# LAN-to-LAN und EzVPN-Client auf PIX mit VPN-Client-Zugriff auf einen Hub-Router unter Verwendung von ISAKMP-Profilkonfigurationsbeispiel

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# **Einführung**

Dieses Dokument enthält eine Beispielkonfiguration für die Konfiguration von IPsec-Tunneln mithilfe von ISAKMP-Profilen auf einem Hub-Router mit zwei PIX-Remote-Standorten. Ein PIX-Remote-Standort besteht aus LAN-to-LAN und der andere aus der Konfiguration des EzVPN-Remote-Zugriffsmodus. Der Hub-Router ist für die lokale Authentifizierung der EzVPN-Tunnel und die RADIUS-Authentifizierung für den Software-VPN-Client konfiguriert.

# Voraussetzungen

Anforderungen

Für dieses Dokument bestehen keine speziellen Anforderungen.

# Verwendete Komponenten

Die Informationen in diesem Dokument basieren auf den folgenden Software- und Hardwareversionen:

- Cisco Secure PIX Firewall Appliance 501 mit 6.3(3)
- Cisco Router 1750 mit Cisco IOS® Softwareversion 12.3.9a
- Cisco Secure PIX Firewall Appliance 506 mit 6.3(3)
- Cisco VPN-Client, der 4.0 (Rel) ausführt (Benutzerauthentifizierung über RADIUS-Server)

Die Informationen in diesem Dokument wurden von den Geräten in einer bestimmten Laborumgebung erstellt. Alle in diesem Dokument verwendeten Geräte haben mit einer leeren (Standard-)Konfiguration begonnen. Wenn Ihr Netzwerk in Betrieb ist, stellen Sie sicher, dass Sie die potenziellen Auswirkungen eines Befehls verstehen.

# Konventionen

Weitere Informationen zu Dokumentkonventionen finden Sie in den <u>Cisco Technical Tips</u> <u>Conventions</u> (Technische Tipps zu Konventionen von Cisco).

# Konfigurieren

In diesem Abschnitt erhalten Sie Informationen zum Konfigurieren der in diesem Dokument beschriebenen Funktionen.

**Hinweis:** Verwenden Sie das <u>Command Lookup Tool</u> (nur <u>registrierte</u> Kunden), um weitere Informationen zu den in diesem Dokument verwendeten Befehlen zu erhalten.

# **Netzwerkdiagramm**

In diesem Dokument wird die folgende Netzwerkeinrichtung verwendet:



# **Konfigurationen**

In diesem Dokument werden folgende Konfigurationen verwendet:

- VPN 1750-Hub-Router
- PIX-501 LAN-zu-LAN
- PIX-506-B EzVPN-Client
- VPN-Client

# VPN 1750-Hub-Router

```
version 12.3
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname VPN1750
!--- Local authentication username and password, for
```

EzVPN Client. username jerry password 0 wells123
username disco nassword () letmein
! Enable AAA. aaa new-model
!
!
I Default local login, and authentication login
Acfault logal
delault local
! RADIUS authentication for VPN Client. aaa
authentication login userauth group radius local
! Local authentication for EzVPN Client. aaa
authentication login EZVPN local
asa authorization exec default local
to a low with emiration for WDN Client
! Local group authorization for VPN Cilent. aaa
authorization network groupauthor local
! Local authorization for EzVPN Client. aaa
authorization network EZVPN local
ass session-id common
in subnot sono
1
!
ip domain name cisco.com
!
ip cef
in audit no max-events 100
ip dutte po man evenes 100
Verming enception for Phage 1 authentication
! Keyring specification for Phase 1 authentication.
crypto keyring vpn
pre-shared-key address 172.18.124.196 key cisco123
!
! Specify ISAKMP policy. crypto isakmp policy 20
encr 3des
hash mdE
authentication pre-snare
group 2
!
! EzVPN Client configuration that specifies the
group, key and IP pool to use. crypto isakmp client
configuration grown nolo
Key mark123
pool ezpool
!
! VPN Client configuration that specifies the group,
key and IP pool to use. crypto isakmp client
configuration group tennis
Los not showing
domain cisco.com
pool vpnpool
! ISAKMP profile specification for LAN-to-LAN. crypto
isakmp profile 121vpn
kevring von
match identity address 172.18.124.196 255.255.255.255
Match Identity address 1/2.10.124.190 255.255.255.255
! ISAKMP profile specification for EZVPN Client.
crypto isakmp profile ezvpnprofile
mater identity energy note

```
client authentication list EZVPN
isakmp authorization list EZVPN
client configuration address respond
!--- ISAKMP profile specification for software VPN
Client. crypto isakmp profile softclient
match identity group tennis
client authentication list userauth
isakmp authorization list groupauthor
client configuration address respond
!
1
!--- Set tranform-set. crypto ipsec transform-set pix501
esp-3des esp-sha-hmac
crypto ipsec transform-set vpnclient esp-3des esp-sha-
hmac
crypto ipsec transform-set ezvpn esp-3des esp-md5-hmac
!
!--- Specify crypto map set and ISAKMP profile for VPN
Client. crypto dynamic-map rtpmap 10
set transform-set vpnclient
set isakmp-profile softclient
!--- Specify crypto map set and ISAKMP profile for EzVPN
Client. crypto dynamic-map rtpmap 20
set transform-set ezvpn
set isakmp-profile ezvpnprofile
crypto map rtp 5 ipsec-isakmp dynamic rtpmap
!--- Specify crypto map set and ISAKMP profile for LAN-
to-LAN. crypto map rtp 10 ipsec-isakmp
set peer 172.18.124.196
set transform-set pix501
set isakmp-profile 121vpn
match address 101
!
interface Ethernet0
ip address 192.168.40.1 255.255.255.0
interface FastEthernet0
ip address 172.18.124.195 255.255.255.0
speed auto
!--- Apply crypto map on the outside interface. crypto
map rtp
1
!--- VPN Client pool addresses. ip local pool vpnpool
10.50.50.1 10.50.50.10
!--- EzVPN Client pool addresses. ip local pool ezpool
172.25.70.1 172.25.70.10
ip classless
ip route 0.0.0.0 0.0.0.0 172.18.124.1
1
!--- Encryption access-list applied to the crypto map.
```

access-list 101 permit ip 192.168.40.0 0.0.0.255

## 192.168.10.0 0.0.0.255 1 !--- Define ACS server for VPN Client user authentication. radius-server host 192.168.40.5 authport 1645 acct-port 1646 key cisco123 ! line con 0 exec-timeout 0 0 line aux 0 line vty 0 4 1 end PIX-501 - LAN-zu-LAN PIX Version 6.3(3) interface ethernet0 auto interface ethernet1 100full nameif ethernet0 outside security0 nameif ethernet1 inside security100 enable password 8Ry2YjIyt7RRXU24 encrypted passwd 2KFQnbNIdI.2KYOU encrypted hostname **PIX-501** 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 !--- Encryption access-list for interesting traffic to be encrypted. access-list 101 permit ip 192.168.10.0 255.255.255.0 192.168.40.0 255.255.255.0 !--- NAT 0 access-list for encryption traffic to bypass NAT process. access-list nonat permit ip 192.168.10.0 255.255.255.0 192.168.40.0 255.255.255.0 pager lines 24 mtu outside 1500 mtu inside 1500 ip address outside 172.18.124.196 255.255.255.0 ip address inside 192.168.10.1 255.255.255.0 ip audit info action alarm ip audit attack action alarm pdm history enable arp timeout 14400 global (outside) 1 interface !--- Bypass NAT for IPsec traffic. nat (inside) 0 access-list nonat nat (inside) 1 192.168.10.0 255.255.255.0 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 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
floodguard enable
!--- This command avoids applied ACLs or conduits on
encrypted packets. sysopt connection permit-ipsec
!--- Configuration of IPsec Phase 2. crypto ipsec
transform-set fox esp-3des esp-sha-hmac
crypto map fox 10 ipsec-isakmp
crypto map fox 10 match address 101
crypto map fox 10 set peer 172.18.124.195
crypto map fox 10 set transform-set fox
crypto map fox interface outside
!--- Configuration of IPsec Phase 1. isakmp enable
outside
!--- IKE pre-shared key used by peers to authenticate.
isakmp key ******** address 172.18.124.195 netmask
255.255.255.255
isakmp identity address
isakmp policy 10 authentication pre-share
isakmp policy 10 encryption 3des
isakmp policy 10 hash md5
isakmp policy 10 group 2
isakmp policy 10 lifetime 86400
telnet timeout 5
ssh timeout 5
console timeout 0
terminal width 80
Cryptochecksum:9e09996cdf390036841e71da006ba1f1
: end
PIX-506-B - EzVPN-Client
PIX Version 6.3(3)
interface ethernet0 auto
interface ethernet1 auto
nameif ethernet0 outside security0
nameif ethernet1 inside security100
enable password 8Ry2YjIyt7RRXU24 encrypted
passwd 2KFQnbNIdI.2KYOU encrypted
hostname PIX-506-B
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
pager lines 24
mtu outside 1500
mtu inside 1500
!--- Define IP addresses for the PIX's inside and
outside interfaces. ip address outside 172.18.124.197
255.255.255.0
ip address inside 192.168.30.1 255.255.255.0
ip audit info action alarm
ip audit attack action alarm
pdm history enable
arp timeout 14400
global (outside) 1 interface
nat (inside) 1 192.168.30.0 255.255.255.0 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 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
floodguard enable
sysopt connection permit-ipsec
crypto ipsec transform-set tiger esp-3des esp-md5-hmac
telnet timeout 5
ssh timeout 5
console timeout 0
!--- Define the EzVPN server IP address. vpnclient
server 172.18.124.195
!--- Specify the mode to be used (client-mode or Network
Extension Mode). vpnclient mode client-mode
!--- Define EzVPN connection parameters. vpnclient
vpngroup polo password *******
vpnclient username jerry password *******
!--- Enable VPN Client on the PIX. vpnclient enable
terminal width 80
Cryptochecksum:1bb41de13c5e15537a50cb1f39f131b9
: end
```

# **VPN-Client-Konfiguration**

Führen Sie diese Schritte aus, um den VPN-Client zu konfigurieren.

1. Starten Sie den VPN-Client, und erstellen Sie eine neue Verbindung mit den erforderlichen Verbindungsparametern.

Description:					
Authentication	Transport Backup Servers Dial-Up				
Group Auther	itication				
Name:	tennis				
Password:	******	******			
Confirm Passw	ord:  ********				
C Certificate Au	thentication				
Mamor		~			
iname.					

 Wenn der Verbindungsvertrag erstellt wurde, klicken Sie auf Verbinden und authentifizieren Sie sich mit den auf dem RADIUS-Server konfigurierten Benutzerparametern.

CISCO SYSTEMS	Username:	ggeorge
	Password:	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

# <u>Überprüfen</u>

Dieser Abschnitt enthält Informationen, mit denen Sie überprüfen können, ob Ihre Konfiguration ordnungsgemäß funktioniert. Weitere Informationen zur zusätzlichen Überprüfung/Fehlerbehebung finden Sie unter <u>IP Security Troubleshooting - Understanding and Using debug Commands</u> (IP-Sicherheitsfehlerbehebung - Grundlagen und Verwenden von Debugbefehlen). Wenn Probleme oder Fehler beim VPN-Client auftreten, verwenden Sie das <u>Tool</u> zur <u>Fehlersuche in der Benutzeroberfläche des VPN-Clients</u>.

Bestimmte show-Befehle werden vom Output Interpreter Tool unterstützt (nur registrierte Kunden),

mit dem Sie eine Analyse der show-Befehlsausgabe anzeigen können.

- show crypto isakmp profile: Zeigt alle ISAKMP-Profile und deren Konfigurationen auf dem Router an.
- show crypto isakmp key: Zeigt alle Keyrings und deren vorinstallierte Schlüssel an. Verwenden Sie diesen Befehl, um Ihre Verschlüsselungsschlüsselkonfiguration auf dem Router zu überprüfen.
- debug crypto ipsec: Zeigt Informationen über IPsec SA-Aushandlungen auf dem Router an.
- debug crypto isakmp: Zeigt die erstellte ISAKMP SA und die ausgehandelten IPsec-Attribute an. Während der ISAKMP SA-Aushandlung kann der PIX mehrere Vorschläge als "nicht akzeptabel" verwerfen, bevor sie angenommen werden. Sobald die ISAKMP SA vereinbart ist, werden die IPsec-Attribute ausgehandelt.

# LAN-to-LAN-Debugging auf dem VPN 1750-Hub-Router unter Verwendung von Debug crypto isakmp und Debug crypto ipsec

```
May 11 20:44:51.370: ISAKMP (0:0): received packet
                              from 172.18.124.196 dport 500 sport 500 Global
                              (N) NEW SA
May 11 20:44:51.370: ISAKMP: local port 500, remote port 500
May 11 20:44:51.370: ISAKMP: insert sa successfully sa = 81789610
May 11 20:44:51.374: ISAKMP (0:1): Input = IKE_MESG_FROM_PEER, IKE_MM_EXCH
May 11 20:44:51.374: ISAKMP (0:1): Old State = IKE_READY New State = IKE_R_MM1
May 11 20:44:51.374: ISAKMP (0:1): processing SA payload. message ID = 0
May 11 20:44:51.374: ISAKMP: Looking for a matching key for 172.18.124.196
                            in default
May 11 20:44:51.374: ISAKMP: Looking for a matching key for 172.18.124.196
                             in vpn : success
May 11 20:44:51.374: ISAKMP (0:1): found peer pre-shared key matching
                           172.18.124.196
May 11 20:44:51.378: ISAKMP (0:1) local preshared key found
May 11 20:44:51.378: ISAKMP : Scanning profiles for xauth ... l2lvpn ezvpnprofile
May 11 20:44:51.378: ISAKMP (0:1) Authentication by xauth preshared
May 11 20:44:51.378: ISAKMP (0:1): Checking ISAKMP transform 1 against
                            priority 20 policy
May 11 20:44:51.378: ISAKMP: encryption 3DES-CBC
May 11 20:44:51.378: ISAKMP: hash MD5
May 11 20:44:51.378: ISAKMP: default group 2
May 11 20:44:51.378: ISAKMP: auth pre-share
May 11 20:44:51.378: ISAKMP: life type in seconds
May 11 20:44:51.378: ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80
May 11 20:44:51.382: ISAKMP (0:1): atts are acceptable. Next payload is 0
   !--- Phase 1 proposal accepted. May 11 20:44:51.598: ISAKMP (0:1): Input = IKE_MESG_INTERNAL,
IKE_PROCESS_MAIN_MODE May 11 20:44:51.598: ISAKMP (0:1): Old State = IKE_R_MM1 New State =
IKE_R_MM1 May 11 20:44:51.602: ISAKMP (0:1): sending packet to 172.18.124.196 my_port 500
peer port 500 (R) MM SA SETUP May 11 20:44:51.602: ISAKMP (0:1): Input = IKE MESG INTERNAL,
IKE PROCESS COMPLETE May 11 20:44:51.602: ISAKMP (0:1): Old State = IKE R MM1 New State =
IKE_R_MM2 May 11 20:44:52.130: ISAKMP (0:1): received packet from 172.18.124.196 dport 500 sport
500 Global (R) MM_SA_SETUP May 11 20:44:52.130: ISAKMP (0:1): Input = IKE_MESG_FROM_PEER,
IKE_MM_EXCH May 11 20:44:52.130: ISAKMP (0:1): Old State = IKE_R_MM2 New State = IKE_R_MM3
..... May 11 20:44:52.954: ISAKMP (0:1): processing ID payload. message ID = 0 May 11
20:44:52.954: ISAKMP (0:1): ID payload next-payload : 8 type : 1 address : 172.18.124.196
protocol : 17 port : 500 length : 12 May 11 20:44:52.958: ISAKMP (0:1): peer matches 121vpn
```

### profile

!--- ISAKMP profile is matched in the router for LAN-to-LAN configuration. May 11 20:44:52.958: ISAKMP: Looking for a matching key for 172.18.124.196 in default May 11 20:44:52.958: ISAKMP:

## Looking for a matching key for 172.18.124.196

in vpn : success

### New State = IKE\_P1\_COMPLETE

!--- Phase 1 negotiations completed. .... May 11 20:44:53.002: ISAKMP (0:1): Checking IPSec proposal 1 May 11 20:44:53.002: ISAKMP: transform 1, ESP\_3DES May 11 20:44:53.002: ISAKMP: attributes in transform: May 11 20:44:53.002: ISAKMP: encaps is 1 (Tunnel) May 11 20:44:53.002: ISAKMP: SA life type in seconds May 11 20:44:53.002: ISAKMP: SA life duration (basic) of 28800 May 11 20:44:53.002: ISAKMP: SA life type in kilobytes May 11 20:44:53.002: ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 May 11 20:44:53.002: ISAKMP: authenticator is HMAC-SHA May 11 20:44:53.006: ISAKMP (0:1): atts are acceptable.

!--- Phase 2 proposal accepted. May 11 20:44:53.006: IPSEC(validate\_proposal\_request): proposal
part #1, (key eng. msg.) INBOUND local= 172.18.124.195, remote= 172.18.124.196,

### local\_proxy= 192.168.40.0/255.255.255.0/0/0 (type=4), remote proxy= 192.168.10.0/255.255.255.0/0/0 (type=4),

!--- Encryption access-list verification process. protocol= ESP, transform= esp-3des esp-shahmac (Tunnel), lifedur= 0s and 0kb, spi= 0x0(0), conn\_id= 0, keysize= 0, flags= 0x2 ... May 11 20:44:53.282: IPSEC(create\_sa): sa created, (sa) sa\_dest= 172.18.124.195, sa\_prot= 50,

sa\_spi= 0xFBFA852C(4227499308),

sa\_trans= esp-3des esp-sha-hmac , sa\_conn\_id= 2000

May 11 20:44:53.282: IPSEC(create\_sa): sa created,

(sa) sa\_dest= 172.18.124.196, sa\_prot= 50,

sa\_spi= 0x79EFEFCE(2045767630),

### sa\_trans= esp-3des esp-sha-hmac , sa\_conn\_id= 2001

!--- SAs are created with connection IDs. May 11 20:44:53.290: ISAKMP (0:1): received packet from 172.18.124.196 dport 500 sport 500 Global (R) QM\_IDLE !--- Tunnel has been established. May 11 20:44:53.294: ISAKMP (0:1): deleting node 156512779 error FALSE reason "quick mode done (await)" May 11 20:44:53.294: ISAKMP (0:1): Node 156512779, Input = IKE\_MESG\_FROM\_PEER, IKE\_QM\_EXCH May 11 20:44:53.294: ISAKMP (0:1): Old State = IKE\_QM\_R\_QM2

### New State = IKE\_QM\_PHASE2\_COMPLETE

!--- Phase 2 negotiations complete.

Debuggen von EzVPN-Clientverbindungen mithilfe von Debug-Crypto isakmp und Debuggen von crypto ipsec

matching key for 172.18.124.197 in default May 11 20:55:47.274: ISAKMP: Looking for a matching key for 172.18.124.197 in vpn May 11 20:55:47.274: ISAKMP: Created a peer struct for 172.18.124.197, peer port 500 May 11 20:55:47.274: ISAKMP: Looking peer struct 0x81791484, IKE refcount 1 for crypto\_ikmp\_config\_initialize\_sa ... May 11 20:55:47.282: ISAKMP (0:2): Checking ISAKMP transform 1 against

!--- ISAKMP policies are checked. May 11 20:55:47.282: ISAKMP: encryption AES-CBC May 11 20:55:47.282: ISAKMP: keylength of 256 May 11 20:55:47.282: ISAKMP: hash SHA May 11 20:55:47.282: ISAKMP: default group 2 May 11 20:55:47.282: ISAKMP: auth XAUTHInitPreShared May 11 20:55:47.282: ISAKMP: life type in seconds May 11 20:55:47.282: ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80 May 11 20:55:47.282: ISAKMP (0:2): Encryption algorithm offered does not match policy! May 11 20:55:47.286: ISAKMP (0:2): atts are not acceptable. Next payload is 3 ... May 11 20:55:47.306: ISAKMP (0:2): Checking ISAKMP transform 8 against

```
priority 20 policy
```

May 11 20:55:47.306: ISAKMP: encryption 3DES-CBC

```
May 11 20:55:47.306: ISAKMP: hash MD5
```

```
May 11 20:55:47.306: ISAKMP: default group 2
May 11 20:55:47.306: ISAKMP: auth XAUTHInitPreShared
May 11 20:55:47.306: ISAKMP: life type in seconds
```

May 11 20:55:47.310: ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80

May 11 20:55:47.310: ISAKMP (0:2): atts are acceptable. Next payload is 3

!--- Phase 1 attributes are validated. May 11 20:55:47.530: ISAKMP (0:2): processing KE payload. message ID = 0 May 11 20:55:47.798: ISAKMP (0:2): processing NONCE payload. message ID = 0 May 11 20:55:47.802: ISAKMP (0:2): vendor ID is NAT-T v3 May 11 20:55:47.802: ISAKMP (0:2): vendor ID is NAT-T v2 May 11 20:55:47.802: ISAKMP (0:2): Input = IKE MESG FROM PEER, IKE AM EXCH May 11 20:55:47.802: ISAKMP (0:2): Old State = IKE\_READY New State = IKE\_R\_AM\_AAA\_AWAIT May 11 20:55:47.806: ISAKMP: got callback 1 May 11 20:55:47.810: ISAKMP (0:2): SKEYID state generated May 11 20:55:47.810: ISAKMP (0:2): constructed NAT-T vendor-03 ID May 11 20:55:47.810: ISAKMP (0:2): SA is doing pre-shared key authentication plus XAUTH using id type ID\_IPV4\_ADDR May 11 20:55:47.814: ISAKMP (0:2): ID payload next-payload : 10 type : 1 address : 172.18.124.195 protocol : 17 port : 0 length : 12 May 11 20:55:47.814: ISAKMP (2): Total payload length: 12 May 11 20:55:47.814: ISAKMP (0:2): sending packet to 172.18.124.197 my\_port 500 peer\_port 500 (R) AG\_INIT\_EXCH May 11 20:55:47.814: ISAKMP (0:2): Input = IKE\_MESG\_FROM\_AAA, PRESHARED\_KEY\_REPLY May 11 20:55:47.818: ISAKMP (0:2): Old State = IKE\_R\_AM\_AAA\_AWAIT New State = IKE\_R\_AM2 May 11 20:55:49.114: ISAKMP (0:2): received packet from 172.18.124.197 dport 500 sport 500 Global (R) AG\_INIT\_EXCH May 11 20:55:49.114: ISAKMP:received payload type 20 May 11 20:55:49.118: ISAKMP:received payload type 20 May 11 20:55:49.118: ISAKMP (0:2): processing HASH payload. message ID = 0 May 11 20:55:49.118: ISAKMP (0:2): processing NOTIFY INITIAL\_CONTACT protocol 1 spi 0, message ID = 0, sa = 81797590 May 11 20:55:49.118: ISAKMP (0:2): SA authentication status: authenticated

!--- Phase 1 has been authenticated. May 11 20:55:49.118: ISAKMP (0:2): Process initial contact, bring down existing phase 1 and 2 SA's with local 172.ication status: authenticated May 11 20:55:49.122: ISAKMP (0:2): SA has been authenticated with 172.18.124.197 May 11 20:55:49.122: ISAKMP: Trying to insert a peer 172.18.124.195/172.18.124.197/500/, and inserted successfully. May 11 20:55:49.126: ISAKMP: set new node 1554218001 to CONF\_XAUTH

!--- User authentication phase starts. May 11 20:55:49.126: ISAKMP (0:2): sending packet to 172.18.124.197 my\_port 500 peer\_port 500 (R) QM\_IDLE May 11 20:55:49.126: ISAKMP (0:2): purging node 155421800118.124.195 remote 172.18.124.197 remote port 500 May 11 20:55:49.130: ISAKMP (0:2): Input = IKE\_MESG\_FROM\_PEER, IKE\_AM\_EXCH May 11 20:55:49.130: ISAKMP (0:2): Old State = IKE\_R\_AM2 New State = IKE\_P1\_COMPLETE May 11 20:55:49.130: ISAKMP (0:2): Need XAUTH May 11 20:55:49.130: ISAKMP (0:2): FSM action returned error: 4 May 11 20:55:49.134: ISAKMP (0:2): Input = IKE\_MESG\_INTERNAL, IKE\_PHASE1\_COMPLETE May 11 20:55:49.134: ISAKMP (0:2): Old State = IKE\_P1\_COMPLETE New State = IKE\_XAUTH\_AAA\_START\_LOGIN\_AWAIT

May 11 20:55:49.134: ISAKMP: got callback 1 May 11 20:55:49.134: ISAKMP: set new node -1233989434 to CONF\_XAUTH May 11 20:55:49.134: ISAKMP/xauth: request attribute XAUTH\_USER\_NAME\_V2 !--- Username request. May 11 20:55:49.134: ISAKMP/xauth: request attribute

### XAUTH\_USER\_PASSWORD\_V2

!--- Password request. May 11 20:55:49.138: ISAKMP (0:2): initiating peer config to 172.18.124.197. ID = -1233989434 May 11 20:55:49.138: ISAKMP (0:2): sending packet to 172.18.124.197 my\_port 500 peer\_port 500 (R) CONF\_XAUTH ... May 11 20:55:51.278: ISAKMP: got callback 1 May 11 20:55:51.278: ISAKMP (0:2): attributes sent in message: May 11 20:55:51.278: Address: 240.2.112.2 May 11 20:55:51.282: ISAKMP (0:2): allocating address 172.25.70.6 !--- IP address assigned to EzVPN Client from the address pool. May 11 20:55:51.282: ISAKMP: Sending private address: 172.25.70.6 May 11 20:55:51.286: ISAKMP: Sending APPLICATION\_VERSION string: Cisco Internetwork Operating System Software IOS (tm) C1700 Software (C1700-K903SY7-M), Version 12.3(9a), RELEASE SOFTWARE (fc4) Copyright (c) 1986-2004 by cisco Systems, Inc. Compiled Fri 23-Jul-04 02:20 by kellythw May 11 20:55:51.286: ISAKMP (0:2): responding to peer config

from 172.18.124.197. ID = -591421152 May 11 20:55:51.290: ISAKMP (0:2): sending packet to 172.18.124.197 my\_port 500 peer\_port 500 (R) CONF\_ADDR May 11 20:55:51.290: ISAKMP (0:2): deleting node -591421152 error FALSE reason "" May 11 20:55:51.290: ISAKMP (0:2): Input = IKE\_MESG\_FROM\_AAA, IKE\_AAA\_GROUP\_ATTR May 11 20:55:51.290: ISAKMP (0:2): Old State = IKE\_CONFIG\_AUTHOR\_AAA\_AWAIT New State = IKE\_P1\_COMPLETE May 11 20:55:51.294: ISAKMP (0:2): Input = IKE\_MESG\_INTERNAL, IKE\_PHASE1\_COMPLETE May 11 20:55:51.294: ISAKMP (0:2): Old State = IKE\_P1\_COMPLETE New State = IKE\_P1\_COMPLETE May 11 20:55:53.102: ISAKMP (0:2): received packet from 172.18.124.197 dport 500 sport 500 Global (R) QM\_IDLE May 11 20:55:53.102: ISAKMP: set new node -183955662 to QM\_IDLE ... May 11 20:55:53.178: ISAKMP (0:2): IPSec policy invalidated proposal May 11 20:55:53.178: ISAKMP (0:2): Checking IPSec proposal 8 May 11 20:55:53.178: ISAKMP: transform 1, ESP\_3DES May 11 20:55:53.178: ISAKMP: attributes in transform: May 11 20:55:53.178: ISAKMP: encaps is 1 (Tunnel) May 11 20:55:53.178: ISAKMP: SA life type in seconds May 11 20:55:53.182: ISAKMP: SA life duration (basic) of 28800 May 11 20:55:53.182: ISAKMP: SA life type in kilobytes May 11 20:55:53.182: ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 May 11 20:55:53.182: ISAKMP: authenticator is HMAC-MD5 May 11 20:55:53.182: ISAKMP (0:2): atts are acceptable.

!--- Proposals are validated. May 11 20:55:53.182: IPSEC(validate\_proposal\_request): proposal part #1, (key eng. msg.) INBOUND local= 172.18.124.195, remote= 172.18.124.197, local\_proxy= 0.0.0/0.0.0/0/0 (type=4), remote\_proxy= 172.25.70.6/255.255.255.255/0/0 (type=1), protocol= ESP, transform= esp-3des esp-md5-hmac (Tunnel), lifedur= 0s and 0kb, spi= 0x0(0), conn\_id= 0, keysize= 0, flags= 0x2 ... local\_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), remote\_proxy= 172.25.70.6/0.0.0.0/0/0 (type=1), protocol= ESP, transform= esp-3des esp-md5-hmac (Tunnel), lifedur= 28800s and 4608000kb, spi= 0x866452A1(2254721697), conn\_id= 2002, keysize= 0, flags= 0x2 May 11 20:55:53.458: IPSEC(initialize\_sas): , (key eng. msg.) OUTBOUND local= 172.18.124.195, remote= 172.18.124.197, local\_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), remote\_proxy= 172.25.70.6/0.0.0.0/0/0 (type=1), protocol= ESP, transform= esp-3des esp-md5-hmac (Tunnel), lifedur= 28800s and 4608000kb, spi= 0xCA8A5934(3398064436), conn\_id= 2003, keysize= 0, flags= 0xA May 11 20:55:53.458: IPSEC(kei\_proxy): head = rtp, map->ivrf = , kei->ivrf = May 11 20:55:53.458: IPSEC(kei\_proxy): head = rtp, map->ivrf = , kei->ivrf = May 11 20:55:53.462: IPSEC(kei\_proxy): head = rtp, map->ivrf = , kei->ivrf = May 11 20:55:53.462: IPSEC(add mtree): src 172.18.124.195, dest 172.25.70.6, dest\_port 0 May 11 20:55:53.462: IPSEC(create\_sa): sa created,

(sa) sa\_dest= 172.18.124.195, sa\_prot= 50, sa\_spi= 0x866452A1(2254721697), sa\_trans= esp-3des esp-md5-hmac , sa\_conn\_id= 2002 May 11 20:55:53.462: IPSEC(create\_sa): sa created, (sa) sa\_dest= 172.18.124.197, sa\_prot= 50, sa\_spi= 0xCA8A5934(3398064436),

### sa\_trans= esp-3des esp-md5-hmac , sa\_conn\_id= 2003

!--- Security Association Connection IDs. May 11 20:55:54.442: ISAKMP (0:2): received packet from 172.18.124.197 dport 500 sport 500 Global (R) QM\_IDLE May 11 20:55:54.446: ISAKMP (0:2): deleting node -183955662 error FALSE reason "quick mode done (await)" May 11 20:55:54.446: ISAKMP (0:2): Node -183955662, Input = IKE\_MESG\_FROM\_PEER, IKE\_QM\_EXCH May 11 20:55:54.446: ISAKMP (0:2): Old State = IKE\_QM\_R\_QM2 New State = IKE\_QM\_PHASE2\_COMPLETE May 11 20:55:54.446: IPSEC(key\_engine): got a queue event... May 11 20:55:54.446: IPSEC(key\_engine\_enable\_outbound): rec'd enable notify from ISAKMP May 11 20:55:54.446: IPSEC(key\_engine\_enable\_outbound): enable SA with spi 3398064436/50 for 172.18.124.197 May 11 20:55:57.450: ISAKMP (0:2): received packet from 172.18.124.197 dport 500 sport 500 Global (R) QM\_IDLE May 11 20:55:57.450: ISAKMP: set new node -1115155724 to QM\_IDLE May 11 20:55:57.454: ISAKMP (0:2): processing HASH payload. message ID = -1115155724 May 11 20:55:57.458: ISAKMP (0:2): processing SA payload. message ID = -1115155724 May 11 20:55:57.458: ISAKMP (0:2): Checking IPSec proposal 1 May 11 20:55:57.458: ISAKMP: transform 1, ESP\_AES May 11 20:55:57.458: ISAKMP: attributes in transform: May 11 20:55:57.458: ISAKMP: encaps is 1 (Tunnel) May 11 20:55:57.458: ISAKMP: SA life type in seconds May 11 20:55:57.458: ISAKMP: SA life duration (basic) of 28800 May 11 20:55:57.458: ISAKMP: SA life type in kilobytes May 11 20:55:57.458: ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 May 11 20:55:57.458: ISAKMP: authenticator is HMAC-SHA May 11 20:55:57.458: ISAKMP: key length is 256 May 11 20:55:57.462: ISAKMP (0:2): atts are acceptable. May 11 20:55:57.462: IPSEC(validate\_proposal\_request): proposal part #1, (key eng. msg.) INBOUND local= 172.18.124.195, remote= 172.18.124.197, local\_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), remote\_proxy= 172.18.124.197/255.255.255.255/0/0 (type=1), protocol= ESP, transform= esp-aes 256 esp-sha-hmac (Tunnel), lifedur= 0s and 0kb,

spi= 0x0(0), conn\_id= 0, keysize= 256, flags= 0x2

May 11 20:55:58.362: ISAKMP (0:2): sending packet to 172.18.124.197 my\_port 500 peer\_port 500 (R) **QM\_IDLE** 

!--- Confirmation of tunnel establisment. May 11 20:55:58.362: ISAKMP (0:2): Node -1115155724, Input = IKE\_MESG\_FROM\_IPSEC, IKE\_SPI\_REPLY May 11 20:55:59.438: ISAKMP (0:2): received packet from 172.18.124.197 dport 500 sport 500 Global (R) QM\_IDLE May 11 20:55:59.438: ISAKMP (0:2): deleting node -1115155724 error FALSE reason "quick mode done (await)" May 11 20:55:59.442: ISAKMP (0:2): Node -1115155724, Input = IKE\_MESG\_FROM\_PEER, IKE\_QM\_EXCH May 11 20:55:59.442: ISAKMP (0:2): Old State = IKE\_QM\_R\_QM2 New State = IKE\_QM\_PHASE2\_COMPLETE

# <u>VPN-Client-Debugger auf PIX-Ende mit Debug crypto isakmp und Debuggen von</u> crypto ipsec

May 11 21:16:52.154: ISAKMP (0:0): received packet from 172.18.173.80 dport 500 sport 500 Global (N) NEW SA

May 11 21:16:52.154: ISAKMP: local port 500, remote port 500

May 11 21:16:52.158: ISAKMP: insert sa successfully sa = 8179D054

May 11 21:16:52.158: ISAKMP (0:3): processing SA payload. message ID = 0

May 11 21:16:52.158: ISAKMP (0:3): processing ID payload. message ID = 0

May 11 21:16:52.158: ISAKMP (0:3): ID payload

next-payload : 13

type : 11

group id : tennis
protocol : 17
port : 500
length : 14

### May 11 21:16:52.158: ISAKMP (0:3): peer matches softclient profile

!--- ISAKMP profile match for VPN Software Clients. May 11 21:16:52.158: ISAKMP: Looking for a matching key for 172.18.173.80 in default May 11 21:16:52.158: ISAKMP: Looking for a matching key for 172.18.173.80 in vpn May 11 21:16:52.158: ISAKMP: Created a peer struct for 172.18.173.80, peer port 500 May 11 21:16:52.162: ISAKMP: Locking peer struct 0x81791484, IKE refcount 1 for crypto\_ikmp\_config\_initialize\_sa May 11 21:16:52.162: ISAKMP (0:3): Setting client config settings 81EEB340 May 11 21:16:52.162: ISAKMP (0:3): (Re)Setting client xauth list and state May 11 21:16:52.162: ISAKMP (0:3): processing vendor id payload May 11 21:16:52.162: ISAKMP (0:3): vendor ID seems Unity/DPD but major 215 mismatch May 11 21:16:52.162: ISAKMP (0:3): vendor ID is XAUTH May 11 21:16:52.162: ISAKMP (0:3): processing vendor id payload May 11 21:16:52.162: ISAKMP (0:3): vendor ID is DPD May 11 21:16:52.162: ISAKMP (0:3): processing vendor id payload May 11 21:16:52.166: ISAKMP (0:3): vendor ID seems Unity/DPD but major 123 mismatch May 11 21:16:52.166: ISAKMP (0:3): vendor ID is NAT-T v2 May 11 21:16:52.166: ISAKMP (0:3): processing vendor id payload May 11 21:16:52.166: ISAKMP (0:3): vendor ID seems Unity/DPD but major 194 mismatch May 11 21:16:52.166: ISAKMP (0:3): processing vendor id payload May 11 21:16:52.166: ISAKMP (0:3): vendor ID is Unity May 11 21:16:52.166: ISAKMP (0:3) Authentication by xauth preshared May 11 21:16:52.166: ISAKMP (0:3): Checking ISAKMP transform 1 against

priority 20 policy

!--- ISAKMP policy that matches against configured policy. May 11 21:16:52.166: ISAKMP: encryption AES-CBC May 11 21:16:52.170: ISAKMP: hash SHA May 11 21:16:52.170: ISAKMP: default group 2 May 11 21:16:52.170: ISAKMP: auth XAUTHInitPreShared May 11 21:16:52.170: ISAKMP: life type in seconds May 11 21:16:52.170: ISAKMP: life duration (VPI) of 0x0 0x20 0xC4 0x9B May 11 21:16:52.170: ISAKMP: keylength of 256 May 11 21:16:52.170: ISAKMP (0:3): Encryption algorithm offered does not match policy! May 11 21:16:52.170: ISAKMP (0:3): atts are not acceptable. Next payload is 3 .... May 11 21:16:52.198: ISAKMP (0:3): Checking ISAKMP transform 10 against priority 20 policy May 11 21:16:52.198: ISAKMP: encryption 3DES-CBC May 11 21:16:52.202: ISAKMP: hash MD5 May 11 21:16:52.202: ISAKMP: default group 2 May 11 21:16:52.202: ISAKMP: auth XAUTHInitPreShared May 11 21:16:52.202: ISAKMP: life type in seconds May 11 21:16:52.202: ISAKMP: life duration (VPI) of 0x0 0x20 0xC4 0x9B May 11 21:16:52.202: ISAKMP (0:3): atts are acceptable. Next payload is 3 May 11 21:16:52.418: ISAKMP (0:3): processing KE payload. message ID = 0 May 11 21:16:52.686: ISAKMP (0:3): processing NONCE payload. message ID = 0 May 11 21:16:52.690: ISAKMP (0:3): vendor ID is NAT-T v2 May 11 21:16:52.690: ISAKMP (0:3): Input = IKE\_MESG\_FROM\_PEER, IKE\_AM\_EXCH May 11 21:16:52.690: ISAKMP (0:3): Old State = IKE\_READY New State = IKE R AM AAA AWAIT May 11 21:16:52.694: ISAKMP: qot callback 1 May 11 21:16:52.698: ISAKMP (0:3): SKEYID state generated May 11 21:16:52.698: ISAKMP (0:3): constructed NAT-T vendor-02 ID May 11 21:16:52.702: ISAKMP (0:3): SA is doing pre-shared key authentication plus XAUTH using id type ID\_IPV4\_ADDR May 11 21:16:52.702: ISAKMP (0:3): ID payload next-payload : 10 type : 1 address : 172.18.124.195 protocol : 17 port : 0 length : 12 May 11 21:16:52.702: ISAKMP (3): Total payload length: 12 May 11 21:16:52.702: ISAKMP (0:3): sending packet to 172.18.173.80 my\_port 500 peer\_port 500 (R) AG\_INIT\_EXCH May 11 21:16:52.706: ISAKMP (0:3): Input = IKE\_MESG\_FROM\_AAA, PRESHARED\_KEY\_REPLY May 11 21:16:52.706: ISAKMP (0:3): Old State = IKE\_R\_AM\_AAA\_AWAIT New State = IKE\_R\_AM2 May 11 21:16:52.746: ISAKMP (0:3): received packet from 172.18.173.80 dport 500 sport 500 Global (R) AG\_INIT\_EXCH May 11 21:16:52.750: ISAKMP (0:3): processing HASH payload. message ID = 0 May 11 21:16:52.750: ISAKMP (0:3): processing NOTIFY INITIAL CONTACT protocol 1 spi 0, message ID = 0, sa = 8179D054 May 11 21:16:52.750: ISAKMP (0:3): SA authentication status: authenticated

!--- Phase 1 SAs are authenticated. May 11 21:16:52.750: ISAKMP (0:3): Process initial contact, bring down existing phase 1 and 2 SA's with local 172.18.124.195 remote 172.18.173.80 remote port 500 May 11 21:16:52.750: ISAKMP (0:3): returning IP addr to the address pool May 11 21:16:52.754: ISAKMP:received payload type 20 May 11 21:16:52.754: ISAKMP:received payload type 20 May 11 21:16:52.754: ISAKMP (0:3): SA authentication status: authenticated May 11 21:16:52.754: ISAKMP (0:3): SA has been authenticated with 172.18.173.80 May 11 21:16:52.754: ISAKMP: Trying to insert a peer 172.18.124.195/172.18.173.80/500/, and inserted successfully. May 11 21:16:52.758: IPSEC(key\_engine): got a queue event... May 11 21:16:52.758: ISAKMP: set new node -1991824466 to CONF\_XAUTH

!--- User Authentication phase starts. May 11 21:16:52.758: ISAKMP (0:3): sending packet to
172.18.173.80 my\_port 500 peer\_port 500 (R) QM\_IDLE May 11 21:16:52.762: ISAKMP (0:3): purging
node -1991824466 May 11 21:16:52.762: ISAKMP: Sending phase 1 responder lifetime 86400 May 11
21:16:52.762: ISAKMP (0:3): Input = IKE\_MESG\_FROM\_PEER, IKE\_AM\_EXCH May 11 21:16:52.762: ISAKMP
(0:3): Old State = IKE\_R\_AM2 New State = IKE\_P1\_COMPLETE May 11 21:16:52.762: ISAKMP (0:3): Need
XAUTH May 11 21:16:52.762: ISAKMP (0:3): FSM action returned error: 4 May 11 21:16:52.766:
ISAKMP (0:3): Input = IKE\_MESG\_INTERNAL, IKE\_PHASE1\_COMPLETE May 11 21:16:52.766: ISAKMP (0:3):
Old State = IKE\_P1\_COMPLETE New State = IKE\_XAUTH\_AAA\_START\_LOGIN\_AWAIT May 11 21:16:52.766:
ISAKMP: got callback 1 May 11 21:16:52.766: ISAKMP: set new node -1773462433 to CONF\_XAUTH May
11 21:16:52.766: ISAKMP/xauth: request attribute XAUTH\_USER\_NAME\_V2
!--- Requests user name. May 11 21:16:52.770: ISAKMP/xauth: request attribute

### XAUTH\_USER\_PASSWORD\_V2

!--- Requests user password. May 11 21:16:52.770: ISAKMP (0:3): initiating peer config to 172.18.173.80. ID = -1773462433 May 11 21:16:52.770: ISAKMP (0:3): sending packet to 172.18.173.80 my\_port 500 peer\_port 500 (R) CONF\_XAUTH May 11 21:16:52.770: ISAKMP (0:3): Input = IKE\_MESG\_FROM\_AAA, IKE\_AAA\_START\_LOGIN ... May 11 21:17:00.350: ISAKMP (0:3): Input = IKE\_MESG\_FROM\_PEER, IKE\_CFG\_REQUEST May 11 21:17:00.350: ISAKMP (0:3): Old State = IKE\_P1\_COMPLETE New State = IKE\_CONFIG\_AUTHOR\_AAA\_AWAIT May 11 21:17:00.434: ISAKMP: got callback 1 May 11 21:17:00.438: ISAKMP (0:3): attributes sent in message: May 11 21:17:00.438: Address: 0.2.0.0 May 11 21:17:00.438: ISAKMP (0:3): allocating address 10.50.50.2 !--- Allocates the IP address for software VPN Client from the client IP pool. May 11 21:17:00.438: ISAKMP: Sending private address: 10.50.50.2 May 11 21:17:00.442: ISAKMP: Sending ADDRESS\_EXPIRY seconds left to use the address: 86391 May 11 21:17:00.442: ISAKMP: Sending APPLICATION\_VERSION string: Cisco Internetwork Operating System Software IOS (tm) C1700 Software (C1700-K9O3SY7-M), Version 12.3(9a), RELEASE SOFTWARE (fc4) Copyright (c) 1986-2004 by cisco Systems, Inc. Compiled Fri 23-Jul-04 02:20 by kellythw May 11 21:17:00.442: ISAKMP (0/3): Unknown Attr: UNKNOWN (0x7008) May 11 21:17:00.446: ISAKMP (0/3): Unknown Attr: UNKNOWN (0x700A) May 11 21:17:00.446: ISAKMP (0/3): Unknown Attr: UNKNOWN (0x7005) May 11 21:17:00.446: ISAKMP (0:3): responding to peer config from 172.18.173.80. ID = 1330918554 May 11 21:17:00.450: ISAKMP (0:3): sending packet to 172.18.173.80 my\_port 500 peer\_port 500 (R) CONF\_ADDR May 11 21:17:00.450: ISAKMP (0:3): deleting node 1330918554 error FALSE reason "" May 11 21:17:00.450: ISAKMP (0:3): Input = IKE\_MESG\_FROM\_AAA, IKE\_AAA\_GROUP\_ATTR May 11 21:17:00.450: ISAKMP (0:3): Old State = IKE\_CONFIG\_AUTHOR\_AAA\_AWAIT New State = IKE\_P1\_COMPLETE May 11 21:17:00.454: ISAKMP (0:3): Input = IKE\_MESG\_INTERNAL, IKE\_PHASE1\_COMPLETE May 11 21:17:00.454: ISAKMP (0:3): Old State = IKE\_P1\_COMPLETE New State = IKE\_P1\_COMPLETE ... May 11 21:17:01.474: ISAKMP (0:3):

### Creating IPSec SAs

!--- Creation of IPsec Security Associations. May 11 21:17:01.474: inbound SA from 172.18.173.80 to 172.18.124.195 (f/i) 0/ 0 (proxy 10.50.50.2 to 0.0.0.0) May 11 21:17:01.474: has spi 0x1B139B2F and conn\_id 2000 and flags 2 May 11 21:17:01.474: lifetime of 2147483 seconds May 11 21:17:01.474: has client flags 0x0 May 11 21:17:01.474: outbound SA from 172.18.124.195 to 172.18.173.80 (f/i) 0/ 0 (proxy 0.0.0.0 to 10.50.50.2 ) May 11 21:17:01.474: has spi -895677582 and conn\_id 2001 and flags A May 11 21:17:01.474: lifetime of 2147483 seconds May 11 21:17:01.474: has client flags 0x0 May 11 21:17:01.478: ISAKMP (0:3): sending packet to 172.18.173.80 my\_port 500 peer\_port 500 (R) QM\_IDLE May 11 21:17:01.478: ISAKMP (0:3): Node 896912581, Input = IKE\_MESG\_FROM\_IPSEC, IKE\_SPI\_REPLY May 11 21:17:01.478: ISAKMP (0:3): Old State = IKE\_QM\_SPI\_STARVE New State = IKE\_QM\_R\_QM2 May 11 21:17:01.482: IPSEC(key\_engine): got a queue event... May 11 21:17:01.482: IPSEC(initialize\_sas): , (key eng. msg.) INBOUND local= 172.18.124.195, remote= 172.18.173.80, local\_proxy= 0.0.0.0/0.0.0/0/0 (type=4), remote\_proxy= 10.50.50.2/0.0.0.0/0/0 (type=1), protocol= ESP, transform= esp-3des esp-sha-hmac (Tunnel), lifedur= 2147483s and 0kb, spi= 0x1B139B2F(454269743), conn\_id= 2000, keysize= 0, flags= 0x2 May 11 21:17:01.482: IPSEC(initialize\_sas): , (key eng. msg.) OUTBOUND local= 172.18.124.195, remote= 172.18.173.80, local\_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), remote\_proxy= 10.50.50.2/0.0.0.0/0/0 (type=1), protocol= ESP, transform= esp-3des esp-sha-hmac (Tunnel), lifedur= 2147483s and 0kb, spi= 0xCA9D0B72(3399289714), conn\_id= 2001, keysize= 0, flags= 0xA May 11 21:17:01.486: IPSEC(kei\_proxy): head = rtp, map->ivrf = , kei->ivrf = May 11 21:17:01.486: IPSEC(kei\_proxy): head = rtp, map->ivrf = , kei->ivrf = May 11 21:17:01.486: IPSEC(add mtree): src 172.18.124.195, dest 10.50.50.2, dest\_port 0 May 11 21:17:01.486: IPSEC(create\_sa): sa created, (sa) sa\_dest= 172.18.124.195, sa\_prot= 50, sa\_spi= 0x1B139B2F(454269743), sa\_trans= esp-3des esp-sha-hmac , sa\_conn\_id= 2000 May 11 21:17:01.490: IPSEC(create\_sa): sa created, (sa) sa\_dest= 172.18.173.80, sa\_prot= 50, sa\_spi= 0xCA9D0B72(3399289714), sa\_trans= esp-3des esp-sha-hmac , sa\_conn\_id= 2001 !--- Security Association connection IDs created. May 11 21:17:01.742: ISAKMP (0:3): received

packet from 172.18.173.80 dport 500 sport 500 Global (R) QM\_IDLE !--- Successful tunnel established. May 11 21:17:01.746: ISAKMP (0:3): deleting node 896912581 error FALSE reason "quick mode done (await)" May 11 21:17:01.746: ISAKMP (0:3): Node 896912581, Input = IKE\_MESG\_FROM\_PEER, IKE\_QM\_EXCH May 11 21:17:01.746: ISAKMP (0:3): Old State = IKE\_QM\_R\_QM2 New State = IKE\_QM\_PHASE2\_COMPLETE May 11 21:17:01.746: IPSEC(key\_engine): got a queue event... May 11 21:17:01.746: IPSEC(key\_engine\_enable\_outbound): rec'd enable notify from ISAKMP May 11 21:17:01.746: IPSEC(key\_engine\_enable\_outbound): enable SA with spi 3399289714/50 for 172.18.173.80

## Debugs auf PIX 501 (LAN-zu-LAN-Verbindung)

PIX-501# ISAKMP (0): beginning Main Mode exchange

crypto\_isakmp\_process\_block:src:172.18.124.195, dest:172.18.124.196
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 attributes check in process. ISAKMP: encryption 3DES-CBC ISAKMP: hash MD5 ISAKMP: default group 2 ISAKMP: auth pre-share ISAKMP: life type in seconds ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80 ISAKMP (0): atts are acceptable. Next payload is 0 ISAKMP (0): SA is doing pre-shared key authentication using id type ID\_IPV4\_ADDR return status is IKMP\_NO\_ERROR crypto\_isakmp\_process\_block:src:172.18.124.195, dest:172.18.124.196 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): 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 ISAKMP (0): received xauth v6 vendor id ISAKMP (0): ID payload next-payload : 8 type : 1 protocol : 17 port : 500 length : 8 ISAKMP (0): Total payload length: 12 return status is IKMP\_NO\_ERROR crypto\_isakmp\_process\_block:src:172.18.124.195, dest:172.18.124.196 spt:500 dpt:500 OAK\_MM exchange ISAKMP (0): processing ID payload. message ID = 0 ISAKMP (0): processing HASH payload. message ID = 0 ISAKMP (0): SA has been authenticated ISAKMP (0): beginning Quick Mode exchange, M-ID of 156512779:954320bIPSEC (key\_engine): got a queue event... IPSEC(spi\_response): getting spi 0x79efefce(2045767630) for SA from 172.18.124.195 to 172.18.124.196 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:172.18.124.195/500 Total VPN Peers:1 VPN Peer: ISAKMP: Peer ip:172.18.124.195/500 Ref cnt incremented to:1 Total VPN Peers:1 crypto\_isakmp\_process\_block:src:172.18.124.195, dest:172.18.124.196 spt:500 dpt:500 OAK\_QM exchange oakley\_process\_quick\_mode: OAK\_QM\_IDLE ISAKMP (0): processing SA payload. message ID = 156512779 ISAKMP : Checking IPSec proposal 1 ISAKMP: transform 1, ESP\_3DES 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 (0): atts are acceptable. !--- Phase 1 attributes are negotiated. IPSEC(validate\_proposal\_request): proposal part #1, (key eng. msg.) dest= 172.18.124.195, src= 172.18.124.196, dest\_proxy= 192.168.40.0/255.255.255.0/0/0 (type=4), src\_proxy= 192.168.10.0/255.255.255.0/0/0 (type=4), protocol= ESP, transform= esp-3des

esp-sha-hmac , lifedur= 0s and 0kb, spi= 0x0(0), conn\_id= 0, keysize= 0, flags= 0x4 ISAKMP (0):

processing NONCE payload. message ID = 156512779 ISAKMP (0): processing ID payload. message ID =
156512779 ISAKMP (0): processing ID payload. message ID = 156512779 ISAKMP (0): processing
NOTIFY payload 24576 protocol 3 spi 4227499308, message ID = 156512779 ISAKMP (0): processing
responder lifetime ISAKMP (0): responder lifetime of 3600s ISAKMP (0): Creating IPSec SAs
inbound SA from 172.18.124.195 to 172.18.124.196 (proxy 192.168.40.0 to 192.168.10.0) has spi
2045767630 and conn\_id 1 and flags 4 lifetime of 3600 seconds lifetime of 4608000 kilobytes
outbound SA from 172.18.124.196 to 172.18.124.195 (proxy 192.168.10.0 to 192.168.40.0) has spi
4227499308 and conn\_id 2 and flags 4 lifetime of 3600 seconds lifetime of 4608000
kilobytesIPSEC(key\_engine): got a queue event... IPSEC(initialize\_sas): , (key eng. msg.) dest=
172.18.124.196, src= 172.18.124.195, dest\_proxy= 192.168.10.0/255.255.255.0/0/0 (type=4),
src\_proxy= 192.168.40.0/255.255.255.0/0/0 (type=4), protocol= ESP, transform= esp-3des esp-shahmac , lifedur= 3600s and 4608000kb, spi= 0x79efefce(2045767630), conn\_id= 1, keysize= 0, flags=
0x4

IPSEC(initialize\_sas): ,
(key eng. msg.) src= 172.18.124.196, dest= 172.18.124.195,
src\_proxy= 192.168.10.0/255.255.255.0/0/0 (type=4),
dest\_proxy= 192.168.40.0/255.255.255.0/0/0 (type=4),
protocol= ESP, transform= esp-3des esp-sha-hmac ,
lifedur= 3600s and 4608000kb,
spi= 0xfbfa852c(4227499308), conn\_id= 2, keysize= 0, flags= 0x4
!--- Phase 2 tunnel establishment.

## Debugs auf PIX-506-B (EzVPN-Client-Verbindung)

ISAKMP (0): ID payload next-payload : 13 type : 11 protocol : 17 port : 0 length : 8 ISAKMP (0): Total payload length: 12 ISAKMP (0:0): sending NAT-T vendor ID - rev 2 & 3 ISAKMP (0): beginning Aggressive Mode exchange crypto\_isakmp\_process\_block:src:172.18.124.195, dest:172.18.124.197 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 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 0 . . . ISAKMP (0): Checking ISAKMP transform 1 against priority 65008 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 acceptable. Next payload is 0 !--- Phase 1 attributes are accepted. ISAKMP (0): processing vendor id payload 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 ISAKMP (0): received xauth v6 vendor id ISAKMP (0): processing vendor id payload ISAKMP (0:0): vendor ID is NAT-T ISAKMP (0): processing KE payload. message ID = 0 ISAKMP (0): processing ID payload. message ID = 0 ISAKMP (0): processing NONCE payload. message ID = 0 ISAKMP (0): processing HASH payload. message ID = 0 ISAKMP (0:0): Detected NAT-D payload ISAKMP (0:0): recalc my hash for NAT-D ISAKMP (0:0): NAT match MINE hash ISAKMP (0:0): Detected NAT-D payload ISAKMP (0:0): recalc his hash for NAT-D ISAKMP (0:0): NAT match HIS hash ISAKMP (0): SA has been authenticated

!--- SAs have been authenticated. crypto\_isakmp\_process\_block:src:172.18.124.195, dest:172.18.124.197 spt:500 dpt:500 ISAKMP (0): processing NOTIFY payload 24576 protocol 1 spi 0, message ID = 1554218001 ISAKMP (0): processing responder lifetime ISAKMP (0): phase 1 responder lifetime of 86400s ISAKMP (0): not overriding 86400s return status is IKMP\_NO\_ERR\_NO\_TRANS crypto\_isakmp\_process\_block:src:172.18.124.195, dest:172.18.124.197 spt:500 dpt:500 ISAKMP\_TRANSACTION exchange ISAKMP (0:0): processing transaction payload from 172.18.124.195. message ID = 15250780 ISAKMP: Config payload CFG\_REQUEST ISAKMP (0:0): checking

### request:

!--- Extended authentication process check. ISAKMP: attribute XAUTH\_USER\_NAME (16521)

ISAKMP: attribute XAUTH\_USER\_PASSWORD (16522)

ISAKMP (0:0): responding to peer config from 172.18.124.195. ID = 3060977862
return status is IKMP\_NO\_ERROR
crypto\_isakmp\_process\_block:src:172.18.124.195, dest:172.18.124.197
spt:500 dpt:500
ISAKMP\_TRANSACTION exchange
ISAKMP (0:0): processing transaction payload from 172.18.124.195.
message ID = 15250780
ISAKMP: Config payload CFG\_SET
ISAKMP (0:0): checking SET:
ISAKMP: XAUTH\_STATUS XAUTH-OK

!--- Extended authentication checked. ISAKMP (0:0): attributes sent in message: Status: 1 return
status is IKMP\_NO\_ERROR ISAKMP : attributes being requested INTERNAL\_IPV\_ADDRESS ALT\_DEF\_DOMAIN
INTERNAL\_IPV\_NBNS INTERNAL\_IPV\_DNS ALT\_SPLIT\_INCLUDE ALT\_SPLITDNS\_NAME ALT\_PFS ALT\_CFG\_SEC\_UNIT
ALT\_CFG\_USER\_AUTH ALT\_CFG\_IDLE\_TIME ALT\_CFG\_IP\_TEL ALT\_CFG\_AUTH\_SRVNAME ALT\_CFG\_AUTH\_SRVPORT
ALT\_CFG\_AUTH\_SRVSEC ALT\_BACKUP\_SERVERS ... ISAKMP : Checking IPSec proposal 1 ISAKMP: transform
1, ESP\_3DES ISAKMP: attributes in transform: ISAKMP: encaps is 1 ISAKMP: SA life type in seconds
ISAKMP: SA life duration (basic) of 28800 ISAKMP: SA life type in kilobytes ISAKMP: SA life
duration (VPI) of 0x0 0x46 0x50 0x0 ISAKMP: authenticator is HMAC-MD5 ISAKMP (0): atts are
acceptable.

!--- IPsec proposal accepted. IPSEC(validate\_proposal\_request): proposal part #1, (key eng. msg.) dest= 172.18.124.195, src= 172.18.124.197, dest\_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), src\_proxy= 172.25.70.6/255.255.255.255/0/0 (type=1), protocol= ESP, transform= esp-3des esp-md5hmac , lifedur= 0s and 0kb, spi= 0x0(0), conn\_id= 0, keysize= 0, flags= 0x4 ISAKMP (0): processing NONCE payload. message ID = 4111011634 ISAKMP (0): processing ID payload. message ID = 4111011634 ISAKMP (0): processing ID payload. message ID = 4111011634 ISAKMP (0): processing NOTIFY payload 24576 protocol 3 spi 2254721697, message ID = 4111011634 ISAKMP (0): processing responder lifetime ISAKMP (0): responder lifetime of 3600s ISAKMP (0): Creating IPSec SAs inbound SA from 172.18.124.195 to 172.18.124.197 (proxy 0.0.0.0 to 172.25.70.6) has spi 3398064436 and conn\_id 2 and flags 4 lifetime of 3600 seconds lifetime of 4608000 kilobytes outbound SA from 172.18.124.197 to 172.18.124.195 (proxy 172.25.70.6 to 0.0.0.0) has spi 2254721697 and conn\_id 1 and flags 4 lifetime of 3600 seconds lifetime of 4608000 kilobytesIPSEC(key\_engine): got a queue event... IPSEC(initialize\_sas): , (key eng. msg.) dest= 172.18.124.197, src= 172.18.124.195, dest\_proxy= 172.25.70.6/255.255.255.255/0/0 (type=1), src\_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-3des esp-md5-hmac , lifedur= 3600s and 4608000kb, spi= 0xca8a5934(3398064436), conn\_id= 2, keysize= 0, flags= 0x4 IPSEC(initialize\_sas): , (key eng. msg.) src= 172.18.124.197, dest= 172.18.124.195, src\_proxy= 172.25.70.6/255.255.255.255/0/0 (type=1), dest\_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4),

!--- IPSec SAs created. protocol= ESP, transform= esp-3des esp-md5-hmac , lifedur= 3600s and 4608000kb, spi= 0x866452a1(2254721697), conn\_id= 1, keysize= 0, flags= 0x4

## **Debuggen auf VPN-Client**

## Wählen Sie Start > Programme > Cisco VPN Client > Log Viewer aus.

Client Type(s): Windows, WinNT Running on: 5.1.2600

1 15:47:01.430 08/19/04 Sev=Info/6 IKE/0x6300003B Attempting to establish a connection with 172.18.124.195.

2 15:47:01.460 08/19/04 Sev=Info/4 IKE/0x63000013 SENDING >>> ISAKMP OAK AG (SA, KE, NON, ID, VID(Xauth), VID(dpd), VID(Nat-T), VID(Frag), VID(Unity)) to 172.18.124.195

3 15:47:01.947 08/19/04 Sev=Info/5 IKE/0x6300002F Received ISAKMP packet: peer = 172.18.124.195

4 15:47:01.947 08/19/04 Sev=Info/4 IKE/0x63000014 RECEIVING <<< ISAKMP OAK AG (SA, VID(Unity), VID(dpd), VID(?), VID(Xauth), VID(Nat-T), KE, ID, NON, HASH, NAT-D, NAT-D) from 172.18.124.195

5 15:47:01.947 08/19/04 Sev=Info/5 IKE/0x63000001 Peer is a Cisco-Unity compliant peer

6 15:47:01.947 08/19/04 Sev=Info/5 IKE/0x63000001 Peer supports DPD

7 15:47:01.947 08/19/04 Sev=Info/5 IKE/0x63000001 Peer supports DWR Code and DWR Text

8 15:47:01.947 08/19/04 Sev=Info/5 IKE/0x63000001 Peer supports XAUTH

9 15:47:01.947 08/19/04 Sev=Info/5 IKE/0x63000001 Peer supports NAT-T

10 15:47:01.977 08/19/04 Sev=Info/6 IKE/0x63000001 IOS Vendor ID Contruction successful

11 15:47:01.977 08/19/04 Sev=Info/4 IKE/0x63000013 SENDING >>> ISAKMP OAK AG \*(HASH, NOTIFY:STATUS\_INITIAL\_CONTACT, NAT-D, NAT-D, VID(?), VID(Unity)) to 172.18.124.195

12 15:47:01.977 08/19/04 Sev=Info/4 IKE/0x63000082 IKE Port in use - Local Port = 0x01F4, Remote Port = 0x01F4

13 15:47:01.977 08/19/04 Sev=Info/5 IKE/0x63000071

## Automatic NAT Detection Status: Remote end is NOT behind a NAT device This end is NOT behind a NAT device

!--- NAT device detection process. 14 15:47:01.986 08/19/04 Sev=Info/5 IKE/0x6300002F Received ISAKMP packet: peer = 172.18.124.195 15 15:47:01.986 08/19/04 Sev=Info/4 IKE/0x63000014 RECEIVING <<< ISAKMP OAK INFO \*(HASH, NOTIFY:STATUS\_RESP\_LIFETIME) from 172.18.124.195 16 15:47:01.986 08/19/04 Sev=Info/5 IKE/0x63000044 RESPONDER-LIFETIME notify has value of 86400 seconds 17 15:47:01.986 08/19/04 Sev=Info/5 IKE/0x63000046 This SA has already been alive for 0 seconds, setting expiry to 86400 seconds from now 18 15:47:01.996 08/19/04 Sev=Info/5 IKE/0x6300002F Received ISAKMP packet: peer = 172.18.124.195 19 15:47:01.996 08/19/04 Sev=Info/4 IKE/0x63000014 RECEIVING <<< ISAKMP OAK TRANS \*(HASH, ATTR) from 172.18.124.195 20 15:47:02.689 08/19/04 Sev=Info/4 IPSEC/0x63700008 IPSec driver successfully started 21 15:47:02.689 08/19/04 Sev=Info/4 IPSEC/0x63700014 Deleted all keys 22 15:47:02.689 08/19/04 Sev=Info/6 IPSEC/0x6370002B Sent 85 packets, 0 were fragmented. 23 15:47:06.044 08/19/04 Sev=Info/4 IKE/0x63000013 SENDING >>> ISAKMP OAK TRANS \*(HASH, ATTR) to 172.18.124.195 24 15:47:06.064 08/19/04 Sev=Info/5 IKE/0x6300002F Received ISAKMP packet: peer = 172.18.124.195 25 15:47:06.064 08/19/04 Sev=Info/4 IKE/0x63000014 RECEIVING <<< ISAKMP OAK TRANS \*(HASH, ATTR) from 172.18.124.195 26 15:47:06.064 08/19/04 Sev=Info/4 IKE/0x63000013 SENDING >>> ISAKMP OAK TRANS \*(HASH, ATTR) to 172.18.124.195 27 15:47:06.103 08/19/04 Sev=Info/5 IKE/0x6300005D Client sending a firewall request to concentrator 28 15:47:06.103 08/19/04 Sev=Info/5 IKE/0x6300005C Firewall Policy: Product=Cisco Systems Integrated Client, Capability= (Centralized Protection

Policy). 29 15:47:06.113 08/19/04 Sev=Info/4 IKE/0x63000013 SENDING >>> ISAKMP OAK TRANS \*(HASH, ATTR) to 172.18.124.195 30 15:47:06.132 08/19/04 Sev=Info/5 IKE/0x6300002F Received ISAKMP packet: peer = 172.18.124.195 31 15:47:06.132 08/19/04 Sev=Info/4 IKE/0x63000014 RECEIVING <<< ISAKMP OAK TRANS \*(HASH, ATTR) from 172.18.124.195 32 15:47:06.132 08/19/04 Sev=Info/5 IKE/0x63000010 MODE\_CFG\_REPLY: Attribute = INTERNAL\_IPV4\_ADDRESS: , value = 10.50.50.2 !--- Assigned IP address for the VPN Client. 33 15:47:06.132 08/19/04 Sev=Info/5 IKE/0xA3000017 MODE\_CFG\_REPLY: The received (INTERNAL ADDRESS\_EXPIRY) attribute and value (842150403) is not supported 34 15:47:06.132 08/19/04 Sev=Info/5 IKE/0x6300000E MODE CFG REPLY: Attribute = MODECFG\_UNITY\_DEFDOMAIN: , value = cisco.com 35 15:47:06.132 08/19/04 Sev=Info/5 IKE/0x6300000E MODE\_CFG\_REPLY: Attribute = APPLICATION\_VERSION, value = Cisco Internetwork Operating System Software IOS (tm) C1700 Software (C1700-K9O3SY7-M), Version 12.3(9a), RELEASE SOFTWARE (fc4) Copyright (c) 1986-2004 by cisco Systems, Inc. Compiled Fri 23-Jul-04 02:20 by kellythw 37 15:47:06.171 08/19/04 Sev=Info/4 IKE/0x63000013 SENDING >>> ISAKMP OAK QM \*(HASH, SA, NON, ID, ID) to 172.18.124.195 38 15:47:06.444 08/19/04 Sev=Info/5 IKE/0x6300002F Received ISAKMP packet: peer = 172.18.124.195 39 15:47:06.454 08/19/04 Sev=Info/4 IKE/0x63000014 RECEIVING <<< ISAKMP OAK QM \*(HASH, SA, NON, ID, ID, NOTIFY:STATUS\_RESP\_LIFETIME from 172.18.124.195 40 15:47:06.454 08/19/04 Sev=Info/5 IKE/0x63000044 RESPONDER-LIFETIME notify has value of 3600 seconds 41 15:47:06.454 08/19/04 Sev=Info/5 IKE/0x63000045 RESPONDER-LIFETIME notify has value of 4608000 kb 42 15:47:06.454 08/19/04 Sev=Info/4 IKE/0x63000013 SENDING >>> ISAKMP OAK QM \*(HASH) to 172.18.124.195 43 15:47:06.454 08/19/04 Sev=Info/5 IKE/0x63000058 Loading IPsec SA (MsgID=83D109EC OUTBOUND SPI = 0x422186D5 INBOUND SPI = 0x5D94CB41) 44 15:47:06.454 08/19/04 Sev=Info/5 IKE/0x63000025 Loaded OUTBOUND ESP SPI: 0x422186D5

45 15:47:06.454 08/19/04 Sev=Info/5 IKE/0x63000026 Loaded INBOUND ESP SPI: 0x5D94CB41

46 15:47:09.307 08/19/04 Sev=Info/4 IPSEC/0x63700014 Deleted all keys

47 15:47:09.307 08/19/04 Sev=Info/4 IPSEC/0x63700010 Created a new key structure

48 15:47:09.307 08/19/04 Sev=Info/4 IPSEC/0x6370000F Added key with SPI=0xd5862142 into key list

49 15:47:09.307 08/19/04 Sev=Info/4 IPSEC/0x63700010 Created a new key structure

50 15:47:09.307 08/19/04 Sev=Info/4 IPSEC/0x6370000F Added key with SPI=0x41cb945d into key list

51 15:47:09.307 08/19/04 Sev=Info/4 IPSEC/0x6370002E Assigned VA private interface addr 10.50.50.2

52 15:47:16.568 08/19/04 Sev=Info/6 IKE/0x6300003D Sending DPD request to 172.18.124.195, seq# = 2346900535

53 15:47:16.568 08/19/04 Sev=Info/4 IKE/0x63000013 SENDING >>> ISAKMP OAK INFO \*(HASH, NOTIFY:DPD\_REQUEST) to 172.18.124.195

54 15:47:16.578 08/19/04 Sev=Info/5 IKE/0x6300002F Received ISAKMP packet: peer = 172.18.124.195

55 15:47:16.578 08/19/04 Sev=Info/4 IKE/0x63000014 RECEIVING <<< ISAKMP OAK INFO \*(HASH, NOTIFY:DPD\_ACK) from 172.18.124.195

56 15:47:16.578 08/19/04 Sev=Info/5 IKE/0x6300003F Received DPD ACK from 172.18.124.195, seq# received = 2346900536, seq# expected = 2346900536

# **Fehlerbehebung**

Dieser Abschnitt enthält Informationen zur Fehlerbehebung in Ihrer Konfiguration.

## Befehle zur Fehlerbehebung

Bestimmte **show**-Befehle werden vom <u>Output Interpreter Tool</u> unterstützt (nur <u>registrierte</u> Kunden), mit dem Sie eine Analyse der **show**-Befehlsausgabe anzeigen können.

Hinweis: Lesen Sie vor dem Ausgabe von Debug-Befehlen unter Wichtige Informationen zu Debug-Befehlen nach.

 show crypto isakmp sa: Zeigt alle aktuellen Internet Key Exchange (IKE)-SAs in einem Peer an.

```
VPN1750#show crypto isakmp sa
                                               conn-id slot
 dst
               src
                                 state
 172.18.124.195 172.18.173.80 QM_IDLE
                                                    3
                                                          0
 !--- VPN Client. 172.18.124.195 172.18.124.197 QM_IDLE 2 0 !--- EzVPN between hub router and
 PIX-506-B. 172.18.124.195 172.18.124.196 QM_IDLE 1 0 !--- EzVPN between hub router and PIX-
 501.
• show crypto ipsec sa: Zeigt die von aktuellen SAs verwendeten Einstellungen an.
 VPN1750#show crypto ipsec sa
   interface: FastEthernet0
     Crypto map tag: rtp, local addr. 172.18.124.195
    protected vrf:
    local ident (addr/mask/prot/port): (192.168.40.0/255.255.255.0/0/0)
    remote ident (addr/mask/prot/port): (192.168.10.0/255.255.255.0/0/0)
    current_peer: 172.18.124.196:500
      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 not decompressed: 0, #pkts decompress failed: 0
     #send errors 0, #recv errors 0
      local crypto endpt.: 172.18.124.195, remote crypto endpt.:
    172.18.124.196
      path mtu 1500, ip mtu 1500, ip mtu idb FastEthernet0
      current outbound spi: DB79E16D
      inbound esp sas:
       spi: 0xAF634F08(2942521096)
         transform: esp-3des esp-sha-hmac ,
         in use settings ={Tunnel, }
         slot: 0, conn id: 2000, flow_id: 1, crypto map: rtp
         sa timing: remaining key lifetime (k/sec): (4433404/3282)
         IV size: 8 bytes
         replay detection support: Y
      inbound ah sas:
      inbound pcp sas:
      outbound esp sas:
       spi: 0xDB79E16D(3682197869)
         transform: esp-3des esp-sha-hmac ,
         in use settings ={Tunnel, }
         slot: 0, conn id: 2001, flow_id: 2, crypto map: rtp
         sa timing: remaining key lifetime (k/sec): (4433404/3282)
         IV size: 8 bytes
         replay detection support: Y
      outbound ah sas:
```

```
outbound pcp sas:
```

```
protected vrf:
local ident (addr/mask/prot/port): (172.18.124.195/0.0.0.0/0/0)
remote ident (addr/mask/prot/port): (50.50.50.7/255.255.255.0/0)
current_peer: 172.18.173.80:500
  PERMIT, flags={}
 #pkts encaps: 6, #pkts encrypt: 6, #pkts digest 6
 #pkts decaps: 47, #pkts decrypt: 47, #pkts verify 47
 #pkts compressed: 0, #pkts decompressed: 0
 #pkts not compressed: 0, #pkts compr. failed: 0
 #pkts not decompressed: 0, #pkts decompress failed: 0
 #send errors 0, #recv errors 0
  local crypto endpt.: 172.18.124.195, remote crypto endpt.:
  172.18.173.80
  path mtu 1500, ip mtu 1500, ip mtu idb FastEthernet0
  current outbound spi: 72149A7D
  inbound esp sas:
   spi: 0x3467B12A(879210794)
     transform: esp-3des esp-sha-hmac ,
     in use settings ={Tunnel, }
     slot: 0, conn id: 2006, flow_id: 7, crypto map: rtp
     sa timing: remaining key lifetime (k/sec): (4381078/3577)
     IV size: 8 bytes
     replay detection support: Y
  inbound ah sas:
  inbound pcp sas:
  outbound esp sas:
   spi: 0x72149A7D(1913952893)
     transform: esp-3des esp-sha-hmac ,
     in use settings ={Tunnel, }
     slot: 0, conn id: 2007, flow_id: 8, crypto map: rtp
     sa timing: remaining key lifetime (k/sec): (4381086/3577)
     IV size: 8 bytes
     replay detection support: Y
  outbound ah sas:
  outbound pcp sas:
protected vrf:
local ident (addr/mask/prot/port): (172.18.124.195/0.0.0.0/0/0)
remote ident (addr/mask/prot/port): (172.25.70.8/255.255.255.255/0/0)
current_peer: 172.18.124.197:500
  PERMIT, flags={}
 #pkts encaps: 3, #pkts encrypt: 3, #pkts digest 3
 #pkts decaps: 3, #pkts decrypt: 3, #pkts verify 3
 #pkts compressed: 0, #pkts decompressed: 0
 #pkts not compressed: 0, #pkts compr. failed: 0
 #pkts not decompressed: 0, #pkts decompress failed: 0
 #send errors 0, #recv errors 0
 local crypto endpt.: 172.18.124.195, remote crypto endpt.:
 172.18.124.197
  path mtu 1500, ip mtu 1500, ip mtu idb FastEthernet0
  current outbound spi: 2DE8E3C9
  inbound esp sas:
```

```
spi: 0xED6381E5(3982721509)
     transform: esp-3des esp-md5-hmac ,
     in use settings ={Tunnel, }
     slot: 0, conn id: 2002, flow_id: 3, crypto map: rtp
     sa timing: remaining key lifetime (k/sec): (4561846/3283)
     IV size: 8 bytes
     replay detection support: Y
  inbound ah sas:
  inbound pcp sas:
  outbound esp sas:
   spi: 0x2DE8E3C9(770237385)
     transform: esp-3des esp-md5-hmac ,
     in use settings ={Tunnel, }
     slot: 0, conn id: 2003, flow_id: 4, crypto map: rtp
     sa timing: remaining key lifetime (k/sec): (4561846/3281)
     IV size: 8 bytes
     replay detection support: Y
  outbound ah sas:
  outbound pcp sas:
protected vrf:
local ident (addr/mask/prot/port): (172.18.124.195/0.0.0.0/0/0)
remote ident (addr/mask/prot/port): (172.18.124.197/255.255.255.255/0/0)
current_peer: 172.18.124.197:500
 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 not decompressed: 0, #pkts decompress failed: 0
 #send errors 0, #recv errors 0
 local crypto endpt.: 172.18.124.195, remote crypto endpt.:
 172.18.124.197
 path mtu 1500, ip mtu 1500, ip mtu idb FastEthernet0
  current outbound spi: 87066AED
  inbound esp sas:
   spi: 0x8C8106A4(2357266084)
     transform: esp-3des esp-md5-hmac ,
     in use settings ={Tunnel, }
     slot: 0, conn id: 2004, flow_id: 5, crypto map: rtp
     sa timing: remaining key lifetime (k/sec): (4525643/3285)
     IV size: 8 bytes
     replay detection support: Y
  inbound ah sas:
  inbound pcp sas:
  outbound esp sas:
   spi: 0x87066AED(2265344749)
     transform: esp-3des esp-md5-hmac ,
     in use settings ={Tunnel, }
     slot: 0, conn id: 2005, flow_id: 6, crypto map: rtp
     sa timing: remaining key lifetime (k/sec): (4525643/3285)
     IV size: 8 bytes
     replay detection support: Y
```

outbound ah sas:

outbound pcp sas:

# Zugehörige Informationen

- <u>Fehlerbehebung beim PIX zur Weiterleitung des Datenverkehrs auf einem etablierten IPSec-</u> <u>Tunnel</u>
- IP Security Troubleshooting Understanding and Using debug Commands
- Produktunterstützungsseiten für Firewalls der Serie PIX 500
- Support-Seiten für IPSec-Technologie
- <u>Support-Seite für Cisco VPN-Clients</u>
- PIX-Befehlsreferenzen
- Anforderungen für Kommentare (RFCs)
- <u>RADIUS-Support-Seite</u>
- Technischer Support und Dokumentation Cisco Systems