

Configurer le client Easy VPN Remote PIX 501/506 sur un routeur IOS en mode extension réseau avec authentification étendue

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Introduction

Ce document illustre la configuration d'IPSec entre la fonctionnalité de client matériel Easy VPN Remote PIX et la fonctionnalité Easy VPN Server disponible dans les versions ultérieures du logiciel Cisco IOS®. La fonctionnalité Easy VPN Remote pour le PIX a été introduite dans PIX version 6.2 et est également appelée client matériel/EzVPN. Lorsque Easy VPN Remote se connecte à un périphérique de tête de réseau, il existe au moins cinq associations de sécurité (SA), dont une IKE (Internet Key Exchange) et quatre associations IPSec. Lorsque Easy VPN Remote se connecte à la tête de réseau, il négocie toujours deux SA IPSec avec l'adresse IP de l'interface externe du PIX à n'importe quelle adresse derrière le serveur VPN. Ceci peut être utilisé à des fins de gestion pour se connecter à l'interface externe du PIX à partir du réseau derrière le routeur Cisco IOS (soit via Secure Shell [SSH], Secure HTTP for PIX Device Manager [PDM] ou Telnet). L'SA est créée par défaut sans configuration, et les deux autres SA sont créées pour le trafic de données entre les réseaux derrière le PIX et le routeur Cisco IOS.

Reportez-vous à [PIX-to-PIX 6.x : Exemple de configuration de Easy VPN \(NEM\)](#) pour plus d'informations sur un scénario similaire où le PIX 506 6.x agit en tant que serveur Easy VPN.

Référez-vous à [Exemple de configuration de PIX/ASA 7.x Easy VPN avec un ASA 5500 en tant que serveur et PIX 506E en tant que client \(NEM\)](#) pour plus d'informations sur un scénario

similaire où PIX/ASA 7.x agit en tant que serveur Easy VPN.

Référez-vous à [Exemple de configuration Easy VPN PIX/ASA 7.x avec un ASA 5500 comme serveur et Cisco 871 comme exemple de configuration Easy VPN Remote](#) pour plus d'informations sur un scénario similaire où le routeur Cisco 871 agit comme Easy VPN Remote.

Référez-vous à [Exemple de configuration du client matériel VPN sur un dispositif de sécurité de la gamme PIX 501/506 avec concentrateur VPN 3000](#) pour plus d'informations sur un scénario similaire où le concentrateur VPN Cisco 3000 agit comme serveur Easy VPN.

Conditions préalables

Conditions requises

Aucune spécification déterminée n'est requise pour ce document.

Components Used

Les informations contenues dans ce document sont basées sur les versions de matériel et de logiciel suivantes :

- Pare-feu PIX qui exécute le logiciel version 6.3(5) **Remarque** : La fonctionnalité Easy VPN Client sur le PIX a été introduite dans la version 6.2.
- Routeur IOS de la gamme Cisco 7200 qui exécute le logiciel version 12.4(4)T1 **Remarque** : La fonctionnalité Easy VPN Server a été introduite dans la version 12.2(8)T).

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.

Conventions

Pour plus d'informations sur les conventions utilisées dans ce document, reportez-vous à [Conventions relatives aux conseils techniques Cisco](#).

Configuration

Cette section vous fournit des informations pour configurer les fonctionnalités décrites dans ce document.

Remarque : Utilisez [l'outil de recherche de commandes](#) (clients [inscrits](#) seulement) pour en savoir plus sur les commandes figurant dans le présent document.

Diagramme du réseau

Ce document utilise la configuration réseau suivante :



Configurations

Ce document utilise les configurations suivantes :

- [Routeur Cisco IOS](#)
- [PIX](#)

Routeur Cisco IOS

```

ezvpn_server#show running-config
Building configuration...

Current configuration : 1894 bytes
!
version 12.4
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname ezvpn_server
!
boot-start-marker
boot system disk1:c7200-adventureisek9-mz.124-4.T1.bin
boot-end-marker
!
!
!--- Enable the authentication, authorization, and
accounting (AAA) !--- access control model. aaa new-
model
!
!
!--- Enable X-Auth for user authentication. aaa
authentication login userauthen local
!--- Enable group authorization. aaa authorization
network groupauthor local
!
aaa session-id common
!
resource policy
!
ip subnet-zero
ip cef
!
!
!
!
!
```

```
!
!
!
!
!--- For local authentication of the IPSec user, !---
create the user with password. username remoteuser1
password 0 remotepass
username cisco password 0 cisco
!
!
!
!--- Create an Internet Security Association and Key
Management Protocol !--- (ISAKMP) policy for Phase 1
negotiations for the hardware client. crypto isakmp
policy 10
hash md5
authentication pre-share
group 2
!
!--- Create a group that will be used to specify the !--
- Windows Internet Name Service (WINS) and Domain Name
System (DNS) !--- servers' addresses to the hardware
client for authentication. crypto isakmp client
configuration group hwclient
key test123
dns 172.22.1.101
wins 172.22.1.102
domain cisco.com
pool ippool
!
!
!--- Create the Phase 2 Policy for actual data
encryption. crypto ipsec transform-set myset esp-des
esp-md5-hmac
!
!--- Create a dynamic map and apply the transform set
that was created above. crypto dynamic-map dynmap 10
set transform-set myset
!
!
!--- Create the actual crypto map, and apply !--- the
aaa lists that were created earlier. crypto map
clientmap client authentication list userauthen
crypto map clientmap isakmp authorization list
groupauthor
crypto map clientmap client configuration address
respond
crypto map clientmap 10 ipsec-isakmp dynamic dynmap
!
!
!
!
!
interface FastEthernet0/0
ip address 10.10.10.2 255.255.255.0
duplex half
!--- Apply the crypto map on the outside interface.
crypto map clientmap
```

```
!
interface ATM2/0
no ip address
shutdown
no atm ilmi-keepalive
!
interface FastEthernet4/0
no ip address
shutdown
duplex half
!
interface Ethernet5/0
ip address 172.22.1.1 255.255.255.0
duplex half
!
interface Ethernet5/1
no ip address
shutdown
duplex half
!
interface Ethernet5/2
no ip address
shutdown
duplex half
!
interface Ethernet5/3
no ip address
shutdown
duplex half
!
!-- Create a pool of addresses to be assigned to the
VPN Clients. ip local pool ippool 172.22.1.50
172.22.1.70
ip classless
no ip http server
no ip http secure-server
!
!
!
logging alarm informational
!
!
!
control-plane
!
!
!
!
!
!
gatekeeper
shutdown
!
!
line con 0
stopbits 1
line aux 0
stopbits 1
line vty 0 4
!
!
end
```

```
ezvpn_server#
```

PIX

```
pix506#show running-config
: Saved
:
PIX Version 6.3(5)

!--- Specify speed and duplex settings. interface
ethernet0 auto
interface ethernet1 auto
nameif ethernet0 outside security0
nameif ethernet1 inside security100
enable password WwXYvtKrnjXqGb1 encrypted
passwd 2KFQnbNIIdI.2KYOU encrypted
hostname pix506
domain-name cisco.com
fixup protocol dns maximum-length 512
fixup protocol ftp 21
fixup protocol h323 h225 1720
fixup protocol h323 ras 1718-1719
fixup protocol http 80
fixup protocol rsh 514
fixup protocol rtsp 554
fixup protocol sip 5060
fixup protocol sip udp 5060
fixup protocol skinny 2000
fixup protocol smtp 25
fixup protocol sqlnet 1521
fixup protocol tftp 69
names
pager lines 24
mtu outside 1500
mtu inside 1500

!--- Define IP addresses for the PIX's inside and
outside interfaces. ip address outside 10.10.10.1
255.255.255.0
ip address inside 172.16.1.1 255.255.255.0
ip audit info action alarm
ip audit attack action alarm
pdm history enable
arp timeout 14400

!--- Define the outside router as the default gateway.
!--- Typically this is the IP address of your ISP's
router. route outside 0.0.0.0 0.0.0.0 10.10.10.2 1
timeout xlate 3:00:00
timeout conn 1:00:00 half-closed 0:10:00 udp 0:02:00 rpc
0:10:00 h225 1:00:00
timeout h323 0:05:00 mgcp 0:05:00 sip 0:30:00 sip_media
0:02:00
timeout sip-disconnect 0:02:00 sip-invite 0:03:00
timeout uauth 0:05:00 absolute
aaa-server TACACS+ protocol tacacs+
aaa-server TACACS+ max-failed-attempts 3
aaa-server TACACS+ deadtime 10
aaa-server RADIUS protocol radius
aaa-server RADIUS max-failed-attempts 3
aaa-server RADIUS deadtime 10
aaa-server LOCAL protocol local
```

```

no snmp-server location
no snmp-server contact
snmp-server community public
no snmp-server enable traps
floodguard enable
telnet timeout 5
ssh timeout 5
console timeout 0

!--- Define the VPN peer IP address. vpnclient server
10.10.10.2

!--- Specify whether Client/PAT (Port Address
Translation) mode !--- is to be used or whether Network
Extension Mode (NEM) is to be used. vpnclient mode
network-extension-mode

!--- Define Easy VPN Remote parameters. !--- This is the
pre-shared key used in IKE negotiation. vpnclient
vpngroup hwclient password *****

!--- This is the extended authentication username and
password. vpnclient username cisco password *****

!---This enables vpnclient on the PIX. vpnclient enable
terminal width 80
Cryptochecksum:fdbd365f0b4cdc6707a50efeeeb8ed44
: end

```

Vérification

Commandes PIX show et exemple de sortie

Référez-vous à cette section pour vous assurer du bon fonctionnement de votre configuration.

L'[Outil Interpréteur de sortie \(clients enregistrés uniquement\) \(OIT\)](#) prend en charge certaines commandes **show**. Utilisez l'OIT pour afficher une analyse de la sortie de la commande **show**.

- **vpnclient enable** : active une connexion Easy VPN Remote. Dans NEM, le tunnel est actif même s'il n'y a pas de trafic intéressant à échanger avec le serveur Easy VPN de tête de réseau.

```
pix506(config)#vpnclient enable
```

- **show crypto isakmp policy** - Affiche les paramètres de chaque stratégie IKE.

```
pix506(config)#show crypto isakmp policy
```

```

Default protection suite
    encryption algorithm: DES - Data Encryption Standard (56 bit keys).
    hash algorithm: Secure Hash Standard
    authentication method: Rivest-Shamir-Adleman Signature
    Diffie-Hellman group: #1 (768 bit)
    lifetime: 86400 seconds, no volume limit

```

Cet exemple montre la sortie de la commande **show crypto isakmp policy** après l'activation du client matériel.

```
pix506(config)#show crypto isakmp policy
```

```

Protection suite of priority 65001
    encryption algorithm: DES - Data Encryption Standard (56 bit keys).

```

```

hash algorithm: Message Digest 5
authentication method: Pre-Shared Key with XAUTH
Diffie-Hellman group: #2 (1024 bit)
lifetime: 86400 seconds, no volume limit
Protection suite of priority 65002
    encryption algorithm: DES - Data Encryption Standard (56 bit keys).
    hash algorithm: Message Digest 5
    authentication method: Pre-Shared Key
    Diffie-Hellman group: #2 (1024 bit)
    lifetime: 86400 seconds, no volume limit

```

- **show crypto ipsec Transformation** : affiche les transformations IPSec actuelles.

```
pix506(config)#show crypto ipsec transform
```

Cet exemple montre la sortie de la commande **show crypto ipsec transformation** après l'activation du client matériel. Avant l'utilisation de la commande **vpnclient enable**, il n'existe qu'une seule suite de protection par défaut pour ISAKMP. Une fois la commande exécutée, Easy VPN Remote crée automatiquement quatre propositions en plus de la suite de protection par défaut. En outre, aucune transformation IPSec n'est définie avant l'utilisation de la commande **enable**. Le jeu de transformation est construit dynamiquement après l'exécution de la commande.

```
pix506(config)#show crypto ipsec transform-set
```

```
Transform set _vpnc_tset_9: { esp-des esp-md5-hmac }
will negotiate = { Tunnel, },
```

```
Transform set _vpnc_tset_10: { esp-null esp-md5-hmac }
will negotiate = { Tunnel, },
```

```
Transform set _vpnc_tset_11: { esp-null esp-sha-hmac }
will negotiate = { Tunnel, },
```

- **show crypto isakmp sa**—Affiche toutes les IKE SA actuelles chez un homologue.

```
pix506(config)#show crypto isakmp sa
```

dst	src	state	pending	created
10.10.10.2	10.10.10.1	QM_IDLE	0	2

- **show vpnclient** - Affiche les informations de configuration du client VPN ou du périphérique Easy VPN Remote.

```
pix506(config)#show vpnclient
```

```

LOCAL CONFIGURATION
vpnclient server 10.10.10.2
vpnclient mode network-extension-mode
vpnclient vpngroup hwclient password *****
vpnclient username cisco password *****
vpnclient enable

```

```

DOWNLOADED DYNAMIC POLICY
Current Server : 10.10.10.2
Primary DNS : 172.22.1.101
Primary WINS : 172.22.1.102
Default Domain : cisco.com
PFS Enabled : No
Secure Unit Authentication Enabled : No
User Authentication Enabled : No
Backup Servers : Deleted by order of the headend

```

- **show crypto ipsec sa** - Affiche les SA IPSec construites entre homologues.

```
pix506(config)#show crypto ipsec sa
interface: outside
```

```

Crypto map tag: _vpnc_cm, local addr. 10.10.10.1

local ident (addr/mask/prot/port): (10.10.10.1/255.255.255.255/0/0)
remote ident (addr/mask/prot/port): (0.0.0.0/0.0.0.0/0/0)
current_peer: 10.10.10.2:500
    PERMIT, flags={origin_is_acl,}
#pkts encaps: 3, #pkts encrypt: 3, #pkts digest 3
#pkts decaps: 3, #pkts decrypt: 3, #pkts verify 3
#pkts compressed: 0, #pkts decompressed: 0
#pkts not compressed: 0, #pkts compr. failed: 0,
#pkts decompress failed: 0
#send errors 0, #recv errors 0
!--- As shown here, ping packets were successfully exchanged !--- between the Easy VPN
Remote (PIX) and the Easy VPN Server (IOS). local crypto endpt.: 10.10.10.1, remote crypto
endpt.: 10.10.10.2 path mtu 1500, ipsec overhead 56, media mtu 1500 current outbound spi:
533f74a9 inbound esp sas: spi: 0xad0984cc(2903082188) transform: esp-des esp-md5-hmac , in
use settings ={Tunnel, } slot: 0, conn id: 4, crypto map: _vpnc_cm sa timing: remaining key
lifetime (k/sec): (4607999/3001) IV size: 8 bytes replay detection support: Y inbound ah
sas: inbound pcp sas: outbound esp sas: spi: 0x533f74a9(1396667561) transform: esp-des esp-
md5-hmac , in use settings ={Tunnel, } slot: 0, conn id: 3, crypto map: _vpnc_cm sa timing:
remaining key lifetime (k/sec): (4607999/3001) IV size: 8 bytes replay detection support: Y
outbound ah sas: outbound pcp sas: local ident (addr/mask/prot/port):
(172.16.1.0/255.255.255.0/0/0) remote ident (addr/mask/prot/port): (0.0.0.0/0.0.0.0/0/0)
current_peer: 10.10.10.2:500 PERMIT, flags={origin_is_acl,} #pkts encaps: 5, #pkts encrypt:
5, #pkts digest 5 #pkts decaps: 5, #pkts decrypt: 5, #pkts verify 5 #pkts compressed: 0,
#pkts decompressed: 0 #pkts not compressed: 0, #pkts compr. failed: 0, #pkts decompress
failed: 0 #send errors 0, #recv errors 0 !--- As shown here, ping packets were successfully
exchanged !--- between hosts behind the Easy VPN Remote (PIX) and the Easy !--- VPN Server
(IOS). local crypto endpt.: 10.10.10.1, remote crypto endpt.: 10.10.10.2 path mtu 1500,
ipsec overhead 56, media mtu 1500 current outbound spi: 2eca448b inbound esp sas: spi:
0xc82c0695(3358328469) transform: esp-des esp-md5-hmac , in use settings ={Tunnel, } slot:
0, conn id: 2, crypto map: _vpnc_cm sa timing: remaining key lifetime (k/sec):
(4607999/2997) IV size: 8 bytes replay detection support: Y inbound ah sas: inbound pcp sas:
outbound esp sas: spi: 0x2eca448b(785007755) transform: esp-des esp-md5-hmac , in use
settings ={Tunnel, } slot: 0, conn id: 1, crypto map: _vpnc_cm sa timing: remaining key
lifetime (k/sec): (4607999/2988) IV size: 8 bytes replay detection support: Y outbound ah
sas: outbound pcp sas:

```

- **show access-list** : affiche le contenu des listes d'accès.

```

access-list cached ACL log flows: total 0, denied 0 (deny-flow-max 1024)
    alert-interval 300
access-list _vpnc_acl; 2 elements
access-list _vpnc_acl line 1 permit ip 172.16.1.0 255.255.255.0
    any (hitcnt=18)
access-list _vpnc_acl line 2 permit ip host 10.10.10.1
    any (hitcnt=6)
!--- The above output shows the dynamically built access lists to identify !--- interesting
traffic for encryption.

```

Commandes show et exemple de sortie IOS

- **show crypto isakmp sa**—Affiche toutes les IKE SA actuelles chez un homologue.

```

ezvpn_server#show crypto isakmp sa
IPv4 Crypto ISAKMP SA
dst          src          state      conn-id slot status
10.10.10.2   10.10.10.1   QM_IDLE     1026    0 ACTIVE

```

- **show crypto ipsec sa** - Affiche les SA IPSec construites entre homologues.

```

ezvpn_server#show crypto ipsec sa
!--- As shown above, ping packets were successfully exchanged !--- between the Easy VPN
Remote (PIX) and the Easy VPN Server (IOS) !--- as well as hosts behind them. interface:
FastEthernet0/0 Crypto map tag: clientmap, local addr 10.10.10.2 protected vrf: (none) local
ident (addr/mask/prot/port): (0.0.0.0/0.0.0.0/0/0) remote ident (addr/mask/prot/port):

```

```
(10.10.1.1/255.255.255/0/0) current_peer 10.10.10.1 port 500 PERMIT, flags={} #pkts
encaps: 3, #pkts encrypt: 3, #pkts digest: 3 #pkts decaps: 3, #pkts decrypt: 3, #pkts
verify: 3 #pkts compressed: 0, #pkts decompressed: 0 #pkts not compressed: 0, #pkts compr.
failed: 0 #pkts not decompressed: 0, #pkts decompress failed: 0 #send errors 0, #recv errors
0 local crypto endpt.: 10.10.10.2, remote crypto endpt.: 10.10.10.1 path mtu 1500, ip mtu
1500 current outbound spi: 0xAD0984CC(2903082188) inbound esp sas: spi:
0x533F74A9(1396667561) transform: esp-des esp-md5-hmac , in use settings ={Tunnel, } conn
id: 21, flow_id: SW:21, crypto map: clientmap sa timing: remaining key lifetime (k/sec):
(4470133/2836) IV size: 8 bytes replay detection support: Y Status: ACTIVE inbound ah sas:
inbound pcp sas: outbound esp sas: spi: 0xAD0984CC(2903082188) transform: esp-des esp-md5-
hmac , in use settings ={Tunnel, } conn id: 22, flow_id: SW:22, crypto map: clientmap sa
timing: remaining key lifetime (k/sec): (4470133/2834) IV size: 8 bytes replay detection
support: Y Status: ACTIVE outbound ah sas: outbound pcp sas: protected vrf: (none) local
ident (addr/mask/prot/port): (0.0.0.0/0.0.0.0/0/0) remote ident (addr/mask/prot/port):
(172.16.1.0/255.255.255.0/0/0) current_peer 10.10.10.1 port 500 PERMIT, flags={} #pkts
encaps: 5, #pkts encrypt: 5, #pkts digest: 5 #pkts decaps: 5, #pkts decrypt: 5, #pkts
verify: 5 #pkts compressed: 0, #pkts decompressed: 0 #pkts not compressed: 0, #pkts compr.
failed: 0 #pkts not decompressed: 0, #pkts decompress failed: 0 #send errors 0, #recv errors
0 local crypto endpt.: 10.10.10.2, remote crypto endpt.: 10.10.10.1 path mtu 1500, ip mtu
1500 current outbound spi: 0xC82C0695(3358328469) inbound esp sas: spi:
0x2ECA448B(785007755) transform: esp-des esp-md5-hmac , in use settings ={Tunnel, } conn id:
23, flow_id: SW:23, crypto map: clientmap sa timing: remaining key lifetime (k/sec):
(4589382/2832) IV size: 8 bytes replay detection support: Y Status: ACTIVE inbound ah sas:
inbound pcp sas: outbound esp sas: spi: 0xC82C0695(3358328469) transform: esp-des esp-md5-
hmac , in use settings ={Tunnel, } conn id: 24, flow_id: SW:24, crypto map: clientmap sa
timing: remaining key lifetime (k/sec): (4589382/2830) IV size: 8 bytes replay detection
support: Y Status: ACTIVE outbound ah sas: outbound pcp sas:
```

Dépannage

Utilisez cette section pour dépanner votre configuration.

Si vous avez configuré Easy VPN Remote (PIX) et Easy VPN Server (IOS) comme décrit dans ce document et que vous rencontrez toujours des problèmes, rassemblez la sortie de débogage du PIX et de l'IOS et la sortie de la commande **show** pour analyse par le centre d'assistance technique Cisco (TAC). Voir aussi [Dépannage du PIX pour passer le trafic de données sur un tunnel IPSec établi](#) ou [Dépannage de la sécurité IP - Présentation et utilisation des commandes de débogage](#). Activez le débogage IPSec sur le PIX.

[Commandes de débogage PIX et exemple de sortie](#)

Commandes de débogage PIX

Remarque : Consulter les [renseignements importants sur les commandes de débogage](#) avant d'utiliser les commandes de débogage.

- **debug crypto ipsec** — affiche les négociations IPsec de la Phase 2.
- **debug crypto isakmp** — affiche les négociations ISAKMP de la Phase 1.

Exemple de sortie PIX

```
ISAKMP (0): ID payload
next-payload : 13
type         : 11
```

```

protocol      : 17
port         : 0
length       : 12pix506(config)#
ISAKMP (0): Total payload length: 16
ISAKMP (0:0): sending NAT-T vendor ID - rev 2 & 3
ISAKMP (0): beginning Aggressive Mode exchange
crypto_isakmp_process_block:src:10.10.10.2, dest:10.10.10.1 spt:500 dpt:500
OAK_QM exchange
ISAKMP (0): processing SA payload. message ID = 0

    --- The PIX checks the received proposal against !--- its dynamically generated policies looking for a match. ISAKMP (0): Checking ISAKMP transform 1 against priority 65001 policy
ISAKMP: encryption DES-CBC ISAKMP: hash MD5 ISAKMP: default group 2 ISAKMP: extended auth pre-share (init) ISAKMP: life type in seconds ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80
ISAKMP (0): atts are not acceptable. Next payload is 0 ISAKMP (0): Checking ISAKMP transform 1 against priority 65002 policy ISAKMP: encryption DES-CBC ISAKMP: hash MD5 ISAKMP: default group 2 ISAKMP: extended auth pre-share (init) ISAKMP: life type in seconds ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80 ISAKMP (0): atts are not acceptable. Next payload is 0 ISAKMP (0): Checking ISAKMP transform 1 against priority 65003 policy ISAKMP: encryption DES-CBC ISAKMP: hash MD5 ISAKMP: default group 2 ISAKMP: extended auth pre-share (init) ISAKMP: life type in seconds ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80 ISAKMP (0): atts are not acceptable. Next payload is 0 ISAKMP (0): Checking ISAKMP transform 1 against priority 65004 policy ISAKMP: encryption DES-CBC ISAKMP: hash MD5 ISAKMP: default group 2 ISAKMP: extended auth pre-share (init) ISAKMP: life type in seconds ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80 ISAKMP (0): atts are not acceptable. Next payload is 0 ISAKMP (0): Checking ISAKMP transform 1 against priority 65005 policy ISAKMP: encryption DES-CBC ISAKMP: hash MD5 ISAKMP: default group 2 ISAKMP: extended auth pre-share (init) ISAKMP: life type in seconds ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80 ISAKMP (0): atts are not acceptable. Next payload is 0 ISAKMP (0): Checking ISAKMP transform 1 against priority 65006 policy ISAKMP: encryption DES-CBC ISAKMP: hash MD5 ISAKMP: default group 2 ISAKMP: extended auth pre-share (init) ISAKMP: life type in seconds ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80 ISAKMP (0): atts are not acceptable. Next payload is 0 ISAKMP (0): Checking ISAKMP transform 1 against priority 65007 policy ISAKMP: encryption DES-CBC ISAKMP: hash MD5 ISAKMP: default group 2 ISAKMP: extended auth pre-share (init) ISAKMP: life type in seconds ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80 ISAKMP (0): atts are not acceptable. Next payload is 0 ISAKMP (0): Checking ISAKMP transform 1 against priority 65008 policy ISAKMP: encryption DES-CBC ISAKMP: hash MD5 ISAKMP: default group 2 ISAKMP: extended auth pre-share (init) ISAKMP: life type in seconds ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80 ISAKMP (0): atts are not acceptable. Next payload is 0 ISAKMP (0): Checking ISAKMP transform 1 against priority 65009 policy ISAKMP: encryption DES-CBC ISAKMP: hash MD5 ISAKMP: default group 2 ISAKMP: extended auth pre-share (init) ISAKMP: life type in seconds ISAKMP: life duration (VPI) of 0x0 0x1 0x51 0x80 ISAKMP (0): atts are acceptable. Next payload is 0 ISAKMP (0): processing vendor id payload ISAKMP (0): processing vendor id payload ISAKMP (0): remote peer supports dead peer detection ISAKMP (0): processing vendor id payload
crypto_isakmp_process_block:src:10.10.10.2, dest:10.10.10.1 spt:500 dpt:500
crypto_isakmp_process_block:src:10.10.10.2, dest:10.10.10.1 spt:500 dpt:500 ISAKMP : attributes being requested crypto_isakmp_process_block:src:10.10.10.2, dest:10.10.10.1 spt:500 dpt:500
ISAKMP (0): beginning Quick Mode exchange, M-ID of -582033986:dd4eddbeIPSEC (key_engine): got a queue event... IPSEC(spi_response): getting spi 0x61cf8d08(1640992008) for SA from 10.10.10.2 to 10.10.10.1 for prot 3 crypto_isakmp_process_block:src:10.10.10.2, dest:10.10.10.1 spt:500
dpt:500 OAK_QM exchange oakley_process_quick_mode: OAK_QM_IDLE ISAKMP (0): processing SA payload. message ID = 3712933310 ISAKMP : Checking IPSec proposal 1 ISAKMP: transform 1, ESP_DES ISAKMP: attributes in transform: ISAKMP: encaps is 1 ISAKMP: SA life type in seconds ISAKMP: SA life duration (basic) of 28800 ISAKMP: SA life type in kilobytes ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 ISAKMP: authenticator is HMAC-MD5 ISAKMP (0): atts are acceptable. IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) dest= 10.10.10.2, src= 10.10.10.1, dest_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), src_proxy= 10.10.10.1/255.255.255/0/0 (type=1), protocol= ESP, transform= esp-des esp-md5-hmac , lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x4 ISAKMP (0): processing NONCE payload. message ID = 3712933310 ISAKMP (0): processing ID payload. message ID = 3712933310 ISAKMP (0): processing ID payload. message ID = 3712933310 ISAKMP (0): processing NOTIFY payload 24576 protocol 3 spi 1327036890, message ID = 3712933310 ISAKMP (0): processing responder lifetime ISAKMP (0): responder lifetime of 3600s ISAKMP (0): Creating IPSec SAs inbound SA from 10.10.10.2 to 10.10.10.1 (proxy 0.0.0.0 to 10.10.10.1) has spi 1640992008 and conn_id 1 and flags 4 lifetime of 3600 seconds lifetime of 4608000 kilobytes outbound SA from

```

10.10.10.1 to 10.10.10.2 (proxy 10.10.10.1 to 0.0.0.0) has spi 1327036890 and conn_id 2 and flags 4 lifetime of 3600 seconds lifetime of 4608000 kilobytesIPSEC(key_engine): got a queue event... IPSEC(initialize_sas): , (key eng. msg.) dest= 10.10.10.1, src= 10.10.10.2, dest_proxy= 10.10.10.1/255.255.255/0/0 (type=1), src_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-des esp-md5-hmac , lifedur= 3600s and 4608000kb, spi= 0x61cf8d08(1640992008), conn_id= 1, keysize= 0, flags= 0x4 IPSEC(initialize_sas): , (key eng. msg.) src= 10.10.10.1, dest= 10.10.10.2, src_proxy= 10.10.10.1/255.255.255/0/0 (type=1), dest_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-des esp-md5-hmac , lifedur= 3600s and 4608000kb, spi= 0x4f18f9da(1327036890), conn_id= 2, keysize= 0, flags= 0x4 !--- *The IPsec SAs shown above are for management purposes.* VPN Peer: IPSEC: Peer ip:10.10.10.2/500 Ref cnt incremented to:2 Total VPN Peers:1 VPN Peer: IPSEC: Peer ip:10.10.10.2/500 Ref cnt incremented to:3 Total VPN Peers:1 return status is IKMP_NO_ERROR ISAKMP (0): beginning Quick Mode exchange, M-ID of -419501328:e6feeaf0IPSEC (key_engine): got a queue event... IPSEC(spi_response): getting spi 0xf3d52246(4090831430) for SA from 10.10.10.2 to 10.10.10.1 for prot 3 crypto_isakmp_process_block:src:10.10.10.2, dest:10.10.10.1 spt:500 dpt:500 OAK_QM exchange oakley_process_quick_mode: OAK_QM_IDLE ISAKMP (0): processing SA payload. message ID = 3875465968 ISAKMP : Checking IPsec proposal 1 ISAKMP: transform 1, ESP DES ISAKMP: attributes in transform: ISAKMP: encaps is 1 ISAKMP: SA life type in seconds ISAKMP: SA life duration (basic) of 28800 ISAKMP: SA life type in kilobytes ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 ISAKMP: authenticator is HMAC-MD5 ISAKMP (0): atts are acceptable. IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) dest= 10.10.10.2, src= 10.10.10.1, dest_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), src_proxy= 172.16.1.0/255.255.0/0/0 (type=4), protocol= ESP, transform= esp-des esp-md5-hmac , lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x4 ISAKMP (0): processing NONCE payload. message ID = 3875465968 ISAKMP (0): processing ID payload. message ID = 3875465968 ISAKMP (0): processing NOTIFY payload 24576 protocol 3 spi 465396864, message ID = 3875465968 ISAKMP (0): processing responder lifetime ISAKMP (0): responder lifetime of 3600s ISAKMP (0): Creating IPsec SAs inbound SA from 10.10.10.2 to 10.10.10.1 (proxy 0.0.0.0 to 172.16.1.0) has spi 4090831430 and conn_id 3 and flags 4 lifetime of 3600 seconds lifetime of 4608000 kilobytes outbound SA from 10.10.10.1 to 10.10.10.2 (proxy 172.16.1.0 to 0.0.0.0) has spi 465396864 and conn_id 4 and flags 4 lifetime of 3600 seconds lifetime of 4608000 kilobytesIPSEC(key_engine): got a queue event... IPSEC(initialize_sas): , (key eng. msg.) dest= 10.10.10.1, src= 10.10.10.2, dest_proxy= 172.16.1.0/255.255.0/0/0 (type=4), src_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-des esp-md5-hmac , lifedur= 3600s and 4608000kb, spi= 0xf3d52246(4090831430), conn_id= 3, keysize= 0, flags= 0x4 IPSEC(initialize_sas): , (key eng. msg.) src= 10.10.10.1, dest= 10.10.10.2, src_proxy= 172.16.1.0/255.255.0/0/0 (type=4), dest_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), protocol= ESP, transform= esp-des esp-md5-hmac , lifedur= 3600s and 4608000kb, spi= 0x1bbd6480(465396864), conn_id= 4, keysize= 0, flags= 0x4 !--- *The IPsec SAs shown above are for actual data traffic.* VPN Peer: IPSEC: Peer ip:10.10.10.2/500 Ref cnt incremented to:4 Total VPN Peers:1 VPN Peer: IPSEC: Peer ip:10.10.10.2/500 Ref cnt incremented to:5 Total VPN Peers:1

Commandes de débogage IOS et exemple de sortie

Commandes de débogage IOS

Remarque : Consulter les [renseignements importants sur les commandes de débogage](#) avant d'utiliser les commandes de débogage.

- **debug crypto ipsec** - Affiche les événements IPsec détaillés.
- **debug crypto isakmp**—Affichage de messages d'événements IKE.
- **debug crypto engine** : Cette commande affiche le trafic chiffré.

Exemple de sortie IOS

!--- As soon as the **vpnclient enable** command is issued on the PIX, !--- the IOS device receives an IKE negotiation request.

```
*Jan 20 16:48:22.267: ISAKMP (0:0): received packet from 10.10.10.1 dport
500 sport 500 Global (N) NEW

SA
*Jan 20 16:48:22.271: ISAKMP: Created a peer struct for 10.10.10.1,
peer port 500
*Jan 20 16:48:22.271: ISAKMP: New peer created peer = 0x6758C6D0
peer_handle = 0x80000026
*Jan 20 16:48:22.271: ISAKMP: Locking peer struct 0x6758C6D0,
refcount 1 for

crypto_isakmp_process_block
*Jan 20 16:48:22.271: ISAKMP:(0):Setting client config settings 6679B340
*Jan 20 16:48:22.271: ISAKMP:(0):(Re)Setting client xauth list and state
*Jan 20 16:48:22.271: ISAKMP/xauth: initializing AAA request
*Jan 20 16:48:22.271: ISAKMP: local port 500, remote port 500
*Jan 20 16:48:22.271: insert sa successfully sa = 658E0874
*Jan 20 16:48:22.271: ISAKMP:(0): processing SA payload. message ID = 0
*Jan 20 16:48:22.271: ISAKMP:(0): processing ID payload. message ID = 0
*Jan 20 16:48:22.271: ISAKMP (0:0): ID payload
next-payload : 13
type          : 11
group id      : hwclient
protocol       : 17
port           : 0
length         : 16
*Jan 20 16:48:22.271: ISAKMP:(0):: peer matches *none* of the profiles
*Jan 20 16:48:22.271: ISAKMP:(0): processing vendor id payload
*Jan 20 16:48:22.271: ISAKMP:(0): vendor ID seems Unity/DPD but
major 215 mismatch
*Jan 20 16:48:22.271: ISAKMP:(0): vendor ID is XAUTH
*Jan 20 16:48:22.271: ISAKMP:(0): processing vendor id payload
*Jan 20 16:48:22.271: ISAKMP:(0): vendor ID is DPD
*Jan 20 16:48:22.271: ISAKMP:(0): processing vendor id payload
*Jan 20 16:48:22.271: ISAKMP:(0): claimed IOS but failed authentication
*Jan 20 16:48:22.271: ISAKMP:(0): processing vendor id payload
*Jan 20 16:48:22.271: ISAKMP:(0): vendor ID is Unity
*Jan 20 16:48:22.271: ISAKMP:(0): Authentication by xauth preshared
*Jan 20 16:48:22.271: ISAKMP:(0):Checking ISAKMP transform 1 against
priority 10 policy
*Jan 20 16:48:22.271: ISAKMP:      encryption AES-CBC
*Jan 20 16:48:22.271: ISAKMP:      keylength of 256
*Jan 20 16:48:22.271: ISAKMP:      hash SHA
*Jan 20 16:48:22.271: ISAKMP:      default group 2
*Jan 20 16:48:22.271: ISAKMP:      auth XAUTHInitPreShared
*Jan 20 16:48:22.271: ISAKMP:      life type in seconds
*Jan 20 16:48:22.271: ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
*Jan 20 16:48:22.271: ISAKMP:(0):Encryption algorithm offered does
not match policy!
*Jan 20 16:48:22.271: ISAKMP:(0):atts are not acceptable. Next payload is 3
*Jan 20 16:48:22.271: ISAKMP:(0):Checking ISAKMP transform 2 against
priority 10 policy
*Jan 20 16:48:22.271: ISAKMP:      encryption AES-CBC
*Jan 20 16:48:22.275: ISAKMP:      keylength of 256
*Jan 20 16:48:22.275: ISAKMP:      hash MD5
*Jan 20 16:48:22.275: ISAKMP:      default group 2
*Jan 20 16:48:22.275: ISAKMP:      auth XAUTHInitPreShared
*Jan 20 16:48:22.275: ISAKMP:      life type in seconds
*Jan 20 16:48:22.275: ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
*Jan 20 16:48:22.275: ISAKMP:(0):Encryption algorithm offered
does not match policy!
*Jan 20 16:48:22.275: ISAKMP:(0):atts are not acceptable. Next payload is 3
*Jan 20 16:48:22.275: ISAKMP:(0):Checking ISAKMP transform 3 against
```

```
priority 10 policy
*Jan 20 16:48:22.275: ISAKMP:      encryption AES-CBC
*Jan 20 16:48:22.275: ISAKMP:      keylength of 192
*Jan 20 16:48:22.275: ISAKMP:      hash SHA
*Jan 20 16:48:22.275: ISAKMP:      default group 2
*Jan 20 16:48:22.275: ISAKMP:      auth XAUTHInitPreShared
*Jan 20 16:48:22.275: ISAKMP:      life type in seconds
*Jan 20 16:48:22.275: ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
*Jan 20 16:48:22.275: ISAKMP:(0):Encryption algorithm offered
does not match policy!
*Jan 20 16:48:22.275: ISAKMP:(0):atts are not acceptable. Next payload is 3
*Jan 20 16:48:22.275: ISAKMP:(0):Checking ISAKMP transform 4 against
priority 10 policy
*Jan 20 16:48:22.275: ISAKMP:      encryption AES-CBC
*Jan 20 16:48:22.275: ISAKMP:      keylength of 192
*Jan 20 16:48:22.275: ISAKMP:      hash MD5
*Jan 20 16:48:22.275: ISAKMP:      default group 2
*Jan 20 16:48:22.275: ISAKMP:      auth XAUTHInitPreShared
*Jan 20 16:48:22.275: ISAKMP:      life type in seconds
*Jan 20 16:48:22.275: ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
*Jan 20 16:48:22.275: ISAKMP:(0):Encryption algorithm offered
does not match policy!
*Jan 20 16:48:22.275: ISAKMP:(0):atts are not acceptable. Next payload is 3
*Jan 20 16:48:22.275: ISAKMP:(0):Checking ISAKMP transform 5 against
priority 10 policy
*Jan 20 16:48:22.275: ISAKMP:      encryption AES-CBC
*Jan 20 16:48:22.275: ISAKMP:      keylength of 128
*Jan 20 16:48:22.275: ISAKMP:      hash SHA
*Jan 20 16:48:22.275: ISAKMP:      default group 2
*Jan 20 16:48:2f 0x0 0x1 0x51 0x80
*Jan 20 16:48:22.275: ISAKMP:(0):Encryption algorithm offered
does not match policy!
*Jan 20 16:48:22.275: ISAKMP:(0):atts are not acceptable. Next payload is 3
*Jan 20 16:48:22.275: ISAKMP:(0):Checking ISAKMP transform 6 against
priority 10 policy
*Jan 20 16:48:22.275: ISAKMP:      encryption AES-CBC
*Jan 20 16:48:22.275: ISAKMP:      keylength of 128
*Jan 20 16:48:22.275: ISAKMP:      hash MD5
*Jan 20 16:48:22.275: ISAKMP:      auth XAUTHInitPreShared
*Jan 20 16:48:22.275: ISAKMP:      life type in seconds
*Jan 20 16:48:22.275: ISAKMP:      life duration (VPI) o
*Jan 20 16:48:22.275: ISAKMP:      default group 2
*Jan 20 16:48:22.275: ISAKMP:      auth XAUTHInitPreShared
*Jan 20 16:48:22.275: ISAKMP:      life type in seconds
*Jan 20 16:48:22.275: ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
*Jan 20 16:48:22.275: ISAKMP:(0):Encryption algorithm offered
does not match policy!
*Jan 20 16:48:22.275: ISAKMP:(0):atts are not acceptable. Next payload is 3
*Jan 20 16:48:22.275: ISAKMP:(0):Checking ISAKMP transform 7 against
priority 10 policy
*Jan 20 16:48:22.275: ISAKMP:      encryption 3DES-CBC
*Jan 20 16:48:22.275: ISAKMP:      hash SHA
*Jan 20 16:48:22.275: ISAKMP:      default group 2
*Jan 20 16:48:22.275: ISAKMP:      auth XAUTHInitPreShared
*Jan 20 16:48:22.279: ISAKMP:      life type in seconds
*Jan 20 16:48:22.279: ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
*Jan 20 16:48:22.279: ISAKMP:(0):Encryption algorithm offered
does not match policy!
*Jan 20 16:48:22.279: ISAKMP:(0):atts are not acceptable. Next payload is 3
*Jan 20 16:48:22.279: ISAKMP:(0):Checking ISAKMP transform 8 against
priority 10 policy
*Jan 20 16:48:22.279: ISAKMP:      encryption 3DES-CBC
*Jan 20 16:48:22.279: ISAKMP:      hash MD5
*Jan 20 16:48:22.279: ISAKMP:      default group 2
*Jan 20 16:48:22.279: ISAKMP:      auth XAUTHInitPreShared
```

```

*Jan 20 16:48:22.279: ISAKMP:      life type in seconds
*Jan 20 16:48:22.279: ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
*Jan 20 16:48:22.279: ISAKMP:(0):Encryption algorithm offered
    does not match policy!
*Jan 20 16:48:22.279: ISAKMP:(0):atts are not acceptable. Next payload is 3
*Jan 20 16:48:22.279: ISAKMP:(0):Checking ISAKMP transform 9 against
    priority 10 policy
*Jan 20 16:48:22.279: ISAKMP:      encryption DES-CBC
*Jan 20 16:48:22.279: ISAKMP:      hash MD5
*Jan 20 16:48:22.279: ISAKMP:      default group 2
*Jan 20 16:48:22.279: ISAKMP:      auth XAUTHInitPreShared
*Jan 20 16:48:22.279: ISAKMP:      life type in seconds
*Jan 20 16:48:22.279: ISAKMP:      life duration (VPI) of 0x0 0x1 0x51 0x80
*Jan 20 16:48:22.279: ISAKMP:(0):atts are acceptable. Next payload is 3

--- Both the IOS device and the PIX accept the policy for ISAKMP. *Jan 20 16:48:22.279:
ISAKMP:(0): processing KE payload. message ID = 0 *Jan 20 16:48:22.279: crypto_engine: Create DH
shared secret *Jan 20 16:48:22.279: crypto_engine: Modular Exponentiation *Jan 20 16:48:22.319:
ISAKMP:(0): processing NONCE payload. message ID = 0 *Jan 20 16:48:22.319: ISAKMP:(0): vendor ID
is NAT-T v3 *Jan 20 16:48:22.319: ISAKMP:(0): vendor ID is NAT-T v2 *Jan 20 16:48:22.319:
ISAKMP:(0):Input = IKE_MESG_FROM_PEER, IKE_AM_EXCH *Jan 20 16:48:22.319: ISAKMP:(0):Old State =
IKE_READY New State = IKE_R_AM_AAA_AWAIT *Jan 20 16:48:22.319: crypto_engine: Create IKE SA *Jan
20 16:48:22.319: crypto engine: deleting DH phase 2 SW:38 *Jan 20 16:48:22.319: crypto_engine:
Delete DH shared secret *Jan 20 16:48:22.319: ISAKMP:(1030): constructed NAT-T vendor-03 ID *Jan
20 16:48:22.319: ISAKMP:(1030):SA is doing pre-shared key authentication plus XAUTH using id
type ID_IPV4_ADDR *Jan 20 16:48:22.323: ISAKMP (0:1030): ID payload next-payload : 10 type : 1
address : 10.10.10.2 protocol : 17 port : 0 length : 12 *Jan 20 16:48:22.323:
ISAKMP:(1030):Total payload length: 12 *Jan 20 16:48:22.323: crypto_engine: Generate IKE hash
*Jan 20 16:48:22.323: ISAKMP:(1030): sending packet to 10.10.10.1 my_port 500 peer_port 500 (R)
AG_INITIATE_EXCH *Jan 20 16:48:22.323: ISAKMP:(1030):Input = IKE_MESG_FROM_AAA, PRESHARED_KEY_REPLY
*Jan 20 16:48:22.323: ISAKMP:(1030):Old State = IKE_R_AM_AAA_AWAIT New State = IKE_R_AM2 *Jan 20
16:48:22.479: ISAKMP (0:1030): received packet from 10.10.10.1 dport 500 sport 500 Global (R)
AG_INITIATE_EXCH *Jan 20 16:48:22.479: crypto_engine: Decrypt IKE packet *Jan 20 16:48:22.479:
ISAKMP:received payload type 20 *Jan 20 16:48:22.479: ISAKMP:received payload type 20 *Jan 20
16:48:22.479: ISAKMP:(1030): processing HASH payload. message ID = 0 *Jan 20 16:48:22.479:
crypto_engine: Generate IKE hash *Jan 20 16:48:22.483: ISAKMP:(1030): processing NOTIFY
INITIAL_CONTACT protocol 1 spi 0, message ID = 0, sa = 658E0874 *Jan 20 16:48:22.483:
ISAKMP:(1030):SA authentication status: authenticated *Jan 20 16:48:22.483: ISAKMP:(1030):SA has
been authenticated with 10.10.10.1 *Jan 20 16:48:22.483: ISAKMP:(1030):SA authentication status:
authenticated *Jan 20 16:48:22.483: ISAKMP:(1030): Process initial contact, bring down existing
phase 1 and 2 SA's with local 10.10.10.2 remote 10.10.10.1 remote port 500 *Jan 20 16:48:22.483:
ISAKMP:(1030):returning IP addr to the address pool *Jan 20 16:48:22.483: ISAKMP: Trying to
insert a peer 10.10.10.2/10.10.10.1/500/, and inserted successfully 6758C6D0. *Jan 20
16:48:22.483: IPSEC(key_engine): got a queue event with 1 KMI message(s) *Jan 20 16:48:22.483:
ISAKMP: set new node -1980405900 to CONF_XAUTH *Jan 20 16:48:22.483: crypto_engine: Generate IKE
hash *Jan 20 16:48:22.483: ISAKMP:(1030):Sending NOTIFY RESPONDER_LIFETIME protocol 1 spi
1727476520, message ID = -1980405900 *Jan 20 16:48:22.483: crypto_engine: Encrypt IKE packet
*Jan 20 16:48:22.483: ISAKMP:(1030): sending packet to 10.10.10.1 my_port 500 peer_port 500 (R)
QM_IDLE *Jan 20 16:48:22.483: ISAKMP:(1030):purging node -1980405900 *Jan 20 16:48:22.483:
ISAKMP: Sending phase 1 responder lifetime 86400 *Jan 20 16:48:22.483: ISAKMP:(1030):Input =
IKE_MESG_FROM_PEER, IKE_AM_EXCH *Jan 20 16:48:22.483: ISAKMP:(1030):Old State = IKE_R_AM2 New
State = IKE_P1_COMPLETE *Jan 20 16:48:22.483: ISAKMP:(1030):Need XAUTH !--- The IOS device now
processes the Extended Authentication phase !--- after Phase 1 is successful. *Jan 20
16:48:22.483: ISAKMP: set new node -791275911 to CONF_XAUTH *Jan 20 16:48:22.487: ISAKMP/xauth:
request attribute XAUTH_USER_NAME_V2 *Jan 20 16:48:22.487: ISAKMP/xauth: request attribute
XAUTH_USER_PASSWORD_V2 *Jan 20 16:48:22.487: crypto_engine: Generate IKE hash *Jan 20
16:48:22.487: ISAKMP:(1030): initiating peer config to 10.10.10.1. ID = -791275911 *Jan 20
16:48:22.487: crypto_engine: Encrypt IKE packet *Jan 20 16:48:22.487: ISAKMP:(1030): sending
packet to 10.10.10.1 my_port 500 peer_port 500 (R) CONF_XAUTH *Jan 20 16:48:22.487:
ISAKMP:(1030):Input = IKE_MESG_INTERNAL, IKE_PHASE1_COMPLETE *Jan 20 16:48:22.487:
ISAKMP:(1030):Old State = IKE_P1_COMPLETE New State = IKE_XAUTH_REQ_SENT *Jan 20 16:48:22.519:
ISAKMP (0:1030): received packet from 10.10.10.1 dport 500 sport 500 Global (R) CONF_XAUTH *Jan
20 16:48:22.519: crypto_engine: Decrypt IKE packet *Jan 20 16:48:22.519:
ISAKMP:(1030):processing transaction payload from 10.10.10.1. message ID = -791275911 *Jan 20

```

```
16:48:22.519: crypto_engine: Generate IKE hash *Jan 20 16:48:22.519: ISAKMP: Config payload  
REPLY *Jan 20 16:48:22.519: ISAKMP/xauth: reply attribute XAUTH_USER_NAME_V2 *Jan 20  
16:48:22.519: ISAKMP/xauth: reply attribute XAUTH_USER_PASSWORD_V2 *Jan 20 16:48:22.519:  
ISAKMP:(1030):deleting node -791275911 error FALSE reason "Done with xauth request/reply  
exchange" *Jan 20 16:48:22.519: ISAKMP:(1030):Input = IKE_MESG_FROM_PEER, IKE_CFG_REPLY *Jan 20  
16:48:22.519: ISAKMP:(1030):Old State = IKE_XAUTH_REQ_SENT New State =  
IKE_XAUTH_AAA_CONT_LOGIN_AWAIT *Jan 20 16:48:22.519: ISAKMP: set new node 44674085 to CONF_XAUTH  
*Jan 20 16:48:22.519: crypto_engine: Generate IKE hash *Jan 20 16:48:22.519: ISAKMP:(1030):  
initiating peer config to 10.10.10.1. ID = 44674085 *Jan 20 16:48:22.519: crypto_engine: Encrypt  
IKE packet *Jan 20 16:48:22.519: ISAKMP:(1030): sending packet to 10.10.10.1 my_port 500  
peer_port 500 (R) CONF_XAUTH *Jan 20 16:48:22.519: ISAKMP:(1030):Input = IKE_MESG_FROM_AAA,  
IKE_AAA_CONT_LOGIN *Jan 20 16:48:22.519: ISAKMP:(1030):Old State =  
IKE_XAUTH_AAA_CONT_LOGIN_AWAIT New State = IKE_XAUTH_SET_SENT *Jan 20 16:48:22.571: ISAKMP  
(0:1030): received packet from 10.10.10.1 dport 500 sport 500 Global (R) CONF_XAUTH *Jan 20  
16:48:22.571: crypto_engine: Decrypt IKE packet *Jan 20 16:48:22.571: ISAKMP:(1030):processing  
transaction payload from 10.10.10.1. message ID = 44674085 *Jan 20 16:48:22.571: crypto_engine:  
Generate IKE hash *Jan 20 16:48:22.571: ISAKMP: Config payload ACK *Jan 20 16:48:22.571:  
ISAKMP:(1030): XAUTH ACK Processed *Jan 20 16:48:22.571: ISAKMP:(1030):deleting node 44674085  
error FALSE reason "Transaction mode done" *Jan 20 16:48:22.571: ISAKMP:(1030):Input =  
IKE_MESG_FROM_PEER, IKE_CFG_ACK *Jan 20 16:48:22.571: ISAKMP:(1030):Old State =  
IKE_XAUTH_SET_SENT New State = IKE_P1_COMPLETE *Jan 20 16:48:22.571: ISAKMP:(1030):Input =  
IKE_MESG_INTERNAL, IKE_PHASE1_COMPLETE *Jan 20 16:48:22.571: ISAKMP:(1030):Old State =  
IKE_P1_COMPLETE New State = IKE_P1_COMPLETE !--- Extended authentication is complete, !--- and  
mode configuration is now processed. *Jan 20 16:48:22.619: ISAKMP (0:1030): received packet from  
10.10.10.1 dport 500 sport 500 Global (R) QM_IDLE *Jan 20 16:48:22.619: ISAKMP: set new node -  
2005047200 to QM_IDLE *Jan 20 16:48:22.619: crypto_engine: Decrypt IKE packet *Jan 20  
16:48:22.623: ISAKMP:(1030):processing transaction payload from 10.10.10.1. message ID = -  
2005047200 *Jan 20 16:48:22.623: crypto_engine: Generate IKE hash *Jan 20 16:48:22.623: ISAKMP:  
Config payload REQUEST *Jan 20 16:48:22.623: ISAKMP:(1030):checking request: *Jan 20  
16:48:22.623: ISAKMP: DEFAULT_DOMAIN *Jan 20 16:48:22.623: ISAKMP: IP4_NBNS *Jan 20  
16:48:22.623: ISAKMP: IP4_DNS *Jan 20 16:48:22.623: ISAKMP: SPLIT_INCLUDE *Jan 20 16:48:22.623:  
ISAKMP: SPLIT_DNS *Jan 20 16:48:22.623: ISAKMP: PFS *Jan 20 16:48:22.623: ISAKMP:  
CONFIG_MODE_UNKNOWN Unknown Attr: 0x7800 *Jan 20 16:48:22.623: ISAKMP: CONFIG_MODE_UNKNOWN  
Unknown Attr: 0x7801 *Jan 20 16:48:22.623: ISAKMP: CONFIG_MODE_UNKNOWN Unknown Attr: 0x7802 *Jan  
20 16:48:22.623: ISAKMP: CONFIG_MODE_UNKNOWN Unknown Attr: 0x7803 *Jan 20 16:48:22.623: ISAKMP:  
CONFIG_MODE_UNKNOWN Unknown Attr: 0x7804 *Jan 20 16:48:22.623: ISAKMP: CONFIG_MODE_UNKNOWN  
Unknown Attr: 0x7805 *Jan 20 16:48:22.623: ISAKMP: CONFIG_MODE_UNKNOWN Unknown Attr: 0x7806 *Jan  
20 16:48:22.623: ISAKMP: BACKUP_SERVER *Jan 20 16:48:22.623: ISAKMP: APPLICATION_VERSION *Jan 20  
16:48:22.623: ISAKMP/author: Author request for group hw client successfully sent to AAA *Jan 20  
16:48:22.623: ISAKMP:(1030):Input = IKE_MESG_FROM_PEER, IKE_CFG_REQUEST *Jan 20 16:48:22.623:  
ISAKMP:(1030):Old State = IKE_P1_COMPLETE New State = IKE_CONFIG_AUTHOR_AAA_AWAIT *Jan 20  
16:48:22.623: ISAKMP:(1030):attributes sent in message: *Jan 20 16:48:22.623: ISAKMP: Sending  
DEFAULT_DOMAIN default domain name: cisco.com *Jan 20 16:48:22.623: ISAKMP: Sending IP4_NBNS  
server address: 172.22.1.102 *Jan 20 16:48:22.623: ISAKMP: Sending IP4_DNS server address:  
172.22.1.101 *Jan 20 16:48:22.623: ISAKMP (0/1030): Unknown Attr: CONFIG_MODE_UNKNOWN (0x7800)  
*Jan 20 16:48:22.623: ISAKMP (0/1030): Unknown Attr: CONFIG_MODE_UNKNOWN (0x7801) *Jan 20  
16:48:22.623: ISAKMP (0/1030): Unknown Attr: CONFIG_MODE_UNKNOWN (0x7802) *Jan 20 16:48:22.623:  
ISAKMP (0/1030): Unknown Attr: CONFIG_MODE_UNKNOWN (0x7803) *Jan 20 16:48:22.623: ISAKMP  
(0/1030): Unknown Attr: CONFIG_MODE_UNKNOWN (0x7804) *Jan 20 16:48:22.623: ISAKMP (0/1030):  
Unknown Attr: CONFIG_MODE_UNKNOWN (0x7805) *Jan 20 16:48:22.627: ISAKMP (0/1030): Unknown Attr:  
CONFIG_MODE_UNKNOWN (0x7806) *Jan 20 16:48:22.627: ISAKMP: Sending APPLICATION_VERSION string:  
Cisco IOS Software, 7200 Software (C7200-ADVENTERPRISEK9-M), Version 12.4(4)T1, RELEASE SOFTWARE  
(fc4) Technical Support: http://www.cisco.com/techsupport Copyright (c) 1986-2005 by Cisco  
Systems, Inc. Compiled Wed 21-Dec-05 22:58 by ccai *Jan 20 16:48:22.627: crypto_engine: Generate  
IKE hash *Jan 20 16:48:22.627: ISAKMP:(1030): responding to peer config from 10.10.10.1. ID = -  
2005047200 *Jan 20 16:48:22.627: crypto_engine: Encrypt IKE packet *Jan 20 16:48:22.627:  
ISAKMP:(1030): sending packet to 10.10.10.1 my_port 500 peer_port 500 (R) CONF_ADDR *Jan 20  
16:48:22.627: ISAKMP:(1030):deleting node -2005047200 error FALSE reason "No Error" *Jan 20  
16:48:22.627: ISAKMP:(1030):Input = IKE_MESG_FROM_AAA, IKE_AAA_GROUP_ATTR *Jan 20 16:48:22.627:  
ISAKMP:(1030):Old State = IKE_CONFIG_AUTHOR_AAA_AWAIT New State = IKE_P1_COMPLETE *Jan 20  
16:48:22.627: ISAKMP:(1030):Input = IKE_MESG_INTERNAL, IKE_PHASE1_COMPLETE *Jan 20 16:48:22.627:  
ISAKMP:(1030):Old State = IKE_P1_COMPLETE New State = IKE_P1_COMPLETE *Jan 20 16:48:27.695:  
ISAKMP (0:1030): received packet from 10.10.10.1 dport 500 sport 500 Global (R) QM_IDLE *Jan 20  
16:48:27.695: ISAKMP: set new node 1887305923 to QM_IDLE *Jan 20 16:48:27.695: crypto_engine:
```

Decrypt IKE packet *Jan 20 16:48:27.699: crypto_engine: Generate IKE hash *Jan 20 16:48:27.699:
ISAKMP:(1030): processing HASH payload. message ID = 1887305923 *Jan 20 16:48:27.699:
ISAKMP:(1030): processing SA payload. message ID = 1887305923 *Jan 20 16:48:27.699:
ISAKMP:(1030):Checking IPSec proposal 1 *Jan 20 16:48:27.699: ISAKMP: transform 1, ESP_AES *Jan
20 16:48:27.699: ISAKMP: attributes in transform: *Jan 20 16:48:27.699: ISAKMP: encaps is 1
(Tunnel) *Jan 20 16:48:27.699: ISAKMP: SA life type in seconds *Jan 20 16:48:27.699: ISAKMP: SA
life duration (basic) of 28800 *Jan 20 16:48:27.699: ISAKMP: SA life type in kilobytes *Jan 20
16:48:27.699: ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 *Jan 20 16:48:27.699: ISAKMP:
authenticator is HMAC-SHA *Jan 20 16:48:27.699: ISAKMP: key length is 256 *Jan 20 16:48:27.699:
CryptoEngine0: validate proposal *Jan 20 16:48:27.699: ISAKMP:(1030):atts are acceptable. *Jan
20 16:48:27.699: IPSEC(validate_proposal_request): proposal part #1 *Jan 20 16:48:27.699:
IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) INBOUND local= 10.10.10.2,
remote= 10.10.10.1, local_proxy= 0.0.0.0/0.0.0/0/0 (type=4), remote_proxy=
10.10.10.1/255.255.255/0/0 (type=1), protocol= ESP, transform= esp-aes 256 esp-sha-hmac
(Tunnel), lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 256, flags= 0x0 *Jan 20
16:48:27.699: IPSEC(crypto_ipsec_process_proposal): transform proposal not supported for
identity: {esp-aes 256 esp-sha-hmac } *Jan 20 16:48:27.699: ISAKMP:(1030): IPSec policy
invalidated proposal *Jan 20 16:48:27.699: ISAKMP:(1030):Checking IPSec proposal 2 *Jan 20
16:48:27.699: ISAKMP: transform 1, ESP_AES *Jan 20 16:48:27.699: ISAKMP: attributes in
transform: *Jan 20 16:48:27.699: ISAKMP: encaps is 1 (Tunnel) *Jan 20 16:48:27.699: ISAKMP: SA
life type in seconds *Jan 20 16:48:27.699: ISAKMP: SA life duration (basic) of 28800 *Jan 20
16:48:27.699: ISAKMP: SA life type in kilobytes *Jan 20 16:48:27.699: ISAKMP: SA life duration
(VPI) of 0x0 0x46 0x50 0x0 *Jan 20 16:48:27.699: ISAKMP: authenticator is HMAC-MD5 *Jan 20
16:48:27.699: ISAKMP: key length is 256 *Jan 20 16:48:27.699: CryptoEngine0: validate proposal
*Jan 20 16:48:27.699: ISAKMP:(1030):atts are acceptable. !--- Proceed for processing Phase 2.
*Jan 20 16:48:27.699: IPSEC(validate_proposal_request): proposal part #1 *Jan 20 16:48:27.699:
IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) INBOUND local= 10.10.10.2,
remote= 10.10.10.1, local_proxy= 0.0.0.0/0.0.0/0/0 (type=4), remote_proxy=
10.10.10.1/255.255.255/0/0 (type=1), protocol= ESP, transform= esp-aes 256 esp-md5-hmac
(Tunnel), lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 256, flags= 0x0 *Jan 20
16:48:27.699: IPSEC(crypto_ipsec_process_proposal): transform proposal not supported for
identity: {esp-aes 256 esp-md5-hmac } *Jan 20 16:48:27.699: ISAKMP:(1030): IPSec policy
invalidated proposal *Jan 20 16:48:27.703: ISAKMP:(1030):Checking IPSec proposal 3 *Jan 20
16:48:27.703: ISAKMP: transform 1, ESP_AES *Jan 20 16:48:27.703: ISAKMP: attributes in
transform: *Jan 20 16:48:27.703: ISAKMP: encaps is 1 (Tunnel) *Jan 20 16:48:27.703: ISAKMP: SA
life type in seconds *Jan 20 16:48:27.703: ISAKMP: SA life duration (basic) of 28800 *Jan 20
16:48:27.703: ISAKMP: SA life type in kilobytes *Jan 20 16:48:27.703: ISAKMP: SA life duration
(VPI) of 0x0 0x46 0x50 0x0 *Jan 20 16:48:27.703: ISAKMP: authenticator is HMAC-SHA *Jan 20
16:48:27.703: ISAKMP: key length is 192 *Jan 20 16:48:27.703: CryptoEngine0: validate proposal
*Jan 20 16:48:27.703: ISAKMP:(1030):atts are acceptable. *Jan 20 16:48:27.703:
IPSEC(validate_proposal_request): proposal part #1 *Jan 20 16:48:27.703:
IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) INBOUND local= 10.10.10.2,
remote= 10.10.10.1, local_proxy= 0.0.0.0/0.0.0/0/0 (type=4), remote_proxy=
10.10.10.1/255.255.255/0/0 (type=1), protocol= ESP, transform= esp-aes 192 esp-sha-hmac
(Tunnel), lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 192, flags= 0x0 *Jan 20
16:48:27.703: IPSEC(crypto_ipsec_process_proposal): transform proposal not supported for
identity: {esp-aes 192 esp-sha-hmac } *Jan 20 16:48:27.703: ISAKMP:(1030): IPSec policy
invalidated proposal *Jan 20 16:48:27.703: ISAKMP:(1030):Checking IPSec proposal 4 *Jan 20
16:48:27.703: ISAKMP: transform 1, ESP_AES *Jan 20 16:48:27.703: ISAKMP: attributes in
transform: *Jan 20 16:48:27.703: ISAKMP: encaps is 1 (Tunnel) *Jan 20 16:48:27.703: ISAKMP: SA
life type in seconds *Jan 20 16:48:27.703: ISAKMP: SA life duration (basic) of 28800 *Jan 20
16:48:27.703: ISAKMP: SA life type in kilobytes *Jan 20 16:48:27.703: ISAKMP: SA life duration
(VPI) of 0x0 0x46 0x50 0x0 *Jan 20 16:48:27.703: ISAKMP: authenticator is HMAC-MD5 *Jan 20
16:48:27.703: ISAKMP: key length is 192 *Jan 20 16:48:27.703: CryptoEngine0: validate proposal
*Jan 20 16:48:27.703: ISAKMP:(1030):atts are acceptable. *Jan 20 16:48:27.703:
IPSEC(validate_proposal_request): proposal part #1 *Jan 20 16:48:27.703:
IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) INBOUND local= 10.10.10.2,
remote= 10.10.10.1, local_proxy= 0.0.0.0/0.0.0/0/0 (type=4), remote_proxy=
10.10.10.1/255.255.255/0/0 (type=1), protocol= ESP, transform= esp-aes 192 esp-md5-hmac
(Tunnel), lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 192, flags= 0x0 *Jan 20
16:48:27.703: IPSEC(crypto_ipsec_process_proposal): transform proposal not supported for
identity: {esp-aes 192 esp-md5-hmac } *Jan 20 16:48:27.703: ISAKMP:(1030): IPSec policy
invalidated proposal *Jan 20 16:48:27.703: ISAKMP:(1030):Checking IPSec proposal 5 *Jan 20
16:48:27.703: ISAKMP: transform 1, ESP_AES *Jan 20 16:48:27.703: ISAKMP: attributes in

transform: *Jan 20 16:48:27.703: ISAKMP: encaps is 1 (Tunnel) *Jan 20 16:48:27.703: ISAKMP: SA life type in seconds *Jan 20 16:48:27.703: ISAKMP: SA life duration (basic) of 28800 *Jan 20 16:48:27.703: ISAKMP: SA life type in kilobytes *Jan 20 16:48:27.707: ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 *Jan 20 16:48:27.707: ISAKMP: authenticator is HMAC-SHA *Jan 20 16:48:27.707: ISAKMP: key length is 128 *Jan 20 16:48:27.707: CryptoEngine0: validate proposal *Jan 20 16:48:27.707: ISAKMP:(1030):atts are acceptable. *Jan 20 16:48:27.707: IPSEC(validate_proposal_request): proposal part #1 *Jan 20 16:48:27.707: IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) INBOUND local= 10.10.10.2, remote= 10.10.10.1, local_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), remote_proxy= 10.10.10.1/255.255.255/0/0 (type=1), protocol= ESP, transform= esp-aes esp-sha-hmac (Tunnel), lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 128, flags= 0x0 *Jan 20 16:48:27.707: IPSEC(crypto_ipsec_process_proposal): transform proposal not supported for identity: {esp-aes esp-sha-hmac } *Jan 20 16:48:27.707: ISAKMP:(1030): IPSec policy invalidated proposal *Jan 20 16:48:27.707: ISAKMP:(1030):Checking IPSec proposal 6 *Jan 20 16:48:27.707: ISAKMP: transform 1, ESP_AES *Jan 20 16:48:27.707: ISAKMP: attributes in transform: *Jan 20 16:48:27.707: ISAKMP: encaps is 1 (Tunnel) *Jan 20 16:48:27.707: ISAKMP: SA life type in seconds *Jan 20 16:48:27.707: ISAKMP: SA life duration (basic) of 28800 *Jan 20 16:48:27.707: ISAKMP: SA life type in kilobytes *Jan 20 16:48:27.707: ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 *Jan 20 16:48:27.707: ISAKMP: authenticator is HMAC-MD5 *Jan 20 16:48:27.707: ISAKMP: key length is 128 *Jan 20 16:48:27.707: CryptoEngine0: validate proposal *Jan 20 16:48:27.707: ISAKMP:(1030):atts are acceptable. *Jan 20 16:48:27.707: IPSEC(validate_proposal_request): proposal part #1 *Jan 20 16:48:27.707: IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) INBOUND local= 10.10.10.2, remote= 10.10.10.1, local_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), remote_proxy= 10.10.10.1/255.255.255/0/0 (type=1), protocol= ESP, transform= esp-aes esp-md5-hmac (Tunnel), lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 128, flags= 0x0 *Jan 20 16:48:27.707: IPSEC(crypto_ipsec_process_proposal): transform proposal not supported for identity: {esp-aes esp-md5-hmac } *Jan 20 16:48:27.707: ISAKMP:(1030): IPSec policy invalidated proposal *Jan 20 16:48:27.707: ISAKMP:(1030):Checking IPSec proposal 7 *Jan 20 16:48:27.707: ISAKMP: transform 1, ESP_3DES *Jan 20 16:48:27.707: ISAKMP: attributes in transform: *Jan 20 16:48:27.707: ISAKMP: encaps is 1 (Tunnel) *Jan 20 16:48:27.707: ISAKMP: SA life type in seconds *Jan 20 16:48:27.707: ISAKMP: SA life duration (basic) of 28800 *Jan 20 16:48:27.707: ISAKMP: SA life type in kilobytes *Jan 20 16:48:27.707: ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 *Jan 20 16:48:27.707: ISAKMP: authenticator is HMAC-SHA *Jan 20 16:48:27.711: CryptoEngine0: validate proposal *Jan 20 16:48:27.711: ISAKMP:(1030):atts are acceptable. *Jan 20 16:48:27.711: IPSEC(validate_proposal_request): proposal part #1 *Jan 20 16:48:27.711: IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) INBOUND local= 10.10.10.2, remote= 10.10.10.1, local_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), remote_proxy= 10.10.10.1/255.255.255/0/0 (type=1), protocol= ESP, transform= esp-3des esp-sha-hmac (Tunnel), lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x0 *Jan 20 16:48:27.711: IPSEC(crypto_ipsec_process_proposal): transform proposal not supported for identity: {esp-3des esp-sha-hmac } *Jan 20 16:48:27.711: ISAKMP:(1030): IPSec policy invalidated proposal *Jan 20 16:48:27.711: ISAKMP:(1030):Checking IPSec proposal 8 *Jan 20 16:48:27.711: ISAKMP: transform 1, ESP_3DES *Jan 20 16:48:27.711: ISAKMP: attributes in transform: *Jan 20 16:48:27.711: ISAKMP: encaps is 1 (Tunnel) *Jan 20 16:48:27.711: ISAKMP: SA life type in seconds *Jan 20 16:48:27.711: ISAKMP: SA life duration (basic) of 28800 *Jan 20 16:48:27.711: ISAKMP: SA life type in kilobytes *Jan 20 16:48:27.711: ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 *Jan 20 16:48:27.711: ISAKMP: authenticator is HMAC-MD5 *Jan 20 16:48:27.711: CryptoEngine0: validate proposal *Jan 20 16:48:27.711: ISAKMP:(1030):atts are acceptable. *Jan 20 16:48:27.711: IPSEC(validate_proposal_request): proposal part #1 *Jan 20 16:48:27.711: IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) INBOUND local= 10.10.10.2, remote= 10.10.10.1, local_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), remote_proxy= 10.10.10.1/255.255.255/0/0 (type=1), protocol= ESP, transform= esp-3des esp-md5-hmac (Tunnel), lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x0 *Jan 20 16:48:27.715: IPSEC(crypto_ipsec_process_proposal): transform proposal not supported for identity: {esp-3des esp-md5-hmac } *Jan 20 16:48:27.715: ISAKMP:(1030): IPSec policy invalidated proposal *Jan 20 16:48:27.715: ISAKMP:(1030):Checking IPSec proposal 9 *Jan 20 16:48:27.715: ISAKMP: transform 1, ESP_DES *Jan 20 16:48:27.715: ISAKMP: attributes in transform: *Jan 20 16:48:27.715: ISAKMP: encaps is 1 (Tunnel) *Jan 20 16:48:27.715: ISAKMP: SA life type in seconds *Jan 20 16:48:27.715: ISAKMP: SA life duration (basic) of 28800 *Jan 20 16:48:27.715: ISAKMP: SA life type in kilobytes *Jan 20 16:48:27.715: ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 *Jan 20 16:48:27.715: ISAKMP: authenticator is HMAC-MD5 *Jan 20 16:48:27.715: CryptoEngine0: validate proposal *Jan 20 16:48:27.715: ISAKMP:(1030):atts are acceptable. *Jan 20 16:48:27.715: IPSEC(validate_proposal_request): proposal part #1 *Jan 20 16:48:27.715: IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) INBOUND local= 10.10.10.2,

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remote= 10.10.10.1, local_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), remote_proxy=
10.10.10.1/255.255.255.255/0/0 (type=1), protocol= ESP, transform= esp-des esp-md5-hmac
(Tunnel), lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x0 *Jan 20
16:48:27.715: ISAKMP:(1030): processing NONCE payload. message ID = 1887305923 *Jan 20
16:48:27.715: ISAKMP:(1030): processing ID payload. message ID = 1887305923 *Jan 20
16:48:27.715: ISAKMP:(1030): processing ID payload. message ID = 1887305923 *Jan 20
16:48:27.715: ISAKMP:(1030): asking for 1 spis from ipsec *Jan 20 16:48:27.715:
ISAKMP:(1030):Node 1887305923, Input = IKE_MESG_FROM_PEER, IKE_QM_EXCH *Jan 20 16:48:27.715:
ISAKMP:(1030):Old State = IKE_QM_READY New State = IKE_QM_SPI_STARVE *Jan 20 16:48:27.719:
IPSEC(key_engine): got a queue event with 1 KMI message(s) *Jan 20 16:48:27.719:
IPSEC(spi_response): getting spi 185206738 for SA from 10.10.10.2 to 10.10.10.1 for prot 3 *Jan
20 16:48:27.719: crypto_engine: Generate IKE hash *Jan 20 16:48:27.719: crypto_engine: Generate
IKE QM keys *Jan 20 16:48:27.719: crypto_engine: Create IPSec SA (by keys) *Jan 20 16:48:27.719:
crypto_engine: Generate IKE QM keys *Jan 20 16:48:27.719: crypto_engine: Create IPSec SA (by
keys) *Jan 20 16:48:27.719: ISAKMP:(1030): Creating IPSec SAs *Jan 20 16:48:27.719: inbound SA
from 10.10.10.1 to 10.10.10.2 (f/i) 0/ 0 (proxy 10.10.10.1 to 0.0.0.0) *Jan 20 16:48:27.719: has
spi 0xB0A07D2 and conn_id 0 *Jan 20 16:48:27.719: lifetime of 28800 seconds *Jan 20
16:48:27.719: lifetime of 4608000 kilobytes *Jan 20 16:48:27.719: outbound SA from 10.10.10.2 to
10.10.10.1 (f/i) 0/0 (proxy 0.0.0.0 to 10.10.10.1) *Jan 20 16:48:27.719: has spi 0xB22446D and
conn_id 0 *Jan 20 16:48:27.719: lifetime of 28800 seconds *Jan 20 16:48:27.719: lifetime of
4608000 kilobytes *Jan 20 16:48:27.719: crypto_engine: Encrypt IKE packet *Jan 20 16:48:27.719:
ISAKMP:(1030): sending packet to 10.10.10.1 my_port 500 peer_port 500 (R) QM_IDLE *Jan 20
16:48:27.719: ISAKMP:(1030):Node 1887305923, Input = IKE_MESG_FROM_IPSEC, IKE_SPI_REPLY *Jan 20
16:48:27.719: ISAKMP:(1030):Old State = IKE_QM_SPI_STARVE New State = IKE_QM_R_QM2 *Jan 20
16:48:27.719: IPSEC(key_engine): got a queue event with 1 KMI message(s) *Jan 20 16:48:27.723:
IPSec: Flow_switching Allocated flow for sibling 80000014 *Jan 20 16:48:27.723:
IPSEC(policy_db_add_ident): src 0.0.0.0, dest 10.10.10.1, dest_port 0 *Jan 20 16:48:27.723:
IPSEC(create_sa): sa created, (sa) sa_dest= 10.10.10.2, sa_proto= 50, sa_spi=
0xB0A07D2(185206738), sa_trans= esp-des esp-md5-hmac , sa_conn_id= 37 *Jan 20 16:48:27.723:
IPSEC(create_sa): sa created, (sa) sa_dest= 10.10.10.1, sa_proto= 50, sa_spi=
0xB22446D(186795117), sa_trans= esp-des esp-md5-hmac , sa_conn_id= 38 !--- The two IPSec SAs
shown above are for management purposes. *Jan 20 16:48:27.771: ISAKMP (0:1030): received packet
from 10.10.10.1 dport 500 sport 500 Global (R) QM_IDLE *Jan 20 16:48:27.771: crypto_engine:
Decrypt IKE packet *Jan 20 16:48:27.771: crypto_engine: Generate IKE hash *Jan 20 16:48:27.771:
ISAKMP:(1030): deleting node 1887305923 error FALSE reason "QM done (await)" *Jan 20
16:48:27.771: ISAKMP:(1030):Node 1887305923, Input = IKE_MESG_FROM_PEER, IKE_QM_EXCH *Jan 20
16:48:27.771: ISAKMP:(1030):Old State = IKE_QM_R_QM2 New State = IKE_QM_PHASE2_COMPLETE *Jan 20
16:48:27.771: IPSEC(key_engine): got a queue event with 1 KMI message(s) *Jan 20 16:48:27.771:
IPSEC(key_engine_enable_outbound): rec'd enable notify from ISAKMP *Jan 20 16:48:27.771:
IPSEC(key_engine_enable_outbound): enable SA with spi 186795117/50 *Jan 20 16:48:27.771:
IPSEC(update_current_outbound_sa): updated peer 10.10.10.1 current outbound sa to SPI B22446D
*Jan 20 16:48:27.771: ISAKMP (0:1030): received packet from 10.10.10.1 dport 500 sport 500
Global (R) QM_IDLE *Jan 20 16:48:27.771: ISAKMP: set new node -1259355083 to QM_IDLE *Jan 20
16:48:27.771: crypto_engine: Decrypt IKE packet *Jan 20 16:48:27.775: crypto_engine: Generate
IKE hash *Jan 20 16:48:27.775: ISAKMP:(1030): processing HASH payload. message ID = -1259355083
*Jan 20 16:48:27.775: ISAKMP:(1030): processing SA payload. message ID = -1259355083 *Jan 20
16:48:27.775: ISAKMP:(1030):Checking IPSec proposal 1 *Jan 20 16:48:27.775: ISAKMP: transform 1,
ESP_AES *Jan 20 16:48:27.775: ISAKMP: attributes in transform: *Jan 20 16:48:27.775: ISAKMP:
encaps is 1 (Tunnel) *Jan 20 16:48:27.775: ISAKMP: SA life type in seconds *Jan 20 16:48:27.775:
ISAKMP: SA life duration (basic) of 28800 *Jan 20 16:48:27.775: ISAKMP: SA life type in
kilobytes *Jan 20 16:48:27.775: ISAKMP: SA life duration (VPI) of 0x0 0x46 0x50 0x0 *Jan 20
16:48:27.775: ISAKMP: authenticator is HMAC-SHA *Jan 20 16:48:27.775: ISAKMP: key length is 256
*Jan 20 16:48:27.775: CryptoEngine0: validate proposal *Jan 20 16:48:27.775: ISAKMP:(1030):atts
are acceptable. *Jan 20 16:48:27.775: IPSEC(validate_proposal_request): proposal part #1 *Jan 20
16:48:27.775: IPSEC(validate_proposal_request): proposal part #1, (key eng. msg.) INBOUND local=
10.10.10.2, remote= 10.10.10.1, local_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4), remote_proxy=
172.16.1.0/255.255.255.0/0/0 (type=4), protocol= ESP, transform= esp-aes 256 esp-sha-hmac
(Tunnel), lifedur= 0s and 0kb, spi= 0x0(0), conn_id= 0, keysize= 256, flags= 0x0 *Jan 20
16:48:27.775: IPSEC(crypto_ipsec_process_proposal): transform proposal not supported for
identity: {esp-aes 256 esp-sha-hmac } *Jan 20 16:48:27.775: ISAKMP:(1030): IPSec policy
invalidated proposal *Jan 20 16:48:27.775: ISAKMP:(1030):Checking IPSec proposal 2 *Jan 20
16:48:27.775: ISAKMP: transform 1, ESP_AES *Jan 20 16:48:27.775: ISAKMP: attributes in
transform: *Jan 20 16:48:27.775: ISAKMP: encaps is 1 (Tunnel) *Jan 20 16:48:27.775: ISAKMP: SA
life type in seconds *Jan 20 16:48:27.775: ISAKMP: SA life duration (basic) of 28800 *Jan 20

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16:48:27.775: ISAKMP: SA life type in kilobytes *Jan 20 16:48:27.775: ISAKMP: SA life duration  
(VPI) of 0x0 0x46 0x50 0x0 *Jan 20 16:48:27.775: ISAKMP: authenticator is HMAC-MD5 *Jan 20  
16:48:27.775: ISAKMP: key length is 256 *Jan 20 16:48:27.775: CryptoEngine0: validate proposal  
*Jan 20 16:48:27.775: ISAKMP:(1030):atts are acceptable. *Jan 20 16:48:27.775:  
IPSEC(validate_proposal_request): proposal part #1 *Jan 20 16:48:27.799: IPSEC(create_sa): sa  
created, (sa) sa_dest= 10.10.10.2, sa_proto= 50, sa_spi= 0x990A0C2C(2567572524), sa_trans= esp-  
des esp-md5-hmac , sa_conn_id= 39 *Jan 20 16:48:27.799: IPSEC(create_sa): sa created, (sa)  
sa_dest= 10.10.10.1, sa_proto= 50, sa_spi= 0x9FBC4C0D(2679917581), sa_trans= esp-des esp-md5-  
hmac , sa_conn_id= 40 !--- The two IPsec SAs shown above are for actual data traffic.
```

Informations connexes

- [Négociation IPSec/Protocoles IKE](#)
- [Appliances de sécurité de la gamme PIX 500](#)
- [Références des commandes du pare-feu PIX](#)
- [Demandes de commentaires \(RFC\)](#)
- [Support et documentation techniques - Cisco Systems](#)