

# EzVPN met NEM op IOS-router met VPN 3000 Concentrator Configuratievoorbeeld

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## Inleiding

Dit document legt de procedure uit die u gebruikt om een Cisco IOS® router te configureren als een EzVPN in [Network Extension Mode \(NEM\)](#) om verbinding te maken met een Cisco VPN 3000 Concentrator. Een nieuwe fase-II-functie van EzVPN is ondersteuning voor een basisconfiguratie voor netwerkadresomzetting (NAT). De EzVPN fase II is afgeleid van het Unity Protocol (VPN-clientsoftware). Het externe apparaat is altijd de initiator van de IPsec-tunnel. Internet Key Exchange (IKE) en IPsec-voorstellen zijn echter niet Configureerbaar op de EzVPN-client. De VPN-client onderhandelt over voorstellen met de server.

Om IPsec te configureren tussen een PIX/ASA 7.x en een Cisco 871-router die Easy VPN gebruikt, raadpleegt u [PIX/ASA 7.x Easy VPN met een ASA 5500 als de Server en Cisco 871 als het Easy VPN Configuratievoorbeeld](#).

Om IPsec te configureren tussen de Cisco IOS® Easy VPN Remote Hardware Client en de PIX Easy VPN Server, raadpleegt u [IOS Easy VPN Remote Hardware Client naar een PIX Easy VPN Server Configuratievoorbeeld](#).

Om Cisco 7200 router als een EzVPN en Cisco 871 router als de Easy VPN-afstandsbediening te

configureren raadpleegt u [7200 Easy VPN-server aan 871 Easy VPN-afstandsconfiguratievoorbeeld](#).

## Voorwaarden

### Vereisten

Voordat u deze configuratie probeert te controleren dat de Cisco IOS-router de [optie EzVPN Fase II](#) ondersteunt en de IP-connectiviteit heeft met end-to-end verbindingen om de IPsec-tunnel op te zetten.

### Gebouwde componenten

De informatie in dit document is gebaseerd op de volgende software- en hardware-versies:

- Cisco IOS-software-release 12.2(8)YJ (EzVPN fase II)
- VPN 3000 Concentrator 3.6.x
- Cisco 1700 router

De informatie in dit document is gebaseerd op de apparaten in een specifieke laboratoriumomgeving. Alle apparaten die in dit document worden beschreven, hadden een opgeschoonde (standaard)configuratie. Als uw netwerk live is, moet u de potentiële impact van elke opdracht begrijpen.

**Opmerking:** Deze configuratie is onlangs getest met een Cisco 3640 router met Cisco IOS-software-release 12.4(8) en de VPN 3000 Concentrator 4.7.x versie.

### Conventies

Raadpleeg [Cisco Technical Tips Conventions \(Conventies voor technische tips van Cisco\)](#) voor meer informatie over documentconventies.

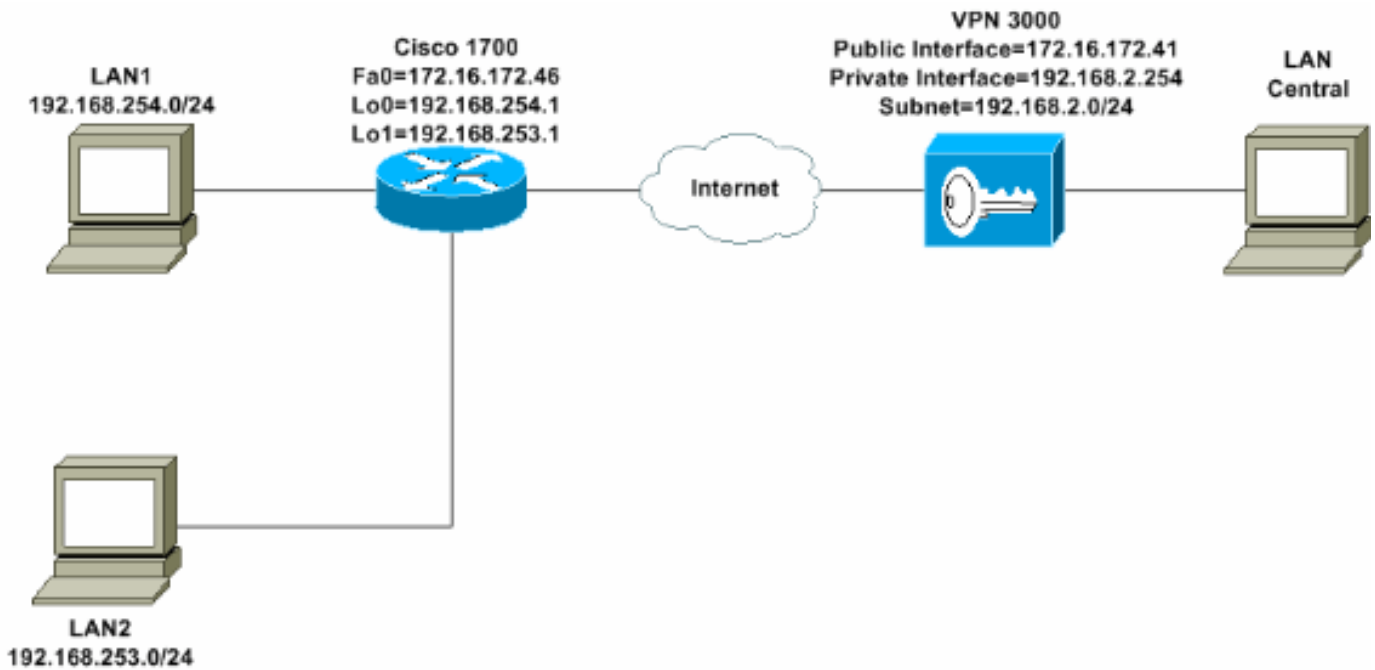
## De VPN 3000-concentratie configureren

### Taak

In deze sectie, wordt u voorgesteld met de informatie om de VPN 3000 Concentrator te configureren.

### Netwerkdigram

Dit document gebruikt de netwerkinstellingen die in dit diagram worden weergegeven. De interfaces van de Loopback worden gebruikt als interne subnetten, en FastEthernet 0 is de standaard aan Internet.



## Stap voor stap-instructies

Voer de volgende stappen uit:

1. Kies **Configuration > User Management > Groepen > Add** en definieer een groepsnaam en een wachtwoord om een IPsec-groep voor de gebruikers te configureren. Dit voorbeeld gebruikt de groepsnaam **turaro** met wachtwoord/verify **tulo**.

The screenshot shows the Cisco VPN 3000 Concentrator configuration interface. The left sidebar shows the navigation tree with 'Configuration > User Management > Groups > Add' selected. The main area displays the 'Add' dialog for a new group. The dialog has a title bar 'Configuration | User Management | Groups | Add' and a description: 'This section lets you add a group. Check the **Inherit?** box to set a field that you want to default to the base group value. Uncheck the **Inherit?** box and enter a new value to override base group values.' Below the description are several tabs: 'Identity', 'General', 'IPSec', 'Client Config', 'Client FW', 'HW Client', and 'PPTP/L2TP'. The 'Identity' tab is active, showing a table of 'Identity Parameters'.

Attribute	Value	Description
Group Name	turaro	Enter a unique name for the group.
Password	*****	Enter the password for the group.
Verify	*****	Verify the group's password.
Type	Internal	<i>External groups</i> are configured on an external authentication server (e.g. RADIUS). <i>Internal groups</i> are configured on the VPN 3000 Concentrator's Internal Database.

At the bottom of the dialog are 'Add' and 'Cancel' buttons. The Cisco Systems logo is visible in the bottom left corner of the interface.

2. Kies **Configuration > User Management > Groepen > Turbo > General** om IPsec in te schakelen en Point-to-Point Tunneling Protocol (PPTP) en Layer 2 Tunnel Protocol (L2TP) uit te schakelen. Maak uw selectie en klik op **Toepassen**.

- [-] Configuration
  - Interfaces
  - [-] System
  - [-] User Management
    - Base Group
    - Groups
    - Users
  - [-] Policy Management
- [-] Administration
- [-] Monitoring

Identity
General
IPSec
Client FW
PPTP/L2TP

General Par

Attribute	Value	Inherit?	
Access Hours	-No Restrictions-	<input checked="" type="checkbox"/>	Sele
Simultaneous Logins	3	<input checked="" type="checkbox"/>	Ente
Minimum Password Length	8	<input checked="" type="checkbox"/>	Ente
Allow Alphabetic-Only Passwords	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Ente be a
Idle Timeout	30	<input checked="" type="checkbox"/>	(min
Maximum Connect Time	0	<input checked="" type="checkbox"/>	(min
Filter	-None-	<input checked="" type="checkbox"/>	Ente
Primary DNS		<input checked="" type="checkbox"/>	Ente
Secondary DNS		<input checked="" type="checkbox"/>	Ente
Primary WINS		<input checked="" type="checkbox"/>	Ente
Secondary WINS		<input checked="" type="checkbox"/>	Ente
SEP Card Assignment	<input checked="" type="checkbox"/> SEP 1 <input checked="" type="checkbox"/> SEP 2 <input checked="" type="checkbox"/> SEP 3 <input checked="" type="checkbox"/> SEP 4	<input checked="" type="checkbox"/>	Sele
Tunneling Protocols	<input type="checkbox"/> PPTP <input type="checkbox"/> L2TP <input checked="" type="checkbox"/> IPSec	<input type="checkbox"/>	Sele

CISCO SYSTEMS

3. Stel verificatie in op **interne** verificatie (Xauth) en zorg ervoor dat het tunneltype **afstandsbediening** is en dat IPSec SA **ESP-3DES-MD5** is.

Configuration | User Management | Groups | Modify ADMINI

Check the **Inherit?** box to set a field that you want to default to the base group value to override base group values.

Identity General **IPSec** Client FW PPTP/L2TP

### IPSec Parameters

Attribute	Value	Inherit?
IPSec SA	ESP-3DES-MD5	<input checked="" type="checkbox"/>
IKE Peer Identity Validation	If supported by certificate	<input checked="" type="checkbox"/>
IKE Keepalives	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Reauthentication on Rekey	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tunnel Type	Remote Access	<input checked="" type="checkbox"/>

### Remote Access Parameters

Group Lock	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Authentication	Internal	<input checked="" type="checkbox"/>

4. Kies **Configuration > System > Tunneling Protocols > IPSec > IKE-voorstellen** om te verzekeren dat de Cisco VPN-client (Cisco VPN-client-3DES-MD5) zich in actieve voorstellen voor IKE bevindt (fase 1). **Opmerking:** Van VPN Concentrator 4.1.x is de procedure anders om ervoor te zorgen dat de Cisco VPN-client in de lijst met actieve voorstellen voor IKE (fase 1) staat. Kies **Configuration > Tunneling en Security > IPSec > IKE-voorstellen**.

Configuration | System | Tunneling Protocols | IPSec | IKE Proposals

Add, delete, prioritize, and configure IKE Proposals.

Select an **Inactive Proposal** and click **Activate** to make it **Active**, or click **Modify**, **Copy** or **Delete**.  
 Select an **Active Proposal** and click **Deactivate** to make it **Inactive**, or click **Move Up** or **Move Down**.  
 Click **Add** or **Copy** to add a new **Inactive Proposal**. IKE Proposals are used by **Security Association** parameters.

Active Proposals	Actions	Inactive Proposals
CiscoVPNClient-3DES-MD5 IKE-3DES-MD5 IKE-3DES-MD5-DH1 IKE-DES-MD5 IKE-3DES-MD5-DH7	<< Activate Deactivate >> Move Up Move Down Add	IKE-3DES-MD5-RSA IKE-3DES-SHA-DSA IKE-3DES-MD5-RSA-D IKE-DES-MD5-DH7 CiscoVPNClient-3DES CiscoVPNClient-3DES

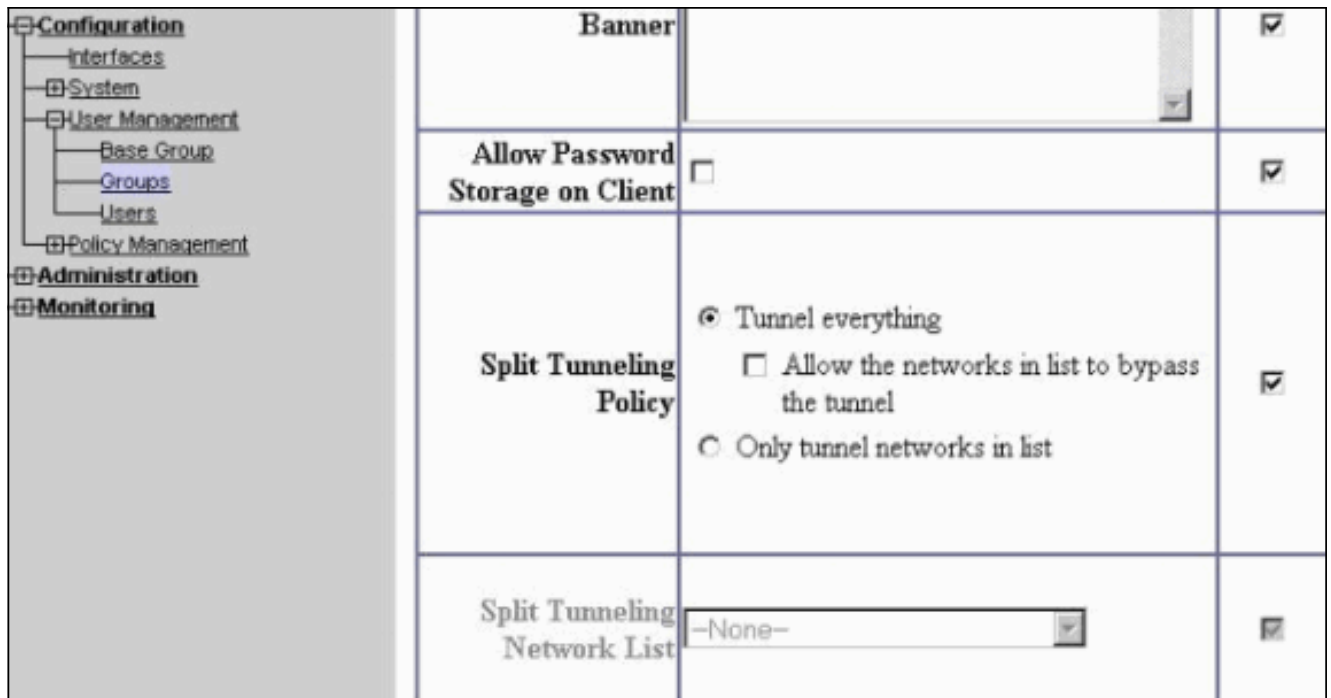
5. Controleer de IPsec Security Association (SA). Op stap 3 is uw IPsec SA ESP-3DES-MD5. U kunt een nieuwe creëren als u wilt maar zorg ervoor dat u de juiste IPsec SA in uw groep gebruikt. U dient Perfect Forward Security (PFS) uit te schakelen voor de IPsec SA dat u gebruikt. Selecteer de Cisco VPN-client als het IKE-voorstel door **Configuration > Policy**

Management > Traffic Management > SA's te kiezen. Typ de SA-naam in het tekstvak en selecteer de gewenste opties zoals hieronder wordt weergegeven:

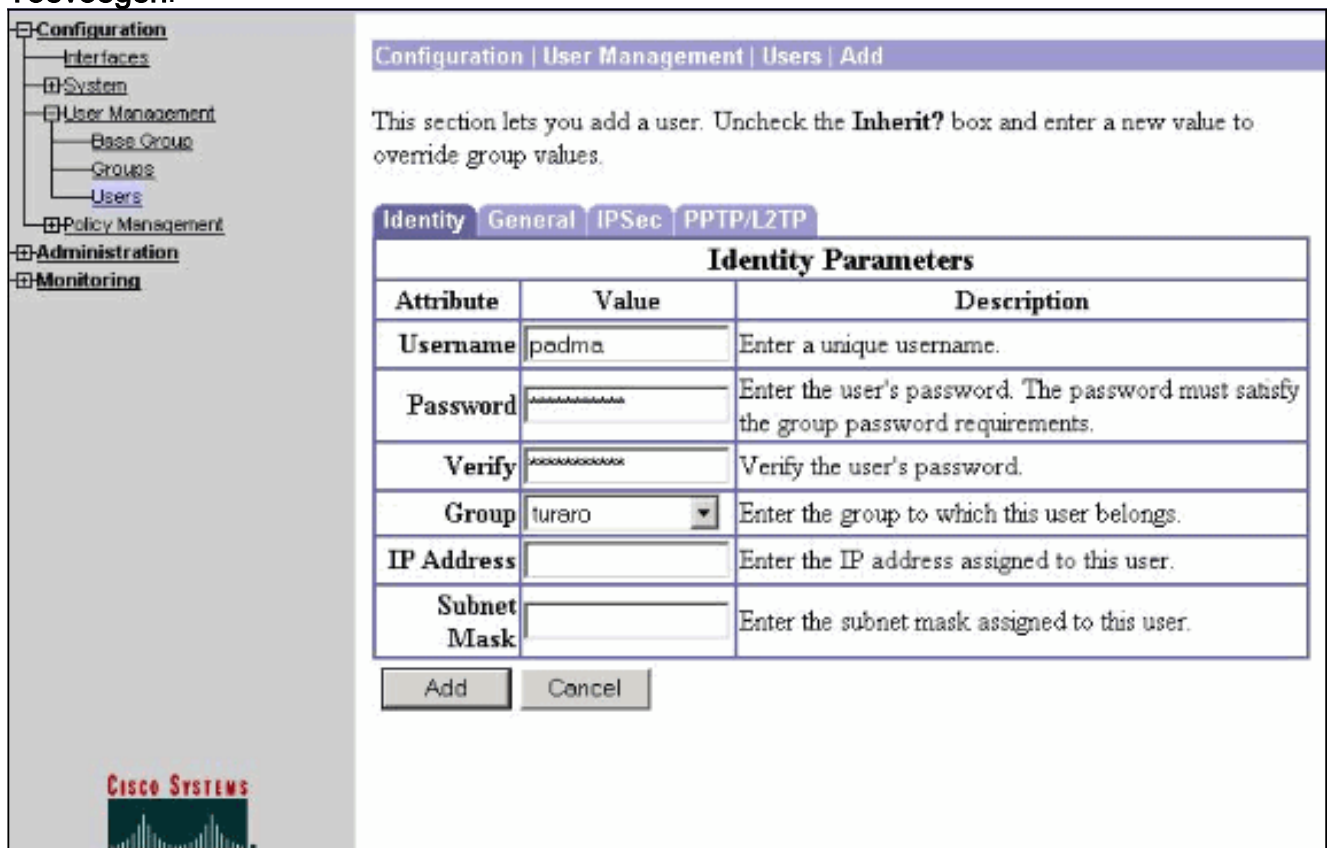
Configuration   Policy Management   Traffic Management   Security Associations   Modify	
Modify a configured Security Association.	
SA Name	ESP-3DES-MD5
Inheritance	From Rule
Specify the name of this Security Association (S)	
Select the granularity of this SA.	
<b>IPSec Parameters</b>	
Authentication Algorithm	ESP/MD5/HMAC-128
Encryption Algorithm	3DES-168
Encapsulation Mode	Tunnel
Perfect Forward Secrecy	Disabled
Lifetime Measurement	Time
Data Lifetime	10000
Time Lifetime	28800
Select the packet authentication algorithm to use	
Select the ESP encryption algorithm to use.	
Select the Encapsulation Mode for this SA.	
Select the use of Perfect Forward Secrecy.	
Select the lifetime measurement of the IPSec ke	
Specify the data lifetime in kilobytes (KB).	
Specify the time lifetime in seconds.	
<b>IKE Parameters</b>	
IKE Peer	0.0.0.0
Negotiation Mode	Aggressive
Digital Certificate	None (Use Preshared Keys)
Certificate Transmission	<input type="radio"/> Entire certificate chain <input checked="" type="radio"/> Identity certificate only
IKE Proposal	CiscoVPNClient-3DES-MD5
Specify the IKE Peer for a LAN-to-LAN IPSe	
Select the IKE Negotiation mode to use.	
Select the Digital Certificate to use.	
Choose how to send the digital certificate to the	
Select the IKE Proposal to use as IKE initiator.	

**Opmerking:** Deze stap en de volgende stap zijn optioneel als u liever een vooraf gedefinieerde SA kiest. Als uw client een dynamisch toegewezen IP-adres heeft, gebruikt u 0.0.0.0 in het tekstvak IKE peer. Zorg ervoor dat het IKE Proposal is ingesteld op **CiscoVPN-client-3DES-MD5** zoals in dit voorbeeld wordt aangegeven.

- U moet **niet** op *Toestaan de netwerken in de lijst klikken om de tunnel te omzeilen*. De reden is dat gesplitste tunneling wordt ondersteund, maar de omzeilingsfunctie wordt niet ondersteund met de optie EzVPN-client.



7. Kies **Configuration > User Management > Gebruikers** om een gebruiker toe te voegen. Definieer een gebruikersnaam en een wachtwoord, wijs deze aan een groep toe en klik op **Toevoegen**.



8. Kies **Administratie > Admin Sessies** en controleer of de gebruiker is aangesloten. In NEM wijst de VPN Concentrator geen IP-adres uit de pool toe. **Opmerking:** Deze stap is optioneel als u liever een vooraf gedefinieerde SA kiest.

LAN-to-LAN Sessions				[ Remote Access Sessions   Management Sessions ]				
Connection Name	IP Address	Protocol	Encryption	Login Time	Duration	Bytes Tx	Bytes Rx	Actions
No LAN-to-LAN Sessions								
Remote Access Sessions				[ LAN-to-LAN Sessions   Management Sessions ]				
Username	Assigned IP Address Public IP Address	Group	Protocol Encryption	Login Time Duration	Client Type Version	Bytes Tx Bytes Rx	Actions	
Cisco_MAE	192.168.253.0 172.16.172.46	turaro	IPSec 3DES-168	Mar 31 18:32:23 0:02:50	N/A N/A	301320 301320	[ Logout   Ping ]	
Management Sessions				[ LAN-to-LAN Sessions   Remote Access Sessions ]				
Administrator	IP Address	Protocol	Encryption	Login Time	Duration	Actions		
admin	171.69.89.5	HTTP	None	Mar 31 18:35:01	0:00:12	[ Logout   Ping ]		

9. Klik op het pictogram Opslaan nodig of op het pictogram Opslaan om de configuratie op te slaan.

## Routerconfiguratie

### Versie-uitgang tonen

#### **show version**

```
Cisco Internetwork Operating System Software
IOS (tm) C1700 Software (C1700-BK9NO3R2SY7-M), Version 12.2(8)YJ,
EARLY DEPLOYMENT RELEASE SOFTWARE (fc1)
```

```
1721-1(ADSL) uptime is 4 days, 5 hours, 33 minutes
System returned to ROM by reload
System image file is "flash:c1700-bk9no3r2sy7-mz.122-8.YJ.bin"
cisco 1721 (MPC860P) processor (revision 0x100) with 88474K/9830K bytes
16384K bytes of processor board System flash (Read/Write)
```

#### **1721-1**

```
1721-1(ADSL)#show run
version 12.2
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname 1721-1(ADSL)
!
!--- Specify the configuration name !--- to be assigned
to the interface. crypto ipsec client ezvpn SJVPN
!--- Tunnel control; automatic is the default. connect
auto
!--- The group name and password should be the same as
given in the VPN Concentrator. group turaro key tululo
!--- The mode that is chosen as the network extension.
mode network-extension
!--- The tunnel peer end (VPN Concentrator public
interface IP address). peer 172.16.172.41
!
interface Loopback0
 ip address 192.168.254.1 255.255.255.0
!--- Configure the Loopback interface !--- as the inside
interface. ip nat inside
!--- Specifies the Cisco EzVPN Remote configuration name
```



```

!--- to be assigned to the inside interface.

crypto ipsec client ezvpn SJVPN inside
!
interface Loopback1
 ip address 192.168.253.1 255.255.255.0
 ip nat inside
 crypto ipsec client ezvpn SJVPN inside
!
interface FastEthernet0
 ip address 172.16.172.46 255.255.255.240
!--- Configure the FastEthernet interface !--- as the
outside interface. ip nat outside
!--- Specifies the Cisco EzVPN Remote configuration name
!--- to be assigned to the first outside interface,
because !--- outside is not specified for the interface.
!--- The default is outside.

crypto ipsec client ezvpn SJVPN
!
!--- Specify the overload option with the ip nat command
!--- in global configuration mode in order to enable !--
- Network Address Translation (NAT) of the inside source
address !--- so that multiple PCs can use the single IP
address.

ip nat inside source route-map EZVPN interface
FastEthernet0 overload
ip classless
ip route 0.0.0.0 0.0.0.0 172.16.172.41
!
access-list 177 deny ip 192.168.254.0 0.0.0.255
192.168.2.0 0.0.0.255
access-list 177 deny ip 192.168.253.0 0.0.0.255
192.168.2.0 0.0.0.255
access-list 177 permit ip 192.168.253.0 0.0.0.255 any
access-list 177 permit ip 192.168.254.0 0.0.0.255 any
!
route-map EZVPN permit 10
 match ip address 177
!
!
line con 0
line aux 0
line vty 0 4
 password cisco
 login
!
no scheduler allocate
end

```

## Verifiëren

Gebruik dit gedeelte om te bevestigen dat de configuratie correct werkt.

Het [Uitvoer Tolk](#) ([uitsluitend geregistreerde](#) klanten) (OIT) ondersteunt bepaalde **show** opdrachten. Gebruik de OIT om een analyse van **tonen** opdrachtoutput te bekijken.

Zodra u beide apparaten vormt, probeert de Cisco 3640-router de VPN-tunnel in te stellen door automatisch contact op te nemen met de VPN-centrator met het IP-adres van de peer. Nadat de

eerste ISAKMP-parameters zijn uitgewisseld, geeft de router dit bericht weer:

```
Pending XAuth Request, Please enter the
following command: crypto ipsec client ezvpn xauth
```

U moet de opdracht **crypto ipsec client ezvpn xauth** invoeren die u om een gebruikersnaam en wachtwoord vraagt. Dit moet overeenkomen met de gebruikersnaam en het wachtwoord die in de VPN-Concentrator zijn ingesteld (stap 7). Zodra de gebruikersnaam en het wachtwoord door beide peers zijn overeengekomen, wordt de rest van de parameters overeengekomen en komt de IPsec VPN-tunnel naar boven.

```
EZVPN(SJVPN): Pending XAuth Request, Please enter the following command:
```

```
EZVPN: crypto ipsec client ezvpn xauth
```

```
!--- Enter the crypto ipsec client ezvpn xauth command.
```

```
crypto ipsec client ezvpn xauth
```

```
Enter Username and Password.: padma
```

```
Password: : password
```

## Problemen oplossen

Deze sectie bevat informatie waarmee u problemen met de configuratie kunt oplossen.

### Opdrachten voor troubleshooting

Bepaalde opdrachten met **show** worden ondersteund door de tool [Output Interpreter \(alleen voor geregistreerde klanten\)](#). Hiermee kunt u een analyse van de output van opdrachten met **show** genereren.

**Opmerking:** Raadpleeg [Belangrijke informatie over debug Commands](#) voordat u **debug**-opdrachten afgeeft.

- **debug van crypto ipsec client ezvpn**-displays die de configuratie en implementatie van de EzVPN-clientfunctie toont.
- **debug van crypto ipsec**-displays debug informatie over IPsec-verbindingen.
- **debug crypto isakmp**-displays debug informatie over IPsec verbindingen en toont de eerste reeks eigenschappen die worden ontkend als gevolg van onverenigbaarheden op beide eindpunten.
- **tonen debug**-displays de staat van elke optie voor het foutoptreden.

### Uitvoer van debug-opdrachten

Zodra u de opdracht **crypto ipsec client ezvpn SJVPN** ingeeft, probeert de EzVPN-client verbinding te maken met de server. Als u de opdracht **connect handleiding** wijzigt onder de groepsconfiguratie, voert u de **crypto ipsec client ezvpn in om SJVPN-opdracht te verbinden** om

## de uitwisseling van voorstellen met de server te starten.

```
4d05h: ISAKMP (0:3): beginning Aggressive Mode exchange
4d05h: ISAKMP (0:3): sending packet to 172.16.172.41 (I) AG_INIT_EXCH
4d05h: ISAKMP (0:3): received packet from 172.16.172.41 (I) AG_INIT_EXCH
4d05h: ISAKMP (0:3): processing SA payload. message ID = 0
4d05h: ISAKMP (0:3): processing ID payload. message ID = 0
4d05h: ISAKMP (0:3): processing vendor id payload
4d05h: ISAKMP (0:3): vendor ID is Unity
4d05h: ISAKMP (0:3): processing vendor id payload
4d05h: ISAKMP (0:3): vendor ID seems Unity/DPD but bad major
4d05h: ISAKMP (0:3): vendor ID is XAUTH
4d05h: ISAKMP (0:3): processing vendor id payload
4d05h: ISAKMP (0:3): vendor ID is DPD
4d05h: ISAKMP (0:3) local preshared key found
4d05h: ISAKMP (0:3) Authentication by xauth preshared
4d05h: ISAKMP (0:3): Checking ISAKMP transform 6 against priority 65527 policy
4d05h: ISAKMP: encryption 3DES-CBC
4d05h: ISAKMP: hash MD5
4d05h: ISAKMP: default group 2
4d05h: ISAKMP: auth XAUTHInitPreShared
4d05h: ISAKMP: life type in seconds
4d05h: ISAKMP: life duration (VPI) of 0x0 0x20 0xC4 0x9B
4d05h: ISAKMP (0:3): Encryption algorithm offered does not match policy!
4d05h: ISAKMP (0:3): atts are not acceptable. Next payload is 0
4d05h: ISAKMP (0:3): Checking ISAKMP transform 6 against priority 65528 policy
4d05h: ISAKMP: encryption 3DES-CBC
4d05h: ISAKMP: hash MD5
4d05h: ISAKMP: default group 2
4d05h: ISAKMP: auth XAUTHInitPreShared
4d05h: ISAKMP: life type in seconds
4d05h: ISAKMP: life duration (VPI) of 0x0 0x20 0xC4 0x9B
4d05h: ISAKMP (0:3): Encryption algorithm offered does not match policy!
4d05h: ISAKMP (0:3): atts are not acceptable. Next payload is 0
4d05h: ISAKMP (0:3): Checking ISAKMP transform 6 against priority 65529 policy
4d05h: ISAKMP: encryption 3DES-CBC
4d05h: ISAKMP: hash MD5
4d05h: ISAKMP: default group 2
4d05h: ISAKMP: auth XAUTHInitPreShared
4d05h: ISAKMP: life type in seconds
4d05h: ISAKMP: life duration (VPI) of 0x0 0x20 0xC4 0x9B
4d05h: ISAKMP (0:3): Encryption algorithm offered does not match policy!
4d05h: ISAKMP (0:3): atts are not acceptable. Next payload is 0
4d05h: ISAKMP (0:3): Checking ISAKMP transform 6 against priority 65530 policy
4d05h: ISAKMP: encryption 3DES-CBC
4d05h: ISAKMP: hash MD5
4d05h: ISAKMP: default group 2
4d05h: ISAKMP: auth XAUTHInitPreShared
4d05h: ISAKMP: life type in seconds
4d05h: ISAKMP: life duration (VPI) of 0x0 0x20 0xC4 0x9B
4d05h: ISAKMP (0:3): Encryption algorithm offered does not match policy!
4d05h: ISAKMP (0:3): atts are not acceptable. Next payload is 0
4d05h: ISAKMP (0:3): Checking ISAKMP transform 6 against priority 65531 policy
4d05h: ISAKMP: encryption 3DES-CBC
4d05h: ISAKMP: hash MD5
4d05h: ISAKMP: default group 2
4d05h: ISAKMP: auth XAUTHInitPreShared
4d05h: ISAKMP: life type in seconds
4d05h: ISAKMP: life duration (VPI) of 0x0 0x20 0xC4 0x9B
4d05h: ISAKMP (0:3): Hash algorithm offered does not match policy!
4d05h: ISAKMP (0:3): atts are not acceptable. Next payload is 0
4d05h: ISAKMP (0:3): Checking ISAKMP transform 6 against priority 65532 policy
```

```
4d05h: ISAKMP: encryption 3DES-CBC
4d05h: ISAKMP: hash MD5
4d05h: ISAKMP: default group 2
4d05h: ISAKMP: auth XAUTHInitPreShared
4d05h: ISAKMP: life type in seconds
4d05h: ISAKMP: life duration (VPI) of 0x0 0x20 0xC4 0x9B
4d05h: ISAKMP (0:3): atts are acceptable. Next payload is 0
4d05h: ISAKMP (0:3): processing KE payload. message ID = 0
4d05h: ISAKMP (0:3): processing NONCE payload. message ID = 0
4d05h: ISAKMP (0:3): SKEYID state generated
4d05h: ISAKMP (0:3): processing HASH payload. message ID = 0
4d05h: ISAKMP (0:3): SA has been authenticated with 172.16.172.41
4d05h: ISAKMP (0:3): sending packet to 172.16.172.41 (I) AG_INIT_EXCH
4d05h: ISAKMP (0:3): Input = IKE_MSG_FROM_PEER, IKE_AM_EXCH
Old State = IKE_I_AM1 New State = IKE_P1_COMPLETE
```

```
4d05h: IPSEC(key_engine): got a queue event...
```

```
4d05h: IPsec: Key engine got KEYENG_IKMP_MORE_SAS message
```

```
4d05h: ISAKMP (0:3): Need XAUTH
```

```
4d05h: ISAKMP (0:3): Input = IKE_MSG_INTERNAL, IKE_PHASE1_COMPLETE
```

```
Old State = IKE_P1_COMPLETE New State = IKE_P1_COMPLETE
```

```
!--- Phase 1 (ISAKMP) is complete. 4d05h: ISAKMP: received ke message (6/1) 4d05h: ISAKMP:
received KEYENG_IKMP_MORE_SAS message 4d05h: ISAKMP: set new node -857862190 to CONF_XAUTH !---
Initiate extended authentication. 4d05h: ISAKMP (0:3): sending packet to 172.16.172.41 (I)
CONF_XAUTH 4d05h: ISAKMP (0:3): purging node -857862190 4d05h: ISAKMP (0:3): Sending initial
contact. 4d05h: ISAKMP (0:3): received packet from 172.16.172.41 (I) CONF_XAUTH 4d05h: ISAKMP:
set new node -1898481791 to CONF_XAUTH 4d05h: ISAKMP (0:3): processing transaction payload from
172.16.172.41. message ID = -1898481791 4d05h: ISAKMP: Config payload REQUEST 4d05h: ISAKMP
(0:3): checking request: 4d05h: ISAKMP: XAUTH_TYPE_V2 4d05h: ISAKMP: XAUTH_USER_NAME_V2 4d05h:
ISAKMP: XAUTH_USER_PASSWORD_V2 4d05h: ISAKMP: XAUTH_MESSAGE_V2 4d05h: ISAKMP (0:3): Xauth
process request 4d05h: ISAKMP (0:3): Input = IKE_MSG_FROM_PEER, IKE_CFG_REQUEST Old State =
IKE_P1_COMPLETE New State = IKE_XAUTH_REPLY_AWAIT 4d05h: EZVPN(SJVPN): Current State: READY
4d05h: EZVPN(SJVPN): Event: XAUTH_REQUEST 4d05h: EZVPN(SJVPN): ezvpn_xauth_request 4d05h:
EZVPN(SJVPN): ezvpn_parse_xauth_msg 4d05h: EZVPN: Attributes sent in xauth request message:
4d05h: XAUTH_TYPE_V2(SJVPN): 0 4d05h: XAUTH_USER_NAME_V2(SJVPN): 4d05h:
XAUTH_USER_PASSWORD_V2(SJVPN): 4d05h: XAUTH_MESSAGE_V2(SJVPN) <Enter Username and Password.>
4d05h: EZVPN(SJVPN): New State: XAUTH_REQ 4d05h: ISAKMP (0:3): Input = IKE_MSG_INTERNAL,
IKE_PHASE1_COMPLETE Old State = IKE_XAUTH_REPLY_AWAIT New State = IKE_XAUTH_REPLY_AWAIT 4d05h:
EZVPN(SJVPN): Pending XAuth Request, Please enter the following command: 4d05h: EZVPN: crypto
ipsec client ezvpn xauth
```

```
!--- Enter the crypto ipsec client ezvpn xauth command.
```

```
crypto ipsec client ezvpn xauth
```

```
Enter Username and Password.: padma
```

```
Password: : password
```

```
!--- The router requests your username and password that is !--- configured on the server.
4d05h: EZVPN(SJVPN): Current State: XAUTH_REQ 4d05h: EZVPN(SJVPN): Event: XAUTH_PROMPTING 4d05h:
EZVPN(SJVPN): New State: XAUTH_PROMPT 1721-1(ADSL)# 4d05h: EZVPN(SJVPN): Current State:
XAUTH_PROMPT 4d05h: EZVPN(SJVPN): Event: XAUTH_REQ_INFO_READY 4d05h: EZVPN(SJVPN):
ezvpn_xauth_reply 4d05h: XAUTH_TYPE_V2(SJVPN): 0 4d05h: XAUTH_USER_NAME_V2(SJVPN): Cisco_MAE
4d05h: XAUTH_USER_PASSWORD_V2(SJVPN): <omitted> 4d05h: EZVPN(SJVPN): New State: XAUTH_REPLIED
4d05h: xauth-type: 0 4d05h: username: Cisco_MAE 4d05h: password: <omitted> 4d05h: message <Enter
Username and Password.> 4d05h: ISAKMP (0:3): responding to peer config from 172.16.172.41. ID =
-1898481791 4d05h: ISAKMP (0:3): sending packet to 172.16.172.41 (I) CONF_XAUTH 4d05h: ISAKMP
(0:3): deleting node -1898481791 error FALSE reason "done with xauth request/reply exchange"
```

4d05h: ISAKMP (0:3): Input = IKE\_MSG\_INTERNAL, IKE\_XAUTH\_REPLY\_ATTR Old State =  
IKE\_XAUTH\_REPLY\_AWAIT New State = IKE\_XAUTH\_REPLY\_SENT 4d05h: ISAKMP (0:3): received packet from  
172.16.172.41 (I) CONF\_XAUTH 4d05h: ISAKMP: set new node -1602220489 to CONF\_XAUTH 4d05h: ISAKMP  
(0:3): processing transaction payload from 172.16.172.41. message ID = -1602220489 4d05h:  
ISAKMP: Config payload SET 4d05h: ISAKMP (0:3): Xauth process set, status = 1 4d05h: ISAKMP  
(0:3): checking SET: 4d05h: ISAKMP: XAUTH\_STATUS\_V2 XAUTH-OK 4d05h: ISAKMP (0:3): attributes  
sent in message: 4d05h: Status: 1 4d05h: ISAKMP (0:3): sending packet to 172.16.172.41 (I)  
CONF\_XAUTH 4d05h: ISAKMP (0:3): deleting node -1602220489 error FALSE reason "" 4d05h: ISAKMP  
(0:3): Input = IKE\_MSG\_FROM\_PEER, IKE\_CFG\_SET Old State = IKE\_XAUTH\_REPLY\_SENT New State =  
IKE\_P1\_COMPLETE 4d05h: EZVPN(SJVPN): Current State: XAUTH\_REPLIED 4d05h: EZVPN(SJVPN): Event:  
XAUTH\_STATUS 4d05h: EZVPN(SJVPN): New State: READY 4d05h: ISAKMP (0:3): Need config/address  
4d05h: ISAKMP (0:3): Need config/address 4d05h: ISAKMP: set new node 486952690 to CONF\_ADDR  
4d05h: ISAKMP (0:3): initiating peer config to 172.16.172.41. ID = 486952690 4d05h: ISAKMP  
(0:3): sending packet to 172.16.172.41 (I) CONF\_ADDR 4d05h: ISAKMP (0:3): Input =  
IKE\_MSG\_INTERNAL, IKE\_PHASE1\_COMPLETE Old State = IKE\_P1\_COMPLETE New State =  
IKE\_CONFIG\_MODE\_REQ\_SENT 4d05h: ISAKMP (0:3): received packet from 172.16.172.41 (I) CONF\_ADDR  
4d05h: ISAKMP (0:3): processing transaction payload from 172.16.172.41. message ID = 486952690  
4d05h: ISAKMP: Config payload REPLY 4d05h: ISAKMP(0:3) process config reply 4d05h: ISAKMP (0:3):  
deleting node 486952690 error FALSE reason "done with transaction" 4d05h: ISAKMP (0:3): Input =  
IKE\_MSG\_FROM\_PEER, IKE\_CFG\_REPLY Old State = IKE\_CONFIG\_MODE\_REQ\_SENT New State =  
IKE\_P1\_COMPLETE 4d05h: EZVPN(SJVPN): Current State: READY 4d05h: EZVPN(SJVPN): Event:  
MODE\_CONFIG\_REPLY 4d05h: EZVPN(SJVPN): ezvpn\_mode\_config 4d05h: EZVPN(SJVPN):  
ezvpn\_parse\_mode\_config\_msg 4d05h: EZVPN: Attributes sent in message 4d05h: ip\_ifnat\_modified:  
old\_if 0, new\_if 2 4d05h: ip\_ifnat\_modified: old\_if 0, new\_if 2 4d05h: ip\_ifnat\_modified: old\_if  
1, new\_if 2 4d05h: EZVPN(SJVPN): New State: SS\_OPEN 4d05h: ISAKMP (0:3): Input =  
IKE\_MSG\_INTERNAL, IKE\_PHASE1\_COMPLETE Old State = IKE\_P1\_COMPLETE New State = IKE\_P1\_COMPLETE  
4d05h: IPSEC(sa\_request): , (key eng. msg.) OUTBOUND local= 172.16.172.46, remote=  
172.16.172.41, local\_proxy= 192.168.254.0/255.255.255.0/0/0 (type=4), remote\_proxy=  
0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-3des esp-sha-hmac , lifedur=  
2147483s and 4608000kb, spi= 0xE6DB9372(3873149810), conn\_id= 0, keysize= 0, flags= 0x400C  
4d05h: IPSEC(sa\_request): , (key eng. msg.) OUTBOUND local= 172.16.172.46, remote=  
172.16.172.41, local\_proxy= 192.168.254.0/255.255.255.0/0/0 (type=4), remote\_proxy=  
0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-3des esp-md5-hmac , lifedur=  
2147483s and 4608000kb, spi= 0x3C77C53D(1014482237), conn\_id= 0, keysize= 0, flags= 0x400C  
4d05h: IPSEC(sa\_request): , (key eng. msg.) OUTBOUND local= 172.16.172.46, remote=  
172.16.172.41, local\_proxy= 192.168.254.0/255.255.255.0/0/0 (type=4), remote\_proxy=  
0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-des esp-sha-hmac , lifedur= 2147483s  
and 4608000kb, spi= 0x79BB8DF4(2042334708), conn\_id= 0, keysize= 0, flags= 0x400C 4d05h:  
IPSEC(sa\_request): , (key eng. msg.) OUTBOUND local= 172.16.172.46, remote= 172.16.172.41,  
local\_proxy= 192.168.254.0/255.255.255.0/0/0 (type=4), remote\_proxy= 0.0.0.0/0.0.0.0/0/0  
(type=4), protocol= ESP, transform= esp-des esp-md5-hmac , lifedur= 2147483s and 4608000kb, spi=  
0x19C3A5B2(432252338), conn\_id= 0, keysize= 0, flags= 0x400C 4d05h: ISAKMP: received ke message  
(1/4) 4d05h: ISAKMP: set new node 0 to QM\_IDLE 4d05h: EZVPN(SJVPN): Current State: SS\_OPEN  
4d05h: EZVPN(SJVPN): Event: SOCKET\_READY 4d05h: EZVPN(SJVPN): No state change 4d05h: ISAKMP  
(0:3): sitting IDLE. Starting QM immediately (QM\_IDLE ) 4d05h: ISAKMP (0:3): beginning Quick  
Mode exchange, M-ID of -1494477527 4d05h: IPSEC(sa\_request): , (key eng. msg.) OUTBOUND local=  
172.16.172.46, remote= 172.16.172.41, local\_proxy= 192.168.253.0/255.255.255.0/0/0 (type=4),  
remote\_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-3des esp-sha-hmac ,  
lifedur= 2147483s and 4608000kb, spi= 0xB18CF11E(2978803998), conn\_id= 0, keysize= 0, flags=  
0x400C 4d05h: IPSEC(sa\_request): , (key eng. msg.) OUTBOUND local= 172.16.172.46, remote=  
172.16.172.41, local\_proxy= 192.168.253.0/255.255.255.0/0/0 (type=4), remote\_proxy=  
0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-3des esp-md5-hmac , lifedur=  
2147483s and 4608000kb, spi= 0xA8C469EC(2831444460), conn\_id= 0, keysize= 0, flags= 0x400C  
4d05h: IPSEC(sa\_request): , (key eng. msg.) OUTBOUND local= 172.16.172.46, remote=  
172.16.172.41, local\_proxy= 192.168.253.0/255.255.255.0/0/0 (type=4), remote\_proxy=  
0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-des esp-sha-hmac , lifedur= 2147483s  
and 4608000kb, spi= 0xBC5AD5EE(3160069614), conn\_id= 0, keysize= 0, flags= 0x400C 4d05h:  
IPSEC(sa\_request): , (key eng. msg.) OUTBOUND local= 172.16.172.46, remote= 172.16.172.41,  
local\_proxy= 192.168.253.0/255.255.255.0/0/0 (type=4), remote\_proxy= 0.0.0.0/0.0.0.0/0/0  
(type=4), protocol= ESP, transform= esp-des esp-md5-hmac , lifedur= 2147483s and 4608000kb, spi=  
0x8C34C692(2352268946), conn\_id= 0, keysize= 0, flags= 0x400C 4d05h: ISAKMP (0:3): sending  
packet to 172.16.172.41 (I) QM\_IDLE 4d05h: ISAKMP (0:3): Node -1494477527, Input =  
IKE\_MSG\_INTERNAL, IKE\_INIT\_QM Old State = IKE\_QM\_READY New State = IKE\_QM\_I\_QM1 4d05h: ISAKMP:  
received ke message (1/4) 4d05h: ISAKMP: set new node 0 to QM\_IDLE 4d05h: ISAKMP (0:3): sitting

IDLE. Starting QM immediately (QM\_IDLE ) 4d05h: ISAKMP (0:3): beginning Quick Mode exchange, M-ID of -1102788797 4d05h: EZVPN(SJVPN): Current State: SS\_OPEN 4d05h: EZVPN(SJVPN): Event: SOCKET\_READY 4d05h: EZVPN(SJVPN): No state change 4d05h: ISAKMP (0:3): sending packet to 172.16.172.41 (I) QM\_IDLE 4d05h: ISAKMP (0:3): Node -1102788797, Input = IKE\_MSG\_INTERNAL, IKE\_INIT\_QM Old State = IKE\_QM\_READY New State = IKE\_QM\_I\_QM1 4d05h: ISAKMP (0:3): received packet from 172.16.172.41 (I) QM\_IDLE 4d05h: ISAKMP: set new node 733055375 to QM\_IDLE 4d05h: ISAKMP (0:3): processing HASH payload. message ID = 733055375 4d05h: ISAKMP (0:3): processing NOTIFY RESPONDER\_LIFETIME protocol 1 spi 0, message ID = 733055375, sa = 820ABFA0 4d05h: ISAKMP (0:3): processing responder lifetime 4d05h: ISAKMP (0:3): start processing isakmp responder lifetime 4d05h: ISAKMP (0:3): restart ike sa timer to 86400 secs 4d05h: ISAKMP (0:3): deleting node 733055375 error FALSE reason "informational (in) state 1" 4d05h: ISAKMP (0:3): Input = IKE\_MSG\_FROM\_PEER, IKE\_INFO\_NOTIFY Old State = IKE\_P1\_COMPLETE New State = IKE\_P1\_COMPLETE 4d05h: ISAKMP (0:3): received packet from 172.16.172.41 (I) QM\_IDLE 4d05h: ISAKMP (0:3): processing HASH payload. message ID = -1494477527 4d05h: ISAKMP (0:3): processing SA payload. message ID = -1494477527 4d05h: ISAKMP (0:3): Checking IPsec proposal 1 4d05h: ISAKMP: transform 1, ESP\_3DES 4d05h: ISAKMP: attributes in transform: 4d05h: ISAKMP: SA life type in seconds 4d05h: ISAKMP: SA life duration (VPI) of 0x0 0x20 0xc4 0x9B 4d05h: ISAKMP: SA life type in kilobytes 4d05h: ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 4d05h: ISAKMP: encaps is 1 4d05h: ISAKMP: authenticator is HMAC-MD5 4d05h: ISAKMP (0:3): atts are acceptable. 4d05h: IPSEC(validate\_proposal\_request): proposal part #1, (key eng. msg.) INBOUND local= 172.16.172.46, remote= 172.16.172.41, local\_proxy= 192.168.254.0/255.255.255.0/0/0 (type=4), remote\_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-3des esp-md5-hmac , lifedur= 0s and 0kb, spi= 0x0(0), conn\_id= 0, keysize= 0, flags= 0x4 4d05h: ISAKMP (0:3): processing NONCE payload. message ID = -1494477527 4d05h: ISAKMP (0:3): processing ID payload. message ID = -1494477527 4d05h: ISAKMP (0:3): processing ID payload. message ID = -1494477527 4d05h: ISAKMP (0:3): processing NOTIFY RESPONDER\_LIFETIME protocol 3 spi 1344958901, message ID = -1494477527, sa = 820ABFA0 4d05h: ISAKMP (0:3): processing responder lifetime 4d05h: ISAKMP (3): responder lifetime of 28800s 4d05h: ISAKMP (3): responder lifetime of 0kb 4d05h: ISAKMP (0:3): Creating IPsec SAs 4d05h: inbound SA from 172.16.172.41 to 172.16.172.46 (proxy 0.0.0.0 to 192.168.254.0) 4d05h: has spi 0x3C77C53D and conn\_id 2000 and flags 4 4d05h: lifetime of 28800 seconds 4d05h: outbound SA from 172.16.172.46 to 172.16.172.41 (proxy 192.168.254.0 to 0.0.0.0 ) 4d05h: has spi 1344958901 and conn\_id 2001 and flags C 4d05h: lifetime of 28800 seconds 4d05h: ISAKMP (0:3): sending packet to 172.16.172.41 (I) QM\_IDLE 4d05h: ISAKMP (0:3): deleting node -1494477527 error FALSE reason "" 4d05h: ISAKMP (0:3): Node -1494477527, Input = IKE\_MSG\_FROM\_PEER, IKE\_QM\_EXCH Old State = IKE\_QM\_I\_QM1 New State = IKE\_QM\_PHASE2\_COMPLETE 4d05h: ISAKMP (0:3): received packet from 172.16.172.41 (I) QM\_IDLE 4d05h: ISAKMP (0:3): processing HASH payload. message ID = -1102788797 4d05h: ISAKMP (0:3): processing SA payload. message ID = -1102788797 4d05h: ISAKMP (0:3): Checking IPsec proposal 1 4d05h: ISAKMP: transform 1, ESP\_3DES 4d05h: ISAKMP: attributes in transform: 4d05h: ISAKMP: SA life type in seconds 4d05h: ISAKMP: SA life duration (VPI) of 0x0 0x20 0xc4 0x9B 4d05h: ISAKMP: SA life type in kilobytes 4d05h: ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 4d05h: ISAKMP: encaps is 1 4d05h: ISAKMP: authenticator is HMAC-MD5 4d05h: ISAKMP (0:3): atts are acceptable. 4d05h: IPSEC(validate\_proposal\_request): proposal part #1, (key eng. msg.) INBOUND local= 172.16.172.46, remote= 172.16.172.41, local\_proxy= 192.168.253.0/255.255.255.0/0/0 (type=4), remote\_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-3des esp-md5-hmac , lifedur= 0s and 0kb, spi= 0x0(0), conn\_id= 0, keysize= 0, flags= 0x4 4d05h: ISAKMP (0:3): processing NONCE payload. message ID = -1102788797 4d05h: ISAKMP (0:3): processing ID payload. message ID = -1102788797 4d05h: ISAKMP (0:3): processing ID payload. message ID = -1102788797 4d05h: ISAKMP (0:3): processing NOTIFY RESPONDER\_LIFETIME protocol 3 spi 653862918, message ID = -1102788797, sa = 820ABFA0 4d05h: ISAKMP (0:3): processing responder lifetime 4d05h: ISAKMP (3): responder lifetime of 28800s 4d05h: ISAKMP (3): responder lifetime of 0kb 4d05h: IPSEC(key\_engine): got a queue event... 4d05h: IPSEC(initialize\_sas): , (key eng. msg.) INBOUND local= 172.16.172.46, remote= 172.16.172.41, local\_proxy= 192.168.254.0/255.255.255.0/0/0 (type=4), remote\_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-3des esp-md5-hmac , lifedur= 28800s and 0kb, spi= 0x3C77C53D(1014482237), conn\_id= 2000, keysize= 0, flags= 0x4 4d05h: IPSEC(initialize\_sas): , (key eng. msg.) OUTBOUND local= 172.16.172.46, remote= 172.16.172.41, local\_proxy= **192.168.254.0**/255.255.255.0/0/0 (type=4), remote\_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-3des esp-md5-hmac , lifedur= 28800s and 0kb, spi= 0x502A71B5(1344958901), conn\_id= 2001, keysize= 0, flags= 0xC 4d05h: IPSEC(create\_sa): sa created, (sa) sa\_dest= 172.16.172.46, sa\_prot= 50, sa\_spi= **0x3C77C53D(1014482237)**,

```

!--- SPI that is used on inbound SA. sa_trans= esp-3des esp-md5-hmac , sa_conn_id= 2000 4d05h:
IPSEC(create_sa): sa created, (sa) sa_dest= 172.16.172.41, sa_prot= 50, sa_spi=
0x502A71B5(1344958901) ,
!--- SPI that is used on outbound SA. sa_trans= esp-3des esp-md5-hmac , sa_conn_id= 2001 4d05h:
ISAKMP (0:3): Creating IPsec SAs 4d05h: inbound SA from 172.16.172.41 to 172.16.172.46 (proxy
0.0.0.0 to 192.168.253.0) 4d05h: has spi 0xA8C469EC and conn_id 2002 and flags 4 4d05h: lifetime
of 28800 seconds 4d05h: outbound SA from 172.16.172.46 to 172.16.172.41 (proxy 192.168.253.0 to
0.0.0.0 ) 4d05h: has spi 653862918 and conn_id 2003 and flags C 4d05h: lifetime of 28800 seconds
4d05h: ISAKMP (0:3): sending packet to 172.16.172.41 (I) QM_IDLE 4d05h: ISAKMP (0:3): deleting
node -1102788797 error FALSE reason "" 4d05h: ISAKMP (0:3): Node -1102788797, Input =
IKE_MSG_FROM_PEER, IKE_QM_EXCH Old State = IKE_QM_I_QM1 New State = IKE_QM_PHASE2_COMPLETE
4d05h: ISAKMP: received ke message (4/1) 4d05h: ISAKMP: Locking CONFIG struct 0x81F433A4 for
crypto_ikmp_config_handle_kei_mess, count 3 4d05h: EZVPN(SJVPN): Current State: SS_OPEN 4d05h:
EZVPN(SJVPN): Event: MTU_CHANGED 4d05h: EZVPN(SJVPN): No state change 4d05h: IPSEC(key_engine):
got a queue event... 4d05h: IPSEC(initialize_sas): , (key eng. msg.) INBOUND local=
172.16.172.46, remote= 172.16.172.41, local_proxy= 192.168.253.0/255.255.255.0/0/0 (type=4),
remote_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-3des esp-md5-hmac ,
lifedur= 28800s and 0kb, spi= 0xA8C469EC(2831444460), conn_id= 2002, keysize= 0, flags= 0x4
4d05h: IPSEC(initialize_sas): , (key eng. msg.) OUTBOUND local= 172.16.172.46, remote=
172.16.172.41, local_proxy= 192.168.253.0/255.255.255.0/0/0 (type=4),
remote_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4),
    protocol= ESP, transform= esp-3des esp-md5-hmac ,
    lifedur= 28800s and 0kb,
    spi= 0x26F92806(653862918), conn_id= 2003, keysize= 0, flags= 0xC
4d05h: IPSEC(create_sa): sa created,
    (sa) sa_dest= 172.16.172.46, sa_prot= 50,
    sa_spi= 0xA8C469EC(2831444460) ,
sa_trans= esp-3des esp-md5-hmac , sa_conn_id= 2002
4d05h: IPSEC(create_sa): sa created,
    (sa) sa_dest= 172.16.172.41, sa_prot= 50,
    sa_spi= 0x26F92806(653862918) ,
sa_trans= esp-3des esp-md5-hmac , sa_conn_id= 2003
4d05h: ISAKMP: received ke message (4/1)
4d05h: ISAKMP: Locking CONFIG struct 0x81F433A4 for
    crypto_ikmp_config_handle_kei_mess, count 4
4d05h: EZVPN(SJVPN): Current State: SS_OPEN
4d05h: EZVPN(SJVPN): Event: SOCKET_UP
4d05h: ezvpn_socket_up
4d05h: EZVPN(SJVPN): New State: IPSEC_ACTIVE
4d05h: EZVPN(SJVPN): Current State: IPSEC_ACTIVE
4d05h: EZVPN(SJVPN): Event: MTU_CHANGED
4d05h: EZVPN(SJVPN): No state change
4d05h: EZVPN(SJVPN): Current State: IPSEC_ACTIVE
4d05h: EZVPN(SJVPN): Event: SOCKET_UP
4d05h: ezvpn_socket_up
4d05h: EZVPN(SJVPN): No state change

```

## [Verwante Cisco IOS-show Opdrachten voor probleemoplossing](#)

```

1721-1(ADSL)#show crypto ipsec client ezvpn
Tunnel name : SJVPN
Inside interface list: Loopback0, Loopback1,
Outside interface: FastEthernet0
Current State: IPSEC_ACTIVE
Last Event: SOCKET_UP
1721-1(ADSL)#show crypto isakmp sa

    dst      src      state      conn-id  slot
172.16.172.41  172.16.172.46  QM_IDLE      3        0

1721-1(ADSL)#show crypto ipsec sa

```

```
interface: FastEthernet0
  Crypto map tag: FastEthernet0-head-0, local addr. 172.16.172.46
  local ident (addr/mask/prot/port): (192.168.253.0/255.255.255.0/0/0)
  remote ident (addr/mask/prot/port): (0.0.0.0/0.0.0.0/0/0)

  current_peer: 172.16.172.41
  PERMIT, flags={origin_is_acl,}
  #pkts encaps: 100, #pkts encrypt: 100, #pkts digest 100
  #pkts decaps: 100, #pkts decrypt: 100, #pkts verify 100
  #pkts compressed: 0, #pkts decompressed: 0
  #pkts not compressed: 0, #pkts compr. failed: 0, #pkts decompress failed: 0
  #send errors 0, #recv errors 0
```

```
local crypto endpt.: 172.16.172.46, remote crypto endpt.: 172.16.172.41
  path mtu 1500, media mtu 1500
  current outbound spi: 26F92806
```

```
inbound esp sas:
```

```
  spi: 0xA8C469EC(2831444460)
  transform: esp-3des esp-md5-hmac ,
  in use settings = {Tunnel, }
  slot: 0, conn id: 2002, flow_id: 3, crypto map: FastEthernet0-head-0
  sa timing: remaining key lifetime (k/sec): (4607848/28656)
  IV size: 8 bytes
  replay detection support: Y
```

```
inbound ah sas:
```

```
inbound pcp sas:
```

```
outbound esp sas:
```

```
  spi: 0x26F92806(653862918)
  transform: esp-3des esp-md5-hmac ,
  in use settings = {Tunnel, }
  slot: 0, conn id: 2003, flow_id: 4, crypto map: FastEthernet0-head-0
  sa timing: remaining key lifetime (k/sec): (4607848/28647)
  IV size: 8 bytes
  replay detection support: Y
```

```
outbound ah sas:
```

```
outbound pcp sas:
```

```
local ident (addr/mask/prot/port): (192.168.254.0/255.255.255.0/0/0)
remote ident (addr/mask/prot/port): (0.0.0.0/0.0.0.0/0/0)
current_peer: 172.16.172.41
```

```
PERMIT, flags={origin_is_acl,}
#pkts encaps: 105, #pkts encrypt: 105, #pkts digest 105
#pkts decaps: 105, #pkts decrypt: 105, #pkts verify 105
#pkts compressed: 0, #pkts decompressed: 0
#pkts not compressed: 0, #pkts compr. failed: 0, #pkts decompress failed: 0
#send errors 0, #recv errors 0
```

```
local crypto endpt.: 172.16.172.46, remote crypto endpt.: 172.16.172.41
  path mtu 1500, media mtu 1500
  current outbound spi: 502A71B5
```

```
inbound esp sas:
```

```
  spi: 0x3C77C53D(1014482237)
  transform: esp-3des esp-md5-hmac ,
  in use settings = {Tunnel, }
```



```
slot: 0, conn id: 2000, flow_id: 1, crypto map: FastEthernet0-head-0
sa timing: remaining key lifetime (k/sec): (4607847/28644)
IV size: 8 bytes
replay detection support: Y
```

inbound ah sas:

inbound pcp sas:

outbound esp sas:

```
spi: 0x502A71B5(1344958901)
transform: esp-3des esp-md5-hmac ,
in use settings ={Tunnel, }
slot: 0, conn id: 2001, flow_id: 2, crypto map: FastEthernet0-head-0
sa timing: remaining key lifetime (k/sec): (4607847/28644)
IV size: 8 bytes
replay detection support: Y
```

outbound ah sas:

outbound pcp sas:

### [Een actieve tuner wissen](#)

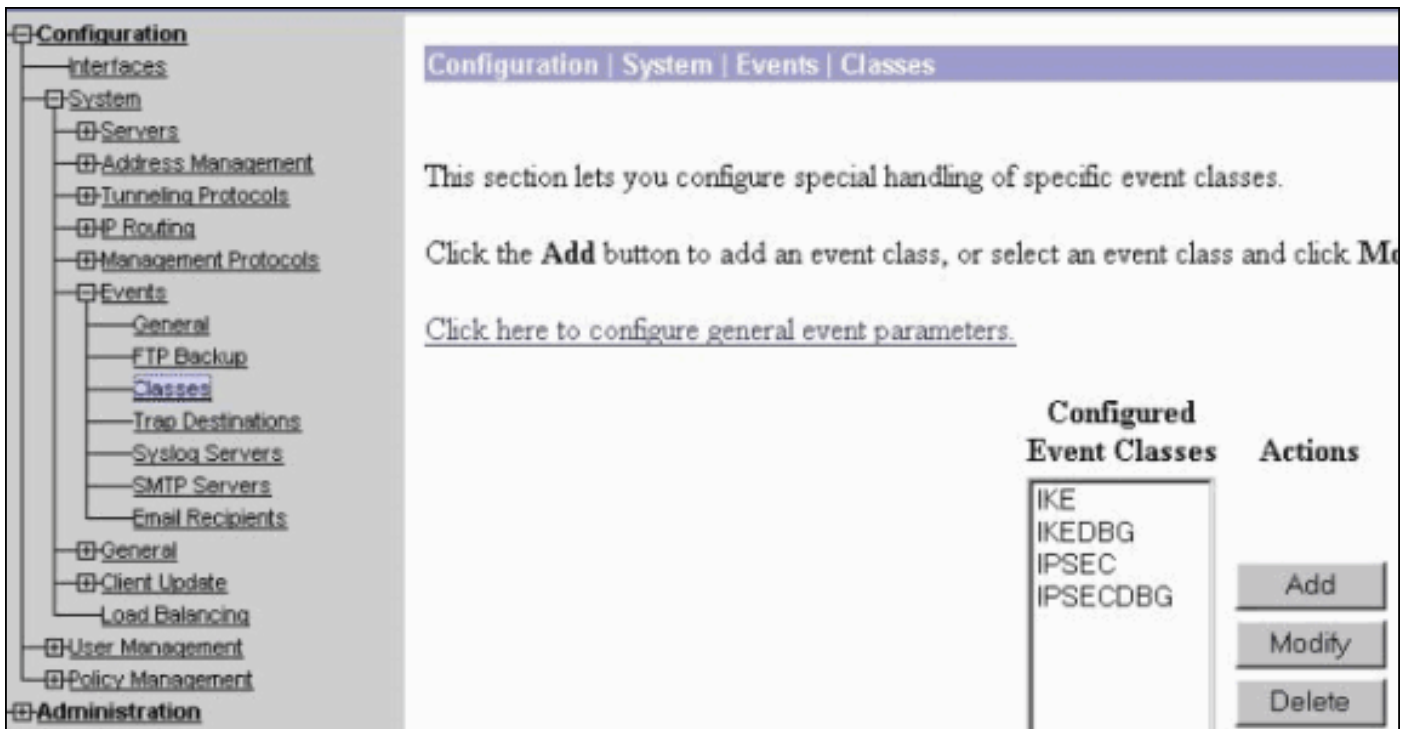
U kunt de tunnels met deze opdrachten verwijderen:

- duidelijke cryptografie isakmp
- crypto sa
- duidelijke crypto ipsec-client ezvpn

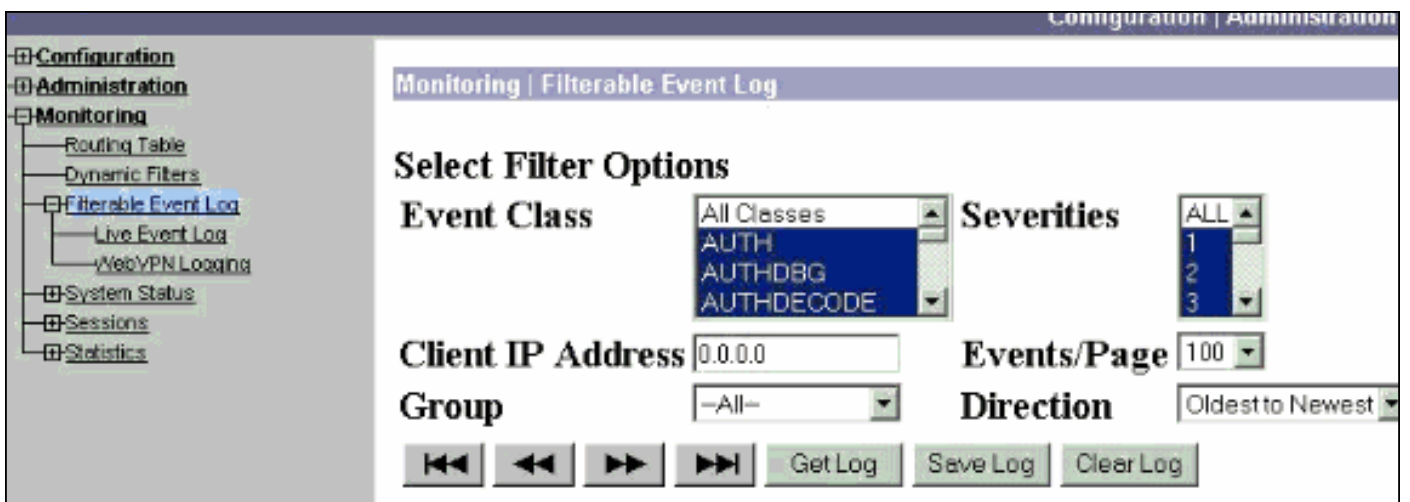
**N.B.:** U kunt de VPN-centrator gebruiken om de sessie te beëindigen wanneer u **Administratie > Admin-sessies** kiest, de gebruiker in **Remote Access Session** selecteert en **logout** klikt.

### [VPN 3000 Concentrator-debug](#)

Kies **Configuratie > Systeem > Gebeurtenissen > Klassen** om dit **te** debug in te schakelen als er problemen zijn met de verbinding. U kunt altijd meer klassen toevoegen als de weergegeven klassen u niet helpen het probleem te identificeren.



Om het huidige logbestand van de gebeurtenis in het geheugen te bekijken, filterbaar door gebeurtenis klasse, ernst, IP adres, enzovoort, kies **Controle > Filterable Event log**.



Om de statistieken van het IPsec protocol te bekijken, kiest u **Controle > Statistieken > IPsec**. Dit venster toont statistieken voor IPsec-activiteit, inclusief de huidige IPsec-tunnels, op de VPN-centrator sinds deze voor het laatst is opgestart of hersteld. Deze statistieken voldoen aan het IETF ontwerp voor de IPsec Flow Monitoring MIB. Het venster **Monitoring > Sessions > Detail** geeft ook IPsec-gegevens weer.

IKE (Phase 1) Statistics		IPSec (Phase 2) Statistics	
Active Tunnels	1	Active Tunnels	2
Total Tunnels	122	Total Tunnels	362
Received Bytes	2057442	Received Bytes	0
Sent Bytes	332256	Sent Bytes	1400
Received Packets	3041	Received Packets	0
Sent Packets	2128	Sent Packets	5
Received Packets Dropped	1334	Received Packets Dropped	0
Sent Packets Dropped	0	Received Packets Dropped (Anti-Replay)	0
Received Notifies	15	Sent Packets Dropped	0
Sent Notifies	254	Inbound Authentications	0
Received Phase-2 Exchanges	362		

## [Wat er kan misgaan](#)

- De Cisco IOS router zit vast in de AG\_INIT\_EXCH staat. Wanneer u een oplossing hebt gevonden, schakelt u IPsec en ISAKMP versies in met deze opdrachten: **crypto ipsec debugdebug van crypto isakmpdebug van crypto ezvpn** Op de Cisco IOS router ziet u dit:

```

5d16h: ISAKMP (0:9): beginning Aggressive Mode exchange
5d16h: ISAKMP (0:9): sending packet to 10.48.66.115 (I) AG_INIT_EXCH
5d16h: ISAKMP (0:9): retransmitting phase 1 AG_INIT_EXCH...
5d16h: ISAKMP (0:9): incrementing error counter on sa: retransmit phase 1
5d16h: ISAKMP (0:9): retransmitting phase 1 AG_INIT_EXCH
5d16h: ISAKMP (0:9): sending packet to 10.48.66.115 (I) AG_INIT_EXCH
5d16h: ISAKMP (0:9): retransmitting phase 1 AG_INIT_EXCH...
5d16h: ISAKMP (0:9): incrementing error counter on sa: retransmit phase 1
5d16h: ISAKMP (0:9): retransmitting phase 1 AG_INIT_EXCH
5d16h: ISAKMP (0:9): sending packet to 10.48.66.115 (I) AG_INIT_EXCH
5d16h: ISAKMP (0:9): retransmitting phase 1 AG_INIT_EXCH...
5d16h: ISAKMP (0:9): incrementing error counter on sa: retransmit phase 1
5d16h: ISAKMP (0:9): retransmitting phase 1 AG_INIT_EXCH
5d16h: ISAKMP (0:9): sending packet to 10.48.66.115 (I) AG_INIT_EXCH

```

Op de VPN 3000 Concentrator is Xauth vereist. Het geselecteerde voorstel steunt Xauth echter niet. Controleer dat de [interne authenticatie voor Xauth](#) gespecificeerd is. interne verificatie inschakelen en ervoor zorgen dat de IKE-voorstellen de verificatiemodus hebben ingesteld op **PreShared Keys (Xauth)**, zoals in het vorige [screenshot](#). Klik op **Wijzigen** om het voorstel te bewerken.

- Het wachtwoord is onjuist. U ziet het **Ongeldige Wachtwoord** niet op de Cisco IOS-router. Op de VPN Concentrator ziet u **onverwachte gebeurtenis EV\_ACTIVATE\_NEW\_SA in de deelstaat AM\_TM\_INIT\_XAUTH**. Zorg ervoor dat uw wachtwoord juist is.
- De gebruikersnaam is onjuist. Op de Cisco IOS router ziet u een debug gelijkend op dit als u het verkeerde wachtwoord hebt. In VPN Concentrator wordt **verificatie verworpen: Reden = gebruiker is niet gevonden**.

## [Gerelateerde informatie](#)

- [Ondersteuning van Cisco VPN 3000 Series Concentrator-pagina](#)
- [Cisco Makkelijk VPN Remote Fase II](#)
- [Cisco VPN 3000 Series clientondersteuningspagina](#)
- [Ondersteuning van IPsec-onderhandeling/IKE-protocollen](#)
- [Technische ondersteuning en documentatie – Cisco Systems](#)