 57: Translation Parameters for IP/Subnet Option

Translation Parameters

☐ Interface
 ☒ IP/Subnet
 ☐ NAT Pool

Egress Interface:

IP/Subnet:

☐ Port Translation

Advance Settings ▶
 Add
 Cancel

- **NAT Pool:** Select **NAT Pool** if you want the original address to be translated to an address in the NAT pool (Figure 58 on page 110).
 - Select the egress interface that is bound to the untrust zone from the **Egress interface** list.
 - Select the NAT pool from the list. You can also click **Create New** to open the **Create NAT Pool** dialog box where you can create a new NAT pool.
 - Select the **Port Translation** check box to enable network Port Address Translation (PAT), which uses the source address of the port to identify the devices.

Figure 58: Translation Parameters for NAT Pool Option

Translation Parameters

☐ Interface
 ☐ IP/Subnet
 ☒ NAT Pool

Egress Interface:

NAT Pool: 🔍 ➕

☐ Port Translation

Advance Settings ▶
 Add
 Cancel

4. Click **Advance Settings** to open the **Advanced Options-Source NAT** dialog box (Figure 59 on page 111).

This option is not enabled if you select **Interface**.

Figure 59: Advanced Settings

5. In the **Advanced Options-Source NAT** dialog box, enter the host address base in the **Host Address Base** field. The host address base is the starting address in the range specified in the NAT pool.
For example, suppose you have configured a pool whose range is 1.1.1.1 through 1.1.1.10. If you have specified 1.1.1.5 as the host address base, only addresses from 1.1.1.5 through 1.1.1.10 are used for translation.
6. Select a NAT pool from the **Overflow Pool** list to specify a pool of addresses that can be used for translation if all the addresses in the original NAT pool are used up. You can enable port translation if you do not want to specify an overflow pool. Port translation conserves the addresses in the pool by using their port addresses for translation.
7. Enter the destination address of the packet in the **Destination Address** field. The source address of the packet is translated only if the destination address in its header matches this address.
8. Click **Add** to save your settings and return to the **Create Rule** dialog box.
9. Click **OK** to save the NAT rule.
The **Create NAT Policy** page appears displaying the new NAT rule in the **NAT Rule** table.

Create a Static NAT Rule

To create a static NAT rule:

1. In the **Create Rule** dialog box, enter the IP address that you want to translate in the **IP Address to be translated** field.
2. Select the bidirectional arrow option.
The **Translation Panel** appears (Figure 60 on page 112).

Figure 60: Add Static NAT Rule

Add NAT Rule

1.1.1.1 — [Router] — 2.2.2.2

Traffic Direction:

Address before translation

IP Address to be translated: 1.1.1.1

Translation Parameters

☒ IP/Subnet

Ingress Interface: Please select...

IP/Subnet:

Add Cancel

3. Select the ingress interface that the IP addresses must be translated to from the **Ingress Interface** list.



NOTE: For Screen OS devices, the **Ingress Interface** list displays all the ingress interfaces. You need to select an ingress interface and configure the pool.

For SRX devices, you can select the All option if you want to configure a common pool for all the interfaces. You can also select one ingress interface and configure the pool.

4. Enter the IP address that you want the original address to always be translated to in the **IP/Subnet** field.
5. Click **Add** to save the NAT rule.

The **Create NAT Policy** page appears displaying the new NAT rule in the **NAT Rule** table.

Related Documentation

- NAT Overview on page 103
- Provisioning a NAT Policy on page 113
- Decommissioning a NAT Policy on page 115
- Managing NAT Policies on page 116
- Managing NAT Pools on page 118

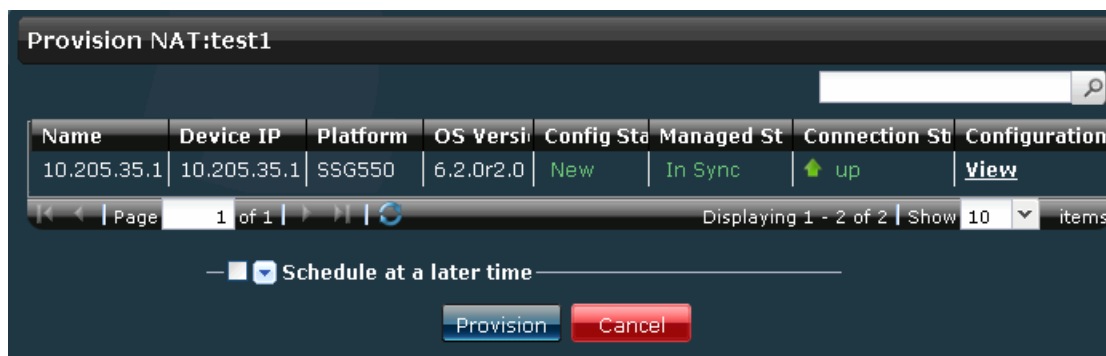
Provisioning a NAT Policy

To deploy or provision a NAT policy:

1. From the Security Design task ribbon, select **Security Whiteboard > NAT**. The **Manage NAT Policies** page appears.
2. Select the NAT policy that you want to provision and click **Provision NAT Policy** from the **Actions** panel or from the right-click context menu.

The **Provision NAT** page appears (Figure 61 on page 113), displaying the devices on which this policy can be provisioned as described in Table 9 on page 114.

Figure 61: Provision NAT Policy



The **Affected Services** panel displays all other policies that are affected when you provision the NAT policy. The services are displayed according to service name and type (VPN or firewall), and provides you with a link to view the details of the affected service. You must reprovision these services so that they are no longer affected by the NAT policy.



NOTE: In this page, you can search for a specific device on which the policy is provisioned by entering the search criteria in the search field on the right hand top corner of the **Provision NAT** window. You can search the devices by their name, IP address or the OS version.



NOTE: If the policy is to be provisioned on a large number of devices, the devices are displayed across multiple pages. You can use the pagination and display options available on the lower ribbon just below the list of devices to view all devices on which the NAT policy is provisioned.

3. Click **Provision** to provision the NAT policy on the specified devices.

You can also choose to schedule the provisioning job for later. To do so, select **Schedule at a later time** and select the date and time from the lists.



NOTE: Whenever you provision a NAT policy, it affects the other provisioned security policies (such as firewalls and VPN policies) existing on the device. You must reprovision these services so that they are no longer affected by the provisioned NAT policy.

When you reprovision a firewall policy, Security Design modifies the list of permitted addresses in the firewall policy according to the existing NAT policies and adds the modifications to the existing policy. It does not delete any part of the original policy.

For example, a firewall policy that permits traffic originating from the IP address “1.1.1.1” contains the “permit 1.1.1.1” statement. When a packet whose source address “1.1.1.1 is translated to “2.2.2.2” arrives at the firewall device, it may not be granted access. In order to overcome this, you must reprovision the firewall policy. When you reprovision the policy, Security Design adds the “permit 2.2.2.2” statement to the policy and provisions it.

When you reprovision a VPN policy, Security Design modifies the route that forwards VPN traffic to the tunnel interface to reflect the translated address. It replaces the original source address with the translated address.

For example, if the source address is translated from 1.1.1.1 to 2.2.2.2, the destination address of the route that the packet takes when it returns to the source is changed from 1.1.1.1 to 2.2.2.2. This new rule is added to the existing policy. None of the rules existing in the original policy are removed.

Table 9: Provision NAT Policy Table Descriptions

Column Name	Description
Name	Name of the device
Device IP	IP address of the device
Platform	Device model. For example: SRX240-HM.
OS Version	Release version of the Junos OS running on the device
Configuration Status	Status of the device configuration. The possible options are New and Modified .

Table 9: Provision NAT Policy Table Descriptions (*continued*)

Column Name	Description
Managed Status	<p>Status of the devices that are managed in Junos Space.</p> <p>The possible options are:</p> <ul style="list-style-type: none"> • Connecting • In Sync • None • Out of Sync • Synchronizing • Sync Failed
Connection Status	Status of the Connection of the device in Junos Space. The possible options are up or down .
Configuration View	Click View to see the device configuration.

**Related
Documentation**

- NAT Overview on page 103
- Creating a NAT Policy on page 105
- Managing NAT Policies on page 116
- Decommissioning a NAT Policy on page 115

Decommissioning a NAT Policy

To decommission a NAT policy:

1. From the Security Design task ribbon, select **Security Whiteboard > NAT**. The **Manage NAT Policies** page appears.
2. Select the NAT policy that you want to provision and click **Decommission NAT Policy** from the **Actions** panel or from the right-click context menu. The **Decommission NAT** page appears (Figure 62 on page 116) displaying the devices on which this policy is provisioned.

Figure 62: Decommission NAT Policy

Name	Device IP	Platform	OS Versio	Config Sta	Managed St	Connection Sta	Config
10.205.35.100	10.205.35.100	SSG550	6.2.0r2.0	Modify	In Sync	up	View

☐ Delete service after job succeeds
☐ Schedule at a later time

Decommission Cancel

3. Select the **Delete service after job succeeds** option to automatically delete the NAT policy from Junos Space after the NAT policy is decommissioned.
4. Click **Decommission** to remove the NAT policy from the device.

Related Documentation

- NAT Overview on page 103
- Creating a NAT Policy on page 105
- Provisioning a NAT Policy on page 113
- Managing NAT Policies on page 116

Managing NAT Policies

A NAT policy is a collection of rules that defines how the device should translate addresses.

You use NAT rules to specify conditions that the traffic must match in order for address translation to take place. When a packet matches the criteria specified in a NAT rule, the device translates the source address of the packet according to the rules that you have specified.

In case of source NAT, the source address of the packet is translated either to the IP address of the interface with port translation, to a subnet, or to a pool of IP addresses. This translation occurs only on traffic originating at one side of the network (usually the trust zone) and the translation is dynamic. There is no one-to-one relationship between the original and translated addresses.

In case of static NAT, translation occurs on traffic originating at both sides of the network (both the trust and untrust zones). There is a one-to-one relationship between the original and translated addresses.

You can perform the following tasks in the Manage NAT Policies page:

- Modifying a NAT Policy on page 117
- Deleting a NAT Policy on page 117

Modifying a NAT Policy

To modify a NAT policy:

1. From the Security Design task ribbon, select **Security Whiteboard > NAT**. The **Manage NAT Policies** page appears.
2. Select the NAT policy that you want to modify and click **Modify NAT Policy** from the Actions panel or from the right-click context menu. The **Modify Policy** window is displayed.
3. Make appropriate changes to the NAT policy. You can modify all the fields in this window, except the **Name** field.
4. Click **Modify** to save your changes and go back to the **Manage NAT Policies** page.



NOTE: When you modify a NAT policy that has already been provisioned, you need to provision the policy again in order for the changes to be reflected on the device. For information about how to provision a NAT policy, see “Provisioning a NAT Policy” on page 113.

Deleting a NAT Policy

To remove a NAT policy from Junos Space:

1. From the Security Design task ribbon, select **Security Whiteboard > NAT**. The **Manage NAT Policies** page appears.
2. Select the NAT policies that you want to delete and click **Delete NAT Policy** from the Actions panel or from the right-click context menu. The **Delete NAT Policy** dialog box appears listing out all the NAT policies that you have selected.
3. Click **Delete** to remove the NAT policy from Junos Space. If you try to delete a provisioned policy, a message appears asking whether you want to decommission the policy on the device. For information about how to decommission a NAT policy, see “Decommissioning a NAT Policy” on page 115.

Related Documentation

- NAT Overview on page 103
- Creating a NAT Policy on page 105
- Provisioning a NAT Policy on page 113
- Decommissioning a NAT Policy on page 115
- Managing NAT Pools on page 118

Managing NAT Pools

A Network Address Translation (NAT) pool is a continuous range of external IP addresses that you can use to create a NAT policy. NAT policies perform address translation by translating internal IP addresses to the addresses in these pools.

Using Security Design, you can create and manage NAT pools, which you can use while creating NAT policies.

The tasks that you can perform in the **Manage NAT Pools** space include:

- Creating a NAT Pool on page 118
- Modifying a NAT Pool on page 119
- Deleting a NAT Pool on page 119

Creating a NAT Pool

To create a NAT pool:

1. From the Security Design task ribbon, select **Security Whiteboard > NAT > Manage NAT Pool > Create NAT Pool**.
The **Create NAT Pool** page appears (Figure 63 on page 118).

Figure 63: Create NAT Pool Page

The screenshot shows the 'Create NAT Pool' dialog box. It contains the following fields and values:

- Name:** Pool1
- Description:** (empty text area)
- IP Range:**
 - Start IP address:** 2.2.2.0
 - End IP address:** 2.2.2.24

At the bottom, there are three buttons: 'Create' (blue), 'Create more' (blue), and 'Cancel' (red).

2. Enter the name of the NAT pool in the **Name** field.
3. Enter a description of the NAT pool in the **Description** field.
4. Enter the range of IP addresses in the **Start IP address** and **End IP address** fields. You can specify a range of up to 2000 IP addresses.



NOTE: While you can enter single IP addresses or subnets in the **Start IP Address** and **End IP Address** fields, you cannot enter both a subnet and a single IP address within the same range.

5. Click **Create** to save your changes and go back to the **Manage NAT Pools** page where the newly created NAT pool is displayed.

Modifying a NAT Pool

To modify a NAT pool:

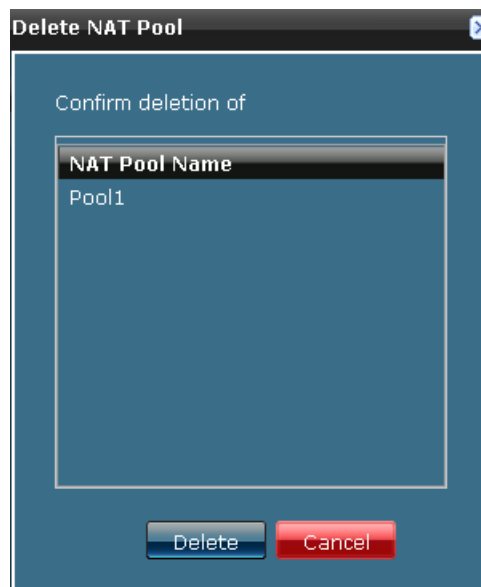
1. From the Security Design task ribbon, select **Security Whiteboard > NAT > Manage NAT Pool**.
The **Manage NAT Pool** page appears.
2. Select the NAT pool that you want to modify and click **Modify NAT Pool** from the **Actions** panel or from the right-click context menu.
The **Modify NAT Pool** page appears.
3. On the **Modify NAT Pool** page, you can edit the description and IP range of the NAT pool. You cannot modify the NAT pool name.
4. Click **Modify** to save your changes and go back to the **Manage NAT Pool** page.
Security Design warns you when you try to modify a NAT pool used in a NAT policy.

Deleting a NAT Pool

To delete a NAT pool:

1. From the Security Design task ribbon, select **Security Whiteboard > NAT > Manage NAT Pool**.
The **Manage NAT Pool** page appears.
2. Select the NAT pool that you want to delete and click **Delete NAT Pool** from the **Actions** panel or from the right-click context menu.
The **Delete NAT Pool** page appears displaying all the NAT pools that you want to delete (Figure 64 on page 120).

Figure 64: Delete NAT Pool Dialog Box



3. Click **Delete** to remove the NAT pool from the list and go back to the **Manage NAT Pool** page.
Security Design warns you when you try to delete a NAT pool used in a NAT policy.

**Related
Documentation**

- NAT Overview on page 103
- Creating a NAT Policy on page 105
- Managing NAT Policies on page 116

CHAPTER 11

IPsec VPNs

- VPN Proposals Overview on page 121
- Creating VPN Proposals on page 122
- Managing VPN Proposals on page 126
- VPN Profiles Overview on page 130
- Creating VPN Profiles on page 130
- Managing VPN Profiles on page 136
- IPsec VPNs Overview on page 141
- Creating IPsec VPNs on page 141
- Deploying IPsec VPNs on page 146
- Managing IPsec VPNs on page 152
- Decommissioning IPsec VPNs on page 154

VPN Proposals Overview

You can use the VPN Proposal Wizard to create an object that specifies the IKE and IPsec proposals used in an IPsec VPN. An IKE proposal authenticates peers and negotiates IPsec parameters to establish IPsec Security Associations (SAs). An IPsec proposal exchanges information between established IPsec SAs through an IPsec tunnel.

You can configure the following parameters for a VPN proposal:

- Diffie-Hellman group used by the IKE and IPsec proposal
- Authentication algorithm used by the IKE and IPsec proposal – MD5, SHA, SHA 2
- Encryption standard used by the IKE and IPsec proposal – DES, 3DES, AES
- Life time of the IKE and IPsec proposal
- Life size for the IPsec proposal

When a VPN proposal is created, Junos Space creates an object in the Junos Space database to represent the VPN proposal. You can use this to create VPN profiles.

Junos Space provides three Juniper Networks defined VPN proposals. The parameters of these VPN proposals are listed in Table 10 on page 122.

Table 10: Default VPN Proposals

Proposal Name	Authentication Algorithm	Encryption Standard	Key Exchange
High Security	SHA	AES	DH Group 2 and ESP Protocol
Medium Security	SHA/MD5	3DES	DH Group 2 / Group 1 and ESP Protocol
Low Security	MD5	DES	DH Group 1 and AH Protocol



NOTE: You cannot modify or delete Juniper Networks defined VPN proposals. You can only copy them and create new VPN proposals.

- Related Documentation**
- Creating VPN Proposals on page 122
 - Managing VPN Proposals on page 126

Creating VPN Proposals

To create a new VPN proposal:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Proposal**.

The **Manage VPN Proposals** inventory panel is displayed with the icons for all the VPN proposals, as shown in Figure 65 on page 122. The first three proposals listed here are Juniper Networks defined VPN proposals.

Figure 65: Manage VPN Proposals Inventory Panel



2. From the task ribbon, select the **Create VPN Proposal** icon.

The **Create VPN Proposal** window is displayed, as shown in Figure 66 on page 123.

Figure 66: Create VPN Proposal Window

The screenshot shows the 'Create VPN Proposal' window. It features a title bar, two text input fields for 'Name' and 'Description', and two panels for 'IKE Proposals' and 'IPSec Proposals'. Each panel includes a list area and three icons (add, edit, delete) at the bottom right. The 'Create' and 'Cancel' buttons are at the bottom of the window.

3. In the **Name** field, enter a name for the new VPN proposal.
4. In the **Description** field, enter a description for the new VPN proposal.
5. In the **IKE Proposals** panel, click the **Add** icon.

The **IKE Proposal** dialog box is displayed. You can either add a predefined proposal or a custom proposal in the **IKE Proposal** dialog box.

6. To add a predefined IKE proposal:
 - a. Select the **Predefined** radio button.
 - b. From the **Name** field, select an appropriate proposal

To add a custom IKE proposal:

- a. Select the **Custom** radio button, as shown in Figure 67 on page 124.

Figure 67: Adding a Custom IKE Proposal

The screenshot shows the 'IKE Proposal' dialog box. It has two radio buttons at the top: 'Predefined' and 'Custom'. The 'Custom' radio button is selected. Below the radio buttons are five input fields: 'Name' (a text box), 'DH Group' (a dropdown menu showing 'Please select ...'), 'Authentication' (a dropdown menu showing 'SHA-1'), 'Encryption' (a dropdown menu showing '3DES'), and 'Life Time (in seconds)' (a text box showing '3600'). At the bottom of the dialog are three buttons: 'Restore Defaults', 'Add', and 'Cancel'.

- b. In the **Name** field, enter an appropriate name for the custom proposal.
- c. From the **DH Group** drop-down menu, select an appropriate group
- d. From the **Authentication** drop-down menu, select an appropriate authentication algorithm.
- e. From the **Encryption** drop-down menu, select an appropriate encryption standard.
- f. In the **Life Time (in seconds)** field, enter a value in seconds. The default value of the lifetime is 3600 seconds.



NOTE: IKE lifetime defines the duration of an IKE connection. When this time expires, a new phase -1 exchange is performed.

7. To restore the default settings, click **Restore Defaults**.
8. Click **Add**.
Repeat Step 5 through Step 9 to add a maximum of four proposals. The proposals you have added are displayed in the **IKE Proposals** panel.
9. In the **IPsec Proposals** panel, click the **Add** icon.
The **IPsec Proposal** dialog box is displayed. You can either add a predefined proposal or a custom Proposal, in the **IPsec Proposal** dialog box.
10. To add a predefined IPsec proposal:
 - a. Select the **Predefined** radio button.
 - b. From the **Name** field, select an appropriate proposal.
 To add a custom IPsec proposal:

- a. Select the **Custom** radio button, as shown in Figure 68 on page 125.

Figure 68: Adding a Custom IPsec Proposal

The screenshot shows the 'IPsec Proposal' dialog box. At the top, there are two radio buttons: 'Predefined' and 'Custom'. The 'Custom' radio button is selected. Below the radio buttons, there are several fields and dropdown menus: 'Name' (a text input field), 'DH Group' (a dropdown menu with 'Please select ...'), 'Authentication' (a dropdown menu with 'SHA-1'), 'Protocol' (a dropdown menu with 'Please select ...'), 'Encryption' (a dropdown menu with '3DES'), 'Life Time (in seconds)' (a text input field with '28800'), and 'Life Size (in KBs)' (a text input field). At the bottom of the dialog, there are three buttons: 'Restore Defaults', 'Add', and 'Cancel'.

- b. In the **Name** field, enter an appropriate name for the custom proposal.
- c. From the **DH Group** drop-down menu, select an appropriate group.
- d. From the **Authentication** drop-down menu, select an appropriate authentication algorithm.
- e. From the **Encryption** drop-down menu, select an appropriate encryption standard.
- f. In the **Life Time (in seconds)** field, enter a value in seconds.
- g. In the **Life Size (in KBs)** field, enter a value in Kilo Bytes.



NOTE: IPsec lifetime defines the duration of a VPN connection. When either of the lifetime or lifesize values expire, a re-key is initiated with a new IPsec encryption and authentication session keys.

11. Click **Add**. Repeat Steps 10 through Step13 to add a maximum of four proposals.
- The proposals you have added are displayed in the **IPsec Proposals** panel.
12. Click **Create**.
- The new proposal you have created is displayed in the **Manage VPN Proposals** inventory panel.

- Related Documentation**
- VPN Proposals Overview on page 121
 - Managing VPN Proposals on page 126

Managing VPN Proposals

You can view, delete, modify or copy proposals listed in the **Manage VPN Proposals** inventory panel.

To open the **Manage VPN Proposals** inventory panel:

- From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Proposal**.

The **Manage VPN Proposals** inventory panel is displayed. All VPN proposals that you have created are listed by default, in the graphical view.

You can either right-click or use the Actions Drawer to manage a VPN proposal. For more information about using the Actions Drawer, see *Inventory Pages Overview*

You can perform the following tasks in the **Manage VPN Proposals** space:

1. Viewing the Details of a VPN Proposal on page 126
2. Modifying a VPN Proposal on page 127
3. Deleting a VPN Proposal on page 128
4. Copying a VPN Proposal on page 129
5. Searching for a VPN Proposal on page 129

Viewing the Details of a VPN Proposal

To view the details of a VPN proposal:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Proposal**.

The **Manage VPN Proposals** inventory panel is displayed.

2. Double-click the icon for the VPN proposal whose details you intend to view.

The details of the proposal are displayed in the **VPN Proposal Details** window, as shown in Figure 69 on page 127. The **VPN Proposal Details** window lists all the IKE and IPsec proposals used in this VPN proposal.

Figure 69: Viewing VPN Proposal Details

VPN Proposal Details

Name: VPN_Proposal1

Definition Type: Custom

Description:

IKE Proposals					
Name	Type	DH Group	Auth Algorithm	Encryption Algorithm	Life Time (in secs)
g2-3des-sha1	Predefined	Group2	SHA-1	3DES	28800
g5-aes256-sha	Predefined	Group5	SHA-2(256)	AES(256)	28800
High_security	Custom	Group2	SHA-1	3DES	3600

IPSec Proposals							
Name	Type	DH Group	Auth Algorithm	Encryption Algorithm	Life Time (in secs)	Protocol	Life Size (in Bytes)
g5-esp-aes128-sh	Predefined	Group5	SHA-1	AES(128)	3600	ESP	0

Close

Modifying a VPN Proposal

To modify a VPN proposal you have created:

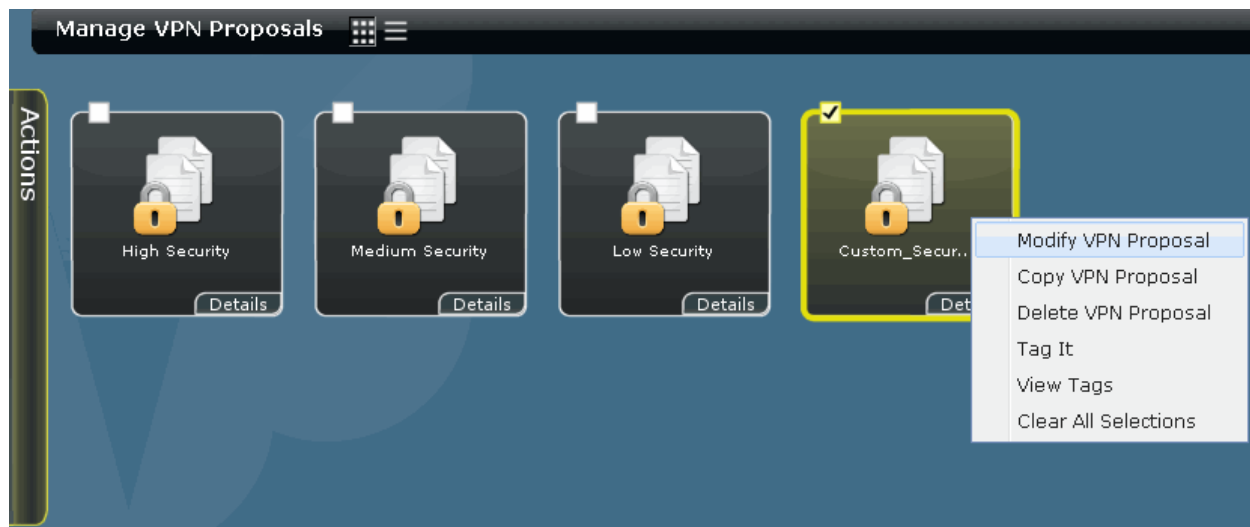
1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Proposal**.

The **Manage VPN Proposals** inventory panel is displayed.

2. Right-click the VPN proposal you want to modify and click the **Modify VPN Proposal** link from the contextual menu, as shown in Figure 70 on page 128.

This action redirects you to the window that you used to create a new VPN proposal. You can modify all the fields on this window, except the **Name** field.

Figure 70: Modifying a VPN Proposal



3. In the **Description** field, enter a new description.
4. To edit an IKE or IPsec proposal, select the proposal you want to edit and click the **Edit** icon in the corresponding panel.
The corresponding dialog box is displayed.
5. Make necessary changes to your IKE or IPsec proposal and click **Modify**.
6. To delete an IKE or IPsec proposal, select the proposal you want to delete in the corresponding panel and click the **Delete** icon.
The **Delete Proposal** confirmation window is displayed.
7. Click **Delete**.
8. Click **Modify** to save the changes made to this VPN proposal.

Deleting a VPN Proposal

To delete a VPN proposal you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Proposal**.
The **Manage VPN Proposals** inventory panel is displayed.
2. Right-click the VPN proposal you intend to delete and click the **Delete VPN Proposal** link from the contextual menu.
The **Delete Proposal** confirmation window is displayed.
3. Select the VPN proposal you want to delete and click **Delete**.



NOTE: You cannot delete a VPN proposal that is already used in a VPN profile. To delete a VPN proposal that is a part of a VPN profile, you must first dis-associate the VPN proposal from the VPN profile.

Copying a VPN Proposal

To copy a VPN proposal you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Proposal**.

The **Manage VPN Proposals** inventory panel is displayed.

2. Select a VPN proposal you want to copy and click the **Copy Proposal** link from the **Actions** panel located on the left corner of the inventory panel.

This action redirects you to the window that you used to create a new VPN proposal. This window displays the parameters of the proposal you have copied with the **Name** field left blank.

3. In the **Name** field, enter a name for the new VPN proposal.
4. Edit the other fields of the proposal if you intend to do so.
5. Click **Create** to create a new proposal.

The new proposal you have created is displayed in the **Manage VPN Proposals** Inventory panel.

Searching for a VPN Proposal

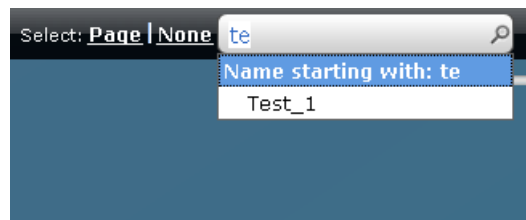
To search for a VPN proposal you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Proposal**.

The **Manage VPN Proposals** inventory panel is displayed.

2. In the **Search** field, enter the name of VPN proposal you want to search, as shown in Figure 71 on page 129.

Figure 71: Searching for a VPN Proposal



3. Click the magnifying glass icon next to the **Search** field.

The **Manage VPN Proposals** inventory panel is populated with the VPN proposals matching your search criterion.

- Related Documentation**
- VPN Proposals Overview on page 121
 - Creating VPN Proposals on page 122

VPN Profiles Overview

You can use a VPN Profile Wizard to create an object that specifies the VPN proposals, IKE/IPsec settings and the connectivity parameters used in a route-based IPsec VPN.

You can configure the following parameters for a VPN profile:

- VPN Proposals – Predefined or custom proposals created using the VPN Proposal Wizard
- IKE Settings – Authentication mode, Pre-shared key authentication mode, NAT Reversal, and Dead Peer Detection
- IPsec Settings – Proxy ID, Idle Time, Install Interval, Anti Replay, and VPN Monitor
- Tunnel Interface Settings – Interface type, and Interface zone

When a VPN profile is created, Junos Space creates an object in the Junos Space database to represent the VPN profile. You can use this object to create route-based IPsec VPNs.

Junos Space provides two Juniper Networks defined VPN profiles:

- Site-To-Site – This profile is used between peers using static IP addresses. It uses Preshared Key based authentication, High Security VPN proposal, Unnumbered tunnel interface and default values for other parameters.
- Hub-Spoke – This profile is used when one of the peers has a dynamic IP address. It uses Preshared Key based authentication, High Security VPN proposal, Unnumbered tunnel interface and default values for other parameters.



NOTE: You cannot modify or delete the Juniper Networks defined VPN profiles. You can only copy them and create new profiles.

- Related Documentation**
- Creating VPN Profiles on page 130
 - Managing VPN Profiles on page 136

Creating VPN Profiles

To create a new VPN Profile:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Profile**.

The **Manage VPN Profiles** inventory panel is displayed with the icons for all the VPN profiles, as shown in Figure 72 on page 131. The first two profiles listed here are Juniper Networks defined VPN profiles.

Figure 72: Default VPN Profiles



2. From the task ribbon, select the **Create VPN Profile** icon.

The **General** panel of the **Create VPN Profile** window is displayed, as shown in the Figure 73 on page 131.

Figure 73: Creating a VPN Profile

The screenshot shows the "General" panel of the "Create VPN Profile" window. It has two main sections: "General" and "VPN Proposal". The "General" section contains fields for "Name:", "Type: Route Based", and "Description:". The "VPN Proposal" section has "Proposal Type:" with radio buttons for "Predefined" (selected) and "Custom". Below this is a "Predefined Proposals:" slider ranging from "High" to "Low". At the bottom are four buttons: "Back", "Next", "Finish", and "Cancel".

In general, creating a VPN profile involves the following tasks:

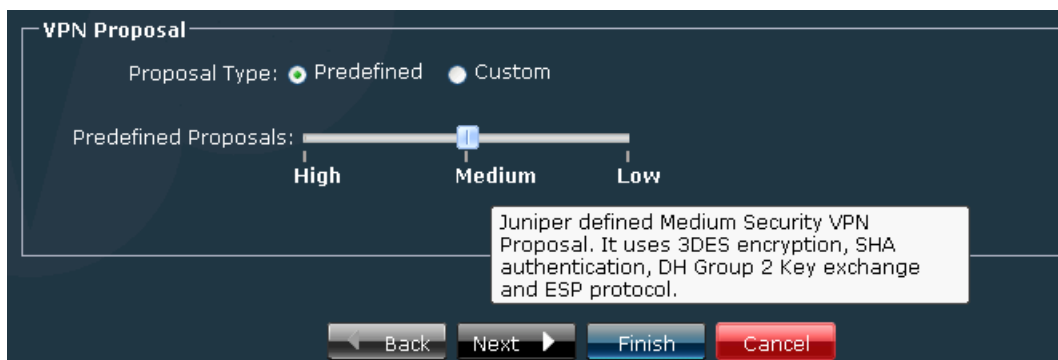
- Specifying the general settings
- Specifying the IKE/IPsec settings
- Specifying the connectivity parameters

Specifying the general settings

To specify the general settings for the VPN profile:

1. In the **General** Section:
 - a. In the **Name** field, enter a name for the new VPN profile.
 - b. In the **Description** field, enter a description for the new VPN profile.
2. In the **VPN Proposal** section:
 - a. Choose a proposal you intend to use. To choose one of the Juniper Networks defined proposals, select the **Predefined** radio button.
 - b. Drag the slider to the intended position on the **Predefined Proposals** slider bar. You can choose to place the slider at the **High**, **Medium** or **Low** markers to choose the associated proposals, as shown in the Figure 74 on page 132. Mouse over on 'High', 'Medium' and 'Low' markers to view a tool tip description about the respective predefined proposal.

Figure 74: Choosing a Default VPN Proposal



- c. To choose a custom VPN proposal you have created using the Create VPN Proposal Wizard, select the **Custom** radio button.

The **VPN Proposal** section is displayed. You can choose a custom VPN proposal or create new VPN proposals.

- d. From the **Custom Proposals** drop-down menu, choose a custom VPN proposal, as shown in Figure 75 on page 133.

Figure 75: Choosing a Custom VPN Proposal

VPN Proposal

Proposal Type: ☐ Predefined ☒ Custom

Custom Proposals: ▼ Add New Proposal

- e. If you want to add a new VPN proposal, click **Add New Proposal**.

This redirects you to the VPN Proposal creation page. For more information about creating a VPN proposal, see “Creating VPN Proposals” on page 122.

3. Click **Next**.

The **IKE/IPsec Setting** panel of the **Create VPN Profile** window is displayed.

Specifying the IKE/IPsec settings

To specify the IKE settings in the **IKE Settings** section:

1. Select the **Main** radio button or the **Aggressive** radio button to select the mode of authentication, as shown in Figure 76 on page 133.

Figure 76: Specifying IKE Settings

IKE/IPsec Settings

IKE Settings

Mode: ☒ Main ☐ Aggressive

IKE Identity: ▼

Authentication: Preshared Key

Preshared Key: ☐ Auto Generate ☒ Manual

Key Phrase:

Advanced IKE Settings

IPsec Settings

☐ Use Proxy Id

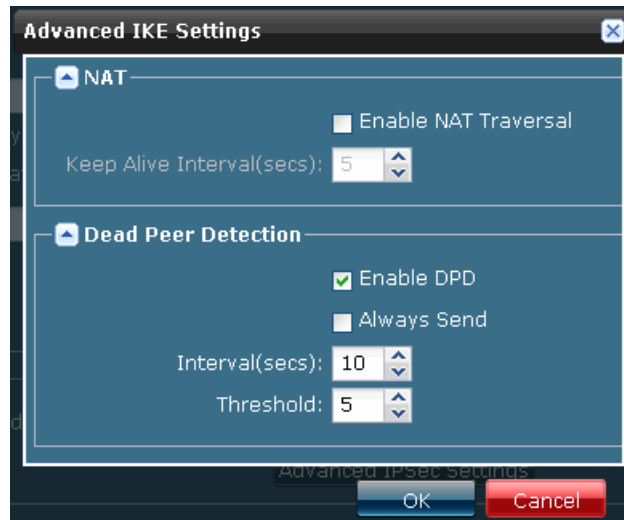
Advanced IPsec Settings

2. From the **IKE Identity** drop-down menu, select an appropriate mode, to identify IKE peers.
3. Select how the pre-shared key is generated by choosing appropriate the radio button.
 - a. Select the **Auto Generate** radio button to auto-generate the pre-shared key.
 - b. Select the **Manual** radio button to specify a pre-shared key manually.

- c. Enter the pre-shared key in the **Key Phrase** field.
4. To configure advanced IKE settings, click **Advanced IKE Settings**.

The **Advanced IKE Settings** dialog box is displayed, as shown in Figure 77 on page 134.

Figure 77: Specifying Advanced IKE Settings



5. In the **NAT** section:
 - a. Select/Clear the **Enable NAT Traversal** check box to enable/disable the NAT traversal feature respectively.
 - b. In the **Keep Alive Interval (secs)** field, enter a value in seconds.

You can also increase or decrease the value currently displayed by selecting the upward or downward pointing arrows respectively.
6. In the **Dead Peer Detection** section:
 - a. Select/Clear the **Enable DPD** check box to enable/disable the Dead Peer Detection feature respectively.
 - b. Select/Clear the **Always Send** check box to enable/disable the Always Send feature respectively.
 - c. In the **Interval (secs)** field, enter a value in seconds.

You can also increase or decrease the value currently displayed by selecting the upward or downward pointing arrows respectively.
 - d. In the **Threshold** field, enter a value in seconds.

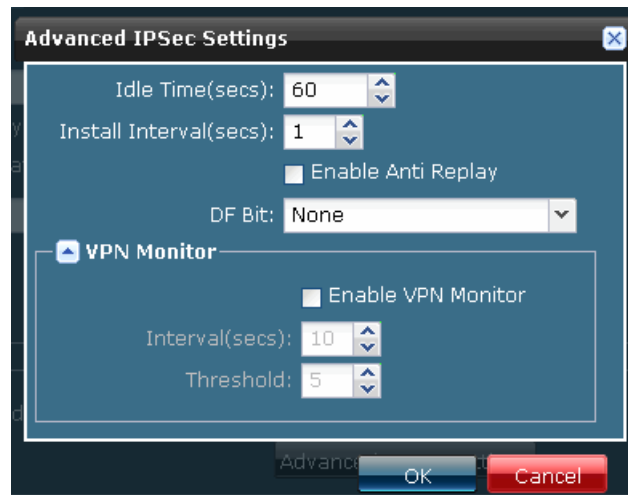
You can also increase or decrease the value currently displayed by selecting the upward or downward pointing arrows respectively.
7. Click **OK**.

To specify the IPsec settings in the **IPsec Settings** section:

1. Select/Clear the **Use Proxy ID** check box to enable/disable the Proxy ID feature respectively.
2. To configure advanced IPsec settings, click **Advanced IPsec Settings**.

The **Advanced IPsec Settings** dialog box is displayed, as shown in Figure 78 on page 135.

Figure 78: Specifying Advanced IPsec Settings



3. In the **Idle Time (secs)** field, enter a value in seconds.
You can also increase or decrease the value currently displayed by selecting the upward or downward pointing arrows respectively.
4. In the **Install Interval (secs)** field, enter a value in seconds.
You can also increase or decrease the value currently displayed by selecting the upward or downward pointing arrows respectively.
5. Select/Clear the **Enable Anti Replay** check box to enable/disable the Anti Replay feature respectively.
6. Select an appropriate option from the **DF Bit** field.
This option specifies if a router is allowed to fragment a packet.
7. Select/Clear the **Enable VPN Monitor** check box to enable/disable the VPN Monitor feature respectively. Configure the following options in the **VPN Monitor** section.
 - a. In the **Interval (secs)** field, enter a value in seconds.
You can also increase or decrease the value currently displayed by selecting the upward or downward pointing arrows respectively.
 - b. In the **Threshold** field, enter a value.
You can also increase or decrease the value currently displayed by selecting the upward or downward pointing arrows respectively.

8. Click **OK**.
9. Click **Next**.

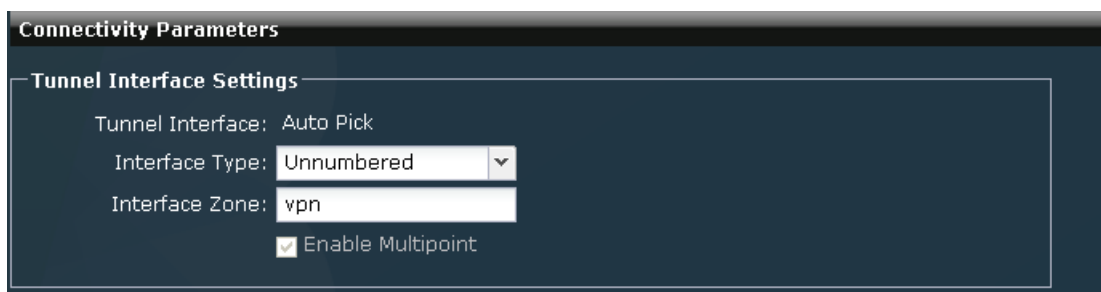
The **Connectivity Parameters** panel of the **Create VPN Profile** window is displayed.

Specifying the connectivity parameters

To specify the connection parameters in the Connectivity Parameters Panel:

1. In the **Tunnel Interface Settings** section:
 - a. From the **Interface Type** drop-down menu, select whether the interface is numbered or unnumbered, as shown in Figure 79 on page 136.

Figure 79: Specifying Connectivity Parameters



The screenshot shows the 'Connectivity Parameters' window. The 'Tunnel Interface Settings' section is expanded. The 'Tunnel Interface' is set to 'Auto Pick'. The 'Interface Type' dropdown is set to 'Unnumbered'. The 'Interface Zone' text field contains 'vpn'. The 'Enable Multipoint' checkbox is checked.

- b. In the **Interface Zone** section, enter the name for the interface zone.
 - c. Select/Clear the **Enable Multipoint** check box to specify if you want to enable/disable a multipoint interface for this VPN profile.
2. Click **Finish**.

Related Documentation

- VPN Profiles Overview on page 130
- Managing VPN Profiles on page 136

Managing VPN Profiles

You can view, delete, modify, or copy VPN profiles listed in the **Manage VPN Profiles** inventory panel.

To open the **Manage VPN Profiles** inventory panel:

- From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Profile**.

The **Manage VPN Profiles** inventory panel is displayed. All VPN profiles created are listed by default, in the graphical view.

You can either right-click or use the Actions Drawer to manage a VPN profile. For more information about using the Actions Drawer, see *Inventory Pages Overview*

You can perform the following tasks in the **Manage VPN Profiles** space:

1. Viewing the Details of a VPN Profile on page 137
2. Modifying a VPN Profile on page 138
3. Deleting a VPN Profile on page 139
4. Copying a VPN Profile on page 140
5. Searching for a VPN Profile on page 140

Viewing the Details of a VPN Profile

To view the details of a VPN profile:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Profile**.

The **Manage VPN Profiles** inventory panel is displayed.

2. Double-click the icon for the VPN profile whose details you intend to view. The details of the VPN profile are displayed in the **VPN Profile Settings** window, as shown in Figure 80 on page 138.

The **VPN Profile Settings** window lists all the parameters you have specified for this profile.

Figure 80: Viewing the Details of a VPN Profile

The screenshot shows a window titled "VPN Profile Settings" with a close button in the top right corner. The window contains four expandable sections:

- General Settings:**
 - Name: VPN_Profile1
 - Type: Route Based
 - Description:
 - VPN Proposal: Medium Security
- IKE Settings:** (Collapsed)
- IPSec Settings:** (Collapsed)
- Tunnel Settings:**
 - Tunnel Interface: Auto Pick
 - Tunnel Interface Type: UNNUMBERED
 - Tunnel Interface Zone: vpn
 - ☒ Enable MultiPoint

A "Close" button is located at the bottom center of the window.

Modifying a VPN Profile

To modify a VPN profile you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard** > **IPsec VPN** > **VPN Profile**.

The **Manage VPN Profiles** inventory panel is displayed.

2. Right-click the VPN profile and click the **Modify VPN Profile** link from the contextual menu, as shown in Figure 81 on page 139.

This action redirects you to the window that you used to create a new VPN profile. You can modify all the fields in this window, except the **Name** field.

Figure 81: Modifying a VPN Profile



3. In the **Description** field, enter a new description
4. Make necessary changes to the fields in the **VPN Proposal** section.
5. Click **Next**.
6. Make necessary changes to the fields in the **IKE Settings** and **IPsec Settings** sections in the **IKE/IPsec Settings** Panel.
7. Click **Next**.
8. Make necessary changes to the fields in the **Tunnel Interface Settings** and **Policy Settings** sections in the **Connectivity Parameters** panel.
9. Click **Finish**.

Deleting a VPN Profile

To delete a VPN profile you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Profile**.
The **Manage VPN Profiles** inventory panel is displayed.
2. Right-click the VPN profile you intend to delete and click the **Delete VPN Profile** link from the contextual menu.
The **Delete Profile** confirmation window is displayed.
3. Select the VPN profile you want to delete and click **Delete**.

Copying a VPN Profile

To copy a VPN profile you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Profile**.

The **Manage VPN Profiles** inventory panel is displayed.

2. Right-click the VPN profile you intend to delete and click the **Copy VPN Profile** link from the contextual menu.

This action redirects you to the window that you used to create a new VPN profile. This window displays the parameters of the profile you have copied with the **Name** field left blank.

3. In the **Name** field, enter a name for the new VPN profile.
4. Edit the other fields in the **General** panel if you intend to do so.
5. Click **Next**.
6. Edit the fields in the **IKE/IPsec Settings** panel if you intend to do so.
7. Click **Next**.
8. Edit the fields in the **Connectivity Parameters** panel if you intend to do so.
9. Click **Finish** to create a new profile.

The new profile you have created is displayed in the **Manage VPN Profiles** inventory panel.

Searching for a VPN Profile

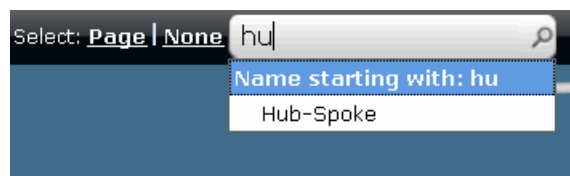
To search for a VPN profile you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN > VPN Profile**.

The **Manage VPN Profiles** inventory panel is displayed.

2. In the **Search** field, enter the name of VPN profile you want to search, as shown in Figure 82 on page 140.

Figure 82: Searching for a VPN Profile



3. Click the magnifying glass icon next to the **Search** field.

The **Manage VPN Profiles** inventory panel is populated with the VPN profiles matching your search criterion.

- Related Documentation**
- VPN Profiles Overview on page 130
 - Creating VPN Profiles on page 130

IPsec VPNs Overview

You can use an IPsec VPN Creation Wizard to create Site-To-Site and Hub-And-Spoke VPNs. The security topology you have created will serve as a base to create an IPsec VPN. You must configure the following to configure an IPsec VPN:

- VPN proposal
- VPN profile
- Security topology

You can configure the following parameters for an IPsec VPN:

- Tunnel IP range - In case you want to use a VPN profile with a numbered tunnel interface
- Endpoints for a Site-To-Site VPN
- Spokes and Hubs for a Hub-And-Spoke VPN

You can use the VPN Creation Wizard to view an overlay of the VPN you are creating on your security topology. This helps you make modifications to the VPN design before saving the configuration. After the configuration is saved, you can provision this VPN on the security devices.

- Related Documentation**
- Creating IPsec VPNs on page 141
 - Managing IPsec VPNs on page 152
 - Deploying IPsec VPNs on page 146
 - Decommissioning IPsec VPNs on page 154

Creating IPsec VPNs

To create an IPsec VPN:

1. From the **Security Design** task ribbon, select **Security Whiteboard** > **IPsec VPN**.

The **Manage VPNs** inventory panel is displayed. All IPsec VPNs created are listed by default, in the graphical view.

2. From the task ribbon, select the **Create IPsec VPN** icon.

The **General** panel of the **Create IPsec VPN** window is displayed as shown in Figure 83 on page 142.

Figure 83: Create IPsec VPN Page

1. In the **Name** field, enter a name for the new VPN.
2. In the **Description** field, enter a description for the new VPN.
3. From the **VPN Type** field, choose the type of VPN you want to create.
4. From the **Select Profile** field, choose an appropriate VPN profile.
5. If you choose to create a Hub-And-spoke VPN, the **Tunnel IP Range** fields are displayed. Enter an appropriate tunnel IP range.



NOTE: You should enter a unique tunnel IP range for every VPN. You will not be able to use this IP range for other VPNs that are created in the future.

6. Click **Next**.

This screen displays your security topology you have created using the Topology Designer. You can create a Site-To-Site or a Hub-And-Spoke VPN based on the VPN type you have chosen in the **VPN Type** field.



NOTE: If you select **Site-To-Site** as the VPN type, only those VPN profiles which use the Main mode to negotiate keys are available for selection.

The VPN profiles which use Aggressive mode for negotiating keys are not available for selection.



NOTE: If you select **Hub-And-Spoke** as the VPN type, only those VPN profiles which use a numbered tunnel interface are available for selection.

The VPN profiles which use an unnumbered tunnel interface are not available for selection.

1. Site-To-Site on page 143
2. Hub-And-Spoke on page 144

Site-To-Site

To create a Site-To-Site IPsec VPN, perform the following steps:

1. Select the device or the network that is the first endpoint of the VPN and select the Mark Endpoint icon from the toolbar.

You can also right-click the device and choose **Mark Endpoint** from the contextual menu.

The device or network chosen as an endpoint displays an overlay icon.



NOTE: If you select a network and mark it as an endpoint, the device associated with the network is selected as an endpoint by default.



NOTE: If you select a device and mark it as an endpoint, all networks associated with the device is a part of the endpoint.



NOTE: You cannot configure a device group as an endpoint for a Site-To-Site VPN.



NOTE: You cannot select a network that is associated with multiple devices as an endpoint for a Site-To-Site VPN.

2. Select the device or the network that is the second endpoint of the VPN and select the Mark Endpoint icon from the toolbar.
3. Click **Next**.

This screen displays an overlay of the VPN you are creating over the topology design. You can also view the tunnels that connect the endpoints.

4. Click **Finish** to complete the VPN creation.

The new VPN you have created is displayed in the **Manage VPNs** inventory panel.

Hub-And-Spoke

To create a Hub-And-Spoke IPsec VPN:

1. Select the device or the network that is the first spoke of the VPN and select the Mark Endpoint icon from the toolbar.



NOTE: If you select a network and mark it as an endpoint, the device associated with the network is selected as a spoke by default.



NOTE: If you select a device and mark it as an endpoint, all networks associated with the device are a part of the spoke.

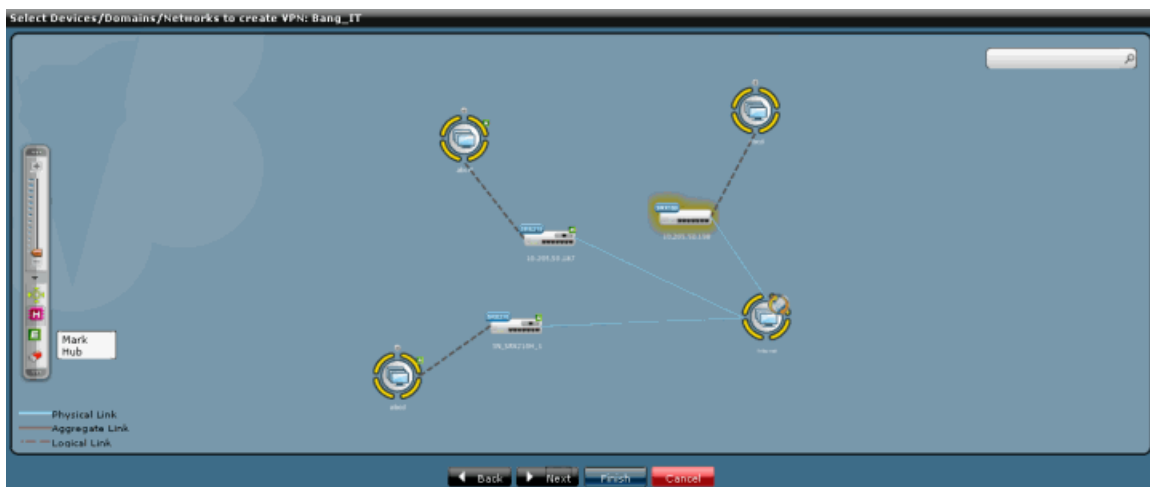
2. Select the device or the network that is the second spoke of the VPN and select the Mark Endpoint icon from the toolbar.



NOTE: You can also select multiple devices and click the Mark Endpoint icon to create multiple spokes at one go.

3. Select the device or network that you intend to configure as a Hub and select the Mark Hub icon from the toolbar, as shown in Figure 84 on page 144.

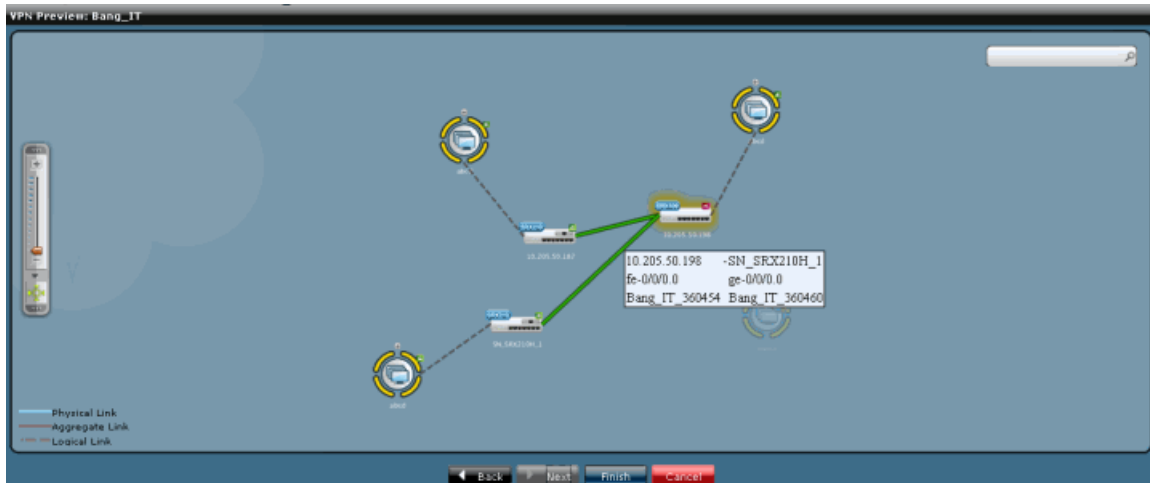
Figure 84: VPN Creation: Mark Hub



4. Click **Next**.

This screen displays an overlay of the VPN you are creating over the topology design. You can also view the tunnels that connect the hub/s with the spokes, as shown in Figure 85 on page 145.

Figure 85: VPN Preview



5. Click **Finish**.

The new VPN you have created is displayed in the **Manage VPNs** inventory panel.



NOTE: You can also mark multiple devices as spokes using the Search feature. To do so:

1. Enter the search criterion in the Search bar.
All devices matching the search criterion will be selected.
2. Select the Mark Endpoint icon from the toolbar.
All devices will be marked as spokes.

Related Documentation

- IPsec VPNs Overview on page 141
- Managing IPsec VPNs on page 152
- Deploying IPsec VPNs on page 146
- Decommissioning IPsec VPNs on page 154

Deploying IPsec VPNs

To deploy or provision an IPsec VPN that you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN**.
The **Manage VPNs** inventory panel is displayed.
2. Right-click the IPsec VPN that you want to provision and select **Provision VPN** from the contextual menu.

The **Provision VPN** window displays the devices on which this VPN is provisioned. You can view the device name, device IP address, platform, Junos OS version, configuration state, connection status, and the XML commands, as shown in Figure 86 on page 146.

Figure 86: Provision VPN Window

Name	Device IP	Platform	OS Version	Configuration Status	Managed Status	Connection Status	Configuration
10.205.119.11	10.205.119.11	SRX100H	10.483.5	New	In Sync	up	View
10.205.119.15	10.205.119.15	SRX100B	10.483.5	New	In Sync	up	View

Page 1 of 1 | Displaying 1 - 2 of 2 | Show 10 items

☐ Schedule at a later time

[Provision](#) [Cancel](#)

The states displayed in the **Configuration** column specify if the configuration pushed to the device is new, a modified one, or one that will be removed.



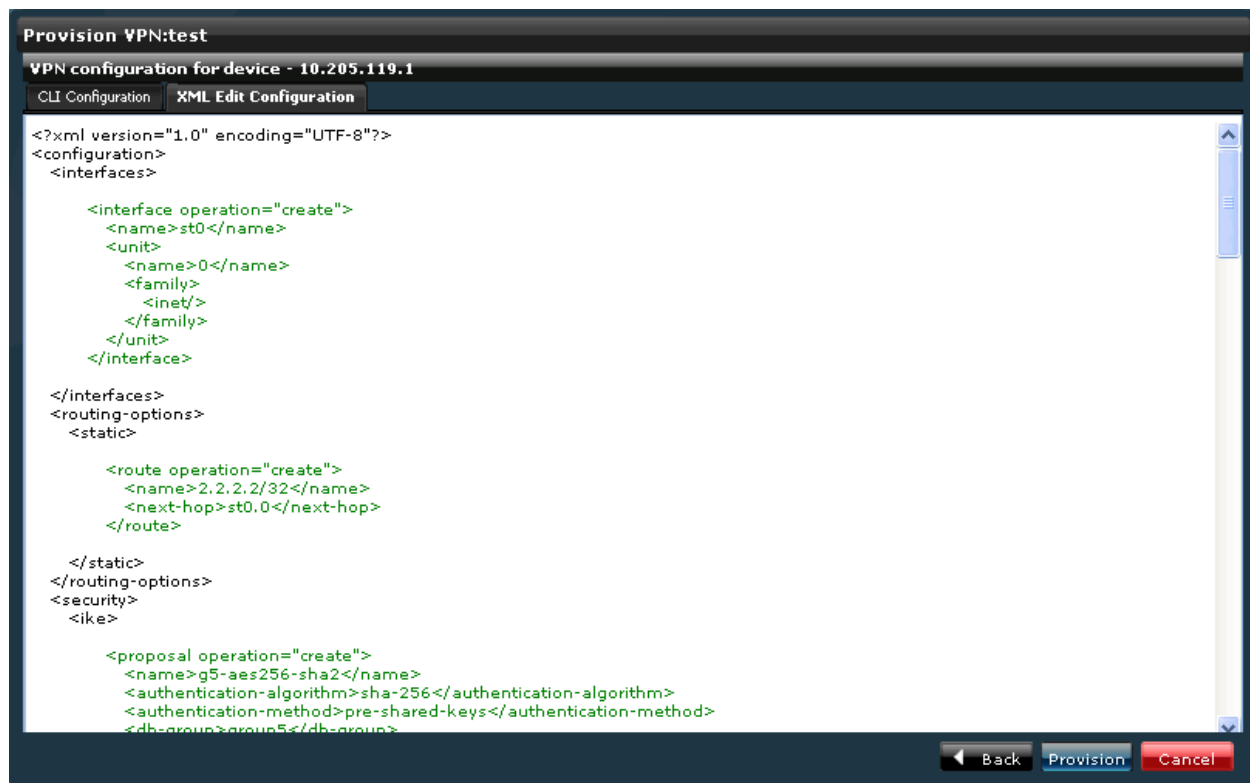
NOTE: You can search for a specific device on which the VPN is provisioned by entering the search criteria in the search field, on the right hand top corner of the **Provision VPN** window. You can search the devices by their name, IP address or the OS version.



NOTE: If the VPN is to be provisioned on a large number of devices, the devices are displayed across multiple pages. You can use the pagination and display options available on the lower ribbon, just below the list of devices to view all devices on which the VPN is provisioned.

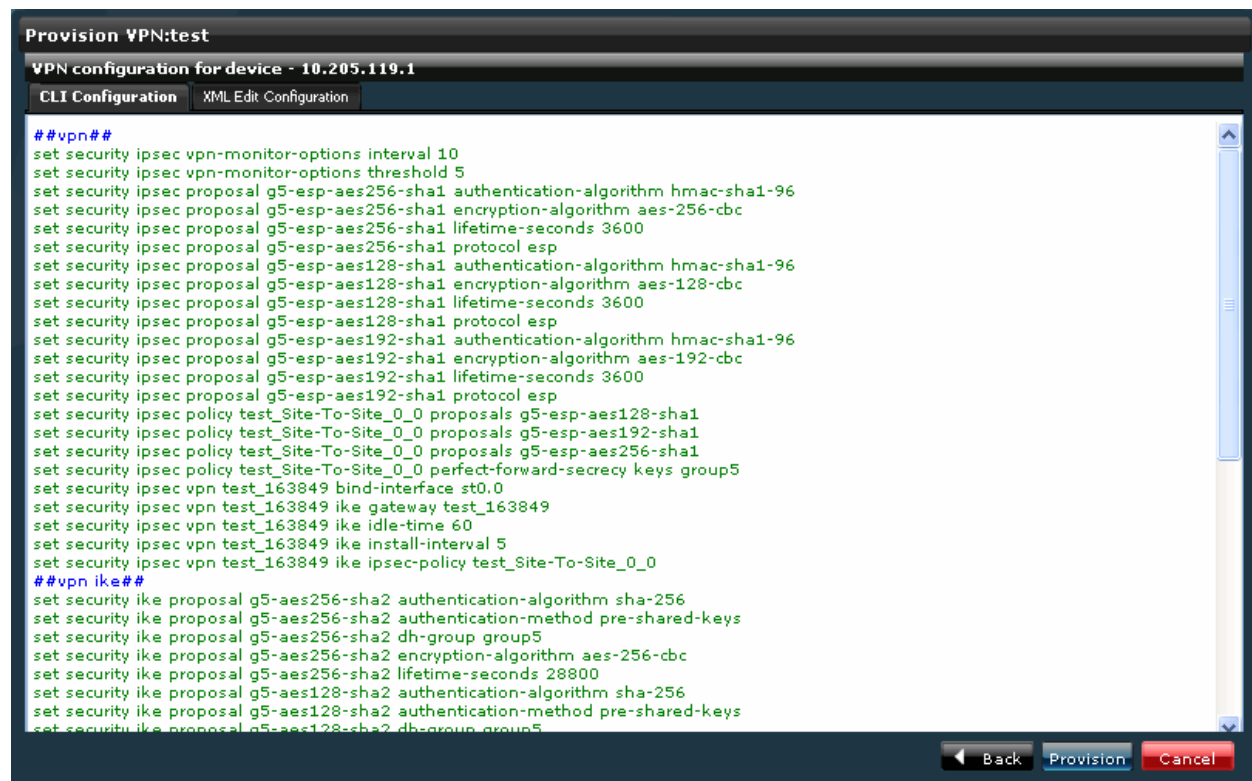
3. If you want to preview the configuration changes pushed to the device, click the **View** link in the **XML Commands** column corresponding to the device. The **XML Edit Configuration** tab is displayed by default. You can view the configuration details, as shown in Figure 87 on page 147.

Figure 87: View XML Commands:VPN



4. If you want to view the CLI configuration details, click the **CLI Configuration** tab. You can view the configuration details, as shown in Figure 88 on page 148.

Figure 88: Viewing CLI Commands: VPN



5. Select the check box next to the **Schedule Provisioning** field to schedule the provisioning to a later time and date.
6. Select appropriate values from the **Date and Time** fields.
7. Click **Provision**.

The IPsec VPN is provisioned on the devices that are a part of this VPN. A new job is created and the job ID is displayed in the **Job Information** dialog box.

8. Click the job ID to view more information about the job created. This action directs you to the **Job Management** work space.

The **Device Provisioning Status** window is displayed with the status of the IPsec VPN you have provisioned on each device. You will see appropriate error messages in the **Message** column of this window, if the provisioning fails. The error messages include:

- Connection Status is not up
This indicates that there is no active connection to the device from Junos Space.
- Managed Status is not In Sync
This indicates that the latest device configuration is not synchronized with Junos Space.
- Configuration Update Failed

This indicates configuration commit errors. This error message includes the error message sent by the device.






NOTE: You can also choose to provision a VPN using the **Actions Panel**. To do so:

1. Select the check box on the left corner of the VPN you want to provision.
 2. Click the **Actions Panel** located on the left corner of the inventory panel and select **Provision VPN**.
 3. Click **Provision**.
-

An IPsec VPN is placed in a specific state based on whether it is provisioned, not provisioned, or partially provisioned. An overlay icon is placed over the IPsec VPN icon to depict the different states. The different states that an IPsec VPN is placed in is listed in Table 11 on page 150.

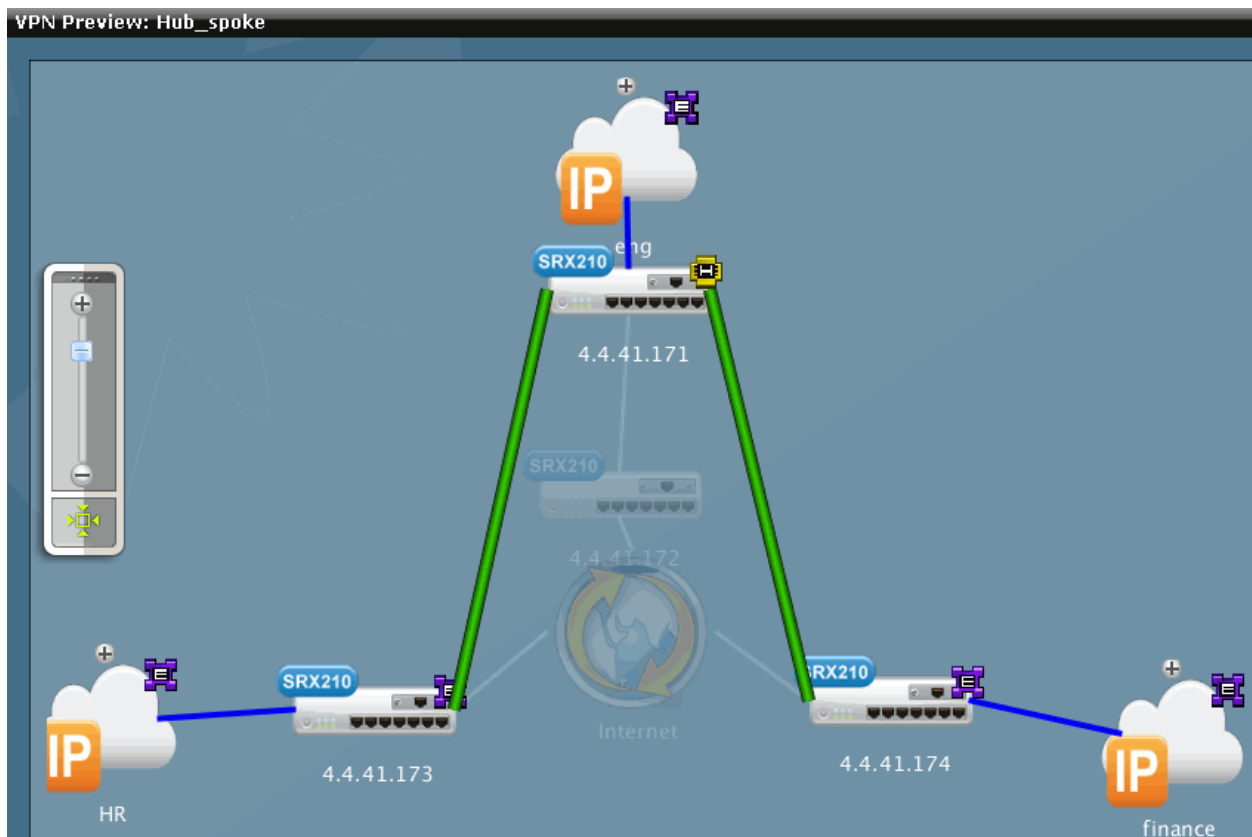
Table 11: IPsec VPN Provision States

State	Overlay Icon
Provisioned	 The icon shows a dark square with a small white tab in the top-left corner. Inside, there's a light gray square with a green double-headed arrow. Below this is a white cloud with a yellow padlock. To the right of the cloud is a blue circle with a white 'P'. The word 'site' is centered below the cloud, and a 'Details' button is in the bottom-right corner.
Not Provisioned	 The icon is similar to the 'Provisioned' state but features a blue circle with a white lightning bolt instead of a 'P'. The word 'new' is centered below the cloud, and a 'Details' button is in the bottom-right corner.
Partially Provisioned	 The icon shows a dark square with a small white tab in the top-left corner. Inside, there's a light gray square with a green 'X' mark. Below this is a white cloud with a yellow padlock. To the right of the cloud is a blue circle with a white 'P'. The word 'hub' is centered below the cloud, and a 'Details' button is in the bottom-right corner.



NOTE: If you are provisioning a VPN which has an intermediate firewall, Junos Space automatically configures the intermediate firewall with the policy to allow the IKE/IPsec traffic for VPN. The Provision VPN window lists the intermediate device along with the VPN endpoints. You can preview the configuration sent to the intermediate device. You can view a typical VPN configuration which leads to the policy creation in Figure 89 on page 151.

Figure 89: IPsec VPN with an Intermediate Firewall





NOTE: When you provision a VPN, you can view all security policies that are impacted, as shown in Figure 90 on page 152.

Figure 90: Policies Affected While Provisioning a VPN

Provision VPN:fsf							
Name	Device IP	Platform	OS Version	Configuration St	Managed Status	Connection Statu	Configuration
10.205.119.101	10.205.119.101	SRX240-LM	10.0R3.10	New	In Sync	up	View
10.205.119.110[Hub]	10.205.119.110	SRX100-LM	10.0R1.8	New	In Sync	up	View
10.205.119.108	10.205.119.108	SRX210-HM	10.0R3.10	New	In Sync	up	View

Affected Services		
Service Name	Service Type	Details
test	NAT	View
CALIFORNIA-KARNATAKA	Security Policy	View
lahore-CALIFORNIA	Security Policy	View

☐ Schedule at a later time

[Provision](#) [Cancel](#)

Related Documentation

- IPsec VPNs Overview on page 141
- Creating IPsec VPNs on page 141
- Managing IPsec VPNs on page 152
- Decommissioning IPsec VPNs on page 154

Managing IPsec VPNs

You can edit or delete the IPsec VPNs listed in the **Manage VPNs** inventory panel.

To open the **Manage VPNs** inventory panel:

- From the **Security Design** task ribbon, select **Security Whiteboard** > **IPsec VPN**.

The **Manage VPNs** inventory panel is displayed. All IPsec VPNs created so far is listed by default, in the graphical view.

You can either right-click or use the Actions Drawer to manage an IPsec VPN. For more information about using the Actions Drawer, see Inventory Pages Overview

You can perform the following tasks in the **Manage VPNs** space:

1. Modifying an IPsec VPN on page 153
2. Deleting an IPsec VPN on page 153

Modifying an IPsec VPN

To modify an IPsec VPN you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN**.

The **Manage VPNs** inventory panel is displayed.

2. Right-click the IPsec VPN and click the **Modify VPN** link from the contextual menu.

This action redirects you to the window that you used to create a new IPsec VPN. You can modify all the fields on this window, except the **Name** field and the **VPN Type** field.

3. In the **Description** field, enter a new description.
4. Make necessary changes in the **Select Profile** field.
5. Click **Next**.
6. Make necessary changes to VPN setup and click **Next**.

This screen displays an overlay of the VPN you have created over the topology design.

7. Click **Finish**.

Deleting an IPsec VPN

To delete an IPsec VPN you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN**.

The **Manage VPNs** inventory panel is displayed.

2. Right-click the IPsec VPN you intend to delete and click the **Delete VPN** link from the contextual menu.

The **Delete VPN** confirmation window is displayed.

3. Select the IPsec VPN you want to delete and click **Delete**.

Related Documentation

- IPsec VPNs Overview on page 141
- Creating IPsec VPNs on page 141
- Deploying IPsec VPNs on page 146
- Decommissioning IPsec VPNs on page 154

Decommissioning IPsec VPNs

To decommission an IPsec VPN you have created:

1. From the **Security Design** task ribbon, select **Security Whiteboard > IPsec VPN**.
The **Manage VPNs** inventory panel is displayed.
2. Right-click the VPN you want to decommission and select **Decommission VPN** from the contextual menu.
The **Decommission VPN** window displays the devices on which this VPN is provisioned, as shown in Figure 91 on page 154.

Figure 91: Decommission VPN Window

Name	Device IP	Platform	OS Version	Configuration St	Managed Status	Connection Stat	Configuration
10.205.50.112	10.205.50.112	SRX210-HM	10.0R3.10	Remove	In Sync	up	view
10.205.0.51	10.205.0.51	SSG140	6.3.0r4.0	Remove	In Sync	up	view
10.205.99.230	10.205.99.230	NSISG1000	6.3.0r1.0	Remove	Connecting	down	view

☐ Delete service after job succeeds

☐ Schedule at a later time

[Decommission](#) [Cancel](#)

3. To automatically delete the VPN from Junos Space after the VPN is decommissioned, select the **Delete service after job succeeds** check box.
4. To schedule the decommissioning to a later time and date, select the check box next to the **Schedule at a later time** field.
5. Click **Next**.
6. Select appropriate values from the **Date and Time** field.
7. Click **Decommission**.



NOTE: If a provision job on a VPN partially succeeds (that is, the provision job does not push the configuration details to all devices in the VPN), the VPN is placed in the Partially Provisioned state. You can provision or decommission the VPN using the appropriate workflow.



NOTE: If you try to delete a VPN that is in the Provisioned state, a popup window confirming whether you want to decommission the VPN is displayed. You can click **Yes** in this window to decommission the VPN before deleting it, or click **No** to delete the VPN without decommissioning it.

- Related Documentation**
- [IPSec VPNs Overview on page 141](#)
 - [Creating IPSec VPNs on page 141](#)
 - [Managing IPSec VPNs on page 152](#)
 - [Deploying IPSec VPNs on page 146](#)

PART 5

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