

PIX-to-PIX 6.x: Easy VPN(NEM) 컨피그레이션 예

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소개

이 문서에서는 PIX Easy VPN Remote Hardware Client와 PIX Easy VPN Server 간의 IPsec에 대한 샘플 컨피그레이션을 제공합니다. PIX용 Easy VPN Remote 기능은 PIX 버전 6.2에서 도입되었으며 하드웨어 클라이언트/EzVPN 클라이언트라고도 합니다. Cisco Easy VPN Server는 PIX Software 버전 6.0 이상에서 지원됩니다.

보안 어플라이언스가 소프트웨어 버전 7.x와 함께 실행되는 동일한 시나리오에 대한 자세한 내용은 [ASA 5500이 포함된 PIX/ASA 7.x Easy VPN\(서버 및 NEM\)으로 PIX 506E as the Client\(NEM\) 컨피그레이션 예](#)를 참조하십시오.

Cisco 871 Router가 [Easy VPN Remote로 작동하는](#) 유사한 시나리오에 대한 자세한 내용은 [ASA 5500이 포함된 PIX/ASA 7.x Easy VPN with a ASA 5500 as the Server 및 Cisco 871](#)을 참조하십시오.

Cisco VPN 3000 Concentrator가 Easy VPN Server로 작동하는 유사한 시나리오에 대한 자세한 내용은 PIX [501/506 Series Security Appliance with VPN 300 Concentrator 구성 예](#)를 참조하십시오.

Cisco IOS® 라우터가 [Easy VPN Server로](#) 작동하는 유사한 시나리오에 대한 자세한 내용은 [네트워크 확장 모드의 IOS 라우터에 대한 PIX 501/506 Easy VPN Remote to an IOS Router with Extended Authentication Configuration](#) 예를 참조하십시오.

사전 요구 사항

요구 사항

이 구성을 시도하기 전에 다음 요구 사항을 충족해야 합니다.

- PIX Easy VPN Remote Hardware Client가 PIX Software 버전 6.2 이상을 실행하는 PIX 501 또는 PIX 506/506E인지 확인합니다.
- Easy VPN Server가 PIX 소프트웨어 버전 6.0 이상을 실행하는 PIX 방화벽인지 확인합니다.

사용되는 구성 요소

이 문서의 정보는 다음 소프트웨어 및 하드웨어 버전을 기반으로 합니다.

- PIX Easy VPN Remote Hardware Client는 PIX Software 버전 6.3(1)을 실행하는 PIX 501입니다.
- Easy VPN Server는 PIX Software 버전 6.3(1)을 실행하는 PIX 515입니다.

이 문서의 정보는 특정 랩 환경의 디바이스를 토대로 작성되었습니다. 이 문서에 사용된 모든 디바이스는 초기화된(기본) 컨피그레이션으로 시작되었습니다. 현재 네트워크가 작동 중인 경우, 모든 명령어의 잠재적인 영향을 미리 숙지하시기 바랍니다.

표기 규칙

문서 규칙에 대한 자세한 내용은 [Cisco 기술 팁 규칙](#)을 참조하십시오.

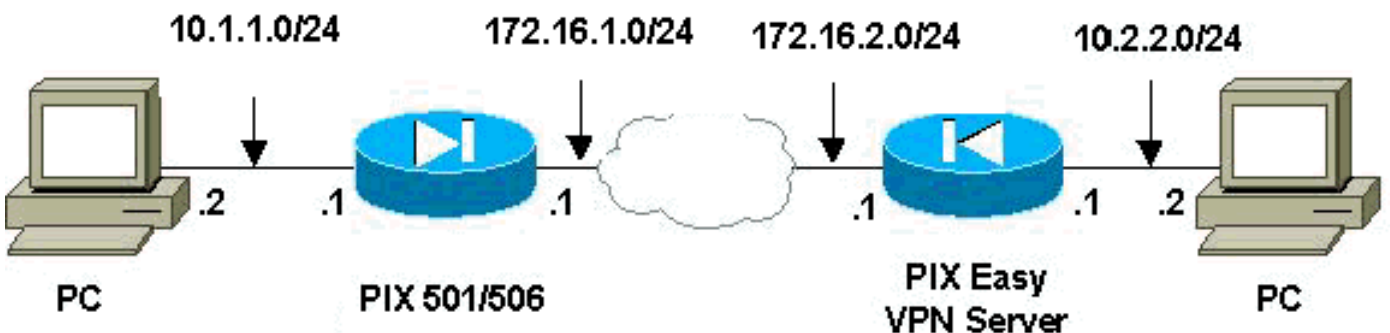
구성

이 섹션에는 이 문서에서 설명하는 기능을 구성하기 위한 정보가 표시됩니다.

참고: [명령 조회 도구](#)([등록된](#) 고객만 해당)를 사용하여 이 섹션에 사용된 명령에 대한 자세한 내용을 확인하십시오.

네트워크 다이어그램

이 문서에서는 다음 네트워크 설정을 사용합니다.



구성

이 문서에서는 다음 구성을 사용합니다.

- [PIX Easy VPN 서버](#)
- [PIX Easy VPN Remote Hardware Client](#)

PIX Easy VPN 서버

```
pix515#write terminal
Building configuration...
: Saved
:
PIX Version 6.3(1)
!--- Specify speed and duplex settings. interface
ethernet0 auto interface ethernet1 auto interface
ethernet2 auto shutdown interface ethernet3 auto
shutdown interface ethernet4 auto shutdown interface
ethernet5 auto shutdown nameif ethernet0 outside
security0 nameif ethernet1 inside security100 nameif
ethernet2 intf2 security4 nameif ethernet3 intf3
security6 nameif ethernet4 intf4 security8 nameif
ethernet5 intf5 security10 enable password
8Ry2YjIyt7RRXU24 encrypted passwd 2KFQnbNIdI.2KYOU
encrypted hostname pix515 fixup protocol ftp 21 fixup
protocol h323 h225 1720 fixup protocol h323 ras 1718-
1719 fixup protocol http 80 fixup protocol ils 389 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 names !--- Specify split tunnelling access list and
"nonat" access list. access-list 101 permit ip 10.2.2.0
255.255.255.0 10.1.1.0 255.255.255.0 pager lines 24 mtu
outside 1500 mtu inside 1500 mtu intf2 1500 mtu intf3
1500 mtu intf4 1500 mtu intf5 1500 !--- Define IP
address for the PIX's inside and outside interfaces. ip
address outside 172.16.2.1 255.255.255.0 ip address
inside 10.2.2.1 255.255.255.0 no ip address intf2 no ip
address intf3 no ip address intf4 no ip address intf5 ip
audit info action alarm ip audit attack action alarm ip
local pool ippool 10.3.3.1-10.3.3.254 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 no failover ip address intf3
no failover ip address intf4 no failover ip address
intf5 pdm history enable arp timeout 14400 !---
Configure Network Address Translation (NAT)/ !--- Port
Address Translation (PAT) for regular traffic, !--- as
well as NAT for IPsec traffic. global (outside) 1
interface nat (inside) 0 access-list 101 nat (inside) 1
0.0.0.0 0.0.0.0 0 0 !--- Define the outside router as
the default gateway. !--- Typically this is the IP
address of your !--- Internet service provider's (ISP)
router. route outside 0.0.0.0 0.0.0.0 172.16.2.2 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 !--- Configure IPsec transform
```

```

set and dynamic crypto map. crypto ipsec transform-set
myset esp-aes esp-md5-hmac crypto dynamic-map dynmap 10
set transform-set myset crypto map mymap 10 ipsec-isakmp
dynamic dynmap !--- Apply crypto map to the outside
interface. crypto map mymap interface outside !---
Configure Phase 1 Internet Security Association !-- and
Key Management Protocol (ISAKMP) parameters. isakmp
enable outside isakmp identity address isakmp policy 10
authentication pre-share isakmp policy 10 encryption aes
isakmp policy 10 hash md5 isakmp policy 10 group 2
isakmp policy 10 lifetime 86400 !--- Configure VPNGroup
parameters, to be sent down to the client. vpnngroup
mygroup address-pool ippool vpnngroup mygroup dns-server
10.2.2.2 vpnngroup mygroup wins-server 10.2.2.2 vpnngroup
mygroup default-domain cisco.com vpnngroup mygroup split-
tunnel 101 vpnngroup mygroup idle-time 1800 vpnngroup
mygroup password ***** vpnngroup idle-time idle-time
1800 telnet timeout 5 ssh timeout 5 console timeout 0
terminal width 80
Cryptochecksum:67106d7a5a3aa3da0caaeaa93b9fc8d6 : end
[OK] pix515#

```

PIX Easy VPN Remote Hardware Client

```

pix501#write terminal
Building configuration...
: Saved
:
PIX Version 6.3(1)
!--- Specify speed and duplex settings. interface
ethernet0 auto interface ethernet1 100full nameif
ethernet0 outside security0 nameif ethernet1 inside
security100 enable password 8Ry2YjIyt7RRXU24 encrypted
passwd 2KFQnbNIdI.2KYOU encrypted hostname pix501 fixup
protocol ftp 21 fixup protocol h323 h225 1720 fixup
protocol h323 ras 1718-1719 fixup protocol http 80 fixup
protocol ils 389 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 names pager lines 24 mtu
outside 1500 mtu inside 1500 !--- Define IP address for
the PIX's inside and outside interfaces. ip address
outside 172.16.1.1 255.255.255.0 ip address inside
10.1.1.1 255.255.255.0 ip audit info action alarm ip
audit attack action alarm pdm history enable arp timeout
14400 !--- Configure NAT for traffic that is not
encrypted. global (outside) 1 interface nat (inside) 1
0.0.0.0 0.0.0.0 0 0 !--- Define the outside router as
the default gateway. !-- Typically this is the IP
address of your ISP's router. route outside 0.0.0.0
0.0.0.0 172.16.1.2 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 telnet timeout 5 ssh timeout 5 console timeout 0
!--- Define Easy VPN Remote parameters. vpnclient server
172.16.2.1 vpnclient mode network-extension-mode
vpnclient vpnngroup mygroup password ***** !--- Enable
the VPN Client. !-- (This automatically initiates the

```

```
IPsec tunnel to the server.) vpnclient enable terminal
width 80 Cryptochecksum:b8242b410ad8e3b372018cd1cff77f91
: end [OK]
```

다음을 확인합니다.

이 섹션을 사용하여 컨피그레이션이 제대로 작동하는지 확인합니다.

Output [Interpreter 도구](#) (등록된 고객만 해당)(OIT)는 특정 **show** 명령을 지원합니다. OIT를 사용하여 **show** 명령 출력의 분석을 봅니다.

PIX Easy VPN Server show 명령 및 샘플 출력

- **show crypto isakmp sa** - 피어의 현재 IKE(Internet Key Exchange) 보안 연결(SA)을 모두 표시합니다.

```
pix515#show crypto isakmp sa
Total      : 1
Embryonic : 0

      dst          src          state      pending      created
      172.16.2.1    172.16.1.1    QM_IDLE    0            2
pix515#
```

- **show crypto ipsec sa** - 피어 간에 구축된 IPsec SA를 표시합니다.

```
pix515#show crypto ipsec sa
!--- This command was issued after a ping !--- was attempted from the PC behind the !---
Easy VPN Client to the PC !--- behind the server. interface: outside Crypto map tag: mymap,
local addr. 172.16.2.1 local ident (addr/mask/prot/port): (10.2.2.0/255.255.255.0/0/0)
remote ident (addr/mask/prot/port): (10.1.1.0/255.255.255.0/0/0) current_peer:
172.16.1.1:500 dynamic allocated peer ip: 0.0.0.0 PERMIT, flags={} #pkts encaps: 4, #pkts
encrypt: 4, #pkts digest 4 #pkts decaps: 4, #pkts decrypt: 4, #pkts verify 4 #pkts
compressed: 0, #pkts decompressed: 0 #pkts not compressed: 0, #pkts compr. failed: 0, #pkts
decompress failed: 0 #send errors 0, #recv errors 0 !--- Ping packets !--- were successfully
exchanged between the !--- Easy VPN Remote Hardware Client !--- and the Easy VPN Server.
local crypto endpt.: 172.16.2.1, remote crypto endpt.: 172.16.1.1 path mtu 1500, ipsec
overhead 64, media mtu 1500 current outbound spi: 3a5a28e4 inbound esp sas: spi:
0x505c96c6(1348245190) transform: esp-aes esp-md5-hmac , in use settings = {Tunnel, } slot:
0, conn id: 2, crypto map: mymap sa timing: remaining key lifetime (k/sec): (4607999/28471)
IV size: 16 bytes replay detection support: Y inbound ah sas: inbound pcp sas: outbound esp
sas: spi: 0x3a5a28e4(978987236) transform: esp-aes esp-md5-hmac , in use settings = {Tunnel,
} slot: 0, conn id: 1, crypto map: mymap sa timing: remaining key lifetime (k/sec):
(4607999/28471) IV size: 16 bytes replay detection support: Y outbound ah sas: outbound pcp
sas: local ident (addr/mask/prot/port): (10.2.2.0/255.255.255.0/0/0) remote ident
(addr/mask/prot/port): (172.16.1.1/255.255.255.255/0/0) current_peer: 172.16.1.1:500 dynamic
allocated peer ip: 0.0.0.0 PERMIT, flags={} #pkts encaps: 0, #pkts encrypt: 0, #pkts digest
0 #pkts decaps: 0, #pkts decrypt: 0, #pkts verify 0 #pkts compressed: 0, #pkts decompressed:
0 #pkts not compressed: 0, #pkts compr. failed: 0, #pkts decompress failed: 0 #send errors
0, #recv errors 0 local crypto endpt.: 172.16.2.1, remote crypto endpt.: 172.16.1.1 path mtu
1500, ipsec overhead 64, media mtu 1500 current outbound spi: 27f378f9 inbound esp sas: spi:
0xf2bb4f00(4072361728) transform: esp-aes esp-md5-hmac , in use settings = {Tunnel, } slot:
0, conn id: 3, crypto map: mymap sa timing: remaining key lifetime (k/sec): (4608000/27796)
IV size: 16 bytes replay detection support: Y inbound ah sas: inbound pcp sas: outbound esp
sas: spi: 0x27f378f9(670267641) transform: esp-aes esp-md5-hmac , in use settings = {Tunnel,
} slot: 0, conn id: 4, crypto map: mymap sa timing: remaining key lifetime (k/sec):
(4608000/27787) IV size: 16 bytes replay detection support: Y outbound ah sas: outbound pcp
sas: pix515#
```

PIX Easy VPN Remote Hardware Client show 명령 및 샘플 출력

- **vpnclient enable** - Easy VPN Remote 연결을 활성화합니다. (NEM(Network Extension Mode)에서는 헤드엔드 Easy VPN Server와 교환할 흥미로운 트래픽이 없는 경우에도 터널이 작동합니다.)

```
pix501(config)#vpnclient enable
```

- **show crypto isakmp policy** - 각 IKE 정책에 대한 매개변수를 표시합니다.

```
pix501#show crypto isakmp policy
```

```
Default protection suite
  encryption algorithm:  DES - Data Encryption Standard (56 bit keys).
  hash algorithm:        Secure Hash Standard
  authentication method: Rivest-Shamir-Adleman Signature
  Diffie-Hellman group:  #1 (768 bit)
  lifetime:              86400 seconds, no volume limit
```

하드웨어 클라이언트가 활성화된 후 **show crypto isakmp policy** 명령의 출력이 여기에 표시됩니다.

```
pix501(config)#show crypto isakmp policy
```

```
Protection suite of priority 65001
  encryption algorithm:  AES - Advanced Encryption Standard (256 bit keys).
  hash algorithm:        Secure Hash Standard
  authentication method: Pre-Shared Key with XAUTH
  Diffie-Hellman group:  #2 (1024 bit)
  lifetime:              86400 seconds, no volume limit
```

```
Protection suite of priority 65002
  encryption algorithm:  AES - Advanced Encryption Standard (256 bit keys).
  hash algorithm:        Message Digest 5
  authentication method: Pre-Shared Key with XAUTH
  Diffie-Hellman group:  #2 (1024 bit)
  lifetime:              86400 seconds, no volume limit
```

```
Protection suite of priority 65003
  encryption algorithm:  AES - Advanced Encryption Standard (192 bit keys).
  hash algorithm:        Secure Hash Standard
  authentication method: Pre-Shared Key with XAUTH
  Diffie-Hellman group:  #2 (1024 bit)
  lifetime:              86400 seconds, no volume limit
```

```
Protection suite of priority 65004
  encryption algorithm:  AES - Advanced Encryption Standard (192 bit keys).
  hash algorithm:        Message Digest 5
  authentication method: Pre-Shared Key with XAUTH
  Diffie-Hellman group:  #2 (1024 bit)
  lifetime:              86400 seconds, no volume limit
```

```
Protection suite of priority 65005
  encryption algorithm:  AES - Advanced Encryption Standard (128 bit keys).
  hash algorithm:        Secure Hash Standard
  authentication method: Pre-Shared Key with XAUTH
  Diffie-Hellman group:  #2 (1024 bit)
  lifetime:              86400 seconds, no volume limit
```

```
Protection suite of priority 65006
  encryption algorithm:  AES - Advanced Encryption Standard (128 bit keys).
  hash algorithm:        Message Digest 5
  authentication method: Pre-Shared Key with XAUTH
  Diffie-Hellman group:  #2 (1024 bit)
  lifetime:              86400 seconds, no volume limit
```

```
Protection suite of priority 65007
  encryption algorithm:  Three key triple DES
  hash algorithm:        Secure Hash Standard
  authentication method: Pre-Shared Key with XAUTH
  Diffie-Hellman group:  #2 (1024 bit)
  lifetime:              86400 seconds, no volume limit
```

```
Protection suite of priority 65008
```

encryption algorithm: Three key triple DES
hash algorithm: Message Digest 5
authentication method: Pre-Shared Key with XAUTH
Diffie-Hellman group: #2 (1024 bit)
lifetime: 86400 seconds, no volume limit

Protection suite of priority 65009
encryption algorithm: DES - Data Encryption Standard (56 bit keys).
hash algorithm: Message Digest 5
authentication method: Pre-Shared Key with XAUTH
Diffie-Hellman group: #2 (1024 bit)
lifetime: 86400 seconds, no volume limit

Protection suite of priority 65010
encryption algorithm: AES - Advanced Encryption Standard (256 bit keys).
hash algorithm: Secure Hash Standard
authentication method: Pre-Shared Key
Diffie-Hellman group: #2 (1024 bit)
lifetime: 86400 seconds, no volume limit

Protection suite of priority 65011
encryption algorithm: AES - Advanced Encryption Standard (256 bit keys).
hash algorithm: Message Digest 5
authentication method: Pre-Shared Key
Diffie-Hellman group: #2 (1024 bit)
lifetime: 86400 seconds, no volume limit

Protection suite of priority 65012
encryption algorithm: AES - Advanced Encryption Standard (192 bit keys).
hash algorithm: Secure Hash Standard
authentication method: Pre-Shared Key
Diffie-Hellman group: #2 (1024 bit)
lifetime: 86400 seconds, no volume limit

Protection suite of priority 65013
encryption algorithm: AES - Advanced Encryption Standard (192 bit keys).
hash algorithm: Message Digest 5
authentication method: Pre-Shared Key
Diffie-Hellman group: #2 (1024 bit)
lifetime: 86400 seconds, no volume limit

Protection suite of priority 65014
encryption algorithm: AES - Advanced Encryption Standard (128 bit keys).
hash algorithm: Secure Hash Standard
authentication method: Pre-Shared Key
Diffie-Hellman group: #2 (1024 bit)
lifetime: 86400 seconds, no volume limit

Protection suite of priority 65015
encryption algorithm: AES - Advanced Encryption Standard (128 bit keys).
hash algorithm: Message Digest 5
authentication method: Pre-Shared Key
Diffie-Hellman group: #2 (1024 bit)
lifetime: 86400 seconds, no volume limit

Protection suite of priority 65016
encryption algorithm: Three key triple DES
hash algorithm: Secure Hash Standard
authentication method: Pre-Shared Key
Diffie-Hellman group: #2 (1024 bit)
lifetime: 86400 seconds, no volume limit

Protection suite of priority 65017
encryption algorithm: Three key triple DES
hash algorithm: Message Digest 5
authentication method: Pre-Shared Key
Diffie-Hellman group: #2 (1024 bit)
lifetime: 86400 seconds, no volume limit

Protection suite of priority 65018
encryption algorithm: DES - Data Encryption Standard (56 bit keys).
hash algorithm: Message Digest 5
authentication method: Pre-Shared Key
Diffie-Hellman group: #2 (1024 bit)

lifetime: 86400 seconds, no volume limit

- **show crypto isakmp sa** - 피어의 현재 모든 IKE SA를 표시합니다.

```
pix501(config)#show crypto isakmp sa
Total      : 1
Embryonic  : 0
dst        src        state    pending  created
172.16.2.1 172.16.1.1 QM_IDLE 0         1
```

- **show crypto ipsec sa** - 피어 간에 구축된 IPsec SA를 표시합니다.

```
pix501(config)#show crypto ipsec sa
!--- This command was issued after a ping !--- was attempted from the PC behind the !---
Easy VPN client to the PC !--- behind the server. interface: outside Crypto map tag:
_vpnc_cm, local addr. 172.16.1.1 local ident (addr/mask/prot/port):
(10.1.1.0/255.255.255.0/0/0) remote ident (addr/mask/prot/port):
(10.2.2.0/255.255.255.0/0/0) current_peer: 172.16.2.1:500 PERMIT, flags={origin_is_acl,}
#pkts encaps: 4, #pkts encrypt: 4, #pkts digest 4 #pkts decaps: 4, #pkts decrypt: 4, #pkts
verify 4 #pkts compressed: 0, #pkts decompressed: 0 #pkts not compressed: 0, #pkts compr.
failed: 0, #pkts decompress failed: 0 #send errors 1, #recv errors 0 !--- Ping packets !---
were successfully exchanged between !--- the Easy VPN Remote Hardware Client !--- and the
Easy VPN Server. local crypto endpt.: 172.16.1.1, remote crypto endpt.: 172.16.2.1 path mtu
1500, ipsec overhead 64, media mtu 1500 current outbound spi: 505c96c6 inbound esp sas: spi:
0x3a5a28e4(978987236) transform: esp-aes esp-md5-hmac , in use settings ={Tunnel, } slot: 0,
conn id: 4, crypto map: _vpnc_cm sa timing: remaining key lifetime (k/sec): (4607999/28745)
IV size: 16 bytes replay detection support: Y inbound ah sas: inbound pcp sas: outbound esp
sas: spi: 0x505c96c6(1348245190) transform: esp-aes esp-md5-hmac , in use settings ={Tunnel,
} slot: 0, conn id: 3, crypto map: _vpnc_cm sa timing: remaining key lifetime (k/sec):
(4607999/28745) IV size: 16 bytes replay detection support: Y outbound ah sas: outbound pcp
sas: local ident (addr/mask/prot/port): (172.16.1.1/255.255.255.255/0/0) remote ident
(addr/mask/prot/port): (10.2.2.0/255.255.255.0/0/0) current_peer: 172.16.2.1:500 PERMIT,
flags={origin_is_acl,} #pkts encaps: 0, #pkts encrypt: 0, #pkts digest 0 #pkts decaps: 0,
#pkts decrypt: 0, #pkts verify 0 #pkts compressed: 0, #pkts decompressed: 0 #pkts not
compressed: 0, #pkts compr. failed: 0, #pkts decompress failed: 0 #send errors 0, #recv
errors 0 local crypto endpt.: 172.16.1.1, remote crypto endpt.: 172.16.2.1 path mtu 1500,
ipsec overhead 64, media mtu 1500 current outbound spi: f2bb4f00 inbound esp sas: spi:
0x27f378f9(670267641) transform: esp-aes esp-md5-hmac , in use settings ={Tunnel, } slot: 0,
conn id: 1, crypto map: _vpnc_cm sa timing: remaining key lifetime (k/sec): (4608000/28125)
IV size: 16 bytes replay detection support: Y inbound ah sas: inbound pcp sas: outbound esp
sas: spi: 0xf2bb4f00(4072361728) transform: esp-aes esp-md5-hmac , in use settings ={Tunnel,
} slot: 0, conn id: 2, crypto map: _vpnc_cm sa timing: remaining key lifetime (k/sec):
(4608000/28125) IV size: 16 bytes replay detection support: Y outbound ah sas: outbound pcp
sas: pix501(config)#
```

- **show vpnclient** - VPN Client 또는 Easy VPN Remote 디바이스 컨피그레이션 정보를 표시합니다.

```
pix501(config)#show vpnclient
LOCAL CONFIGURATION
vpnclient server 172.16.2.1
vpnclient mode network-extension-mode
vpnclient vpngroup mygroup password *****
vpnclient enable

DOWNLOADED DYNAMIC POLICY
Current Server      : 172.16.2.1
Primary DNS        : 10.2.2.2
Primary WINS       : 10.2.2.2
Default Domain     : cisco.com
PFS Enabled        : No
Secure Unit Authentication Enabled : No
User Authentication Enabled : No
Split Networks     : 10.2.2.0/255.255.255.0
Backup Servers     : None
```

```
pix501(config)#
```


문제 해결

이 섹션에서는 컨피그레이션 문제를 해결하는 데 사용할 수 있는 정보를 제공합니다.

이 문서에 설명된 대로 Easy VPN Remote Hardware Client와 Easy VPN Server를 설정했지만 여전히 문제가 발생하면 각 PIX의 디버그 출력 및 **show** 명령의 출력을 수집하여 Cisco TAC(Technical Assistance Center)에서 분석합니다. 또한 Troubleshooting [the PIX to Pass Data Traffic on an Established IPsec Tunnel](#) 또는 [IP Security Troubleshooting - Understanding and Using debug Commands](#)를 참조하십시오. PIX에서 IPsec 디버깅을 활성화합니다.

PIX **debug** 명령 및 샘플 출력이 여기에 표시됩니다.

- [Easy VPN Server 명령](#)
- [Easy VPN Remote Hardware Client 명령](#)

참고: debug 명령을 사용하기 전에 디버그 [명령에 대한 중요 정보](#)를 참조하십시오.

Easy VPN Server 명령

- **debug crypto ipsec** - 2단계의 IPsec 협상을 표시합니다.
- **debug crypto isakmp** - 1단계의 ISAKMP 협상을 표시합니다.

샘플 출력입니다.

```
pix515(config)#
!--- As soon as the vpnclient enable command !--- is issued on the remote client PIX, !--- the
server receives an IKE negotiation request.

crypto_isakmp_process_block:src:172.16.1.1,
  dest:172.16.2.1 spt:500 dpt:500
OAK_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:      keylength of 256
ISAKMP:      hash SHA
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share (init)
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
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:      keylength of 256
ISAKMP:      hash MD5
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share (init)
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
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:      keylength of 192
ISAKMP:      hash SHA
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share (init)
ISAKMP:      life type in seconds
```

```
ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
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:      keylength of 192
ISAKMP:      hash MD5
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share (init)
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
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:      keylength of 128
ISAKMP:      hash SHA
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share (init)
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
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:      keylength of 128
ISAKMP:      hash MD5
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share (init)
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 7 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 0x1 0x51 0x80
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 8 against priority 10 policy
ISAKMP:      encryption 3DES-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 0x1 0x51 0x80
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 9 against priority 10 policy
ISAKMP:      encryption DES-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 0x1 0x51 0x80
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 10 against priority 10 policy
crypto_isakmp_process_block:src:172.16.1.1,
  dest:172.16.2.1 spt:500 dpt:500
OAK_AG exchange
ISAKMP (0): processing HASH payload. message ID = 0
ISAKMP (0): processing NOTIFY payload 24578 protocol 1
  spi 0, message ID = 0
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 172.16.1.1
```

```
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): speaking to another IOS box!
ISAKMP (0): processing vendor id payload
crypto_isakmp_process_block:src:172.16.1.1,
  dest:172.16.2.1 spt:500 dpt:500
ISAKMP_TRANSACTION exchange
crypto_isakmp_process_block:src:172.16.1.1,
  dest:172.16.2.1 spt:500 dpt:500
OAK_QM exchange
oakley_process_quick_mode:
OAK_QM_IDLE
ISAKMP (0): processing SA payload. message ID = 4788683

ISAKMP : Checking IPsec proposal 1

ISAKMP: transform 1, ESP_AES
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-SHA
ISAKMP:  key length is 256IPSEC(validate_proposal):
  transform proposal (prot 3, trans 12, hmac_alg 2) not supported

ISAKMP (0): atts not acceptable. Next payload is 0
ISAKMP : Checking IPsec proposal 2

ISAKMP: transform 1, ESP_AES
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:  key length is 256IPSEC(validate_proposal):
  transform proposal (prot 3, trans 12, hmac_alg 1) not supported

ISAKMP (0): atts not acceptable. Next payload is 0
ISAKMP : Checking IPsec proposal 3

ISAKMP: transform 1, ESP_AES
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-SHA
ISAKMP:  key length is 192IPSEC(validate_proposal):
```

transform proposal (prot 3, trans 12, hmac_alg 2) not supported

ISAKMP (0): atts not acceptable. Next payload is 0
ISAKMP : Checking IPsec proposal 4

ISAKMP: transform 1, ESP_AES
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: key length is 192IPSEC(validate_proposal):
transform proposal (prot 3, trans 12, hmac_alg 1) not supported

ISAKMP (0): atts not acceptable. Next payload is 0
ISAKMP : Checking IPsec proposal 5

ISAKMP: transform 1, ESP_AES
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-SHA
ISAKMP: key length is 128IPSEC(validate_proposal):
transform proposal (prot 3, trans 12, hmac_alg 2) not supported

ISAKMP (0): atts not acceptable. Next payload is 0
ISAKMP : Checking IPsec proposal 6

ISAKMP: transform 1, ESP_AES
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: key length is 128

ISAKMP (0): atts are acceptable.IPSEC(validate_proposal_request):

proposal part #1,
(key eng. msg.) dest= 172.16.2.1, src= 172.16.1.1,
dest_proxy= 10.2.2.0/255.255.255.0/0/0 (type=4),
src_proxy= 172.16.1.1/255.255.255.255/0/0 (type=1),
protocol= ESP, transform= esp-aes esp-md5-hmac ,
lifedur= 0s and 0kb,
spi= 0x0(0), conn_id= 0, keysize= 128, flags= 0x4

!--- Both PIXes accept the policy for IPsec. ISAKMP (0): processing NONCE payload. message ID = 4788683
ISAKMP (0): processing ID payload. message ID = 4788683
ISAKMP (0): ID_IPV4_ADDR src 172.16.1.1 prot 0 port 0
ISAKMP (0): processing ID payload. message ID = 4788683
ISAKMP (0): ID_IPV4_ADDR_SUBNET dst 10.2.2.0/255.255.255.0 prot 0 port 0
IPSEC(key_engine): got a queue event...
IPSEC(spi_response): getting spi 0xf5720496(4117890198) for SA from 172.16.1.1 to 172.16.2.1 for prot 3 return status is IKMP_NO_ERROR
crypto_isakmp_process_block:src:172.16.1.1, dest:172.16.2.1 spt:500 dpt:500
OAK_QM exchange oakley_process_quick_mode: OAK_QM_AUTH_AWAIT
ISAKMP (0): Creating IPsec SAs inbound SA from 172.16.1.1 to 172.16.2.1 (proxy 172.16.1.1 to 10.2.2.0) has spi 4117890198 and conn_id 3 and flags 4 lifetime of 28800 seconds
crypto_isakmp_process_block:src:172.16.1.1, dest:172.16.2.1 spt:500 dpt:500
ISAKMP (0): processing NOTIFY payload 36136 protocol 1 spi 0, message ID = 843197376
ISAKMP (0): received DPD_R_U_THERE from peer 172.16.1.1
ISAKMP (0): sending NOTIFY message 36137 protocol 1 return status is IKMP_NO_ERR_NO_TRANS
crypto_isakmp_process_block:src:172.16.1.1, dest:172.16.2.1 spt:500 dpt:500
ISAKMP (0): processing NOTIFY payload 36136 protocol 1 spi 0, message ID =

```
1985282089 ISAMKP (0): received DPD_R_U_THERE from peer 172.16.1.1 ISAKMP (0): sending NOTIFY message 36137 protocol 1 return status is IKMP_NO_ERR_NO_TRANS
crypto_isakmp_process_block:src:172.16.1.1, dest:172.16.2.1 spt:500 dpt:500 ISAKMP (0): processing NOTIFY payload 36136 protocol 1 spi 0, message ID = 1510977390 ISAMKP (0): received DPD_R_U_THERE from peer 172.16.1.1 ISAKMP (0): sending NOTIFY message 36137 protocol 1 return status is IKMP_NO_ERR_NO_TRANS
```

Easy VPN Remote Hardware Client 명령

- **debug crypto ipsec** - 2단계의 IPsec 협상을 표시합니다.
- **debug crypto isakmp** - 1단계의 ISAKMP 협상을 표시합니다.

```
pix501(config)#vpnclient enable
(cIoSnAfKigM)P# (0): ID payload
    next-payload : 13
    type          : 11
    protocol      : 17
    port          : 0
    length        : 11
ISAKMP (0): Total payload length: 15
ISAKMP (0:0): sending NAT-T vendor ID - rev 2 & 3
ISAKMP (0): beginning Aggressive Mode exchange
crypto_isakmp_process_block:src:172.16.2.1,
    dest:172.16.1.1 spt:500 dpt:500
OAK_AG exchange
ISAKMP (0): processing SA payload. message ID = 0

ISAKMP (0): Checking ISAKMP transform 1 against priority 65001 policy
ISAKMP:    encryption AES-CBC
ISAKMP:    keylength of 128
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 not acceptable. Next payload is 0
ISAKMP (0): Checking ISAKMP transform 1 against priority 65002 policy
ISAKMP:    encryption AES-CBC
ISAKMP:    keylength of 128
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 not acceptable. Next payload is 0
ISAKMP (0): Checking ISAKMP transform 1 against priority 65003 policy
ISAKMP:    encryption AES-CBC
ISAKMP:    keylength of 128
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 not acceptable. Next payload is 0
ISAKMP (0): Checking ISAKMP transform 1 against priority 65004 policy
ISAKMP:    encryption AES-CBC
ISAKMP:    keylength of 128
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 not acceptable. Next payload is 0
ISAKMP (0): Checking ISAKMP transform 1 against priority 65005 policy
ISAKMP:      encryption AES-CBC
ISAKMP:      keylength of 128
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 not acceptable. Next payload is 0
ISAKMP (0): Checking ISAKMP transform 1 against priority 65006 policy
ISAKMP:      encryption AES-CBC
ISAKMP:      keylength of 128
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 not acceptable. Next payload is 0
ISAKMP (0): Checking ISAKMP transform 1 against priority 65007 policy
ISAKMP:      encryption AES-CBC
ISAKMP:      keylength of 128
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 not acceptable. Next payload is 0
ISAKMP (0): Checking ISAKMP transform 1 against priority 65008 policy
ISAKMP:      encryption AES-CBC
ISAKMP:      keylength of 128
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 not acceptable. Next payload is 0
ISAKMP (0): Checking ISAKMP transform 1 against priority 65009 policy
ISAKMP:      encryption AES-CBC
ISAKMP:      keylength of 128
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 : attributes being requested
```

```
crypto_isakmp_process_block:src:172.16.2.1,
  dest:172.16.1.1 spt:500 dpt:500
```

```
ISAKMP (0): beginning Quick Mode exchange,
  M-ID of 1112046058:424879eaIPSEC(key_engine): got a queue event...
IPSEC(spi_response): getting spi 0x274d3063(659370083) for SA
  from 172.16.2.1 to 172.16.1.1 for prot 3
```

```
crypto_isakmp_process_block:src:172.16.2.1,
  dest:172.16.1.1 spt:500 dpt:500
```

```
OAK_QM exchange
oakley_process_quick_mode:
OAK_QM_IDLE
```

```
ISAKMP (0): processing SA payload. message ID = 1112046058
```

```
ISAKMP : Checking IPsec proposal 1
```

```
ISAKMP: transform 1, ESP_AES
```

```

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:  key length is 128
ISAKMP (0): atts are acceptable.IPSEC(validate_proposal_request):
  proposal part #1,
(key eng. msg.) dest= 172.16.2.1, src= 172.16.1.1,
  dest_proxy= 10.2.2.0/255.255.255.0/0/0 (type=4),
  src_proxy= 172.16.1.1/255.255.255.255/0/0 (type=1),
  protocol= ESP, transform= esp-aes esp-md5-hmac ,
  lifedur= 0s and 0kb,
  spi= 0x0(0), conn_id= 0, keysize= 128, flags= 0x4

ISAKMP (0): processing NONCE payload. message ID = 1112046058

ISAKMP (0): processing ID payload. message ID = 1112046058
ISAKMP (0): processing ID payload. message ID = 1112046058
ISAKMP (0): Creating IPsec SAs
  inbound SA from 172.16.2.1 to 172.16.1.1
(proxy 10.2.2.0 to 172.16.1.1)
  has spi 659370083 and conn_id 2 and flags 4
  lifetime of 28800 seconds
  lifetime of 4608000 kilobytes
  outbound SA from 172.16.1.1 to 172.16.2.1
(proxy 172.16.1.1 to 10.2.2.0)
  has spi 264316759 and conn_id 1 and flags 4
  lifetime of 28800 seconds
  lifetime of 4608000 kilobytesIPSEC(key_engine):
  got a queue event...
IPSEC(initialize_sas): ,
(key eng. msg.) dest= 172.16.1.1, src= 172.16.2.1,
  dest_proxy= 172.16.1.1/255.255.255.255/0/0 (type=1),
  src_proxy= 10.2.2.0/255.255.255.0/0/0 (type=4),
  protocol= ESP, transform= esp-aes esp-md5-hmac ,
  lifedur= 28800s and 4608000kb,
  spi= 0x274d3063(659370083), conn_id= 2, keysize= 128, flags= 0x4
IPSEC(initialize_sas): ,
(key eng. msg.) src= 172.16.1.1, dest= 172.16.2.1,
  src_proxy= 172.16.1.1/255.255.255.255/0/0 (type=1),
  dest_proxy= 10.2.2.0/255.255.255.0/0/0 (type=4),
  protocol= ESP, transform= esp-aes esp-md5-hmac ,
  lifedur= 28800s and 4608000kb,
  spi= 0xfc12757(264316759), conn_id= 1, keysize= 128, flags= 0x4

VPN Peer: IPSEC: Peer ip:172.16.2.1/500 Ref cnt incremented to:2
  Total VPN Peers:1
VPN Peer: IPSEC: Peer ip:172.16.2.1/500 Ref cnt incremented to:3
  Total VPN Peers:1
return status is IKMP_NO_ERROR
pix501(config)#
pix501(config)#
ISAKMP (0): sending NOTIFY message 36136 protocol 1
crypto_isakmp_process_block:src:172.16.2.1,
  dest:172.16.1.1 spt:500 dpt:500
ISAKMP (0): processing NOTIFY payload 36137 protocol 1
  spi 0, message ID = 136860646n
ISAKMP (0): received DPD_R_U_THERE_ACK from peer 172.16.2.1

```

• debug vpn client - VPN 클라이언트에 해당하는 협상을 표시합니다.

```
pix501(config)#vpnclient enable
pix501(config)# 505: VPNC CFG: transform set unconfig attempt done
506: VPNC CLI: no isakmp keepalive 10
507: VPNC CLI: no isakmp nat-traversal 20
508: VPNC CFG: IKE unconfig successful
509: VPNC CLI: no crypto map _vpnc_cm
510: VPNC CFG: crypto map deletion attempt done
511: VPNC CFG: crypto unconfig successful
512: VPNC CLI: no global (outside) 65001
513: VPNC CLI: no nat (inside) 0 access-list _vpnc_acl
514: VPNC CFG: nat unconfig attempt failed
515: VPNC CLI: no http 10.1.1.1 255.255.255.0 inside
516: VPNC CLI: no http server enable
517: VPNC CLI: no access-list _vpnc_acl
518: VPNC CFG: ACL deletion attempt failed
519: VPNC CLI: no crypto map _vpnc_cm interface outside
520: VPNC CFG: crypto map de/attach failed
521: VPNC CLI: no sysopt connection permit-ipsec
522: VPNC CLI: sysopt connection permit-ipsec
523: VPNC CFG: transform sets configured
524: VPNC CFG: crypto config successful
525: VPNC CLI: isakmp keepalive 10
526: VPNC CLI: isakmp nat-traversal 20
527: VPNC CFG: IKE config successful
528: VPNC CLI: http 10.1.1.1 255.255.255.0 inside
529: VPNC CLI: http server enable
530: VPNC CLI: no access-list _vpnc_acl
531: VPNC CFG: ACL deletion attempt failed
532: VPNC CLI: access-list _vpnc_acl
    permit ip host 172.16.1.1 host 172.16.2.1
533: VPNC CLI: crypto map _vpnc_cm 10 match address _vpnc_acl
534: VPNC CFG: crypto map acl update successful
535: VPNC CLI: no crypto map _vpnc_cm interface outside
536: VPNC CLI: crypto map _vpnc_cm interface outside
537: VPNC INF: IKE trigger request done
538: VPNC INF: Constructing policy download req
539: VPNC INF: Packing attributes for policy request
540: VPNC INF: Attributes being requested
541: VPNC ATT: ALT_DEF_DOMAIN: cisco.com
542: VPNC ATT: INTERNAL_IP4_NBNS: 10.2.2.2
543: VPNC ATT: INTERNAL_IP4_DNS: 10.2.2.2
544: VPNC ATT: ALT_SPLIT_INCLUDE
545: VPNC INF: 10.2.2.0/255.255.255.0
546: VPNC ATT: ALT_PFS: 0
547: VPNC ATT: ALT_CFG_SEC_UNIT: 0
548: VPNC ATT: ALT_CFG_USER_AUTH: 0
549: VPNC CLI: no access-list _vpnc_acl
550: VPNC CLI: access-list _vpnc_acl
    permit ip 10.1.1.0 255.255.255.0 10.2.2.0 255.255.255.0
551: VPNC CLI: access-list _vpnc_acl
    permit ip host 172.16.1.1 10.2.2.0 255.255.255.0
552: VPNC CFG: _vpnc_acl ST define done
553: VPNC CFG: Split DNS config attempt done
554: VPNC CLI: crypto map _vpnc_cm 10 match address _vpnc_acl
555: VPNC CFG: crypto map acl update successful
556: VPNC CLI: no crypto map _vpnc_cm interface outside
557: VPNC CLI: crypto map _vpnc_cm interface outside
558: VPNC CLI: no global (outside) 65001
559: VPNC CLI: no nat (inside) 0 access-list _vpnc_acl
560: VPNC CFG: nat unconfig attempt failed
561: VPNC CLI: nat (inside) 0 access-list _vpnc_acl
562: VPNC INF: IKE trigger request done
```


관련 정보

- [PIX 지원 페이지](#)
- [PIX 명령 참조](#)
- [IPsec 협상/IKE 프로토콜 지원 페이지](#)
- [RFC\(Request for Comments\)](#)
- [Technical Support - Cisco Systems](#)