

# PIX/ASA 7.X : Add a New Tunnel or Remote Access to an Existing L2L VPN

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## **Introduction**

### **Prerequisites**

- Requirements
- Components Used
- Conventions
- Network Diagram

### **Background Information**

#### **Add an Additional L2L Tunnel to the Configuration**

- Step-by-Step Instructions
- Example Configuration

#### **Add a Remote Access VPN to the Configuration**

- Step-by-Step Instructions
- Example Configuration

### **Verify**

### **Troubleshoot**

### **NetPro Discussion Forums – Featured Conversations**

### **Related Information**

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## **Introduction**

This document provides the steps required to add a new VPN tunnel or a remote access VPN to a L2L VPN configuration that already exists. Refer to Cisco ASA 5500 Series Adaptive Security Appliances – Configuration Examples and TechNotes for information on how to create the initial IPsec VPN tunnels and for more configuration examples.

## **Prerequisites**

### **Requirements**

Ensure that you correctly configure the L2L IPSEC VPN tunnel that is currently operational before you attempt this configuration.

### **Components Used**

The information in this document is based on these software and hardware versions:

- Two ASA security appliances that run 7.x code
- One PIX security appliance that runs 7.x code

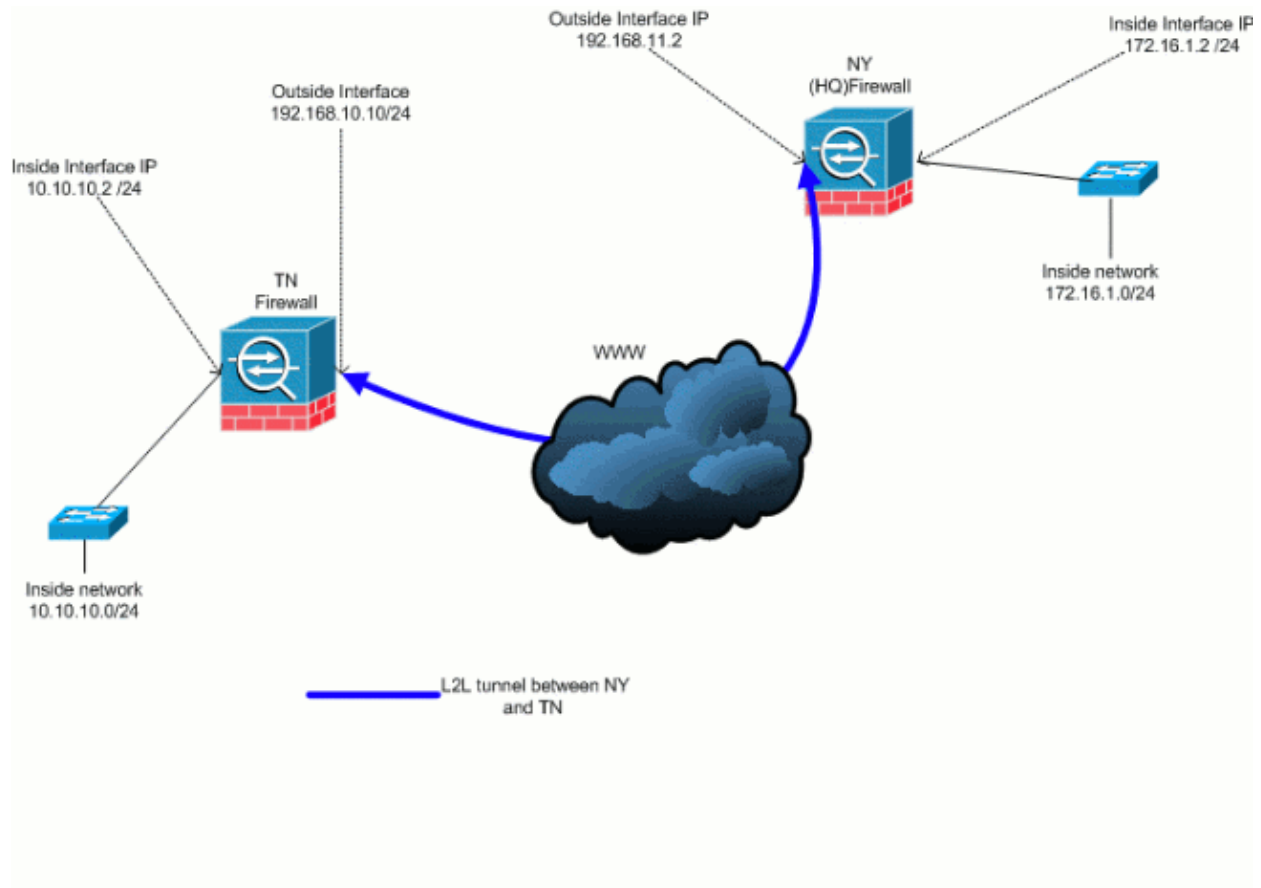
The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

## Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

## Network Diagram

This document uses this network setup:



This output is the current running configuration of the NY (HUB) security appliance. In this configuration, there is an IPsec L2L tunnel configured between NY(HQ) and TN.

| Current NY (HQ) Firewall Configuration  |
|---|
| <pre>ASA-NY-HQ#show running-config  : Saved : ASA Version 7.2(2) ! hostname ASA-NY-HQ domain-name corp2.com enable password WwXYvtKrnjXqGbul encrypted names ! interface Ethernet0/0  nameif outside  security-level 0  ip address 192.168.11.2 255.255.255.0 !</pre> |

```

interface Ethernet0/1
  nameif inside
  security-level 100
  ip address 172.16.1.2 255.255.255.0
!
interface Ethernet0/2
  shutdown
  no nameif
  no security-level
  no ip address
!
interface Ethernet0/3
  shutdown
  no nameif
  no security-level
  no ip address
!
interface Management0/0
  shutdown
  no nameif
  no security-level
  no ip address
!
passwd 2KFQnbNIdI.2KYOU encrypted
ftp mode passive
dns server-group DefaultDNS
  domain-name corp2.com
access-list inside_nat0_outbound extended permit ip 172.16.1.0 255.255.255.0
10.10.10.0 255.255.255.0
access-list outside_20_cryptomap extended permit ip 172.16.1.0 255.255.255.0
10.10.10.0 255.255.255.0

!--- Output is suppressed.

nat-control
global (outside) 1 interface
nat (inside) 0 access-list inside_nat0_outbound
nat (inside) 1 172.16.1.0 255.255.255.0
route outside 0.0.0.0 0.0.0.0 192.168.11.100 1
timeout xlate 3:00:00
timeout conn 1:00:00 half-closed 0:10:00 udp 0:02:00 icmp 0:00:02
timeout sunrpc 0:10:00 h323 0:05:00 h225 1:00:00 mgcp 0:05:00 mgcp-pat 0:05:00
timeout sip 0:30:00 sip_media 0:02:00 sip-invite 0:03:00 sip-disconnect 0:02:00
timeout uauth 0:05:00 absolute
no snmp-server location
no snmp-server contact
snmp-server enable traps snmp authentication linkup linkdown coldstart
crypto ipsec transform-set ESP-3DES-SHA esp-3des esp-sha-hmac
crypto map outside_map 20 match address outside_20_cryptomap
crypto map outside_map 20 set peer 192.168.10.10
crypto map outside_map 20 set transform-set ESP-3DES-SHA
crypto map outside_map interface outside
crypto isakmp enable outside
crypto isakmp policy 10
  authentication pre-share
  encryption 3des
  hash sha
  group 2
  lifetime 86400
crypto isakmp nat-traversal 20
tunnel-group 192.168.10.10 type ipsec-l2l
tunnel-group 192.168.10.10 ipsec-attributes

```

```

pre-shared-key *
telnet timeout 1440
ssh timeout 5
console timeout 0
!
class-map inspection_default
  match default-inspection-traffic
!
!
policy-map type inspect dns preset_dns_map
  parameters
    message-length maximum 512
policy-map global_policy
  class inspection_default
    inspect dns preset_dns_map
    inspect ftp
    inspect h323 h225
    inspect h323 ras
    inspect netbios
    inspect rsh
    inspect rtsp
    inspect skinny
    inspect esmtp
    inspect sqlnet
    inspect sunrpc
    inspect tftp
    inspect sip
    inspect xdmcp
!
service-policy global_policy global
prompt hostname context
Cryptochecksum:a3aa2afb37dcad447031b7b0c8ea65d3
: end
ASA-NY-HQ#

```

## Background Information

Currently, there is an existing L2L tunnel set up between the NY(HQ) office and TN office. Your company has recently opened a new office that is located in TX. This new office requires connectivity to local resources that are located in the NY and TN offices. In addition, there is an additional requirement to allow employees the opportunity to work from home and securely access resources that are located on the internal network remotely. In this example, a new VPN tunnel is configured as well as a remote access VPN server that is located in the the NY office.

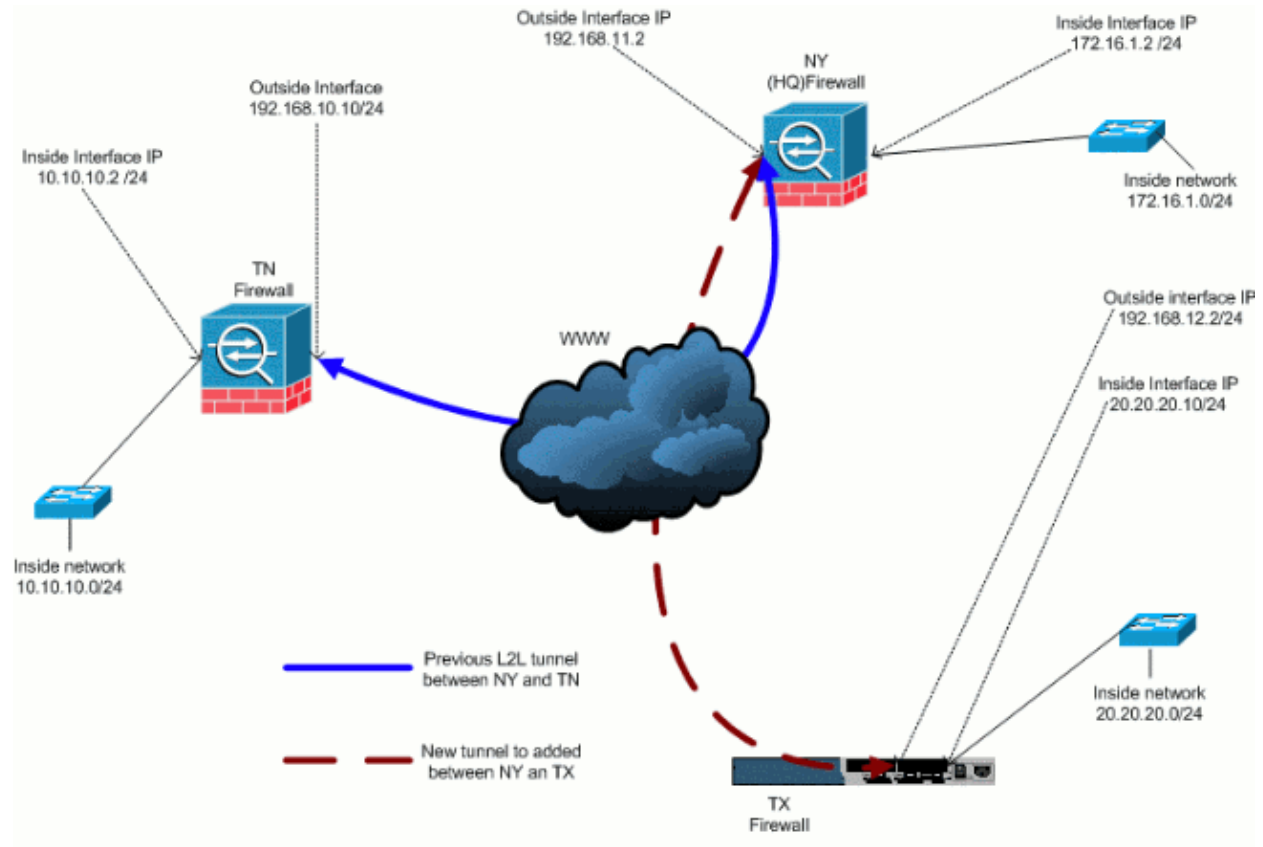
In this example, two commands are used in order to allow the communication between the VPN networks and identify the traffic that should be tunneled or encrypted. This enables you to have access to the internet without having to send that traffic through the VPN tunnel. In order to configure these two options, issue the **split-tunnel** and **same-security-traffic** commands.

Split tunneling allows a remote-access IPSec client to conditionally direct packets over an IPSec tunnel in encrypted form, or to a network interface in clear text form. With split tunneling enabled, packets not bound for destinations on the other side of the IPSec tunnel do not have to be encrypted, sent across the tunnel, decrypted, and then routed to a final destination. This command applies this split tunneling policy to a specified network. The default is to tunnel all traffic. In order to set a split tunneling policy, issue the **split-tunnel-policy** command in the group-policy configuration mode. In order to remove the split-tunneling-policy from the configuration, issue the **no** form of this command.

The security appliance includes a feature that allows a VPN client to send IPSec-protected traffic to other VPN users by allowing such traffic in and out of the same interface. Also called hairpinning, this feature can be thought of as VPN spokes (clients) that connect through a VPN hub (security appliance). In another application, this feature can redirect incoming VPN traffic back out through the same interface as unencrypted traffic. This is useful, for example, to a VPN client that does not have split tunneling but needs to both access a VPN and browse the web. In order to configure this feature, issue the **same-security-traffic intra-interface** command in the global configuration mode.

## Add an Additional L2L Tunnel to the Configuration

This is the network diagram for this configuration:



## Step-by-Step Instructions

This section provides the required procedures that must be performed on the HUB (NY Firewall) security appliance. Refer to the PIX/ASA 7.x: Simple PIX-to-PIX VPN Tunnel Configuration Example for more information on how to configure the spoke client (TX Firewall).

Complete these steps:

1. Create these two new access-lists to be used by the crypto map in order to define interesting traffic:

- ◆ ASA-NY-HQ(config)#access-list outside\_30\_cryptomap  
extended permit ip 172.16.1.0 255.255.255.0  
20.20.20.0 255.255.255.0
- ◆ ASA-NY-HQ(config)#access-list outside\_30\_cryptomap  
extended permit ip 10.10.10.0 255.255.255.0

20.20.20.0 255.255.255.0



**Warning:** In order for the communication to take place, the other side of the tunnel must have

the opposite of this access control list (ACL) entry for that particular network.

2. Add these entries to the no nat statement in order to exempt the natting between these networks:

- ◆ ASA-NY-HQ(config)#access-list inside\_nat0\_outbound  
extended permit ip 172.16.1.0 255.255.255.0  
20.20.20.0 255.255.255.0
- ◆ ASA-NY-HQ(config)#access-list inside\_nat0\_outbound  
extended permit ip 10.10.10.0 255.255.255.0  
20.20.20.0 255.255.255.0
- ◆ ASA-NY-HQ(config)#access-list inside\_nat0\_outbound  
extended permit ip 20.20.20.0 255.255.255.0  
10.10.10.0 255.255.255.0



**Warning:** In order for the communication to take place, the other side of the tunnel must have

the opposite of this ACL entry for that particular network.

3. Issue this command in order to enable a host on the TX VPN network to have access to the TN VPN tunnel:

- ◆ ASA-NY-HQ(config)#same-security-traffic permit  
intra-interface

This allows VPN peers to talk between each other.

4. Create the crypto map configuration for the new VPN tunnel. Use the same transform set that was used in the first VPN configuration, as all the phase 2 settings are the same.

- ◆ ASA-NY-HQ(config)#crypto map outside\_map 30 match  
address outside\_30\_cryptomap
- ◆ ASA-NY-HQ(config)#crypto map outside\_map 30 set  
peer 192.168.12.2
- ◆ ASA-NY-HQ(config)#crypto map outside\_map 30 set  
transform-set  
ESP-3DES-SHA

5. Create the tunnel-group that is specified for this tunnel along with attributes needed to connect to the remote host.

- ◆ ASA-NY-HQ(config)#tunnel-group 192.168.12.2 type  
ipsec-l2l
  - ◆ ASA-NY-HQ(config)#tunnel-group 192.168.12.2  
ipsec-attributes
- ◇ ASA-NY-HQ(config-tunnel-ipsec)#pre-shared-key  
cisco123

**Note:** The pre-shared-key must match exactly on both sides of the tunnel.

6. Now that you have configured the new tunnel, you must send interesting traffic across the tunnel in order to bring it up. In order to perform this, issue the **source ping** command to ping a host on the inside network of the remote tunnel.

In this example, a workstation on the other side of the tunnel with the address 20.20.20.16 is pinged. This brings the tunnel up between NY and TX. Now, there are two tunnels connected to the HQ office. If you do not have access to a system behind the tunnel, refer to Most Common IPsec VPN Troubleshooting Solutions to find an alternate solution in respect to using management-access.

## Example Configuration

### Example Configuration 1

```
ASA-NY-HQ#show running-config

: Saved
:
ASA Version 7.2(2)
!
hostname ASA-NY-HQ
domain-name corp2.com
enable password WwXYvtKrnjXqGbul encrypted
names
!
interface Ethernet0/0
 nameif outside
 security-level 0
 ip address 192.168.11.1 255.255.255.0
!
interface Ethernet0/1
 nameif inside
 security-level 100
 ip address 172.16.1.2 255.255.255.0
!
interface Ethernet0/2
 shutdown
 no nameif
 no security-level
 no ip address
!
interface Ethernet0/3
 shutdown
 no nameif
 no security-level
 no ip address
!
interface Management0/0
 shutdown
 no nameif
 no security-level
 no ip address
!
passwd 2KFQnbNIdI.2KYOU encrypted
ftp mode passive
dns server-group DefaultDNS
 domain-name corp2.com
same-security-traffic permit intra-interface
access-list inside_nat0_outbound extended permit ip 172.16.1.0 255.255.255.0 10.10.10.0
255.255.255.0
access-list inside_nat0_outbound extended permit ip 172.16.1.0 255.255.255.0 20.20.20.0
255.255.255.0
access-list inside_nat0_outbound extended permit ip 10.10.10.0 255.255.255.0 20.20.20.0
255.255.255.0
access-list inside_nat0_outbound extended permit ip 20.20.20.0 255.255.255.0 10.10.10.0
255.255.255.0
access-list outside_20_cryptomap extended permit ip 172.16.1.0 255.255.255.0 10.10.10.0
255.255.255.0
access-list outside_20_cryptomap extended permit ip 20.20.20.0 255.255.255.0 10.10.10.0
255.255.255.0
access-list outside_30_cryptomap extended permit ip 172.16.1.0 255.255.255.0 20.20.20.0
255.255.255.0
access-list outside_30_cryptomap extended permit ip 10.10.10.0 255.255.255.0 20.20.20.0
```

```

255.255.255.0
logging enable
logging asdm informational
mtu outside 1500
mtu inside 1500
mtu man 1500
no failover
icmp unreachable rate-limit 1 burst-size 1
no asdm history enable
arp timeout 14400
nat-control
global (outside) 1 interface
nat (inside) 0 access-list inside_nat0_outbound
nat (inside) 1 172.16.1.0 255.255.255.0
route outside 0.0.0.0 0.0.0.0 192.168.11.1 1
timeout xlate 3:00:00
timeout conn 1:00:00 half-closed 0:10:00 udp 0:02:00 icmp 0:00:02
timeout sunrpc 0:10:00 h323 0:05:00 h225 1:00:00 mgcp 0:05:00 mgcp-pat 0:05:00
timeout sip 0:30:00 sip_media 0:02:00 sip-invite 0:03:00 sip-disconnect 0:02:00
timeout uauth 0:05:00 absolute
username sidney password 3xsopMX9gN5WnflW encrypted privilege 15
aaa authentication telnet console LOCAL
no snmp-server location
no snmp-server contact
snmp-server enable traps snmp authentication linkup linkdown coldstart
crypto ipsec transform-set ESP-3DES-SHA esp-3des esp-sha-hmac
crypto map outside_map 20 match address outside_20_cryptomap
crypto map outside_map 20 set peer 192.168.10.10
crypto map outside_map 20 set transform-set ESP-3DES-SHA
crypto map outside_map 30 match address outside_30_cryptomap
crypto map outside_map 30 set peer 192.168.12.2
crypto map outside_map 30 set transform-set ESP-3DES-SHA
crypto map outside_map interface outside
crypto isakmp enable outside
crypto isakmp policy 10
  authentication pre-share
  encryption 3des
  hash sha
  group 2
  lifetime 86400
crypto isakmp nat-traversal 20
tunnel-group 192.168.10.10 type ipsec-l2l
tunnel-group 192.168.10.10 ipsec-attributes
  pre-shared-key *
tunnel-group 192.168.12.2 type ipsec-l2l
tunnel-group 192.168.12.2 ipsec-attributes
  pre-shared-key *
telnet timeout 1440
ssh timeout 5
console timeout 0
!
class-map inspection_default
  match default-inspection-traffic
!
!
policy-map type inspect dns preset_dns_map
  parameters
    message-length maximum 512
policy-map global_policy
  class inspection_default
    inspect dns preset_dns_map
    inspect ftp
    inspect h323 h225
    inspect h323 ras

```

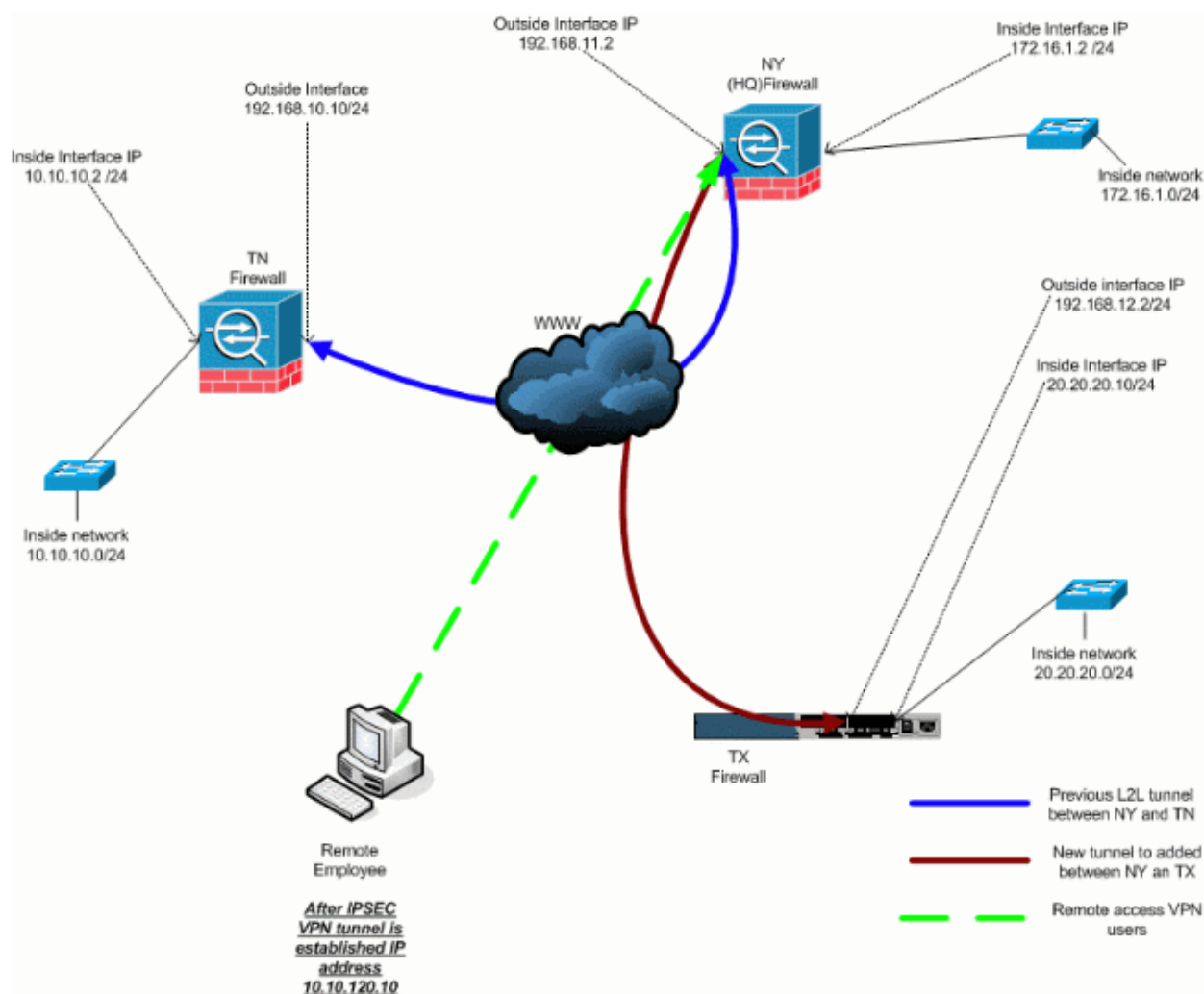
```

inspect netbios
inspect rsh
inspect rtsp
inspect skinny
inspect esmtp
inspect sqlnet
inspect sunrpc
inspect tftp
inspect sip
inspect xdmcp
!
service-policy global_policy global
prompt hostname context
Cryptochecksum:5a184c8e5e6aa30d4108a55ac0ead3ae
: end
ASA-NY-HQ#

```

## Add a Remote Access VPN to the Configuration

This is the network diagram for this configuration:



## Step-by-Step Instructions

This section provides the required procedures to add remote access capability and to allow remote users to access all sites. Refer to PIX/ASA 7.x ASDM: Restrict the Network Access of Remote Access VPN Users for more information on how to configure the remote access server and restrict access.

Complete these steps:

1. Create an IP address pool to be used for clients that connect via the VPN tunnel. Also, create a basic user in order to access the VPN once the configuration is completed.

```
◆ ASA-NY-HQ(config)#ip local pool Hill-V-IP
                               10.10.120.10-10.10.120.100 mask 255.255.255.0
◆ ASA-NY-HQ(config)#username cisco password
                               cisco111
```

2. Exempt specific traffic from being nated.

```
◆ ASA-NY-HQ(config)#access-list
                               inside_nat0_outbound extended permit ip 172.16.1.0
                               255.255.255.0 10.10.120.0 255.255.255.0
◆ ASA-NY-HQ(config)#access-list
                               inside_nat0_outbound extended permit ip 10.10.120.0
                               255.255.255.0 10.10.10.0 255.255.255.0
◆ ASA-NY-HQ(config)#access-list
                               inside_nat0_outbound extended permit ip 10.10.120.0
                               255.255.255.0 20.20.20.0 255.255.255.0
```

Notice that the nat communication between VPN tunnels is exempted in this example.

3. Allow communication between the L2L tunnels that are already created.

```
◆ ASA-NY-HQ(config)#access-list
                               outside_20_cryptomap extended permit ip 10.10.120.0
                               255.255.255.0 10.10.10.0 255.255.255.0
◆ ASA-NY-HQ(config)#access-list
                               outside_30_cryptomap extended permit ip 10.10.120.0
                               255.255.255.0 20.20.20.0 255.255.255.0
```

This allows remote access users the ability to communicate with networks behind the specified tunnels.



**Warning:** In order for the communication to take place, the other side of the tunnel must have

the opposite of this ACL entry for that particular network.

4. Configure the traffic that will be encrypted and sent across the VPN tunnel.

```
◆ ASA-NY-HQ(config)#access-list
                               Hillvalley_splitunnel standard permit 172.16.1.0
                               255.255.255.0
◆ ASA-NY-HQ(config)#access-list
                               Hillvalley_splitunnel standard permit 10.10.10.0
                               255.255.255.0
◆ ASA-NY-HQ(config)#access-list
                               Hillvalley_splitunnel standard permit 20.20.20.0
                               255.255.255.0
```

5. Configure local authentication and policy information, such as wins, dns and IPSec protocols, for the VPN clients.

```
◆ ASA-NY-HQ(config)#group-policy Hillvalley
                               internal
◆ ASA-NY-HQ(config)#group-policy Hillvalley
```

attributes

```
◇ ASA-NY-HQ(config-group-policy)#wins-server
    value 10.10.10.20
◇ ASA-NY-HQ(config-group-policy)#dns-server value
    10.10.10.20
◇ ASA-NY-HQ(config-group-policy)#vpn-tunnel-protocol
    IPSec
```

6. Set IPsec and general attributes, such as pre-shared keys and IP address pools, that will be used by the Hillvalley VPN tunnel.

```
◆ ASA-NY-HQ(config)#tunnel-group Hillvalley
    ipsec-attributes

◇ ASA-NY-HQ(config-tunnel-ipsec)#pre-shared-key
    cisco1234
◆ ASA-NY-HQ(config)#tunnel-group Hillvalley
    general-attributes

◇ ASA-NY-HQ(config-tunnel-general)#address-pool
    Hill-V-IP
◇ ASA-NY-HQ(config-tunnel-general)#default-group-policy
    Hillvalley
```

7. Create the split tunnel policy that will use the ACL created in step 4 in order to specify what traffic will be encrypted and passed through the tunnel.

```
◆ ASA-NY-HQ(config)#split-tunnel-policy
    tunnelspecified
◆ ASA-NY-HQ(config)#split-tunnel-network-list value
    Hillvalley_splitunnel
```

8. Configure the crypto map information required to the VPN tunnel creation.

```
◆ ASA-NY-HQ(config)#crypto ipsec transform-set
    Hill-trans esp-3des esp-sha-hmac
◆ ASA-NY-HQ(config)#crypto dynamic-map
    outside_dyn_map 20 set transform-set
    Hill-trans
◆ ASA-NY-HQ(config)#crypto dynamic-map dyn_map 20
    set reverse-route
◆ ASA-NY-HQ(config)#crypto map outside_map 65535
    ipsec-isakmp dynamic
    outside_dyn_map
```

## Example Configuration

### Example Configuration 2

```
ASA-NY-HQ#show running-config

: Saved

hostname ASA-NY-HQ
ASA Version 7.2(2)

enable password WwXYvtKrnjXqGbul encrypted
names
!
interface Ethernet0/0
 nameif outside
 security-level 0
 ip address 192.168.11.2 255.255.255.0
```

```

!
interface Ethernet0/1
  nameif inside
  security-level 100
  ip address 172.16.1.2 255.255.255.0
!
interface Ethernet0/2
  shutdown
  no nameif
  no security-level
  no ip address
!
interface Ethernet0/3
  shutdown
  no nameif
  no security-level
  no ip address
!
interface Management0/0
  shutdown
  no nameif
  no security-level
  no ip address
!
passwd 2KFQnbNIdI.2KYOU encrypted
ftp mode passive
dns server-group DefaultDNS
  domain-name corp2.com
same-security-traffic permit intra-interface

!--- This is required for communication between VPN peers.

access-list inside_nat0_outbound extended permit ip 172.16.1.0 255.255.255.0 10.10.10.0
255.255.255.0
access-list inside_nat0_outbound extended permit ip 172.16.1.0 255.255.255.0 20.20.20.0
255.255.255.0
access-list inside_nat0_outbound extended permit ip 10.10.10.0 255.255.255.0 20.20.20.0
255.255.255.0
access-list inside_nat0_outbound extended permit ip 20.20.20.0 255.255.255.0 10.10.10.0
255.255.255.0
access-list inside_nat0_outbound extended permit ip 10.10.120.0 255.255.255.0 20.20.20.0
255.255.255.0
access-list inside_nat0_outbound extended permit ip 172.16.1.0 255.255.255.0 10.10.120.0
255.255.255.0
access-list inside_nat0_outbound extended permit ip 10.10.120.0 255.255.255.0 10.10.10.0
255.255.255.0
access-list outside_20_cryptomap extended permit ip 172.16.1.0 255.255.255.0 10.10.10.0
255.255.255.0
access-list outside_20_cryptomap extended permit ip 20.20.20.0 255.255.255.0 10.10.10.0
255.255.255.0
access-list outside_20_cryptomap extended permit ip 10.10.120.0 255.255.255.0 10.10.10.0
255.255.255.0
access-list Hillvalley_splitunnel standard permit 172.16.1.0 255.255.255.0
access-list Hillvalley_splitunnel standard permit 10.10.10.0 255.255.255.0
access-list Hillvalley_splitunnel standard permit 20.20.20.0 255.255.255.0
access-list outside_30_cryptomap extended permit ip 172.16.1.0 255.255.255.0 20.20.20.0
255.255.255.0
access-list outside_30_cryptomap extended permit ip 10.10.10.0 255.255.255.0 20.20.20.0
255.255.255.0
access-list outside_30_cryptomap extended permit ip 10.10.120.0 255.255.255.0 20.20.20.0
255.255.255.0
logging enable

```

```

logging asdm informational
mtu outside 1500
mtu inside 1500
mtu man 1500
ip local pool Hill-V-IP 10.10.120.10-10.10.120.100 mask 255.255.255.0
no failover
icmp unreachable rate-limit 1 burst-size 1
no asdm history enable
arp timeout 14400
nat-control
global (outside) 1 interface
nat (inside) 0 access-list inside_nat0_outbound
nat (inside) 1 172.16.1.0 255.255.255.0
route outside 0.0.0.0 0.0.0.0 192.168.11.1 1
timeout xlate 3:00:00
timeout conn 1:00:00 half-closed 0:10:00 udp 0:02:00 icmp 0:00:02
timeout sunrpc 0:10:00 h323 0:05:00 h225 1:00:00 mgcp 0:05:00 mgcp-pat 0:05:00
timeout sip 0:30:00 sip_media 0:02:00 sip-invite 0:03:00 sip-disconnect 0:02:00
timeout uauth 0:05:00 absolute
group-policy Hillvalley internal
group-policy Hillvalley attributes
  wins-server value 10.10.10.20
  dns-server value 10.10.10.20
  vpn-tunnel-protocol IPSec
  split-tunnel-policy tunnelspecified
  split-tunnel-network-list value Hillvalley_splitunnel
  default-domain value corp.com
username cisco password dZBmhbnNIN5q6rGK encrypted
aaa authentication telnet console LOCAL
no snmp-server location
no snmp-server contact
snmp-server enable traps snmp authentication linkup linkdown coldstart
crypto ipsec transform-set ESP-3DES-SHA esp-3des esp-sha-hmac
crypto ipsec transform-set Hill-trans esp-3des esp-sha-hmac
crypto dynamic-map outside_dyn_map 20 set transform-set Hill-trans
crypto dynamic-map dyn_map 20 set reverse-route
crypto map outside_map 20 match address outside_20_cryptomap
crypto map outside_map 20 set peer 192.168.10.10
crypto map outside_map 20 set transform-set ESP-3DES-SHA
crypto map outside_map 30 match address outside_30_cryptomap
crypto map outside_map 30 set peer 192.168.12.1
crypto map outside_map 30 set transform-set ESP-3DES-SHA

crypto map outside_map 65535 ipsec-isakmp dynamic outside_dyn_map
crypto map outside_map interface outside
crypto isakmp enable outside
crypto isakmp policy 10
  authentication pre-share
  encryption 3des
  hash sha
  group 2
  lifetime 86400
crypto isakmp nat-traversal 20
tunnel-group 192.168.10.10 type ipsec-l2l
tunnel-group 192.168.10.10 ipsec-attributes
  pre-shared-key *
tunnel-group 192.168.12.2 type ipsec-l2l
tunnel-group 192.168.12.2 ipsec-attributes
  pre-shared-key *
tunnel-group Hillvalley type ipsec-ra
tunnel-group Hillvalley general-attributes
  address-pool Hill-V-IP
  default-group-policy Hillvalley
tunnel-group Hillvalley ipsec-attributes

```

```
pre-shared-key *
telnet timeout 1440
ssh timeout 5
console timeout 0
!
class-map inspection_default
 match default-inspection-traffic
!
!
policy-map type inspect dns preset_dns_map
 parameters
  message-length maximum 512
policy-map global_policy
 class inspection_default
  inspect dns preset_dns_map
  inspect ftp
  inspect h323 h225
  inspect h323 ras
  inspect netbios
  inspect rsh
  inspect rtsp
  inspect skinny
  inspect esmtp
  inspect sqlnet
  inspect sunrpc
  inspect tftp
  inspect sip
  inspect xdmcp
!
service-policy global_policy global
prompt hostname context
Cryptochecksum:62dc631d157fb7e91217cb82dc161a48
ASA-NY-HQ#
```

## Verify

Use this section to confirm that your configuration works properly.

The Output Interpreter Tool ( registered customers only) (OIT) supports certain **show** commands. Use the OIT to view an analysis of **show** command output.

- **ping inside x.x.x.x (IP address of host on opposite side of tunnel)** This command allows you to send traffic down the tunnel using the a source address of the inside interface.

## Troubleshoot

Refer to these documents for information you can use in order to troubleshoot your configuration:

- Most Common IPSec VPN Troubleshooting Solutions
- IP Security Troubleshooting – Understanding and Using debug Commands
- Troubleshoot Connections through the PIX and ASA

## NetPro Discussion Forums – Featured Conversations

Networking Professionals Connection is a forum for networking professionals to share questions, suggestions, and information about networking solutions, products, and technologies. The featured links are some of the

Cisco – PIX/ASA 7.X : Add a New Tunnel or Remote Access to an Existing L2L VPN

most recent conversations available in this technology.

|   |
|---|
| NetPro Discussion Forums – Featured Conversations for VPN |
| Service Providers: VPN Service Architectures              |
| Service Providers: Network Management                     |
| Virtual Private Networks: General                         |

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## Related Information

- [An Introduction to IP Security \(IPSec\) Encryption](#)
  - [IPSec Negotiation/IKE Protocols Support Page](#)
  - [Cisco ASA 5500 Series Adaptive Security Appliances Command References](#)
  - [Technical Support & Documentation – Cisco Systems](#)
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