

# PIX/ASA 7.x PIX-to-PIX Dynamic-to-Static IPsec with NAT and VPN Client **컨피그레이션 예**

## 목차

[소개](#)

[사전 요구 사항](#)

[요구 사항](#)

[사용되는 구성 요소](#)

[표기 규칙](#)

[구성](#)

[네트워크 다이어그램](#)

[구성](#)

[다음을 확인합니다.](#)

[문제 해결](#)

[동일한 사전 공유 키](#)

[문제 해결 명령](#)

[올바른 디버그 출력 예](#)

[관련 정보](#)

## 소개

대부분의 경우 중앙 PIX에 연결되는 원격 PIX는 NAT(Network Address Translation)를 사용하지 않습니다. 대신 원격 PIX는 고정 외부 IP 주소를 사용합니다. 7.x 이상을 실행하는 중앙 PIX가 NAT를 사용하여 원격 PIX에 연결되는 경우 DHCP(Dynamic Host Control Protocol)를 사용하여 케이블 또는 DSL 모뎀에 연결된 PIX 501 또는 506과 같은 소규모 홈 오피스와 동일합니다. PIX 7.x 이상 및 Cisco ASDM(Adaptive Security Device Manager)은 PIX 501 또는 506에서 실행되지 않습니다. 따라서 이 예에서는 DHCP 및 NAT가 있는 원격 PIX가 6.x 코드를 실행하는 PIX 501 또는 506으로 추정됩니다. 이 컨피그레이션을 사용하면 중앙 PIX가 동적 IPsec 연결을 수락할 수 있습니다. 원격 PIX는 NAT를 사용하여 NAT를 뒤에 있는 개인 주소 지정 장치를 중앙 PIX 뒤에 있는 개인 주소 지정 네트워크에 연결합니다. 원격 PIX는 중앙 PIX에 대한 연결을 시작할 수 있지만(엔드포인트를 아는 경우) 중앙 PIX는 원격 PIX에 대한 연결을 시작할 수 없습니다(엔드포인트를 모르는 경우).

이 샘플 구성에서 Tiger는 원격 PIX이고 Lion은 중앙 PIX입니다. Tiger의 IP 주소를 알 수 없으므로 와일드카드 사전 공유 키를 알고 있는 곳에서 연결을 동적으로 허용하도록 Lion을 구성해야 합니다. Tiger는 어떤 트래픽이 암호화되는지(access-list에 의해 지정되기 때문) 및 Lion 엔드포인트가 어디에 있는지 알고 있습니다. Tiger가 연결을 시작해야 합니다. 양쪽 모두 IPsec 트래픽에 대해 NAT를 우회하기 위해 NAT 및 nat 0을 수행합니다.

또한 이 구성의 원격 사용자는 Cisco VPN Client 4.x를 사용하여 중앙 PIX(Lion)에 연결됩니다. 양측 모두 동적으로 IP 주소를 할당했으며 요청을 전송할 위치를 모르기 때문에 원격 사용자는 원격 PIX(Tiger)에 연결할 수 없습니다.

Cisco VPN Client 3.x를 사용하는 PIX 6.x에서 동일한 시나리오에 대한 자세한 내용은 [NAT 및](#)

[Cisco VPN Client](#)를 사용하여 [PIX Dynamic-to-Static IPsec](#)에 PIX 구성을 참조하십시오.

## [사전 요구 사항](#)

### [요구 사항](#)

이 문서에 대한 특정 요건이 없습니다.

### [사용되는 구성 요소](#)

이 문서의 정보는 다음 소프트웨어 및 하드웨어 버전을 기반으로 합니다.

- Cisco PIX Firewall Software 릴리스 7.x 이상(중앙 PIX)
- Cisco PIX Firewall Software 릴리스 6.3.4(원격 PIX)
- Cisco VPN Client 버전 4.x

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 표기 규칙을 참고하십시오](#).

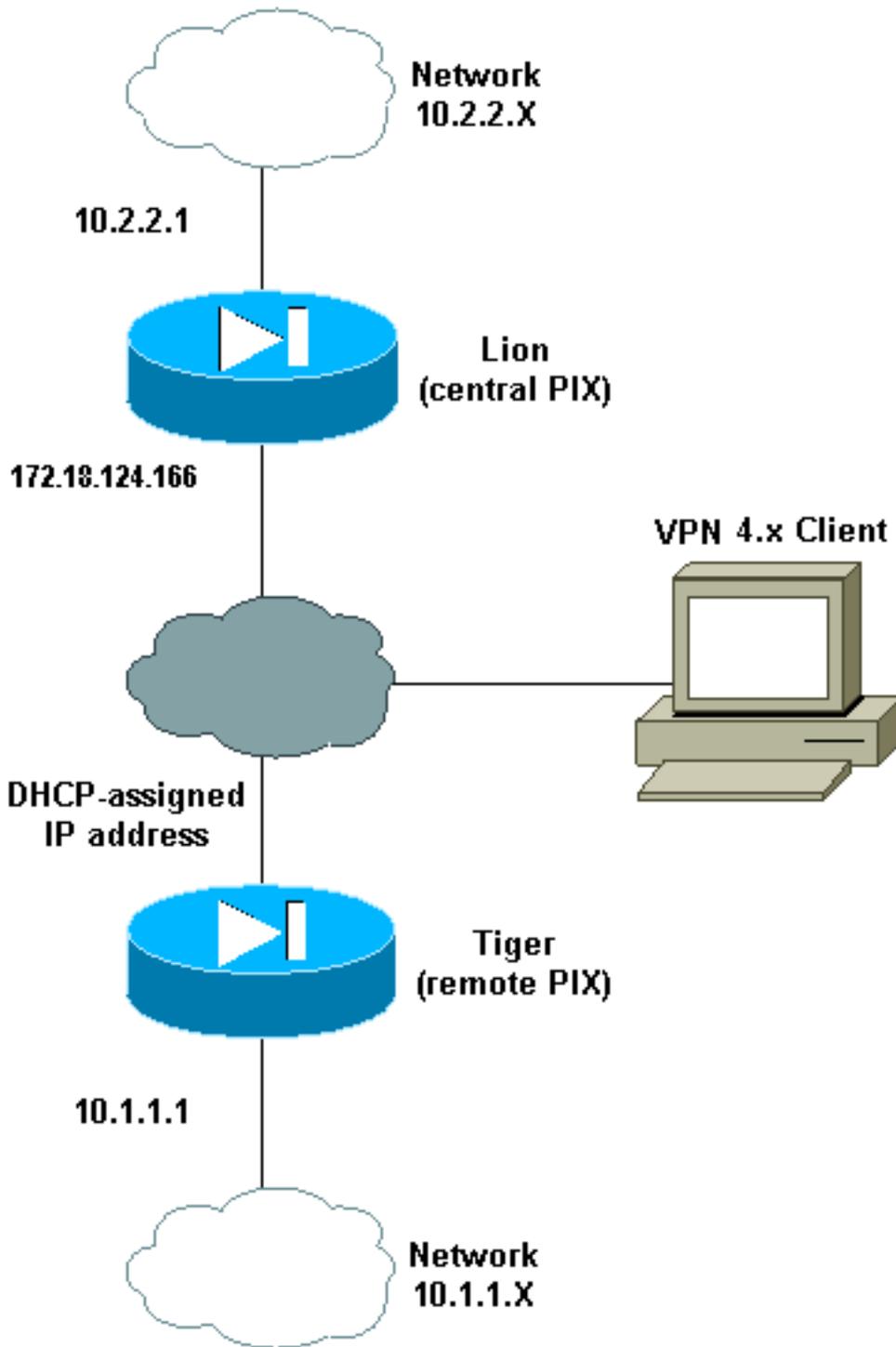
## [구성](#)

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.

- [사자](#)
- [타이거](#)

### 사자

```
PIX Version 7.0(0)
names
!
interface Ethernet0
 nameif outside
```

```
security-level 0
ip address 172.18.124.166 255.255.255.0
!
interface Ethernet1
 nameif inside
 security-level 100
 ip address 10.2.2.1 255.255.255.0
!
interface Ethernet2
 shutdown
 nameif intf2
 security-level 4
 no ip address
!
interface Ethernet3
 shutdown
 nameif intf3
 security-level 6
 no ip address
!
interface Ethernet4
 shutdown
 nameif intf4
 security-level 8
 no ip address
!
interface Ethernet5
 shutdown
 nameif intf5
 security-level 10
 no ip address
!
enable password 8Ry2YjIyt7RRXU24 encrypted
passwd 2KFQnbNIdI.2KYOU encrypted
hostname lion
domain-name cisco.com
boot system flash:/image.bin
ftp mode passive
access-list 100 extended permit ip 10.2.2.0
255.255.255.0 10.1.1.0 255.255.255.0
access-list 100 extended permit ip 10.2.2.0
255.255.255.0 10.3.3.0 255.255.255.0
pager lines 24
mtu outside 1500
mtu inside 1500
mtu intf2 1500
mtu intf3 1500
mtu intf4 1500
mtu intf5 1500
ip local pool clientpool 10.3.3.1-10.3.3.10
no failover
monitor-interface outside
monitor-interface inside
monitor-interface intf2
monitor-interface intf3
monitor-interface intf4
monitor-interface intf5
asdm image flash:/asdm-501.bin
asdm history enable
arp timeout 14400
nat-control
global (outside) 1 interface
nat (inside) 0 access-list 100
nat (inside) 1 0.0.0.0 0.0.0.0
```

```
route outside 0.0.0.0 0.0.0.0 172.18.124.1 1
timeout xlate 3:00:00
timeout conn 1:00:00 half-closed 0:10:00 udp 0:02:00
icmp 0:00:02
timeout sunrpc 0:10:00 h323 0:05:00 h225 1:00:00 mgcp
0:05:00
timeout mgcp-pat 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
group-policy unityclient internal
group-policy unityclient attributes
wins-server value 10.1.1.3
dns-server value 10.1.1.3
vpn-idle-timeout 30
default-domain value cisco.com
user-authentication disable
username cisco password 3USUcOPFUiMC04Jk encrypted
http server enable
http 0.0.0.0 0.0.0.0 outside
http 0.0.0.0 0.0.0.0 inside
no snmp-server location
no snmp-server contact
snmp-server community public
snmp-server enable traps snmp
crypto ipsec transform-set myset esp-des esp-md5-hmac
crypto dynamic-map cisco 1 set transform-set myset
crypto map dyn-map 20 ipsec-isakmp dynamic cisco
crypto map dyn-map interface outside
isakmp enable outside
isakmp policy 20 authentication pre-share
isakmp policy 20 encryption des
isakmp policy 20 hash md5
isakmp policy 20 group 2
isakmp policy 20 lifetime 3600
isakmp policy 65535 authentication pre-share
isakmp policy 65535 encryption 3des
isakmp policy 65535 hash sha
isakmp policy 65535 group 2
isakmp policy 65535 lifetime 86400
telnet timeout 5
ssh timeout 5
ssh version 1
console timeout 0
tunnel-group DefaultL2LGroup type ipsec-l2l
tunnel-group DefaultL2LGroup general-attributes
authentication-server-group none
tunnel-group DefaultL2LGroup ipsec-attributes
pre-shared-key *
tunnel-group unityclient type ipsec-ra
tunnel-group unityclient general-attributes
address-pool clientpool
authentication-server-group none
default-group-policy unityclient
tunnel-group unityclient ipsec-attributes
pre-shared-key *
!
class-map inspection_default
match default-inspection-traffic
!
!
policy-map global_policy
class inspection_default
inspect dns maximum-length 512
```

```
inspect ftp
inspect h323 h225
inspect h323 ras
inspect http
inspect netbios
inspect rsh
inspect rtsp
inspect skinny
inspect esmtp
inspect sqlnet
inspect sunrpc
inspect tftp
inspect sip
inspect xdmcp
!
service-policy global_policy global
Cryptochecksum:4e20a2153437d60c7f01054808d41b42
: end
```

## 타이거

```
PIX Version 6.3(4)
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 tiger
domain-name cisco.com
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 10.1.1.0 255.255.255.0
10.2.2.0 255.255.255.0
pager lines 24
mtu outside 1500
mtu inside 1500
mtu intf2 1500
mtu intf3 1500
mtu intf4 1500
mtu intf5 1500
!--- This command configures the outside interface !---
as a DHCP client and it is assumed that the IP address
```

```
!--- 172.18.124.167 is assigned by the DHCP server. ip
address outside dhcp ip address inside 10.1.1.1
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 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 nat (inside)
0 access-list 101 route outside 0.0.0.0 0.0.0.0
172.18.124.1 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 TACACS+ max-
failed-attempts 3 aaa-server TACACS+ deadtime 10 aaa-
server RADIUS protocol radius aaa-server RADIUS max-
failed-attempts 3 aaa-server RADIUS deadtime 10 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 newmap 10 ipsec-isakmp
crypto map newmap 10 match address 101 crypto map newmap
10 set peer 172.18.124.166 crypto map newmap 10 set
transform-set myset crypto map newmap interface outside
isakmp enable outside isakmp key ***** address
172.18.124.166 netmask 255.255.255.255 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 3600 telnet timeout 5 ssh
timeout 5 console timeout 0 terminal width 80
Cryptochecksum:906331b1b1ca162ea53e951588efb070 : end
```

## 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.

**참고:** 컨피그레이션 모드에서 **clear** 명령을 수행해야 합니다.

- **clear crypto ipsec sa** - VPN 터널 협상 시도가 실패한 후 IPsec 연결을 재설정합니다.
- **clear crypto isakmp sa** - VPN 터널 협상을 실패한 후 ISAKMP(Internet Security Association and Key Management Protocol) 보안 연결을 재설정합니다.
- **show crypto engine ipsec** - 암호화된 세션을 표시합니다.

## 문제 해결

### 동일한 사전 공유 키

LAN-to-LAN(L2L) IPsec 터널이 설정되지 않은 경우 DefaultRAGroup에 대한 사전 공유 키와 DefaultL2LGroup에 대한 사전 공유 키가 동일한지 확인합니다. 이 경우 PIX/ASA가 먼저 DefaultRAGroup에서 터널을 종료하고 L2L 터널이 실패할 가능성이 높습니다. 두 기본 터널 그룹의

사전 공유 키가 서로 다른지 확인합니다.

## 문제 해결 명령

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

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

- **debug crypto ipsec** - 클라이언트가 VPN 연결의 IPsec 부분을 협상하는지 확인하는 데 사용됩니다.
- **debug crypto isakmp [level]** - 피어가 VPN의 ISAKMP 부분을 협상하는지 확인하는 데 사용됩니다.

## 올바른 디버그 출력 예

다음은 몇 가지 좋은 debug 명령 출력의 예입니다.

- [중앙 PIX\(7.0.0\)](#)
- [원격 PIX 동적 NAT\(6.3.4\)](#)
- [Central PIX 7.0의 VPN 클라이언트 4.0.5](#)

### 중앙 PIX(7.0.0)

```
lion(config)# 2nd try, on central PIX from remote PIXApr 05 16:48:31 [IKEv1 DEBUG]:
IP = 172.18.124.167, processing SA payload
Apr 05 16:48:31 [IKEv1 DEBUG]: IP = 172.18.124.167, Oakley proposal is acceptable
Apr 05 16:48:31 [IKEv1 DEBUG]: IP = 172.18.124.167, processing IKE SA
Apr 05 16:48:31 [IKEv1 DEBUG]: IP = 172.18.124.167, IKE SA Proposal # 1, Transform
# 1 acceptable Matches global IKE entry # 3
Apr 05 16:48:31 [IKEv1 DEBUG]: IP = 172.18.124.167, constructing ISA_SA for isakmp
Apr 05 16:48:31 [IKEv1 DEBUG]: IP = 172.18.124.167, constructing Fragmentation VID
+ extended capabilities payload
Apr 05 16:48:31 [IKEv1]: IP = 172.18.124.167, IKE DECODE SENDING Message (msgid=0)
with payloads : HDR + SA (1) + VENDOR (13) + NONE (0) total length : 104
Apr 05 16:48:32 [IKEv1]: IP = 172.18.124.167, IKE DECODE RECEIVED Message (msgid=0)
with payloads : HDR + KE (4) + NONCE (10) + VENDOR (13) + VENDOR (13) +VENDOR (13)
+ VENDOR (13) + NONE (0) total length : 256
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, processing ke payload
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, processing ISA_KE
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, processing nonce payload
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, processing VID payload
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, Received xauth V6 VID
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, processing VID payload
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, Received DPD VID
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, processing VID payload
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, Received Cisco Unity client VID
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, processing VID payload
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, Processing IOS/PIX Vendor ID
payload (version: 1.0.0, capabilities: 00000025)
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, constructing ke payload
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, constructing nonce payload
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, constructing Cisco Unity VID payload
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, constructing xauth V6 VID payload
Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, Send IOS VID
```

Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, Constructing ASA spoofing IOS Vendor ID payload (version: 1.0.0, capabilities: 20000001)

Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, constructing VID payload

Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, Send Altiga/Cisco VPN3000/Cisco ASA GW VID

Apr 05 16:48:32 [IKEv1]: IP = 172.18.124.167, Connection landed on tunnel\_group DefaultL2LGroup

Apr 05 16:48:32 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, Generating keys for Responder...

Apr 05 16:48:32 [IKEv1]: IP = 172.18.124.167, IKE DECODE SENDING Message (msgid=0) with payloads : HDR + KE (4) + NONCE (10) + VENDOR (13) + VENDOR (13) + VENDOR (13) + VENDOR (13) + NONE (0) total length : 256

Apr 05 16:48:32 [IKEv1]: IP = 172.18.124.167, IKE DECODE RECEIVED Message (msgid=0) with payloads : HDR + ID (5) + HASH (8) + NONE (0) total length : 71

Apr 05 16:48:32 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, Processing ID

Apr 05 16:48:32 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, processing hash

Apr 05 16:48:32 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, computing hash

Apr 05 16:48:32 [IKEv1]: IP = 172.18.124.167, Connection landed on tunnel\_group DefaultL2LGroup

Apr 05 16:48:32 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, constructing ID

Apr 05 16:48:32 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, construct hash payload

Apr 05 16:48:32 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, computing hash

Apr 05 16:48:32 [IKEv1 DEBUG]: IP = 172.18.124.167, Constructing IOS keep alive payload: proposal=32767/32767 sec.

Apr 05 16:48:32 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, constructing dpd vid payload

Apr 05 16:48:32 [IKEv1]: IP = 172.18.124.167, IKE DECODE SENDING Message (msgid=0) with payloads : HDR + ID (5) + HASH (8) + IOS KEEPALIVE (14) + VENDOR (13) + NONE (0) total length : 102

Apr 05 16:48:33 [IKEv1]: IP = 172.18.124.167, IKE DECODE RECEIVED Message (msgid=ba80c56e) with payloads : HDR + HASH (8) + NOTIFY (11) + NONE (0) total length : 76

Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, processing hash

Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, Processing Notify payload

Apr 05 16:48:33 [IKEv1]: Received unexpected event EV\_ACTIVATE\_NEW\_SA in state MM\_TM\_INIT\_MODECFG\_H

Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, Delay Quick Mode processing, Cert/Trans Exch/RM DSID in progress

Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, Resume Quick Mode processing, Cert/Trans Exch/RM DSID completed

Apr 05 16:48:33 [IKEv1]: Group = DefaultL2LGroup, IP = 172.18.124.167, PHASE 1COMPLETED

Apr 05 16:48:33 [IKEv1]: IP = 172.18.124.167, Keep-alive type for this connection: DPD

Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, Starting phase 1 rekey timer: 3420000 (ms)

Apr 05 16:48:33 [IKEv1]: IP = 172.18.124.167, IKE DECODE RECEIVED Message (msgid=20c2120e) with payloads : HDR + HASH (8) + SA (1) + NONCE (10) + ID (5) + ID (5) + NONE (0) total length : 164

Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, processing hash

Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, processing SA payload

Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, processing nonce payload

Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167, Processing ID

Apr 05 16:48:33 [IKEv1]: Group = DefaultL2LGroup, IP = 172.18.124.167,

```
Received remote IP Proxy Subnet data in ID Payload:  Address 10.1.1.0,
Mask 255.255.255.0, Protocol 0, Port 0
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
Processing ID
Apr 05 16:48:33 [IKEv1]: Group = DefaultL2LGroup, IP = 172.18.124.167,
Received local IP Proxy Subnet data in ID Payload:  Address 10.2.2.0,
Mask 255.255.255.0, Protocol 0, Port 0
Apr 05 16:48:33 [IKEv1]: QM IsRekeyed old sa not found by addr
Apr 05 16:48:33 [IKEv1]: Group = DefaultL2LGroup, IP = 172.18.124.167,
IKE Remote Peer configured for SA: cisco
Apr 05 16:48:33 [IKEv1]: Group = DefaultL2LGroup, IP = 172.18.124.167,
processing IPSEC SA
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
IPSec SA Proposal # 1, Transform # 1 acceptable  Matches global IPsec SA entry # 1
Apr 05 16:48:33 [IKEv1]: Group = DefaultL2LGroup, IP = 172.18.124.167,
IKE: requesting SPI!
Apr 05 16:48:33 [IKEv1 DEBUG]: IKE got SPI from key engine: SPI = 0xd5243861
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
oakley constructing quick mode
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
constructing blank hash
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
constructing ISA_SA for ipsec
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
constructing ipsec nonce payload
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
constructing proxy ID
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
Transmitting Proxy Id:
Remote subnet: 10.1.1.0 Mask 255.255.255.0 Protocol 0 Port 0
Local subnet: 10.2.2.0 mask 255.255.255.0 Protocol 0 Port 0
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
constructing qm hash
Apr 05 16:48:33 [IKEv1]: IP = 172.18.124.167, IKE DECODE SENDING Message
(msgid=20c2120e) with payloads : HDR + HASH (8) + SA (1) + NONCE (10) +
ID (5) + ID (5) + NONE (0) total length : 164
Apr 05 16:48:33 [IKEv1]: IP = 172.18.124.167, IKE DECODE RECEIVED Message
(msgid=20c2120e) with payloads : HDR + HASH (8) + NONE (0) total length : 48
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
processing hash
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
loading all IPSEC SAs
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
Generating Quick Mode Key!
Apr 05 16:48:33 [IKEv1 DEBUG]: Group = DefaultL2LGroup, IP = 172.18.124.167,
Generating Quick Mode Key!
Apr 05 16:48:33 [IKEv1]: Group = DefaultL2LGroup, IP = 172.18.124.167,
Security negotiation complete for User (DefaultL2LGroup) Responder,
Inbound SPI = 0xd5243861, Outbound SPI = 0x7bb1lead
Apr 05 16:48:33 [IKEv1 DEBUG]: IKE got a KEY_ADD msg for SA: SPI = 0x7bb1lead
Apr 05 16:48:33 [IKEv1 DEBUG]: pitcher: rcv KEY_UPDATE, spi 0xd5243861
Apr 05 16:48:33 [IKEv1]: Group = DefaultL2LGroup, IP = 172.18.124.167,
PHASE 2 COMPLETED (msgid=20c2120e)
```

### [원격 PIX 동적 NAT\(6.3.4\)](#)

```
tiger(config)#
ISAKMP (0): beginning Main Mode exchange

crypto_isakmp_process_block:src:172.18.124.166, dest:172.18.124.167 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 (basic) of 3600
ISAKMP (0): atts are acceptable. Next payload is 0
ISAKMP (0): processing vendor id payload

ISAKMP (0): SA is doing pre-shared key authentication using id type
ID_FQDN return status is IKMP_NO_ERROR
crypto_isakmp_process_block:src:172.18.124.166, dest:172.18.124.167
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): processing vendor id payload
ISAKMP (0): received xauth v6 vendor id
ISAKMP (0): processing vendor id payload
ISAKMP (0): speaking to another IOS box!
ISAKMP (0): processing vendor id payload
ISAKMP (0): speaking to a VPN3000 concentrator
ISAKMP (0): ID payload
      next-payload : 8
      type          : 2
      protocol      : 17
      port          : 500
      length        : 19
ISAKMP (0): Total payload length: 23
return status is IKMP_NO_ERROR
crypto_isakmp_process_block:src:172.18.124.166, dest:172.18.124.167 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): processing vendor id payload

ISAKMP (0): remote peer supports dead peer detection

ISAKMP (0): SA has been authenticated

ISAKMP (0): beginning Quick Mode exchange, M-ID of 549589518:20c2120eIPSEC(key_engine):
got a queue event...
IPSEC(spi_response): getting spi 0x7bb1lead(2075205293) for SA
      from 172.18.124.166 to 172.18.124.167 for prot 3

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:172.18.124.166/500 Total VPN Peers:1
VPN Peer: ISAKMP: Peer ip:172.18.124.166/500 Ref cnt incremented to:1 Total VPN Peers:1
crypto_isakmp_process_block:src:172.18.124.166, dest:172.18.124.167 spt:500 dpt:500
OAK_QM exchange
oakley_process_quick_mode:
OAK_QM_IDLE
ISAKMP (0): processing SA payload. message ID = 549589518

ISAKMP : Checking IPsec proposal 1

ISAKMP: transform 1, ESP_DES
ISAKMP:      attributes in transform:
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:      encaps is 1
ISAKMP:      authenticator is HMAC-MD5
ISAKMP (0):  atts are acceptable.IPSEC(validate_proposal_request): proposal part #1,
(key eng. msg.) dest= 172.18.124.166, src= 172.18.124.167,
  dest_proxy= 10.2.2.0/255.255.255.0/0/0 (type=4),
  src_proxy= 10.1.1.0/255.255.255.0/0/0 (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 = 549589518

ISAKMP (0):  processing ID payload. message ID = 549589518
ISAKMP (0):  processing ID payload. message ID = 549589518
ISAKMP (0):  Creating IPsec SAs
  inbound SA from 172.18.124.166 to 172.18.124.167 (proxy 10.2.2.0 to 10.1.1.0)
  has spi 2075205293 and conn_id 1 and flags 4
  lifetime of 28800 seconds
  lifetime of 4608000 kilobytes
  outbound SA from 172.18.124.167 to 172.18.124.166 (proxy 10.1.1.0 to 10.2.2.0)
  has spi 3575920737 and conn_id 2 and flags 4
  lifetime of 28800 seconds
  lifetime of 4608000 kilobytesIPSEC(key_engine): got a queue event...
IPSEC(initialize_sas): ,
(key eng. msg.) dest= 172.18.124.167, src= 172.18.124.166,
  dest_proxy= 10.1.1.0/255.255.255.0/0/0 (type=4),
  src_proxy= 10.2.2.0/255.255.255.0/0/0 (type=4),
  protocol= ESP, transform= esp-des esp-md5-hmac ,
  lifedur= 28800s and 4608000kb,
  spi= 0x7bb1lead(2075205293), conn_id= 1, keysize= 0, flags= 0x4IPSEC(initialize_sas): ,
(key eng. msg.) src= 172.18.124.167, dest= 172.18.124.166,
  src_proxy= 10.1.1.0/255.255.255.0/0/0 (type=4),
  dest_proxy= 10.2.2.0/255.255.255.0/0/0 (type=4),
  protocol= ESP, transform= esp-des esp-md5-hmac ,
  lifedur= 28800s and 4608000kb,
  spi= 0xd5243861(3575920737), conn_id= 2, keysize= 0, flags= 0x4

VPN Peer: IPSEC: Peer ip:172.18.124.166/500 Ref cnt incremented to:2 Total VPN Peers:1
VPN Peer: IPSEC: Peer ip:172.18.124.166/500 Ref cnt incremented to:3 Total VPN Peers:1
return status is IKMP_NO_ERROR

```

## [Central PIX 7.0의 VPN 클라이언트 4.0.5](#)

```

lion(config)# Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, processing SA payload
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, processing ke payload
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, processing ISA_KE
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, processing nonce payload
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, Processing ID
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, processing VID payload
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, Received xauth V6 VID
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, processing VID payload
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, Received DPD VID
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, processing VID payload
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, Received NAT-Traversal ver02 VID
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, processing VID payload
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, Received Fragmentation VID
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, IKE Peer included IKE fragmentation
  capability flags:  Main Mode:      True Aggressive Mode: False
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, processing VID payload
Apr 05 16:49:56 [IKEv1 DEBUG]: IP = 64.102.51.191, Received Cisco Unity client VID
Apr 05 16:49:56 [IKEv1]: IP = 64.102.51.191, Connection landed on tunnel_group unityclient
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191, processing IKE SA

```

```
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191, IKE SA Proposal # 1,
Transform # 14 acceptable Matches global IKE entry # 3
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191, constructing ISA_SA
for isakmp
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing ke payload
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing nonce payload
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Generating keys for Responder...
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing ID
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
construct hash payload
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
computing hash
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing Cisco Unity VID payload
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing xauth V6 VID payload
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing dpd vid payload
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing Fragmentation VID + extended capabilities payload
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing VID payload
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Send Altiga/Cisco VPN3000/Cisco ASA GW VID
Apr 05 16:49:56 [IKEv1]: IP = 64.102.51.191, IKE DECODE SENDING Message
(msgid=0) with payloads : HDR + SA (1) + KE (4) + NONCE (10) + ID (5) +
HASH (8) + VENDOR (13) + VENDOR (13) + VENDOR (13) + VENDOR (13) + VENDOR
(13) + NONE (0) total length : 378
Apr 05 16:49:56 [IKEv1]: IP = 64.102.51.191, IKE DECODE RECEIVED Message
(msgid=0) with payloads : HDR + HASH (8) + NOTIFY (11) + VENDOR (13) +
VENDOR (13) + NONE (0) total length : 116
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191, processing hash
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191, computing hash
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Processing Notify payload
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
processing VID payload
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Processing IOS/PIX Vendor ID payload (version: 1.0.0, capabilities: 00000408)
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
processing VID payload
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Received Cisco Unity client VID
Apr 05 16:49:56 [IKEv1]: IP = 64.102.51.191, IKE DECODE RECEIVED Message
(msgid=a0bb428) with payloads : HDR + HASH (8) + ATTR (14) + NONE (0)
total length: 196
Apr 05 16:49:56 [IKEv1 DEBUG]: process_attr(): Enter!
Apr 05 16:49:56 [IKEv1 DEBUG]: Processing cfg Request attributes
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE_CFG: Received request for IPV4 address!
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE_CFG: Received request for IPV4 net mask!
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE_CFG: Received request for DNS server address!
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE_CFG: Received request for WINS server address!
Apr 05 16:49:56 [IKEv1]: Group = unityclient, IP = 64.102.51.191, Received
unsupported transaction mode attribute: 5
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE_CFG: Received request for Banner!
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE_CFG: Received request for Save PW setting!
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE_CFG: Received request for Default Domain Name!
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE_CFG: Received request for Split Tunnel List!
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE_CFG: Received request for Split DNS!
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE_CFG: Received request for PFS setting!
```

Apr 05 16:49:56 [IKEv1 DEBUG]: MODE\_CFG: Received request for backup ip-sec peer list!  
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE\_CFG: Received request for Application Version!  
Apr 05 16:49:56 [IKEv1]: Group = unityclient, IP = 64.102.51.191, Client Type: WinNT  
Client Application Version: 4.0.5 (Rel)  
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE\_CFG: Received request for FWTYPE!  
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE\_CFG: Received request for DHCP hostname  
for DDNS is: tthotus-xp!  
Apr 05 16:49:56 [IKEv1 DEBUG]: MODE\_CFG: Received request for UDP Port!  
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
constructing blank hash  
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
constructing qm hash  
Apr 05 16:49:56 [IKEv1]: IP = 64.102.51.191, IKE DECODE SENDING Message  
(msgid=a0bb428) with payloads : HDR + HASH (8) + ATTR (14) + NONE (0)  
total length : 157  
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
Delay Quick Mode processing, Cert/Trans Exch/RM DSID in progress  
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
Resume Quick Mode processing, Cert/Trans Exch/RM DSID completed  
Apr 05 16:49:56 [IKEv1]: Group = unityclient, IP = 64.102.51.191, PHASE 1 COMPLETED  
Apr 05 16:49:56 [IKEv1]: IP = 64.102.51.191, Keep-alive type for this connection: DPD  
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
Starting phase 1 rekey timer: 3420000 (ms)  
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
sending notify message  
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
constructing blank hash  
Apr 05 16:49:56 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
constructing qm hash  
Apr 05 16:49:56 [IKEv1]: IP = 64.102.51.191, IKE DECODE SENDING Message  
(msgid=9be7674c) with payloads : HDR + HASH (8) + NOTIFY (11) + NONE  
(0) total length : 84  
Apr 05 16:49:57 [IKEv1]: IP = 64.102.51.191, IKE DECODE RECEIVED Message  
(msgid=833e7945) with payloads : HDR + HASH (8) + SA (1) + NONCE (10)  
+ ID (5) + ID (5) + NONE (0) total length : 1022  
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191, processing hash  
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
processing SA payload  
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
processing nonce payload  
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191, Processing ID  
Apr 05 16:49:57 [IKEv1]: Group = unityclient, IP = 64.102.51.191,  
Received remote Proxy Host data in ID Payload: Address 10.3.3.1, Protocol 0, Port 0  
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191, Processing ID  
Apr 05 16:49:57 [IKEv1]: Group = unityclient, IP = 64.102.51.191,  
Received local IP Proxy Subnet data in ID Payload: Address 0.0.0.0,  
Mask 0.0.0.0, Protocol 0, Port 0  
Apr 05 16:49:57 [IKEv1]: QM IsRekeyed old sa not found by addr  
Apr 05 16:49:57 [IKEv1]: Group = unityclient, IP = 64.102.51.191,  
IKE Remote Peer configured for SA: cisco  
Apr 05 16:49:57 [IKEv1]: Group = unityclient, IP = 64.102.51.191,  
processing IPSEC SA  
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
IPSecSA Proposal # 14, Transform # 1 acceptable Matches global IPsec SA entry # 1  
Apr 05 16:49:57 [IKEv1]: Group = unityclient, IP = 64.102.51.191, IKE: requesting SPI!  
Apr 05 16:49:57 [IKEv1 DEBUG]: IKE got SPI from key engine: SPI = 0x05953824  
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
oakley constructing quick mode  
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
constructing blank hash  
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
constructing ISA\_SA for ipsec  
Apr 05 16:49:57 [IKEv1]: Group = unityclient, IP = 64.102.51.191,  
Overriding Initiator's IPsec rekeying duration from 2147483 to 28800 seconds

```
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing ipsec nonce payload
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing proxy ID
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Transmitting Proxy Id:
    Remote host: 10.3.3.1 Protocol 0 Port 0
    Local subnet: 0.0.0.0 mask 0.0.0.0 Protocol 0 Port 0
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Sending RESPONDER LIFETIME notification to Initiator
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing qm hash
Apr 05 16:49:57 [IKEv1]: IP = 64.102.51.191, IKE DECODE SENDING Message
(msgid=833e7945) with payloads : HDR + HASH (8) + SA (1) + NONCE (10)
+ ID (5) + ID (5) + NOTIFY (11) + NONE (0) total length : 176
Apr 05 16:49:57 [IKEv1]: IP = 64.102.51.191, IKE DECODE RECEIVED Message
(msgid=833e7945) with payloads : HDR + HASH (8) + NONE (0) total length : 48
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
processing hash
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
loading all IPSEC SAs
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Generating Quick Mode Key!
Apr 05 16:49:57 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Generating Quick Mode Key!
Apr 05 16:49:57 [IKEv1]: Group = unityclient, IP = 64.102.51.191,
Security negotiation complete for User (unityclient) Responder,
Inbound SPI = 0x05953824, Outbound SPI = 0xd08c6486
Apr 05 16:49:57 [IKEv1 DEBUG]: IKE got a KEY_ADD msg for SA: SPI = 0xd08c6486
Apr 05 16:49:57 [IKEv1 DEBUG]: pitcher: rcv KEY_UPDATE, spi 0x5953824
Apr 05 16:49:57 [IKEv1]: Group = unityclient, IP = 64.102.51.191,
Adding static route for client address: 10.3.3.1
Apr 05 16:49:57 [IKEv1]: Group = unityclient, IP = 64.102.51.191, PHASE 2 COMP
LETED (msgid=833e7945)
Apr 05 16:50:07 [IKEv1]: IP = 64.102.51.191, IKE DECODE RECEIVED Message
(msgid=403ee701) with payloads : HDR + HASH (8) + NOTIFY (11) + NONE
(0) total length : 80
Apr 05 16:50:07 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
processing hash
Apr 05 16:50:07 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Processing Notify payload
Apr 05 16:50:07 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Received keep-alive of type DPD R-U-THERE (seq number 0x4b55b6e4)
Apr 05 16:50:07 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Sending keep-alive of type DPD R-U-THERE-ACK (seq number 0x4b55b6e4)
Apr 05 16:50:07 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing blank hash
Apr 05 16:50:07 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing qm hash
Apr 05 16:50:07 [IKEv1]: IP = 64.102.51.191, IKE DECODE SENDING Message
(msgid=78998a29) with payloads : HDR + HASH (8) + NOTIFY (11) + NONE
(0) total length : 80
Apr 05 16:50:17 [IKEv1]: IP = 64.102.51.191, IKE DECODE RECEIVED Message
(msgid=dba719e9) with payloads : HDR + HASH (8) + NOTIFY (11) + NONE (0)
total length : 80
Apr 05 16:50:17 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191, processing hash
Apr 05 16:50:17 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Processing Notify payload
Apr 05 16:50:17 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Received keep-alive of type DPD R-U-THERE (seq number 0x4b55b6e5)
Apr 05 16:50:17 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
Sending keep-alive of type DPD R-U-THERE-ACK (seq number 0x4b55b6e5)
Apr 05 16:50:17 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,
constructing blank hash
```

Apr 05 16:50:17 [IKEv1 DEBUG]: Group = unityclient, IP = 64.102.51.191,  
constructing qm hash  
Apr 05 16:50:17 [IKEv1]: IP = 64.102.51.191, IKE DECODE SENDING Message  
(msgid=40456779) with payloads : HDR + HASH (8) + NOTIFY (11) + NONE  
(0) total length : 80

## 관련 정보

- [Cisco ASA 5500 Series Adaptive Security Appliances 제품 지원](#)
- [Cisco PIX 방화벽 소프트웨어](#)
- [Cisco Secure PIX Firewall 명령 참조](#)
- [보안 제품 필드 알림\(PIX 포함\)](#)
- [RFC\(Request for Comments\)](#)
- [기술 지원 및 문서 - Cisco Systems](#)