採用NAT和VPN客戶端的PIX/ASA 7.x PIX到PIX動態到靜態IPsec配置示例

目錄

簡介

在大多數情況下，連線到中央PIX的遠端PIX不使用網路地址轉換(NAT)。 相反，遠端PIX使用靜態外部IP地址。在運行7.x及更高版本的中央PIX使用NAT連線到遠端PIX的例項中，它與小型家庭辦公室（例如PIX 501或506）相同，後者使用動態主機控制協定(DHCP)連線到電纜或DSL數據機。PIX 7.x及更高版本以及Cisco自適應安全裝置管理器(ASDM)不在PIX 501或506上運行。因此，在本示例中，帶DHCP和NAT的遠端PIX被假定是運行6.x代碼的PIX 501或506。此配置使中央PIX能夠接受動態IPsec連線。遠端PIX使用NAT將其背後的私有編址裝置加入中央PIX背後的私有編址網路。遠端PIX可以啟動與中央PIX的連線（它知道端點），但中央PIX無法啟動與遠端PIX的連線（它不知道端點）。

在此示例配置中，Tiger是遠端PIX，Lion是中央PIX。由於Tiger的IP地址未知，您必須將Lion配置為動態接受來自任何位置的連線，同時瞭解萬用字元預共用金鑰。Tiger知道將加密哪些流量（因為訪問清單已指定）以及Lion終端的位置。Tiger必須啟動連線。兩端都執行NAT和nat 0以繞過IPsec流量的NAT。

此外，此配置中的遠端使用者使用Cisco VPN Client 4.x連線到中央PIX(Lion)。遠端使用者無法連線到遠端PIX(Tiger)，因為兩端都動態分配了IP地址，並且不知道將請求傳送到何處。

請參閱使用NAT和Cisco VPN客戶端配置PIX到PIX動態到靜態IPsec，以瞭解有關使用Cisco VPN客戶端3.x的PIX 6.x中相同方案的詳細資訊。

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：

- Cisco PIX防火牆軟體版本7.x及更高版本（中央PIX）
- Cisco PIX防火牆軟體版本6.3.4（遠端PIX）
- Cisco VPN使用者端版本4.x

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。

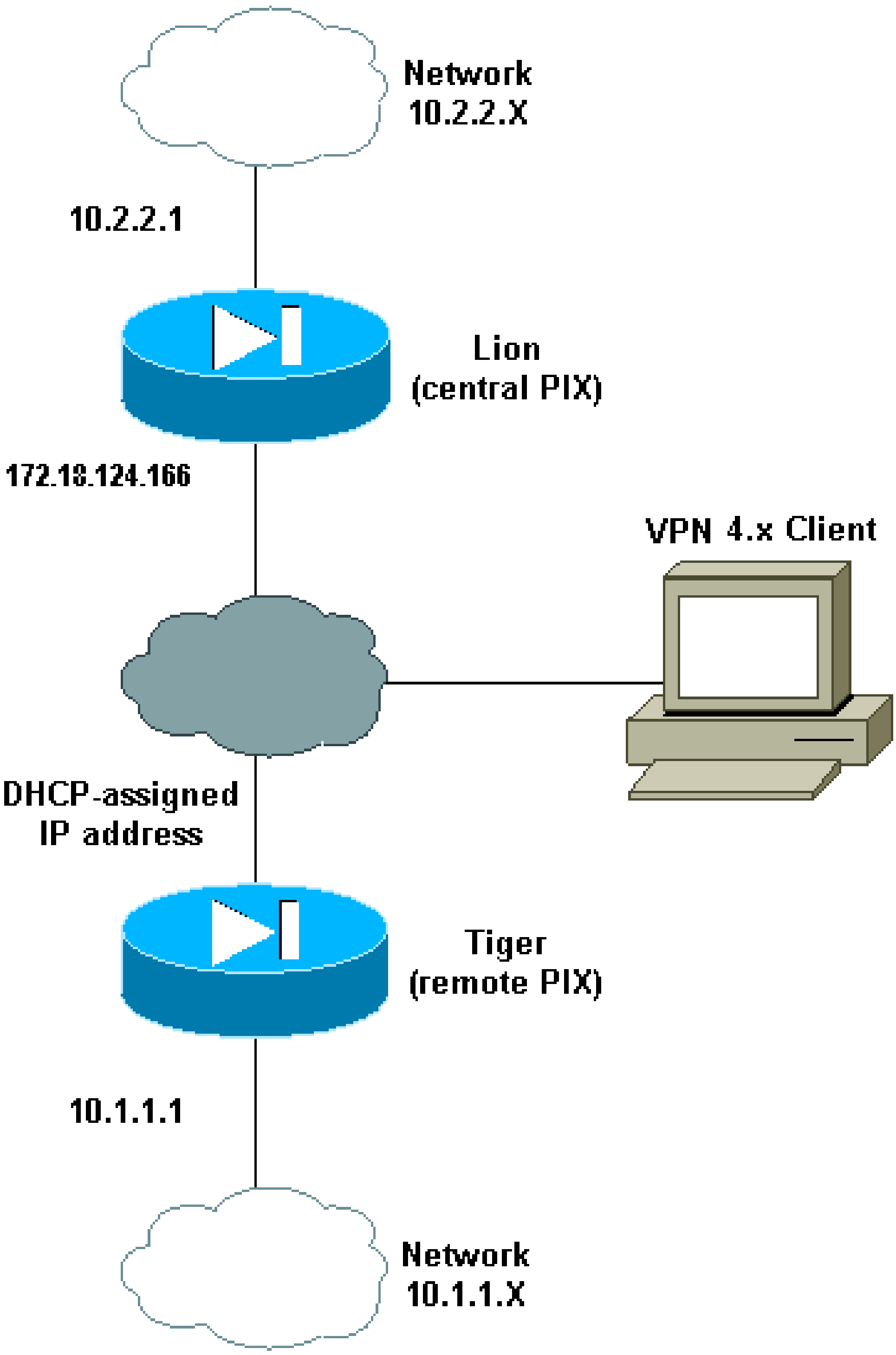
設定

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(僅供已註冊客戶使用)可獲取本節中使用的命令的詳細資訊。

網路圖表

本檔案會使用以下網路設定：



組態

本檔案會使用以下設定：

- 獅子
- 老虎

獅子
```
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 3USUcOPFUiMCO4Jk 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
```

老虎

```
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
```

驗證

使用本節內容，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。

注意：您必須在配置模式下執行**clear**命令。

- **clear crypto ipsec sa** — 在嘗試協商VPN隧道失敗後重置IPsec關聯。
- **clear crypto isakmp sa** — 在嘗試協商VPN隧道失敗後重置Internet安全關聯和金鑰管理協定(ISAKMP)安全關聯。
- **show crypto engine ipsec** — 顯示加密會話。

疑難排解

相同的預共用金鑰

如果未建立LAN到LAN(L2L)IPsec隧道，請檢查DefaultRAGroup的預共用金鑰和DefaultL2LGroup的預共用金鑰是否相同。如果是這種情況，則PIX/ASA首先終止DefaultRAGroup上的隧道，然後L2L隧道可能會失敗。請確定兩個預設隧道組的預共用金鑰不同。

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。

- **debug crypto ipsec** — 用於檢視客戶端是否協商VPN連線的IPsec部分。
- **debug crypto isakmp *[level]*** — 用於檢視對等體是否協商VPN的ISAKMP部分。

良好的調試輸出示例

以下是一些良好的**debug**指令輸出的範例：

- 中央PIX(7.0.0)
- 遠端PIX動態NAT(6.3.4)
- 中央PIX 7.0上的VPN客戶端4.0.5

中央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 (msg
id=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 constucting 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 = 0x7bb11ead
Apr 05 16:48:33 [IKEv1 DEBUG]: IKE got a KEY_ADD msg for SA: SPI = 0x7bb11ead
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)
```

遠端PIX動態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 0x7bb11ead(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= 0x7bb11ead(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
```

中央PIX 7.0上的VPN客戶端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 constucting 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
```

相關資訊

- Cisco ASA 5500系列自適應安全裝置產品支援
- Cisco PIX防火牆軟體
- Cisco Secure PIX防火牆命令參考
- 安全產品現場通知（包括PIX）
- 要求建議 (RFC)
- 技術支援與文件 - Cisco Systems