Konfigurieren des Cisco VPN 3002 Hardware-Clients für den Cisco IOS-Router mit EzVPN im Netzwerkerweiterungsmodus

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Einführung

Dieses Dokument beschreibt die Konfiguration eines Cisco VPN 3002 Hardware-Clients, der im Netzwerkerweiterungsmodus mit der Cisco IOS Software Version 12.2(8)T und der Easy VPN (EzVPN)-Serverfunktionalität eine Verbindung zu einem Cisco IOS® Router herstellt. Dadurch kann Cisco IOS VPN-Tunnel von EzVPN-Clients wie VPN-Clients, PIX und Cisco IOS EzVPN-Clients terminieren. Es gibt mindestens fünf Sicherheitszuordnungen (SAs) (ein Internet Key Exchange [IKE] plus vier IPSec), wenn der VPN Client eine Verbindung zu einem Headend-Gerät herstellt. Dies liegt daran, dass der VPN Client beim Herstellen einer Verbindung mit dem Headend immer zwei IPSec-SAs mit einer IP-Adresse der öffentlichen Schnittstelle eines Konzentrators an die IP-Adresse des Headends aushandelt. Dieser Tunnel wird für Verwaltungszwecke verwendet, um vom Headend entweder über die GUI oder die Befehlszeilenschnittstelle (CLI) eine Verbindung zum VPN-Client herzustellen. Dies wird automatisch durchgeführt. Die beiden anderen sind für den Datenverkehr zwischen den Netzwerken hinter dem VPN-Client und dem Cisco IOS-Router vorgesehen.

Unter Konfigurieren des VPN 3002 Hardware-Clients auf PIX 6.x erfahren Sie mehr über das Szenario, in dem der VPN-Server der PIX 6.x ist.

Unter Konfigurieren einer Verbindung zwischen dem VPN 3002 Hardware-Client und einem VPN 3000-Concentrator im Netzwerkerweiterungsmodus finden Sie weitere Informationen zu demselben Szenario, in dem der VPN-Server der Cisco VPN 3000-Konzentrator ist.

Voraussetzungen

Anforderungen

Für dieses Dokument bestehen keine speziellen Anforderungen.

Verwendete Komponenten

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

- Cisco VPN 3002 Hardware-Client
- Cisco IOS Software, Version 12.2(8)T und höher

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).

Konfigurationen

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 Dokument verwendeten Befehlen zu erhalten.

Netzwerkdiagramm

In diesem Dokument wird die folgende Netzwerkeinrichtung verwendet:

In diesem Dokument werden diese Konfigurationen verwendet.

- Cisco IOS-Router
- Cisco VPN 3002 Hardware-Client

Cisco IOS-Router

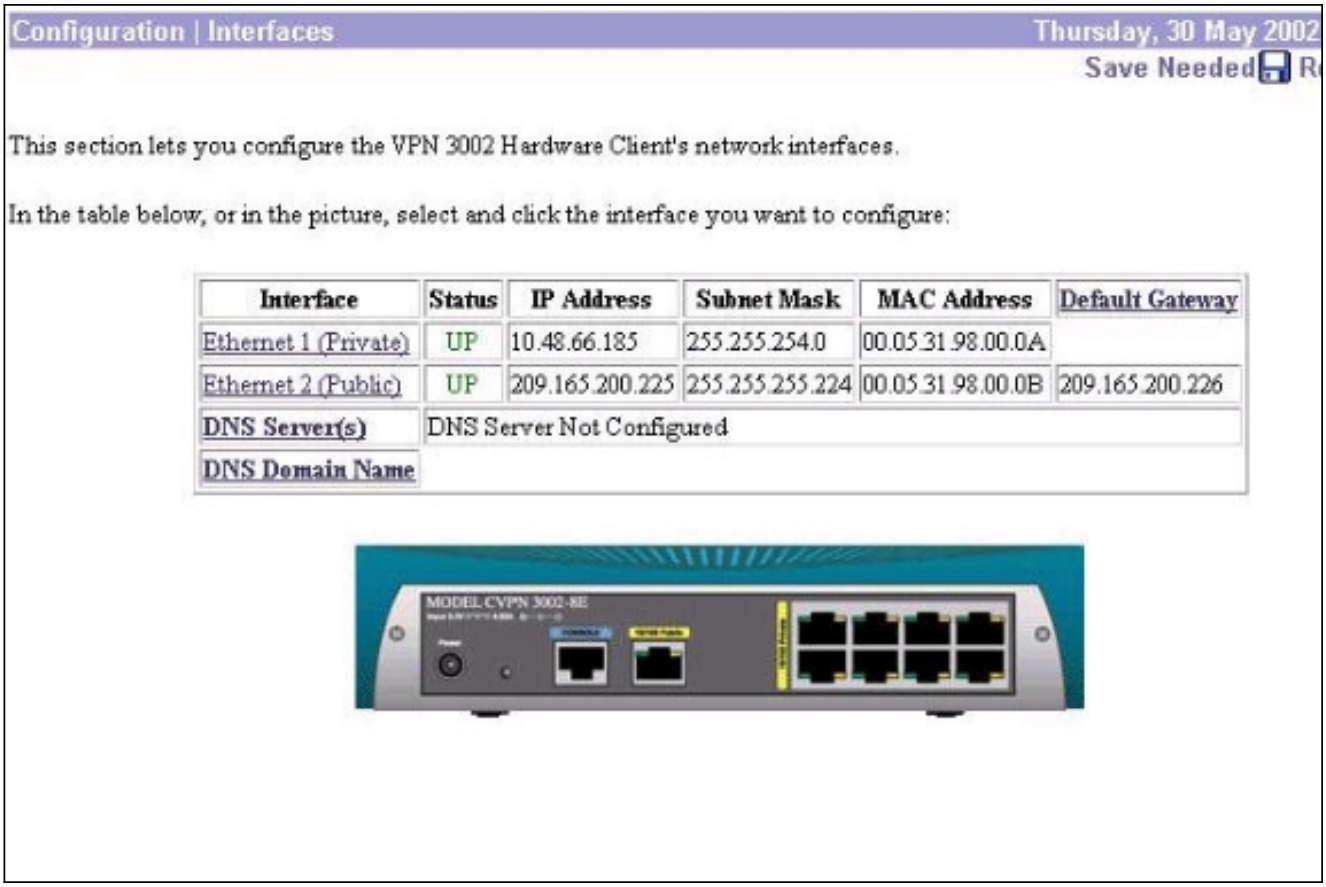
```
akim#show running
Current configuration : 1449 bytes
!
version 12.2
service config
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname akim
!
!--- Enable Authentication, Authorizing and Accounting
(AAA) !--- for user authentication and group
authorization. aaa new-model
!--- To enable X-Auth for user authentication, !---
enable the AAA commands. aaa authentication login
userauthen local
!--- To enable group authorization, !--- enable the AAA
commands. aaa authorization network groupauthor local
aaa session-id common
!
!--- Define the username and password to be used for X-
Auth. username fadi password 0 cisco memory-size iomem
10 ip subnet-zero ! ! ! !--- Create an Internet Security
Association and !--- Key Management Protocol (ISAKMP)
policy for Phase 1 negotiations. crypto isakmp policy 3
 encr 3des
 authentication pre-share
 group 2
!
!--- Create a group with the pre-shared key for IKE
authentication. crypto isakmp client configuration group
fadigroup
 key cisco123
!
!
!--- Create the Phase 2 policy for actual data
encryption. crypto ipsec transform-set myset esp-3des
esp-sha-hmac
!
!--- Create a dynamic map and !--- apply the transform
set that was created earlier. crypto dynamic-map dynmap
10
 set transform-set myset
!
!--- Create the actual crypto map, !--- and apply the
AAA lists that were created earlier. !--- These commands
associate the AAA commands to the crypto map. crypto map
clientmap client authentication list userauthen
crypto map clientmap isakmp authorization list
groupauthor
crypto map clientmap 10 ipsec-isakmp dynamic dynmap
!
!
!
!
!
!
!
!
fax interface-type fax-mail
```

```
mta receive maximum-recipients 0
!
!
!
!
!--- Apply the crypto map on the interface where !---
traffic leaves the router. interface FastEthernet0/0
 ip address 209.165.202.129 255.255.255.224
duplex auto
 speed auto
 crypto map clientmap
!
interface Serial0/0
 no ip address
 shutdown
 no fair-queue
 clockrate 2000000
!
interface FastEthernet0/1
 ip address 10.48.220.1 255.255.254.0
duplex auto
 speed auto
!
interface Serial0/1
 no ip address
 shutdown
 clockrate 2000000
!
ip classless
ip route 0.0.0.0 0.0.0.0 209.165.202.130
ip http server
ip pim bidir-enable
!
!
!
!
call rsvp-sync
!
!
mgcp profile default
!
dial-peer cor custom
!
!
!
!
!
line con 0
 exec-timeout 0 0
line aux 0
line vty 0 4
!
!
end
```

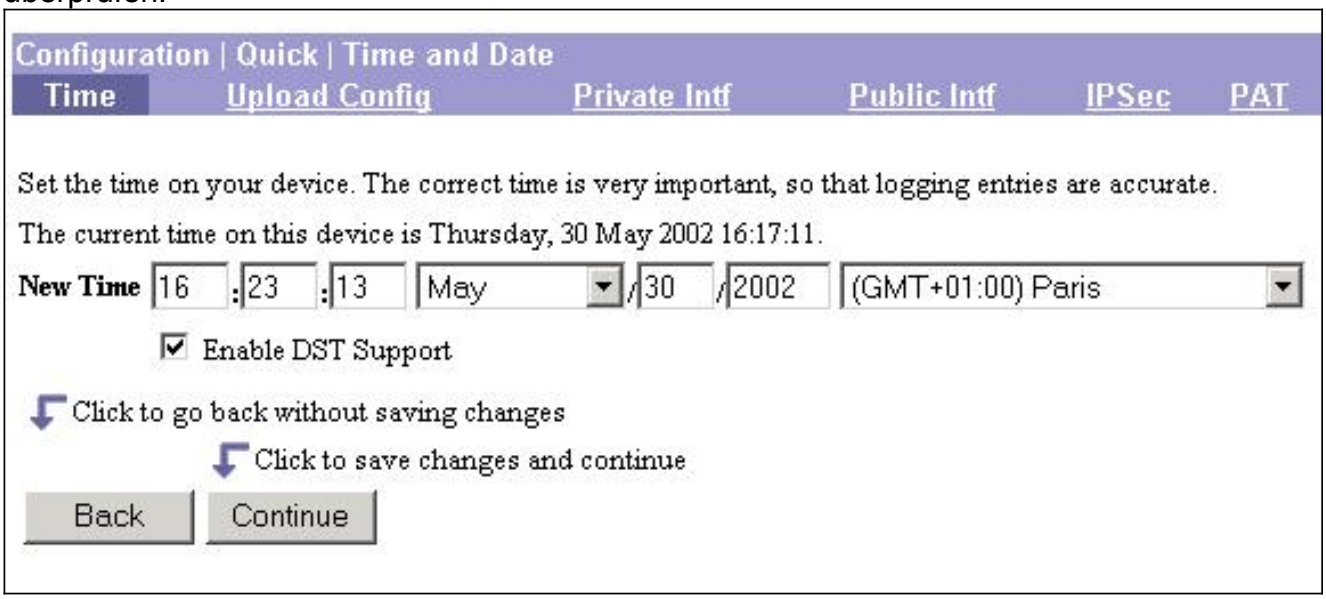
Konfigurieren des Cisco VPN 3002 Hardware-Clients

Gehen Sie wie folgt vor, um den VPN-Client zu konfigurieren:

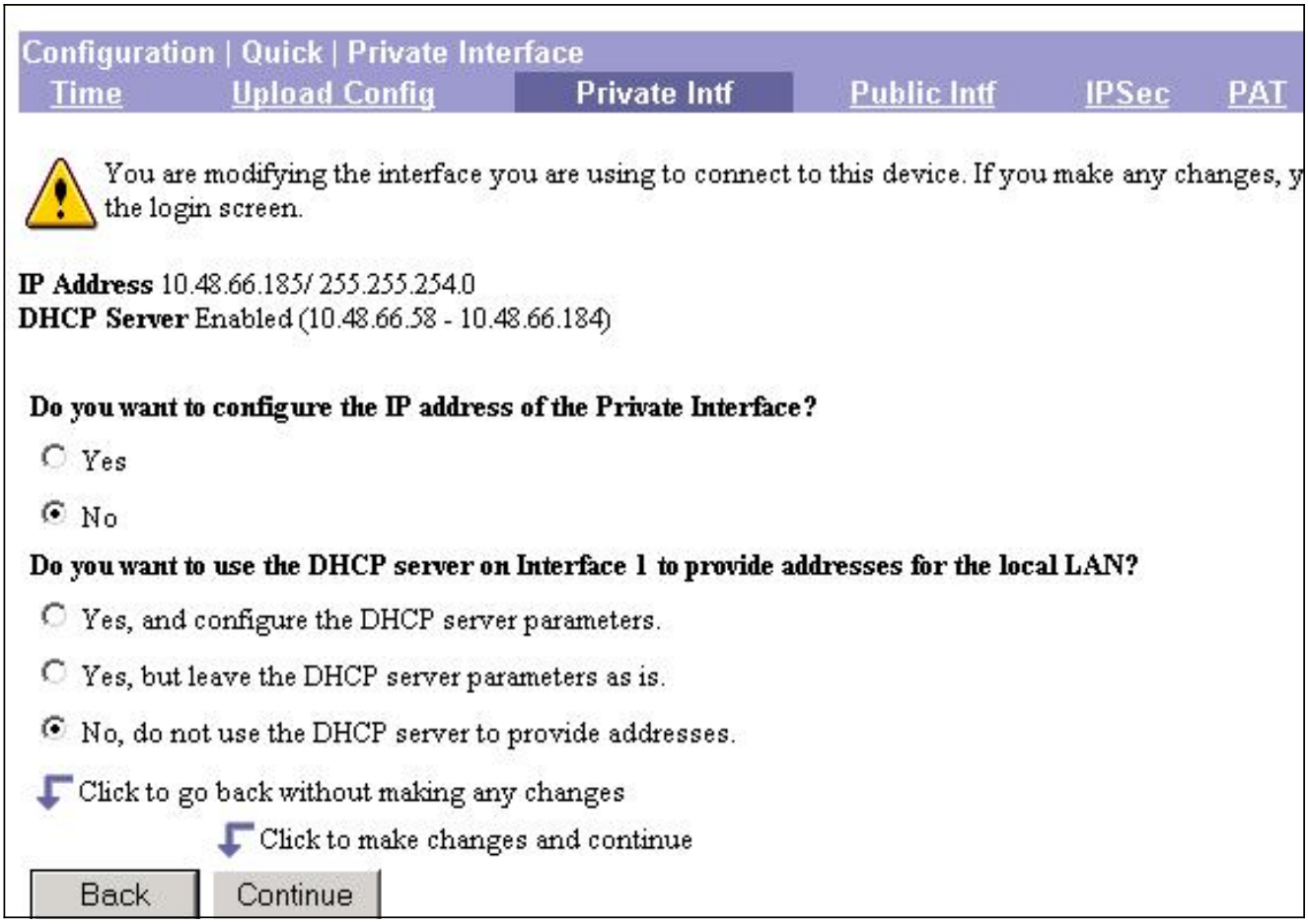
1. Wählen Sie **Konfiguration > Schnittstellen** aus, und überprüfen Sie die IP-Adresse.



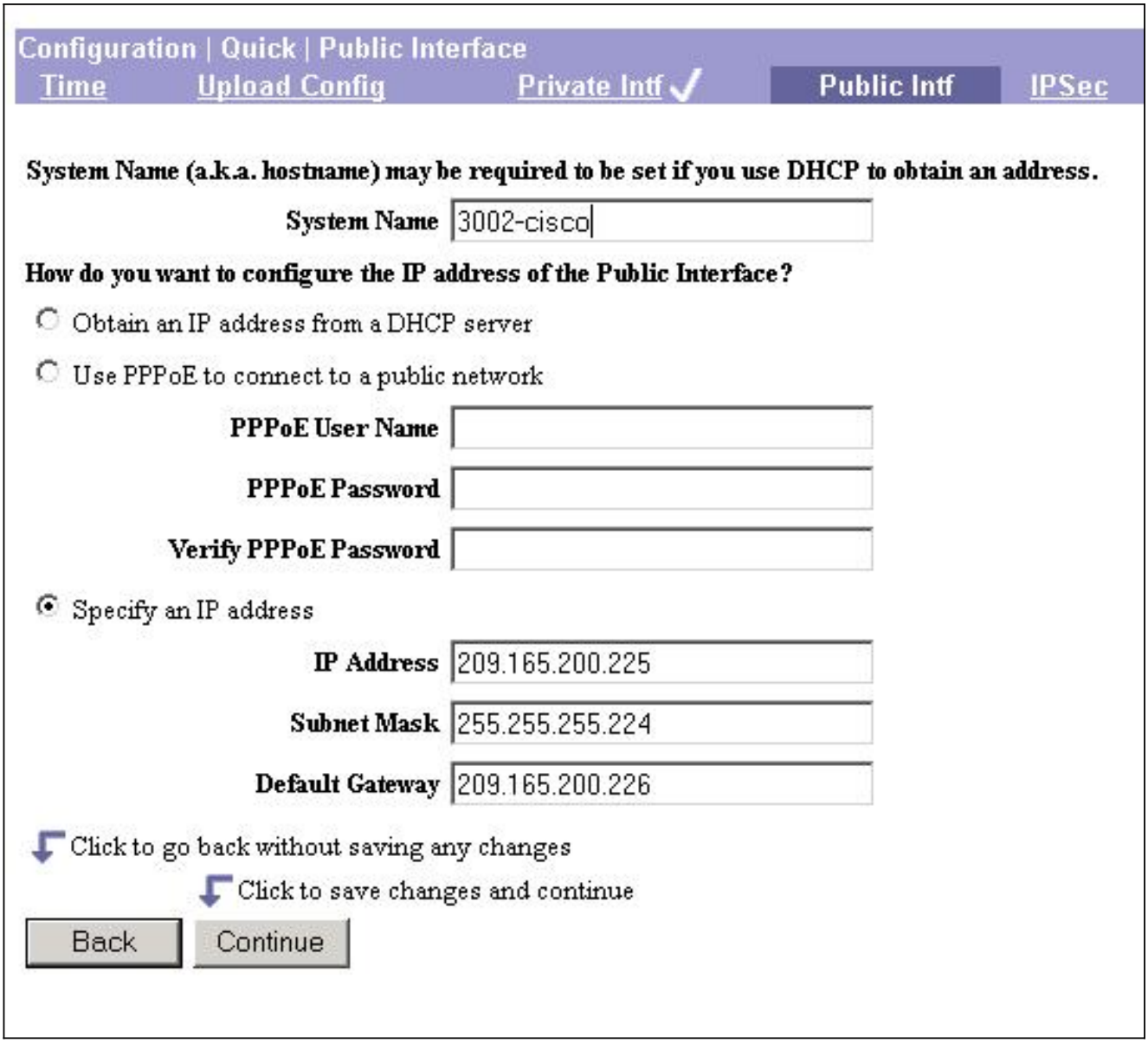
2. Wählen Sie **Konfiguration > Quick > Time and Date > Time** aus, um die Uhrzeit festzulegen und zu
überprüfen.



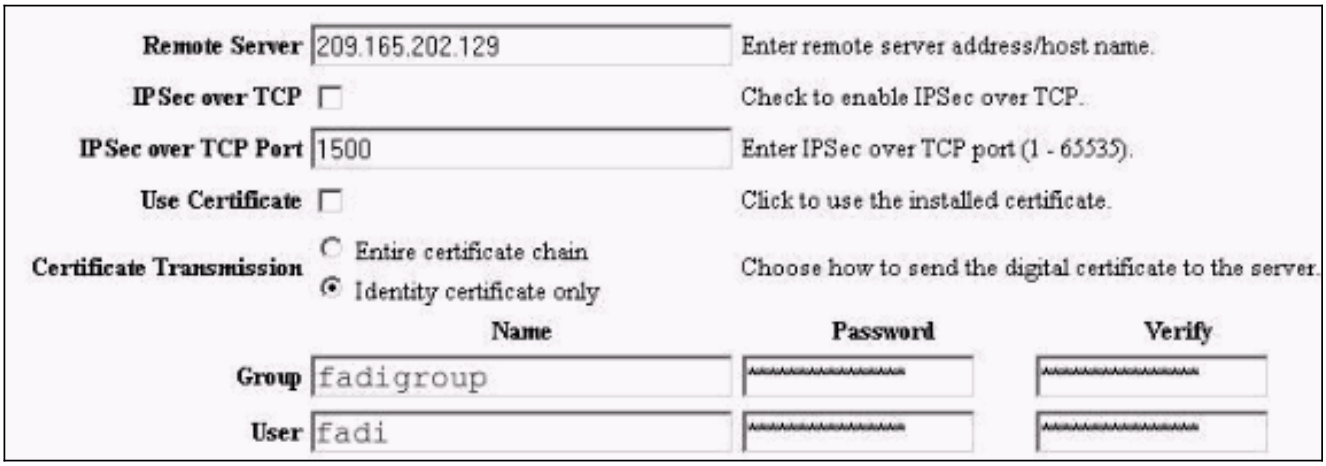
3. Wählen Sie **Configuration > Quick > Private Interface > Private Intf** aus, um die statischen IP-Adressen auf den internen Hosts (kein DHCP) zu konfigurieren.
4. Wählen Sie **Nein** für "Möchten Sie die IP-Adresse der privaten Schnittstelle konfigurieren?" aus.
5. Wählen Sie **Nein, verwenden Sie den DHCP-Server nicht, um Adressen** für "Möchten Sie den DHCP-Server auf Schnittstelle 1 verwenden, um Adressen für das lokale LAN bereitzustellen?"
auszuwählen.



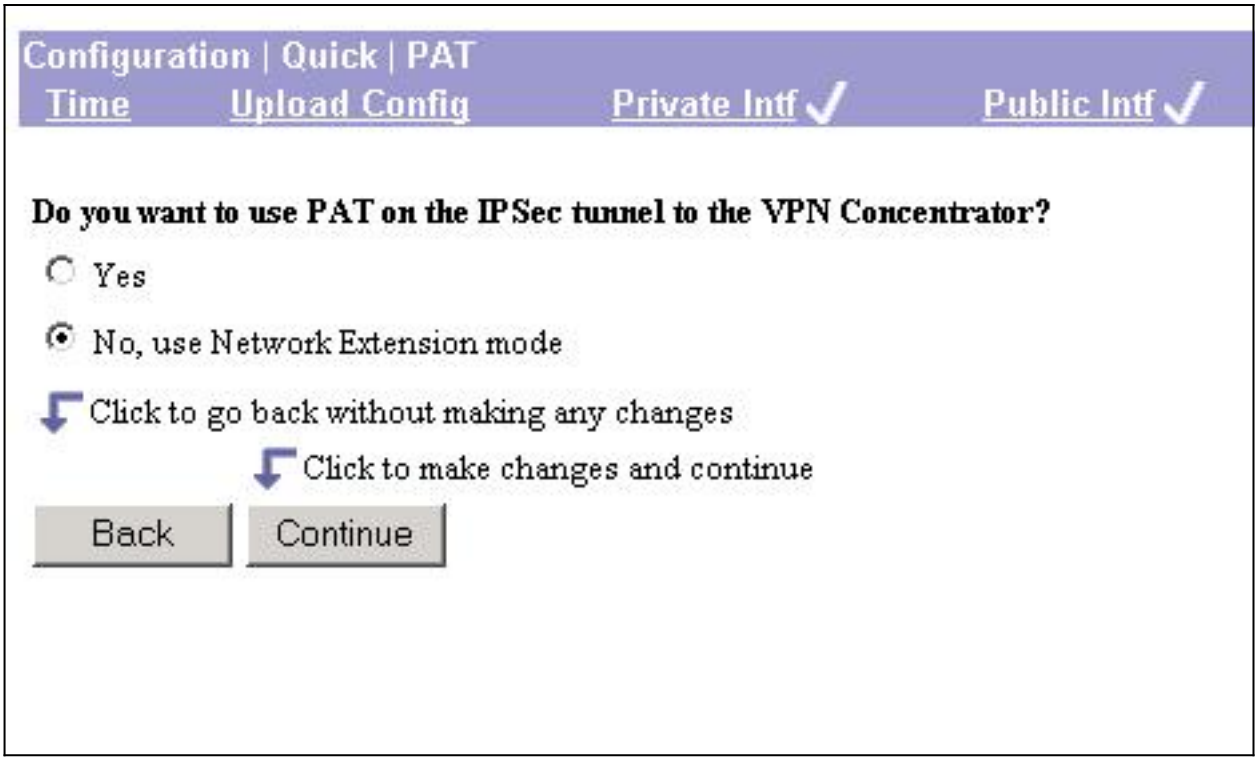
6. Geben Sie die IP-Adresse an, wenn Sie statisch sind, indem Sie **Configuration > Quick > Public Interface > Public Intf** auswählen.
7. Wählen Sie im Fenster "Öffentliche Schnittstelle" die Option **IP-Adresse angeben**, und geben Sie die entsprechende IP-Adresse, Subnetzmaske und das Standard-Gateway ein.



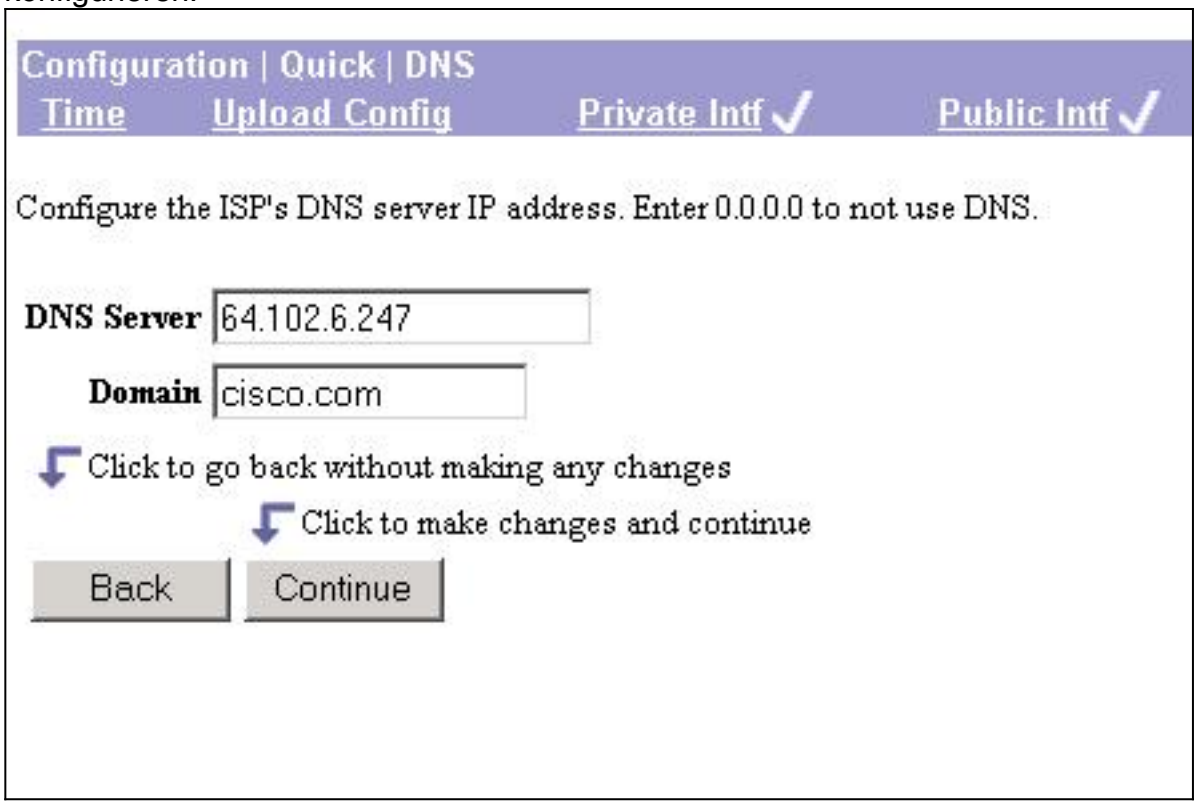
8. Konfigurieren Sie den Remote-VPN-Peer (öffentliche IP-Adresse des Routers). Wählen Sie dazu **Configuration > Quick > IPSec aus** und geben Sie **fadigroup** für den Gruppennamen ein, **cisco123 für das Gruppenkennwort, fadi für den Benutzernamen und cisco für das Benutzerkennwort.**



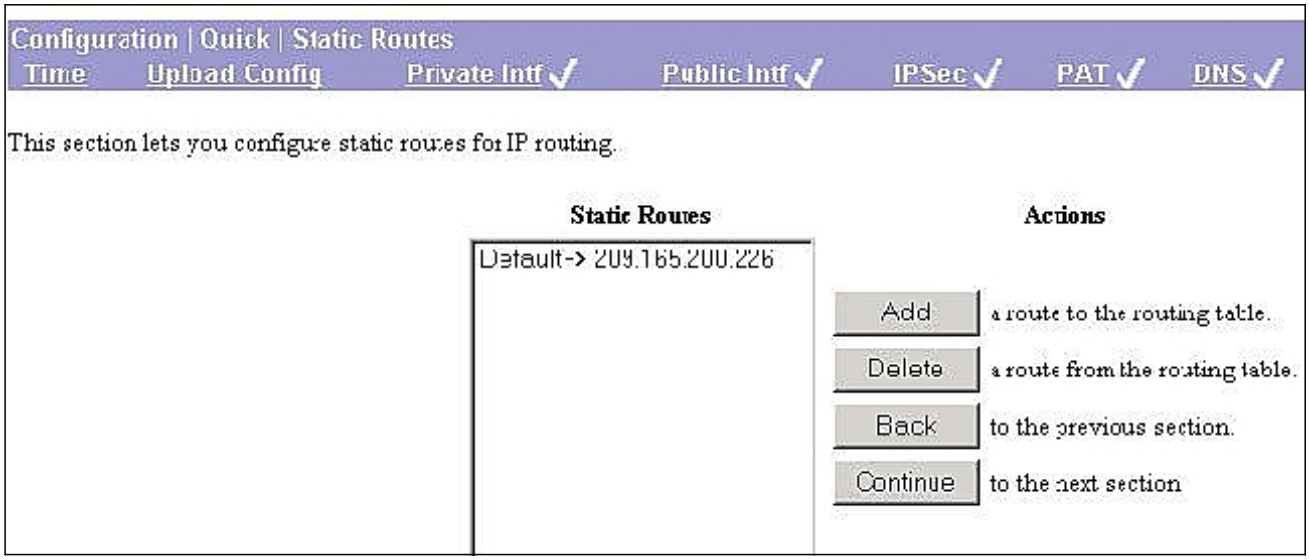
9. Wählen Sie **Configuration > Quick > PAT aus,** und wählen Sie **No (Nein) aus. Verwenden Sie den Netzwerkerweiterungsmodus** im PAT-Fenster, um den Netzwerkerweiterungsmodus zu konfigurieren.



10. Wählen Sie **Configuration > Quick > DNS aus**, und geben Sie den DNS-Server- und Domänennamen des ISP ein, um DNS zu konfigurieren.



11. Wählen Sie **Configuration > Quick > Static Routes (Konfiguration > Quick > Statische Routen) aus,** und klicken Sie auf **Add**, um der Routing-Tabelle eine statische Route hinzuzufügen, um das Standard-Gateway des VPN-Clients zu konfigurieren.



Überprüfen

Dieser Abschnitt enthält Informationen, mit denen Sie überprüfen können, ob 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**.

Informationen zu den Befehlen für die **Anzeige finden Sie unter** IP Security Troubleshooting - Understanding and Using **debug** Commands (IP-Sicherheitsfehlerbehebung - Grundlagen und Verwenden von Befehlen zum Debuggen).

Fehlerbehebung

Dieser Abschnitt enthält Informationen zur Fehlerbehebung in Ihrer Konfiguration.

Hinweis: Wenn PAT aktiviert im Cisco VPN 3002-Client verwendet wird, werden der vorhandene Benutzername und das vorhandene Kennwort beim erneuten Laden entfernt. Sie müssen den neuen Benutzernamen und das neue Kennwort für den Client konfigurieren.

Hinweis: Wenn PAT Disabled (NEM) verwendet wird, behält das Neuladen den Benutzernamen und das Kennwort bei, sofern das Headend für das Speichern von Benutzername und Kennwort konfiguriert ist.

Fehlerbehebungsverfahren

Dies sind Informationen zur Fehlerbehebung, die für diese Konfiguration relevant sind. Weitere Informationen zur Fehlerbehebung finden Sie unter IP Security Troubleshooting - Understanding and Using **debug** Commands. Gehen Sie wie folgt vor, um eine Fehlerbehebung für Ihre Konfiguration durchzuführen:

1. Stellen Sie sicher, dass die SA-Einrichtung für Phase 1 und Phase 2 sichtbar ist. Verwenden Sie die **Debug**-Basislinie im Abschnitt "Befehle zur Fehlerbehebung".
2. Senden Sie nach der Anzeige der SAs Datenverkehr zwischen den geschützten Netzwerken, um die Verbindung zu testen.

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**: Zeigt IPSec-Ereignisse an.
- **debug crypto isakmp**: Zeigt Meldungen über IKE-Ereignisse an.
- **debug crypto engine** - Zeigt Debugmeldungen über Krypto Engines an, die Verschlüsselung und Entschlüsselung durchführen.

```
!--- Cisco IOS has received a request for new SA from the VPN Client. 03:36:19: ISAKMP (0:0):
received packet from 209.165.200.225 (N) NEW SA 03:36:19: ISAKMP: local port 500, remote port
500 03:36:19: ISAKMP (0:1): (Re)Setting client xauth list userauthen and state 03:36:19: ISAKMP:
Locking CONFIG struct 0x631B752C from crypto_ikmp_config_initialize_sa, count 1 03:36:19: ISAKMP
(0:1): processing SA payload. message ID = 0 03:36:19: ISAKMP (0:1): processing ID payload.
message ID = 0 03:36:19: ISAKMP (0:1): processing vendor id payload 03:36:19: ISAKMP (0:1):
vendor ID seems Unity/DPD but bad major 03:36:19: ISAKMP (0:1): vendor ID is XAUTH 03:36:19:
ISAKMP (0:1): processing vendor id payload 03:36:19: ISAKMP (0:1): vendor ID is Unity !--- Cisco
IOS checks the incoming ISAKMP proposal with the policy !--- defined in Cisco IOS. 03:36:19:
ISAKMP (0:1): Checking ISAKMP transform 1 against priority 3 policy 03:36:19: ISAKMP: default
group 2 03:36:19: ISAKMP: encryption 3DES-CBC 03:36:19: ISAKMP: hash SHA 03:36:19: ISAKMP: auth
XAUTHInitPreShared 03:36:19: ISAKMP: life type in seconds 03:36:19: ISAKMP: life duration (VPI)
of 0x7F 0xFF 0xFF 0xFF 03:36:19: ISAKMP (0:1): atts are acceptable. Next payload is 3 03:36:19:
CryptoEngine0: generate alg parameter 03:36:19: CRYPTO_ENGINE: Dh phase 1 status: 0 03:36:19:
CRYPTO_ENGINE: Dh phase 1 status: 0 03:36:19: ISAKMP (0:1): processing KE payload. message ID =
0 03:36:19: CryptoEngine0: generate alg parameter 03:36:19: ISAKMP (0:1): processing NONCE
payload. message ID = 0 03:36:19: ISAKMP (0:1): processing vendor id payload 03:36:19: ISAKMP
(0:1): vendor ID seems Unity/DPD but bad major 03:36:19: ISAKMP (0:1): vendor ID is XAUTH
03:36:19: ISAKMP (0:1): processing vendor id payload 03:36:19: ISAKMP (0:1): vendor ID is Unity
03:36:19: ISAKMP (0:1): Input = IKE_MESG_FROM_PEER, IKE_AM_EXCH Old State = IKE_READY New State
= IKE_R_AM_AAA_AWAIT 03:36:19: ISAKMP: got callback 1 03:36:19: CryptoEngine0: create ISAKMP
SKEYID for conn id 1 03:36:19: ISAKMP (0:1): SKEYID state generated 03:36:19: ISAKMP (0:1): SA
is doing pre-shared key authentication plux XAUTH using id type ID_IPV4_ADDR 03:36:19: ISAKMP
(1): ID payload next-payload : 10 type : 1 protocol : 17 port : 500 length : 8 03:36:19: ISAKMP
(1): Total payload length: 12 03:36:19: CryptoEngine0: generate hmac context for conn id 1
03:36:19: ISAKMP (0:1): sending packet to 209.165.200.225 (R) AG_INIT_EXCH 03:36:19: ISAKMP
(0:1): Input = IKE_MESG_FROM_AAA, PRESHARED_KEY_REPLY Old State = IKE_R_AM_AAA_AWAIT New State =
IKE_R_AM2 03:36:27: ISAKMP (0:1): received packet from 209.165.200.225 (R) AG_INIT_EXCH
03:36:28: ISAKMP (0:1): sending packet to 209.165.200.225 (R) AG_INIT_EXCH 03:36:28: ISAKMP
(0:1): received packet from 209.165.200.225 (R) AG_INIT_EXCH 03:36:28: ISAKMP (0:1): processing
HASH payload. message ID = 0 03:36:28: CryptoEngine0: generate hmac context for conn id 1
03:36:28: ISAKMP (0:1): processing NOTIFY INITIAL_CONTACT protocol 1 spi 0, message ID = 0, sa =
63393F7C 03:36:28: ISAKMP (0:1): Process initial contact, bring down existing phase 1 and 2 SA's
03:36:28: ISAKMP (0:1): returning IP addr to the address pool 03:36:28: ISAKMP (0:1): peer does
not do paranoid keepalives. 03:36:28: ISAKMP (0:1): processing vendor id payload 03:36:28:
ISAKMP (0:1): vendor ID is DPD !--- Phase 1 is now complete and ISAKMP SA is negoitated.
03:36:28: ISAKMP (0:1): SA has been authenticated with 209.165.200.225 03:36:28: CryptoEngine0:
clear dh number for conn id 1 03:36:28: CryptoEngine0: generate hmac context for conn id 1
03:36:28: ISAKMP (0:1): sending packet to 209.165.200.225 (R) QM_IDLE 03:36:28: ISAKMP (0:1):
purging node -2033367886 03:36:28: ISAKMP: Sending phase 1 responder lifetime 86400 03:36:28:
ISAKMP (0:1): Input = IKE_MESG_FROM_PEER, IKE_AM_EXCH Old State = IKE_R_AM2 New State =
IKE_P1_COMPLETE 03:36:28: IPSEC(key_engine): got a queue event... 03:36:28:
IPSEC(key_engine_delete_sas): rec'd delete notify from ISAKMP 03:36:28:
IPSEC(key_engine_delete_sas): delete all SAs shared with 209.165.200.225 !--- Proceed to the
Extended Authentication. !--- Remember that XAUTH is done before Phase 2 and after Phase 1.
```

03:36:28: ISAKMP (0:1): Need XAUTH 03:36:28: ISAKMP (0:1): Input = IKE_MESG_INTERNAL, IKE_PHASE1_COMPLETE Old State = IKE_P1_COMPLETE New State = IKE_XAUTH_AAA_START_LOGIN_AWAIT 03:36:28: ISAKMP: got callback 1 03:36:28: ISAKMP/xauth: request attribute XAUTH_TYPE_V2 03:36:28: ISAKMP/xauth: request attribute XAUTH_MESSAGE_V2 03:36:28: ISAKMP/xauth: request attribute XAUTH_USER_NAME_V2 03:36:28: ISAKMP/xauth: request attribute XAUTH_USER_PASSWORD_V2 03:36:28: CryptoEngine0: generate hmac context for conn id 1 03:36:28: ISAKMP (0:1): initiating peer config to 209.165.200.225. ID = 1189186805 03:36:28: ISAKMP (0:1): sending packet to 209.165.200.225 (R) CONF_XAUTH 03:36:28: ISAKMP (0:1): Input = IKE_MESG_FROM_AAA, IKE_AAA_START_LOGIN Old State = IKE_XAUTH_AAA_START_LOGIN_AWAIT New State = IKE_XAUTH_REQ_SENT 03:36:28: ISAKMP (0:1): received packet from 209.165.200.225 (R) CONF_XAUTH 03:36:28: ISAKMP (0:1): processing transaction payload from 209.165.200.225. message ID = 1189186805 03:36:28: CryptoEngine0: generate hmac context for conn id 1 03:36:28: ISAKMP: Config payload REPLY 03:36:28: ISAKMP/xauth: reply attribute XAUTH_USER_NAME_V2 03:36:28: ISAKMP/xauth: reply attribute XAUTH_USER_PASSWORD_V2 03:36:28: ISAKMP (0:1): deleting node 1189186805 error FALSE reason "done with xauth request/reply exchange" 03:36:28: ISAKMP (0:1): Input = IKE_MESG_FROM_PEER, IKE_CFG_REPLY Old State = IKE_XAUTH_REQ_SENT New State = IKE_XAUTH_AAA_CONT_LOGIN_AWAIT 03:36:28: ISAKMP: got callback 1 03:36:28: CryptoEngine0: generate hmac context for conn id 1 03:36:28: ISAKMP (0:1): initiating peer config to 209.165.200.225. ID = 1490194005 03:36:28: ISAKMP (0:1): sending packet to 209.165.200.225 (R) CONF_XAUTH 03:36:28: ISAKMP (0:1): Input = IKE_MESG_FROM_AAA, IKE_AAA_CONT_LOGIN Old State = IKE_XAUTH_AAA_CONT_LOGIN_AWAIT New State = IKE_XAUTH_SET_SENT 03:36:28: ISAKMP (0:1): received packet from 209.165.200.225 (R) CONF_XAUTH 03:36:28: ISAKMP (0:1): processing transaction payload from 209.165.200.225. message ID = 1490194005 03:36:28: CryptoEngine0: generate hmac context for conn id 1 03:36:28: ISAKMP: Config payload ACK 03:36:28: ISAKMP (0:1): XAUTH ACK Processed 03:36:28: ISAKMP (0:1): deleting node 1490194005 error FALSE reason "done with transaction" 03:36:28: ISAKMP (0:1): Input = IKE_MESG_FROM_PEER, IKE_CFG_ACK Old State = IKE_XAUTH_SET_SENT New State = IKE_P1_COMPLETE 03:36:28: ISAKMP (0:1): received packet from 209.165.200.225 (R) QM_IDLE 03:36:28: ISAKMP (0:1): processing transaction payload from 209.165.200.225. message ID = 113305927 03:36:28: CryptoEngine0: generate hmac context for conn id 1 03:36:28: ISAKMP: Config payload REQUEST 03:36:28: ISAKMP (0:1): checking request: 03:36:28: ISAKMP: IP4_DNS 03:36:28: ISAKMP: IP4_DNS 03:36:28: ISAKMP: IP4_NBNS 03:36:28: ISAKMP: IP4_NBNS 03:36:28: ISAKMP: SPLIT_INCLUDE 03:36:28: ISAKMP: DEFAULT_DOMAIN 03:36:28: ISAKMP: UNKNOWN Unknown Attr: 0x7005 03:36:28: ISAKMP: UNKNOWN Unknown Attr: 0x7007 03:36:28: ISAKMP: UNKNOWN Unknown Attr: 0x7800 03:36:28: ISAKMP: UNKNOWN Unknown Attr: 0x7801 03:36:28: ISAKMP: UNKNOWN Unknown Attr: 0x7802 03:36:28: ISAKMP: UNKNOWN Unknown Attr: 0x7803 03:36:28: ISAKMP: UNKNOWN Unknown Attr: 0x7804 03:36:28: ISAKMP: UNKNOWN Unknown Attr: 0x7805 03:36:28: ISAKMP: UNKNOWN Unknown Attr: 0x7806 03:36:28: ISAKMP: UNKNOWN Unknown Attr: 0x7009 03:36:28: ISAKMP: APPLICATION_VERSION 03:36:28: ISAKMP (0:1): Input = IKE_MESG_FROM_PEER, IKE_CFG_REQUEST Old State = IKE_P1_COMPLETE New State = IKE_CONFIG_AUTHOR_AAA_AWAIT 03:36:28: ISAKMP (0:1): Unknown Input: state = IKE_CONFIG_AUTHOR_AAA_AWAIT, major, minor = IKE_MESG_INTERNAL, IKE_PHASE1_COMPLETE 03:36:28: ISAKMP: got callback 1 03:36:28: ISAKMP (0:1): Config attributes requested butconfig attributes not in crypto map. Sending empty reply. 03:36:28: ISAKMP (0:1): attributes sent in message: 03:36:28: ISAKMP: Unknown Attr: UNKNOWN (0x7005) 03:36:28: ISAKMP: Unknown Attr: UNKNOWN (0x7007) 03:36:28: ISAKMP: Unknown Attr: UNKNOWN (0x7800) 03:36:28: ISAKMP: Unknown Attr: UNKNOWN (0x7801) 03:36:28: ISAKMP: Unknown Attr: UNKNOWN (0x7802) 03:36:28: ISAKMP: Unknown Attr: UNKNOWN (0x7803) 03:36:28: ISAKMP: Unknown Attr: UNKNOWN (0x7804) 03:36:28: ISAKMP: Unknown Attr: UNKNOWN (0x7805) 03:36:28: ISAKMP: Unknown Attr: UNKNOWN (0x7806) 03:36:28: ISAKMP: Unknown Attr: UNKNOWN (0x7009) 03:36:28: ISAKMP: Sending APPLICATION_VERSION string: Cisco Internetwork Operating System Software IOS (tm) 3600 Software (C3640-JK9S-M), Version 12.2(8)T1, RELEASE SOFTWARE (fc2) TAC Support: http://www.cisco.com/tac Copyright (c) 1986-2002 by cisco Systems, Inc. Compiled Sun 31-Mar-02 03:30 by ccai 03:36:28: CryptoEngine0: generate hmac context for conn id 1 03:36:28: ISAKMP (0:1): responding to peer config from 209.165.200.225. ID = 113305927 03:36:28: ISAKMP (0:1): sending packet to 209.165.200.225 (R) CONF_ADDR 03:36:28: ISAKMP (0:1): deleting node 113305927 error FALSE reason "" 03:36:28: ISAKMP (0:1): Input = IKE_MESG_FROM_AAA, IKE_AAA_GROUP_ATTR Old State = IKE_CONFIG_AUTHOR_AAA_AWAIT New State = IKE_P1_COMPLETE 03:36:28: ISAKMP (0:1): received packet from 209.165.200.225 (R) QM_IDLE 03:36:28: CryptoEngine0: generate hmac context for conn id 1 03:36:28: ISAKMP (0:1): processing HASH payload. message ID = 1022849755 03:36:28: ISAKMP (0:1): processing SA payload. message ID = 1022849755 *!--- ISAKMP now verifies the IPSec proposal !--- to see if it is acceptable.* 03:36:28: ISAKMP (0:1): Checking IPSec proposal 1 03:36:28: ISAKMP: transform 1, ESP_3DES 03:36:28: ISAKMP: attributes in transform: 03:36:28: ISAKMP: SA life type in seconds 03:36:28: ISAKMP: SA life duration (VPI) of 0x7F 0xFF 0xFF 0xFF 03:36:28: ISAKMP: encaps is 1 03:36:28: ISAKMP: authenticator is HMAC-SHA 03:36:28: validate proposal 0 03:36:28: ISAKMP (0:1): atts are acceptable. *!--- As the attributes are acceptable, ISAKMP asks !--- IPSec*

to validate the proposal. 03:36:28: IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) INBOUND local= 209.165.202.129, remote= 209.165.200.225, local_proxy= 209.165.202.129/255.255.255.255/0/0 (type=1), remote_proxy= 209.165.200.225/255.255.255.255/0/0 (type=1), protocol= ESP, transform= esp-3des esp-sha-hmac , lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x4 03:36:28: validate proposal request 0 03:36:28: ISAKMP (0:1): processing NONCE payload. message ID = 1022849755 03:36:28: ISAKMP (0:1): processing ID payload. message ID = 1022849755 03:36:28: ISAKMP (0:1): processing ID payload. message ID = 1022849755 03:36:28: ISAKMP (0:1): asking for 1 spis from ipsec 03:36:28: ISAKMP (0:1): Node 1022849755, Input = IKE_MESG_FROM_PEER, IKE_QM_EXCH Old State = IKE_QM_READY New State = IKE_QM_SPI_STARVE 03:36:28: IPSEC(key_engine): got a queue event... 03:36:28: IPSEC(spi_response): getting spi 1910172102 for SA from 209.165.202.129 to 209.165.200.225 for prot 3 03:36:28: ISAKMP: received ke message (2/1) 03:36:28: CryptoEngine0: generate hmac context for conn id 1 03:36:28: ISAKMP (0:1): sending packet to 209.165.200.225 (R) QM_IDLE 03:36:28: ISAKMP (0:1): Node 1022849755, Input = IKE_MESG_FROM_IPSEC, IKE_SPI_REPLY Old State = IKE_QM_SPI_STARVE New State = IKE_QM_R_QM2 03:36:28: ISAKMP (0:1): received packet from 209.165.200.225 (R) QM_IDLE 03:36:28: CryptoEngine0: generate hmac context for conn id 1 03:36:28: ipsec allocate flow 0 03:36:28: ipsec allocate flow 0 *!--- After IPSec validates the proposal, !--- IPSec proceeds to create the IPSec SAs.* 03:36:28: ISAKMP (0:1): Creating IPSec SAs 03:36:28: inbound SA from 209.165.200.225 to 209.165.202.129 (proxy 209.165.200.225 to 209.165.202.129) 03:36:28: has spi 0x71DAE9C6 and conn_id 2000 and flags 4 03:36:28: lifetime of 2147483647 seconds 03:36:28: outbound SA from 209.165.202.129 to 209.165.200.225 (proxy 209.165.202.129 to 209.165.200.225) 03:36:28: has spi 101033821 and conn_id 2001 and flags C 03:36:28: lifetime of 2147483647 seconds 03:36:28: ISAKMP (0:1): deleting node 1022849755 error FALSE reason "quick mode done (await()" 03:36:28: ISAKMP (0:1): Node 1022849755, Input = IKE_MESG_FROM_PEER, IKE_QM_EXCH Old State = IKE_QM_R_QM2 New State = IKE_QM_PHASE2_COMPLETE 03:36:28: IPSEC(key_engine): got a queue event... 03:36:28: IPSEC(initialize_sas): , (key eng. msg.) INBOUND local= 209.165.202.129, remote= 209.165.200.225, *!--- This is the management tunnel.* **local_proxy= 209.165.202.129/0.0.0.0/0/0 (type=1),**

remote_proxy= 209.165.200.225/0.0.0.0/0/0 (type=1),

protocol= ESP, transform= esp-3des esp-sha-hmac ,
lifedur= 2147483647s and 0kb,
spi= 0x71DAE9C6(1910172102), conn_id= 2000, keysize= 0, flags= 0x4
03:36:28: IPSEC(initialize_sas): ,
(key eng. msg.) OUTBOUND local= 209.165.202.129, remote= 209.165.200.225,
local_proxy= 209.165.202.129/0.0.0.0/0/0 (type=1),
remote_proxy= 209.165.200.225/0.0.0.0/0/0 (type=1),
protocol= ESP, transform= esp-3des esp-sha-hmac,
lifedur= 2147483647s and 0kb,
spi= 0x605A75D(101033821), conn_id= 2001, keysize= 0, flags= 0xC
03:36:28: IPSEC(create_sa): sa created,
(sa) sa_dest= 209.165.202.129, sa_prot= 50,
sa_spi= 0x71DAE9C6(1910172102),
sa_trans= esp-3des esp-sha-hmac , sa_conn_id= 2000
03:36:28: IPSEC(create_sa): sa created,
(sa) sa_dest= 209.165.200.225, sa_prot= 50,
sa_spi= 0x605A75D(101033821),
sa_trans= esp-3des esp-sha-hmac , sa_conn_id= 2001
03:36:28: ISAKMP: received ke message (4/1)
03:36:28: ISAKMP: Locking CONFIG struct 0x631B752C for
crypto_ikmp_config_handle_kei_mess, count 2
03:36:32: ISAKMP (0:1): received packet from 209.165.200.225 (R) QM_IDLE
03:36:32: CryptoEngine0: generate hmac context for conn id 1
03:36:32: ISAKMP (0:1): processing HASH payload. message ID = 852253052
03:36:32: ISAKMP (0:1): processing SA payload. message ID = 852253052
03:36:32: ISAKMP (0:1): Checking IPSec proposal 1
03:36:32: ISAKMP: transform 1, ESP_3DES
03:36:32: ISAKMP: attributes in transform:
03:36:32: ISAKMP: SA life type in seconds
03:36:32: ISAKMP: SA life duration (VPI) of 0x7F 0xFF 0xFF 0xFF
03:36:32: ISAKMP: encaps is 1
03:36:32: ISAKMP: authenticator is HMAC-SHA
03:36:32: validate proposal 0
03:36:32: ISAKMP (0:1): atts are acceptable.
03:36:32: IPSEC(validate_proposal_request): proposal part #1,

```
  (key eng. msg.) INBOUND local= 209.165.202.129, remote= 209.165.200.225,
    local_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4),
    remote_proxy= 10.48.66.0/255.255.254.0/0/0 (type=4),
    protocol= ESP, transform= esp-3des esp-sha-hmac ,
    lifedur= 0s and 0kb,
    spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x4
03:36:32: validate proposal request 0
03:36:32: ISAKMP (0:1): processing NONCE payload. message ID = 852253052
03:36:32: ISAKMP (0:1): processing ID payload. message ID = 852253052
03:36:32: ISAKMP (0:1): processing ID payload. message ID = 852253052
03:36:32: ISAKMP (0:1): asking for 1 spis from ipsec
03:36:32: ISAKMP (0:1): Node 852253052, Input = IKE_MESG_FROM_PEER, IKE_QM_EXCH
Old State = IKE_QM_READY  New State = IKE_QM_SPI_STARVE
03:36:32: IPSEC(key_engine): got a queue event...
03:36:32: IPSEC(spi_response): getting spi 3997625134 for SA
        from 209.165.202.129 to 209.165.200.225 for prot 3
03:36:32: ISAKMP: received ke message (2/1)
03:36:32: CryptoEngine0: generate hmac context for conn id 1
03:36:32: ISAKMP (0:1): sending packet to 209.165.200.225 (R) QM_IDLE
03:36:32: ISAKMP (0:1): Node 852253052, Input = IKE_MESG_FROM_IPSEC, IKE_SPI_REPLY
Old State = IKE_QM_SPI_STARVE  New State = IKE_QM_R_QM2
03:36:32: ISAKMP (0:1): received packet from 209.165.200.225 (R) QM_IDLE
03:36:32: CryptoEngine0: generate hmac context for conn id 1
03:36:32: ipsec allocate flow 0
03:36:32: ipsec allocate flow 0
03:36:32: ISAKMP (0:1): Creating IPSec SAs
03:36:32:         inbound SA from 209.165.200.225 to 209.165.202.129
        (proxy 10.48.66.0 to 0.0.0.0)
03:36:32:         has spi 0xEE46EB2E and conn_id 2002 and flags 4
03:36:32:         lifetime of 2147483647 seconds
03:36:32:         outbound SA from 209.165.202.129 to 209.165.200.225
(proxy 0.0.0.0 to 10.48.66.0)
03:36:32:         has spi 674305339 and conn_id 2003 and flags C
03:36:32:         lifetime of 2147483647 seconds
03:36:32: ISAKMP (0:1): deleting node 852253052 error FALSE reason "quick mode done (await()"
03:36:32: ISAKMP (0:1): Node 852253052, Input = IKE_MESG_FROM_PEER, IKE_QM_EXCH
Old State = IKE_QM_R_QM2  New State = IKE_QM_PHASE2_COMPLETE
03:36:32: IPSEC(key_engine): got a queue event...
 !--- IPSec now initializes the SAs as these are !--- stored in the SA Database. 03:36:32:
IPSEC(initialize_sas): , (key eng. msg.) INBOUND local= 209.165.202.129, remote=
209.165.200.225, !--- This SA is for the actual data traffic between the !--- networks behind
the VPN Client and the Cisco IOS router. local_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4),
    remote_proxy= 10.48.66.0/255.255.254.0/0/0 (type=4),
protocol= ESP, transform= esp-3des esp-sha-hmac ,
    lifedur= 2147483647s and 0kb,
    spi= 0xEE46EB2E(3997625134), conn_id= 2002, keysize= 0, flags= 0x4
03:36:32: IPSEC(initialize_sas): ,
  (key eng. msg.) OUTBOUND local= 209.165.202.129, remote= 209.165.200.225,
    local_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4),
    remote_proxy= 10.48.66.0/255.255.254.0/0/0 (type=4),
    protocol= ESP, transform= esp-3des esp-sha-hmac ,
    lifedur= 2147483647s and 0kb,
    spi= 0x2831153B(674305339), conn_id= 2003, keysize= 0, flags= 0xC
03:36:32: IPSEC(create_sa): sa created,
  (sa) sa_dest= 209.165.202.129, sa_prot= 50,
    sa_spi= 0xEE46EB2E(3997625134),
    sa_trans= esp-3des esp-sha-hmac , sa_conn_id= 2002
03:36:32: IPSEC(create_sa): sa created,
  (sa) sa_dest= 209.165.200.225, sa_prot= 50,
    sa_spi= 0x2831153B(674305339),
    sa_trans= esp-3des esp-sha-hmac , sa_conn_id= 2003
03:36:32: ISAKMP: received ke message (4/1)
03:36:32: ISAKMP: Locking CONFIG struct 0x631B752C for
 crypto_ikmp_config_handle_kei_mess, count 3
```

VPN 3002 Hardware-Client-Debugs

Wählen Sie in der VPN-Client-GUI Configuration > System > Events > Classes aus, und aktivieren Sie IKE, IKEDBG, IPSEC und IPSECDBG auf Ebene **13 für das SYSLOG.** Denken Sie daran, die Debugger zu deaktivieren, nachdem der Test abgeschlossen ist.

VPN 3002 Hardware-Client-Debugs

```
297 06/03/2002 11:02:30.100 SEV=7 IPSECDBG/14 RPT=3
!--- The VPN Client attempts to connect to the headend.
!--- In this case, it is Cisco IOS. Sending KEY_ACQUIRE
to IKE for src 209.165.200.225, dst 209.165.202.129 298
06/03/2002 11:02:30.100 SEV=8 IKEDBG/0 RPT=108 pitcher:
received a key acquire message! 299 06/03/2002
11:02:30.100 SEV=4 IKE/41 RPT=135 209.165.202.129 IKE
Initiator: New Phase 1, Intf 2, IKE Peer 209.165.202.129
local Proxy Address 209.165.200.225, remote Proxy
Address 209.165.202.129, SA (ESP-3DES-MD5) 302
06/03/2002 11:02:30.100 SEV=9 IKEDBG/0 RPT=109
209.165.202.129 constructing ISA_SA for isakmp 303
06/03/2002 11:02:30.230 SEV=9 IKEDBG/0 RPT=110
209.165.202.129 constructing ke payload 304 06/03/2002
11:02:30.230 SEV=9 IKEDBG/1 RPT=30 209.165.202.129
constructing nonce payload 305 06/03/2002 11:02:30.230
SEV=9 IKEDBG/1 RPT=31 209.165.202.129 constructing ID
306 06/03/2002 11:02:30.230 SEV=9 IKEDBG/46 RPT=4
209.165.202.129 constructing xauth V6 VID payload 307
06/03/2002 11:02:30.230 SEV=9 IKEDBG/46 RPT=5
209.165.202.129 constructing VID payload 308 06/03/2002
11:02:30.230 SEV=9 IKEDBG/48 RPT=2 209.165.202.129 Send
Cisco Unity client VID 309 06/03/2002 11:02:30.230 SEV=8
IKEDBG/0 RPT=111 209.165.202.129 SENDING Message
(msgid=0) with payloads : HDR + SA (1) + KE (4) + NONCE
(10) + ID (5) + VENDOR (13) + VENDOR (13) + NONE ( 0)
... total length : 541 312 06/03/2002 11:02:30.520 SEV=8
IKEDBG/0 RPT=112 209.165.202.129 RECEIVED Message
(msgid=0) with payloads : HDR + SA (1) + VENDOR (13) +
VENDOR (13) + VENDOR (13) + VENDOR (13) + KE (4) + ID
(5) + NONCE (10) + HASH (8) + NONE (0) ... total length
: 348 315 06/03/2002 11:02:30.530 SEV=8 IKEDBG/0 RPT=113
209.165.202.129 RECEIVED Message (msgid=0) with payloads
: HDR + SA (1) + VENDOR (13) + VENDOR (13) + VENDOR (13)
+ VENDOR (13) + KE (4) + ID (5) + NONCE (10) + HASH (8)
+ NONE (0) ... total length : 348 318 06/03/2002
11:02:30.530 SEV=9 IKEDBG/0 RPT=114 209.165.202.129
processing SA payload 319 06/03/2002 11:02:30.530 SEV=7
IKEDBG/0 RPT=115 209.165.202.129 Oakley proposal is
acceptable 320 06/03/2002 11:02:30.530 SEV=9 IKEDBG/47
RPT=5 209.165.202.129 processing VID payload 321
06/03/2002 11:02:30.530 SEV=9 IKEDBG/49 RPT=4
209.165.202.129 Received Cisco Unity client VID 322
06/03/2002 11:02:30.530 SEV=9 IKEDBG/47 RPT=6
209.165.202.129 processing VID payload 323 06/03/2002
11:02:30.530 SEV=9 IKEDBG/49 RPT=5 209.165.202.129
Received DPD VID 324 06/03/2002 11:02:30.530 SEV=9
IKEDBG/47 RPT=7 209.165.202.129 processing VID payload
325 06/03/2002 11:02:30.530 SEV=9 IKEDBG/38 RPT=2
209.165.202.129 Processing IOS/PIX Vendor ID payload
(version: 1.0.0, capabilities: 0000007f) 326 06/03/2002
11:02:30.530 SEV=9 IKEDBG/47 RPT=8 209.165.202.129
processing VID payload 327 06/03/2002 11:02:30.530 SEV=9
```

```
IKEDBG/49 RPT=6 209.165.202.129 !--- The VPN Client
understands that it needs !--- to go through Extended
authentication to !--- bring the tunnel up. Received
xauth V6 VID 328 06/03/2002 11:02:30.530 SEV=9 IKEDBG/0
RPT=116 209.165.202.129 processing ke payload 329
06/03/2002 11:02:30.530 SEV=9 IKEDBG/0 RPT=117
209.165.202.129 processing ISA_KE 330 06/03/2002
11:02:30.530 SEV=9 IKEDBG/1 RPT=32 209.165.202.129
Processing ID 331 06/03/2002 11:02:30.530 SEV=9 IKEDBG/1
RPT=33 209.165.202.129 processing nonce payload 332
06/03/2002 11:02:30.660 SEV=9 IKEDBG/0 RPT=118
209.165.202.129 Generating keys for Initiator... 333
06/03/2002 11:02:30.670 SEV=9 IKEDBG/0 RPT=119
209.165.202.129 Group [209.165.202.129] processing hash
334 06/03/2002 11:02:30.670 SEV=9 IKEDBG/0 RPT=120
209.165.202.129 Group [209.165.202.129] computing hash
335 06/03/2002 11:02:30.680 SEV=9 IKEDBG/0 RPT=121 Group
[209.165.202.129] construct hash payload 336 06/03/2002
11:02:30.680 SEV=9 IKEDBG/0 RPT=122 209.165.202.129
Group [209.165.202.129] computing hash 337 06/03/2002
11:02:30.680 SEV=9 IKEDBG/46 RPT=6 209.165.202.129 Group
[209.165.202.129] constructing dpd vid payload 338
06/03/2002 11:02:30.680 SEV=8 IKEDBG/0 RPT=123
209.165.202.129 SENDING Message (msgid=0) with payloads
: HDR + HASH (8) + NOTIFY (11) + VENDOR (13) + NONE (0)
... total length : 100 340 06/03/2002 11:02:30.690 SEV=8
IKEDBG/0 RPT=124 209.165.202.129 RECEIVED Message
(msgid=71c8c9fd) with payloads : HDR + HASH (8) + NOTIFY
(11) + NONE (0) ... total length : 92 342 06/03/2002
11:02:30.690 SEV=9 IKEDBG/0 RPT=125 209.165.202.129
Group [209.165.202.129] processing hash 343 06/03/2002
11:02:30.690 SEV=9 IKEDBG/0 RPT=126 209.165.202.129
Group [209.165.202.129] Processing Notify payload 344
06/03/2002 11:02:30.690 SEV=5 IKE/73 RPT=19
209.165.202.129 Group [209.165.202.129] !--- As IOS has
a default IKE time of 1 day (86400) seconds !--- and
forces the VPN Client to accept this value. !--- This is
because Cisco IOS responds and the VPN Client initiates.
Responder forcing change of IKE rekeying duration from
2147483647 to 86400 seconds 347 06/03/2002 11:02:30.690
SEV=6 IKE/0 RPT=2 AM AM:843f96f6 received unexpected
event EV_RESET_LIFETIME in state AM_RSND_LST_ MSG 349
06/03/2002 11:02:30.700 SEV=8 IKEDBG/0 RPT=127
209.165.202.129 RECEIVED Message (msgid=ecb5af46) with
payloads : HDR + HASH (8) + ATTR (14) + NONE (0) ...
total length : 86 351 06/03/2002 11:02:30.700 SEV=9
IKEDBG/1 RPT=34 process_attr(): Enter! 352 06/03/2002
11:02:30.700 SEV=9 IKEDBG/1 RPT=35 Processing cfg
Request attributes 353 06/03/2002 11:02:30.700 SEV=9
IKEDBG/1 RPT=36 Received Xauth Type in request! 354
06/03/2002 11:02:30.700 SEV=9 IKEDBG/1 RPT=37 Received
Xauth Message! 355 06/03/2002 11:02:30.700 SEV=9
IKEDBG/1 RPT=38 Received Xauth Username request! 356
06/03/2002 11:02:30.700 SEV=9 IKEDBG/1 RPT=39 Received
Xauth Password request! 357 06/03/2002 11:02:30.700
SEV=9 IKEDBG/0 RPT=128 209.165.202.129 Group
[209.165.202.129] constructing blank hash 358 06/03/2002
11:02:30.700 SEV=9 IKEDBG/0 RPT=129 209.165.202.129
Group [209.165.202.129] constructing qm hash 359
06/03/2002 11:02:30.700 SEV=8 IKEDBG/0 RPT=130
209.165.202.129 SENDING Message (msgid=ecb5af46) with
payloads : HDR + HASH (8) + ATTR (14) + NONE (0) ...
total length : 77 361 06/03/2002 11:02:30.710 SEV=8
IKEDBG/0 RPT=131 209.165.202.129 RECEIVED Message
```

```
(msgid=ad808e58) with payloads : HDR + HASH (8) + ATTR
(14) + NONE (0) ... total length : 64 363 06/03/2002
11:02:30.710 SEV=9 IKEDBG/1 RPT=40 process_attr():
Enter! 364 06/03/2002 11:02:30.710 SEV=9 IKEDBG/1 RPT=41
Processing cfg Request attributes 365 06/03/2002
11:02:30.710 SEV=9 IKEDBG/1 RPT=42 Received Xauth Status
Set! 366 06/03/2002 11:02:30.710 SEV=9 IKEDBG/0 RPT=132
209.165.202.129 Group [209.165.202.129] constructing
blank hash 367 06/03/2002 11:02:30.710 SEV=9 IKEDBG/0
RPT=133 209.165.202.129 Group [209.165.202.129]
constructing qm hash 368 06/03/2002 11:02:30.710 SEV=8
IKEDBG/0 RPT=134 209.165.202.129 SENDING Message
(msgid=ad808e58) with payloads : HDR + HASH (8) + ATTR
(14) + NONE (0) ... total length : 60 370 06/03/2002
11:02:30.720 SEV=9 IKEDBG/0 RPT=135 209.165.202.129
Group [209.165.202.129] constructing blank hash 371
06/03/2002 11:02:30.720 SEV=9 IKEDBG/0 RPT=136
209.165.202.129 Group [209.165.202.129] constructing qm
hash 372 06/03/2002 11:02:30.720 SEV=8 IKEDBG/0 RPT=137
209.165.202.129 SENDING Message (msgid=30ce63a8) with
payloads : HDR + HASH (8) + ATTR (14) + NONE (0) ...
total length : 231 374 06/03/2002 11:02:30.740 SEV=8
IKEDBG/0 RPT=138 209.165.202.129 RECEIVED Message
(msgid=30ce63a8) with payloads : HDR + HASH (8) + ATTR
(14) + NONE (0) ... total length : 313 376 06/03/2002
11:02:30.740 SEV=9 IKEDBG/1 RPT=43 process_attr():
Enter! 377 06/03/2002 11:02:30.740 SEV=9 IKEDBG/1 RPT=44
Processing MODE_CFG Reply attributes !--- The VPN Client
processes the mode !--- configuration reply attributes
sent by Cisco IOS. 378 06/03/2002 11:02:30.740 SEV=6
IKE/130 RPT=2 209.165.202.129 Group [209.165.202.129]
Received unsupported transaction mode attribute: 7 379
06/03/2002 11:02:30.740 SEV=5 IKE/115 RPT=7
209.165.202.129 Group [209.165.202.129] Client rejected
NAT enabled IPSec request, falling back to standard
IPSec 381 06/03/2002 11:02:30.740 SEV=3 AUTH/24 RPT=7
Tunnel to headend device 209.165.202.129 connected 382
06/03/2002 11:02:30.740 SEV=9 IKEDBG/0 RPT=139
209.165.202.129 Group [209.165.202.129] Oakley begin
quick mode 383 06/03/2002 11:02:30.740 SEV=4 IKE/119
RPT=7 209.165.202.129 Group [209.165.202.129] !--- Phase
1 is complete. 384 06/03/2002 11:02:30.740 SEV=6 IKE/121
RPT=2 209.165.202.129 Keep-alive type for this
connection: DPD 385 06/03/2002 11:02:30.740 SEV=7
IKEDBG/0 RPT=140 209.165.202.129 Group [209.165.202.129]
Starting phase 1 rekey timer: 73440000 (ms) 386
06/03/2002 11:02:30.740 SEV=9 IPSECDBG/6 RPT=15 IPSEC
key message parse - msgtype 6, len 200, vers 1, pid
00000000, seq 13, err 0, type 2, mode 0, state 32, label
0, pad 0, spi 00000000, encrKeyLen 0, hashKey Len 0,
ivlen 0, alg 0, hmacAlg 0, lifetype 0, lifetime1 662488,
lifetime2 0, dsI d 300 390 06/03/2002 11:02:30.740 SEV=9
IPSECDBG/1 RPT=47 Processing KEY_GETSPI msg! 391
06/03/2002 11:02:30.740 SEV=7 IPSECDBG/13 RPT=3 Reserved
SPI 1608220759 392 06/03/2002 11:02:30.740 SEV=8
IKEDBG/6 RPT=3 IKE got SPI from key engine: SPI =
0x5fdb8057 393 06/03/2002 11:02:30.750 SEV=9 IKEDBG/0
RPT=141 209.165.202.129 Group [209.165.202.129] oakley
constucting quick mode 394 06/03/2002 11:02:30.750 SEV=9
IKEDBG/0 RPT=142 209.165.202.129 Group [209.165.202.129]
constructing blank hash 395 06/03/2002 11:02:30.750
SEV=9 IKEDBG/0 RPT=143 209.165.202.129 Group
[209.165.202.129] constructing ISA_SA for ipsec 396
06/03/2002 11:02:30.750 SEV=9 IKEDBG/1 RPT=45
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209.165.202.129 Group [209.165.202.129] constructing
ipsec nonce payload 397 06/03/2002 11:02:30.750 SEV=9
IKEDBG/1 RPT=46 209.165.202.129 Group [209.165.202.129]
constructing proxy ID 398 06/03/2002 11:02:30.750 SEV=7
IKEDBG/0 RPT=144 209.165.202.129 Group [209.165.202.129]
Transmitting Proxy Id: !--- This is the SA for
management between !--- the VPN Client and Cisco IOS.
Local host:  209.165.200.225  Protocol 0  Port 0
  Remote host: 209.165.202.129  Protocol 0  Port 0
402 06/03/2002 11:02:30.750 SEV=9 IKEDBG/0 RPT=145
209.165.202.129
Group [209.165.202.129]
constructing qm hash
403 06/03/2002 11:02:30.750 SEV=8 IKEDBG/0 RPT=146
209.165.202.129
SENDING Message (msgid=e429a70e) with payloads :
HDR + HASH (8) + SA (1) + NONCE (10) + ID (5) + ID (5) +
NONE (0) ... total leng
th : 292
406 06/03/2002 11:02:31.010 SEV=8 IKEDBG/0 RPT=147
209.165.202.129
RECEIVED Message (msgid=e429a70e) with payloads :
HDR + HASH (8) + SA (1) + NONCE (10) + ID (5) + ID (5) +
NOTIFY (11) + NONE (0)
... total length : 192
409 06/03/2002 11:02:31.010 SEV=9 IKEDBG/0 RPT=148
209.165.202.129
Group [209.165.202.129]
processing hash
410 06/03/2002 11:02:31.010 SEV=9 IKEDBG/0 RPT=149
209.165.202.129
Group [209.165.202.129]
processing SA payload
411 06/03/2002 11:02:31.020 SEV=9 IKEDBG/1 RPT=47
209.165.202.129
Group [209.165.202.129]
processing nonce payload
412 06/03/2002 11:02:31.020 SEV=9 IKEDBG/1 RPT=48
209.165.202.129
Group [209.165.202.129]
Processing ID
413 06/03/2002 11:02:31.020 SEV=9 IKEDBG/1 RPT=49
209.165.202.129
Group [209.165.202.129]
Processing ID
414 06/03/2002 11:02:31.020 SEV=9 IKEDBG/0 RPT=150
209.165.202.129
Group [209.165.202.129]
Processing Notify payload
415 06/03/2002 11:02:31.020 SEV=5 IKE/73 RPT=20
209.165.202.129
Group [209.165.202.129]
Responder forcing change of IPSec rekeying duration from
2147483647 to 3600 seco
nds
418 06/03/2002 11:02:31.020 SEV=9 IKEDBG/0 RPT=151
209.165.202.129
Group [209.165.202.129]
loading all IPSEC SAs
419 06/03/2002 11:02:31.020 SEV=9 IKEDBG/1 RPT=50
209.165.202.129
Group [209.165.202.129]
Generating Quick Mode Key!
420 06/03/2002 11:02:31.020 SEV=9 IKEDBG/1 RPT=51
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209.165.202.129
Group [209.165.202.129]
Generating Quick Mode Key!
421 06/03/2002 11:02:31.020 SEV=7 IKEDBG/0 RPT=152
209.165.202.129
Group [209.165.202.129]
Loading host:
  Dst: 209.165.202.129
  Src: 209.165.200.225
423 06/03/2002 11:02:31.020 SEV=4 IKE/49 RPT=13
209.165.202.129
Group [209.165.202.129]
Security negotiation complete for peer (209.165.202.129)
Initiator, Inbound SPI = 0x5fdb8057, Outbound SPI =
0xa088f2dc
426 06/03/2002 11:02:31.020 SEV=9 IKEDBG/0 RPT=153
209.165.202.129
Group [209.165.202.129]
oakley constructing final quick mode
427 06/03/2002 11:02:31.030 SEV=8 IKEDBG/0 RPT=154
209.165.202.129
SENDING Message (msgid=e429a70e) with payloads :
HDR + HASH (8) + NONE (0) ... total length : 76
429 06/03/2002 11:02:31.030 SEV=9 IPSECDBG/6 RPT=16
IPSEC key message parse - msgtype 1, len 612, vers 1,
pid 00000000, seq 0, err 0
, type 2, mode 1, state 64, label 0, pad 0, spi
a088f2dc, encrKeyLen 24, hashKey
Len 20, ivlen 8, alg 2, hmacAlg 4, lifetype 0, lifetime1
662488, lifetime2 0, ds
Id -378167296
433 06/03/2002 11:02:31.030 SEV=9 IPSECDBG/1 RPT=48
Processing KEY_ADD msg!
434 06/03/2002 11:02:31.030 SEV=9 IPSECDBG/1 RPT=49
key_msghdr2secassoc(): Enter
435 06/03/2002 11:02:31.030 SEV=7 IPSECDBG/1 RPT=50
No USER filter configured
436 06/03/2002 11:02:31.030 SEV=9 IPSECDBG/1 RPT=51
KeyProcessAdd: Enter
437 06/03/2002 11:02:31.030 SEV=8 IPSECDBG/1 RPT=52
KeyProcessAdd: Adding outbound SA
438 06/03/2002 11:02:31.030 SEV=8 IPSECDBG/1 RPT=53
KeyProcessAdd: src 209.165.200.225 mask 0.0.0.0, dst
209.165.202.129 mask 0.0.0.
0
440 06/03/2002 11:02:31.030 SEV=8 IPSECDBG/1 RPT=54
KeyProcessAdd: FilterIpsecAddIkeSa success
441 06/03/2002 11:02:31.030 SEV=9 IPSECDBG/6 RPT=17
IPSEC key message parse - msgtype 3, len 332, vers 1,
pid 00000000, seq 0, err 0
, type 2, mode 1, state 32, label 0, pad 0, spi
5fdb8057, encrKeyLen 24, hashKey
Len 20, ivlen 8, alg 2, hmacAlg 4, lifetype 0, lifetime1
662488, lifetime2 0, ds
Id -378167296
445 06/03/2002 11:02:31.030 SEV=9 IPSECDBG/1 RPT=55
Processing KEY_UPDATE msg!
446 06/03/2002 11:02:31.030 SEV=9 IPSECDBG/1 RPT=56
Update inbound SA addresses
447 06/03/2002 11:02:31.030 SEV=9 IPSECDBG/1 RPT=57
key_msghdr2secassoc(): Enter
448 06/03/2002 11:02:31.030 SEV=7 IPSECDBG/1 RPT=58
No USER filter configured
449 06/03/2002 11:02:31.030 SEV=9 IPSECDBG/1 RPT=59
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KeyProcessUpdate: Enter
450 06/03/2002 11:02:31.030 SEV=8 IPSECDBG/1 RPT=60
KeyProcessUpdate: success
451 06/03/2002 11:02:31.030 SEV=8 IKEDBG/7 RPT=3
IKE got a KEY_ADD msg for SA: SPI = 0xa088f2dc
452 06/03/2002 11:02:31.030 SEV=8 IKEDBG/0 RPT=155
pitcher: rcv KEY_UPDATE, spi 0x5fdb8057
453 06/03/2002 11:02:31.040 SEV=4 IKE/120 RPT=13
209.165.202.129
Group [209.165.202.129]
PHASE 2 COMPLETED (msgid=e429a70e)
!--- This line indicates that SA establishment !--- for management between the VPN Client and Cisco IOS is complete. 454 06/03/2002 11:02:35.040 SEV=7 IPSECDBG/10 RPT=4 IPSEC ipsec_output() can call key_acquire() because 4 seconds have elapsed since last IKE negotiation began (src 0x0a3042b9, dst 0x00a66e24) 456 06/03/2002 11:02:35.040 SEV=7 IPSECDBG/14 RPT=4 Sending KEY_ACQUIRE to IKE for src 10.48.66.185, dst 0.0.0.0 457 06/03/2002 11:02:35.040 SEV=8 IKEDBG/0 RPT=156 pitcher: received a key acquire message! 458 06/03/2002 11:02:35.040 SEV=4 IKE/41 RPT=136 IKE Initiator: New Phase 2, Intf 2, IKE Peer 209.165.202.129 local Proxy Address 10.48.66.0, remote Proxy Address 0.0.0.0, SA (ESP-3DES-MD5) 460 06/03/2002 11:02:35.040 SEV=9 IKEDBG/0 RPT=157 209.165.202.129 Group [209.165.202.129] Oakley begin quick mode 461 06/03/2002 11:02:35.040 SEV=9 IPSECDBG/6 RPT=18 IPSEC key message parse - msgtype 6, len 200, vers 1, pid 00000000, seq 14, err 0, type 2, mode 0, state 32, label 0, pad 0, spi 00000000, encrKeyLen 0, hashKey Len 0, ivlen 0, alg 0, hmacAlg 0, lifetype 0, lifetime1 662488, lifetime2 0, dsI d 300 465 06/03/2002 11:02:35.040 SEV=9 IPSECDBG/1 RPT=61 Processing KEY_GETSPI msg! 466 06/03/2002 11:02:35.040 SEV=7 IPSECDBG/13 RPT=4 Reserved SPI 1819592269 467 06/03/2002 11:02:35.040 SEV=8 IKEDBG/6 RPT=4 IKE got SPI from key engine: SPI = 0x6c74c64d 468 06/03/2002 11:02:35.040 SEV=9 IKEDBG/0 RPT=158 209.165.202.129 Group [209.165.202.129] oakley constucting quick mode 469 06/03/2002 11:02:35.040 SEV=9 IKEDBG/0 RPT=159 209.165.202.129 Group [209.165.202.129] constructing blank hash 470 06/03/2002 11:02:35.040 SEV=9 IKEDBG/0 RPT=160 209.165.202.129 Group [209.165.202.129] constructing ISA_SA for ipsec 471 06/03/2002 11:02:35.040 SEV=9 IKEDBG/1 RPT=52 209.165.202.129 Group [209.165.202.129] constructing ipsec nonce payload 472 06/03/2002 11:02:35.040 SEV=9 IKEDBG/1 RPT=53 209.165.202.129 Group [209.165.202.129] constructing proxy ID 473 06/03/2002 11:02:35.040 SEV=7 IKEDBG/0 RPT=161 209.165.202.129 Group [209.165.202.129] Transmitting Proxy Id: **Local subnet: 10.48.66.0 mask 255.255.254.0 Protocol 0 Port 0**
Remote subnet: 0.0.0.0 Mask 0.0.0.0 Protocol 0 Port 0
!--- This line indicates the SA for the traffic between !--- the networks behind the VPN Client and Cisco IOS.
477 06/03/2002 11:02:35.040 SEV=9 IKEDBG/0 RPT=162 209.165.202.129 Group [209.165.202.129] constructing qm hash 478 06/03/2002 11:02:35.040 SEV=8 IKEDBG/0 RPT=163 209.165.202.129 SENDING Message (msgid=a809c6b4) with payloads : HDR + HASH (8) + SA (1) + NONCE (10) + ID (5) + ID (5) + NONE (0) ... total leng th : 300 481 06/03/2002 11:02:35.310 SEV=8 IKEDBG/0 RPT=164 209.165.202.129 RECEIVED Message (msgid=a809c6b4) with

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payloads : HDR + HASH (8) + SA (1) + NONCE (10) + ID (5)
+ ID (5) + NOTIFY (11) + NONE (0) ... total length : 200
484 06/03/2002 11:02:35.310 SEV=9 IKEDBG/0 RPT=165
209.165.202.129 Group [209.165.202.129] processing hash
485 06/03/2002 11:02:35.310 SEV=9 IKEDBG/0 RPT=166
209.165.202.129 Group [209.165.202.129] processing SA
payload 486 06/03/2002 11:02:35.310 SEV=9 IKEDBG/1
RPT=54 209.165.202.129 Group [209.165.202.129]
processing nonce payload 487 06/03/2002 11:02:35.310
SEV=9 IKEDBG/1 RPT=55 209.165.202.129 Group
[209.165.202.129] Processing ID 488 06/03/2002
11:02:35.310 SEV=9 IKEDBG/1 RPT=56 209.165.202.129 Group
[209.165.202.129] Processing ID 489 06/03/2002
11:02:35.310 SEV=9 IKEDBG/0 RPT=167 209.165.202.129
Group [209.165.202.129] Processing Notify payload 490
06/03/2002 11:02:35.310 SEV=5 IKE/73 RPT=21
209.165.202.129 Group [209.165.202.129] Responder
forcing change of IPSec rekeying duration from
2147483647 to 3600 seco nds 493 06/03/2002 11:02:35.310
SEV=9 IKEDBG/0 RPT=168 209.165.202.129 Group
[209.165.202.129] loading all IPSEC SAs 494 06/03/2002
11:02:35.310 SEV=9 IKEDBG/1 RPT=57 209.165.202.129 Group
[209.165.202.129] Generating Quick Mode Key! 495
06/03/2002 11:02:35.320 SEV=9 IKEDBG/1 RPT=58
209.165.202.129 Group [209.165.202.129] Generating Quick
Mode Key! 496 06/03/2002 11:02:35.320 SEV=7 IKEDBG/0
RPT=169 209.165.202.129 Group [209.165.202.129] Loading
subnet: Dst: 0.0.0.0 mask: 0.0.0.0 Src: 10.48.66.0 mask:
255.255.254.0 499 06/03/2002 11:02:35.320 SEV=4 IKE/49
RPT=14 209.165.202.129 Group [209.165.202.129] Security
negotiation complete for peer (209.165.202.129)
Initiator, Inbound SPI = 0x6c74c64d, Outbound SPI =
0x8e34d356 502 06/03/2002 11:02:35.320 SEV=9 IKEDBG/0
RPT=170 209.165.202.129 Group [209.165.202.129] oakley
constructing final quick mode 503 06/03/2002
11:02:35.320 SEV=8 IKEDBG/0 RPT=171 209.165.202.129
SENDING Message (msgid=a809c6b4) with payloads : HDR +
HASH (8) + NONE (0) ... total length : 76 505 06/03/2002
11:02:35.320 SEV=9 IPSECDBG/6 RPT=19 IPSEC key message
parse - msgtype 1, len 612, vers 1, pid 00000000, seq 0,
err 0 , type 2, mode 1, state 64, label 0, pad 0, spi
8e34d356, encrKeyLen 24, hashKey Len 20, ivlen 8, alg 2,
hmacAlg 4, lifetype 0, lifetime1 662488, lifetime2 0, ds
Id -378167296 509 06/03/2002 11:02:35.330 SEV=9
IPSECDBG/1 RPT=62 Processing KEY_ADD msg! 510 06/03/2002
11:02:35.330 SEV=9 IPSECDBG/1 RPT=63
key_msghdr2secassoc(): Enter 511 06/03/2002 11:02:35.330
SEV=7 IPSECDBG/1 RPT=64 No USER filter configured 512
06/03/2002 11:02:35.330 SEV=9 IPSECDBG/1 RPT=65
KeyProcessAdd: Enter 513 06/03/2002 11:02:35.330 SEV=8
IPSECDBG/1 RPT=66 KeyProcessAdd: Adding outbound SA 514
06/03/2002 11:02:35.330 SEV=8 IPSECDBG/1 RPT=67
KeyProcessAdd: src 10.48.66.0 mask 0.0.1.255, dst
0.0.0.0 mask 255.255.255.255 515 06/03/2002 11:02:35.330
SEV=8 IPSECDBG/1 RPT=68 KeyProcessAdd:
FilterIpsecAddIkeSa success 516 06/03/2002 11:02:35.330
SEV=9 IPSECDBG/6 RPT=20 IPSEC key message parse -
msgtype 3, len 332, vers 1, pid 00000000, seq 0, err 0 ,
type 2, mode 1, state 32, label 0, pad 0, spi 6c74c64d,
encrKeyLen 24, hashKey Len 20, ivlen 8, alg 2, hmacAlg
4, lifetype 0, lifetime1 662488, lifetime2 0, ds Id -
378167296 520 06/03/2002 11:02:35.330 SEV=9 IPSECDBG/1
RPT=69 Processing KEY_UPDATE msg! 521 06/03/2002
11:02:35.330 SEV=9 IPSECDBG/1 RPT=70 Update inbound SA
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addresses 522 06/03/2002 11:02:35.330 SEV=9 IPSECDBG/1
RPT=71 key_msghdr2secassoc(): Enter 523 06/03/2002
11:02:35.330 SEV=7 IPSECDBG/1 RPT=72 No USER filter
configured 524 06/03/2002 11:02:35.330 SEV=9 IPSECDBG/1
RPT=73 KeyProcessUpdate: Enter 525 06/03/2002
11:02:35.330 SEV=8 IPSECDBG/1 RPT=74 KeyProcessUpdate:
success 526 06/03/2002 11:02:35.330 SEV=8 IKEDBG/7 RPT=4
IKE got a KEY_ADD msg for SA: SPI = 0x8e34d356 527
06/03/2002 11:02:35.330 SEV=8 IKEDBG/0 RPT=172 pitcher:
rcv KEY_UPDATE, spi 0x6c74c64d 528 06/03/2002
11:02:35.330 SEV=4 IKE/120 RPT=14 209.165.202.129 Group
[209.165.202.129] PHASE 2 COMPLETED (msgid=a809c6b4) !--
- This line indicates that SA establishment !--- for
networks between the VPN Client and Cisco IOS is
complete.
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Zugehörige Informationen

- Unterstützung von Cisco VPN 3000 Concentrator
- Cisco VPN 3002 Hardware-Client-Support
- Unterstützung für IPSec-Aushandlung/IKE-Protokolle
- Technischer Support und Dokumentation - Cisco Systems