

使用VPN客戶端和擴展身份驗證配置集線器和遠端PIX之間的IPSec

目錄

[簡介](#)

[必要條件](#)

[需求](#)

[採用元件](#)

[慣例](#)

[背景資訊](#)

[設定](#)

[網路圖表](#)

[組態](#)

[驗證](#)

[疑難排解](#)

[疑難排解指令](#)

[從集線器PIX調試](#)

[相關資訊](#)

簡介

本文檔說明了一種同時包含網關到網關和遠端使用者功能的IPsec配置。使用擴展身份驗證 (Xauth)，裝置通過預共用金鑰進行身份驗證，使用者通過使用者名稱/密碼質詢進行身份驗證。

必要條件

需求

本文件沒有特定需求。

採用元件

本文中的資訊係根據以下軟體和硬體版本：

- PIX防火牆版本6.3(3)
- Cisco VPN使用者端版本3.5
- 適用於Windows的Cisco安全ACS版本2.6

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除 (預設) 的組態來啟動。如果您的網路正在作用，請確保您已瞭解任何指令可能造成的影響。

慣例

如需文件慣例的詳細資訊，請參閱[思科技術提示慣例](#)。

背景資訊

在本示例中，存在從遠端PIX到中心PIX的網關到網關IPsec隧道。此隧道加密從遠端PIX後面的網路10.48.67.x到中心PIX後面的網路10.48.66.x的流量。Internet上的PC可以通過集線器PIX形成到網路10.48.66.x的IPsec隧道。

若要使用Xauth功能，您必須首先設定基本驗證、授權和計量(AAA)伺服器。使用**crypto map client authentication**命令通知PIX防火牆在網際網路金鑰交換(IKE)的第1階段使用Xauth (RADIUS/TACACS+使用者名稱和密碼) 質詢來驗證IKE。如果Xauth失敗，則不會建立IKE安全關聯。在**crypto map client authentication**命令語句中指定**aaa-server**命令語句中指定的相同AAA伺服器名稱。遠端使用者必須運行Cisco VPN客戶端版本3.x。或以後。

注意：思科建議您使用Cisco VPN客戶端3.5.x或更高版本。VPN客戶端1.1無法使用此配置，並且不在本文檔的討論範圍之內。

注意：Cisco VPN Client 3.6及更高版本不支援des/sha的轉換集。

如果您需要在不使用Xauth的情況下還原組態，請使用**no crypto map client authentication**命令。預設未啟用Xauth功能。

註：加密技術受出口管制約束。您有責任瞭解與加密技術出口相關的法律。如需詳細資訊，請參閱[出口管理局首頁](#)。如果您有任何有關出口管制的問題，請傳送電子郵件至export@cisco.com。

注意：在PIX防火牆版本5.3及更高版本中，引入了可配置的RADIUS埠。某些RADIUS伺服器使用RADIUS連線埠而不是1645/1646 (通常為1812/1813)。在PIX 5.3及更高版本中，可以使用以下命令將RADIUS身份驗證和記帳埠更改為預設1645/1646以外的埠：

```
aaa-server radius-authport #  
aaa-server radius-acctport #
```

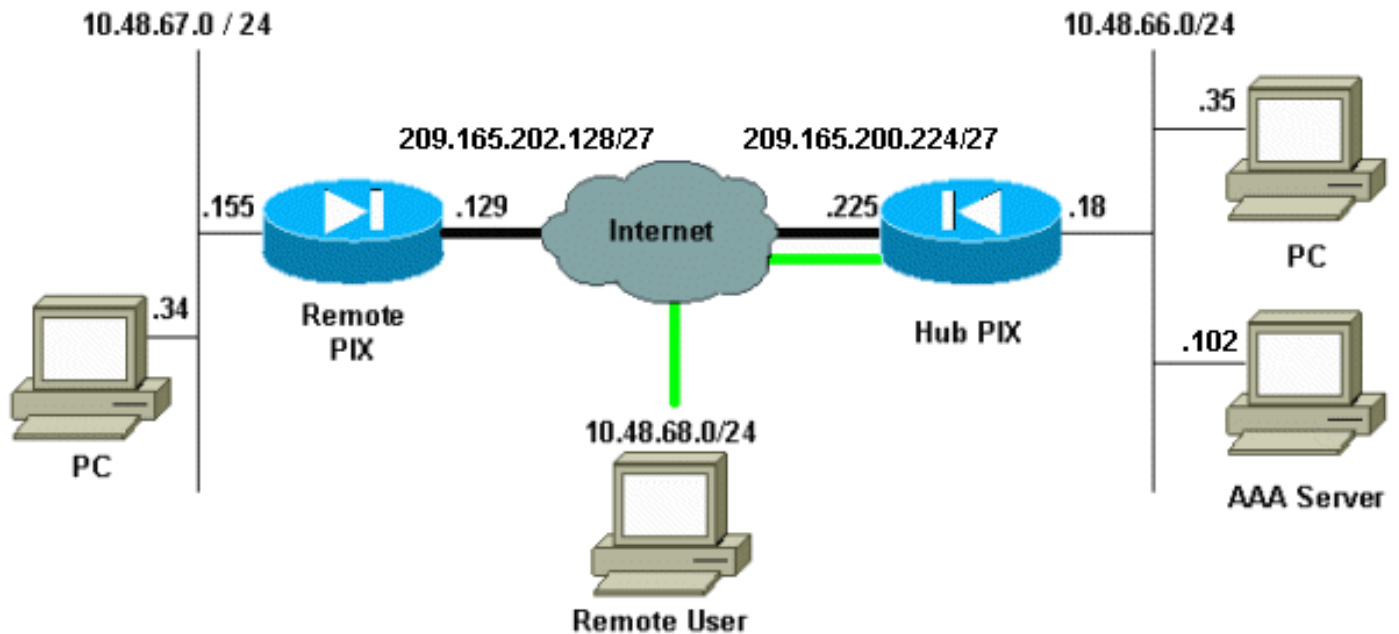
設定

本節提供用於設定本文件中所述功能的資訊。

註：使用[Command Lookup Tool](#)(僅限[註冊](#)客戶)查詢有關本文檔中使用的命令的更多資訊。

網路圖表

此圖使用綠色和黑色粗體線表示VPN隧道。



組態

本檔案會使用這些設定。

- [集線器PIX](#)
- [遠端PIX](#)

注意：對於本文檔中的示例，VPN伺服器的IP地址為209.165.200.225，組名稱為「vpn3000」，組密碼為cisco。

中心PIX配置

```

PIX Version 6.3(3)
interface ethernet0 auto
interface ethernet1 auto
nameif ethernet0 outside security0
nameif ethernet1 inside security100
enable password OnTrBUG1Tp0edmkr encrypted
passwd 2KFQnbNIdI.2KYOU encrypted
hostname hubfixup protocol dns maximum-length 512
fixup protocol ftp 21
fixup protocol h323 h225 1720
fixup protocol h323 ras 1718-1719
fixup protocol http 80
fixup protocol rsh 514
fixup protocol rtsp 554
fixup protocol sip 5060
fixup protocol sip udp 5060
fixup protocol skinny 2000
fixup protocol smtp 25
fixup protocol sqlnet 1521
fixup protocol tftp 69
names
!--- Include traffic in the encryption process. access-
list 101 permit ip 10.48.66.0 255.255.255.0 10.48.67.0
255.255.255.0
!--- Accept traffic from the Network Address Translation
(NAT) process
access-list nonat permit ip 10.48.66.0 255.255.255.0
10.48.67.0 255.255.255.0

```

```
access-list nonat permit ip 10.48.66.0 255.255.255.0
10.48.68.0 255.255.255.0
pager lines 24
mtu outside 1500
mtu inside 1500
ip address outside 209.165.200.225 255.255.255.224
ip address inside 10.48.66.18 255.255.255.0
ip audit info action alarm
ip audit attack action alarm
ip local pool mypool 10.48.68.1-10.48.68.254
no failover
failover timeout 0:00:00
failover poll 15
no failover ip address outside
no failover ip address inside
pdm history enable
arp timeout 14400
global (outside) 1 209.16.200.230-209.16.200.240 netmask
255.255.255.224
global (outside) 1 209.16.200.241
!--- Except traffic from the NAT process. nat (inside) 0
access-list nonat
nat (inside) 1 10.48.66.0 255.255.255.0 0 0
route outside 0.0.0.0 0.0.0.0 209.165.200.226 1
timeout xlate 3:00:00
timeout conn 1:00:00 half-closed 0:10:00 udp 0:02:00 rpc
0:10:00 h225 1:00:00
timeout h323 0:05:00 mgcp 0:05:00 sip 0:30:00 sip_media
0:02:00
timeout uauth 0:05:00 absolute
aaa-server TACACS+ protocol tacacs+
aaa-server RADIUS protocol radius
aaa-server LOCAL protocol local
aaa-server mytacacs protocol tacacs+
aaa-server mytacacs (inside) host 10.48.66.102 cisco
timeout 5
no snmp-server location
no snmp-server contact
snmp-server community public
no snmp-server enable traps
floodguard enable
sysopt connection permit-ipsec
crypto ipsec transform-set myset esp-des esp-md5-hmac
crypto dynamic-map dynmap 10 set transform-set myset
!--- Use the crypto-map sequence 10 command for PIX to
PIX.

crypto map mymap 10 ipsec-isakmp
crypto map mymap 10 match address 101
crypto map mymap 10 set peer 209.165.202.129
crypto map mymap 10 set transform-set myset
!--- Use the crypto-map sequence 20 command for PIX to
VPN Client.

crypto map mymap 20 ipsec-isakmp dynamic dynmap
crypto map mymap client authentication mytacacs
crypto map mymap interface outside
isakmp enable outside
isakmp key ***** address 209.165.202.129 netmask
255.255.255.255
isakmp identity address
isakmp policy 10 authentication pre-share
isakmp policy 10 encryption des
isakmp policy 10 hash md5
```

```
!--- ISAKMP policy for VPN Client that runs 3.x code
needs to be DH group 2. isakmp policy 10 group 2
isakmp policy 10 lifetime 86400
!--- IPsec group configuration for VPN Client. vpngroup
vpn3000 address-pool mypool
vpngroup vpn3000 dns-server 10.48.66.129
vpngroup vpn3000 wins-server 10.48.66.129
vpngroup vpn3000 default-domain cisco.com
vpngroup vpn3000 idle-time 1800
vpngroup vpn3000 password *****
telnet timeout 5
ssh timeout 5
console timeout 0
terminal width 80
Cryptochecksum:7293dd9fc7c58ff5d65f042dd6ddb13
: end
```

远端PIX配置

```
PIX Version 6.3(3)
interface ethernet0 auto
interface ethernet1 100basex
interface ethernet2 auto shutdown
nameif ethernet0 outside security0
nameif ethernet1 inside security100
nameif ethernet2 intf2 security4
enable password OnTrBUG1Tp0edmkr encrypted
passwd 2KFQnbNIdI.2KYOU encrypted
hostname remote
fixup protocol dns maximum-length 512
fixup protocol ftp 21
fixup protocol h323 h225 1720
fixup protocol h323 ras 1718-1719
fixup protocol http 80
fixup protocol rsh 514
fixup protocol rtsp 554
fixup protocol sip 5060
fixup protocol sip udp 5060
fixup protocol skinny 2000
fixup protocol smtp 25
fixup protocol sqlnet 1521
fixup protocol tftp 69
names
access-list 101 permit ip 10.48.67.0 255.255.255.0
10.48.66.0 255.255.255.0
!--- Accept traffic from the NAT process. access-list
nonat permit ip 10.48.67.0 255.255.255.0 10.48.66.0
255.255.255.0
pager lines 24
mtu outside 1500
mtu inside 1500
mtu intf2 1500
ip address outside 209.165.202.129 255.255.255.224
ip address inside 10.48.67.155 255.255.255.0
no ip address intf2
ip audit info action alarm
ip audit attack action alarm
no failover
failover timeout 0:00:00
failover poll 15
no failover ip address outside
no failover ip address inside
no failover ip address intf2
```

```

pdm history enable
arp timeout 14400
global (outside) 1 209.16.202.135-209.16.202.145 netmask
255.255.255.224
global (outside) 1 209.16.202.146
!--- Except traffic from the NAT process. nat (inside) 0
access-list nonat
nat (inside) 1 10.48.0.0 255.255.255.0 0 0
nat (inside) 1 10.48.67.0 255.255.255.0 0 0
route outside 0.0.0.0 0.0.0.0 209.165.202.130 1
timeout xlate 3:00:00
timeout conn 1:00:00 half-closed 0:10:00 udp 0:02:00 rpc
0:10:00 h225 1:00:00
timeout h323 0:05:00 mgcp 0:05:00 sip 0:30:00 sip_media
0:02:00
timeout uauth 0:05:00 absolute
aaa-server TACACS+ protocol tacacs+
aaa-server RADIUS protocol radius
aaa-server LOCAL protocol local
no snmp-server location
no snmp-server contact
snmp-server community public
no snmp-server enable traps
floodguard enable
sysopt connection permit-ipsec
crypto ipsec transform-set myset esp-des esp-md5-hmac
crypto map mymap 10 ipsec-isakmp
!--- Include traffic in the encryption process. crypto
map mymap 10 match address 101
crypto map mymap 10 set peer 209.165.200.225
crypto map mymap 10 set transform-set myset
crypto map mymap interface outside
isakmp enable outside
isakmp key ***** address 209.165.200.225 netmask
255.255.255.255
isakmp identity address
isakmp policy 10 authentication pre-share
isakmp policy 10 encryption des
isakmp policy 10 hash md5
isakmp policy 10 group 2
isakmp policy 10 lifetime 86400
telnet timeout 5
ssh timeout 5
console timeout 0
terminal width 80
Cryptochecksum:13ef4d29384c65c2cd968b5d9396f6e8
: end

```

有關如何設定VPN客戶端的詳細資訊，請參閱[配置PIX到PIX和VPN客戶端3.x](#)的「配置」部分。此外，請參閱[如何向PIX IPsec 5.2及更高版本新增AAA身份驗證\(Xauth\)](#)，以獲取有關向PIX IPsec配置AAA身份驗證的其他資訊。

驗證

本節提供的資訊可用於確認您的組態是否正常運作。

[輸出直譯器工具](#)(僅供[已註冊](#)客戶使用)(OIT)支援某些show命令。使用OIT檢視show命令輸出的分析

。

- **show crypto isakmp sa** — 顯示第1階段安全關聯。

- `show crypto ipsec sa` — 顯示第2階段安全關聯。

疑難排解

本節提供的資訊可用於對組態進行疑難排解。

疑難排解指令

[輸出直譯器工具](#)(僅供已註冊客戶使用)(OIT)支援某些`show`命令。使用OIT檢視`show`命令輸出的分析。

附註：使用 `debug` 指令之前，請先參閱[有關 Debug 指令的重要資訊](#)。

必須在兩台IPsec路由器（對等路由器）上運行這些調試。必須在兩個對等體上清除安全關聯。

- `debug crypto isakmp` — 顯示階段1期間的錯誤。
- `debug crypto ipsec` — 顯示階段2期間的錯誤。
- `debug crypto engine` — 顯示來自加密引擎的資訊。
- `clear crypto isakmp sa` — 清除第1階段安全關聯。
- `clear crypto ipsec sa` — 清除第2階段安全關聯。
- `debug radius [session |全部 | user username]` — 在PIX 6.2中可用，此命令記錄RADIUS會話資訊以及已傳送和已接收RADIUS資料包的屬性。
- `debug tacacs [session|user <user_name>]` — 在PIX 6.3中可用，此命令記錄TACACS資訊。
- `debug aaa [authentication|authorization|accounting|internal]` — 在PIX 6.3中可用，顯示AAA子系統資訊。

從集線器PIX調試

注意：請注意，有時當IPsec交涉成功時，並非所有偵錯都因為Cisco錯誤ID [CSCdu84168](#)(僅限註冊客戶)而顯示在PIX上，該錯誤ID是內部Cisco錯誤ID [CSCdt31745](#)(僅限registered客戶)的副本。截至編寫本檔案時尚未解決這個問題。

注意：有時，來自VPN客戶端的IPSec VPN可能不會在PIX上終止。要解決此問題，請確保客戶端PC沒有任何防火牆。如果存在防火牆，請檢查UDP埠500和4500是否已禁用。如果是這種情況，請啟用IPSec over TCP或取消阻止UDP埠。

集線器和遠端PIX之間的動態IPsec隧道的調試

```
crypto_isakmp_process_block:src:209.165.202.129,
dest:209.165.200.225 spt:500 dpt:500
OAK_MM exchange
ISAKMP (0): processing SA payload. message ID = 0

ISAKMP (0): Checking ISAKMP transform 1 against priority 10 policy
ISAKMP:      encryption DES-CBC
ISAKMP:      hash MD5
ISAKMP:      default group 2
ISAKMP:      auth pre-share
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x1 0x51 0x80
```

```
ISAKMP (0): atts are acceptable. Next payload is 0
ISAKMP (0): SA is doing pre-shared key authentication using id type ID_IPV4_ADDR
return status is IKMP_NO_ERROR
crypto_isakmp_process_block:src:209.165.202.129, dest:209.165.200.225
spt:500 dpt:500
OAK_MM exchange
ISAKMP (0): processing KE payload. message ID = 0

ISAKMP (0): processing NONCE payload. message ID = 0

ISAKMP (0): processing vendor id payload

ISAKMP (0): received xauth v6 vendor id

ISAKMP (0): processing vendor id payload

ISAKMP (0): remote peer supports dead peer detection

ISAKMP (0): processing vendor id payload

ISAKMP (0): processing vendor id payload

ISAKMP (0): speaking to another IOS box!

return status is IKMP_NO_ERROR
crypto_isakmp_process_block:src:209.165.202.129, dest:209.165.200.225
spt:500 dpt:500
OAK_MM exchange
ISAKMP (0): processing ID payload. message ID = 0
ISAKMP (0): processing HASH payload. message ID = 0
ISAKMP (0): SA has been authenticated

ISAKMP: Created a peer struct for 209.165.202.129, peer port 62465
ISAKMP (0): ID payload
    next-payload : 8
    type          : 1
    protocol      : 17
    port          : 500
    length        : 8
ISAKMP (0): Total payload length: 12
return status is IKMP_NO_ERROR
ISAKMP (0): sending INITIAL_CONTACT notify
ISAKMP (0): sending NOTIFY message 24578 protocol 1
VPN Peer: ISAKMP: Added new peer: ip:209.165.202.129/500 Total VPN Peers:1
VPN Peer: ISAKMP: Peer ip:209.165.202.129/500 Ref cnt incremented to:1
Total VPN Peers:1
crypto_isakmp_process_block:src:209.165.202.129, dest:209.165.200.225
spt:500 dpt:500
ISAKMP (0): processing NOTIFY payload 24578 protocol 1
    spi 0, message ID = 863921625
ISAKMP (0): processing notify INITIAL_CONTACTIPSEC(key_engine):
got a queue event...
IPSEC(key_engine_delete_sas): rec'd delete notify from ISAKMP
IPSEC(key_engine_delete_sas): delete all SAs shared with 209.165.202.129

return status is IKMP_NO_ERR_NO_TRANS
crypto_isakmp_process_block:src:209.165.202.129, dest:209.165.200.225
spt:500 dpt:500
OAK_QM exchange
oakley_process_quick_mode:
OAK_QM_IDLE
ISAKMP (0): processing SA payload. message ID = 2542705093

ISAKMP : Checking IPsec proposal 1
```


ISAKMP: transform 1, ESP_DES
ISAKMP: attributes in transform:
ISAKMP: encaps is 1
ISAKMP: SA life type in seconds
ISAKMP: SA life duration (basic) of 28800
ISAKMP: SA life type in kilobytes
ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0
ISAKMP: authenticator is HMAC-MD5
ISAKMP (0): **atts are acceptable.IPSEC(validate_proposal_request): proposal part #1,**
(key eng. msg.) dest= 209.165.200.225, src= 209.165.202.129,
dest_proxy= 10.48.66.0/255.255.255.0/0/0 (type=4),
src_proxy= 10.48.67.0/255.255.255.0/0/0 (type=4),
protocol= ESP, transform= esp-des esp-md5-hmac ,
lifedur= 0s and 0kb,
spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x4

ISAKMP (0): processing NONCE payload. message ID = 2542705093

ISAKMP (0): processing ID payload. message ID = 2542705093
ISAKMP (0): ID_IPV4_ADDR_SUBNET src 10.48.67.0/255.255.255.0 prot 0 port 0
ISAKMP (0): processing ID payload. message ID = 2542705093
ISAKMP (0): ID_IPV4_ADDR_SUBNET dst 10.48.66.0/255.255.255.0 prot 0 port 0
IPSEC(key_engine): got a queue event...
IPSEC(spi_response): getting spi 0x858c841a(2240578586) for SA
from 209.165.202.129 to 209.165.200.225 for prot 3

return status is IKMP_NO_ERROR

crypto_isakmp_process_block:src:209.165.202.129, dest:209.165.200.225
spt:500 dpt:500

OAK_QM exchange

oakley_process_quick_mode:

OAK_QM_AUTH_AWAIT

ISAKMP (0): **Creating IPsec SAs**

inbound SA from 209.165.202.129 to 209.165.200.225

(proxy 10.48.67.0 to 10.48.66.0)

has spi 2240578586 and conn_id 3 and flags 4

lifetime of 28800 seconds

lifetime of 4608000 kilobytes

outbound SA from 209.165.200.225 to 209.165.202.129

(proxy 10.48.66.0 to 10.48.67.0)

has spi 681010504 and conn_id 4 and flags 4

lifetime of 28800 seconds

lifetime of 4608000 kilobytesIPSEC(key_engine): got a queue event...

IPSEC(initialize_sas): ,

(key eng. msg.) dest= 209.165.200.225, src= 209.165.202.129,
dest_proxy= 10.48.66.0/255.255.255.0/0/0 (type=4),
src_proxy= 10.48.67.0/255.255.255.0/0/0 (type=4),
protocol= ESP, transform= esp-des esp-md5-hmac ,
lifedur= 28800s and 4608000kb,
spi= 0x858c841a(2240578586), conn_id= 3, keysize= 0, flags= 0x4

IPSEC(initialize_sas): ,

(key eng. msg.) src= 209.165.200.225, dest= 209.165.202.129,
src_proxy= 10.48.66.0/255.255.255.0/0/0 (type=4),
dest_proxy= 10.48.67.0/255.255.255.0/0/0 (type=4),
protocol= ESP, transform= esp-des esp-md5-hmac ,
lifedur= 28800s and 4608000kb,
spi= 0x28976548(681010504), conn_id= 4, keysize= 0, flags= 0x4

VPN Peer: IPSEC: Peer ip:209.165.202.129/500

Ref cnt incremented to:2 Total VPN Peers:1

VPN Peer: IPSEC: Peer ip:209.165.202.129/500

Ref cnt incremented to:3 Total VPN Peers:1

return status is IKMP_NO_ERROR

將VPN客戶端連線到中心PIX時的調試

```
crypto_isakmp_process_block:src:10.48.68.2,
dest:209.165.200.225 spt:500 dpt:500OAK_AG exchange
ISAKMP (0): processing SA payload. message ID = 0
ISAKMP (0): Checking ISAKMP transform 1 against priority 10 policy
ISAKMP:      encryption AES-CBC
ISAKMP:      hash SHA
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share (init)
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP:      keylength of 256
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 2 against priority 10 policy
ISAKMP:      encryption AES-CBC
ISAKMP:      hash MD5
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share (init)
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP:      keylength of 256
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 3 against priority 10 policy
ISAKMP:      encryption AES-CBC
ISAKMP:      hash SHA
ISAKMP:      default group 2
ISAKMP:      auth pre-share
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP:      keylength of 256
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 4 against priority 10 policy
ISAKMP:      encryption AES-CBC
ISAKMP:      hash MD5
ISAKMP:      default group 2
ISAKMP:      auth pre-share
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP:      keylength of 256
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 5 against priority 10 policy
ISAKMP:      encryption AES-CBC
ISAKMP:      hash SHA
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share (init)
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP:      keylength of 128
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 6 against priority 10 policy
ISAKMP:      encryption AES-CBC
ISAKMP:      hash MD5
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share (init)
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP:      keylength of 128
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 7 against priority 10 policy
ISAKMP:      encryption AES-CBC
ISAKMP:      hash SHA
```

ISAKMP: default group 2
ISAKMP: auth pre-share
ISAKMP: life type in seconds
ISAKMP: life duration (VPI) of 0x0 0x20 0xc4 0x9b
ISAKMP: keylength of 128
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 8 against priority 10 policy
ISAKMP: encryption AES-CBC
ISAKMP: hash MD5
ISAKMP: default group 2
ISAKMP: auth pre-share
ISAKMP: life type in seconds
ISAKMP: life duration (VPI) of 0x0 0x20 0xc4 0x9b
ISAKMP: keylength of 128
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 9 against priority 10 policy
ISAKMP: encryption 3DES-CBC
ISAKMP: hash SHA
ISAKMP: default group 2
ISAKMP: extended auth pre-share (init)
ISAKMP: life type in seconds
ISAKMP: life duration (VPI) of 0x0 0x20 0xc4 0x9b
ISAKMP (0): atts are not acceptable.
crypto_isakmp_process_block:src:10.48.68.2, dest:209.165.200.225 spt:500 dpt:500
crypto_isakmp_process_block:src:10.48.68.2, dest:209.165.200.225 spt:500 dpt:500
ISAKMP_TRANSACTION exchange
ISAKMP (0:0): processing transaction payload from 10.48.68.2.message ID = 17138612
ISAKMP: Config payload CFG_REPLY return status is IKMP_ERR_NO_RETRANS
ISAKMP (0:0): initiating peer config to 10.48.68.2. ID = 134858975 (0x809c8df)
crypto_isakmp_process_block:src:10.48.68.2, dest:209.165.200.225 spt:500 dpt:500
ISAKMP_TRANSACTION exchange
ISAKMP (0:0): processing transaction payload from 10.48.68.2. message ID = 17138612
ISAKMP: Config payload CFG_ACK
return status is IKMP_NO_ERROR
crypto_isakmp_process_block:src:10.48.68.2, dest:209.165.200.225 spt:500 dpt:500
ISAKMP_TRANSACTION exchange
ISAKMP (0:0): processing transaction payload from 10.48.68.2. message ID = 17138612
ISAKMP: Config payload CFG_REQUEST
ISAKMP (0:0): checking request:
ISAKMP: attribute IP4_ADDRESS (1)
ISAKMP: attribute IP4_NETMASK (2)
ISAKMP: attribute IP4_DNS (3)
ISAKMP: attribute IP4_NBNS (4)
ISAKMP: attribute ADDRESS_EXPIRY (5)
Unsupported Attr: 5
ISAKMP: attribute UNKNOWN (28672)
Unsupported Attr: 28672
ISAKMP: attribute UNKNOWN (28673)
Unsupported Attr: 28673
ISAKMP: attribute ALT_DEF_DOMAIN (28674)
ISAKMP: attribute ALT_SPLIT_INCLUDE (28676)
ISAKMP: attribute ALT_SPLITDNS_NAME (28675)
ISAKMP: attribute ALT_PFS (28679)
ISAKMP: attribute ALT_BACKUP_SERVERS (28681)
ISAKMP: attribute APPLICATION_VERSION (7)
ISAKMP: attribute UNKNOWN (28680)
Unsupported Attr: 28680
ISAKMP: attribute UNKNOWN (28682)
Unsupported Attr: 28682
ISAKMP: attribute UNKNOWN (28677)
Unsupported Attr: 28677
ISAKMP (0:0): responding to peer config from 10.48.68.2. ID = 1128513895
return status is IKMP_NO_ERROR
crypto_isakmp_process_block:src:10.48.68.2, dest:209.165.200.225 spt:500 dpt:500

```
OAK_QM exchange
oakley_process_quick_mode:
OAK_QM_IDLE
ISAKMP (0): processing SA payload. message ID = 3681346539
ISAKMP : Checking IPsec proposal 1
ISAKMP: transform 1, ESP_AES
ISAKMP:  attributes in transform:
ISAKMP:     authenticator is HMAC-MD5
ISAKMP:     key length is 256
ISAKMP:     encaps is 1
ISAKMP:     SA life type in seconds
ISAKMP:     SA life duration (VPI) of  0x0 0x20 0xc4 0x9b
IPSEC(validate_proposal): transform proposal (prot 3, trans 12, hmac_alg 1) not supported
ISAKMP (0): atts not acceptable. Next payload is 0
ISAKMP (0): skipping next ANDED proposal (1)
ISAKMP : Checking IPsec proposal 2
ISAKMP: transform 1, ESP_AES
ISAKMP:  attributes in transform:
ISAKMP:     authenticator is HMAC-SHA
ISAKMP:     key length is 256
ISAKMP:     encaps is 1
ISAKMP:     SA life type in seconds
ISAKMP:     SA life duration (VPI) of  0x0 0x20 0xc4 0x9b
IPSEC(validate_proposal): transform proposal (prot 3, trans 12, hmac_alg 2) not supported
ISAKMP (0): atts not acceptable. Next payload is 0
ISAKMP (0): skipping next ANDED proposal (2)
crypto_isakmp_process_block:src:10.48.68.2, dest:209.165.200.225 spt:500 dpt:500
hub(config)#
hub(config)#
hub(config)#
hub(config)#
crypto_isakmp_process_block:src:10.48.68.2, dest:209.165.200.225 spt:500 dpt:500
ISAKMP (0): processing NOTIFY payload 36136 protocol 1
        spi 0, message ID = 3784834735
ISAKMP (0): received DPD_R_U_THERE from peer 10.48.68.2
ISAKMP (0): sending NOTIFY message 36137 protocol 1
return status is IKMP_NO_ERR_NO_TRANS
```

[相關資訊](#)

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- [Cisco Secure ACS for Windows支援頁](#)
- [PIX命令參考](#)
- [PIX支援頁](#)
- [IOS 文件中的 TACACS+](#)
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