Configure Secure Access with Secure FTD and ASA for Private Access with NAT

Contents

Introduction

This document describes how to configure Secure Access Network Tunnel Group with Network Address Translation.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco Firewall Management Center
- Cisco Secure Firewall Threat Defence
- Cisco Secure Access
- Cisco Adaptive Security Appliance
- Network Address Translation
- Policy Based Routing
- Packet Captures on Firewall

Components Used

The information in this document is based on:

- Cisco Firewall Management Center 7.10
- Cisco Secure Firewall Threat Defence 7.10
- Cisco Secure Access
- Cisco Adaptive Security Appliance 9.22
- Cisco Routers

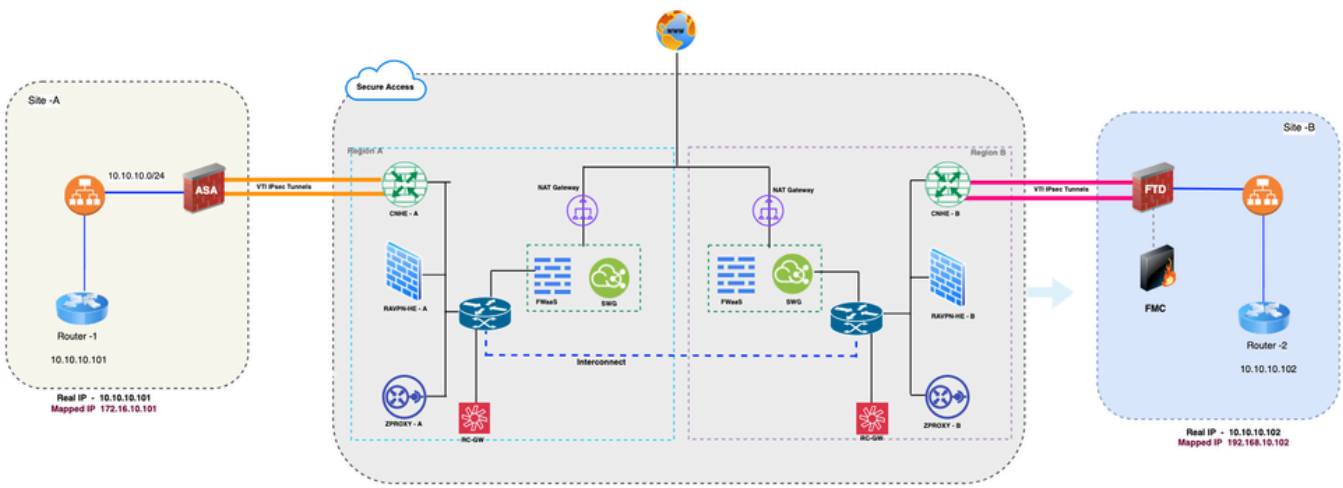
The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Background Information

Cisco Secure Access delivers cloud-native Secure Service Edge capabilities including Secure Internet Access (SIA) and Secure Private Access (SPA). For organizations extending private application access to remote users without backhauling all traffic through a datacenter, Secure Access uses IPsec Network Tunnel Groups (NTGs) to create encrypted tunnels between on-premises network devices — such as Cisco Firewall Threat Defense (FTD) ,Adaptive Security Appliance (ASA), — and Cisco Secure Access cloud Points-of-Presence (PoPs).

This document details how to establish a route-based IPsec tunnel using IKEv2 between Cisco FTD , ASA and Cisco Secure Access, enabling Network Address Translation (NAT) on Secure Access and Policy-Based Routing (PBR) on the FTD and ASA to steer only private-access-bound traffic into the tunnel.

Network Diagram

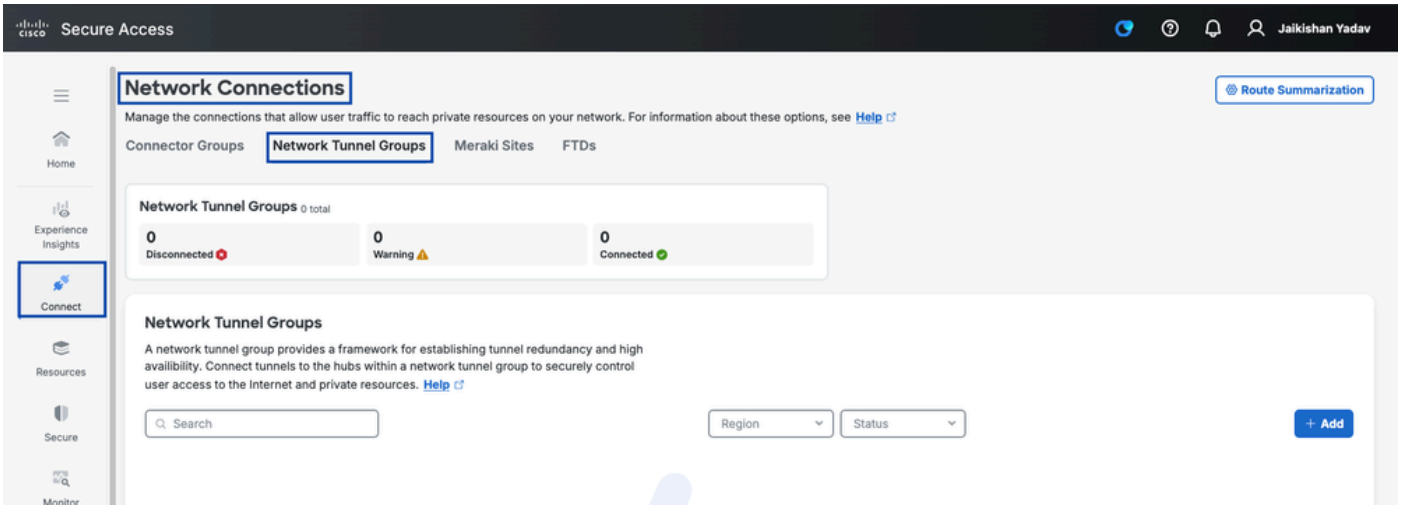


Configure

Secure Access and Secure Firewall Thread Defense - Dynamic (BGP) route-based VPN with PBR

Configure Network Tunnel Group on Secure Access

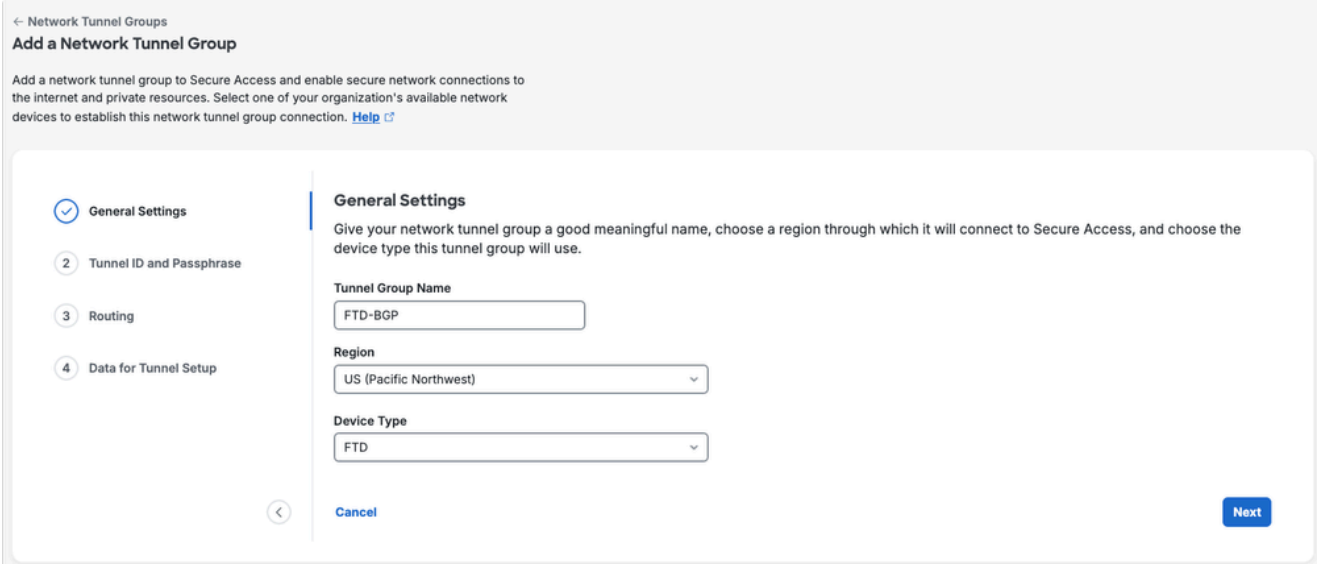
1. Login to Secure Access dashboard Secure Access
2. Navigate to **Connect > Network Connections > Network Tunnel Groups** and click on **+Add** to configure the Network Tunnel Group



Secure Access - Network Tunnel Groups

3. Configure Network Tunnel Group - **General Settings**

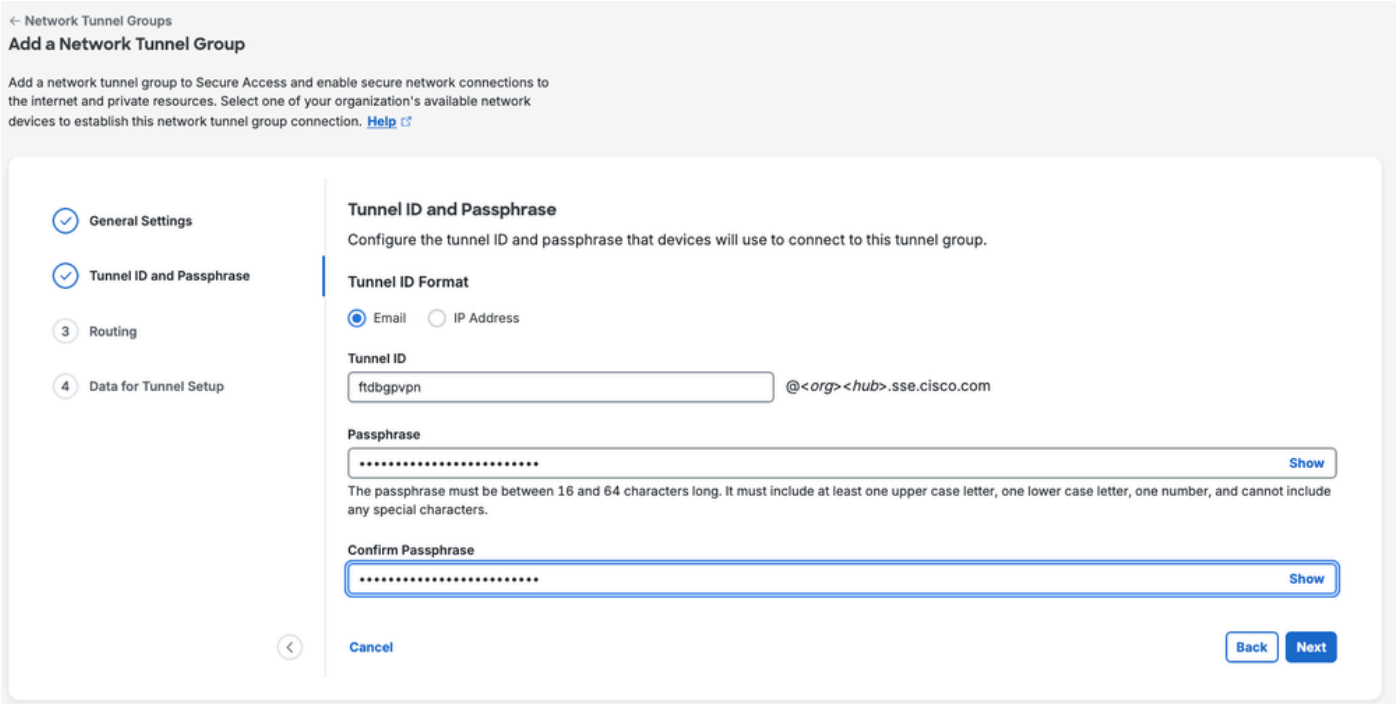
- Configure **Tunnel Group Name,Region** and **Device Type**
- Click **Next**



Secure Access - Network Tunnel Groups General Settings

4. Configure **Tunnel ID** and **Passphrase**.

- Configure the Tunnel ID and Passphrase.
- Click on Next

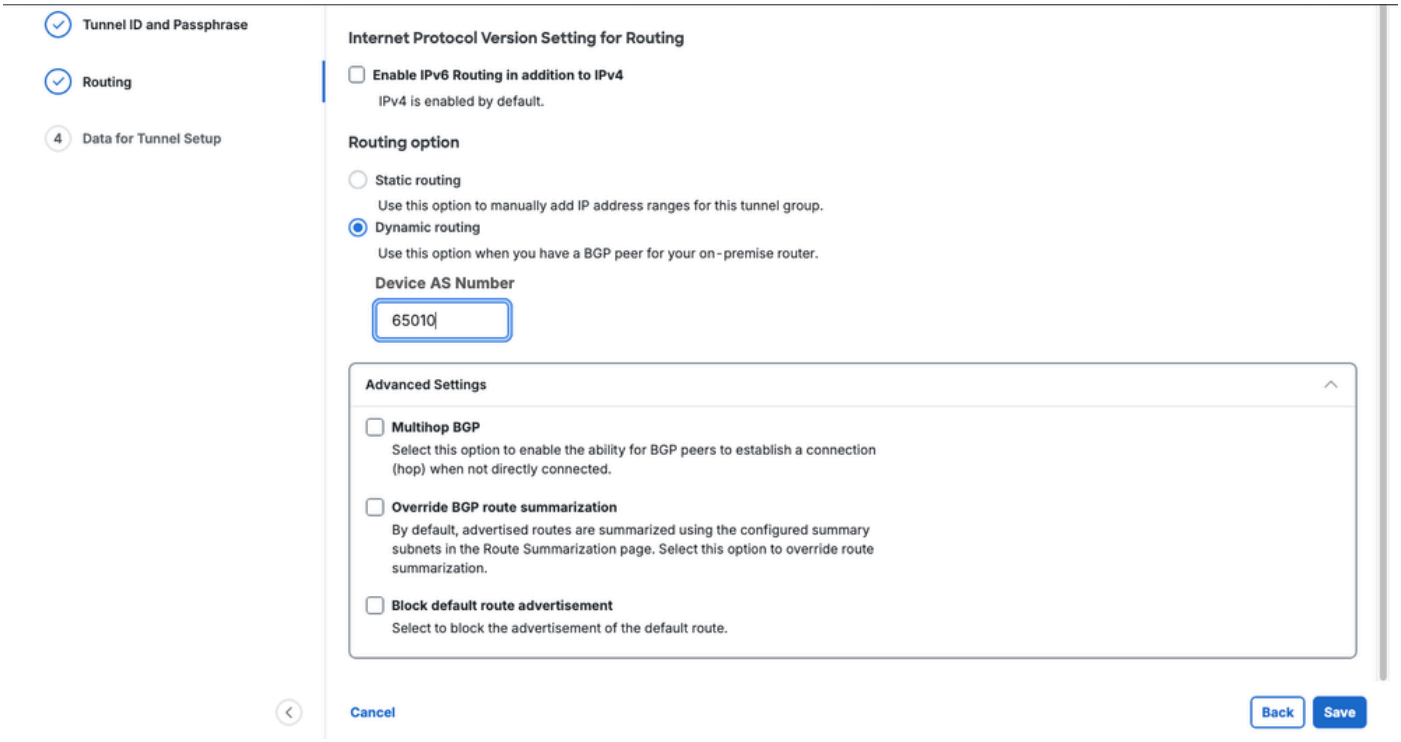


Secure Access - Network Tunnel Groups ID and Passphrase

5. Configure **Routing**

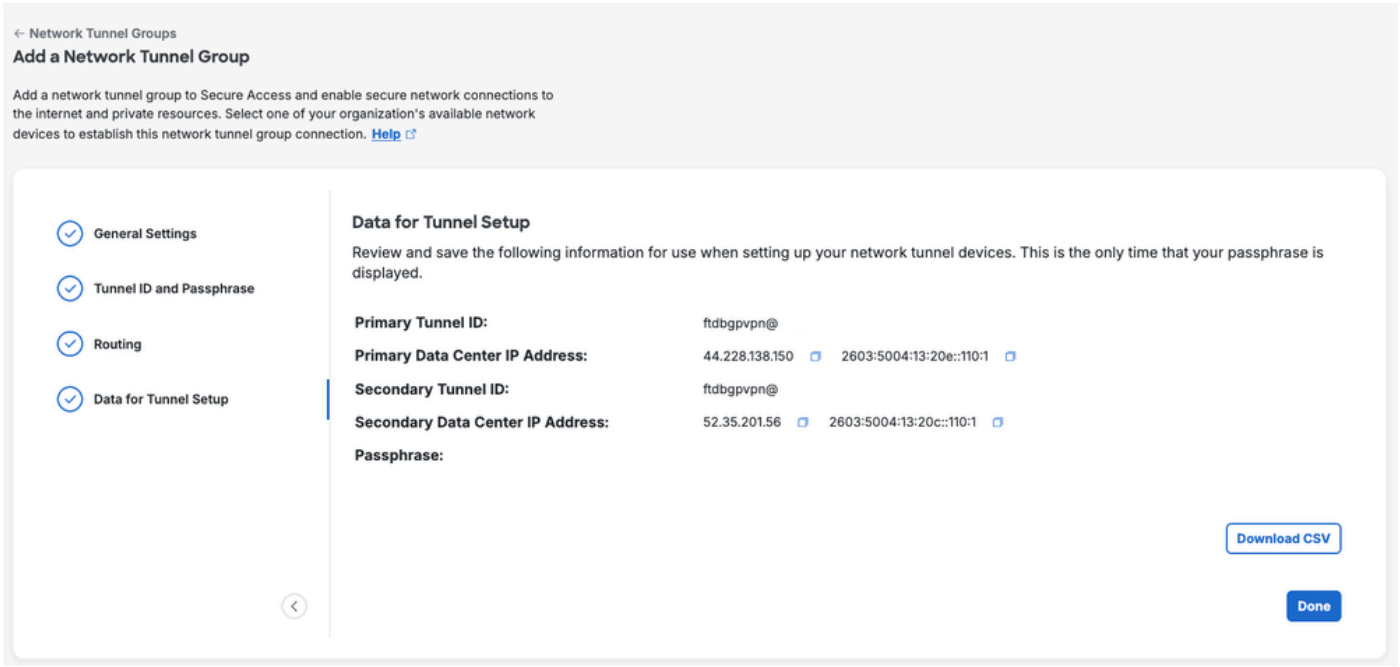
- Configure **Device AS Number**

- Click **Save**



Secure Access - Network Tunnel Groups Routing

6. Save Network Tunnel Group Configuration



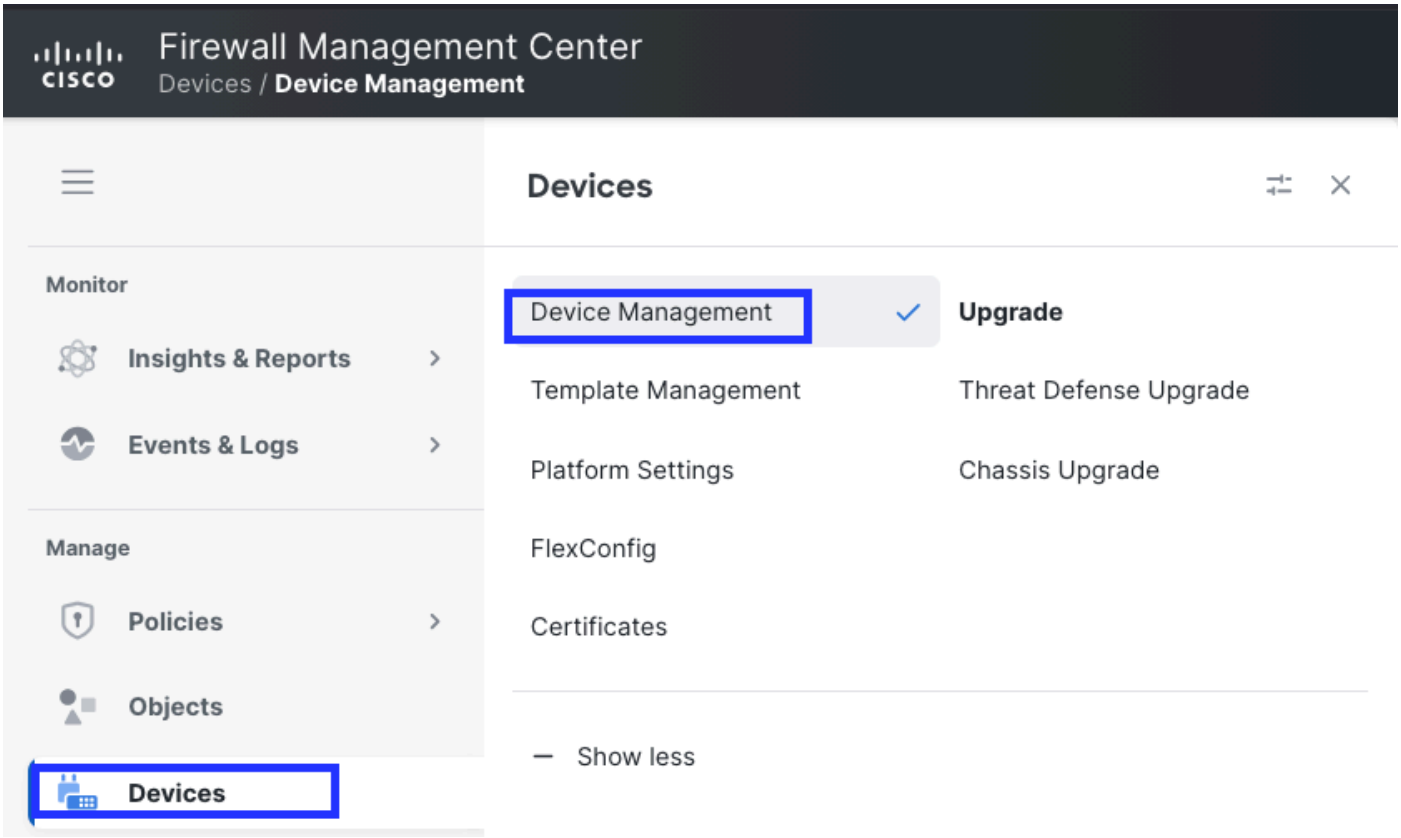
Secure Access - Network Tunnel Groups

Configure Dynamic Route-based IPsec VPN on Secure Firewall Threat Defense (FTD) with PBR

1. Login to Firewall Management Center (FMC)

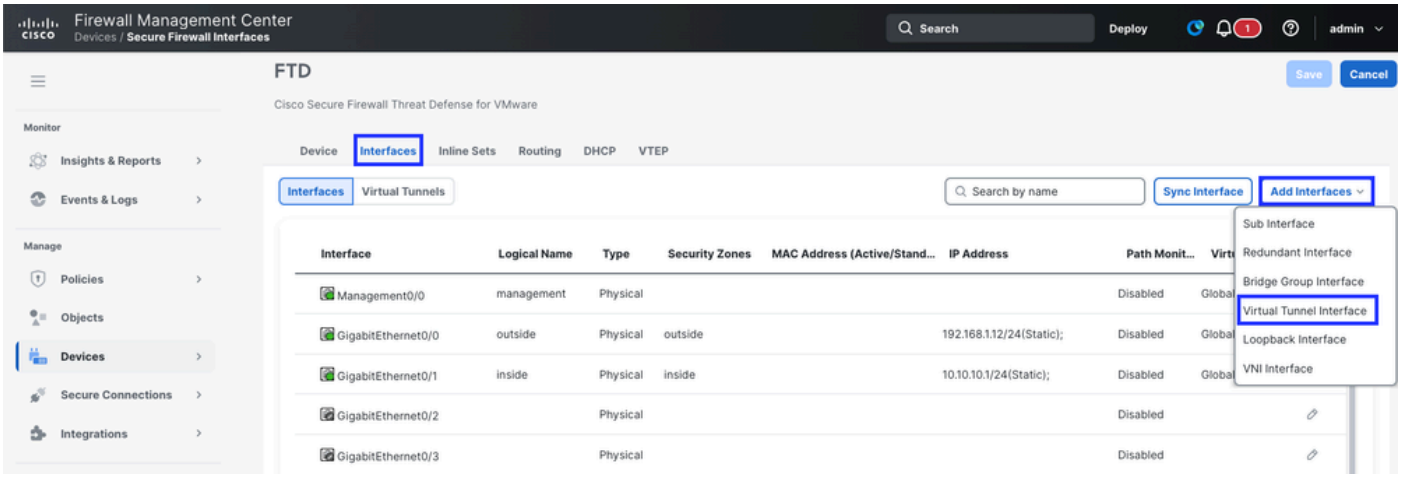
2. Configure Virtual Tunnel Interface VTI

- Navigate to Devices > Device Management

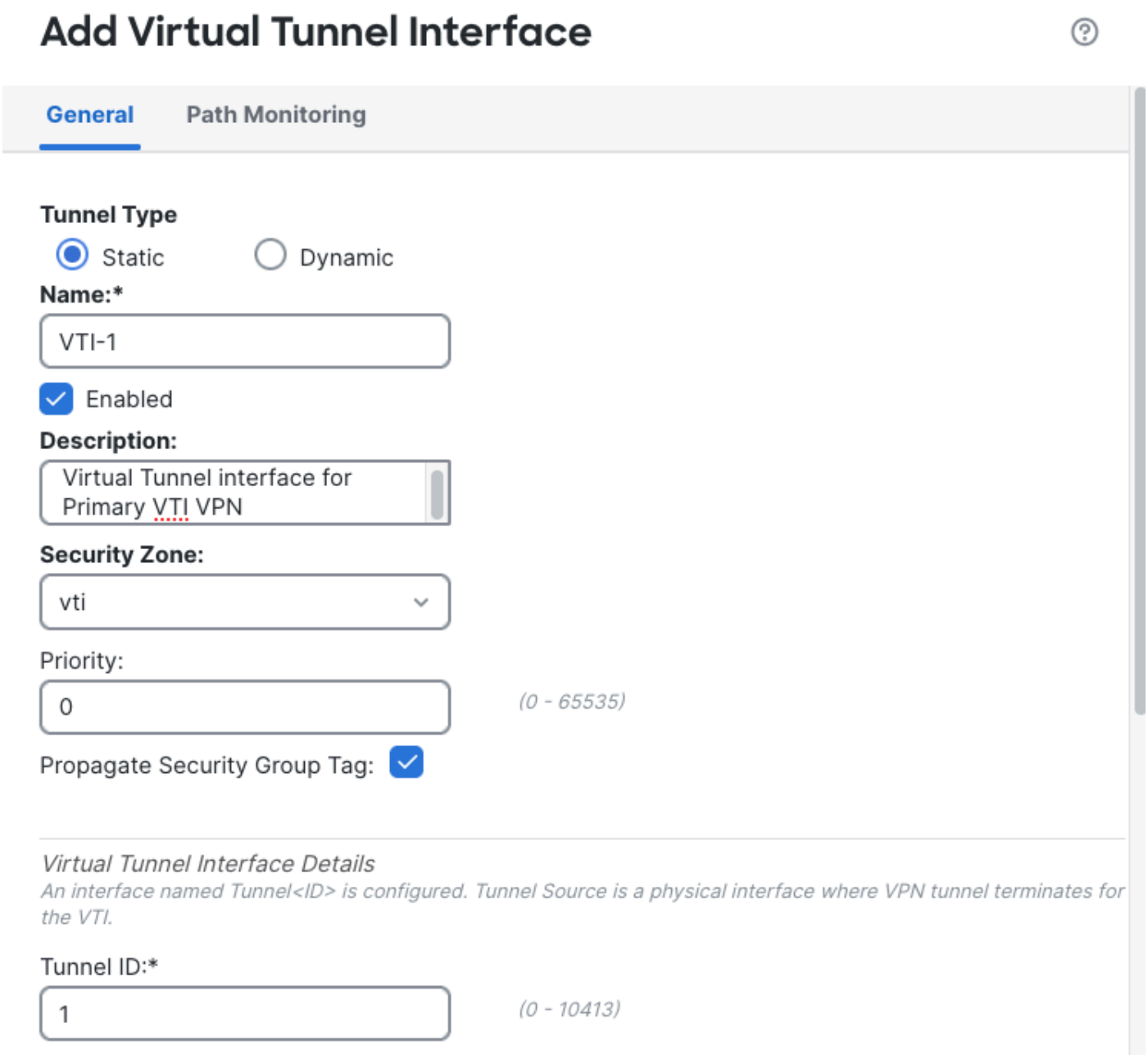


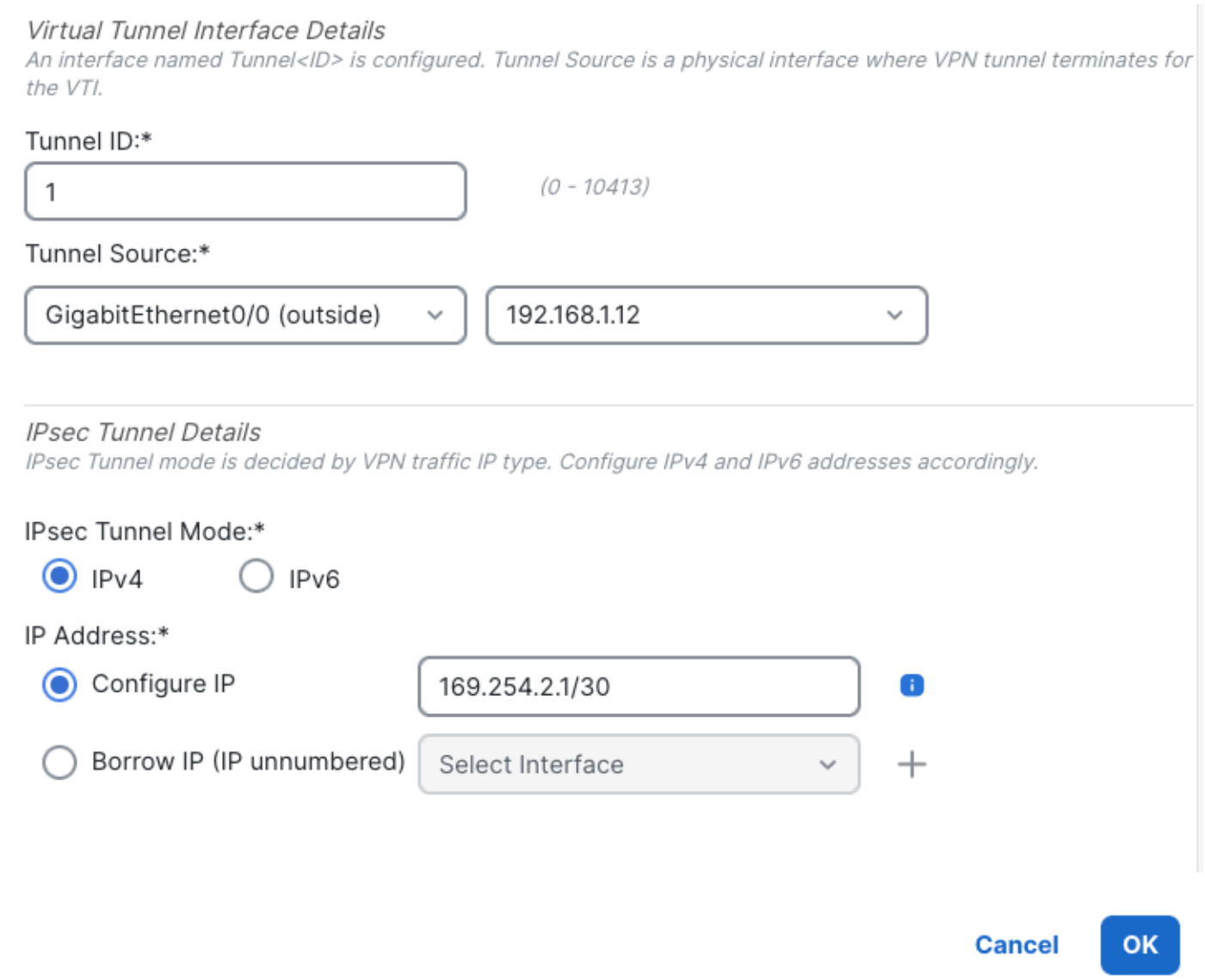
Secure Firewall Management - Dashboard

- Click on Pencil icon next to device and navigate to Interface section
- Click on **Add interfaces** and select **Virtual Tunnel Interface**



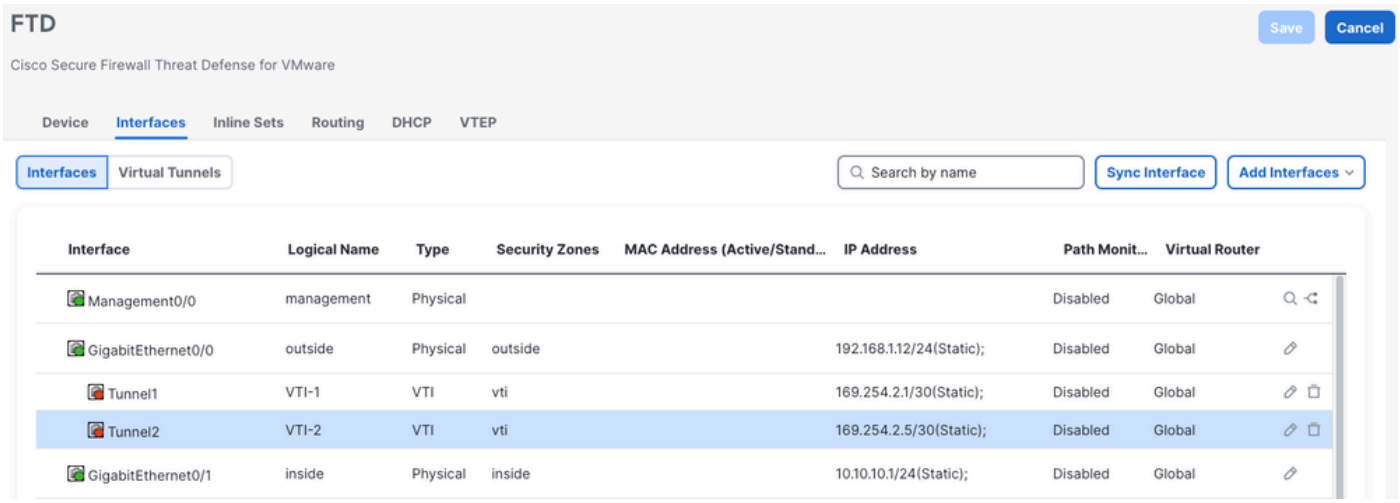
- Configure VTI



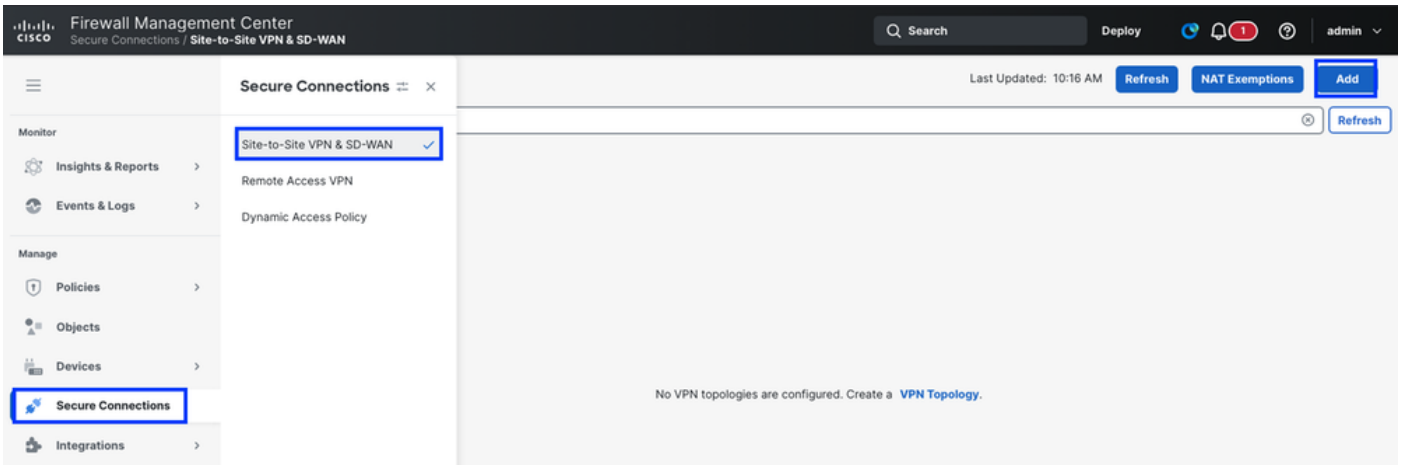


Secure Firewall Management - FTD VTI Configuration

- Configure VTI-2 as well for secondary IPsec VPN with Secure Access

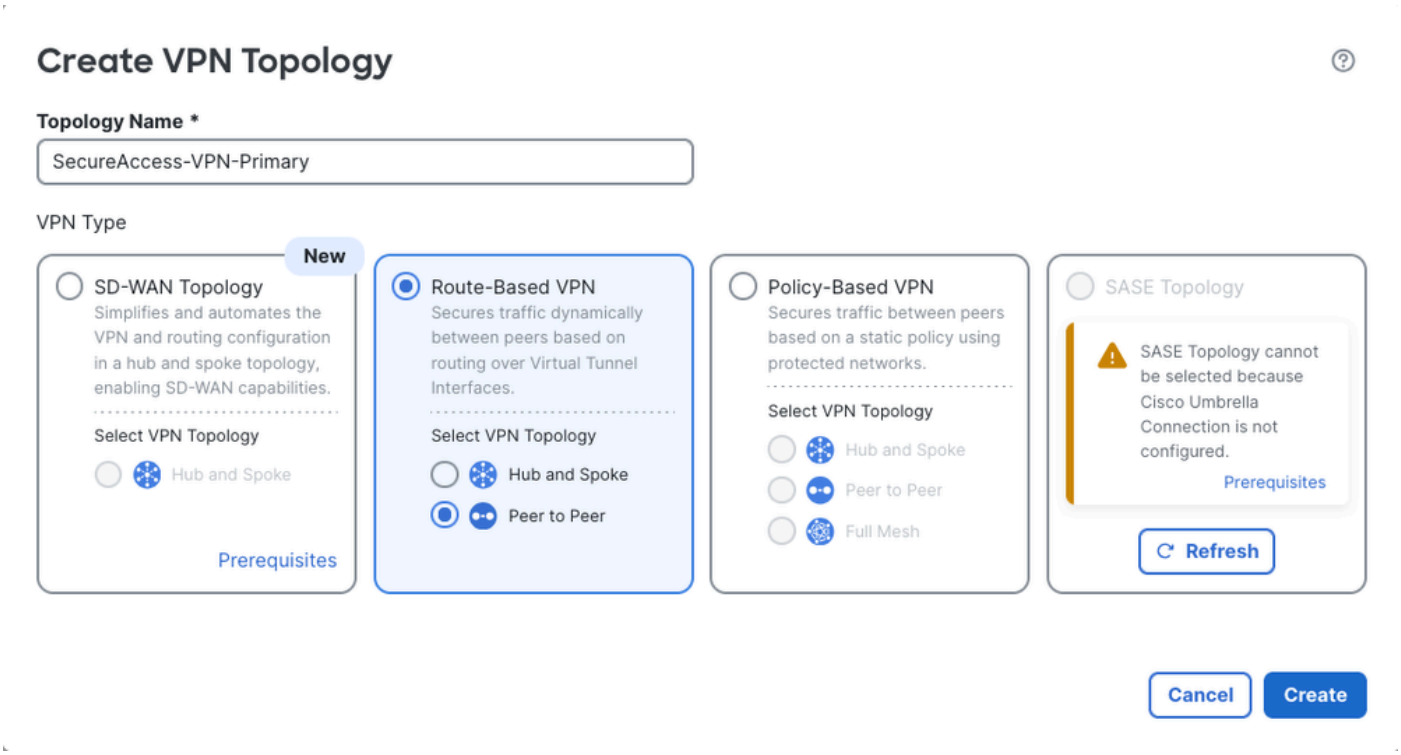


3. Navigate to Secure **Connections > Site-to-Site VPN & SD-WAN a**nd click on **Add** to confiure the VPN



Secure Firewall Management - FTD VPN Configuration

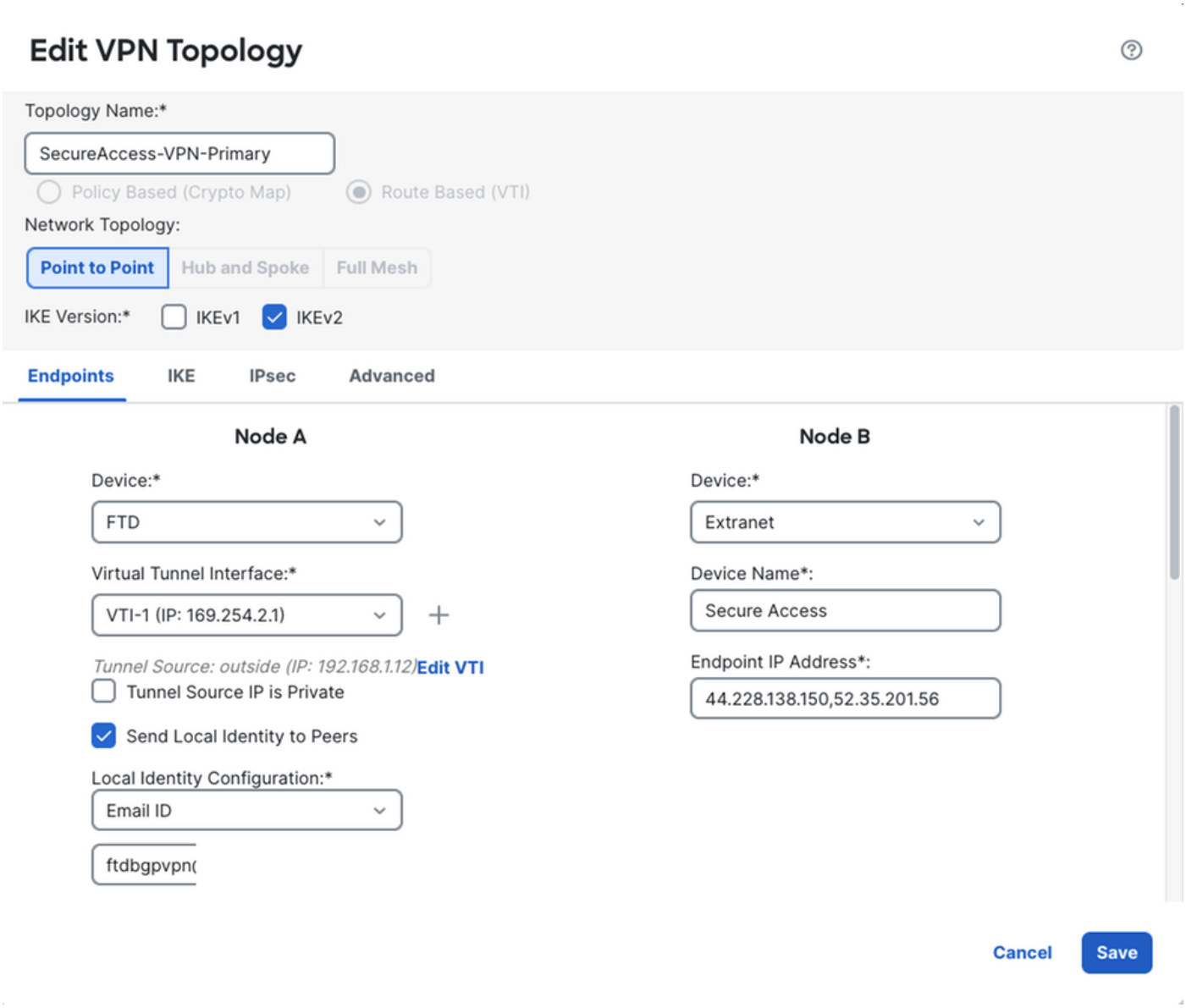
- Create VPN topology



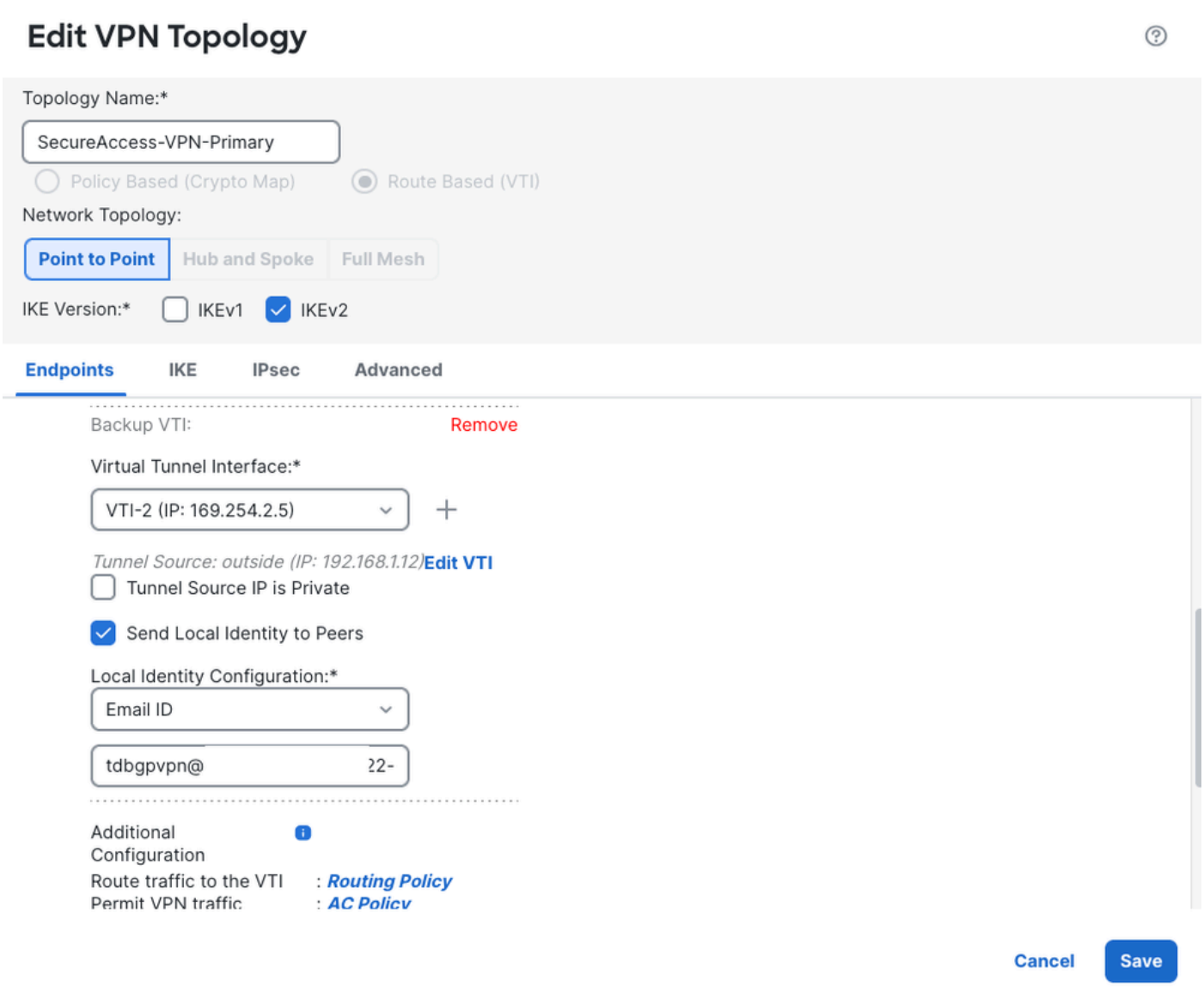
Secure Firewall Management - FTD VPN Configuration

- From step 6 of the **Configure Network Tunnel Group on Secure Access** , obtain the tunnel IDs and IP addresses for the primary and secondary data centers.
- Click on Endpoints

- Under Node A, click on Device and select your FTD device
- Click on Virtual Tunnel Interface and select the first VTI interface created in the previous step
- Click on Send Local Identity to Peers option and select Email ID, enter the primary tunnel ID (from "Save Network Tunnel Group Configuration" under the Configure Network Tunnel Group on Secure Access)
- Under Node B, click on Device and select Extranet
- Click on Device Name and give it a name
- Click on Endpoint IP Addresses and enter the Secure Access Primary and Secondary IP Addresses separated by a comma (from "Save Network Tunnel Group Configuration" under the Configure Network Tunnel Group on Secure Access)
- Click on Add Backup VTI
- Click on Virtual Tunnel Interface and select the second VTI interface created in the previous step
- Click on Send Local Identity to Peers option and select Email ID, enter the secondary tunnel ID (from "Save Network Tunnel Group Configuration" under the Configure Network Tunnel Group on Secure Access)
- Click on Save

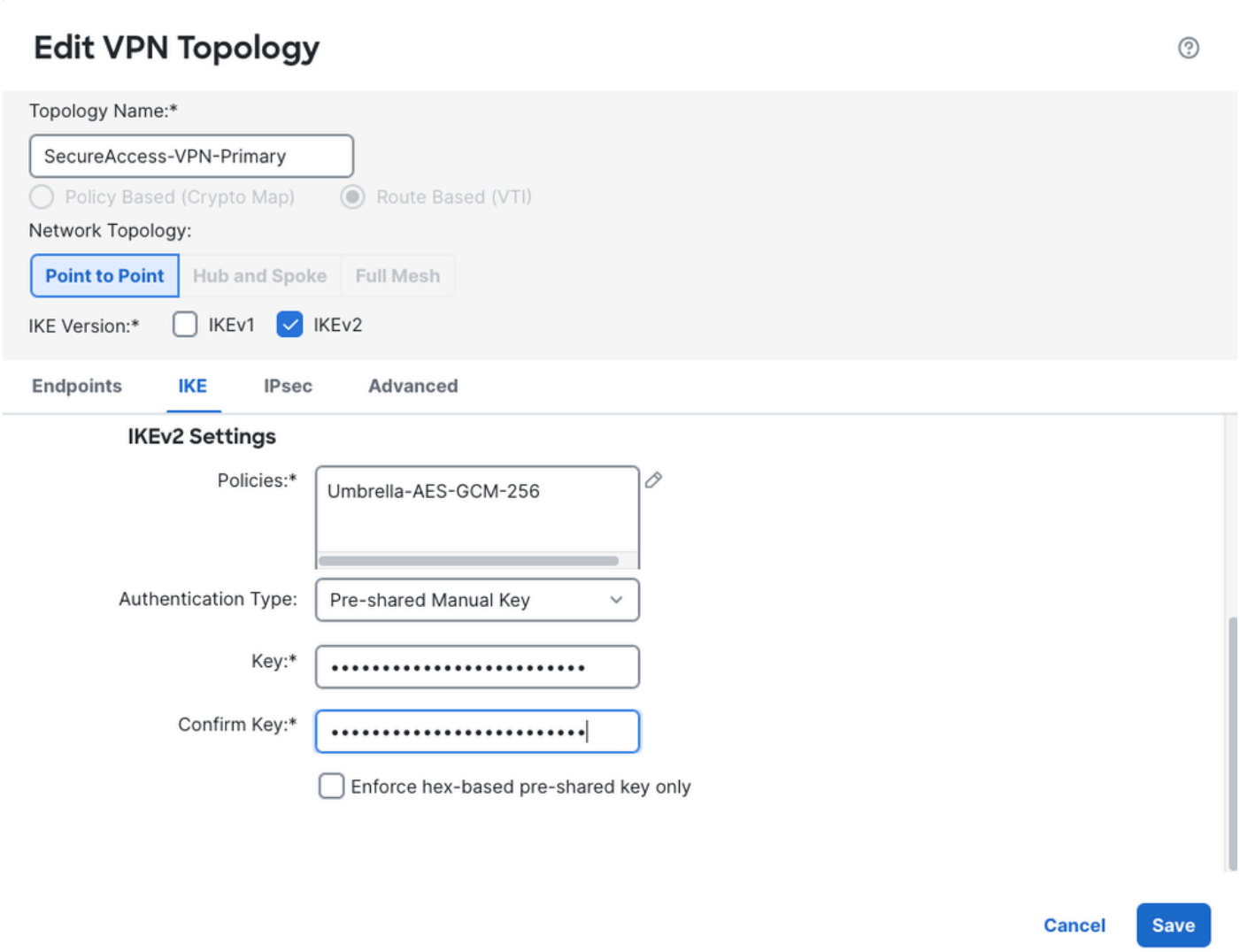


Secure FTD - VPN Endpoint Configuration



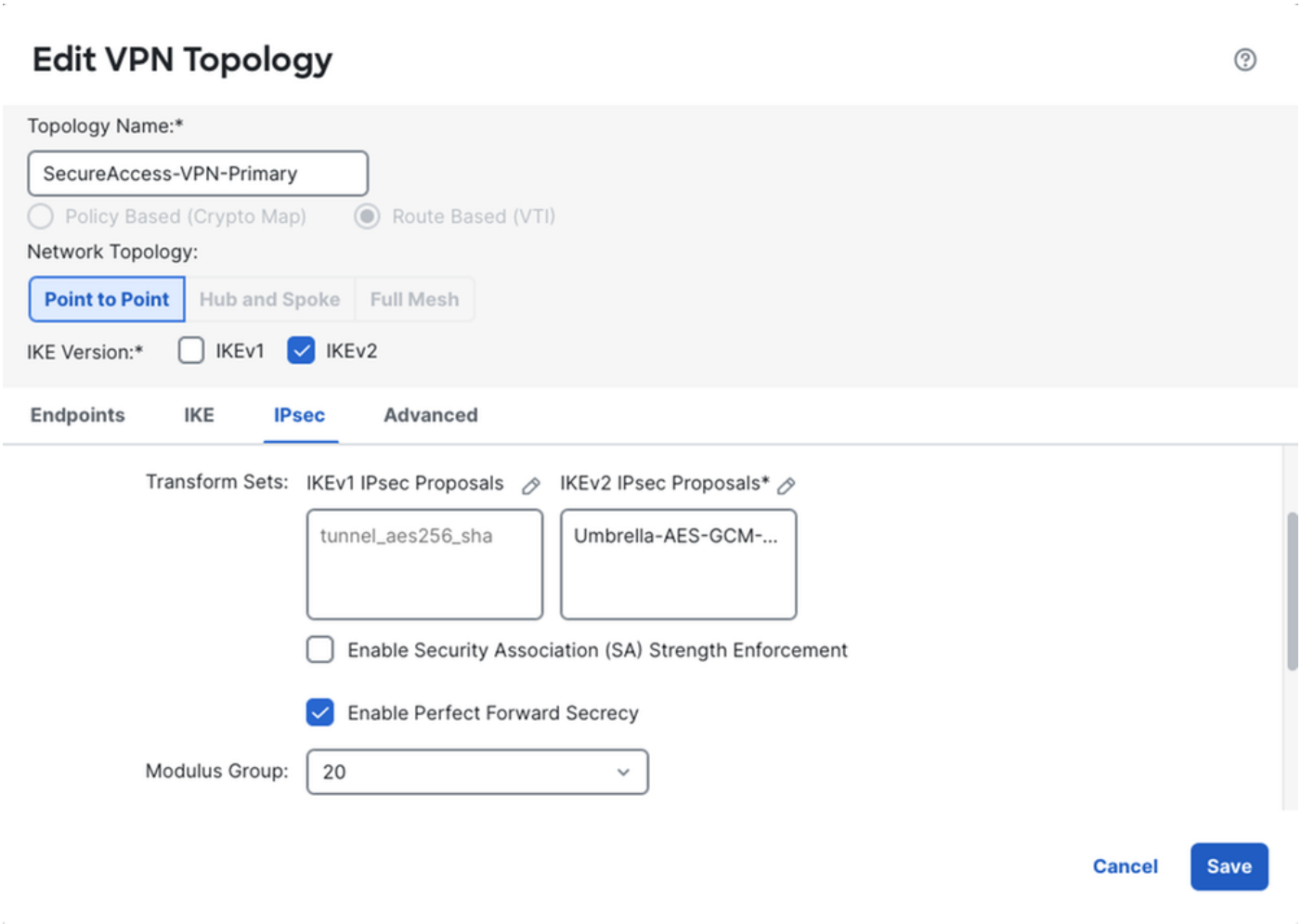
Secure FTD - VPN Endpoint Configuration

- Configure **IKEv2 Settings** as per Supported IPsec Parameters
  - Select Policies as **Umbrella-AES-GCM-256**
  - Select Authentication Type as **Pre-Shared Manual Key**



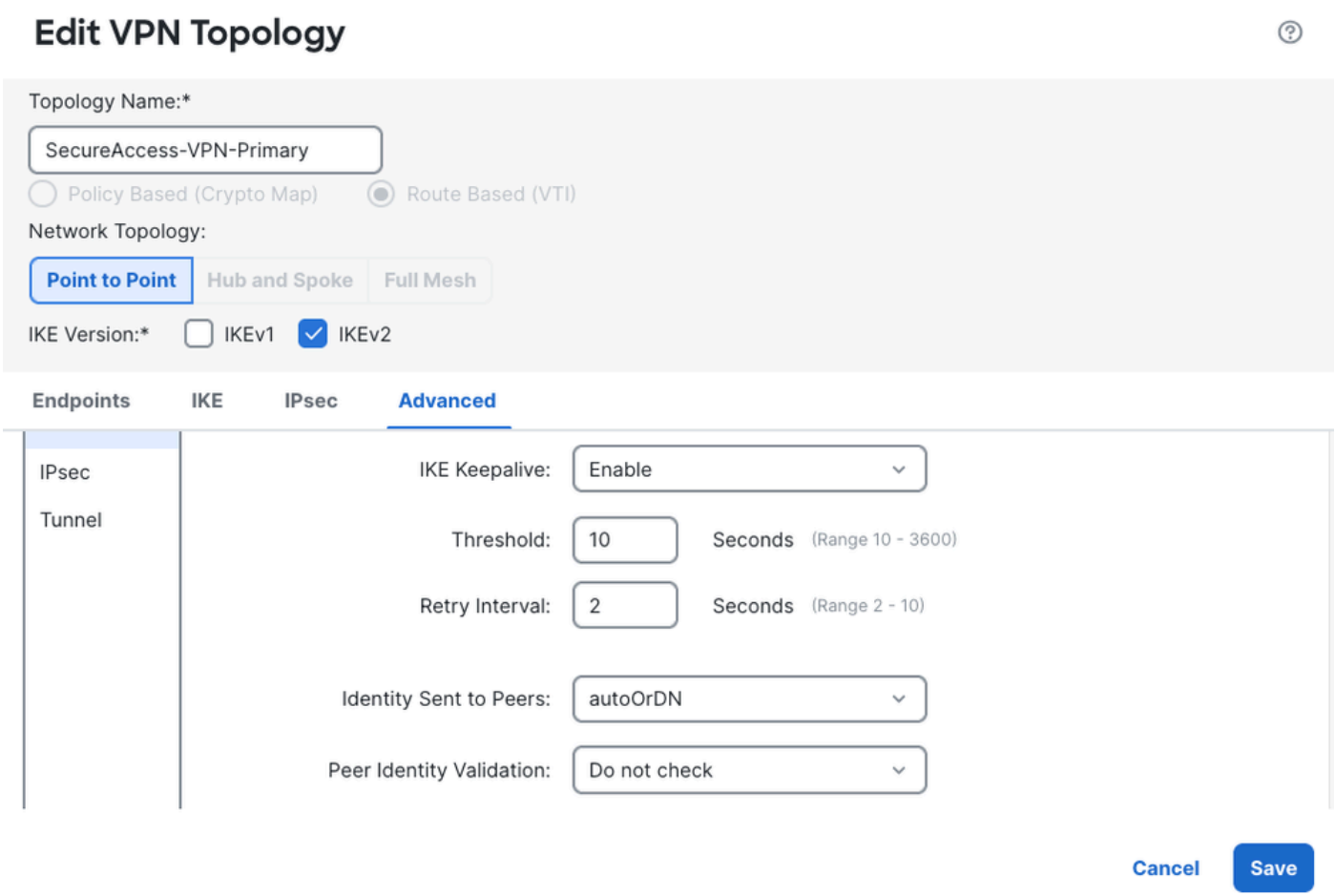
Secure FTD - VPN IKE Settings

- Configure IPsec settings
  - Select **IKEv2 IPsec Proposals as** Umbrella-AES-GCM-256
  - Enable **PFS** as select **Modulus Group** as 20



Secure FTD - VPN IPsec Settings

- Advanced Settings
- Click **Save**



Secure FTD - VPN Advanced Settings

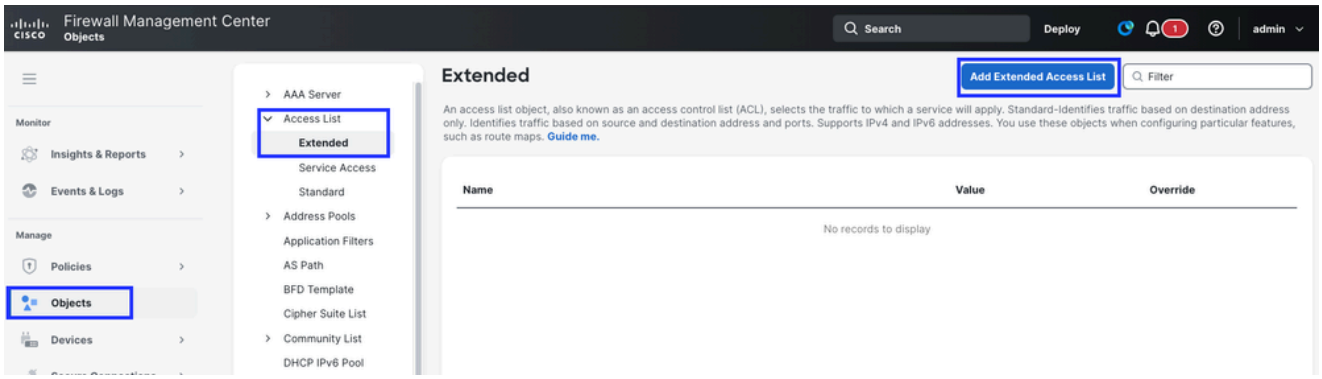
FTD Policy Based Routing

In traditional routing, packets are routed based on the destination IP address. Changing the routing of specific traffic in a destination-based routing system is difficult. Policy Based Routing (PBR) extends and complements the mechanisms provided by routing protocols, giving you more control over routing.

PBR allows you to set the IP precedence. It also allows you to specify a path for certain traffic, such as priority traffic over a high-cost link. With PBR, you can define routing that is based on criteria other than destination network such as source port, destination address, destination port, protocol, applications, or a combination of these objects. For more information, refer Policy Based Routing

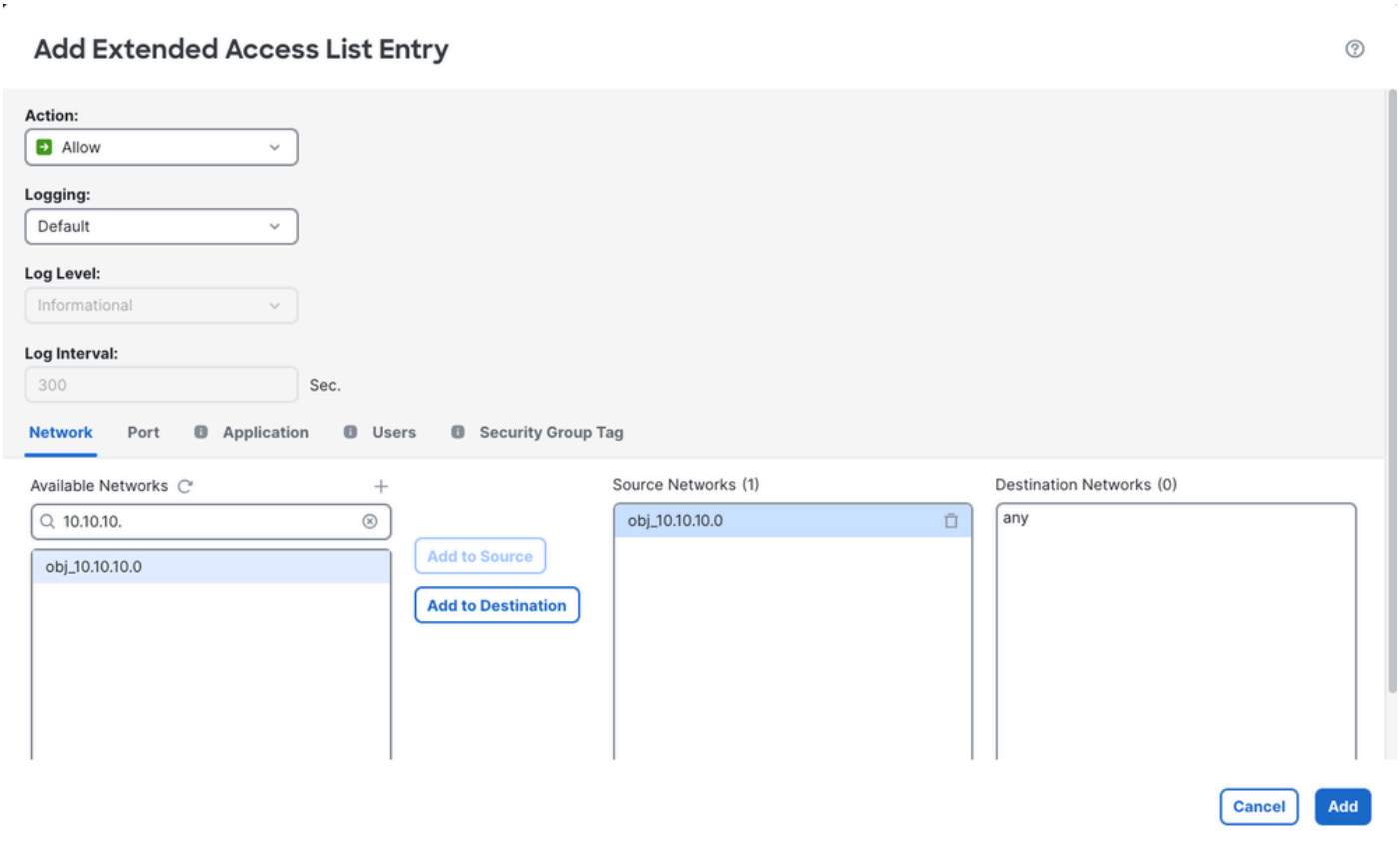
1. Configure Access List

- Navigate to **Objects > Access List > Extended**
- Click on **Add Extended Access List**

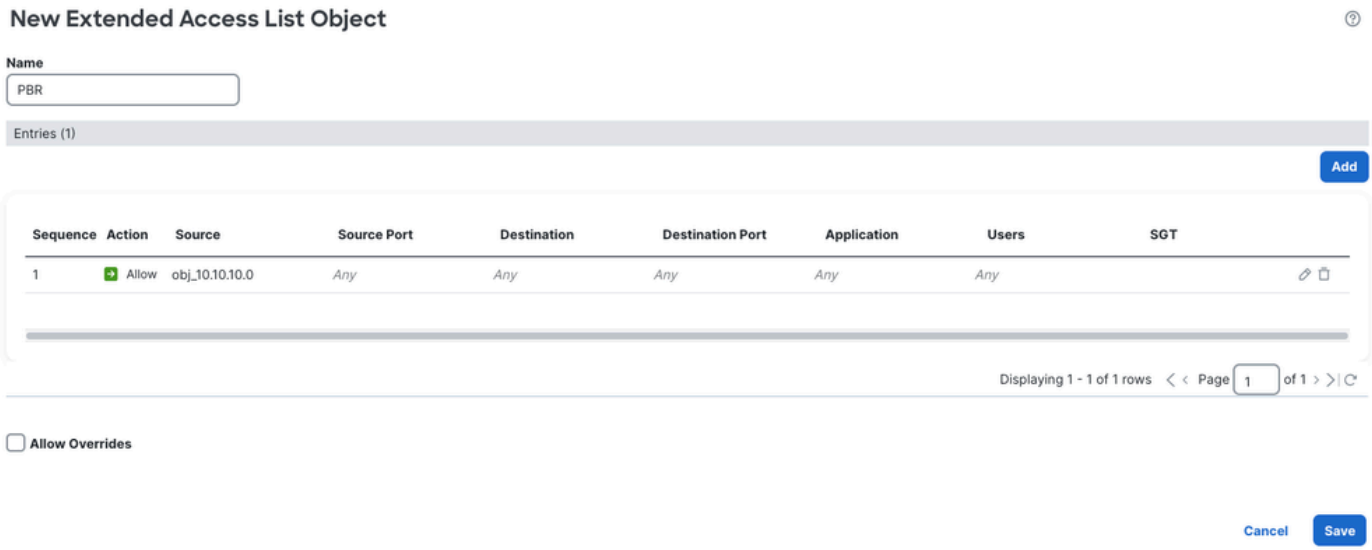


Secure FTD - Extended Access List

- Give the Access List Name
- Define the Action
    - Allow. - Traffic defined will be sent to IPsec tunnel
    - Block - Traffic will be bypassed from IPsec Tunnel
    - Rule will be matched based on Sequence Number (Lower to higher)
    - Click on **Add**
    - Click **Save**



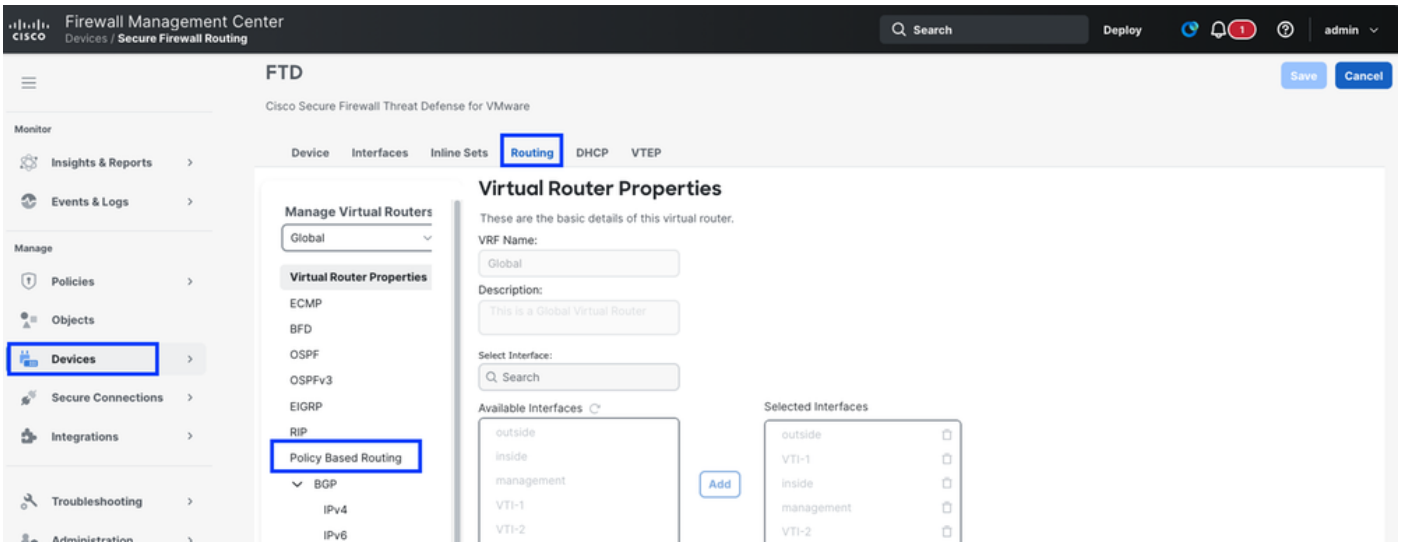
Secure FTD - Extended Access List



Secure FTD - Extended Access List

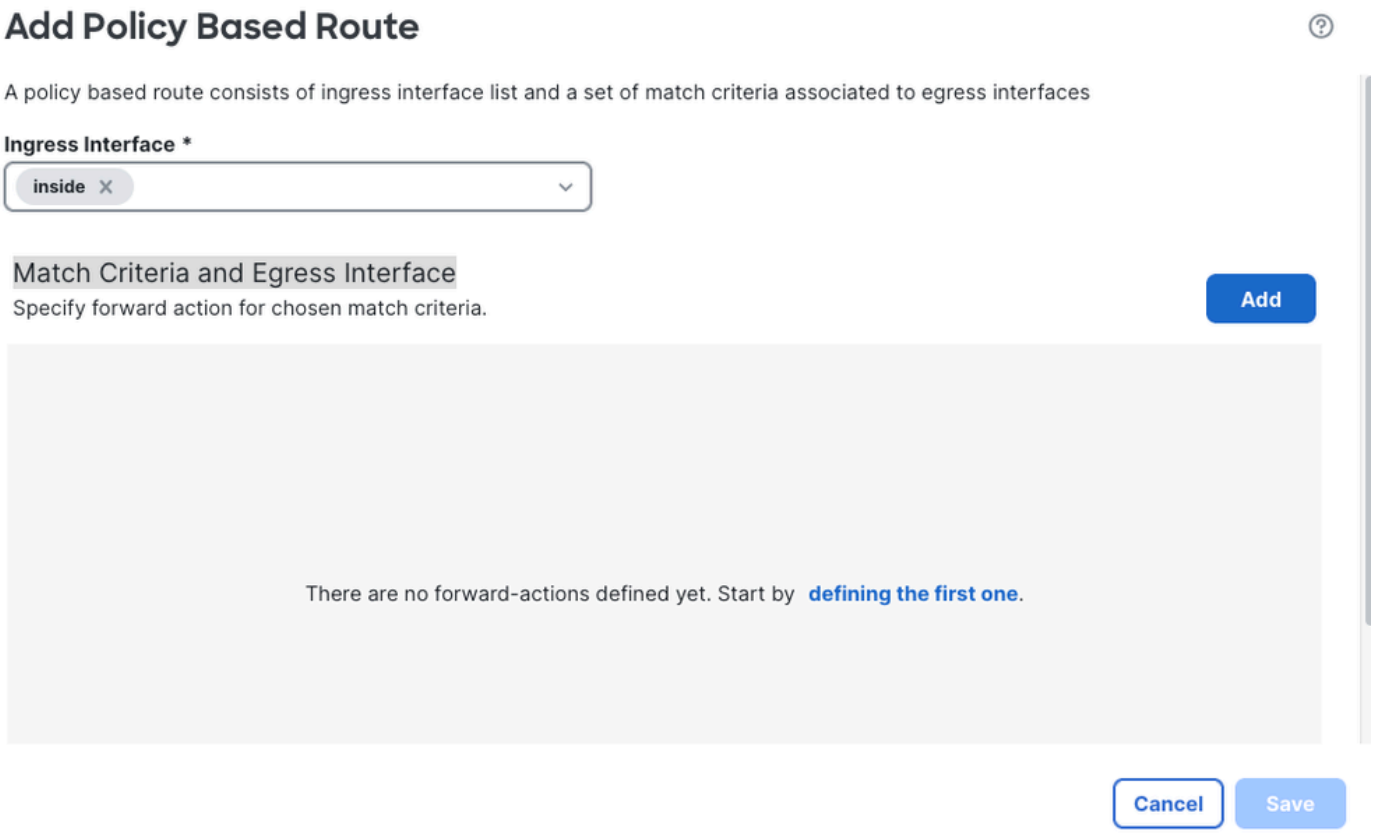
2. Configure Policy Based Routing

- Navigate to **Devices > Device Management > FTD > Routing**



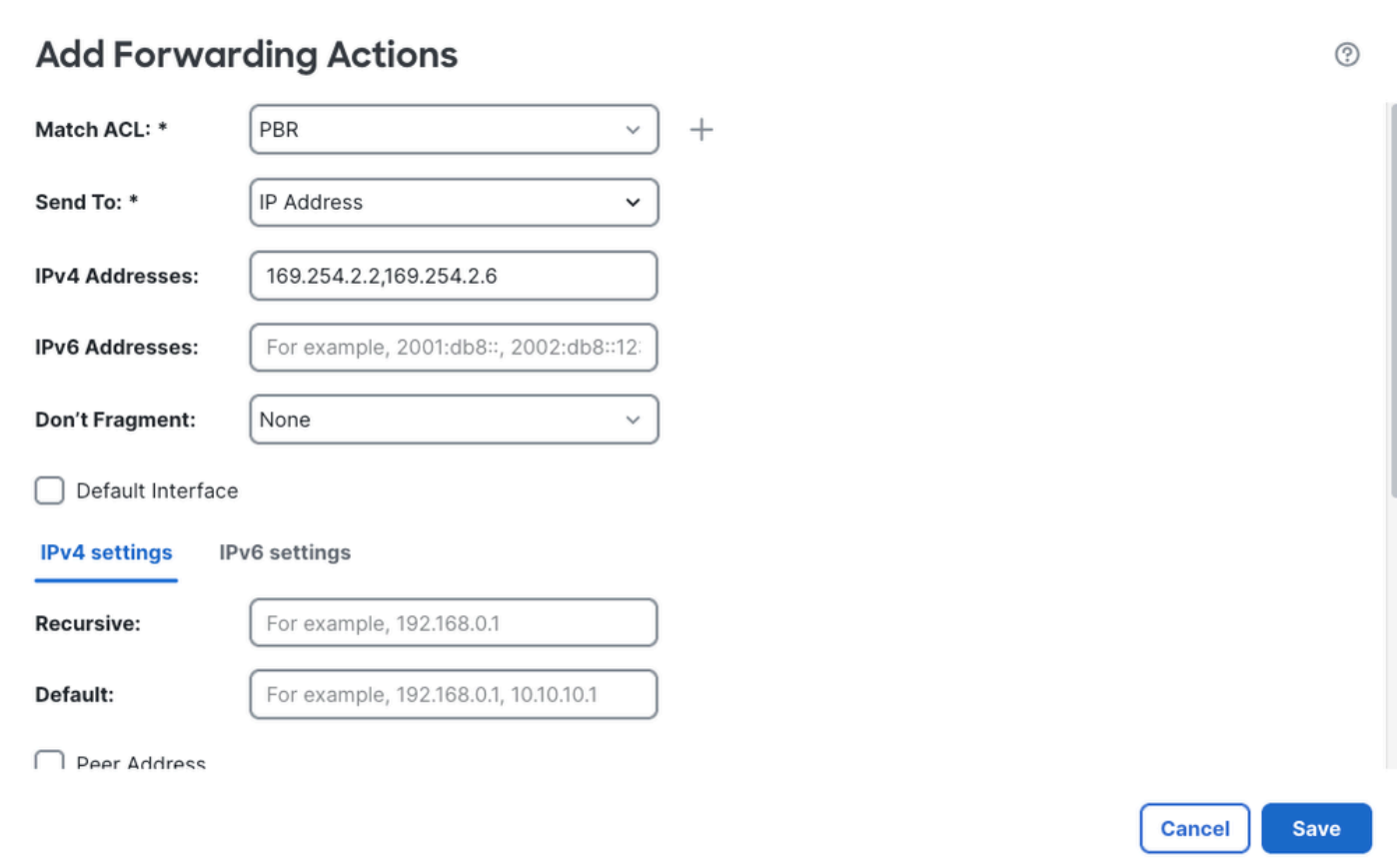
Secure FTD - Policy Based Routing

- Click on Add
- Select Ingress Interface - Ingress interface for the subnet we defined in the Access List

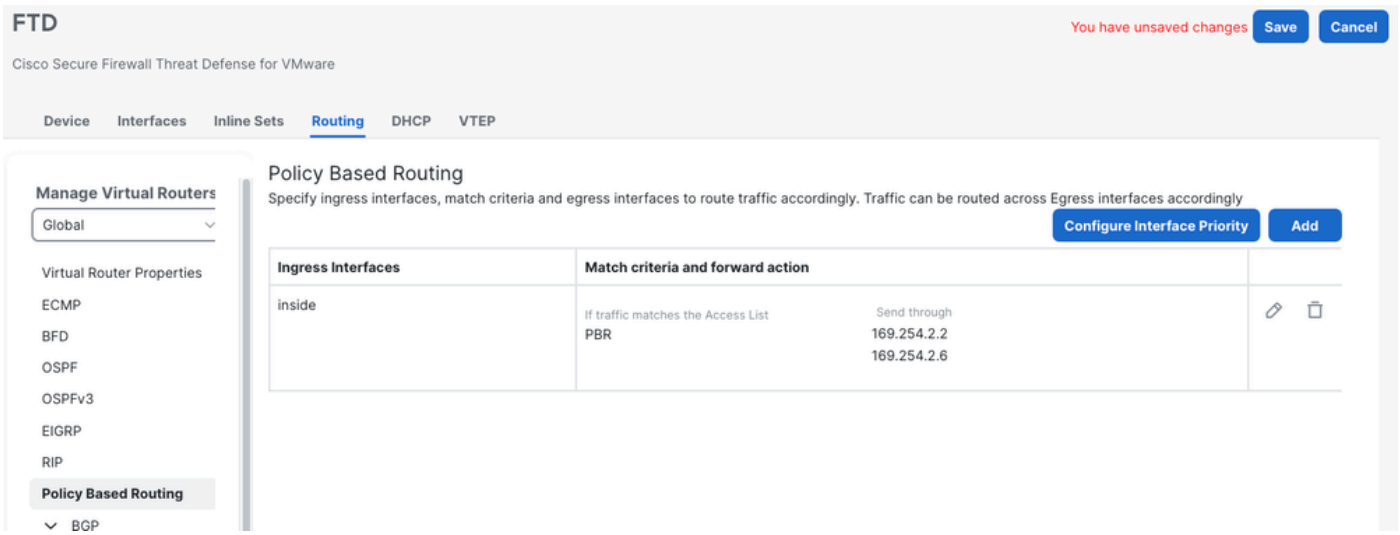


Secure FTD - Policy Based Routing

- Define Match Criteria and Egress Interface
  - Click on **Add**
  - Select the **Match ACL**
  - Select **Send to** as IP address
  - Add Next hop IP address. - VTIs interface IP addresses are. 169.254.2.130 and. 169.254.2.5/30. So, the next hop IP addresses for VTI -1 and VTI-2 would be 169.254.2.2 and. 169.254.2.6 respectively
  - Click on **Save**



Secure FTD - Policy Based Routing

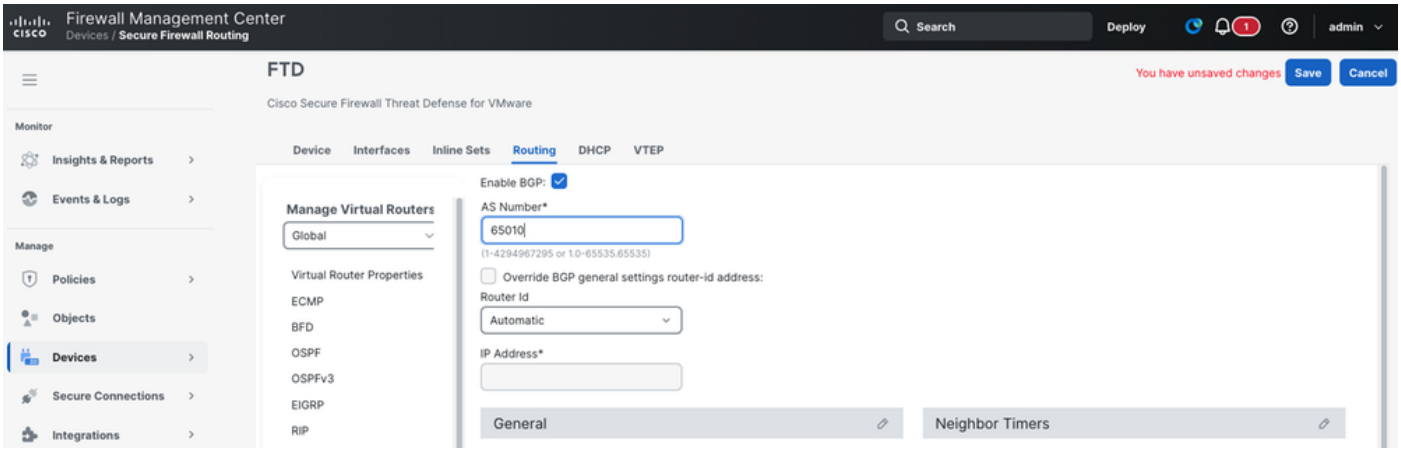


Secure FTD - Policy Based Routing

Configure BGP on FTD

1. Enable BGP

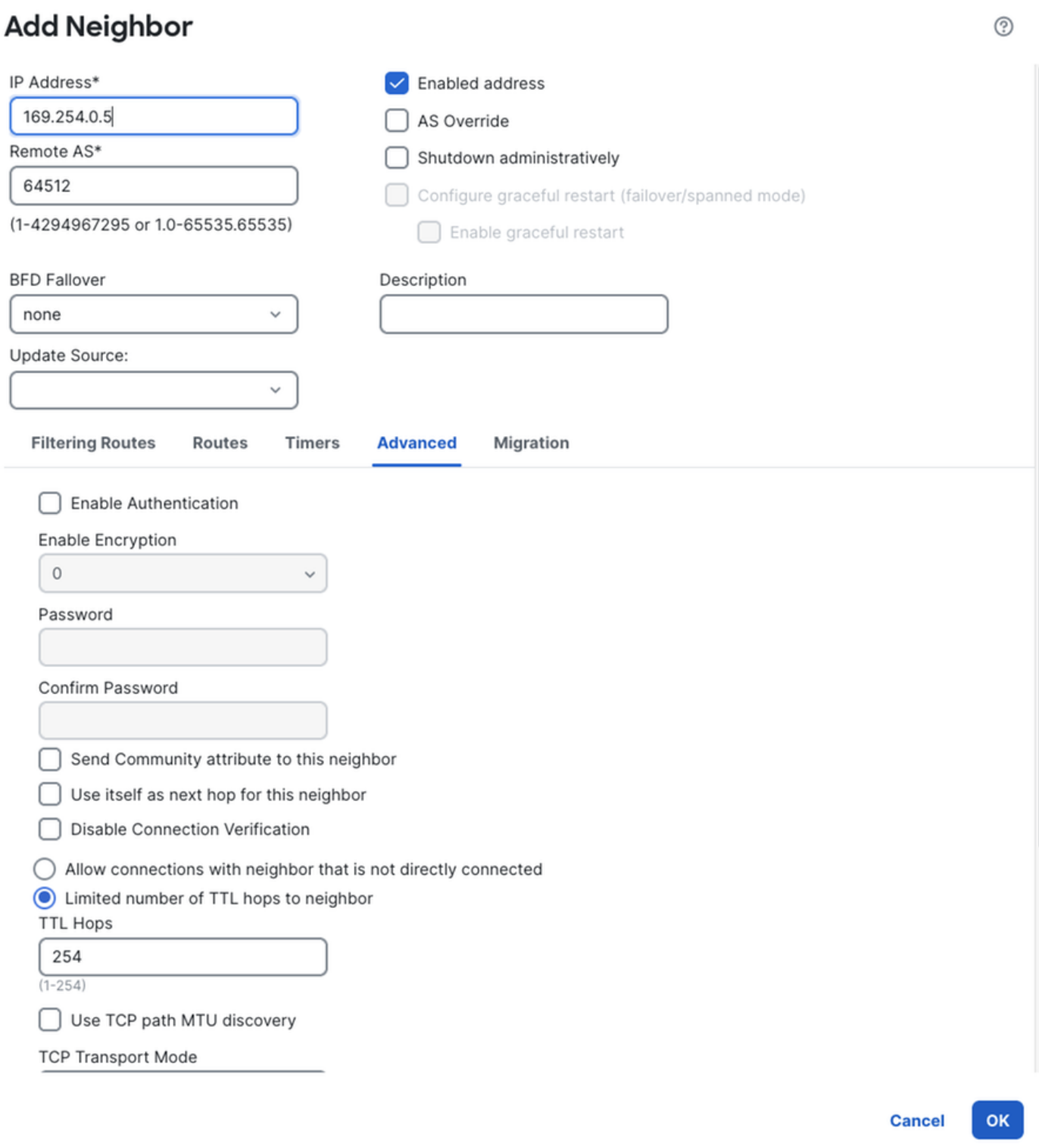
- Navigate to **Devices > Device Management > FTD > Routing > General Settings > BGP**
- Enable BGP and add the AS number (FTD local AS number)
- Click **Save**

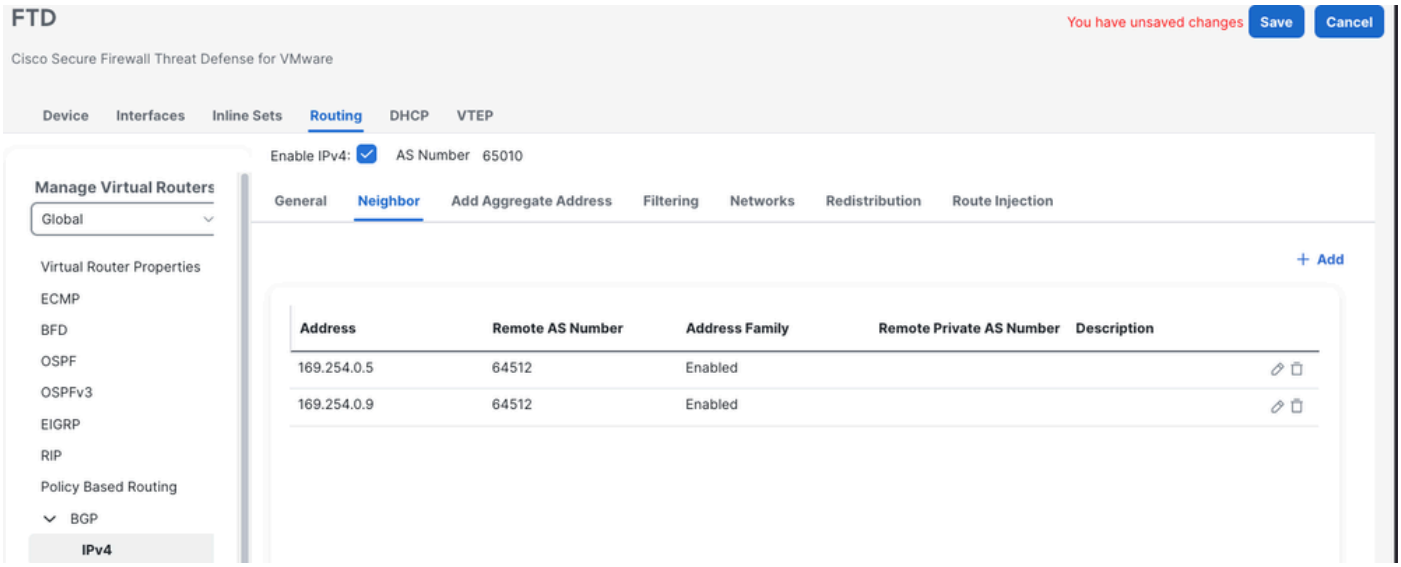


Secure FTD - BGP Routing

- Navigate to **BGP > IPv4**

2. Add BGP **Neighbor** - Secure Access BGP peers are 169.254.0.5 and. 169.254.0.9

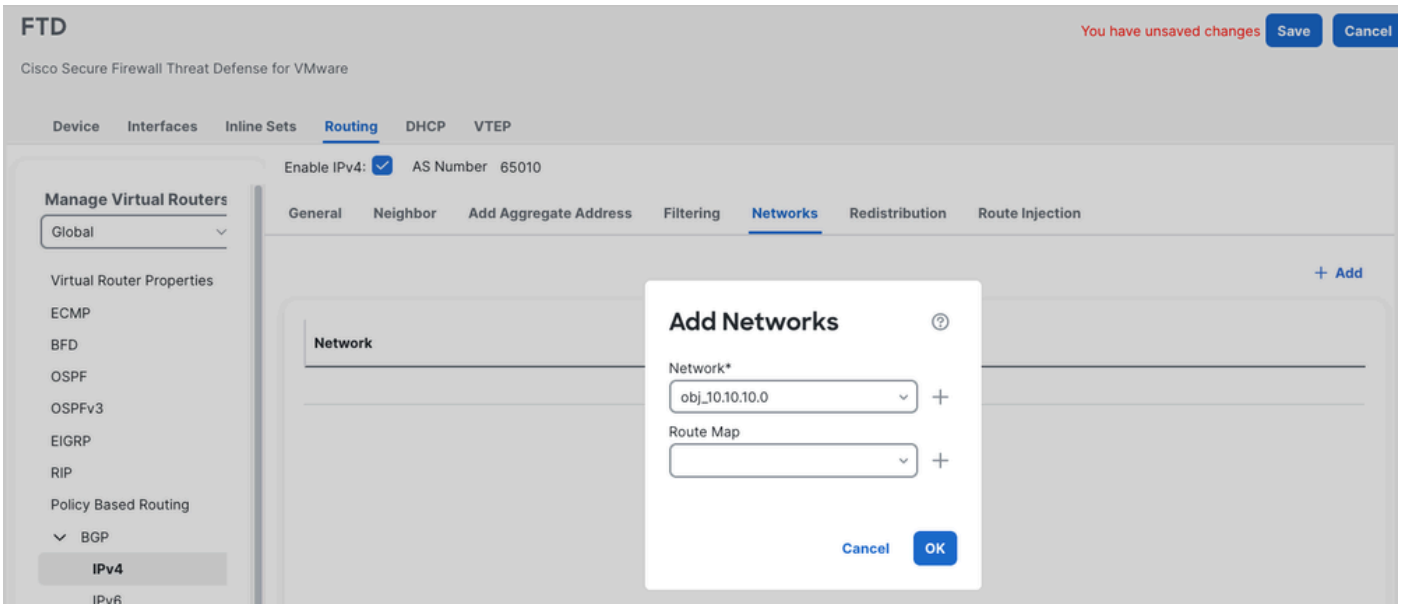

Add Neighbor
IP Address*
169.254.0.5
Remote AS*
64512
(1-4294967295 or 1.0-65535.65535)
Enabled address
AS Override
Shutdown administratively
Configure graceful restart (failover/spanned mode)
Enable graceful restart
BFD Fallover
none
Description
Update Source:
Filtering Routes
Routes
Timers
Advanced
Migration
Enable Authentication
Enable Encryption
0
Password
Confirm Password
Send Community attribute to this neighbor
Use itself as next hop for this neighbor
Disable Connection Verification
Allow connections with neighbor that is not directly connected
Limited number of TTL hops to neighbor
TTL Hops
254
(1-254)
Use TCP path MTU discovery
TCP Transport Mode
Cancel
OK



Secure FTD - BGP Routing

3. Add the Networks - Networks that needs to be advertised to Secure Access

- Click OK

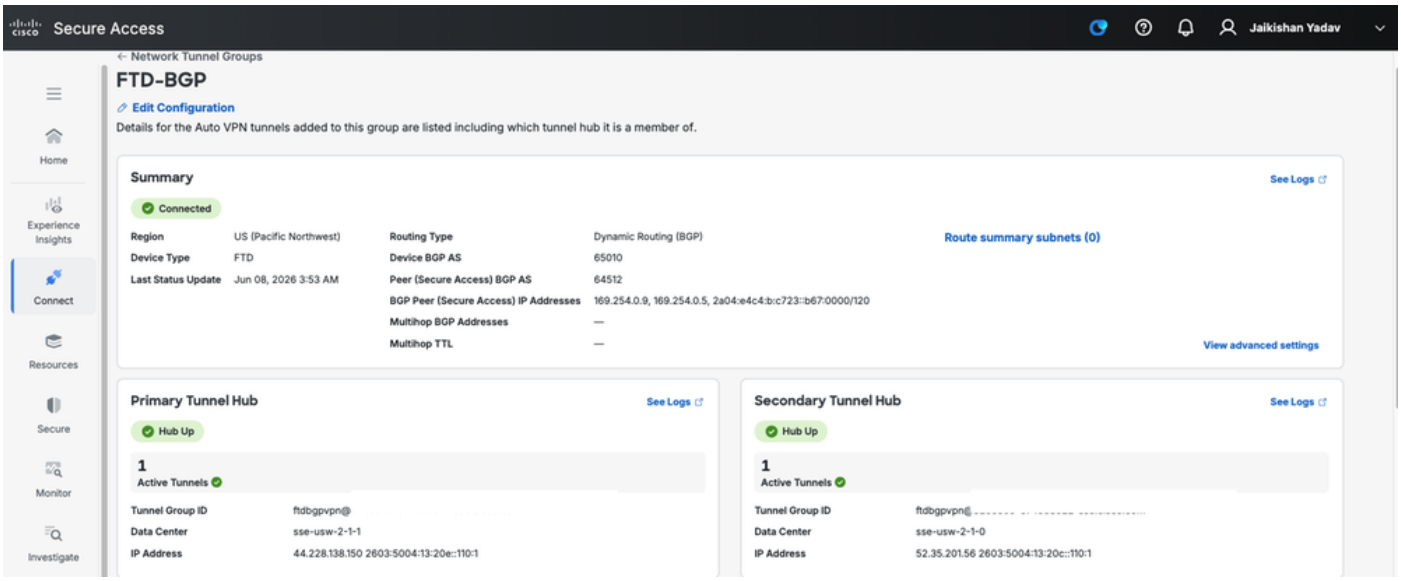


Secure FTD - BGP Routing

- Save and Deploy the changes

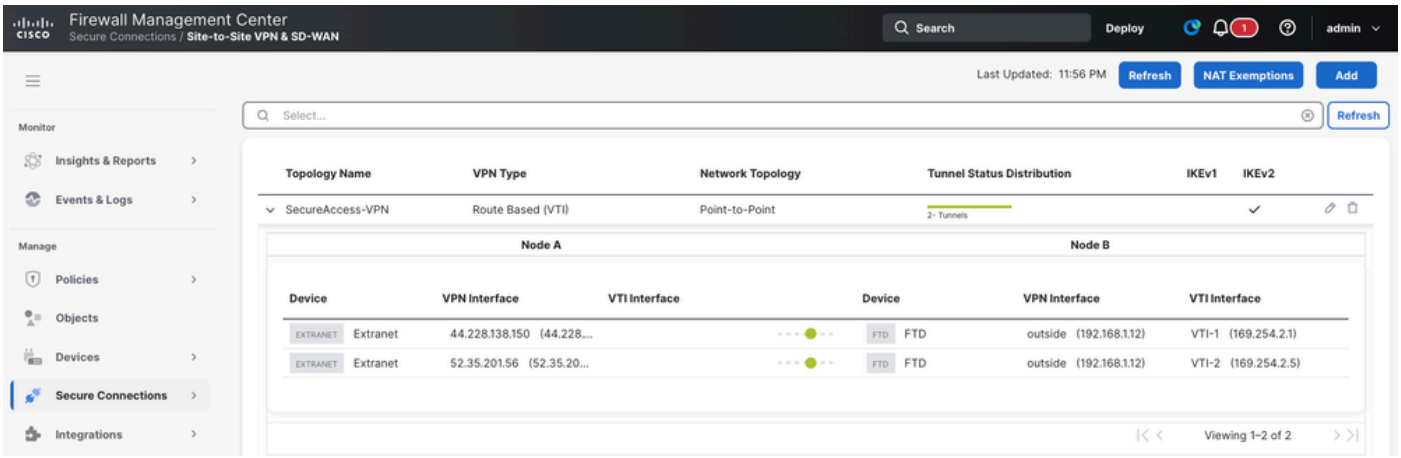
Verify Tunnel Status

On Secure Access



Secure FTD - IPsec Tunnel Status

On FMC

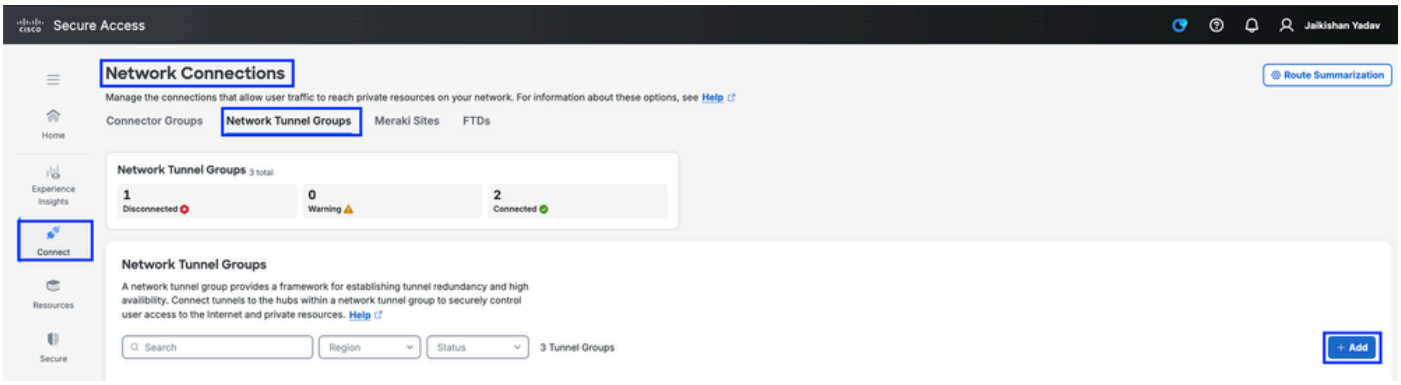


Secure FMC - IPsec Tunnel Status

Configure Static Route-based IPsec VPN on Adaptive Security Appliance (ASA) with PBR

VPN Configuration on Secure Access

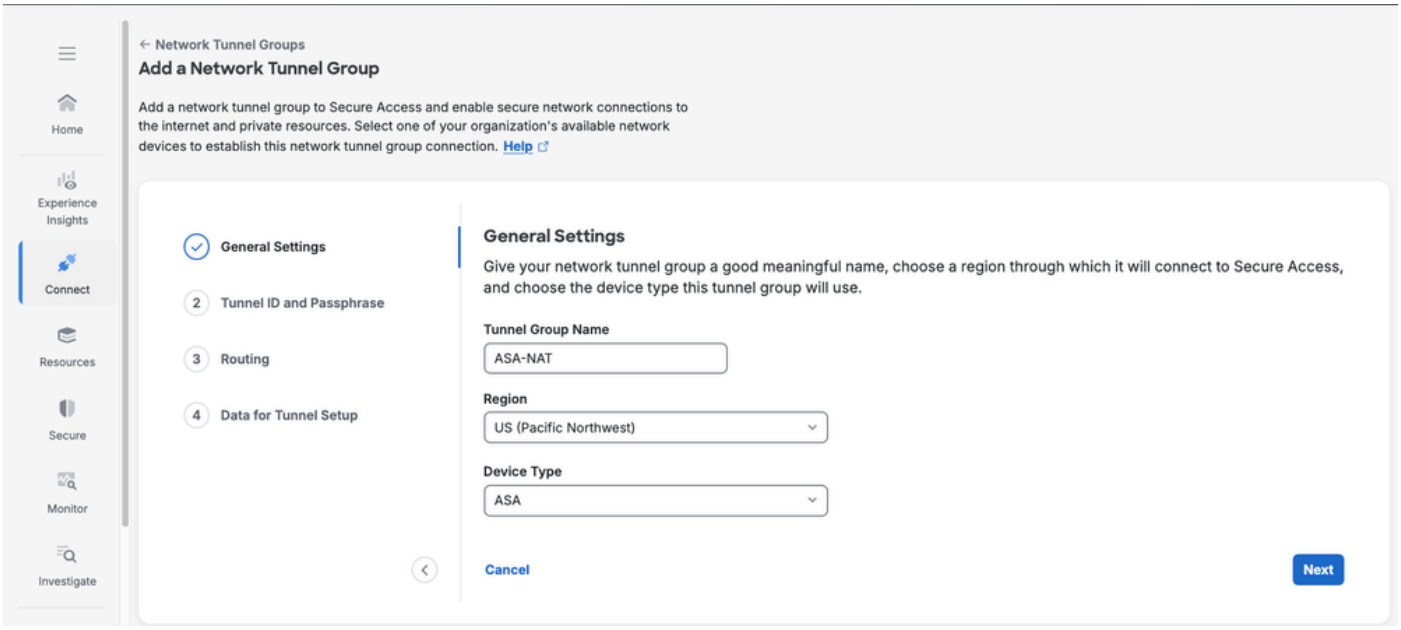
1. Login to Secure Access dashboard Secure Access
2. Navigate to **Connect > Network Connections > Network Tunnel Groups** and click on **+Add** to configure the Network Tunnel Group



Secure Access - Network Tunnel Groups

3. Configure Network Tunnel Group - **General Settings**

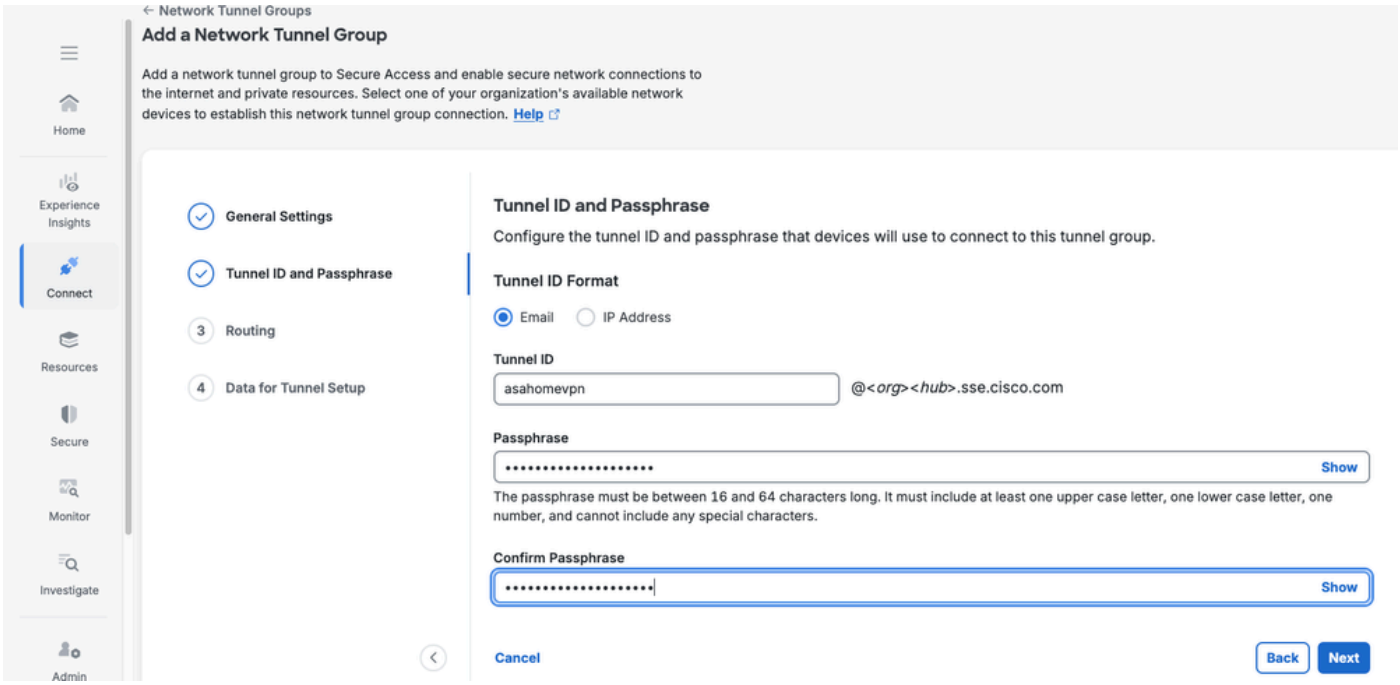
- Configure **Tunnel Group Name,Region** and **Device Type**
- Click **Next**



Secure Access - Network Tunnel Groups General Settings

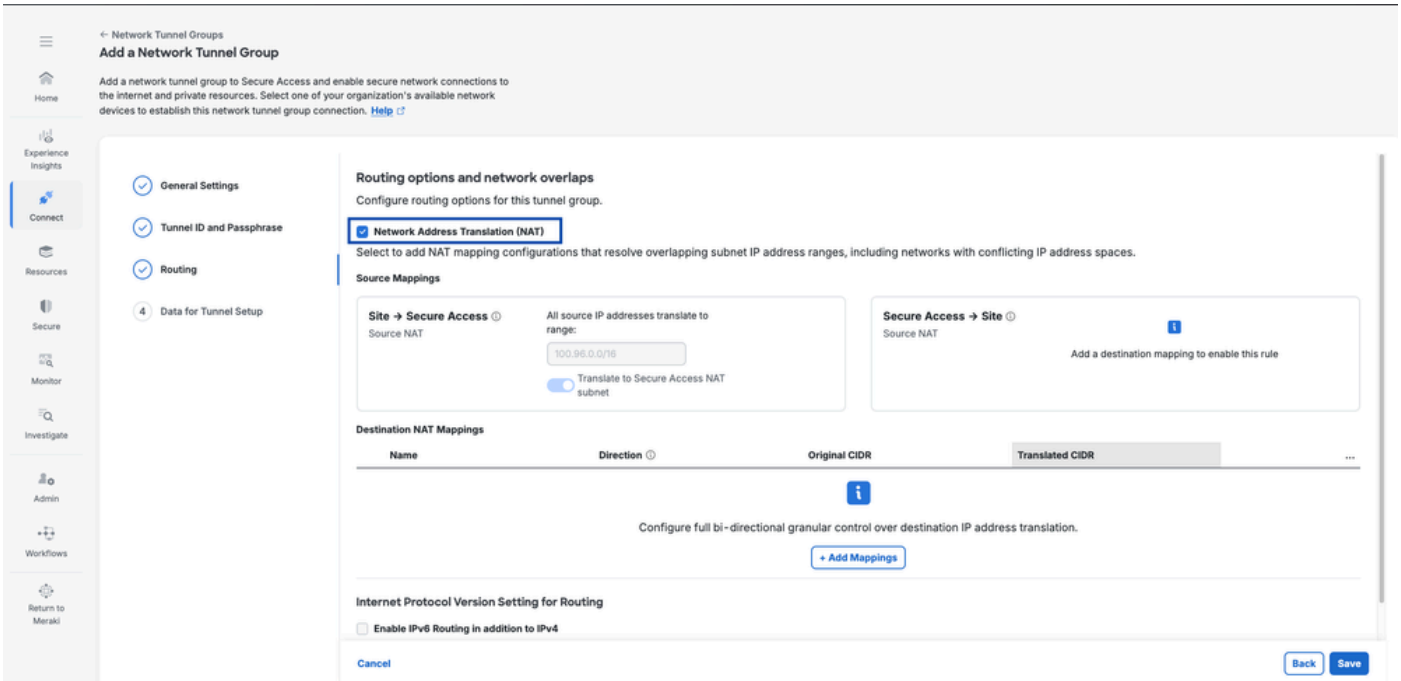
4. Configure **Tunnel ID** and **Passphrase**.

- Configure the Tunnel ID and Passphrase.
- Click on Next



Secure Access - Network Tunnel Groups

5. Enable Network Address Translation (NAT)

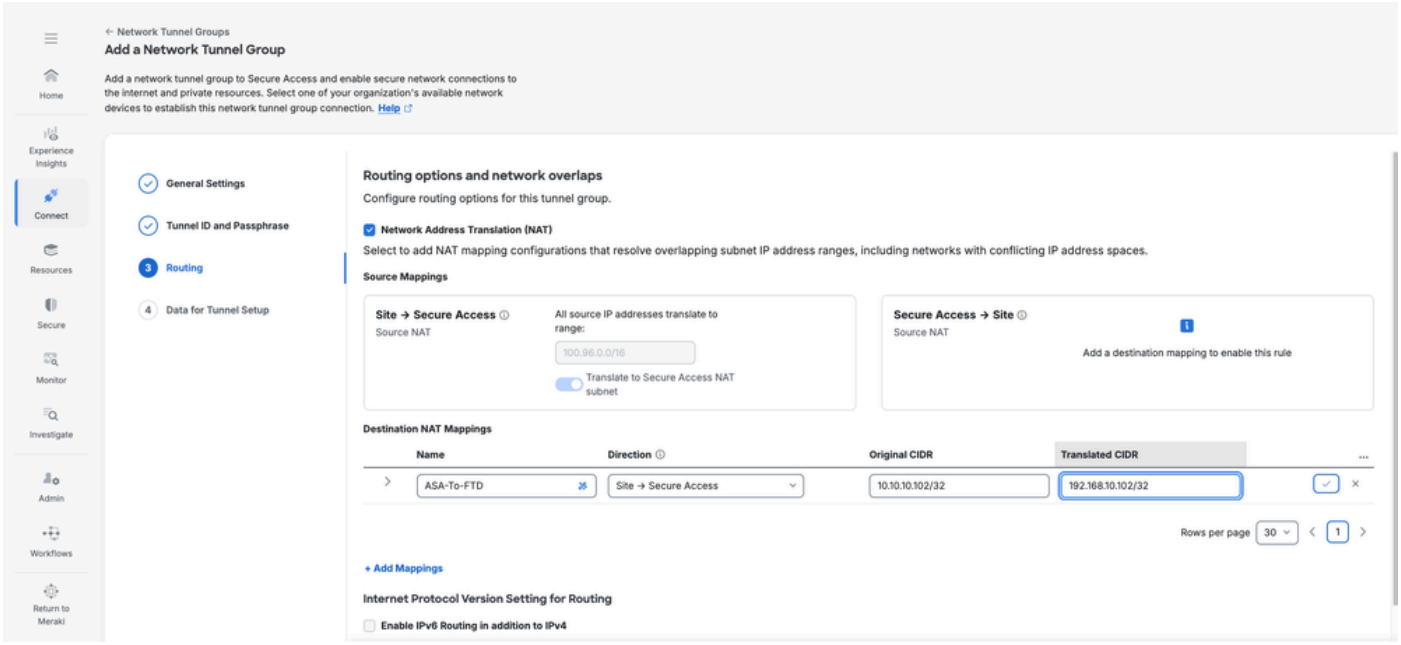


Secure Access - Network Tunnel Groups NAT Settings

6. Add Destination NAT Mapping

Flow 1 - Router 1 to Router 2 (Site to Secure Access)

Flow 2 - Router 2 to Router 1 (Secure Access to Site)



Secure Access - Network Tunnel Groups NAT Settings

⚠ **Caution**: When NAT is enabled, BGP is not possible . Also, configure static VPN on Customer Edge devices as well

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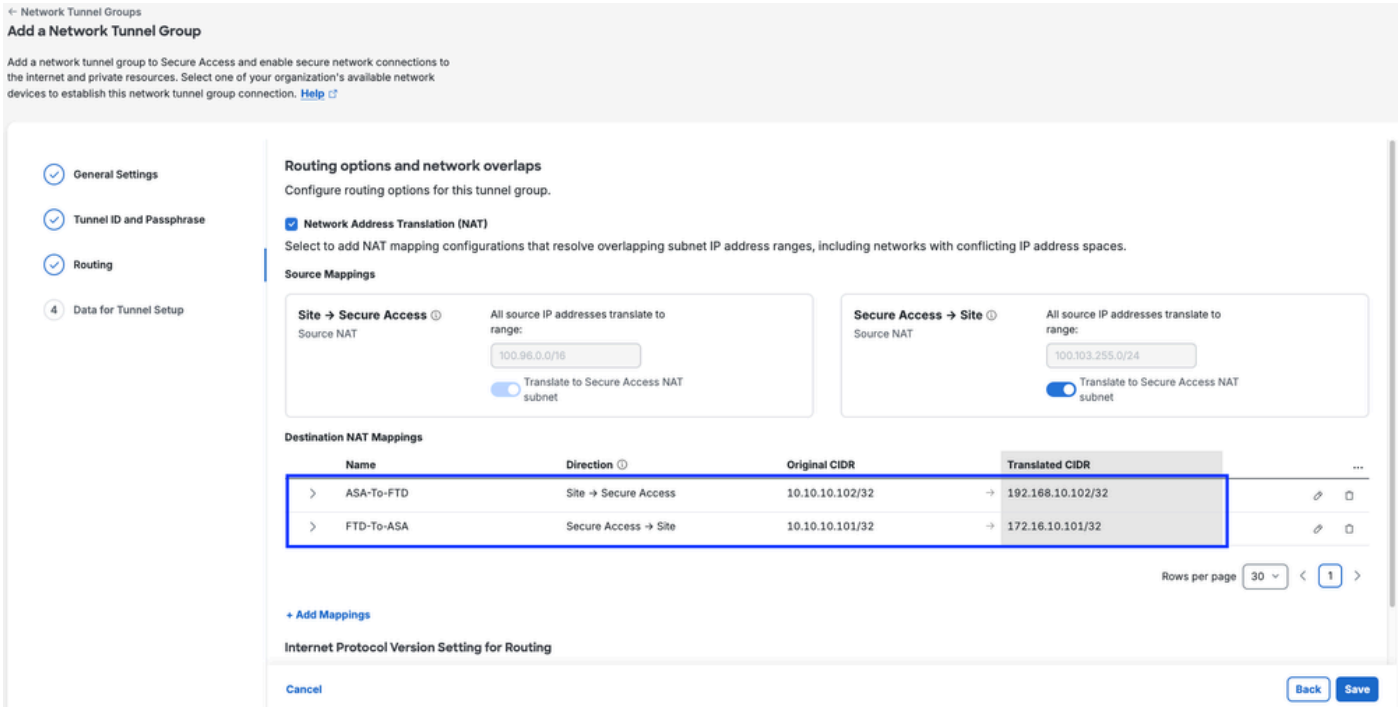
🔍 **Tip**: Always remember to ping a translated IP .
Translated IP goes in Translated CIDR and Real IP goes in Original CIDR



Secure Access - Network Tunnel Groups NAT Settings

Click on **Save**

Tip: For traffic going from 'Site A' to 'Site B', from CNHE-1 point of view direction is 'Site-> SecureAccess'

For traffic going from 'site B' to 'site A', from CNHE-1 point of view direction is 'SecureAccess -> Site'

VPN Configuration on ASA

1. Log into ASA CLI, enter enable mode and verify basic IP connectivity towards the internet

ASA# sh ip
System IP Addresses:
Interface Name IP address Subnet mask Method
GigabitEthernet0/0 outside 192.168.1.40 255.255.255.0 manual
GigabitEthernet0/1 inside 10.10.10.1 255.255.255.0 manual

Current IP Addresses:
Interface Name IP address Subnet mask Method
GigabitEthernet0/0 outside 192.168.1.40 255.255.255.0 manual
GigabitEthernet0/1 inside 10.10.10.1 255.255.255.0 manual

ASA# ping 8.8.8.8

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 8.8.8.8, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 20/28/30 ms
ASA#

2. Configure IKEv2 policy and enable IKEv2 on the outside interface

crypto ikev2 policy 10
encryption aes-gcm-256
integrity null
group 19
lifetime seconds 86400
crypto ikev2 enable outside

3. Configure IPSec proposal

crypto ipsec ikev2 ipsec-proposal Ipsec-Proposal-primary
protocol esp encryption aes-gcm-256

4. Configure IPsec profile

crypto ipsec profile csa-profile-primary
set ikev2 ipsec-proposal Ipsec-Proposal-primary
set ikev2 local-identity email-id <primary tunnel-id>

5. Configure Group Policy, and enable IKEv2 protocol under attribute.

group-policy csa-policy-primary internal
group-policy csa-policy-primary attributes
vpn-tunnel-protocol ikev2

6. Configure Tunnel Group.

tunnel-group 44.228.138.150 type ipsec-l2l
tunnel-group 44.228.138.150 general-attributes
default-group-policy csa-policy-primary
tunnel-group 44.228.138.150 ipsec-attributes
ikev2 remote-authentication pre-shared-key <pre-shared-key>
ikev2 local-authentication pre-shared-key <pre-shared-key>

7. Configure Virtual Tunnel Interface (VTI)

- Nameif can be if your choice
- IP address assigned to VTI**must not overlap**with any other interface on the ASA

- Tunnel source **must** be the outside interface of the firewall
- Tunnel destination **must** be the Data Center IP address

```
interface Tunnel1
nameif VTI-1
ip address 169.254.2.1 255.255.255.252
tunnel source interface outside
tunnel destination 44.228.138.150
tunnel mode ipsec ipv4
tunnel protection ipsec profile csa-profile-primary
```

8. Configure routing in way that, traffic to the mapped IP address or subnet is routed inside the VTI interface. Next hop needs to by IP within range of VTI.

route VTI-1 0.0.0.0 0.0.0.0 169.254.2.2 5. (for internet based, RAVPN pool or CGNAT traffic

or

route VTI-1 172.16.10.101 255.255.255.255 169.254.2.2 5

Policy Based Routing

1. Access List

access-list PBR extended permit ip 10.10.10.0 255.255.255.0 any

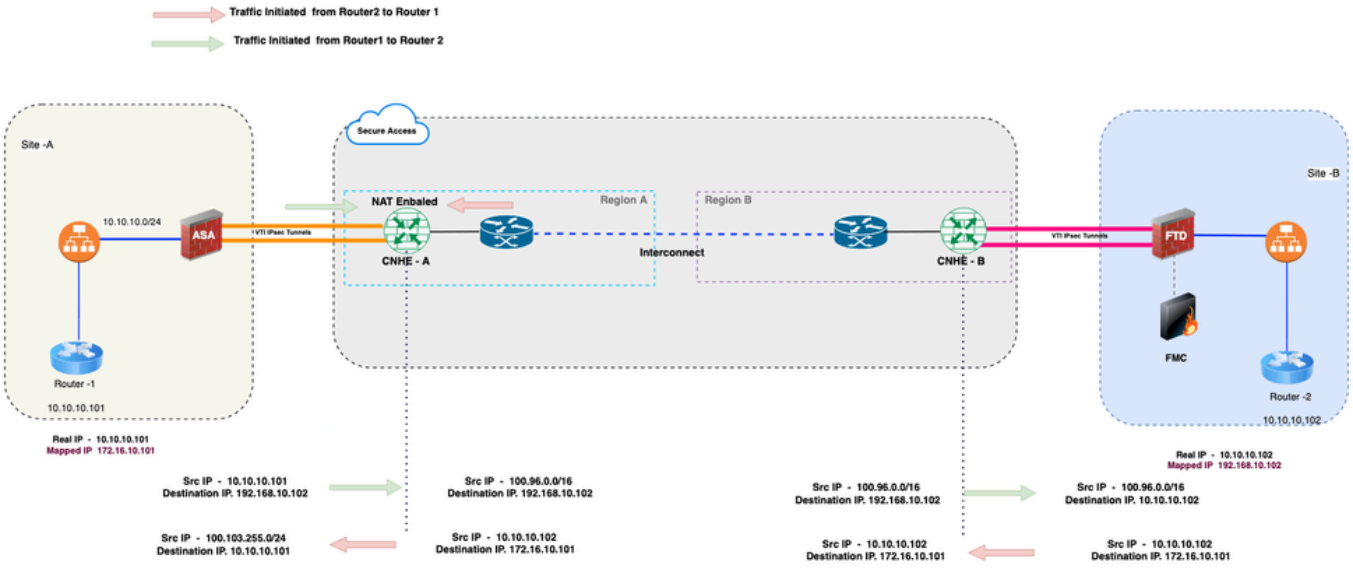
2. Route-map

```
route-map RM-CSA permit 10
match ip address PBR
set ip next-hop 169.254.2.2 169.254.2.6
```

3. Apply Route-map on ingress interface

```
interface GigabitEthernet0/1
nameif inside
security-level 100
ip address 10.10.10.1 255.255.255.0
policy-route route-map RM-CSA
```

Verify



Router interface and GW reachability status

```
Router1#show ip interface brief
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet1       192.168.1.101   YES NVRAM  down                  down
GigabitEthernet2       10.10.10.101    YES NVRAM  up                    up
GigabitEthernet3       unassigned      YES NVRAM  administratively down down
GigabitEthernet9       unassigned      YES unset  administratively down down
Router1#ping  10.10.10.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.10.10.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/2 ms
```

Test 1- Router2 --> Router1. - Ping Test

```
Router1#ping 192.168.10.102
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.10.102, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 207/211/223 ms
Router1#
```

Packet capture on ASA (Local FW)

```
ASA# sh capture
capture capin type raw-data trace interface inside [Capturing - 1300 bytes]
  match icmp any any
capture tunnel type raw-data trace interface vti-1 [Capturing - 1300 bytes]
  match icmp any any
capture asp type asp-drop all [Capturing - 0 bytes]
  match icmp any any
ASA#
ASA#
ASA# ter pag 20
ASA# sh cap capin

10 packets captured

   1: 10:56:45.024244       10.10.10.101 > 192.168.10.102 icmp: echo request
   2: 10:56:45.231143       192.168.10.102 > 10.10.10.101 icmp: echo reply
   3: 10:56:45.232470       10.10.10.101 > 192.168.10.102 icmp: echo request
   4: 10:56:45.441856       192.168.10.102 > 10.10.10.101 icmp: echo reply
   5: 10:56:45.443122       10.10.10.101 > 192.168.10.102 icmp: echo request
   6: 10:56:45.652477       192.168.10.102 > 10.10.10.101 icmp: echo reply
   7: 10:56:45.653423       10.10.10.101 > 192.168.10.102 icmp: echo request
   8: 10:56:45.875397       192.168.10.102 > 10.10.10.101 icmp: echo reply
   9: 10:56:45.876450       10.10.10.101 > 192.168.10.102 icmp: echo request
  10: 10:56:46.082301       192.168.10.102 > 10.10.10.101 icmp: echo reply
10 packets shown
ASA# sh cap tunnel

10 packets captured

   1: 10:56:45.024458       10.10.10.101 > 192.168.10.102 icmp: echo request
   2: 10:56:45.230914       192.168.10.102 > 10.10.10.101 icmp: echo reply
   3: 10:56:45.232516       10.10.10.101 > 192.168.10.102 icmp: echo request
   4: 10:56:45.441795       192.168.10.102 > 10.10.10.101 icmp: echo reply
   5: 10:56:45.443153       10.10.10.101 > 192.168.10.102 icmp: echo request
   6: 10:56:45.652432       192.168.10.102 > 10.10.10.101 icmp: echo reply
   7: 10:56:45.653454       10.10.10.101 > 192.168.10.102 icmp: echo request
   8: 10:56:45.875351       192.168.10.102 > 10.10.10.101 icmp: echo reply
   9: 10:56:45.876480       10.10.10.101 > 192.168.10.102 icmp: echo request
  10: 10:56:46.082240       192.168.10.102 > 10.10.10.101 icmp: echo reply
10 packets shown
```

Packet Capture on FTD (Remote FW)

```
ftd# sh capture
capture vti type raw-data trace interface VTI-1 include-decrypted [Capturing - 1300 bytes]
  match icmp any any
capture capin type raw-data interface inside [Capturing - 1300 bytes]
  match icmp any any
capture asp type asp-drop all [Capturing - 0 bytes]
  match icmp any any
ftd# sh cap vti

10 packets captured

   1: 16:06:41.122292       100.96.2.0 > 10.10.10.102 icmp: echo request
   2: 16:06:41.124856       10.10.10.102 > 100.96.2.0 icmp: echo reply
   3: 16:06:41.329557       100.96.2.0 > 10.10.10.102 icmp: echo request
   4: 16:06:41.330442       10.10.10.102 > 100.96.2.0 icmp: echo reply
   5: 16:06:41.546327       100.96.2.0 > 10.10.10.102 icmp: echo request
   6: 16:06:41.547106       10.10.10.102 > 100.96.2.0 icmp: echo reply
   7: 16:06:41.752036       100.96.2.0 > 10.10.10.102 icmp: echo request
   8: 16:06:41.752814       10.10.10.102 > 100.96.2.0 icmp: echo reply
   9: 16:06:41.967891       100.96.2.0 > 10.10.10.102 icmp: echo request
  10: 16:06:41.968501       10.10.10.102 > 100.96.2.0 icmp: echo reply
10 packets shown
ftd# sh cap capin

10 packets captured

   1: 16:06:41.123299       100.96.2.0 > 10.10.10.102 icmp: echo request
   2: 16:06:41.124825       10.10.10.102 > 100.96.2.0 icmp: echo reply
   3: 16:06:41.330000       100.96.2.0 > 10.10.10.102 icmp: echo request
   4: 16:06:41.330396       10.10.10.102 > 100.96.2.0 icmp: echo reply
   5: 16:06:41.546800       100.96.2.0 > 10.10.10.102 icmp: echo request
   6: 16:06:41.547090       10.10.10.102 > 100.96.2.0 icmp: echo reply
   7: 16:06:41.752448       100.96.2.0 > 10.10.10.102 icmp: echo request
   8: 16:06:41.752783       10.10.10.102 > 100.96.2.0 icmp: echo reply
   9: 16:06:41.968242       100.96.2.0 > 10.10.10.102 icmp: echo request
  10: 16:06:41.968486       10.10.10.102 > 100.96.2.0 icmp: echo reply
10 packets shown
```

Test 2. - Router 2 ---> Router 1 ping test

```
Router2#sh ip int br
Interface              IP-Address      OK? Method Status                Protocol
GigabitEthernet1       unassigned      YES NVRAM  administratively down down
GigabitEthernet2       10.10.10.102    YES NVRAM  up                    up
GigabitEthernet3       unassigned      YES NVRAM  administratively down down
Router2#ping 10.10.10.1
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.10.10.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/2 ms
```

FTD Packet Capture (Local FW)

```
ftd# sh capture
capture vti type raw-data trace interface VTI-1 include-decrypted [Capturing - 1300 bytes]
  match icmp any any
capture capin type raw-data interface inside [Capturing - 1300 bytes]
  match icmp any any
capture asp type asp-drop all [Capturing - 0 bytes]
  match icmp any any
ftd#
ftd#
ftd#
ftd# sh cap vti

10 packets captured

   1: 16:11:45.622450       10.10.10.102 > 172.16.10.101 icmp: echo request
   2: 16:11:45.823825       172.16.10.101 > 10.10.10.102 icmp: echo reply
   3: 16:11:45.825762       10.10.10.102 > 172.16.10.101 icmp: echo request
   4: 16:11:46.045667       172.16.10.101 > 10.10.10.102 icmp: echo reply
   5: 16:11:46.046857       10.10.10.102 > 172.16.10.101 icmp: echo request
   6: 16:11:46.252321       172.16.10.101 > 10.10.10.102 icmp: echo reply
   7: 16:11:46.253572       10.10.10.102 > 172.16.10.101 icmp: echo request
   8: 16:11:46.453803       172.16.10.101 > 10.10.10.102 icmp: echo reply
   9: 16:11:46.454764       10.10.10.102 > 172.16.10.101 icmp: echo request
  10: 16:11:46.664119       172.16.10.101 > 10.10.10.102 icmp: echo reply
10 packets shown
ftd# sh cap capin

10 packets captured

   1: 16:11:45.622083       10.10.10.102 > 172.16.10.101 icmp: echo request
   2: 16:11:45.823886       172.16.10.101 > 10.10.10.102 icmp: echo reply
   3: 16:11:45.825442       10.10.10.102 > 172.16.10.101 icmp: echo request
   4: 16:11:46.045697       172.16.10.101 > 10.10.10.102 icmp: echo reply
   5: 16:11:46.046582       10.10.10.102 > 172.16.10.101 icmp: echo request
   6: 16:11:46.252352       172.16.10.101 > 10.10.10.102 icmp: echo reply
   7: 16:11:46.253313       10.10.10.102 > 172.16.10.101 icmp: echo request
   8: 16:11:46.453849       172.16.10.101 > 10.10.10.102 icmp: echo reply
   9: 16:11:46.454596       10.10.10.102 > 172.16.10.101 icmp: echo request
  10: 16:11:46.664150       172.16.10.101 > 10.10.10.102 icmp: echo reply
10 packets shown
```

ASA packet capture (Remote FW)

```
ASA# sh capture
capture capin type raw-data trace interface inside [Capturing - 1300 bytes]
  match icmp any any
capture tunnel type raw-data trace interface vti-1 [Capturing - 1300 bytes]
  match icmp any any
capture asp type asp-drop all [Capturing - 0 bytes]
  match icmp any any
ASA# sh cap capin

10 packets captured

   1: 11:08:30.288391       100.103.255.195 > 10.10.10.101 icmp: echo request
   2: 11:08:30.289123       10.10.10.101 > 100.103.255.195 icmp: echo reply
   3: 11:08:30.504566       100.103.255.195 > 10.10.10.101 icmp: echo request
   4: 11:08:30.504963       10.10.10.101 > 100.103.255.195 icmp: echo reply
   5: 11:08:30.710992       100.103.255.195 > 10.10.10.101 icmp: echo request
   6: 11:08:30.711404       10.10.10.101 > 100.103.255.195 icmp: echo reply
   7: 11:08:30.917112       100.103.255.195 > 10.10.10.101 icmp: echo request
   8: 11:08:30.917402       10.10.10.101 > 100.103.255.195 icmp: echo reply
   9: 11:08:31.128243       100.103.255.195 > 10.10.10.101 icmp: echo request
  10: 11:08:31.128640       10.10.10.101 > 100.103.255.195 icmp: echo reply
10 packets shown
ASA# sh cap tunnel

10 packets captured

   1: 11:08:30.287964       100.103.255.195 > 10.10.10.101 icmp: echo request
   2: 11:08:30.289322       10.10.10.101 > 100.103.255.195 icmp: echo reply
   3: 11:08:30.504505       100.103.255.195 > 10.10.10.101 icmp: echo request
   4: 11:08:30.505009       10.10.10.101 > 100.103.255.195 icmp: echo reply
   5: 11:08:30.710961       100.103.255.195 > 10.10.10.101 icmp: echo request
   6: 11:08:30.711434       10.10.10.101 > 100.103.255.195 icmp: echo reply
   7: 11:08:30.917066       100.103.255.195 > 10.10.10.101 icmp: echo request
   8: 11:08:30.917417       10.10.10.101 > 100.103.255.195 icmp: echo reply
   9: 11:08:31.128197       100.103.255.195 > 10.10.10.101 icmp: echo request
  10: 11:08:31.128685       10.10.10.101 > 100.103.255.195 icmp: echo reply
10 packets shown
```