# Configure a Basic Policy

Configure a basic security policy with the following settings:

- Inside and outside interfaces—Assign a static IP address to the inside interface, and use DHCP for the outside interface.
- DHCP server—Use a DHCP server on the inside interface for clients.
- Default route—Add a default route through the outside interface.
- NAT—Use interface PAT on the outside interface.
- Access control—Allow traffic from inside to outside.

You can also ccustomize your security policy to include more advanced inspections.



# Configure interfaces

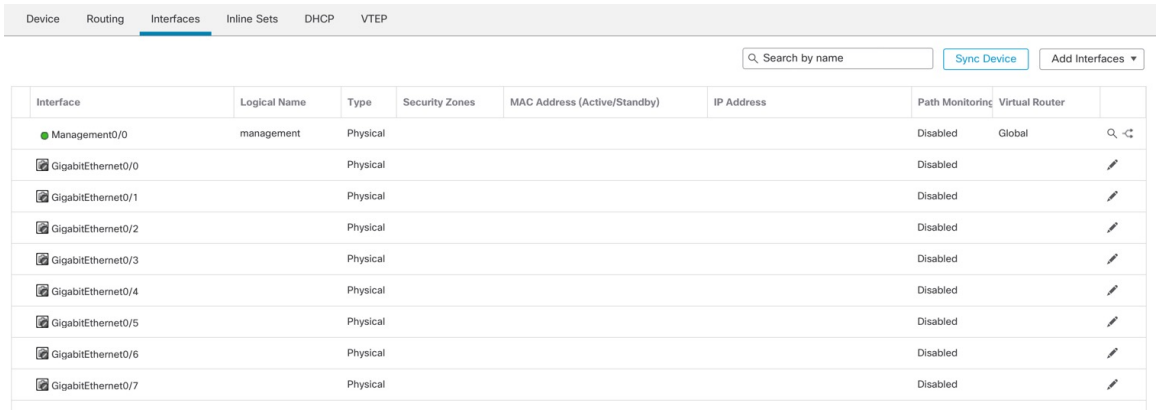
The following example configures a routed-mode inside interface with a static address and a routed-mode outside interface using DHCP. It also adds a DMZ interface for an internal web server.

**Procedure**

**Step 1** Choose **Devices** > **Device Management**, and click **Edit** (✎) for the firewall.

**Step 2** Click **Interfaces**.

*Figure 1: Interfaces*

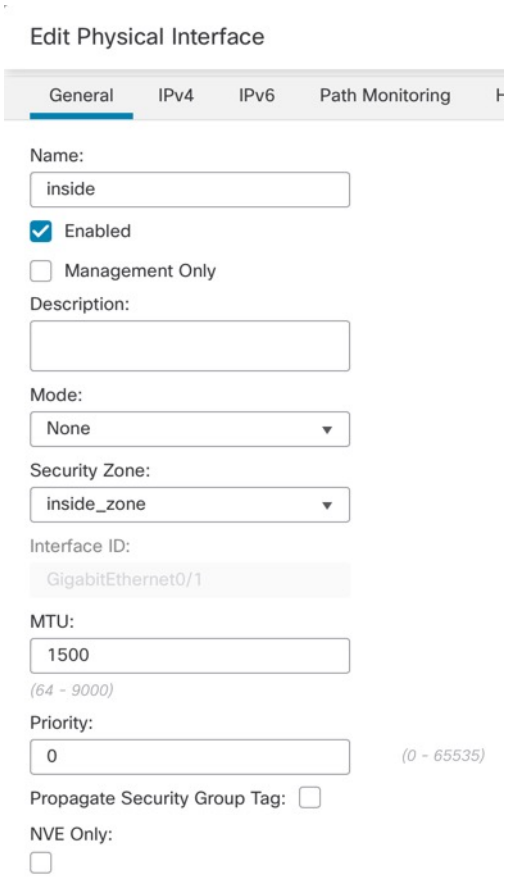



**Step 3** To create breakout ports from a 40-Gb or larger interface, click the **Break** icon for the interface.

If you already used the full interface in your configuration, you will have to remove the configuration before you can proceed with the breakout.

**Step 4** Click **Edit** (✎) for the interface that you want to use for inside.

*Figure 2: General Tab*



a) From the **Security Zone** drop-down list, choose an existing inside security zone or add a new one by clicking **New**.

For example, add a zone called **inside_zone**. You apply your security policy based on zones or groups. For example, configure your access control policy to enable traffic to go from the inside zone to the outside zone, but not from outside to inside.

If the inside interface was preconfigured, the rest of these fields are optional.

b) Enter a **Name** up to 48 characters in length.

For example, name the interface **inside**.

c) Check the **Enabled** check box.

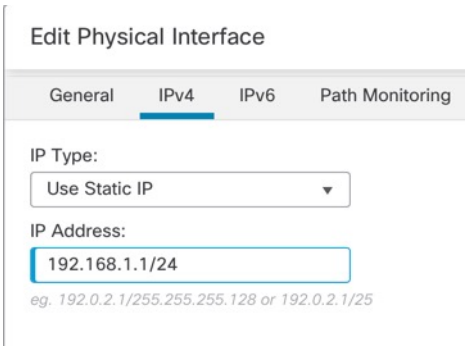
d) Leave the **Mode** set to **None**.

e) Click the **IPv4** and/or **IPv6** tab.

- **IPv4**—Choose **Use Static IP** from the drop-down list, and enter an IP address and subnet mask in slash notation.

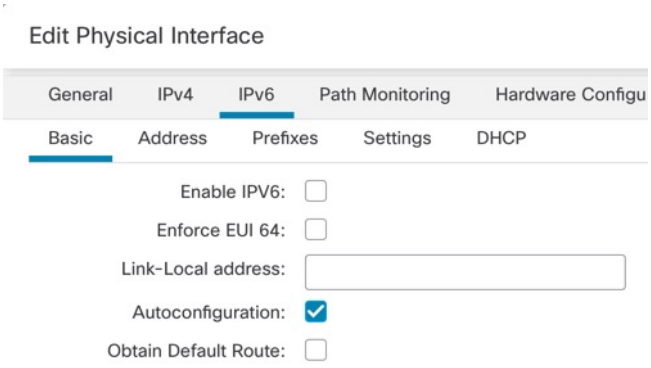
  For example, enter **192.168.1.1/24**

***Figure 3: IPv4 Tab***




- **IPv6**—Check the **Autoconfiguration** check box for stateless autoconfiguration.

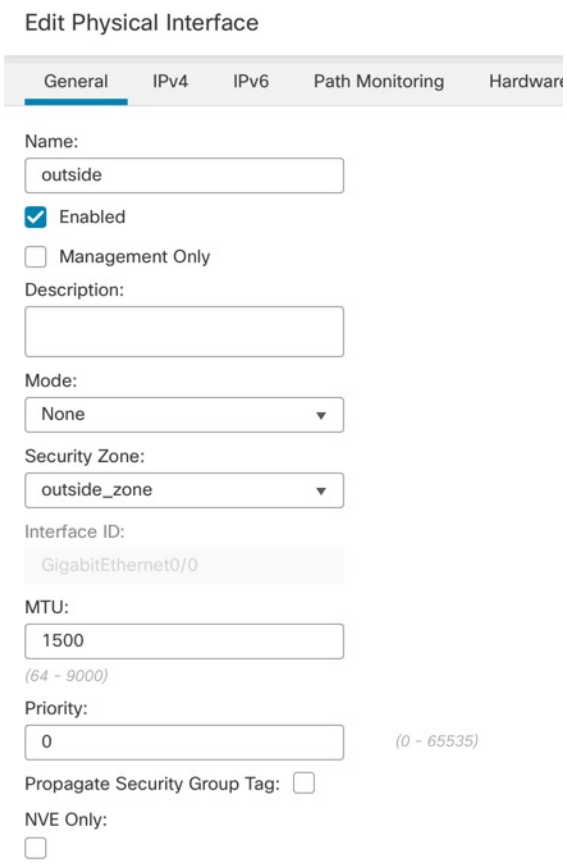
***Figure 4: IPv6 Tab***




f) Click **OK**.

**Step 5** Click **Edit** (✎) for the interface that you want to use for outside.

*Figure 5: General Tab*




a) From the **Security Zone** drop-down list, choose an existing outside security zone or add a new one by clicking **New**.

   For example, add a zone called **outside_zone**.

   You should not alter any other basic settings because doing so will disrupt the Firewall Management Center management connection.

b) Click **OK**.

**Step 6** Configure a DMZ interface to host a web server, for example.

a) Click **Edit** (✎) for the interface you want to use.
b) From the **Security Zone** drop-down list, choose an existing DMZ security zone or add a new one by clicking **New**.

   For example, add a zone called **dmz_zone**.

c) Enter a **Name** up to 48 characters in length.

   For example, name the interface **dmz**.

d) Check the **Enabled** check box.
e) Leave the **Mode** set to **None**.
f) Click the **IPv4** and/or **IPv6** tab and configure the IP address as desired.
g) Click **OK**.

**Step 7** Click **Save**.

# Configure the DHCP server

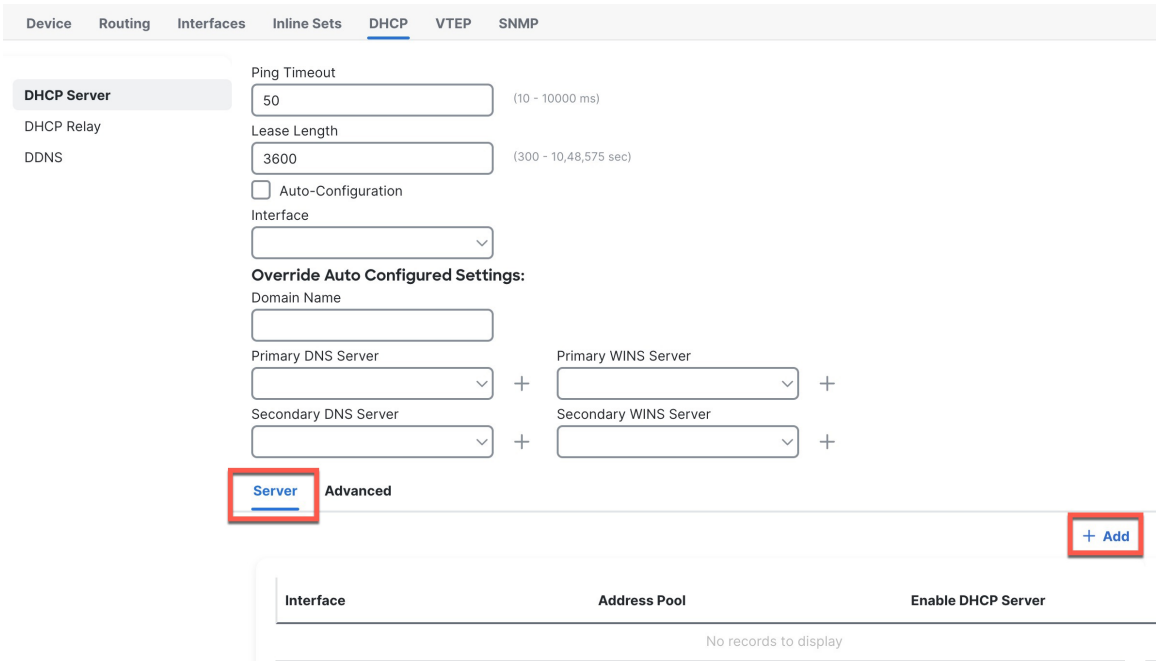
Enable the DHCP server if you want clients to use DHCP to obtain IP addresses from the firewall.

## Procedure

**Step 1** Choose **Devices** > **Device Management**, and click **Edit** (✎) for the device.

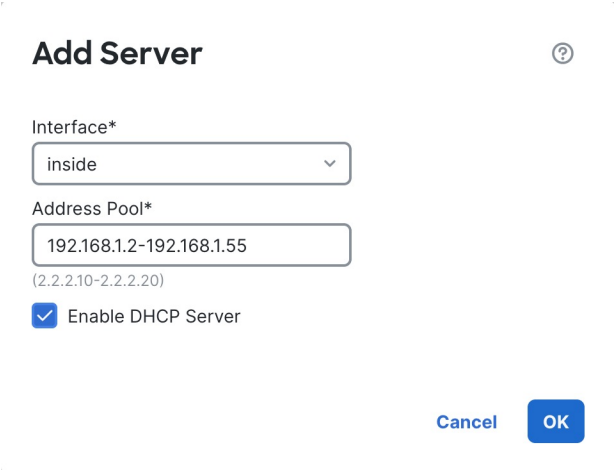
**Step 2** Choose **DHCP** > **DHCP Server**.

***Figure 6: DHCP Server***




**Step 3** In the **Server** area, click **Add** and configure the following options.

*Figure 7: Add Server*




- **Interface**—Choose the interface name from the drop-down list.
- **Address Pool**—Set the range of IP addresses. The IP addresses must be on the same subnet as the selected interface and cannot include the IP address of the interface itself.
- **Enable DHCP Server**—Enable the DHCP server on the selected interface.

**Step 4** Click **OK**.

**Step 5** Click **Save**.

# Configure NAT

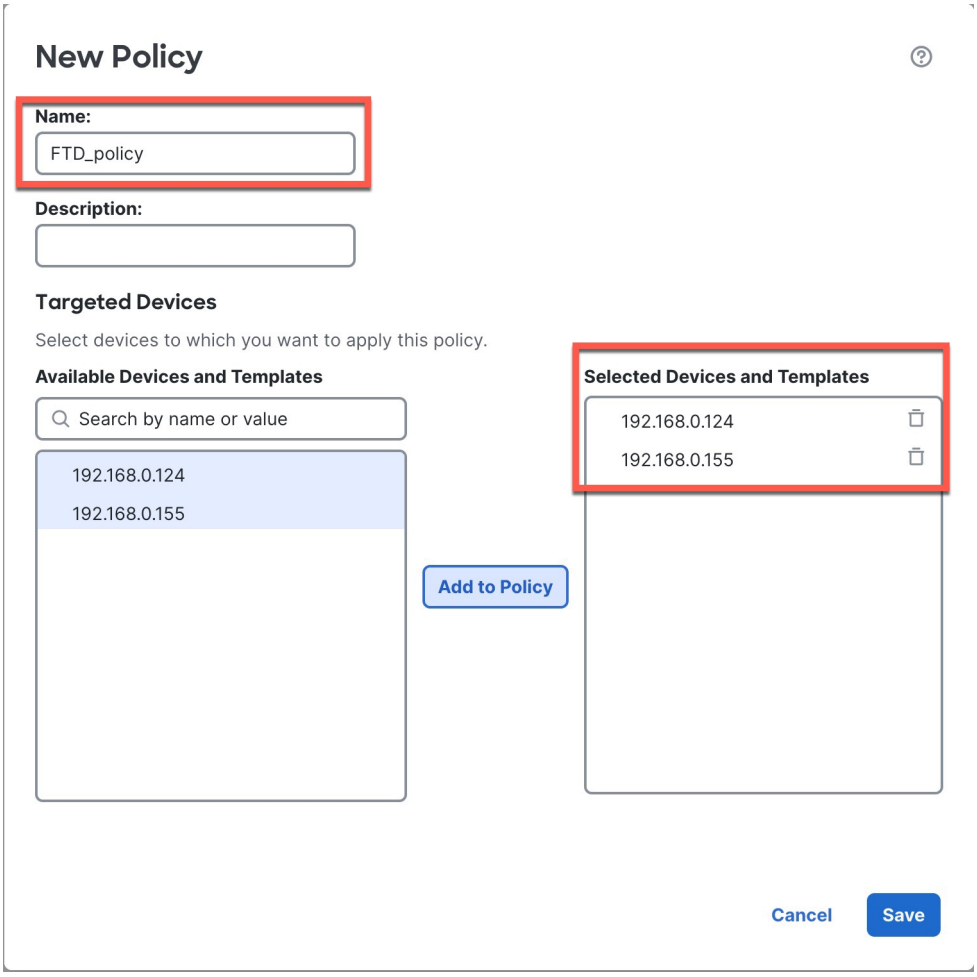
This procedure creates a NAT rule for internal clients to convert the internal addresses to a port on the outside interface IP address. This type of NAT rule is called *interface Port Address Translation (PAT)*.

**Procedure**

**Step 1** Choose **Devices** > **NAT**, and click **New Policy**.

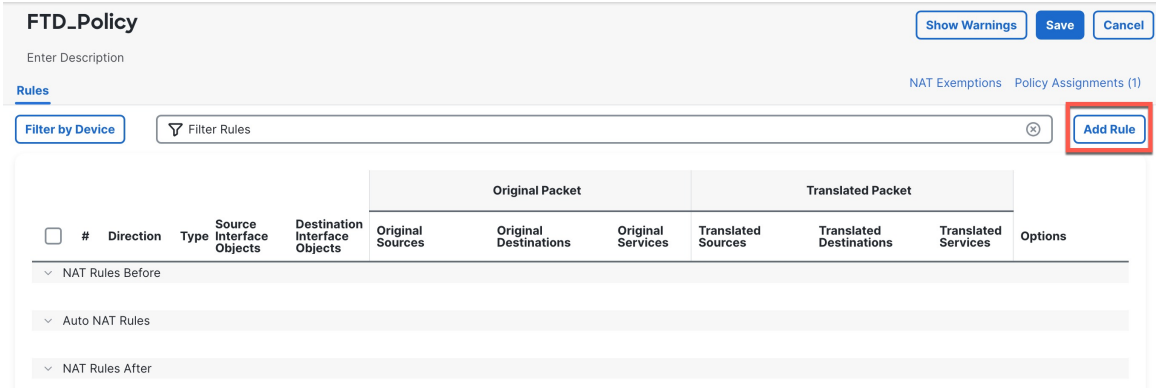
**Step 2** Name the policy, select the devices that you want to use the policy, and click **Save**.

*Figure 8: New Policy*




The policy is added the Firewall Management Center. You still have to add rules to the policy.

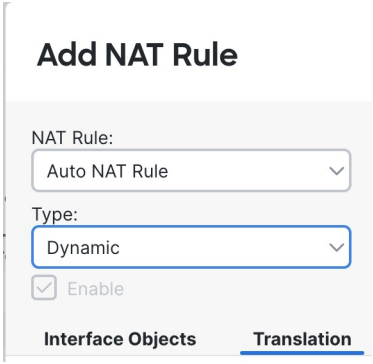
*Figure 9: NAT Policy*




**Step 3** Click **Add Rule**.

**Step 4** Configure the basic rule options:

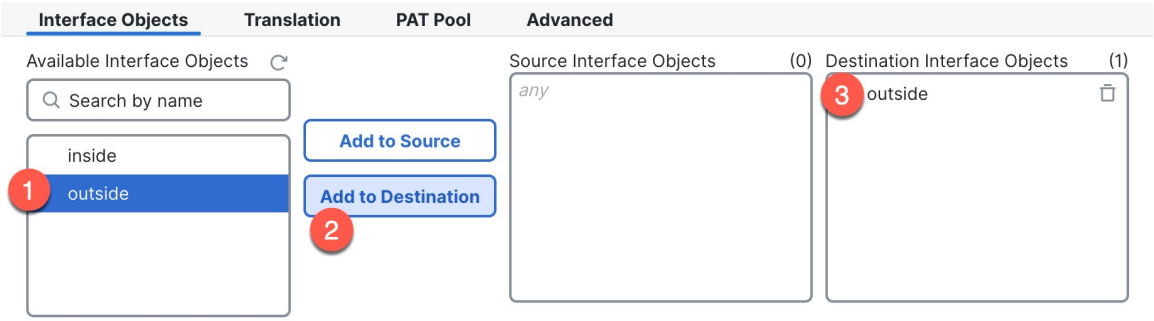
*Figure 10: Basic Rule Options*




- **NAT Rule**—Choose **Auto NAT Rule**.
- **Type**—Choose **Dynamic**.

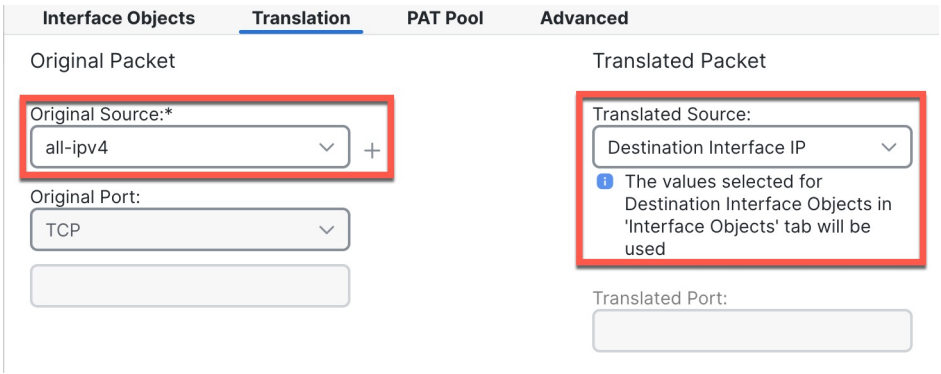
**Step 5** On the **Interface Objects** page, add the outside zone from the **Available Interface Objects** area to the **Destination Interface Objects** area.

*Figure 11: Interface Objects*



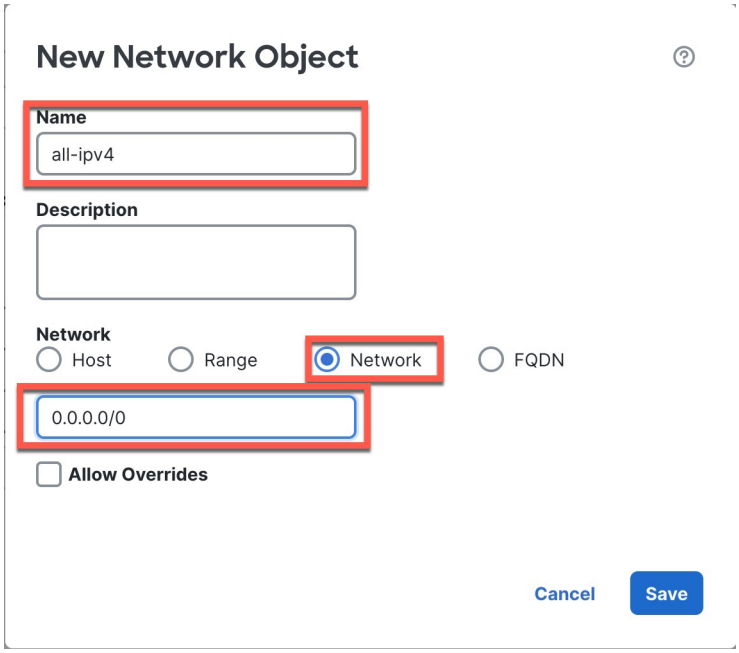

**Step 6** On the **Translation** page, configure the following options:

*Figure 12: Translation*




- **Original Source**—Click **Add** (+) to add a network object for all IPv4 traffic (**0.0.0.0/0**).

*Figure 13: New Network Object*




**Note**
You cannot use the system-defined **any-ipv4** object, because Auto NAT rules add NAT as part of the object definition, and you cannot edit system-defined objects.

- **Translated Source**—Choose **Destination Interface IP**.

**Step 7** Click **Save** to add the rule.

The rule is saved to the **Rules** table.

**Step 8** Click **Save** on the **NAT** page to save your changes.

# Configure an access control rule

If you created a basic **Block all traffic** access control policy when you registered the firewall, then you need to add rules to the policy to allow traffic through the firewall. The access control policy can include multiple rules that are evaluated in order.

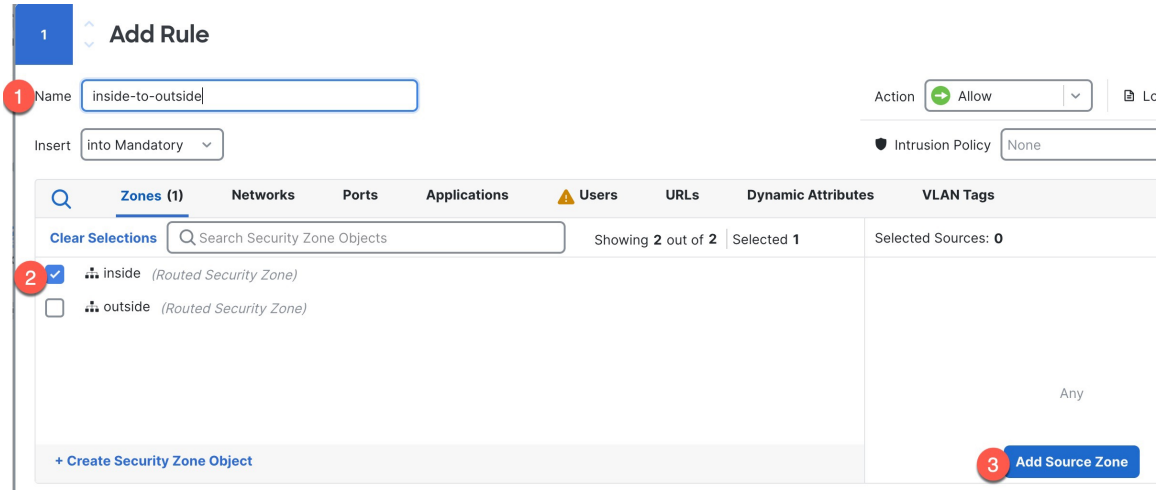
This procedure creates an access control rule to allow all traffic from the inside zone to the outside zone.

## Procedure

**Step 1** Choose **Policies** > **Security policies** > **Access Control**, and click **Edit** (✎) for the access control policy assigned to the device.

**Step 2** Click **Add Rule**, and set the following parameters.

***Figure 14: Source Zone***

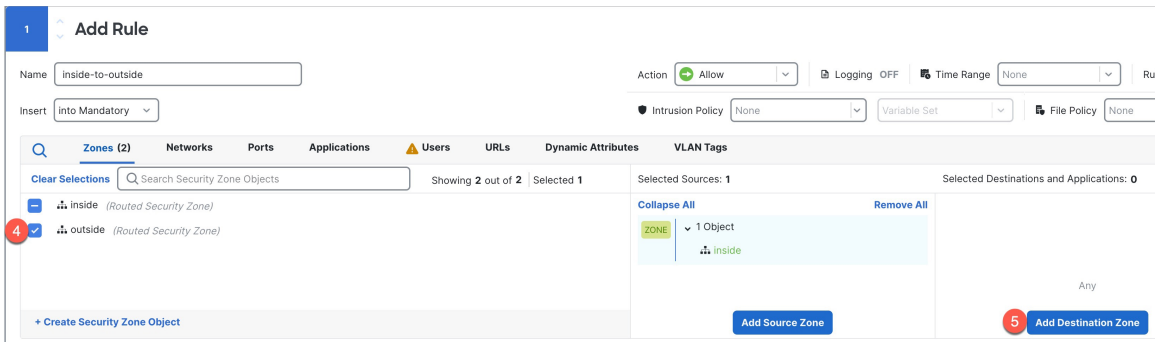



**1.** Name this rule, for example, **inside-to-outside**.

**2.** Select the inside zone from **Zones**

**3.** Click **Add Source Zone**.

***Figure 15: Destination Zone***




**4.** Select the outside zone from **Zones**.

**5.** Click **Add Destination Zone**.

Leave the other settings as is.

**Step 3** (Optional) Customize associated policies by clicking on the policy type in the packet flow diagram.

Prefilter, Decryption, Security Intelligence, and Identity policies are applied before an access control rule. Customizing these policies is not required, but after you know your network's needs, they let you improve network performance by either fastpathing trusted traffic (bypassing processing) or blocking traffic so no further processing is required.

***Figure 16: Policies Applied Before Access Control***

- **Prefilter Rules**—The Default Prefilter Policy passes all traffic for the other rules to act on (analyzes). The only change to the default policy you can make is to **block** tunnel traffic. Otherwise, you can create a new prefilter policy to associate with the access control policy that can analyze (pass on), fastpath (bypass further checks) or block.

  Prefiltering lets you improve performance by dealing with traffic before it gets any further, by either blocking or fastpathing. In a new policy, you can add *tunnel* rules and *prefilter* rules. A tunnel rule lets you fastpath, block, or rezone plaintext (non-encrypted), passthrough tunnels. A prefilter rule lets you fastpath or block non-tunneled traffic identified by IP address, port, and protocol.

  For example, if you know you want to block all FTP traffic on your network, but fastpath SSH traffic from an administrator, you can add a new prefilter policy.

- **Decryption**—Decryption is not applied by default. Decryption is a way to expose network traffic to deep inspection. In most cases, you don't want to decrypt traffic, and can only do so if it is legally allowed. For maximum network protection, a decryption policy might be a good idea for traffic going to critical servers or coming from untrusted network segments.

- **Security Intelligence**—(Requires the IPS license) Security Intelligence is enabled by default. Security Intelligence is another early defense against malicious activity applied before passing connections to the access control policy for further processing. Security Intelligence uses reputation intelligence to quickly block connections to or from IP addresses, URLs, and domain names provided by Talos, the threat intelligence organization at Cisco. You can add or delete additional IP addresses, URLs, or domains if desired.

  **Note**
  If you do not have the IPS license, this policy will not be deployed even though it shows in your access control policy as enabled.

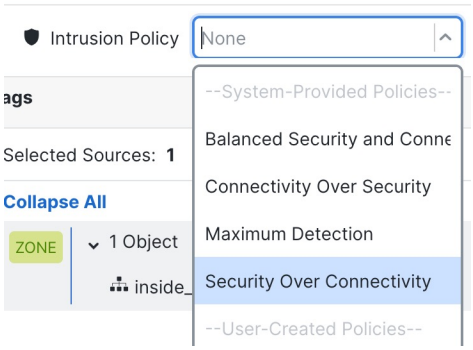
- **Identity**—Identity is not applied by default. You can require a user to authenticate before allowing traffic to be processed by the access control policy.

**Step 4** (Optional) Add an Intrusion policy that is applied after the access control rule.

The Intrusion policy is a defined set of intrusion detection and prevention configurations that inspects traffic for security violations. The Firewall Management Center includes many system-provided policies you can enable as-is or that you can customize. This step enables a system-provided policy.

a) Click the **Intrusion Policy** drop-down list.

***Figure 17: System-Provided Intrusion Policies***



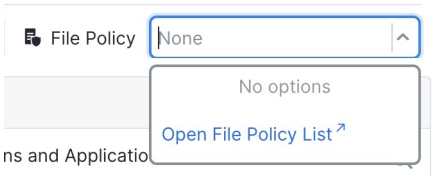

b) Choose one of the system-provided policies from the list.

We recommend **Balanced Security and Connections** for most use cases.

**Step 5** (Optional) Add a File policy that is applied after the access control rule.

a) Click the **File Policy** drop-down list and choose either an existing policy or add one by choosing the **Open File Policy List**.

***Figure 18: File Policy***




For a new policy, the **Policies** > **Security policies** > **Malware & File** page opens in a separate tab.

b) See the *Cisco Secure Firewall Device Manager Configuration Guide* for details on creating the policy.

c) Return to the **Add Rule** page and select the newly created policy from the drop-down list.

**Step 6** Click **Apply**.

The rule is added to the **Rules** table.

**Step 7** Click **Save**.

# Enable SSH on the outside interface

This section describes how to enable SSH connections to the outside interface so you can manage the firewall remotely.

By default, you can use the **admin** user for which you configured the password during initial setup.

### Procedure

**Step 1** Choose **Devices** > **Platform Settings** and create or edit the Firewall Threat Defense policy.

**Step 2** Select **SSH Access**.

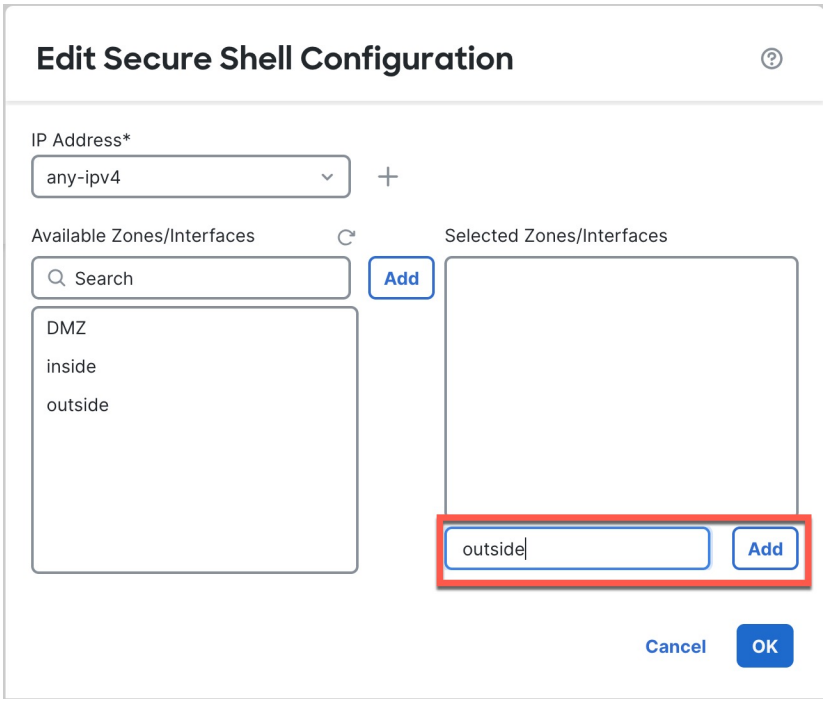
**Step 3** Identify the outside interface and IP addresses that allow SSH connections.

a) Click **Add** to add a new rule, or click **Edit** to edit an existing rule.

b) Configure the rule properties:

- **IP Address**—The network object or group that identifies the hosts or networks you are allowing to make SSH connections. Choose an object from the drop-down menu, or click + to add a new network object.
- **Available Zones/Interfaces**—Add the outside zone or type the **outside** interface name into the field below the **Selected Zones/Interfaces** list and click **Add**.

*Figure 19: Enable SSH on the Outside Interface*




c) Click **OK**.

**Step 4** Click **Save**.

You can now go to **Deploy** > **Deploy** and deploy the policy to assigned devices. The changes are not active until you deploy them.

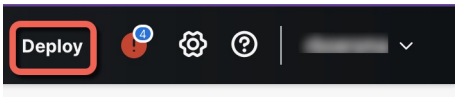
# Deploy the configuration

Deploy the configuration changes to the device; none of your changes are active on the device until you deploy them.

### Procedure

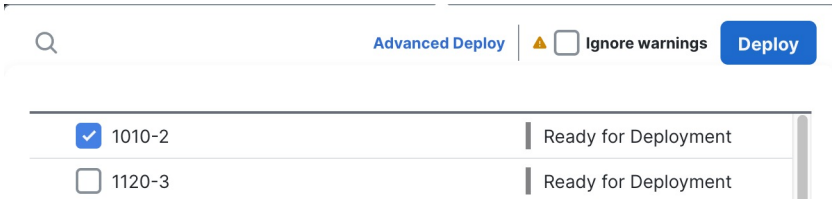
**Step 1** Click **Deploy** in the upper right.

*Figure 20: Deploy*



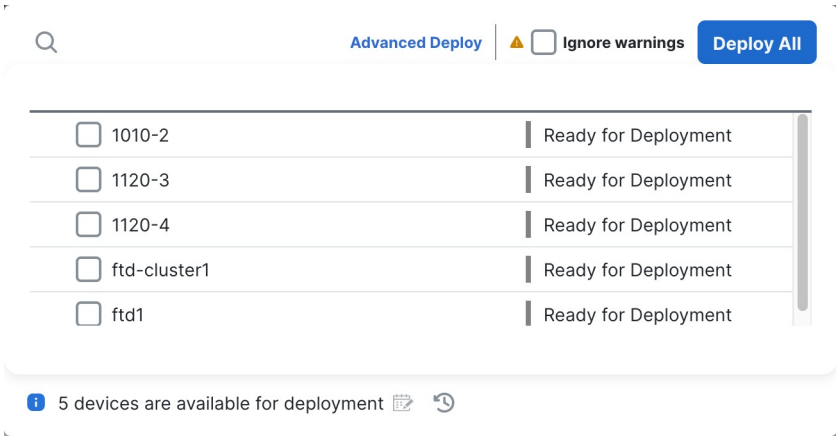

**Step 2** For a quick deployment, check specific devices and then click **Deploy**.

*Figure 21: Deploy Selected*



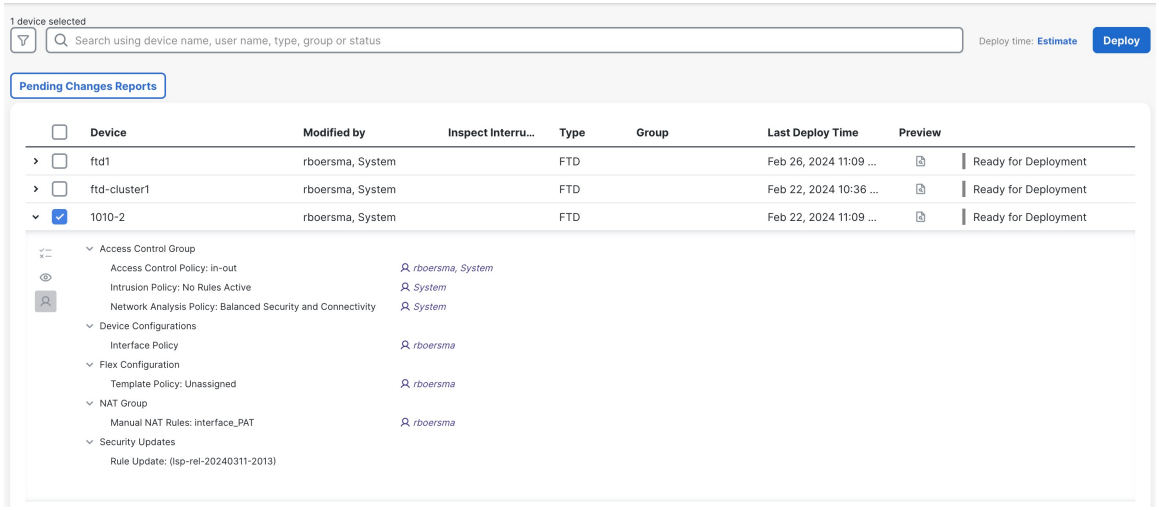

Or click **Deploy All** to deploy to all devices.

*Figure 22: Deploy All*




Otherwise, for additional deployment options, click **Advanced Deploy**.

*Figure 23: Advanced Deployment*




**Step 3** Ensure that the deployment succeeds. Click the icon to the right of the **Deploy** button in the menu bar to see status for deployments.

*Figure 24: Deployment Status*