Konfigurieren von PIX für PIX Dynamic-to-Static IPSec mit NAT und Cisco VPN Client

Inhalt

Einführung

In dieser Beispielkonfiguration empfängt ein Remote-PIX eine IP-Adresse über das Dynamic Host Configuration Protocol (DHCP) und stellt eine Verbindung zu einem zentralen PIX her. Diese Konfiguration ermöglicht es dem zentralen PIX, dynamische IPsec-Verbindungen zu akzeptieren. Der Remote-PIX verwendet Network Address Translation (NAT), um die hinter ihm befindlichen privat adressierten Geräte mit dem privat adressierten Netzwerk hinter dem zentralen PIX "zu verbinden". Der Remote-PIX kann Verbindungen zum zentralen PIX initiieren (er kennt den Endpunkt), aber der zentrale PIX kann keine Verbindungen zum Remote-PIX initiieren (er kennt den Endpunkt nicht).

In dieser Beispielkonfiguration ist Tiger der Remote-PIX und Lion der zentrale PIX. Es ist nicht bekannt, wie Tigers IP-Adresse aussehen wird. Daher müssen Sie Lion so konfigurieren, dass Verbindungen von jedem Ort aus dynamisch angenommen werden, wenn Sie den vorinstallierten Schlüssel für die Wild-Card kennen. Tiger weiß, welcher Datenverkehr verschlüsselt werden soll (da er in der Zugriffsliste angegeben ist) und wo sich der Lion-Endpunkt befindet. Tiger muss die Verbindung initiieren. Beide Seiten verwenden NAT und Nat 0, um NAT für IPsec-Datenverkehr zu umgehen.

Darüber hinaus stellt der Remote-Benutzer in dieser Konfiguration über den Cisco VPN Client 3.x eine Verbindung mit dem zentralen PIX (Lion) her. Der Remote-Benutzer kann keine Verbindung zum Remote-PIX (Tiger) herstellen, da beide Seiten dynamisch zugewiesene IP-Adressen hatten und nicht wissen, wohin die Anforderung gesendet werden sollte.

Unter PIX/ASA 7.x PIX-zu-PIX Dynamic-to-Static IPsec with NAT and VPN Client Configuration Example finden Sie weitere Informationen zu diesem Szenario in PIX/ASA 7.x mit Cisco VPN Client 4.x.

Voraussetzungen

Anforderungen

Für dieses Dokument bestehen keine speziellen Anforderungen.

Verwendete Komponenten

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

- Cisco PIX Firewall Software Version 6.0(1) (oder höher für Cisco VPN Client 3.x)
- Cisco PIX Firewall Software Version 5.3.1 (Remote-PIX)
- Cisco VPN-Client Version 3.x

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 unter Cisco Technical Tips Conventions (Technische Tipps zu Konventionen von Cisco).

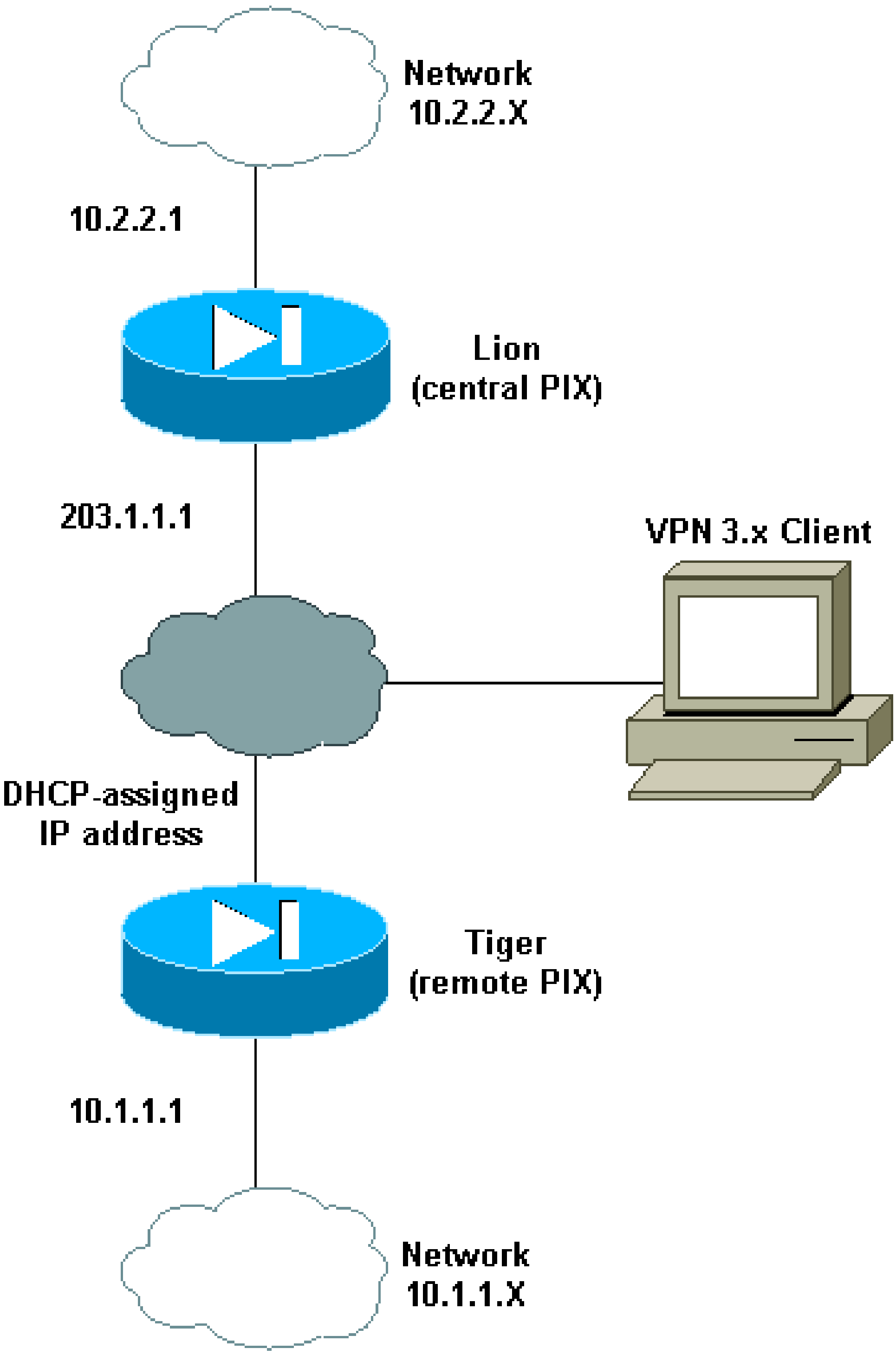
Konfigurieren

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

Hinweis: Verwenden Sie das Command Lookup Tool (nur registrierte Kunden), um weitere Informationen zu den in diesem Abschnitt verwendeten Befehlen zu erhalten.

Netzwerkdiagramm

In diesem Dokument wird die folgende Netzwerkeinrichtung verwendet:



Konfigurationen

Lion-Konfiguration

```
Building configuration...
: Saved
:
PIX Version 6.0(1)
nameif gb-ethernet0 spare1 security10
nameif gb-ethernet1 spare2 security15
nameif ethernet0 outside security0
nameif ethernet1 inside security100
enable password 8Ry2YjIyt7RRXU24 encrypted
passwd 2KFQnbNIdI.2KYOU encrypted
hostname lion
```

```
domain-name cisco.com
fixup protocol ftp 21
fixup protocol http 80
fixup protocol h323 1720
fixup protocol rsh 514
fixup protocol smtp 25
fixup protocol sqlnet 1521
fixup protocol sip 5060
fixup protocol skinny 2000
names
!
!--- ACL to avoid Network Address Translation (NAT) on
the IPsec packets. access-list 100 permit ip 10.2.2.0
255.255.255.0 10.1.1.0 255.255.255.0
access-list 100 permit ip 10.2.2.0 255.255.255.0
10.3.3.0 255.255.255.0
!
pager lines 24
logging buffered debugging
interface gb-ethernet0 1000auto shutdown
interface gb-ethernet1 1000auto shutdown
interface ethernet0 10baset
interface ethernet1 10baset
mtu spare1 1500
mtu spare2 1500
mtu outside 1500
mtu inside 1500
ip address spare1 127.0.0.1 255.255.255.255
ip address spare2 127.0.0.1 255.255.255.255
!
!--- IP addresses on the interfaces ip address outside
203.1.1.1 255.255.255.0
ip address inside 10.2.2.1 255.255.255.0
!
ip audit info action alarm
ip audit attack action alarm
ip local pool clientpool 10.3.3.1-10.3.3.10
no failover
failover timeout 0:00:00
failover poll 15
failover ip address spare1 0.0.0.0
failover ip address spare2 0.0.0.0
failover ip address outside 0.0.0.0
failover ip address inside 0.0.0.0
pdm history enable
arp timeout 14400
!--- global (outside) 1 203.1.1.10-203.1.1.15 !---
Change from NAT to PAT on the DHCP interface. global
(outside) 1 interface ! !--- Binding ACL 100 to the NAT
statement to avoid NAT on the IPsec packets. nat
(inside) 0 access-list 100
!
nat (inside) 1 0.0.0.0 0.0.0.0 0 0
conduit permit icmp any any
!
!--- Default route to the Internet route outside 0.0.0.0
0.0.0.0 203.1.1.2 1
!
timeout xlate 3:00:00
timeout conn 1:00:00 half-closed 0:10:00 udp 0:02:00 rpc
0:10:00 h323 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
no snmp-server location
no snmp-server contact
snmp-server community public
no snmp-server enable traps
floodguard enable
!
!--- The sysopt command avoids conduit on the IPsec
encrypted traffic.

sysopt connection permit-ipsec
!
no sysopt route dnat
!
!--- Phase 2 encryption type 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
!
!--- Binds the IPsec engine on the outside interface.
crypto map dyn-map interface outside
!
!--- Enables ISAKMP key-exchange. isakmp enable outside
!
!--- ISAKMP policy for accepting dynamic connections
from the remote PIX. isakmp key ******** address 0.0.0.0
netmask 0.0.0.0
!--- ISAKMP policy for Cisco VPN Client 2.x isakmp
policy 10 authentication pre-share
isakmp policy 10 encryption des
isakmp policy 10 hash md5
isakmp policy 10 group 1
isakmp policy 10 lifetime 1000
!
!--- ISAKMP policy for Cisco VPN Client 3.x isakmp
policy 20 authentication pre-share
isakmp policy 20 encryption des
isakmp policy 20 hash sha
isakmp policy 20 group 2
isakmp policy 20 lifetime 86400
!
!--- IPsec group configuration for either client
vpngroup unityclient address-pool clientpool
vpngroup unityclient dns-server 10.1.1.3
vpngroup unityclient wins-server 10.1.1.3
vpngroup unityclient default-domain cisco.com
vpngroup unityclient idle-time 1800
vpngroup unityclient password ********
!
telnet timeout 5
ssh timeout 5
terminal width 80
Cryptochecksum:d6fe92db883a052c5765be21a74e7c8d
: end
[OK]
```

Tiger-Konfiguration

```

Building configuration...
: Saved
:
PIX Version 5.3(1)
nameif gb-ethernet0 spare1 security10
nameif gb-ethernet1 spare2 security15
nameif ethernet0 outside security0
nameif ethernet1 inside security100
enable password 8Ry2YjIyt7RRXU24 encrypted
passwd 2KFQnbNIdI.2KYOU encrypted
hostname tiger
fixup protocol ftp 21
fixup protocol http 80
fixup protocol h323 1720
fixup protocol rsh 514
fixup protocol smtp 25
fixup protocol sqlnet 1521
fixup protocol sip 5060
names
!
!--- ACL to avoid NAT on the IPsec packets access-list
101 permit ip 10.1.1.0 255.255.255.0 10.2.2.0
255.255.255.0
!
pager lines 24
logging on
no logging timestamp
no logging standby
no logging console
no logging monitor
logging buffered debugging
no logging trap
no logging history
logging facility 20
logging queue 512
interface gb-ethernet0 1000auto shutdown
interface gb-ethernet1 1000auto shutdown
interface ethernet0 10baset
interface ethernet1 10baset
mtu spare1 1500
mtu spare2 1500
mtu outside 1500
mtu inside 1500
ip address spare1 127.0.0.1 255.255.255.255
ip address spare2 127.0.0.1 255.255.255.255
!
ip address outside dhcp
ip address inside 10.1.1.1 255.255.255.0
!
ip audit info action alarm
ip audit attack action alarm
no failover
failover timeout 0:00:00
failover poll 15
failover ip address spare1 0.0.0.0
failover ip address spare2 0.0.0.0
failover ip address outside 0.0.0.0
failover ip address inside 0.0.0.0
arp timeout 14400
global (outside) 1 204.1.1.10-204.1.1.15
!
!--- Binds ACL 101 to the NAT statement to avoid NAT on
the IPsec packets. nat (inside) 0 access-list 101
!
nat (inside) 1 0.0.0.0 0.0.0.0 0 0
conduit permit icmp any any
route outside 0.0.0.0 0.0.0.0 204.1.1.2 1
timeout xlate 3:00:00
timeout conn 1:00:00 half-closed 0:10:00 udp 0:02:00 rpc
```

```
0:10:00 h323 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
no snmp-server location
no snmp-server contact
snmp-server community public
no snmp-server enable traps
floodguard enable
!
!--- The sysopt command avoids conduit on the IPsec
encrypted traffic.

sysopt connection permit-ipsec
!
no sysopt route dnat
!
!--- Phase 2 encryption type 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 203.1.1.1
crypto map newmap 10 set transform-set myset
!
!--- Binds the IPsec engine on the outside interface.
crypto map newmap interface outside
!
!--- Enables ISAKMP key-exchange isakmp enable outside
!
!--- ISAKMP policy for connecting to the central PIX.
isakmp key ******** address 203.1.1.1 netmask
255.255.255.255
isakmp identity hostname
isakmp policy 10 authentication pre-share
isakmp policy 10 encryption des
isakmp policy 10 hash md5
isakmp policy 10 group 1
isakmp policy 10 lifetime 1000
!
telnet timeout 5
ssh timeout 5
terminal width 80
Cryptochecksum:6743b7bf9476590ecd1a1a8c6d75245b
: end
[OK]
```

Überprüfen

Dieser Abschnitt enthält Informationen zur Bestätigung, dass Ihre Konfiguration ordnungsgemäß funktioniert.

Das Output Interpreter Tool (nur registrierte Kunden) (OIT) unterstützt bestimmte **show**-Befehle. Verwenden Sie das OIT, um eine Analyse der **Ausgabe des** Befehls **show anzuzeigen**.

Hinweis: Die **clear-**Befehle müssen im Konfigurationsmodus ausgeführt werden.

- **clear crypto ipsec sa**: Setzt die IPsec-Zuordnungen zurück, nachdem fehlgeschlagene Versuche zur Aushandlung eines VPN-Tunnels fehlgeschlagen sind.

- **clear crypto isakmp sa**: Setzt die Sicherheitszuordnungen der Internet Security Association und des Key Management Protocol (ISAKMP) nach fehlgeschlagenen Versuchen zurück, einen VPN-Tunnel auszuhandeln.
- **show crypto engine ipsec**: Zeigt die verschlüsselten Sitzungen an.

Fehlerbehebung

Dieser Abschnitt enthält Informationen zur Fehlerbehebung in Ihrer Konfiguration.

Befehle zur Fehlerbehebung

Das Output Interpreter Tool (nur registrierte Kunden) (OIT) unterstützt bestimmte **show**-Befehle. Verwenden Sie das OIT, um eine Analyse der **Ausgabe des** Befehls **show anzuzeigen**.

Hinweis: Beachten Sie vor der Verwendung von **Debug-**Befehlen die Informationen zu Debug-Befehlen.

- **debug crypto ipsec** - Wird verwendet, um zu überprüfen, ob ein Client den IPsec-Teil der VPN-Verbindung aushandelt.
- **debug crypto isakmp connection** - Wird verwendet, um zu prüfen, ob die Peers über den ISAKMP-Teil des VPN verhandeln.

Beispielausgabe für "gute" Debug

- Zentrale PIX-Debugger
- Remote-PIX-Debugger
- Clientdebuggen

Central Pix Debugger

```
crypto_isakmp_process_block: src 204.1.1.1, dest 203.1.1.1
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 1
ISAKMP:      auth pre-share
ISAKMP:      life type in seconds
ISAKMP:      life duration (basic) of 1000
ISAKMP (0): atts are acceptable. Next payload is 0
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 204.1.1.1, dest 203.1.1.1
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): processing vendor id payload

ISAKMP (0): speaking to another IOS box!

return status is IKMP_NO_ERROR
crypto_isakmp_process_block: src 204.1.1.1, dest 203.1.1.1
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): ID payload
        next-payload : 8
        type         : 2
        protocol     : 17
        port         : 500
        length       : 10
ISAKMP (0): Total payload length: 14
return status is IKMP_NO_ERROR
crypto_isakmp_process_block: src 204.1.1.1, dest 203.1.1.1
OAK_QM exchange
oakley_process_quick_mode:
OAK_QM_IDLE
ISAKMP (0): processing SA payload. message ID = 1223411072

ISAKMP : Checking IPSec proposal 1

ISAKMP: transform 1, ESP_DES
ISAKMP:   attributes in transform:
ISAKMP:      encaps is 1
ISAKMP:      SA life type in seconds
ISAKMP:      SA life duration (basic) of 28800
ISAKMP:      SA life type in kilobytes
ISAKMP:      SA life duration (VPI) of  0x0 0x46 0x50 0x0
ISAKMP:      authenticator is HMAC-MD5
ISAKMP (0): atts are acceptable.IPSEC(validate_proposal_request): proposal part #1,
  (key eng. msg.) dest= 203.1.1.1, src= 204.1.1.1,
    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= 0s and 0kb,
    spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x4

ISAKMP (0): processing NONCE payload. message ID = 1223411072

ISAKMP (0): processing ID payload. message ID = 1223411072
ISAKMP (0): ID_IPV4_ADDR_SUBNET src 10.2.2.0/255.255.255.0 prot 0 port 0
ISAKMP (0): processing ID payload. message ID = 1223411072
ISAKMP (0): ID_IPV4_ADDR_SUBNET dst 10.1.1.0/255.255.255.0 prot 0 port
   0IPSEC(key_engine): got a queue event...
IPSEC(spi_response): getting spi 0xd0e27cb6(3504503990) for SA from 204.1.1.1
   to 203.1.1.1 for prot 3

return status is IKMP_NO_ERROR
crypto_isakmp_process_block: src 204.1.1.1, dest 203.1.1.1
OAK_QM exchange
oakley_process_quick_mode:
OAK_QM_AUTH_AWAIT
ISAKMP (0): Creating IPSec SAs
        inbound SA from 204.1.1.1 to 203.1.1.1 proxy 10.2.2.0 to 10.1.1.0)
        has spi 3504503990 and conn_id 4 and flags 4
        lifetime of 28800 seconds
        lifetime of 4608000 kilobytes
        outbound SA from 203.1.1.1 to 204.1.1.1(proxy 10.1.1.0 to 10.2.2.0)
        has spi 2729504033 and conn_id 3 and flags 4
        lifetime of 28800 seconds
        lifetime of 4608000 kilobytesIPSEC(key_engine): got a queue event...
IPSEC(initialize_sas): ,
  (key eng. msg.) dest= 203.1.1.1, src= 204.1.1.1,
    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= 0xd0e27cb6(3504503990), conn_id= 4, keysize= 0, flags= 0x4
IPSEC(initialize_sas): ,
  (key eng. msg.) src= 203.1.1.1, dest= 204.1.1.1,
    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= 0xa2b0ed21(2729504033), conn_id= 3, keysize= 0, flags= 0x4

return status is IKMP_NO_ERROR
```

Remote-PIX-Debugger

```
ISAKMP (0): beginning Main Mode exchange

crypto_isakmp_process_block: src 203.1.1.1, dest 204.1.1.1
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 1
ISAKMP:      auth pre-share
ISAKMP:      life type in seconds
ISAKMP:      life duration (basic) of 1000
ISAKMP (0): atts are acceptable. Next payload is 0
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 203.1.1.1, dest 204.1.1.1
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): speaking to another IOS box!

ISAKMP (0): ID payload
        next-payload : 8
        type         : 2
        protocol     : 17
        port         : 500
        length       : 18
ISAKMP (0): Total payload length: 22
return status is IKMP_NO_ERROR
crypto_isakmp_process_block: src 203.1.1.1, dest 204.1.1.1
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
   1223411072:48ebc580IPSEC(key_engine):got a queue event...
IPSEC(spi_response): getting spi 0xa2b0ed21(2729504033) for SA
        from       203.1.1.1 to       204.1.1.1 for prot 3

return status is IKMP_NO_ERROR
crypto_isakmp_process_block: src 203.1.1.1, dest 204.1.1.1
OAK_QM exchange
oakley_process_quick_mode:
OAK_QM_IDLE
ISAKMP (0): processing SA payload. message ID = 1223411072

ISAKMP : Checking IPSec proposal 1

ISAKMP: transform 1, ESP_DES
ISAKMP:   attributes in transform:
ISAKMP:      encaps is 1
ISAKMP:      SA life type in seconds
ISAKMP:      SA life duration (basic) of 28800
ISAKMP:      SA life type in kilobytes
ISAKMP:      SA life duration (VPI) of  0x0 0x46 0x50 0x0
ISAKMP:      authenticator is HMAC-MD5
ISAKMP (0): atts are acceptable.IPSEC(validate_proposal_request): proposal part #1,
  (key eng. msg.) dest= 203.1.1.1, src= 204.1.1.1,
    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= 0s and 0kb,
    spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x4

ISAKMP (0): processing NONCE payload. message ID = 1223411072

ISAKMP (0): processing ID payload. message ID = 1223411072
ISAKMP (0): processing ID payload. message ID = 1223411072
ISAKMP (0): Creating IPSec SAs
        inbound SA from 203.1.1.1 to 204.1.1.1 (proxy 10.1.1.0 to 10.2.2.0)
        has spi 2729504033 and conn_id 4 and flags 4
        lifetime of 28800 seconds
        lifetime of 4608000 kilobytes
        outbound SA from 204.1.1.1 to 203.1.1.1 (proxy 10.2.2.0 to 10.1.1.0)
        has spi 3504503990 and conn_id 3 and flags 4
        lifetime of 28800 seconds
        lifetime of 4608000 kilobytesIPSEC(key_engine): got a queue event...
IPSEC(initialize_sas): ,
  (key eng. msg.) dest= 204.1.1.1, src= 203.1.1.1,
    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= 28800s and 4608000kb,
    spi= 0xa2b0ed21(2729504033), conn_id= 4, keysize= 0, flags= 0x4
IPSEC(initialize_sas): ,
  (key eng. msg.) src= 204.1.1.1, dest= 203.1.1.1,
    src_proxy= 10.2.2.0/255.255.255.0/0/0 (type=4),
    dest_proxy= 10.1.1.0/255.255.255.0/0/0 (type=4),
    protocol= ESP, transform= esp-des esp-md5-hmac ,
    lifedur= 28800s and 4608000kb,
    spi= 0xd0e27cb6(3504503990), conn_id= 3, keysize= 0, flags= 0x4

return status is IKMP_NO_ERROR
```

Clientdebuggen

```
19      16:43:20.402  06/28/01  Sev=Info/4       CM/0x63100004
Establish secure connection using Ethernet

20      16:43:20.402  06/28/01  Sev=Info/4       CM/0x63100025
Attempt connection with server "203.1.1.1"

21      16:43:20.402  06/28/01  Sev=Info/6       IKE/0x6300003B
Attempting to establish a connection with 203.1.1.1.

22      16:43:20.442  06/28/01  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK AG (SA, KE, NON, ID, VID, VID, VID) to 203.1.1.1

23      16:43:20.452  06/28/01  Sev=Info/4       IPSEC/0x63700014
Deleted all keys

24      16:43:20.492  06/28/01  Sev=Info/5       IKE/0x6300002F
Received ISAKMP packet: peer = 203.1.1.1

25      16:43:20.492  06/28/01  Sev=Info/4       IKE/0x63000014
RECEIVING <<< ISAKMP OAK AG (SA, VID, VID, VID, KE, ID, NON, HASH) from 203.1.1.1

26      16:43:20.492  06/28/01  Sev=Info/5       IKE/0x63000059
Vendor ID payload = 12F5F28C457168A9702D9FE274CC0100


27      16:43:20.492  06/28/01  Sev=Info/5       IKE/0x63000001
Peer is a Cisco-Unity compliant peer

28      16:43:20.492  06/28/01  Sev=Info/5       IKE/0x63000059
Vendor ID payload = AFCAD71368A1F1C96B8696FC77570100


29      16:43:20.492  06/28/01  Sev=Info/5       IKE/0x63000001
Peer supports DPD

30      16:43:20.492  06/28/01  Sev=Info/5       IKE/0x63000059
Vendor ID payload = A0EB477E6627B406AA10F958254B3517


31      16:43:20.542  06/28/01  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK AG *(HASH, NOTIFY:STATUS_INITIAL_CONTACT) to 203.1.1.1

32      16:43:20.542  06/28/01  Sev=Info/4       CM/0x6310000E
Established Phase 1 SA.  1 Phase 1 SA in the system

33      16:43:21.143  06/28/01  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK TRANS *(HASH, ATTR) to 203.1.1.1

34      16:43:24.067  06/28/01  Sev=Info/5       IKE/0x6300002F
Received ISAKMP packet: peer = 203.1.1.1

35      16:43:24.067  06/28/01  Sev=Info/4       IKE/0x63000014
RECEIVING <<< ISAKMP OAK TRANS *(HASH, ATTR) from 203.1.1.1

36      16:43:24.067  06/28/01  Sev=Info/5       IKE/0x63000010
MODE_CFG_REPLY: Attribute = INTERNAL_IPV4_ADDRESS: , value = 10.3.3.1


37      16:43:24.067  06/28/01  Sev=Info/5       IKE/0x63000010
MODE_CFG_REPLY: Attribute = INTERNAL_IPV4_DNS(1): , value = 10.1.1.3
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38     16:43:24.067  06/28/01  Sev=Info/5       IKE/0x63000010
MODE_CFG_REPLY: Attribute = INTERNAL_IPV4_NBNS(1) (a.k.a. WINS) : , value = 10.1.1.3


39     16:43:24.067  06/28/01  Sev=Info/5       IKE/0x6300000E
MODE_CFG_REPLY: Attribute = MODECFG_UNITY_DEFDOMAIN: , value = cisco.com


40     16:43:24.067  06/28/01  Sev=Info/4       CM/0x63100018
Mode Config data received

41     16:43:24.668  06/28/01  Sev=Info/5       IKE/0x63000055
Received a key request from Driver for IP address 203.1.1.1, GW IP = 203.1.1.1


42     16:43:24.668  06/28/01  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK QM *(HASH, SA, NON, ID, ID) to 203.1.1.1

43     16:43:24.668  06/28/01  Sev=Info/5       IKE/0x63000055
Received a key request from Driver for IP address 10.10.10.255, GW IP = 203.1.1.1

44     16:43:24.668  06/28/01  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK QM *(HASH, SA, NON, ID, ID) to 203.1.1.1

45     16:43:24.668  06/28/01  Sev=Info/4       IPSEC/0x63700014
Deleted all keys

46     16:43:25.619  06/28/01  Sev=Info/5       IKE/0x6300002F
Received ISAKMP packet: peer = 203.1.1.1

47     16:43:25.619  06/28/01  Sev=Info/4       IKE/0x63000014
RECEIVING <<< ISAKMP OAK QM *(HASH, SA, NON, ID, ID, NOTIFY:STATUS_RESP_LIFETIME) from 203.1.1.1

48     16:43:25.619  06/28/01  Sev=Info/5       IKE/0x63000044
RESPONDER-LIFETIME notify has value of 28800 seconds

49     16:43:25.619  06/28/01  Sev=Info/5       IKE/0x63000045
RESPONDER-LIFETIME notify has value of 4608000 kb

50     16:43:25.619  06/28/01  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK QM *(HASH) to 203.1.1.1

51     16:43:25.619  06/28/01  Sev=Info/5       IKE/0x63000058
Loading IPsec SA (Message ID = 0x59515364 OUTBOUND SPI = 0xB24CDB55 INBOUND SPI = 0x83AA0042)

52     16:43:25.619  06/28/01  Sev=Info/5       IKE/0x63000025
Loaded OUTBOUND ESP SPI: 0xB24CDB55

53     16:43:25.619  06/28/01  Sev=Info/5       IKE/0x63000026
Loaded INBOUND ESP SPI: 0x83AA0042

54     16:43:25.619  06/28/01  Sev=Info/4       CM/0x63100019
One secure connection established

55     16:43:25.629  06/28/01  Sev=Info/6       DIALER/0x63300003
Connection established.

56     16:43:25.669  06/28/01  Sev=Info/6       DIALER/0x63300008
MAPI32 Information - Outlook not default mail client

57     16:43:25.960  06/28/01  Sev=Info/5       IKE/0x6300002F
Received ISAKMP packet: peer = 203.1.1.1

58     16:43:25.960  06/28/01  Sev=Info/4       IKE/0x63000014
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RECEIVING <<< ISAKMP OAK QM *(HASH, SA, NON, ID, ID, NOTIFY:STATUS_RESP_LIFETIME) from 203.1.1.1

59     16:43:25.960  06/28/01  Sev=Info/5       IKE/0x63000044
RESPONDER-LIFETIME notify has value of 28800 seconds

60     16:43:25.960  06/28/01  Sev=Info/5       IKE/0x63000045
RESPONDER-LIFETIME notify has value of 4608000 kb

61     16:43:25.960  06/28/01  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK QM *(HASH) to 203.1.1.1

62     16:43:25.960  06/28/01  Sev=Info/5       IKE/0x63000058
Loading IPsec SA (Message ID = 0x23A23005 OUTBOUND SPI = 0xAD0599DB INBOUND SPI = 0x2B74D4A4)

63     16:43:25.960  06/28/01  Sev=Info/5       IKE/0x63000025
Loaded OUTBOUND ESP SPI: 0xAD0599DB

64     16:43:25.960  06/28/01  Sev=Info/5       IKE/0x63000026
Loaded INBOUND ESP SPI: 0x2B74D4A4

65     16:43:25.960  06/28/01  Sev=Info/4       CM/0x63100021
Additional Phase 2 SA established.

66     16:43:25.960  06/28/01  Sev=Info/4       IPSEC/0x63700010
Created a new key structure

67     16:43:25.960  06/28/01  Sev=Info/4       IPSEC/0x6370000F
Added key with SPI=0x55db4cb2 into key list

68     16:43:25.960  06/28/01  Sev=Info/4       IPSEC/0x63700010
Created a new key structure

69     16:43:25.960  06/28/01  Sev=Info/4       IPSEC/0x6370000F
Added key with SPI=0x4200aa83 into key list

70     16:43:25.960  06/28/01  Sev=Info/4       IPSEC/0x63700010
Created a new key structure

71     16:43:25.960  06/28/01  Sev=Info/4       IPSEC/0x6370000F
Added key with SPI=0xdb9905ad into key list

72     16:43:25.960  06/28/01  Sev=Info/4       IPSEC/0x63700010
Created a new key structure

73     16:43:25.960  06/28/01  Sev=Info/4       IPSEC/0x6370000F
Added key with SPI=0xa4d4742b into key list

74     16:43:35.173  06/28/01  Sev=Info/6       IKE/0x6300003D
Sending DPD request to 203.1.1.1, seq# = 1856135987

75     16:43:35.173  06/28/01  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK INFO *(HASH, NOTIFY:DPD_REQUEST) to 203.1.1.1

76     16:43:35.173  06/28/01  Sev=Info/5       IKE/0x6300002F
Received ISAKMP packet: peer = 203.1.1.1

77     16:43:35.173  06/28/01  Sev=Info/4       IKE/0x63000014
RECEIVING <<< ISAKMP OAK INFO *(HASH, NOTIFY:DPD_ACK) from 203.1.1.1

78     16:43:35.173  06/28/01  Sev=Info/5       IKE/0x6300003F
Received DPD ACK from 203.1.1.1, seq# received = 1856135987, seq# expected = 1856135987
```

Zugehörige Informationen

- PIX-Support-Seite
- PIX-Befehlsreferenzen
- Konfigurieren der IPSec-Netzwerksicherheit
- Support-Seiten für IP Security-Produkte (IPSec)
- Technischer Support und Dokumentation - Cisco Systems