# Ejemplo de Configuración de EzVPN con NEM en Router IOS con Concentrador VPN 3000

## Contenido

Introducción **Prerequisites** Requirements Componentes Utilizados **Convenciones** Configurar el concentrador VPN 3000 Tarea Diagrama de la red Instrucciones paso a paso Configuración del router Verificación Troubleshoot Comandos para resolución de problemas Resultado de los comandos de depuración Comandos show de Cisco IOS relacionados para la resolución de problemas Depuración del concentrador de la VPN 3000 Qué Puede Salir Mal Información Relacionada

## **Introducción**

Este documento explica el procedimiento que se utiliza para configurar un router Cisco IOS® como EzVPN en <u>Network Extension Mode (NEM)</u> para conectarse a un concentrador Cisco VPN 3000. Una nueva función EzVPN Phase II es la compatibilidad con una configuración básica de traducción de direcciones de red (NAT). La EzVPN Phase II deriva del Unity Protocol (software VPN Client). El dispositivo remoto es siempre el iniciador del túnel IPsec. Sin embargo, las propuestas de Intercambio de claves de Internet (IKE) e IPSec no se pueden configurar en el cliente EzVPN. El cliente VPN negocia las propuestas con el servidor.

Para configurar IPsec entre un PIX/ASA 7.x y un Cisco 871 Router usando Easy VPN, refiérase a <u>PIX/ASA 7.x Easy VPN con un ASA 5500 como Servidor y Cisco 871 como Ejemplo de</u> <u>Configuración Easy VPN Remote</u>.

Para configurar IPsec entre el Cisco IOS® Easy VPN Remote Hardware Client y el PIX Easy VPN Server, consulte <u>Ejemplo de Configuración de IOS Easy VPN Remote Hardware Client a un PIX</u> <u>Easy VPN Server</u>.

Para configurar un Cisco 7200 Router como EzVPN y Cisco 871 Router como Easy VPN Remote,

consulte Ejemplo de Configuración de 7200 Easy VPN Server a 871 Easy VPN Remote.

## **Prerequisites**

#### **Requirements**

Antes de intentar esta configuración, verifique que el router del IOS de Cisco soporte la <u>función</u> <u>EzVPN Phase II</u> y que tenga la conectividad IP con conexiones de extremo a extremo para establecer el túnel IPsec.

#### **Componentes Utilizados**

La información que contiene este documento se basa en las siguientes versiones de software y hardware.

- Versión 12.2(8)YJ del software del IOS de Cisco (EzVPN Fase II)
- Concentrador VPN 3000 3.6.x
- Cisco 1700 Router

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

**Nota:** Esta configuración se probó recientemente con un Cisco 3640 Router con Cisco IOS Software Release 12.4(8) y el VPN 3000 Concentrator versión 4.7.x.

#### **Convenciones**

Consulte <u>Convenciones de Consejos TécnicosCisco para obtener más información sobre las</u> <u>convenciones del documento.</u>

## Configurar el concentrador VPN 3000

#### <u>Tarea</u>

En esta sección, se le presenta la información para configurar el VPN 3000 Concentrator.

#### Diagrama de la red

Este documento utiliza la configuración de red que se muestra en el siguiente diagrama. Las interfaces de loopback se utilizan como subredes internas y FastEthernet 0 es el valor predeterminado para Internet.



### Instrucciones paso a paso

Complete estos pasos:

 Elija Configuration > User Management > Groups > Add y defina un nombre de grupo y una contraseña para configurar un grupo IPsec para los usuarios. Este ejemplo utiliza el nombre de grupo turaro con contraseña/verify

-GH <u>Svaten</u> -GUser Management Th Base Oroup -Groups de Users of -GPolicy Management	nis section fault to the rerride bas	lets you add a gr e base group valu e group values.	oup. Check the <b>Inherit?</b> box to set a field that you want to e. Uncheck the <b>Inherit?</b> box and enter a new value to
Administration	dentity 🕻 G	eneral TPSec T	Client Config Client FW HW Client PPTP/L2TP
1	Attribute	Value	Description
	Group Name	turaro	Enter a unique name for the group.
1	Password	2000000	Enter the password for the group.
	Verify		Verify the group's password.
	Туре	Internal 💌	External groups are configured on an external authentication server (e.g. RADIUS). Internal groups are configured on the VPN 3000 Concentrator's Internal Database.
Ī	Add	Cancel	
Cisco Systems			

 Elija Configuration > User Management > Groups > turaro > General para habilitar IPSec y desactivar Point-to-Point Tunneling Protocol (PPTP) y Layer 2 Tunnel Protocol (L2TP).Realice sus selecciones y haga clic en Aplicar.

Configuration	Identity General IPSec C	lient FW TPPTP/L2T	Ρ				
- ⊞ <u>System</u>		General Par					
Base Group	Attribute	Value	Inherit?				
Groups Users	Access Hours	-No Restrictions- 💌	R	Sele			
EPolicy Management	Simultaneous Logins	3	<b>N</b>	Ente			
⊕ <u>Administration</u> ⊕ <u>Monitoring</u>	Minimum Password Length	8	<b>N</b>	Ente			
	Allow Alphabetic-Only Passwords	ম	ч	Ente be a			
	Idle Timeout	30	N	(min			
	Maximum Connect Time	0	N	(min			
	Filter	-None-	<b>ସ</b>	Ente			
	Primary DNS		<b>N</b>	Ente			
	Secondary DNS		<b>N</b>	Ente			
	Primary WINS		R	Ente			
	Secondary WINS		<b>N</b>	Ente			
	SEP Card Assignment	SEP 1 SEP 2 SEP 3 SEP 4	9	Sele			
CISCO SYSTEMS	Tunneling Protocols	□ PPTP □ L2TP ☑ IPSec		Sele			

3. Establezca la autenticación en **Interno** para la autenticación extendida (Xauth) y asegúrese de que el tipo de túnel sea **Acceso remoto** y IPSec SA sea **ESP-3DES-MD5**.

- Configuration	Configuration   User M	Management   Groups   Modify ADMIN	
Interfaces     System     Base Group     Groups	Check the <b>Inherit?</b> bo value to override base	ox to set a field that you want to default group values.	to the base group
Users	Identity General II	PSec Client FW PPTP/L2TP	
Policy Management		IPSec	Parameters
- <u>Administration</u> - <u>Monitoring</u>	Attribute	Value	Inherit?
	IPSec SA	ESP-3DES-MD5	
	IKE Peer Identity Validation	If supported by certificate 💌	ti S
	IKE Keepalives	M	
	Reauthentication on Rekey		<b>S</b>
	Tunnel Type	Remote Access 💌	1 1 1
		Remote Ac	cess Parameters
	Group Lock		I N
	Authentication	Internal 💌	<u>ه</u> د
			0

4. Elija Configuration > System > Tunneling Protocols > IPSec > IKE Proposale para asegurarse de que Cisco VPN Client (CiscoVPNClient-3DES-MD5) esté en Propuestas activas para IKE (Fase 1).Nota: Desde VPN Concentrator 4.1.x, el procedimiento es diferente para asegurarse de que Cisco VPN Client esté en la lista de Propuestas Activas para IKE (fase 1). Elija Configuration > Tunneling and Security > IPSec > IKE Proposale.

Configuration Interfaces System OServers OAddress Management OTunneing Protocols OPTP L2TP OPSec LAN-to-LAN KE Proposals OP Routing	Configuration   System   Tunneling Protocols   IP Add, delete, prioritize, and configure IKE Proposal Select an Inactive Proposal and click Activate to Select an Active Proposal and click Deactivate to Click Add or Copy to add a new Inactive Propose parameters.	Sec   IKE Proposals ds. o make it Active, or cl to make it Inactive, or sal. IKE Proposals are	ick <b>Modify, Copy</b> or D click <b>Move Up</b> or <b>Mo</b> s used by <u>Security Asso</u>
	Active Proposals CiscoVPNClient-3DES-MD5 IKE-3DES-MD5 IKE-3DES-MD5-DH1 IKE-3DES-MD5-DH7	Actions << Activate Deactivate >> Move Up Move Down Add	Inactive Proposals IKE-3DES-MD5-RSA IKE-3DES-SHA-DSA IKE-3DES-MD5-RSA-D IKE-DES-MD5-DH7 CiscoVPNClient-3DES CiscoVPNClient-3DES

5. Verifique su asociación de seguridad IPsec (SA).En el paso 3, su SA IPsec es ESP-3DES-MD5. Puede crear uno nuevo si lo desea, pero asegúrese de utilizar la SA IPSec correcta en su grupo. Debe inhabilitar Perfect Forward Secrecy (PFS) para la SA IPsec que utiliza. Seleccione Cisco VPN Client como la propuesta IKE eligiendo Configuration > Policy Management > Traffic Management > SAs. Escriba el nombre de SA en el cuadro de texto y

# realice las selecciones apropiadas como se muestra aquí:

Configuration   Policy M	lanagement   Traffic Mana	gement	Security Associations   Modify
Modify a configured Security	Association.		
SA Name	ESP-3DES-MD5	SF	ecify the name of this Security Association (S
Inheritance	From Rule	Se	elect the granularity of this SA.
IPSec Parameters			
Authentication Algorithm	ESP/MD5/HMAC-128	Se	elect the packet authentication algorithm to use
Encryption Algorithm	3DES-168 -	Se	elect the ESP encryption algorithm to use.
Encapsulation Mode	Tunnel	Se	elect the Encapsulation Mode for this SA.
Perfect Forward Secrecy	Disabled 🔹	Se	elect the use of Perfect Forward Secrecy.
Lifetime Measurement	Time 💌	Se	elect the lifetime measurement of the IPSec ke
Data Lifetime	10000	Sr	ecify the data lifetime in kilobytes (KB).
Time Lifetime	28800	Sp	ecify the time lifetime in seconds.
IKE Parameters			
IKE Peer	0.0.0.0	Sp	ecify the IKE Peer for a LAN-to-LAN IPSe
Negotiation Mode	Aggressive 💌	Se	elect the IKE Negotiation mode to use.
Digital Certificate	None (Use Preshared Keys) 💌	] Se	elect the Digital Certificate to use.
Certificate Transmission	<ul> <li>Entire certificate chain</li> <li>Identity certificate only</li> </ul>	Cł	hoose how to send the digital certificate to the
IKE Proposal	CiscoVPNClient-3DES-MD5	💌 Se	elect the IKE Proposal to use as IKE initiator.

**Nota:** Este paso y el siguiente son opcionales si prefiere elegir una SA predefinida. Si su cliente tiene una dirección IP asignada dinámicamente, utilice 0.0.0.0 en el cuadro de texto IKE peer. Asegúrese de que la Propuesta IKE esté configurada en **CiscoVPNClient-3DES-MD5** como muestra este ejemplo.

6. **No** haga clic en *Permitir que las redes de la lista omitan el túnel*. La razón es que se soporta la tunelización dividida, pero la función de omisión no se soporta con la función EzVPN Client.

Configuration Interfaces  System  User Management  Base Group  Groups	Banner Allow Password Storage on Client		ঘ
<u> </u>	Split Tunneling Policy	<ul> <li>Tunnel everything</li> <li>Allow the networks in list to bypass the tunnel</li> <li>Only tunnel networks in list</li> </ul>	য
	Split Tunneling Network List	-None-	R

7. Elija **Configuration > User Management > Users** para agregar un usuario. Defina un nombre de usuario y una contraseña, asígneselos a un grupo y haga clic en

Agregar.	_						
<u> Configuration</u> Interfaces	Configuration	Configuration   User Management   Users   Add					
Base Group     Groups     Users     User	This section le override group	ts you add a user. U > values. neral IPSec IPPI	Incheck the <b>Inherit?</b> box and enter a new value to				
- Administration		I	lentity Parameters				
- Monitoring	Attribute	Value	Description				
	Username	padma	Enter a unique username.				
	Password	Aniska Aniska Anis	Enter the user's password. The password must satisfy the group password requirements.				
	Verify	dociolologickologi	Verify the user's password.				
	Group	turaro 💌	Enter the group to which this user belongs.				
	IP Address		Enter the IP address assigned to this user.				
	Subnet Mask	[	Enter the subnet mask assigned to this user.				
	Add	Cancel					
Cisco Systems							

 Elija Administration > Admin Sessions y verifique que el usuario esté conectado. En NEM, el concentrador VPN no asigna una dirección IP del conjunto.Nota: Este paso es opcional si prefiere elegir una SA predefinida.

LAN-to-LAN Sess	ions				[ Res	note Access Ses	nons   Managen	oent Sessions
Connection Nam	e IP Address	Protocol	Encryption	Login Time	Duration	Bytes Tx	Bytes Rx	Actions
	No LAN-to-LAN Sessions							
Remote Access Se	sions				[14	AN-to-LAN Set	tions   Managen	uent Sexuoni
Username	Assigned IP Address Public IP Address	Group	Protocol Encryption	Login Time Duration	Client Vers	Type Byte	es Tx es Rx	Actions
Curco MAE	192.168.253.0 172.16.172.46	turaro	IPSec 3DES-168	Mar 31 18 32:23 0:02:50	N/. N/.	A A	301320 301320 [Logo	ni Emg J
Management Sessions [LAN-to-LAN Sessions   Remote Access Sessions								
Administrator	IP Address	Protocol	Encryptic	m Logi	n Time	Duration	A	tions
admin	171.69.89.5	HILD	None	Mar 31 18:35	01	0:00:12	[Logout] Pa	ng]

9. Haga clic en el icono Guardar necesario o Guardar para guardar la configuración.

### Configuración del router

Salida de show version

#### show version

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

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
1
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
loqin
!
no scheduler allocate
end
```

# **Verificación**

Use esta sección para confirmar que su configuración funciona correctamente.

La herramienta Output Interpreter Tool (clientes registrados solamente) (OIT) soporta ciertos comandos show. Utilice la OIT para ver un análisis del resultado del comando show.

Una vez que configura ambos dispositivos, el router Cisco 3640 intenta configurar el túnel VPN contactando al concentrador VPN automáticamente usando la dirección IP del par. Después de intercambiar los parámetros ISAKMP iniciales, el router visualiza este mensaje:

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

Debe ingresar el **comando crypto ipsec client ezvpn xauth que le pide un nombre de usuario y contraseña.** Esto debe coincidir con el nombre de usuario y la contraseña configurados en el concentrador VPN (paso 7). Una vez que el nombre de usuario y la contraseña son acordados por ambos peers, se acuerda el resto de los parámetros y se activa el túnel VPN IPsec.

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** 

## **Troubleshoot**

En esta sección encontrará información que puede utilizar para solucionar problemas de configuración.

#### Comandos para resolución de problemas

La herramienta <u>Output Interpreter</u> (sólo para clientes registrados) permite utilizar algunos comandos "show" y ver un análisis del resultado de estos comandos.

Nota: Consulte Información Importante sobre Comandos Debug antes de ejecutar los comandos debug.

- debug crypto ipsec client ezvpn: muestra información que muestra la configuración e implementación de la función EzVPN Client.
- debug crypto ipsec-Muestra información de depuración acerca de las conexiones IPSec.
- debug crypto isakmp: muestra información de depuración sobre las conexiones IPsec y muestra el primer conjunto de atributos que se niegan debido a incompatibilidades en ambos extremos.
- show debug—Muestra el estado de cada opción de depuración.

#### Resultado de los comandos de depuración

Tan pronto como ingresa el comando **crypto ipsec client ezvpn SJVPN**, el Cliente EzVPN intenta conectarse al servidor. Si cambia el comando **connect manual** bajo la configuración de grupo, ingrese el comando **crypto ipsec client ezvpn connect SJVPN** para iniciar el intercambio de propuestas al servidor.

```
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
                  hash MD5
4d05h: ISAKMP:
4d05h: ISAKMP:
                 default group 2
4d05h: TSAKMP:
                  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
                  hash MD5
4d05h: ISAKMP:
4d05h: ISAKMP:
                  default group 2
4d05h: ISAKMP:
                  auth XAUTHInitPreShared
                  life type in seconds
4d05h: ISAKMP:
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
                  auth XAUTHInitPreShared
4d05h: ISAKMP:
4d05h: ISAKMP:life type in seconds4d05h: 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
                  default group 2
4d05h: ISAKMP:
                  auth XAUTHInitPreShared
4d05h: ISAKMP:
4d05h: ISAKMP:
                  life type in seconds
                 life duration (VPI) of 0x0 0x20 0xC4 0x9B
4d05h: ISAKMP:
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
                  life duration (VPI) of 0x0 0x20 0xC4 0x9B
4d05h: ISAKMP:
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\_MESG\_FROM\_PEER, IKE\_AM\_EXCH 0ld 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\_MESG\_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\_MESG\_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\_MESG\_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\_MESG\_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\_MESG\_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\_MESG\_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\_MESG\_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\_MESG\_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 (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 (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 (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\_MESG\_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\_MESG\_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 MESG 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\_MESG\_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 (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 espmd5-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_MESG_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
```

#### Comandos show de Cisco IOS relacionados para la resolución de problemas

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:

Borrar un Túnel Activo

Puede borrar los túneles con estos comandos:

- · clear crypto isakmp
- · clear crypto sa
- clear crypto ipsec client ezvpn

**Nota:** Puede utilizar el VPN Concentrator para cerrar la sesión cuando elija **Administration > Admin Sessions**, seleccione el usuario en **Remote Access Session** y haga clic en **logout**.

#### Depuración del concentrador de la VPN 3000

Elija **Configuration > System > Events > Classes** para habilitar esta depuración si hay fallas de conexión a eventos. Siempre puede agregar más clases si las que se muestran no le ayudan a identificar el problema.

	Configuration   System   Events   Classes		
- C Servers			
Address Management	This section lets you configure special handling of s	necific event cla	0000
Tunneling Protocols	This section lets you compute special nationing of s	ресше ечень сна	13363.
- OHP Routing	and the second of the second	1	
- Management Protocols	Click the Add button to add an event class, or sele	ect an event class	s and click $M_0$
General	Click here to configure general event parameters.		
FTP Backup			
Classes			
Trap Destinations		Configured	
Syslog Servers	1	Event Classes	Actions
SMTP Servers	1	IKE	
Email Recipients		IKEDBG	
- I General		IPSEC	
		IPSECOBG	Add
Load Balancing		" SECODO	
User Management			Modify
- Delicy Management			Delete
<u>Administration</u>			Delete

Para ver el registro de eventos actual en la memoria, filtrable por clase de evento, gravedad, dirección IP, etc., elija **Monitoring > Filterable Event log**.

			Configurat	ion   Administration
- Configuration - Administration	Monitoring   Filterable E	vent Log		
Routing Table     Dynamic Filters	Select Filter Opti	ons		
Efferable Event Log     Live Event Log     WebVPN Logging     WebVPN Logging	Event Class	All Classes AUTH AUTHDBG AUTHDECODE	<ul> <li>Severities</li> </ul>	ALL  1 2 3
D-D-Statistics	Client IP Address	<b>5</b> 0.0.0.0	Events/Page	100 💌
	Group	-All-	Direction	Oldest to Newest 👱
	₩ ₩	GetLog	Save Log Clear Lo	g

Para ver las estadísticas del protocolo IPsec, elija **Monitoring > Statistics > IPSec.** Esta ventana muestra las estadísticas de actividad de IPSec, incluidos los túneles IPsec actuales, en el concentrador VPN desde que se inició o restableció por última vez. Estas estadísticas se ajustan al borrador IETF para la MIB de Monitoreo de Flujo IPSec. La ventana **Monitoring > Sessions > Detail** también muestra los datos de IPSec.

Monitoring   Statistics   IPSec	Friday, 28 July 20	06 10:00:1	
		Reset 🥔	Refresh
IKE (Phase 1) Statisti	cs	IPSec (Phase 2) Statistics	5
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
<b>Received Packets Dropped</b>	1334	<b>Received Packets Dropped</b>	0
Sent Packets Dropped	0	<b>Received Packets Dropped</b>	0
Received Notifies	15	(Anti-Replay)	Ň
Sent Notifies	254	Sent Packets Dropped	0
<b>Received Phase-2 Exchanges</b>	362	Inbound Authentications	0

## Qué Puede Salir Mal

• El router Cisco IOS se bloquea en el estado AG\_INIT\_EXCH. Mientras resuelve problemas, active las depuraciones de IPSec e ISAKMP con estos comandos: debug crypto ipsecdebug crypto isakmpdebug crypto ezvpnEn el router Cisco IOS, verá lo siguiente:

```
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): 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): incrementing error counter on sa: retransmit phase 1
5d16h: ISAKMP (0:9): sending packet to 10.48.66.115 (I) AG_INIT_EXCH
5d16h: ISAKMP (0:9): incrementing error counter on sa: retransmit phase 1
5d16h: ISAKMP (0:9): sending packet to 10.48.66.115 (I) AG_INIT_EXCH
```

En el concentrador VPN 3000, se requiere Xauth. Sin embargo, la propuesta seleccionada no es compatible con Xauth. Verifique que la <u>autenticación interna para Xauth</u> esté especificada. Habilite la autenticación interna y asegúrese de que las propuestas IKE tengan el modo de autenticación establecido en **Claves previamente compartidas (Xauth)**, como en la <u>captura de pantalla</u> anterior. Haga clic en **Modificar** para editar la propuesta.

- La contraseña es incorrecta.No ve el mensaje Invalid Password en el router Cisco IOS. En el concentrador VPN, puede ver Evento inesperado recibido EV\_ACTIVATE\_NEW\_SA en el estado AM\_TM\_INIT\_XAUTH.Asegúrese de que la contraseña es correcta.
- El nombre de usuario es incorrecto.En el router del IOS de Cisco verá un debug similar a éste si tiene la contraseña incorrecta. En el concentrador VPN verá Autenticación rechazada: Motivo = No se encontró el usuario.

# Información Relacionada

- Página de soporte del concentrador de la serie Cisco VPN 3000
- Fase II de Cisco Easy VPN Remote
- Página de soporte al cliente Serie Cisco VPN 3000
- Página de Soporte de IPSec Negotiation/IKE Protocols
- Soporte Técnico y Documentación Cisco Systems