

# 在两个Cisco VPN 3000集中器之间有叠加专用网络上的IPSec

## 目录

[简介](#)

[先决条件](#)

[要求](#)

[使用的组件](#)

[网络图](#)

[规则](#)

[配置VPN 3000集中器A](#)

[配置Cisco VPN 3000集中器B](#)

[验证](#)

[验证VPN 3000集中器A配置](#)

[验证VPN 3000集中器B配置](#)

[故障排除](#)

[排除故障VPN 3000集中器A配置](#)

[排除故障VPN 3000集中器B配置](#)

[相关信息](#)

## 简介

本文描述如何配置在站点至站点IPSec VPN的Cisco VPN 3000集中器与重叠网络网络地址在VPN网关背后。在VPN 3000集中器版本3.6介绍的高级网络地址转换(NAT)功能用于此示例翻译IPSec VPN通道的在每一侧的重叠网络更改在非重复范围的地址。

## 先决条件

### 要求

在尝试此配置前，请保证您符合这些要求：

- Cisco VPN 3000集中器的知识
- IPSec VPN知识

### 使用的组件

本文档中的信息基于以下软件和硬件版本：

- Cisco VPN 3000集中器版本3.6或以上

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

## 网络图

本文档使用以下网络设置：



专用LAN 1和专用LAN 2有IP子网14.38.100.0/24。这会在IPSec隧道每一端背后模拟重叠的地址空间。

在本例中，VPN 3000集中器进行一个双向NAT转换，因此两个专用LAN能在IPSec隧道通信。转换意味着专用LAN 1“看到”专用LAN 2作为14.38.200.0/24通过IPSec隧道，并且专用LAN 2“看到”专用LAN 1作为14.38.80.0/24通过IPSec隧道。

## 规则

有关文档规则的详细信息，请参阅 [Cisco 技术提示规则](#)。

## 配置VPN 3000集中器A

使用以下步骤配置VPN 3000集中器A。

1. 配置LAN-到-LAN会话提议和参数对于LAN对LAN在VPN集中器A在**Configuration > System > Tunneling Protocols > IPsec > LAN-to-LAN > Modify**下。在Local Network部分下，请输入**14.38.80.0/24**在IP地址字段。在Remote Network部分下，请输入**14.38.200.0/24**在IP地址字段。当您完成，请单击**应用**。

Configuration | System | Tunneling Protocols | IPSec | LAN-to-LAN | Modify

Modify an IPSec LAN-to-LAN connection.

**Name**  Enter the name for this LAN-to-LAN connection.

**Interface**  Select the interface for this LAN-to-LAN connection.

**Peer**  Enter the IP address of the remote peer for this LAN-to-LAN connection.

**Digital Certificate**  Select the digital certificate to use.

**Certificate**  Entire certificate chain  
 Identity certificate only  
 Choose how to send the digital certificate to the IKE peer.

**Preshared Key**  Enter the preshared key for this LAN-to-LAN connection.

**Authentication**  Specify the packet authentication mechanism to use.

**Encryption**  Specify the encryption mechanism to use.

**IKE Proposal**  Select the IKE Proposal to use for this LAN-to-LAN connection.

**Filter**  Choose the filter to apply to the traffic that is tunneled through this LAN-to-LAN connection.

**IPSec NAT-T**  Check to let NAT-T compatible IPSec peers establish this LAN-to-LAN connection through a NAT device. You must also enable IPSec over NAT-T under NAT Transparency.

**Bandwidth Policy**  Choose the bandwidth policy to apply to this LAN-to-LAN connection.

**Routing**  Choose the routing mechanism to use. Parameters below are ignored if Network Autodiscovery is chosen.

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**Local Network:** If a LAN-to-LAN NAT rule is used, this is the Translated Network address.

**Network List**  Specify the local network address list or the IP address and wildcard mask for this LAN-to-LAN connection.

**IP Address**  **Note:** Enter a wildcard mask, which is the reverse of a subnet mask. A wildcard mask has 1s in bit positions to ignore, 0s in bit positions to match. For example, 10.10.1.0/0.0.0.255 = all 10.10.1.nnn addresses.

**Wildcard Mask**

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**Remote Network:** If a LAN-to-LAN NAT rule is used, this is the Remote Network address.

**Network List**  Specify the remote network address list or the IP address and wildcard mask for this LAN-to-LAN connection.

**IP Address**  **Note:** Enter a wildcard mask, which is the reverse of a subnet mask. A wildcard mask has 1s in bit positions to ignore, 0s in bit positions to match. For example, 10.10.1.0/0.0.0.255 = all 10.10.1.nnn addresses.

**Wildcard Mask**

2. 创建静态NAT为专用LAN 2注定的专用LAN的1通过去Configuration > Policy Management > Traffic Management > NAT > LAN-to-LAN Rules > Modify。在IP Address行，请输入14.38.100.0/24在Source Network字段，14.38.80.0/24在Translated Network字段，14.38.200.0/24在Remote Network字段，并且单击应用。

Configuration | Policy Management | Traffic Management | NAT | LAN-to-LAN Rules | Modify

Modify a LAN-to-LAN NAT rule.

**Static** **Static:** maps source IP addresses to translated IP addresses on a one-to-one basis. Static mappings apply to both inbound and outbound traffic.

**NAT Type**  Dynamic **Dynamic:** maps source IP addresses to one of a pool of available translated IP addresses. Dynamic mappings apply to outbound traffic only.

PAT **PAT:** Dynamic mapping with Port Address Translation. PAT applies to outbound traffic only.

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**Source Network:** specifies the source IP address and wildcard mask to be translated.

**Translated Network:** specifies the translated IP address and wildcard mask for the Local Network. It is the local address of the LAN-to-LAN connection.

**Remote Network:** specifies the destination IP address and wildcard mask for which this rule applies. To allow any remote network, set IP address/wildcard mask to 0.0.0.0/255.255.255.255. It is the remote address of the LAN-to-LAN connection.

Source Network	Translated Network	Remote Network
IP Address <input type="text" value="14.38.100.0"/>	: <input type="text" value="14.38.80.0"/> ->	<input type="text" value="14.38.200.0"/>
Wildcard Mask <input type="text" value="0.0.0.255"/>	: <input type="text" value="0.0.0.255"/> ->	<input type="text" value="0.0.0.255"/>

3. 选择Configuration > Policy Management > Traffic Management > NAT > Enable并且选择检查启用在LAN-to-LAN隧道的NAT规则。单击 Apply。

Configuration | Policy Management | Traffic Management | NAT | Enable

This section lets you enable system-wide NAT rules.

**Interface NAT Rules Enabled**  Check to enable NAT rules on interfaces.

**LAN-to-LAN Tunnel NAT Rule Enabled**  Check to enable NAT rules on LAN-to-LAN tunnels.

## 配置Cisco VPN 3000集中器B

使用以下步骤配置Cisco VPN 3000集中器B。

1. 通过选择Configuration > System > Tunneling Protocols > IPSec > LAN-to-LAN > Modify配置LAN-到-LAN会话提议和参数对于LAN对LAN在VPN集中器B。在Local Network部分下，请输入14.38.200.0/24在IP地址字段。在Remote Network部分下，请输入14.38.80.0/24在IP地址字段。当您完成，请单击应用。

Configuration | System | Tunneling Protocols | IPSec | LAN-to-LAN | Modify

Modify an IPSec LAN-to-LAN connection.

Name	RTP NAT TUNNEL	Enter the name for this LAN-to-LAN connection.
Interface	Ethernet 2 (Public) (172.18.124.131)	Select the interface for this LAN-to-LAN connection.
Peer	172.18.124.132	Enter the IP address of the remote peer for this LAN-to-LAN connection.
Digital Certificate	None (Use Preshared Keys)	Select the digital certificate to use.
Certificate	<input type="radio"/> Entire certificate chain	Choose how to send the digital certificate to the IKE peer.
Transmission	<input checked="" type="radio"/> Identity certificate only	
Preshared Key	rtpprn	Enter the preshared key for this LAN-to-LAN connection.
Authentication	ESP:MD5+HMAC-128	Specify the packet authentication mechanism to use.
Encryption	3DES-168	Specify the encryption mechanism to use.
IKE Proposal	IKE-3DES-MD6	Select the IKE Proposal to use for this LAN-to-LAN connection.
Filter	-None-	Choose the filter to apply to the traffic that is tunneled through this LAN-to-LAN connection.
IPSec NAT-T	<input type="checkbox"/>	Check to let NAT-T compatible IPSec peers establish this LAN-to-LAN connection through a NAT device. You must also enable IPSec over NAT-T under NAT Transparency.
Bandwidth Policy	-None-	Choose the bandwidth policy to apply to this LAN-to-LAN connection.
Routing	None	Choose the routing mechanism to use. Parameters below are ignored if Network Autodiscovery is chosen.

Local Network: If a LAN-to-LAN NAT rule is used, this is the Translated Network address.

Network List	Use IP Address/Wildcard mask below	Specify the local network address list or the IP address and wildcard mask for this LAN-to-LAN connection.
IP Address	14.38.200.0	Note: Enter a <i>wildcard</i> mask, which is the reverse of a subnet mask. A wildcard mask has 1s in bit positions to ignore, 0s in bit positions to match. For example, 10.10.1.0/0.0.0.255 = all 10.10.1.xxx addresses.
Wildcard Mask	0.0.0.255	

Remote Network: If a LAN-to-LAN NAT rule is used, this is the Remote Network address.

Network List	Use IP Address/Wildcard mask below	Specify the remote network address list or the IP address and wildcard mask for this LAN-to-LAN connection.
IP Address	14.38.80.0	Note: Enter a <i>wildcard</i> mask, which is the reverse of a subnet mask. A wildcard mask has 1s in bit positions to ignore, 0s in bit positions to match. For example, 10.10.1.0/0.0.0.255 = all 10.10.1.xxx addresses.
Wildcard Mask	0.0.0.255	

Apply Cancel

2. 创建静态NAT为专用LAN 1注定的专用LAN的2通过选择Configuration > Policy Management > Traffic Management > NAT > LAN-to-LAN Rules > Modify。在IP Address行，请输入14.38.100.0/24在Source Network字段，14.38.200.0/24在Translated Network字段，14.38.80.0/24在Remote Network字段，并且单击应用。

Configuration | Policy Management | Traffic Management | NAT | LAN-to-LAN Rules | Modify

Modify a LAN-to-LAN NAT rule.

<input checked="" type="radio"/> Static	Static: maps source IP addresses to translated IP addresses on a one-to-one basis. Static mappings apply to both inbound and outbound traffic.
NAT Type <input type="radio"/> Dynamic	Dynamic: maps source IP addresses to one of a pool of available translated IP addresses. Dynamic mappings apply to outbound traffic only.
<input type="radio"/> PAT	PAT: Dynamic mapping with Port Address Translation. PAT applies to outbound traffic only.

Source Network: specifies the source IP address and wildcard mask to be translated.

Translated Network: specifies the translated IP address and wildcard mask for the Local Network. It is the local address of the LAN-to-LAN connection.

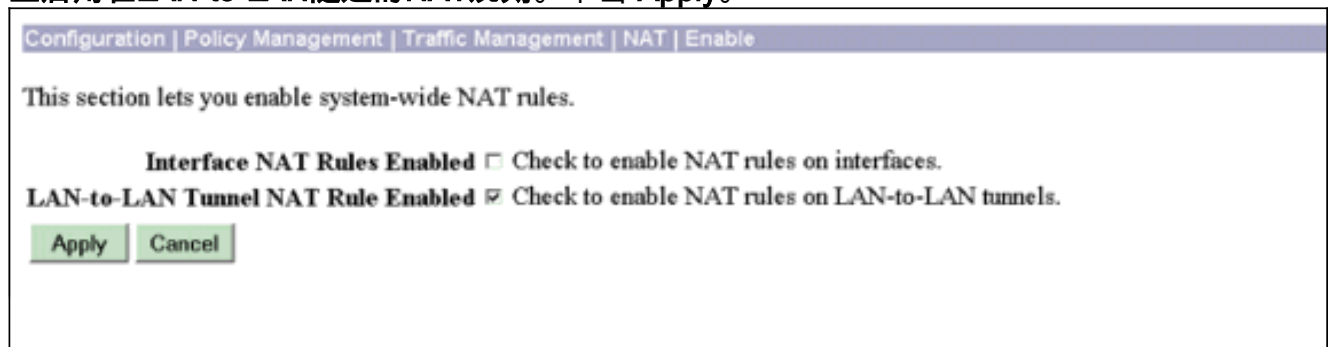
Remote Network: specifies the destination IP address and wildcard mask for which this rule applies. To allow any remote network, set IP address/wildcard mask to 0.0.0.0/255.255.255.255. It is the remote address of the LAN-to-LAN connection.

Source Network	Translated Network	Remote Network
IP Address 14.38.100.0	: 14.38.200.0	-> 14.38.80.0
Wildcard Mask 0.0.0.255	: 0.0.0.255	-> 0.0.0.255

Apply Cancel

3. 选择Configuration > Policy Management > Traffic Management > NAT > Enable并且选择检

查启用在LAN-to-LAN隧道的NAT规则。单击 **Apply**。



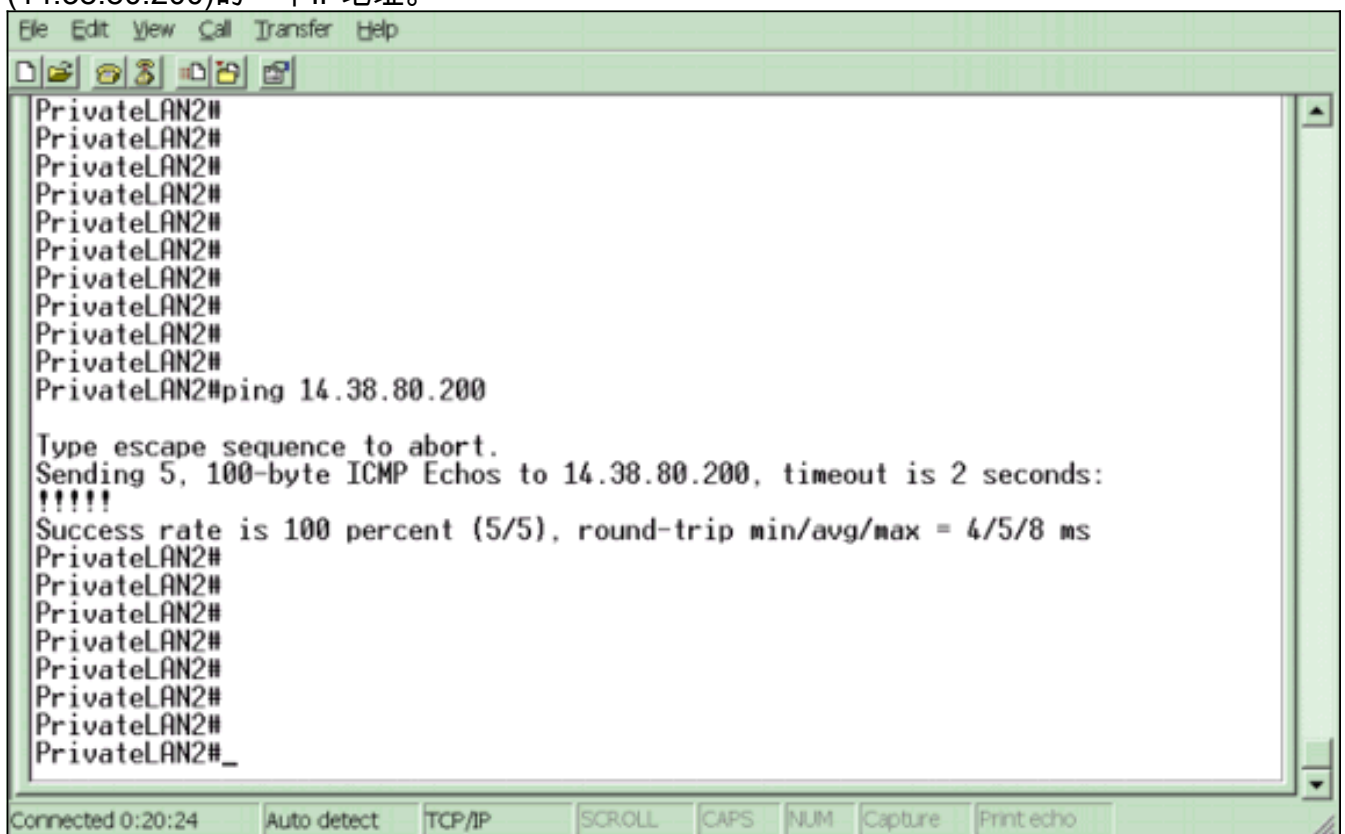
## 验证

### 验证VPN 3000集中器A配置

本部分所提供的信息可用于确认您的配置是否正常工作。

[命令输出解释程序工具](#) ( [仅限注册用户](#) ) 支持某些 **show** 命令，使用此工具可以查看对 **show** 命令输出的分析。

- 要发起通道，请发送从专用LAN 2设备(14.38.200.10)的一ping对在专用LAN 1 (14.38.80.200)的一个IP地址。



- 确认Internet Key Exchange (IKE)和IPSec会话通过选择**Administration > Administer Sessions > Detail**显示与NAT的专用LAN 1和专用LAN 2。

Administration   Administer Sessions   Detail				Wednesday, 07 August 2002 12:49:04			
<a href="#">Reset</a> <a href="#">Refresh</a>							
<a href="#">Back to Sessions</a>							
Connection Name	IP Address	Protocol	Encryption	Login Time	Duration	Bytes Tx	Bytes Rx
VPN TUNNEL	172.18.124.131	IPSec/LAN-to-LAN	3DES-168	Aug 06 13:20:24	23:28:40	1456	1040
IKE Sessions: 1							
IPSec Sessions: 1							
IKE Session							
Session ID 1				Encryption Algorithm 3DES-168			
Hashing Algorithm MD5				Diffie-Hellman Group Group 2 (1024-bit)			
Authentication Mode Pre-Shared Keys				IKE Negotiation Mode Main			
Rekey Time Interval 86400 seconds							
IPSec Session							
Session ID 2				Remote Address 14.38.200.0/0.0.0.255			
Local Address 14.38.80.0/0.0.0.255				Encryption Algorithm 3DES-168			
Hashing Algorithm MD5				SEP 1			
Encapsulation Mode Tunnel				Rekey Time Interval 28800 seconds			
Bytes Received 1040				Bytes Transmitted 1456			

## 验证VPN 3000集中器B配置

本部分所提供的信息可用于确认您的配置是否正常工作。关于安装和查看日志的信息，当排除故障连接问题用VPN 3000集中器时，参考[在VPN 3000集中器的故障排除连接问题](#)。

[命令输出解释程序工具](#)（[仅限注册用户](#)）支持某些 **show** 命令，使用此工具可以查看对 **show** 命令输出的分析。

确认IKE和IPSec会话通过选择**Administration > Administer Sessions > Detail**显示与NAT的专用LAN 2和专用LAN 1。

Administration   Administer Sessions   Detail				Friday, 09 August 2002 12:36:39			
<a href="#">Reset</a> <a href="#">Refresh</a>							
<a href="#">Back to Sessions</a>							
Connection Name	IP Address	Protocol	Encryption	Login Time	Duration	Bytes Tx	Bytes Rx
RTP NAT TUNNEL	172.18.124.132	IPSec/LAN-to-LAN	3DES-168	Aug 08 13:17:22	23:19:15	1040	1456
IKE Sessions: 1							
IPSec Sessions: 1							
IKE Session							
Session ID 1				Encryption Algorithm 3DES-168			
Hashing Algorithm MD5				Diffie-Hellman Group Group 2 (1024-bit)			
Authentication Mode Pre-Shared Keys				IKE Negotiation Mode Main			
Rekey Time Interval 86400 seconds							
IPSec Session							
Session ID 2				Remote Address 14.38.200.0/0.0.0.255			
Local Address 14.38.200.0/0.0.0.255				Encryption Algorithm 3DES-168			
Hashing Algorithm MD5				SEP 1			
Encapsulation Mode Tunnel				Rekey Time Interval 28800 seconds			
Bytes Received 1456				Bytes Transmitted 1040			

## 故障排除

### 排除故障VPN 3000集中器A配置

在VPN集中器上，请启用登录，选择**Configuration > System > Events > Classes > Modify**。可以使用以下选项：



- IKE
- IKEDBG
- IKEDECODE
- IPSEC
- IPSECDBG
- IPSECDECODE
- 对Log=1-13的严重性
- Console的严重性=1-3

您能通过选择**Monitoring > Event Log**检索事件日志。

对于其他信息安装和查看日志，当排除故障连接问题用VPN 3000集中器时，参考[在VPN 3000集中器的故障排除连接问题](#)。

```
1 08/09/2002 13:14:22.690 SEV=8 IKEDBG/0 RPT=52040 172.18.124.132
RECEIVED Message (msgid=0) with payloads :
HDR + SA (1) + VENDOR (13) + NONE (0) ... total length : 108
```

```
3 08/09/2002 13:14:22.690 SEV=9 IKEDBG/0 RPT=52041 172.18.124.132
processing SA payload
```

```
4 08/09/2002 13:14:22.690 SEV=8 IKEDBG/0 RPT=52042
Proposal # 1, Transform # 1, Type ISAKMP, Id IKE
Parsing received transform:
Phase 1 failure against global IKE proposal # 1:
Mismatched attr types for class Auth Method:
Rcv'd: Preshared Key
Cfg'd: XAUTH with Preshared Key (Initiator authenticated)
```

```
10 08/09/2002 13:14:22.690 SEV=7 IKEDBG/0 RPT=52043 172.18.124.132
Oakley proposal is acceptable
```

```
11 08/09/2002 13:14:22.690 SEV=9 IKEDBG/47 RPT=28 172.18.124.132
processing VID payload
```

```
12 08/09/2002 13:14:22.690 SEV=9 IKEDBG/49 RPT=24 172.18.124.132
Received Fragmentation VID
```

```
13 08/09/2002 13:14:22.690 SEV=5 IKEDBG/64 RPT=6 172.18.124.132
IKE Peer included IKE fragmentation capability flags:
Main Mode:      True
Aggressive Mode: True
```

```
15 08/09/2002 13:14:22.690 SEV=9 IKEDBG/0 RPT=52044 172.18.124.132
processing IKE SA
```

```
16 08/09/2002 13:14:22.690 SEV=8 IKEDBG/0 RPT=52045
Proposal # 1, Transform # 1, Type ISAKMP, Id IKE
Parsing received transform:
Phase 1 failure against global IKE proposal # 1:
Mismatched attr types for class Auth Method:
Rcv'd: Preshared Key
```

Cfg'd: XAUTH with Preshared Key (Initiator authenticated)

22 08/09/2002 13:14:22.690 SEV=7 IKEDBG/28 RPT=5 172.18.124.132  
IKE SA Proposal # 1, Transform # 1 acceptable  
Matches global IKE entry # 2

23 08/09/2002 13:14:22.690 SEV=9 IKEDBG/0 RPT=52046 172.18.124.132  
constructing ISA\_SA for isakmp

24 08/09/2002 13:14:22.690 SEV=9 IKEDBG/46 RPT=26 172.18.124.132  
constructing Fragmentation VID + extended capabilities payload

25 08/09/2002 13:14:22.690 SEV=8 IKEDBG/0 RPT=52047 172.18.124.132  
SENDING Message (msgid=0) with payloads :  
HDR + SA (1) + VENDOR (13) ... total length : 108

27 08/09/2002 13:14:22.700 SEV=8 IKEDBG/0 RPT=52048 172.18.124.132  
RECEIVED Message (msgid=0) with payloads :  
HDR + KE (4) + NONCE (10) + VENDOR (13) + VENDOR (13) + VENDOR (13) + VENDOR (13)  
) + NONE (0) ... total length : 256

30 08/09/2002 13:14:22.700 SEV=8 IKEDBG/0 RPT=52049 172.18.124.132  
RECEIVED Message (msgid=0) with payloads :  
HDR + KE (4) + NONCE (10) + VENDOR (13) + VENDOR (13) + VENDOR (13) + VENDOR (13)  
) + NONE (0) ... total length : 256

33 08/09/2002 13:14:22.700 SEV=9 IKEDBG/0 RPT=52050 172.18.124.132  
processing ke payload

34 08/09/2002 13:14:22.700 SEV=9 IKEDBG/0 RPT=52051 172.18.124.132  
processing ISA\_KE

35 08/09/2002 13:14:22.700 SEV=9 IKEDBG/1 RPT=83 172.18.124.132  
processing nonce payload

36 08/09/2002 13:14:22.700 SEV=9 IKEDBG/47 RPT=29 172.18.124.132  
processing VID payload

37 08/09/2002 13:14:22.700 SEV=9 IKEDBG/49 RPT=25 172.18.124.132  
Received Cisco Unity client VID

38 08/09/2002 13:14:22.700 SEV=9 IKEDBG/47 RPT=30 172.18.124.132  
processing VID payload

39 08/09/2002 13:14:22.700 SEV=9 IKEDBG/49 RPT=26 172.18.124.132  
Received xauth V6 VID

40 08/09/2002 13:14:22.700 SEV=9 IKEDBG/47 RPT=31 172.18.124.132  
processing VID payload

41 08/09/2002 13:14:22.700 SEV=9 IKEDBG/38 RPT=9 172.18.124.132  
Processing VPN 3000 spoofing IOS Vendor ID payload (version: 1.0.0, capabilities  
: 20000001)

43 08/09/2002 13:14:22.700 SEV=9 IKEDBG/47 RPT=32 172.18.124.132  
processing VID payload

44 08/09/2002 13:14:22.700 SEV=9 IKEDBG/49 RPT=27 172.18.124.132  
Received Altiga GW VID



45 08/09/2002 13:14:22.730 SEV=9 IKEDBG/0 RPT=52052 172.18.124.132  
constructing ke payload

46 08/09/2002 13:14:22.730 SEV=9 IKEDBG/1 RPT=84 172.18.124.132  
constructing nonce payload

47 08/09/2002 13:14:22.730 SEV=9 IKEDBG/46 RPT=27 172.18.124.132  
constructing Cisco Unity VID payload

48 08/09/2002 13:14:22.730 SEV=9 IKEDBG/46 RPT=28 172.18.124.132  
constructing xauth V6 VID payload

49 08/09/2002 13:14:22.730 SEV=9 IKEDBG/48 RPT=10 172.18.124.132  
Send IOS VID

50 08/09/2002 13:14:22.730 SEV=9 IKEDBG/38 RPT=10 172.18.124.132  
Constructing VPN 3000 spoofing IOS Vendor ID payload (version: 1.0.0, capabilities: 20000001)

52 08/09/2002 13:14:22.730 SEV=9 IKEDBG/46 RPT=29 172.18.124.132  
constructing VID payload

53 08/09/2002 13:14:22.730 SEV=9 IKEDBG/48 RPT=11 172.18.124.132  
Send Altiga GW VID

54 08/09/2002 13:14:22.730 SEV=9 IKEDBG/0 RPT=52053 172.18.124.132  
Generating keys for Responder...

55 08/09/2002 13:14:22.730 SEV=8 IKEDBG/0 RPT=52054 172.18.124.132  
SENDING Message (msgid=0) with payloads :  
HDR + KE (4) + NONCE (10) ... total length : 256

57 08/09/2002 13:14:22.770 SEV=8 IKEDBG/0 RPT=52055 172.18.124.132  
RECEIVED Message (msgid=0) with payloads :  
HDR + ID (5) + HASH (8) + IOS KEEPALIVE (14) + VENDOR (13) + NONE (0) ... total length : 92

60 08/09/2002 13:14:22.770 SEV=9 IKEDBG/1 RPT=85 172.18.124.132  
Group [172.18.124.132]  
Processing ID

61 08/09/2002 13:14:22.770 SEV=9 IKEDBG/0 RPT=52056 172.18.124.132  
Group [172.18.124.132]  
processing hash

62 08/09/2002 13:14:22.770 SEV=9 IKEDBG/0 RPT=52057 172.18.124.132  
Group [172.18.124.132]  
computing hash

63 08/09/2002 13:14:22.770 SEV=9 IKEDBG/34 RPT=9 172.18.124.132  
Processing IOS keep alive payload: proposal=32767/32767 sec.

64 08/09/2002 13:14:22.770 SEV=9 IKEDBG/47 RPT=33 172.18.124.132  
Group [172.18.124.132]  
processing VID payload

65 08/09/2002 13:14:22.770 SEV=9 IKEDBG/49 RPT=28 172.18.124.132  
Group [172.18.124.132]  
Received DPD VID

66 08/09/2002 13:14:22.770 SEV=9 IKEDBG/23 RPT=6 172.18.124.132  
Group [172.18.124.132]  
Starting group lookup for peer 172.18.124.132

67 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/1 RPT=7  
AUTH\_Open() returns 9

68 08/09/2002 13:14:22.770 SEV=7 AUTH/12 RPT=7  
Authentication session opened: handle = 9

69 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/3 RPT=9  
AUTH\_PutAttrTable(9, 8c6274)

70 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/6 RPT=6  
AUTH\_GroupAuthenticate(9, 2f1c798, 599818)

71 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/59 RPT=9  
AUTH\_BindServer(511c62c, 0, 0)

72 08/09/2002 13:14:22.770 SEV=9 AUTHDBG/69 RPT=9  
Auth Server db1704 has been bound to ACB 511c62c, sessions = 1

73 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/65 RPT=9  
AUTH\_CreateTimer(511c62c, 0, 0)

74 08/09/2002 13:14:22.770 SEV=9 AUTHDBG/72 RPT=9  
Reply timer created: handle = 66001B

75 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/179 RPT=9  
AUTH\_SyncToServer(511c62c, 0, 0)

76 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/180 RPT=9  
AUTH\_SendLockReq(511c62c, 0, 0)

77 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/61 RPT=9  
AUTH\_BuildMsg(511c62c, 0, 0)

78 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/64 RPT=9  
AUTH\_StartTimer(511c62c, 0, 0)

79 08/09/2002 13:14:22.770 SEV=9 AUTHDBG/73 RPT=9  
Reply timer started: handle = 66001B, timestamp = 17178934, timeout = 30000

80 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/62 RPT=9  
AUTH\_SndRequest(511c62c, 0, 0)

81 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/50 RPT=17  
IntDB\_Decode(37f1908, 149)

82 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/47 RPT=17  
IntDB\_Xmt(511c62c)

83 08/09/2002 13:14:22.770 SEV=9 AUTHDBG/71 RPT=9  
xmit\_cnt = 1

84 08/09/2002 13:14:22.770 SEV=8 AUTHDBG/47 RPT=18  
IntDB\_Xmt(511c62c)

85 08/09/2002 13:14:22.870 SEV=8 AUTHDBG/49 RPT=9  
IntDB\_Match(511c62c, 5119cc4)

86 08/09/2002 13:14:22.870 SEV=8 AUTHDBG/63 RPT=9  
AUTH\_RcvReply(511c62c, 0, 0)

87 08/09/2002 13:14:22.870 SEV=8 AUTHDBG/50 RPT=18  
IntDB\_Decode(5119cc4, 835)

88 08/09/2002 13:14:22.870 SEV=8 AUTHDBG/48 RPT=9  
IntDB\_Rcv(511c62c)

89 08/09/2002 13:14:22.870 SEV=8 AUTHDBG/66 RPT=9  
AUTH\_DeleteTimer(511c62c, 0, 0)

90 08/09/2002 13:14:22.870 SEV=9 AUTHDBG/74 RPT=9  
Reply timer stopped: handle = 66001B, timestamp = 17178944

91 08/09/2002 13:14:22.870 SEV=8 AUTHDBG/58 RPT=9  
AUTH\_Callback(511c62c, 0, 0)

**92 08/09/2002 13:14:22.870 SEV=6 AUTH/41 RPT=8 172.18.124.132**  
**Authentication successful: handle = 9, server = Internal, group = 172.18.124.132**

**93 08/09/2002 13:14:22.870 SEV=7 IKEDBG/0 RPT=52058 172.18.124.132**  
**Group [172.18.124.132]**  
**Found Phase 1 Group (172.18.124.132)**

94 08/09/2002 13:14:22.870 SEV=8 AUTHDBG/4 RPT=8  
AUTH\_GetAttrTable(9, 8c6520)

95 08/09/2002 13:14:22.870 SEV=7 IKEDBG/14 RPT=7 172.18.124.132  
Group [172.18.124.132]  
Authentication configured for Internal

96 08/09/2002 13:14:22.870 SEV=8 AUTHDBG/2 RPT=7  
AUTH\_Close(9)

97 08/09/2002 13:14:22.870 SEV=9 IKEDBG/1 RPT=86 172.18.124.132  
Group [172.18.124.132]  
constructing ID

98 08/09/2002 13:14:22.870 SEV=9 IKEDBG/0 RPT=52059  
Group [172.18.124.132]  
construct hash payload

99 08/09/2002 13:14:22.870 SEV=9 IKEDBG/0 RPT=52060 172.18.124.132  
Group [172.18.124.132]  
computing hash

100 08/09/2002 13:14:22.870 SEV=9 IKEDBG/34 RPT=10 172.18.124.132  
Constructing IOS keep alive payload: proposal=32767/32767 sec.

101 08/09/2002 13:14:22.870 SEV=9 IKEDBG/46 RPT=30 172.18.124.132  
Group [172.18.124.132]  
constructing dpd vid payload

102 08/09/2002 13:14:22.870 SEV=8 IKEDBG/0 RPT=52061 172.18.124.132  
SENDING Message (msgid=0) with payloads :  
HDR + ID (5) + HASH (8) ... total length : 92

**104 08/09/2002 13:14:22.870 SEV=4 IKE/119 RPT=8 172.18.124.132**  
**Group [172.18.124.132]**  
**PHASE 1 COMPLETED**

105 08/09/2002 13:14:22.870 SEV=6 IKE/121 RPT=6 172.18.124.132  
Keep-alive type for this connection: DPD

106 08/09/2002 13:14:22.870 SEV=7 IKEDBG/0 RPT=52062 172.18.124.132  
Group [172.18.124.132]  
Starting phase 1 rekey timer: 73440000 (ms)

107 08/09/2002 13:14:22.870 SEV=4 AUTH/22 RPT=38

User 172.18.124.132 connected

108 08/09/2002 13:14:22.870 SEV=8 AUTHDBG/60 RPT=9  
AUTH\_UnbindServer(511c62c, 0, 0)

109 08/09/2002 13:14:22.870 SEV=9 AUTHDBG/70 RPT=9  
Auth Server db1704 has been unbound from ACB 511c62c, sessions = 0

110 08/09/2002 13:14:22.870 SEV=8 AUTHDBG/10 RPT=7  
AUTH\_Int\_FreeAuthCB(511c62c)

111 08/09/2002 13:14:22.870 SEV=7 AUTH/13 RPT=7  
Authentication session closed: handle = 9

112 08/09/2002 13:14:22.970 SEV=8 IKEDBG/0 RPT=52063 172.18.124.132  
RECEIVED Message (msgid=56fdca09) with payloads :  
HDR + HASH (8) + SA (1) + NONCE (10) + ID (5) + ID (5) + NOTIFY (11) + NONE (0)  
... total length : 180

115 08/09/2002 13:14:22.970 SEV=9 IKEDBG/0 RPT=52064 172.18.124.132  
Group [172.18.124.132]  
processing hash

116 08/09/2002 13:14:22.970 SEV=9 IKEDBG/0 RPT=52065 172.18.124.132  
Group [172.18.124.132]  
processing SA payload

117 08/09/2002 13:14:22.970 SEV=9 IKEDBG/1 RPT=87 172.18.124.132  
Group [172.18.124.132]  
processing nonce payload

118 08/09/2002 13:14:22.970 SEV=9 IKEDBG/1 RPT=88 172.18.124.132  
Group [172.18.124.132]  
Processing ID

119 08/09/2002 13:14:22.970 SEV=5 IKE/35 RPT=4 172.18.124.132  
Group [172.18.124.132]  
**Received remote IP Proxy Subnet data in ID Payload:**  
**Address 14.38.80.0, Mask 255.255.255.0, Protocol 0, Port 0**

122 08/09/2002 13:14:22.970 SEV=9 IKEDBG/1 RPT=89 172.18.124.132  
Group [172.18.124.132]  
Processing ID

123 08/09/2002 13:14:22.970 SEV=5 IKE/34 RPT=6 172.18.124.132  
Group [172.18.124.132]  
**Received local IP Proxy Subnet data in ID Payload:**  
**Address 14.38.200.0, Mask 255.255.255.0, Protocol 0, Port 0**

126 08/09/2002 13:14:22.970 SEV=9 IKEDBG/0 RPT=52066 172.18.124.132  
Group [172.18.124.132]  
Processing Notify payload

127 08/09/2002 13:14:22.970 SEV=8 IKEDBG/0 RPT=52067  
QM IsRekeyed old sa not found by addr

128 08/09/2002 13:14:22.970 SEV=5 IKE/66 RPT=8 172.18.124.132  
Group [172.18.124.132]  
IKE Remote Peer configured for SA: L2L: RTP NAT TUNNEL

129 08/09/2002 13:14:22.970 SEV=9 IKEDBG/0 RPT=52068 172.18.124.132  
Group [172.18.124.132]  
processing IPSEC SA

130 08/09/2002 13:14:22.970 SEV=7 IKEDBG/27 RPT=6 172.18.124.132

Group [172.18.124.132]

IPSec SA Proposal # 1, Transform # 1 acceptable

131 08/09/2002 13:14:22.970 SEV=7 IKEDBG/0 RPT=52069 172.18.124.132

Group [172.18.124.132]

IKE: requesting SPI!

132 08/09/2002 13:14:22.970 SEV=6 IKE/0 RPT=5

Received unexpected event EV\_ACTIVATE\_NEW\_SA in state MM\_ACTIVE

133 08/09/2002 13:14:22.970 SEV=9 IPSECDBG/6 RPT=41

IPSEC key message parse - msgtype 6, len 208, vers 1, pid 00000000, seq 12, err 0, type 2, mode 0, state 32, label 0, pad 0, spi 00000000, encrKeyLen 0, hashKey Len 0, ivlen 0, alg 0, hmacAlg 0, lifetype 0, lifetime1 21, lifetime2 0, dsId 30 0

137 08/09/2002 13:14:22.970 SEV=9 IPSECDBG/1 RPT=155

Processing KEY\_GETSPI msg!

138 08/09/2002 13:14:22.970 SEV=7 IPSECDBG/13 RPT=9

Reserved SPI 840508266

139 08/09/2002 13:14:22.970 SEV=8 IKEDBG/6 RPT=9

IKE got SPI from key engine: SPI = 0x3219236a

140 08/09/2002 13:14:22.970 SEV=9 IKEDBG/0 RPT=52070 172.18.124.132

Group [172.18.124.132]

oakley constructing quick mode

141 08/09/2002 13:14:22.970 SEV=9 IKEDBG/0 RPT=52071 172.18.124.132

Group [172.18.124.132]

constructing blank hash

142 08/09/2002 13:14:22.970 SEV=9 IKEDBG/0 RPT=52072 172.18.124.132

Group [172.18.124.132]

constructing ISA\_SA for ipsec

143 08/09/2002 13:14:22.970 SEV=9 IKEDBG/1 RPT=90 172.18.124.132

Group [172.18.124.132]

constructing ipsec nonce payload

144 08/09/2002 13:14:22.970 SEV=9 IKEDBG/1 RPT=91 172.18.124.132

Group [172.18.124.132]

constructing proxy ID

145 08/09/2002 13:14:22.970 SEV=7 IKEDBG/0 RPT=52073 172.18.124.132

Group [172.18.124.132]

Transmitting Proxy Id:

Remote subnet: 14.38.80.0 Mask 255.255.255.0 Protocol 0 Port 0

Local subnet: 14.38.200.0 mask 255.255.255.0 Protocol 0 Port 0

149 08/09/2002 13:14:22.970 SEV=9 IKEDBG/0 RPT=52074 172.18.124.132

Group [172.18.124.132]

constructing qm hash

150 08/09/2002 13:14:22.970 SEV=8 IKEDBG/0 RPT=52075 172.18.124.132

SENDING Message (msgid=56fdca09) with payloads :

HDR + HASH (8) + SA (1) ... total length : 152

152 08/09/2002 13:14:22.980 SEV=8 IKEDBG/0 RPT=52076 172.18.124.132

RECEIVED Message (msgid=56fdca09) with payloads :

HDR + HASH (8) + NONE (0) ... total length : 48

154 08/09/2002 13:14:22.980 SEV=9 IKEDBG/0 RPT=52077 172.18.124.132  
Group [172.18.124.132]  
processing hash

155 08/09/2002 13:14:22.980 SEV=9 IKEDBG/0 RPT=52078 172.18.124.132  
Group [172.18.124.132]  
loading all IPSEC SAs

156 08/09/2002 13:14:22.980 SEV=9 IKEDBG/1 RPT=92 172.18.124.132  
Group [172.18.124.132]  
Generating Quick Mode Key!

157 08/09/2002 13:14:22.980 SEV=9 IKEDBG/1 RPT=93 172.18.124.132  
Group [172.18.124.132]  
Generating Quick Mode Key!

158 08/09/2002 13:14:22.980 SEV=7 IKEDBG/0 RPT=52079 172.18.124.132  
Group [172.18.124.132]  
Loading subnet:  
Dst: 14.38.200.0 mask: 255.255.255.0  
Src: 14.38.80.0 mask: 255.255.255.0

161 08/09/2002 13:14:22.980 SEV=4 IKE/49 RPT=12 172.18.124.132  
Group [172.18.124.132]  
Security negotiation complete for LAN-to-LAN Group (172.18.124.132)  
Responder, Inbound SPI = 0x3219236a, Outbound SPI = 0x3607c2f4

164 08/09/2002 13:14:22.980 SEV=9 IPSECDBG/6 RPT=42  
IPSEC key message parse - msgtype 1, len 622, vers 1, pid 00000000, seq 0, err 0  
, type 2, mode 1, state 64, label 0, pad 0, spi 3607c2f4, encrKeyLen 24, hashKey  
Len 16, ivlen 8, alg 2, hmacAlg 3, lifetype 0, lifetime1 21, lifetime2 0, dsId 0

167 08/09/2002 13:14:22.980 SEV=9 IPSECDBG/1 RPT=156  
Processing KEY\_ADD msg!

168 08/09/2002 13:14:22.980 SEV=9 IPSECDBG/1 RPT=157  
key\_msghdr2secassoc(): Enter

169 08/09/2002 13:14:22.980 SEV=7 IPSECDBG/1 RPT=158  
No USER filter configured

170 08/09/2002 13:14:22.980 SEV=9 IPSECDBG/1 RPT=159  
KeyProcessAdd: Enter

171 08/09/2002 13:14:22.980 SEV=8 IPSECDBG/1 RPT=160  
KeyProcessAdd: Adding outbound SA

172 08/09/2002 13:14:22.980 SEV=8 IPSECDBG/1 RPT=161  
KeyProcessAdd: src 14.38.200.0 mask 0.0.0.255, dst 14.38.80.0 mask 0.0.0.255

173 08/09/2002 13:14:22.980 SEV=8 IPSECDBG/1 RPT=162  
KeyProcessAdd: FilterIpssecAddIkeSa success

174 08/09/2002 13:14:22.980 SEV=9 IPSECDBG/6 RPT=43  
IPSEC key message parse - msgtype 3, len 335, vers 1, pid 00000000, seq 0, err 0  
, type 2, mode 1, state 32, label 0, pad 0, spi 3219236a, encrKeyLen 24, hashKey  
Len 16, ivlen 8, alg 2, hmacAlg 3, lifetype 0, lifetime1 21, lifetime2 0, dsId 0

177 08/09/2002 13:14:22.980 SEV=9 IPSECDBG/1 RPT=163  
Processing KEY\_UPDATE msg!

178 08/09/2002 13:14:22.980 SEV=9 IPSECDBG/1 RPT=164  
Update inbound SA addresses

```
179 08/09/2002 13:14:22.980 SEV=9 IPSECDBG/1 RPT=165
key_msgghdr2secassoc(): Enter

180 08/09/2002 13:14:22.980 SEV=7 IPSECDBG/1 RPT=166
No USER filter configured

181 08/09/2002 13:14:22.980 SEV=9 IPSECDBG/1 RPT=167
KeyProcessUpdate: Enter

182 08/09/2002 13:14:22.980 SEV=8 IPSECDBG/1 RPT=168
KeyProcessUpdate: success

183 08/09/2002 13:14:22.980 SEV=8 IKEDBG/7 RPT=9
IKE got a KEY_ADD msg for SA: SPI = 0x3607c2f4

184 08/09/2002 13:14:22.980 SEV=8 IKEDBG/0 RPT=52080
pitcher: rcv KEY_UPDATE, spi 0x3219236a

185 08/09/2002 13:14:22.980 SEV=4 IKE/120 RPT=12 172.18.124.132
Group [172.18.124.132]
PHASE 2 COMPLETED (msgid=56fdca09)

186 08/09/2002 13:14:24.690 SEV=7 IPSECDBG/1 RPT=169
IPSec Inbound SA has received data!

187 08/09/2002 13:14:24.690 SEV=8 IKEDBG/0 RPT=52081
pitcher: recv KEY_SA_ACTIVE spi 0x3219236a

188 08/09/2002 13:14:24.690 SEV=8 IKEDBG/0 RPT=52082
KEY_SA_ACTIVE no old rekey centry found with new spi 0x3219236a, mess_id 0x0
```

## **排除故障VPN 3000集中器B配置**

对于信息设置和查看日志，当排除故障连接问题用VPN 3000集中器时，参考[在VPN 3000集中器的故障排除连接问题](#)。在发出 **debug** 命令之前，请参阅[有关 Debug 命令的重要信息](#)。

```
1 08/07/2002 13:27:13.970 SEV=7 IPSECDBG/10 RPT=4
IPSEC ipsec_output() can call key_acquire() because 590 seconds have elapsed since last IKE negotiation began (src 0x0e265065, dst 0x01b99224)

3 08/07/2002 13:27:13.970 SEV=7 IPSECDBG/14 RPT=5
Sending KEY_ACQUIRE to IKE for src 14.38.80.101, dst 14.38.200.3

4 08/07/2002 13:27:13.970 SEV=8 IKEDBG/0 RPT=52300
pitcher: received a key acquire message!

5 08/07/2002 13:27:13.970 SEV=4 IKE/41 RPT=5 172.18.124.131
IKE Initiator: New Phase 1, Intf 2, IKE Peer 172.18.124.131
local Proxy Address 14.38.80.0, remote Proxy Address 14.38.200.0,
SA (L2L: VPN TUNNEL)

8 08/07/2002 13:27:13.970 SEV=9 IKEDBG/0 RPT=52301 172.18.124.131
constructing ISA_SA for isakmp

9 08/07/2002 13:27:13.970 SEV=9 IKEDBG/46 RPT=26 172.18.124.131
constructing Fragmentation VID + extended capabilities payload
```



10 08/07/2002 13:27:13.970 SEV=8 IKEDBG/0 RPT=52302 172.18.124.131  
SENDING Message (msgid=0) with payloads :  
HDR + SA (1) + VENDOR (13) ... total length : 108

12 08/07/2002 13:27:13.970 SEV=8 IKEDBG/0 RPT=52303 172.18.124.131  
RECEIVED Message (msgid=0) with payloads :  
HDR + SA (1) + VENDOR (13) + NONE (0) ... total length : 108

14 08/07/2002 13:27:13.970 SEV=8 IKEDBG/0 RPT=52304 172.18.124.131  
RECEIVED Message (msgid=0) with payloads :  
HDR + SA (1) + VENDOR (13) + NONE (0) ... total length : 108

16 08/07/2002 13:27:13.970 SEV=9 IKEDBG/0 RPT=52305 172.18.124.131  
processing SA payload

17 08/07/2002 13:27:13.970 SEV=7 IKEDBG/0 RPT=52306 172.18.124.131  
Oakley proposal is acceptable

18 08/07/2002 13:27:13.970 SEV=9 IKEDBG/47 RPT=31 172.18.124.131  
processing VID payload

19 08/07/2002 13:27:13.970 SEV=9 IKEDBG/49 RPT=26 172.18.124.131  
Received Fragmentation VID

20 08/07/2002 13:27:13.970 SEV=5 IKEDBG/64 RPT=7 172.18.124.131  
IKE Peer included IKE fragmentation capability flags:  
Main Mode: True  
Aggressive Mode: True

22 08/07/2002 13:27:13.970 SEV=9 IKEDBG/0 RPT=52307 172.18.124.131  
constructing ke payload

23 08/07/2002 13:27:13.970 SEV=9 IKEDBG/1 RPT=70 172.18.124.131  
constructing nonce payload

24 08/07/2002 13:27:13.970 SEV=9 IKEDBG/46 RPT=27 172.18.124.131  
constructing Cisco Unity VID payload

25 08/07/2002 13:27:13.970 SEV=9 IKEDBG/46 RPT=28 172.18.124.131  
constructing xauth V6 VID payload

26 08/07/2002 13:27:13.970 SEV=9 IKEDBG/48 RPT=11 172.18.124.131  
Send IOS VID

27 08/07/2002 13:27:13.970 SEV=9 IKEDBG/38 RPT=11 172.18.124.131  
Constructing VPN 3000 spoofing IOS Vendor ID payload (version: 1.0.0, capabilities: 20000001)

29 08/07/2002 13:27:13.970 SEV=9 IKEDBG/46 RPT=29 172.18.124.131  
constructing VID payload

30 08/07/2002 13:27:13.970 SEV=9 IKEDBG/48 RPT=12 172.18.124.131  
Send Altiga GW VID

31 08/07/2002 13:27:13.970 SEV=8 IKEDBG/0 RPT=52308 172.18.124.131  
SENDING Message (msgid=0) with payloads :  
HDR + KE (4) + NONCE (10) ... total length : 256

33 08/07/2002 13:27:14.010 SEV=8 IKEDBG/0 RPT=52309 172.18.124.131  
RECEIVED Message (msgid=0) with payloads :  
HDR + KE (4) + NONCE (10) + VENDOR (13) + VENDOR (13) + VENDOR (13) + VENDOR (13)  
) + NONE (0) ... total length : 256

36 08/07/2002 13:27:14.010 SEV=8 IKEDBG/0 RPT=52310 172.18.124.131  
RECEIVED Message (msgid=0) with payloads :  
HDR + KE (4) + NONCE (10) + VENDOR (13) + VENDOR (13) + VENDOR (13) + VENDOR (13)  
) + NONE (0) ... total length : 256

39 08/07/2002 13:27:14.010 SEV=9 IKEDBG/0 RPT=52311 172.18.124.131  
processing ke payload

40 08/07/2002 13:27:14.010 SEV=9 IKEDBG/0 RPT=52312 172.18.124.131  
processing ISA\_KE

41 08/07/2002 13:27:14.010 SEV=9 IKEDBG/1 RPT=71 172.18.124.131  
processing nonce payload

42 08/07/2002 13:27:14.010 SEV=9 IKEDBG/47 RPT=32 172.18.124.131  
processing VID payload

43 08/07/2002 13:27:14.010 SEV=9 IKEDBG/49 RPT=27 172.18.124.131  
Received Cisco Unity client VID

44 08/07/2002 13:27:14.010 SEV=9 IKEDBG/47 RPT=33 172.18.124.131  
processing VID payload

45 08/07/2002 13:27:14.010 SEV=9 IKEDBG/49 RPT=28 172.18.124.131  
Received xauth V6 VID

46 08/07/2002 13:27:14.010 SEV=9 IKEDBG/47 RPT=34 172.18.124.131  
processing VID payload

47 08/07/2002 13:27:14.010 SEV=9 IKEDBG/38 RPT=12 172.18.124.131  
Processing VPN 3000 spoofing IOS Vendor ID payload (version: 1.0.0, capabilities  
: 20000001)

49 08/07/2002 13:27:14.010 SEV=9 IKEDBG/47 RPT=35 172.18.124.131  
processing VID payload

50 08/07/2002 13:27:14.010 SEV=9 IKEDBG/49 RPT=29 172.18.124.131  
Received Altiga GW VID

51 08/07/2002 13:27:14.040 SEV=9 IKEDBG/0 RPT=52313 172.18.124.131  
Generating keys for Initiator...

52 08/07/2002 13:27:14.040 SEV=9 IKEDBG/1 RPT=72 172.18.124.131  
Group [172.18.124.131]  
constructing ID

53 08/07/2002 13:27:14.040 SEV=9 IKEDBG/0 RPT=52314  
Group [172.18.124.131]  
construct hash payload

54 08/07/2002 13:27:14.040 SEV=9 IKEDBG/0 RPT=52315 172.18.124.131  
Group [172.18.124.131]  
computing hash

55 08/07/2002 13:27:14.040 SEV=9 IKEDBG/34 RPT=11 172.18.124.131

Constructing IOS keep alive payload: proposal=32767/32767 sec.

56 08/07/2002 13:27:14.040 SEV=9 IKEDBG/46 RPT=30 172.18.124.131  
Group [172.18.124.131]  
constructing dpd vid payload

57 08/07/2002 13:27:14.040 SEV=8 IKEDBG/0 RPT=52316 172.18.124.131  
SENDING Message (msgid=0) with payloads :  
HDR + ID (5) + HASH (8) ... total length : 92

59 08/07/2002 13:27:14.140 SEV=8 IKEDBG/0 RPT=52317 172.18.124.131  
RECEIVED Message (msgid=0) with payloads :  
HDR + ID (5) + HASH (8) + IOS KEEPALIVE (14) + VENDOR (13) + NONE (0) ... total  
length : 92

62 08/07/2002 13:27:14.140 SEV=9 IKEDBG/1 RPT=73 172.18.124.131  
Group [172.18.124.131]  
Processing ID

63 08/07/2002 13:27:14.140 SEV=9 IKEDBG/0 RPT=52318 172.18.124.131  
Group [172.18.124.131]  
processing hash

64 08/07/2002 13:27:14.140 SEV=9 IKEDBG/0 RPT=52319 172.18.124.131  
Group [172.18.124.131]  
computing hash

65 08/07/2002 13:27:14.140 SEV=9 IKEDBG/34 RPT=12 172.18.124.131  
Processing IOS keep alive payload: proposal=32767/32767 sec.

66 08/07/2002 13:27:14.140 SEV=9 IKEDBG/47 RPT=36 172.18.124.131  
Group [172.18.124.131]  
processing VID payload

67 08/07/2002 13:27:14.140 SEV=9 IKEDBG/49 RPT=30 172.18.124.131  
Group [172.18.124.131]  
Received DPD VID

68 08/07/2002 13:27:14.140 SEV=9 IKEDBG/23 RPT=6 172.18.124.131  
Group [172.18.124.131]  
Starting group lookup for peer 172.18.124.131

69 08/07/2002 13:27:14.140 SEV=8 AUTHDBG/1 RPT=2  
AUTH\_Open() returns 6

70 08/07/2002 13:27:14.140 SEV=7 AUTH/12 RPT=2  
Authentication session opened: handle = 6

71 08/07/2002 13:27:14.150 SEV=8 AUTHDBG/3 RPT=2  
AUTH\_PutAttrTable(6, 8c6274)

72 08/07/2002 13:27:14.150 SEV=8 AUTHDBG/6 RPT=2  
AUTH\_GroupAuthenticate(6, 50097dc, 599818)

73 08/07/2002 13:27:14.150 SEV=8 AUTHDBG/59 RPT=2  
AUTH\_BindServer(9a05c60, 0, 0)

74 08/07/2002 13:27:14.150 SEV=9 AUTHDBG/69 RPT=2  
Auth Server 15dd704 has been bound to ACB 9a05c60, sessions = 1

75 08/07/2002 13:27:14.150 SEV=8 AUTHDBG/65 RPT=2  
AUTH\_CreateTimer(9a05c60, 0, 0)

76 08/07/2002 13:27:14.150 SEV=9 AUTHDBG/72 RPT=2

Reply timer created: handle = 4F0019

77 08/07/2002 13:27:14.150 SEV=8 AUTHDBG/179 RPT=2  
AUTH\_SyncToServer(9a05c60, 0, 0)

78 08/07/2002 13:27:14.150 SEV=8 AUTHDBG/180 RPT=2  
AUTH\_SendLockReq(9a05c60, 0, 0)

79 08/07/2002 13:27:14.150 SEV=8 AUTHDBG/61 RPT=2  
AUTH\_BuildMsg(9a05c60, 0, 0)

80 08/07/2002 13:27:14.150 SEV=8 AUTHDBG/64 RPT=2  
AUTH\_StartTimer(9a05c60, 0, 0)

81 08/07/2002 13:27:14.150 SEV=9 AUTHDBG/73 RPT=2  
Reply timer started: handle = 4F0019, timestamp = 17231134, timeout = 30000

82 08/07/2002 13:27:14.150 SEV=8 AUTHDBG/62 RPT=2  
AUTH\_SndRequest(9a05c60, 0, 0)

83 08/07/2002 13:27:14.150 SEV=8 AUTHDBG/50 RPT=3  
IntDB\_Decode(62ea4f8, 149)

84 08/07/2002 13:27:14.150 SEV=8 AUTHDBG/47 RPT=3  
IntDB\_Xmt(9a05c60)

85 08/07/2002 13:27:14.150 SEV=9 AUTHDBG/71 RPT=2  
xmit\_cnt = 1

86 08/07/2002 13:27:14.150 SEV=8 AUTHDBG/47 RPT=4  
IntDB\_Xmt(9a05c60)

87 08/07/2002 13:27:14.250 SEV=8 AUTHDBG/49 RPT=2  
IntDB\_Match(9a05c60, 9a09658)

88 08/07/2002 13:27:14.250 SEV=8 AUTHDBG/63 RPT=2  
AUTH\_RcvReply(9a05c60, 0, 0)

89 08/07/2002 13:27:14.250 SEV=8 AUTHDBG/50 RPT=4  
IntDB\_Decode(9a09658, 636)

90 08/07/2002 13:27:14.250 SEV=8 AUTHDBG/48 RPT=2  
IntDB\_Rcv(9a05c60)

91 08/07/2002 13:27:14.250 SEV=8 AUTHDBG/66 RPT=2  
AUTH\_DeleteTimer(9a05c60, 0, 0)

92 08/07/2002 13:27:14.250 SEV=9 AUTHDBG/74 RPT=2  
Reply timer stopped: handle = 4F0019, timestamp = 17231144

93 08/07/2002 13:27:14.250 SEV=8 AUTHDBG/58 RPT=2  
AUTH\_Callback(9a05c60, 0, 0)

94 08/07/2002 13:27:14.250 SEV=6 AUTH/41 RPT=2 172.18.124.131  
Authentication successful: handle = 6, server = Internal, group = 172.18.124.131

95 08/07/2002 13:27:14.250 SEV=7 IKEDBG/0 RPT=52320 172.18.124.131  
Group [172.18.124.131]  
Found Phase 1 Group (172.18.124.131)

96 08/07/2002 13:27:14.250 SEV=8 AUTHDBG/4 RPT=2  
AUTH\_GetAttrTable(6, 8c6520)

97 08/07/2002 13:27:14.250 SEV=7 IKEDBG/14 RPT=6 172.18.124.131

Group [172.18.124.131]  
Authentication configured for Internal

98 08/07/2002 13:27:14.250 SEV=8 AUTHDBG/2 RPT=2  
AUTH\_Close(6)

99 08/07/2002 13:27:14.250 SEV=9 IKEDBG/0 RPT=52321 172.18.124.131  
Group [172.18.124.131]  
Oakley begin quick mode

**100 08/07/2002 13:27:14.250 SEV=4 IKE/119 RPT=7 172.18.124.131**  
**Group [172.18.124.131]**  
**PHASE 1 COMPLETED**

101 08/07/2002 13:27:14.250 SEV=6 IKE/121 RPT=6 172.18.124.131  
Keep-alive type for this connection: DPD

102 08/07/2002 13:27:14.250 SEV=7 IKEDBG/0 RPT=52322 172.18.124.131  
Group [172.18.124.131]  
Starting phase 1 rekey timer: 82080000 (ms)

103 08/07/2002 13:27:14.250 SEV=4 AUTH/22 RPT=27  
User 172.18.124.131 connected

104 08/07/2002 13:27:14.250 SEV=9 IPSECDBG/6 RPT=36  
IPSEC key message parse - msgtype 6, len 208, vers 1, pid 00000000, seq 9, err 0  
, type 2, mode 0, state 32, label 0, pad 0, spi 00000000, encrKeyLen 0, hashKeyLen 0, ivlen 0, alg 0, hmacAlg 0, lifetype 0, lifetime1 21, lifetime2 0, dsId 300

107 08/07/2002 13:27:14.250 SEV=9 IPSECDBG/1 RPT=135  
Processing KEY\_GETSPI msg!

108 08/07/2002 13:27:14.250 SEV=7 IPSECDBG/13 RPT=8  
Reserved SPI 651287217

109 08/07/2002 13:27:14.250 SEV=8 IKEDBG/6 RPT=8  
IKE got SPI from key engine: SPI = 0x26d1dab1

110 08/07/2002 13:27:14.250 SEV=9 IKEDBG/0 RPT=52323 172.18.124.131  
Group [172.18.124.131]  
oakley constructing quick mode

111 08/07/2002 13:27:14.250 SEV=9 IKEDBG/0 RPT=52324 172.18.124.131  
Group [172.18.124.131]  
constructing blank hash

112 08/07/2002 13:27:14.250 SEV=9 IKEDBG/0 RPT=52325 172.18.124.131  
Group [172.18.124.131]  
constructing ISA\_SA for ipsec

113 08/07/2002 13:27:14.250 SEV=9 IKEDBG/1 RPT=74 172.18.124.131  
Group [172.18.124.131]  
constructing ipsec nonce payload

114 08/07/2002 13:27:14.250 SEV=9 IKEDBG/1 RPT=75 172.18.124.131  
Group [172.18.124.131]  
constructing proxy ID

**115 08/07/2002 13:27:14.250 SEV=7 IKEDBG/0 RPT=52326 172.18.124.131**  
**Group [172.18.124.131]**  
**Transmitting Proxy Id:**  
**Local subnet: 14.38.80.0 mask 255.255.255.0 Protocol 0 Port 0**  
**Remote subnet: 14.38.200.0 Mask 255.255.255.0 Protocol 0 Port 0**

119 08/07/2002 13:27:14.250 SEV=9 IKEDBG/0 RPT=52327 172.18.124.131  
Group [172.18.124.131]  
constructing qm hash

120 08/07/2002 13:27:14.250 SEV=8 IKEDBG/0 RPT=52328 172.18.124.131  
SENDING Message (msgid=201d0d40) with payloads :  
HDR + HASH (8) + SA (1) ... total length : 180

122 08/07/2002 13:27:14.250 SEV=8 AUTHDBG/60 RPT=2  
AUTH\_UnbindServer(9a05c60, 0, 0)

123 08/07/2002 13:27:14.250 SEV=9 AUTHDBG/70 RPT=2  
Auth Server 15dd704 has been unbound from ACB 9a05c60, sessions = 0

124 08/07/2002 13:27:14.250 SEV=8 AUTHDBG/10 RPT=2  
AUTH\_Int\_FreeAuthCB(9a05c60)

125 08/07/2002 13:27:14.250 SEV=7 AUTH/13 RPT=2  
Authentication session closed: handle = 6

126 08/07/2002 13:27:14.250 SEV=8 IKEDBG/0 RPT=52329 172.18.124.131  
RECEIVED Message (msgid=201d0d40) with payloads :  
HDR + HASH (8) + SA (1) + NONCE (10) + ID (5) + ID (5) + NONE (0) ... total length : 152

129 08/07/2002 13:27:14.250 SEV=9 IKEDBG/0 RPT=52330 172.18.124.131  
Group [172.18.124.131]  
processing hash

130 08/07/2002 13:27:14.250 SEV=9 IKEDBG/0 RPT=52331 172.18.124.131  
Group [172.18.124.131]  
processing SA payload

131 08/07/2002 13:27:14.250 SEV=9 IKEDBG/1 RPT=76 172.18.124.131  
Group [172.18.124.131]  
processing nonce payload

132 08/07/2002 13:27:14.250 SEV=9 IKEDBG/1 RPT=77 172.18.124.131  
Group [172.18.124.131]  
Processing ID

133 08/07/2002 13:27:14.250 SEV=9 IKEDBG/1 RPT=78 172.18.124.131  
Group [172.18.124.131]  
Processing ID

134 08/07/2002 13:27:14.250 SEV=9 IKEDBG/0 RPT=52332 172.18.124.131  
Group [172.18.124.131]  
loading all IPSEC SAs

135 08/07/2002 13:27:14.250 SEV=9 IKEDBG/1 RPT=79 172.18.124.131  
Group [172.18.124.131]  
Generating Quick Mode Key!

136 08/07/2002 13:27:14.260 SEV=9 IKEDBG/1 RPT=80 172.18.124.131  
Group [172.18.124.131]  
Generating Quick Mode Key!

137 08/07/2002 13:27:14.260 SEV=7 IKEDBG/0 RPT=52333 172.18.124.131  
Group [172.18.124.131]  
Loading subnet:  
  Dst: 14.38.200.0 mask: 255.255.255.0  
  Src: 14.38.80.0 mask: 255.255.255.0

140 08/07/2002 13:27:14.260 SEV=4 IKE/49 RPT=9 172.18.124.131

Group [172.18.124.131]  
Security negotiation complete for LAN-to-LAN Group (172.18.124.131)  
Initiator, Inbound SPI = 0x26d1dab1, Outbound SPI = 0x2f285111

143 08/07/2002 13:27:14.260 SEV=9 IKEDBG/0 RPT=52334 172.18.124.131  
Group [172.18.124.131]  
oakley constructing final quick mode

144 08/07/2002 13:27:14.260 SEV=8 IKEDBG/0 RPT=52335 172.18.124.131  
SENDING Message (msgid=201d0d40) with payloads :  
HDR + HASH (8) + NONE (0) ... total length : 72

146 08/07/2002 13:27:14.260 SEV=9 IPSECDBG/6 RPT=37  
IPSEC key message parse - msgtype 1, len 622, vers 1, pid 00000000, seq 0, err 0  
, type 2, mode 1, state 64, label 0, pad 0, spi 2f285111, encrKeyLen 24, hashKey  
Len 16, ivlen 8, alg 2, hmacAlg 3, lifetype 0, lifetime1 21, lifetime2 0, dsId 0

149 08/07/2002 13:27:14.260 SEV=9 IPSECDBG/1 RPT=136  
Processing KEY\_ADD msg!

150 08/07/2002 13:27:14.260 SEV=9 IPSECDBG/1 RPT=137  
key\_msghdr2secassoc(): Enter

151 08/07/2002 13:27:14.260 SEV=7 IPSECDBG/1 RPT=138  
No USER filter configured

152 08/07/2002 13:27:14.260 SEV=9 IPSECDBG/1 RPT=139  
KeyProcessAdd: Enter

153 08/07/2002 13:27:14.260 SEV=8 IPSECDBG/1 RPT=140  
KeyProcessAdd: Adding outbound SA

154 08/07/2002 13:27:14.260 SEV=8 IPSECDBG/1 RPT=141  
KeyProcessAdd: src 14.38.80.0 mask 0.0.0.255, dst 14.38.200.0 mask 0.0.0.255

155 08/07/2002 13:27:14.260 SEV=8 IPSECDBG/1 RPT=142  
KeyProcessAdd: FilterIpssecAddIkeSa success

156 08/07/2002 13:27:14.260 SEV=9 IPSECDBG/6 RPT=38  
IPSEC key message parse - msgtype 3, len 335, vers 1, pid 00000000, seq 0, err 0  
, type 2, mode 1, state 32, label 0, pad 0, spi 26d1dab1, encrKeyLen 24, hashKey  
Len 16, ivlen 8, alg 2, hmacAlg 3, lifetype 0, lifetime1 21, lifetime2 0, dsId 0

159 08/07/2002 13:27:14.260 SEV=9 IPSECDBG/1 RPT=143  
Processing KEY\_UPDATE msg!

160 08/07/2002 13:27:14.260 SEV=9 IPSECDBG/1 RPT=144  
Update inbound SA addresses

161 08/07/2002 13:27:14.260 SEV=9 IPSECDBG/1 RPT=145  
key\_msghdr2secassoc(): Enter

162 08/07/2002 13:27:14.260 SEV=7 IPSECDBG/1 RPT=146  
No USER filter configured

163 08/07/2002 13:27:14.260 SEV=9 IPSECDBG/1 RPT=147  
KeyProcessUpdate: Enter

164 08/07/2002 13:27:14.260 SEV=8 IPSECDBG/1 RPT=148  
KeyProcessUpdate: success

165 08/07/2002 13:27:14.260 SEV=8 IKEDBG/7 RPT=8  
IKE got a KEY\_ADD msg for SA: SPI = 0x2f285111



166 08/07/2002 13:27:14.260 SEV=8 IKEDBG/0 RPT=52336  
pitcher: rcv KEY\_UPDATE, spi 0x26d1dab1

167 08/07/2002 13:27:14.260 SEV=4 IKE/120 RPT=9 172.18.124.131  
Group [172.18.124.131]  
PHASE 2 COMPLETED (msgid=201d0d40)

168 08/07/2002 13:27:15.970 SEV=7 IPSECDBG/1 RPT=149  
IPSec Inbound SA has received data!

169 08/07/2002 13:27:15.970 SEV=8 IKEDBG/0 RPT=52337  
pitcher: rcv KEY\_SA\_ACTIVE spi 0x26d1dab1

170 08/07/2002 13:27:15.970 SEV=8 IKEDBG/0 RPT=52338  
KEY\_SA\_ACTIVE no old rekey centry found with new spi 0x26d1dab1, mess\_id 0x0

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