

# 在两个路由器之间的LAN到LAN IPsec隧道配置示例

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## Introduction

本文档提供了一个配置范例，说明如何在通过 IPsec LAN 到 LAN (L2L) 隧道连接到另一个路由器的同时允许 VPN 用户访问 Internet。启用分割隧道后即可实现此配置。分割隧道允许 VPN 用户通过 IPsec 隧道访问公司资源，同时仍允许访问 Internet。

## Prerequisites

### Requirements

There are no specific requirements for this document.

### Components Used

本文档中的信息是基于使用 Cisco IOS® 软件版本 12.4 的 Cisco 3640 路由器。

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](#)

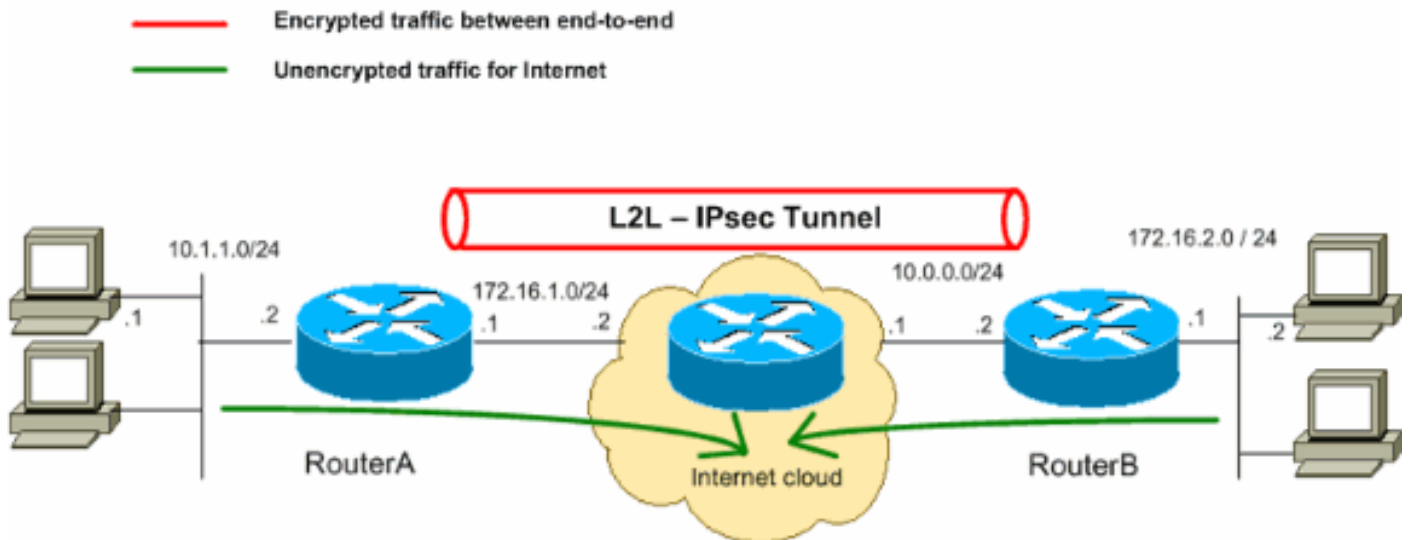
有关文档规则的详细信息，请参阅 [Cisco 技术提示规则](#)。

# Configure

本部分提供有关如何配置本文档所述功能的信息。

## Network Diagram

本文档使用以下网络设置：



**Note:** 此配置中使用的 IP 编址方案在 Internet 上不可合法路由。这些地址是在实验室环境中使用的 [RFC 1918](#) 地址。

## 配置

本文档使用以下配置：

- [路由器 A](#)
- [路由器 B](#)

### 路由器 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 !--- S
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
for actual data encryption. crypto ipsec transform-set myset esp-des esp-md5-hmac ! !--- Create the act
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 se
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

```

## 路由器 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 !--- S
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
policy for actual data encryption. crypto ipsec transform-set myset esp-des esp-md5-hmac ! !--- Create
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 se
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 cr
map mymap ! interface Serial0 no ip address shutdown no fair-queue ! interface Serial1 no ip address sh
! 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

本部分所提供的信息可用于确认您的配置是否正常工作。

[思科 CLI 分析器 \( 仅适用于注册客户 \)](#) 支持某些 **show** 命令。请使用Cisco CLI分析器查看show命令输出分析。

- **show crypto ipsec sa** -显示当前安全关联(SA)使用的设置。

```
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** -显示所有当前IKE SAS在对等体。

```
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

本部分提供的信息可用于对配置进行故障排除。此外本部分还提供了 debug 输出示例。

## 故障排除命令

思科 CLI 分析器 ( [仅适用于注册客户](#) ) 支持某些 **show** 命令。请使用Cisco CLI分析器查看show命令输出分析。

**Note:** 使用 **debug** 命令之前，请参阅[有关 Debug 命令的重要信息](#)。

- **debug crypto isakmp** -显示阶段1的ISAKMP协商。
- **debug crypto ipsec** -显示第2阶段的IPsec协商。

## 示例调试输出

### 路由器

```
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_MSG_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_MSG_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_MSG_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_MSG_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_MSG_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_MSG_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_MSG_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 协商/IKE 协议](#)
- [Technical Support & Documentation - Cisco Systems](#)