LAN−to−LAN IPsec Tunnel Between Two Routers Configuration Example

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Introduction

This document provides a sample configuration for how to allow VPN users access to the Internet while connected via an IPsec LAN−to−LAN (L2L) tunnel to another router. This configuration is achieved when you enable split tunneling. Split tunneling allows the VPN users to access corporate resources via the IPsec tunnel while still permitting access to the Internet.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on a Cisco 3640 Router with Cisco IOS® Software Release 12.4.

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 the Cisco Technical Tips Conventions for more information on document conventions.

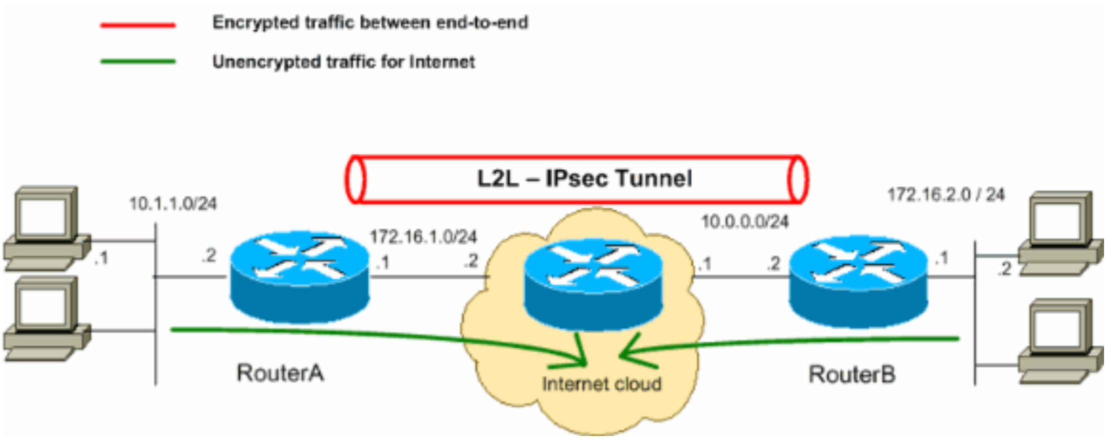
Configure

In this section, you are presented with the information to configure the features described in this document.

Note: Use the Command Lookup Tool (registered customers only) to obtain more information on the commands used in this section.

Network Diagram

This document uses this network setup:



Note: The IP addressing schemes used in this configuration are not legally routable on the Internet. They are RFC 1918 addresses which have been used in a lab environment.

Configurations

This document uses these configurations:

- Router A
- Router B

Router A

```
RouterA#show running-config
Building configuration...

Current configuration : 1132 bytes
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname R9
!
boot-start-marker
boot-end-marker
!
!
no aaa new-model
!
resource policy
!
!

!--- Create an ISAKMP policy for Phase 1
!--- negotiations for the L2L tunnels.
```

```
crypto isakmp policy 10
 hash md5
 authentication pre-share


!--- Specify the pre-shared key and the remote peer address
!--- to match for the L2L tunnel.


crypto isakmp key vpnuser address 10.0.0.2
!

!--- Create the Phase 2 policy for actual data encryption.


crypto ipsec transform-set myset esp-des esp-md5-hmac
!

!--- Create the actual crypto map. Specify
!--- the peer IP address, transform
!--- set, and an access control list (ACL) for the split tunneling.


crypto map mymap 10 ipsec-isakmp
 set peer 10.0.0.2
 set transform-set myset
 match address 100
!
!
!
!
interface Ethernet0/0
 ip address 10.1.1.2 255.255.255.0
 half-duplex
!


!--- Apply the crypto map on the outside interface.

interface Serial2/0
 ip address 172.16.1.1 255.255.255.0
 crypto map mymap
!

ip http server
no ip http secure-server
!
ip route 0.0.0.0 0.0.0.0 172.16.1.2
!

!--- Create an ACL for the traffic to
!--- be encrypted. In this example,
!--- the traffic from 10.1.1.0/24 to 172.16.2.0/24
!--- is encrypted. The traffic which does not match the access list
!--- is unencrypted for the Internet.

access-list 100 permit ip 10.1.1.0 0.0.0.255 172.16.2.0 0.0.0.255
!
!
control-plane
!
line con 0
line aux 0
line vty 0 4
!
!
```

```
end
```

Router B

```
RouterB#show running-config
Building configuration...

Current configuration : 835 bytes
!
version 12.4
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname R2
!
!
ip subnet-zero
!
!

!--- Create an ISAKMP policy for Phase 1
!--- negotiations for the L2L tunnels.


crypto isakmp policy 10
 hash md5
 authentication pre-share


!--- Specify the pre-shared key and the remote peer address
!--- to match for the L2L tunnel.

crypto isakmp key vpnuser address 172.16.1.1
!

!--- Create the Phase 2 policy for actual data encryption.


crypto ipsec transform-set myset esp-des esp-md5-hmac
!

!--- Create the actual crypto map. Specify
!--- the peer IP address, transform
!--- set, and an ACL for the split tunneling.

!
crypto map mymap 10 ipsec-isakmp
 set peer 172.16.1.1
 set transform-set myset
 match address 100
!
!
!
!
interface Ethernet0
 ip address 172.16.2.1 255.255.255.0
!


!--- Apply the crypto map on the outside interface.

interface Ethernet1
 ip address 10.0.0.2 255.255.255.0
 crypto map mymap
```

```
!
interface Serial0
 no ip address
 shutdown
 no fair-queue
!
interface Serial1
 no ip address
 shutdown
!
ip classless
ip route 0.0.0.0 0.0.0.0 10.0.0.1
ip http server
!

!--- Create an ACL for the traffic to
!--- be encrypted. In this example,
!--- the traffic from 172.16.2.0/24 to 10.1.1.0/24
!--- is encrypted. The traffic which does not match the access list
!--- is unencrypted for the Internet.

access-list 100 permit ip 172.16.2.0 0.0.0.255 10.1.1.0 0.0.0.255
!
line con 0
line aux 0
line vty 0 4
!
end
```

Verify

This section provides information you can use to confirm your configuration is working properly.

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

- **show crypto ipsec sa** Shows the settings used by current Security Associations (SAs).

```
RouterA#show crypto ipsec sa

interface: Serial2/0
    Crypto map tag: mymap, local addr 172.16.1.1

   protected vrf: (none)
   local  ident (addr/mask/prot/port): (10.1.1.0/255.255.255.0/0/0)
   remote ident (addr/mask/prot/port): (172.16.2.0/255.255.255.0/0/0)
   current_peer 10.0.0.2 port 500
     PERMIT, flags={origin_is_acl,}
    #pkts encaps: 43, #pkts encrypt: 43, #pkts digest: 43
    #pkts decaps: 43, #pkts decrypt: 43, #pkts verify: 43
    #pkts compressed: 0, #pkts decompressed: 0
    #pkts not compressed: 0, #pkts compr. failed: 0
    #pkts not decompressed: 0, #pkts decompress failed: 0
    #send errors 4, #recv errors 0

     local crypto endpt.: 172.16.1.1, remote crypto endpt.: 10.0.0.2
     path mtu 1500, ip mtu 1500, ip mtu idb Serial2/0
     current outbound spi: 0x267BC43(40352835)

     inbound esp sas:
      spi: 0xD9F4BC76(3656694902)
        transform: esp-des esp-md5-hmac ,
        in use settings ={Tunnel, }
        conn id: 2001, flow_id: SW:1, crypto map: mymap
        sa timing: remaining key lifetime (k/sec): (4558868/3550)
        IV size: 8 bytes
        replay detection support: Y
        Status: ACTIVE

     inbound ah sas:

     inbound pcp sas:

     outbound esp sas:
      spi: 0x267BC43(40352835)
        transform: esp-des esp-md5-hmac ,
        in use settings ={Tunnel, }
        conn id: 2002, flow_id: SW:2, crypto map: mymap
        sa timing: remaining key lifetime (k/sec): (4558868/3548)
        IV size: 8 bytes
        replay detection support: Y
        Status: ACTIVE

     outbound ah sas:

     outbound pcp sas:
```

- **show crypto isakmp sa** Shows all current IKE SAs at a peer.

```
RouterA#show crypto isakmp sa
dst             src             state          conn-id slot status
10.0.0.2        172.16.1.1      QM_IDLE              1    0 ACTIVE
```

Troubleshoot

This section provides information you can use to troubleshoot your configuration. Sample debug output is also shown.

Troubleshooting Commands

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

Note: Refer to Important Information on Debug Commands before you use **debug** commands.

- **debug crypto isakmp** Displays the ISAKMP negotiations of Phase 1.
- **debug crypto ipsec** Displays the IPsec negotiations of Phase 2.

Sample debug Output

Router

```
RouterA#debug crypto isakmp
*Sep 29 22:50:35.511: ISAKMP: received ke message (1/1)
*Sep 29 22:50:35.511: ISAKMP:(0:0:N/A:0): SA request profile is (NULL)
*Sep 29 22:50:35.511: ISAKMP: Created a peer struct for 10.0.0.2, peer port 500
*Sep 29 22:50:35.511: ISAKMP: New peer created peer = 0x64C0EF54 peer_handle = 0
x8000000C
*Sep 29 22:50:35.515: ISAKMP: Locking peer struct 0x64C0EF54, IKE refcount 1 for
 isakmp_initiator
*Sep 29 22:50:35.515: ISAKMP: local port 500, remote port 500
*Sep 29 22:50:35.515: ISAKMP: set new node 0 to QM_IDLE
*Sep 29 22:50:35.515: ISAKMP: Find a dup sa in the avl tree during calling isadb
_insert sa = 64CDBF3C
```

```
*Sep 29 22:50:35.515: ISAKMP:(0:0:N/A:0):Can not start Aggressive mode, trying M
ain mode.
*Sep 29 22:50:35.515: ISAKMP:(0:0:N/A:0):found peer pre−shared key matching 10.0
.0.2
*Sep 29 22:50:35.515: ISAKMP:(0:0:N/A:0): constructed NAT−T vendor−07 ID
*Sep 29 22:50:35.519: ISAKMP:(0:0:N/A:0): constructed NAT−T vendor−03 ID
*Sep 29 22:50:35.519: ISAKMP:(0:0:N/A:0): constructed NAT−T vendor−02 ID
*Sep 29 22:50:35.519: ISAKMP:(0:0:N/A:0):Input = IKE_MESG_FROM_IPSEC, IKE_SA_REQ
_MM
*Sep 29 22:50:35.519: ISAKMP:(0:0:N/A:0):Old State = IKE_READY  New State = IKE_
I_MM1

*Sep 29 22:50:35.519: ISAKMP:(0:0:N/A:0): beginning Main Mode exchange
*Sep 29 22:50:35.519: ISAKMP:(0:0:N/A:0): sending packet to 10.0.0.2 my_port 500
 peer_port 500 (I) MM_NO_STATE
*Sep 29 22:50:38.451: ISAKMP (0:0): received packet from 10.0.0.2 dport 500 spor
t 500 Global (I) MM_NO_STATE
*Sep 29 22:50:38.451: ISAKMP:(0:0:N/A:0):Input = IKE_MESG_FROM_PEER, IKE_MM_EXCH
*Sep 29 22:50:38.451: ISAKMP:(0:0:N/A:0):Old State = IKE_I_MM1  New State = IKE_
I_MM2

*Sep 29 22:50:38.455: ISAKMP:(0:0:N/A:0): processing SA payload. message ID = 0
*Sep 29 22:50:38.455: ISAKMP:(0:0:N/A:0):found peer pre−shared key matching 10.0
.0.2
*Sep 29 22:50:38.455: ISAKMP:(0:0:N/A:0): local preshared key found
*Sep 29 22:50:38.455: ISAKMP : Scanning profiles for xauth ...
*Sep 29 22:50:38.455: ISAKMP:(0:0:N/A:0):Checking ISAKMP transform 1 against pri
ority 10 policy
*Sep 29 22:50:38.455: ISAKMP:      encryption DES−CBC
*Sep 29 22:50:38.455: ISAKMP:      hash MD5
*Sep 29 22:50:38.455: ISAKMP:      default group 1
*Sep 29 22:50:38.455: ISAKMP:      auth pre−share
*Sep 29 22:50:38.459: ISAKMP:      life type in seconds
*Sep 29 22:50:38.459: ISAKMP:      life duration (VPI) of  0x0 0x1 0x51 0x80
*Sep 29 22:50:38.459: ISAKMP:(0:0:N/A:0):atts are acceptable. Next payload is 0
*Sep 29 22:50:38.547: ISAKMP:(0:4:SW:1):Input = IKE_MESG_INTERNAL, IKE_PROCESS_M
AIN_MODE
*Sep 29 22:50:38.547: ISAKMP:(0:4:SW:1):Old State = IKE_I_MM2  New State = IKE_I
_MM2

*Sep 29 22:50:38.551: ISAKMP:(0:4:SW:1): sending packet to 10.0.0.2 my_port 500
peer_port 500 (I) MM_SA_SETUP
*Sep 29 22:50:38.551: ISAKMP:(0:4:SW:1):Input = IKE_MESG_INTERNAL, IKE_PROCESS_C
OMPLETE
*Sep 29 22:50:38.551: ISAKMP:(0:4:SW:1):Old State = IKE_I_MM2  New State = IKE_I
_MM3

*Sep 29 22:50:42.091: ISAKMP (0:134217732): received packet from 10.0.0.2 dport
500 sport 500 Global (I) MM_SA_SETUP
*Sep 29 22:50:42.095: ISAKMP:(0:4:SW:1):Input = IKE_MESG_FROM_PEER, IKE_MM_EXCH
*Sep 29 22:50:42.095: ISAKMP:(0:4:SW:1):Old State = IKE_I_MM3  New State = IKE_I
_MM4

*Sep 29 22:50:42.095: ISAKMP:(0:4:SW:1): processing KE payload. message ID = 0
*Sep 29 22:50:42.203: ISAKMP:(0:4:SW:1): processing NONCE payload. message ID =
0
*Sep 29 22:50:42.203: ISAKMP:(0:4:SW:1):found peer pre−shared key matching 10.0.
0.2
*Sep 29 22:50:42.207: ISAKMP:(0:4:SW:1):SKEYID state generated
*Sep 29 22:50:42.207: ISAKMP:(0:4:SW:1): processing vendor id payload
*Sep 29 22:50:42.207: ISAKMP:(0:4:SW:1): speaking to another IOS box!
*Sep 29 22:50:42.207: ISAKMP:(0:4:SW:1):Input = IKE_MESG_INTERNAL, IKE_PROCESS_M
AIN_MODE
*Sep 29 22:50:42.207: ISAKMP:(0:4:SW:1):Old State = IKE_I_MM4  New State = IKE_I
_MM4
```

```
*Sep 29 22:50:42.211: ISAKMP:(0:4:SW:1):Send initial contact
*Sep 29 22:50:42.215: ISAKMP:(0:4:SW:1):SA is doing pre-shared key authenticatio
n using id type ID_IPV4_ADDR
*Sep 29 22:50:42.215: ISAKMP (0:134217732): ID payload
        next-payload : 8
        type         : 1
        address      : 172.16.1.1
        protocol     : 17
        port         : 500
        length       : 12
*Sep 29 22:50:42.215: ISAKMP:(0:4:SW:1):Total payload length: 12
*Sep 29 22:50:42.215: ISAKMP:(0:4:SW:1): sending packet to 10.0.0.2 my_port 500
peer_port 500 (I) MM_KEY_EXCH
*Sep 29 22:50:42.219: ISAKMP:(0:4:SW:1):Input = IKE_MESG_INTERNAL, IKE_PROCESS_C
OMPLETE
*Sep 29 22:50:42.219: ISAKMP:(0:4:SW:1):Old State = IKE_I_MM4  New State = IKE_I
_MM5

*Sep 29 22:50:42.783: ISAKMP (0:134217732): received packet from 10.0.0.2 dport
500 sport 500 Global (I) MM_KEY_EXCH
*Sep 29 22:50:42.783: ISAKMP:(0:4:SW:1): processing ID payload. message ID = 0
*Sep 29 22:50:42.783: ISAKMP (0:134217732): ID payload
        next-payload : 8
        type         : 1
        address      : 10.0.0.2
        protocol     : 17
        port         : 500
        length       : 12
*Sep 29 22:50:42.783: ISAKMP:(0:4:SW:1):: peer matches *none* of the profiles
*Sep 29 22:50:42.787: ISAKMP:(0:4:SW:1): processing HASH payload. message ID = 0
*Sep 29 22:50:42.787: ISAKMP:(0:4:SW:1):SA authentication status:
        authenticated
*Sep 29 22:50:42.787: ISAKMP:(0:4:SW:1):SA has been authenticated with 10.0.0.2
*Sep 29 22:50:42.787: ISAKMP: Trying to insert a peer 172.16.1.1/10.0.0.2/500/,
 and inserted successfully 64C0EF54.
*Sep 29 22:50:42.787: ISAKMP:(0:4:SW:1):Input = IKE_MESG_FROM_PEER, IKE_MM_EXCH
*Sep 29 22:50:42.787: ISAKMP:(0:4:SW:1):Old State = IKE_I_MM5  New State = IKE_I
_MM6

*Sep 29 22:50:42.791: ISAKMP:(0:4:SW:1):Input = IKE_MESG_INTERNAL, IKE_PROCESS_M
AIN_MODE
*Sep 29 22:50:42.791: ISAKMP:(0:4:SW:1):Old State = IKE_I_MM6  New State = IKE_I
_MM6

*Sep 29 22:50:42.795: ISAKMP:(0:4:SW:1):Input = IKE_MESG_INTERNAL, IKE_PROCESS_C
OMPLETE
*Sep 29 22:50:42.795: ISAKMP:(0:4:SW:1):Old State = IKE_I_MM6  New State = IKE_P
1_COMPLETE

*Sep 29 22:50:42.799: ISAKMP:(0:4:SW:1):beginning Quick Mode exchange, M-ID of -
966196463
*Sep 29 22:50:42.803: ISAKMP:(0:4:SW:1): sending packet to 10.0.0.2 my_port 500
peer_port 500 (I) QM_IDLE
*Sep 29 22:50:42.803: ISAKMP:(0:4:SW:1):Node -966196463, Input = IKE_MESG_INTERN
AL, IKE_INIT_QM
*Sep 29 22:50:42.803: ISAKMP:(0:4:SW:1):Old State = IKE_QM_READY  New State = IK
E_QM_I_QM1
```

!--- IKE Phase 1 is completed successfully.

***Sep 29 22:50:42.803: ISAKMP:(0:4:SW:1):Input = IKE_MESG_INTERNAL, IKE_PHASE1_CO MPLETE**

```
*Sep 29 22:50:42.803: ISAKMP:(0:4:SW:1):Old State = IKE_P1_COMPLETE  New State =
 IKE_P1_COMPLETE
```

```
*Sep 29 22:50:43.907: ISAKMP (0:134217732): received packet from 10.0.0.2 dport
500 sport 500 Global (I) QM_IDLE
*Sep 29 22:50:43.911: ISAKMP:(0:4:SW:1): processing HASH payload. message ID = -
966196463
*Sep 29 22:50:43.911: ISAKMP:(0:4:SW:1): processing SA payload. message ID = -96
6196463
*Sep 29 22:50:43.911: ISAKMP:(0:4:SW:1):Checking IPSec proposal 1
*Sep 29 22:50:43.911: ISAKMP: transform 1, ESP_DES
*Sep 29 22:50:43.911: ISAKMP:   attributes in transform:
*Sep 29 22:50:43.915: ISAKMP:      encaps is 1 (Tunnel)
*Sep 29 22:50:43.915: ISAKMP:      SA life type in seconds
*Sep 29 22:50:43.915: ISAKMP:      SA life duration (basic) of 3600
*Sep 29 22:50:43.915: ISAKMP:      SA life type in kilobytes
*Sep 29 22:50:43.915: ISAKMP:      SA life duration (VPI) of  0x0 0x46 0x50 0x0
*Sep 29 22:50:43.915: ISAKMP:      authenticator is HMAC-MD5
*Sep 29 22:50:43.915: ISAKMP:(0:4:SW:1):atts are acceptable.
*Sep 29 22:50:43.915: ISAKMP:(0:4:SW:1): processing NONCE payload. message ID =
-966196463
*Sep 29 22:50:43.919: ISAKMP:(0:4:SW:1): processing ID payload. message ID = -96
6196463
*Sep 29 22:50:43.919: ISAKMP:(0:4:SW:1): processing ID payload. message ID = -96
6196463
*Sep 29 22:50:43.923: ISAKMP: Locking peer struct 0x64C0EF54, IPSEC refcount 1 f
or for stuff_ke
*Sep 29 22:50:43.923: ISAKMP:(0:4:SW:1): Creating IPSec SAs
*Sep 29 22:50:43.923:         inbound SA from 10.0.0.2 to 172.16.1.1 (f/i)  0/ 0
        (proxy 172.16.2.0 to 10.1.1.0)
*Sep 29 22:50:43.923:         has spi 0x84E11317 and conn_id 0 and flags 2
*Sep 29 22:50:43.923:         lifetime of 3600 seconds
*Sep 29 22:50:43.923:         lifetime of 4608000 kilobytes
*Sep 29 22:50:43.923:         has client flags 0x0
*Sep 29 22:50:43.923:         outbound SA from 172.16.1.1 to 10.0.0.2 (f/i) 0/0
        (proxy 10.1.1.0 to 172.16.2.0)
*Sep 29 22:50:43.923:         has spi -65483228 and conn_id 0 and flags A
*Sep 29 22:50:43.923:         lifetime of 3600 seconds
*Sep 29 22:50:43.923:         lifetime of 4608000 kilobytes
*Sep 29 22:50:43.923:         has client flags 0x0
*Sep 29 22:50:43.927: ISAKMP:(0:4:SW:1): sending packet to 10.0.0.2 my_port 500
peer_port 500 (I) QM_IDLE
*Sep 29 22:50:43.927: ISAKMP:(0:4:SW:1):deleting node -966196463 error FALSE rea
son "No Error"
*Sep 29 22:50:43.927: ISAKMP:(0:4:SW:1):Node -966196463, Input = IKE_MESG_FROM_P
EER, IKE_QM_EXCH
```

!--- IKE Phase 2 is completed successfully.

```
*Sep 29 22:50:43.927: ISAKMP:(0:4:SW:1):Old State = IKE_QM_I_QM1  New State = IK
E_QM_PHASE2_COMPLETE
*Sep 29 22:50:43.931: ISAKMP: Locking peer struct 0x64C0EF54, IPSEC refcount 2 f
or from create_transforms
*Sep 29 22:50:43.931: ISAKMP: Unlocking IPSEC struct 0x64C0EF54 from create_tran
sforms, count 1

RouterA#debug crypto ipsec
*Sep 29 22:46:06.699: IPSEC(sa_request): ,
  (key eng. msg.) OUTBOUND local= 172.16.1.1, remote= 10.0.0.2,
    local_proxy= 10.1.1.0/255.255.255.0/0/0 (type=4),
    remote_proxy= 172.16.2.0/255.255.255.0/0/0 (type=4),
    protocol= ESP, transform= esp-des esp-md5-hmac  (Tunnel),
    lifedur= 3600s and 4608000kb,
    spi= 0xD9F4BC76(3656694902), conn_id= 0, keysize= 0, flags= 0x400A
*Sep 29 22:46:12.631: IPSEC(validate_proposal_request): proposal part #1,
  (key eng. msg.) INBOUND local= 172.16.1.1, remote= 10.0.0.2,
    local_proxy= 10.1.1.0/255.255.255.0/0/0 (type=4),
    remote_proxy= 172.16.2.0/255.255.255.0/0/0 (type=4),
    protocol= ESP, transform= esp-des esp-md5-hmac  (Tunnel),
    lifedur= 0s and 0kb,
    spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x2
*Sep 29 22:46:12.631: Crypto mapdb : proxy_match
        src addr     : 10.1.1.0
        dst addr     : 172.16.2.0
        protocol     : 0
        src port     : 0
        dst port     : 0
*Sep 29 22:46:12.639: IPSEC(key_engine): got a queue event with 2 kei messages
*Sep 29 22:46:12.639: IPSEC(initialize_sas): ,
  (key eng. msg.) INBOUND local= 172.16.1.1, remote= 10.0.0.2,
    local_proxy= 10.1.1.0/255.255.255.0/0/0 (type=4),
    remote_proxy= 172.16.2.0/255.255.255.0/0/0 (type=4),
    protocol= ESP, transform= esp-des esp-md5-hmac  (Tunnel),
    lifedur= 3600s and 4608000kb,
    spi= 0xD9F4BC76(3656694902), conn_id= 0, keysize= 0, flags= 0x2
*Sep 29 22:46:12.639: IPSEC(initialize_sas): ,
  (key eng. msg.) OUTBOUND local= 172.16.1.1, remote= 10.0.0.2,
    local_proxy= 10.1.1.0/255.255.255.0/0/0 (type=4),
    remote_proxy= 172.16.2.0/255.255.255.0/0/0 (type=4),
    protocol= ESP, transform= esp-des esp-md5-hmac  (Tunnel),
    lifedur= 3600s and 4608000kb,
    spi= 0x267BC43(40352835), conn_id= 0, keysize= 0, flags= 0xA
*Sep 29 22:46:12.639: Crypto mapdb : proxy_match
        src addr     : 10.1.1.0
        dst addr     : 172.16.2.0
        protocol     : 0
        src port     : 0
        dst port     : 0
*Sep 29 22:46:12.643: IPSEC(crypto_ipsec_sa_find_ident_head): reconnecting with
the same proxies and 10.0.0.2
*Sep 29 22:46:12.643: IPSec: Flow_switching Allocated flow for sibling 80000006
*Sep 29 22:46:12.643: IPSEC(policy_db_add_ident): src 10.1.1.0, dest 172.16.2.0
 dest_port 0

*Sep 29 22:46:12.643: IPSEC(create_sa): sa created,
  (sa) sa_dest= 172.16.1.1, sa_proto= 50,
    sa_spi= 0xD9F4BC76(3656694902),
    sa_trans= esp-des esp-md5-hmac , sa_conn_id= 2001
*Sep 29 22:46:12.643: IPSEC(create_sa): sa created,
  (sa) sa_dest= 10.0.0.2, sa_proto= 50,
    sa_spi= 0x267BC43(40352835),
    sa_trans= esp-des esp-md5-hmac , sa_conn_id= 2002
```

Related Information

- **IPsec Negotiation/IKE Protocols**
- **Cisco Router − Product Support**
- **Technical Support & Documentation − Cisco Systems**

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