Cisco VPN Client to VPN 3000 Concentrator with IPSec SDI Authentication (Server Version 3.3)

Document ID: 13836

Contents

Introduction

The Cisco VPN 3000 Concentrator can be configured to authenticate Cisco VPN Clients through a Security Dynamics International (SDI) server. The VPN 3000 Concentrator acts as an SDI client, communicating with the SDI server on User Datagram Protocol (UDP) port 5500. The following document shows how to ensure that the SDI server, VPN 3000 Concentrator, and Cisco VPN Client are working properly, and then how to combine the components. If your VPN 3000 Concentrator has not yet been configured, use the steps from Install and Configure VPN 3000 Concentrator Without SDI using the command line interface (CLI) for the initial installation and configuration. If your VPN 3000 Concentrator has previously been configured, follow the steps for Modify Existing Configuration (Without SDI).

Prerequisites

Requirements

There are no specific prerequisites for this document.

Components Used

This configuration was developed and tested using the software and hardware versions below.

- SDI server 3.3 (UNIX and NT)
- VPN 3000 Concentrator (2.5.2)
- VPN Client 2.5.2.A

The information presented in this document was created from devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If you are working in a live network, ensure that you understand the potential impact of any command before using it.

Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

Background Information

This document applies to both the Cisco VPN 3000 Client (2.5.x) or the Cisco VPN Client (3.x). With the release of 3.0 and later, you can now configure individual SDI servers for individual groups as opposed to one SDI server defined globally and used by all groups. Those groups that do not have individual SDI servers configured will use the SDI server defined globally.

There are three types of new personal identification number (PIN) modes in SDI. The VPN 3000 Concentrator supports the first two options as shown below.

- User picks new PIN.
- Server picks new PIN and informs users.
- Server picks new PIN and informs users; users can change PIN.

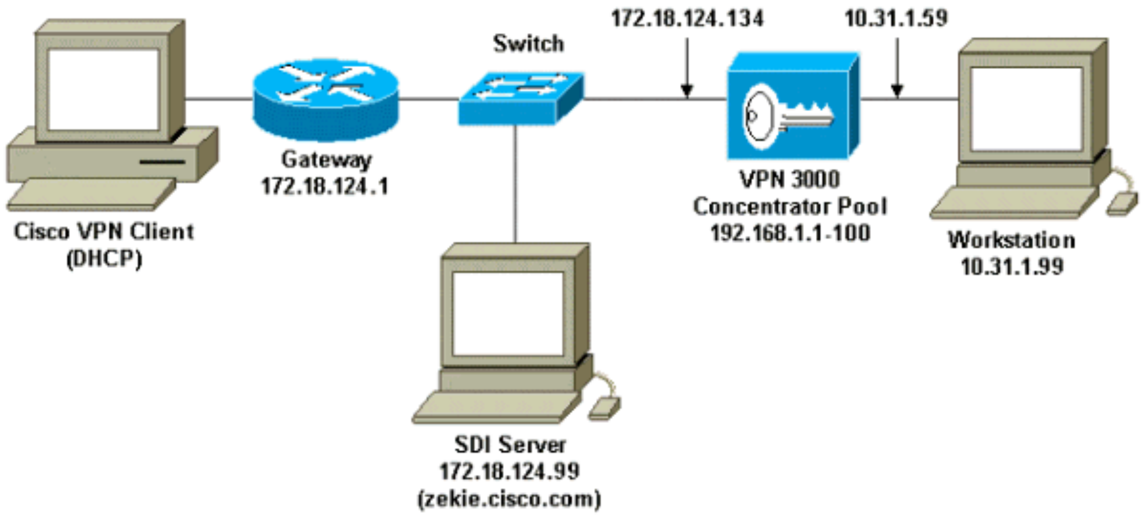
Configure

In this section, you are presented with the information to configure the features described in this document.

Note: To find additional information on the commands used in this document, use the Command Lookup Tool (registered customers only) .

Network Diagram

This document uses the network setup shown in the diagram below.



Configurations

Install and Configure VPN 3000 Concentrator Without SDI

We configured the VPN 3000 Concentrator to locally authenticate a user in a group; by doing this before adding SDI, we could determine that IPSec between the Cisco VPN Client and VPN 3000 Concentrator is working. We cleared the VPN 3000 Concentrator configuration on the console port by going to **Administration > System Reboot > Schedule reboot > Reboot with Factory/Default Configuration**.

After rebooting, the following initial configuration was done:

VPN 3000 Concentrator Concentrator Configuration

```
Login: admin
Password:

                Welcome to
               Cisco Systems
       VPN 3000 Concentrator Series
          Command Line Interface
Copyright (C) 1998-2000 Cisco Systems, Inc.

 -- : Set the time on your device. The correct time is very important,
 -- : so that logging and accounting entries are accurate.

 -- : Enter the system time in the following format:
 -- :       HH:MM:SS.  Example  21:30:00  for 9:30 PM

> Time

Quick -> [ 13:02:39 ]

 -- : Enter the date in the following format.
 -- : MM/DD/YYYY  Example 06/12/1999  for June 12th 1999.

> Date

Quick -> [ 10/09/2000 ]

 -- : Set the time zone on your device. The correct time zone is very
 -- : important so that logging and accounting entries are accurate.

 -- : Enter the time zone using the hour offset from GMT:
 -- : -12 : Kwajalein  -11 : Samoa    -10 : Hawaii        -9 : Alaska
 -- :  -8 : PST         -7 : MST       -6 : CST            -5 : EST
 -- :  -4 : Atlantic    -3 : Brasilia  -2 : Mid-Atlantic  -1 : Azores
 -- :   0 : GMT         +1 : Paris     +2 : Cairo         +3 : Kuwait
 -- :  +4 : Abu Dhabi   +5 : Karachi   +6 : Almaty        +7 : Bangkok
 -- :  +8 : Singapore   +9 : Tokyo    +10 : Sydney       +11 : Solomon Is.
 -- : +12 : Marshall Is.

> Time Zone

Quick -> [ -5 ] -5

1) Enable DST Support
2) Disable DST Support

Quick -> [ 1 ]

This table shows current IP addresses.

    Interface                  IP Address/Subnet Mask          MAC Address
-------------------------------------------------------------------------------
| Ethernet 1 - Private  |         0.0.0.0/0.0.0.0         |
| Ethernet 2 - Public   |         0.0.0.0/0.0.0.0         |
| Ethernet 3 - External |         0.0.0.0/0.0.0.0         |
-------------------------------------------------------------------------------

** An address is required for the private interface. **

> Enter IP Address

Quick Ethernet 1 -> [ 0.0.0.0 ] 10.31.1.59

Waiting for Network Initialization...

> Enter Subnet Mask

Quick Ethernet 1 -> [ 255.0.0.0 ] 255.255.255.0

1) Ethernet Speed 10 Mbps
2) Ethernet Speed 100 Mbps
3) Ethernet Speed 10/100 Mbps Auto Detect

Quick Ethernet 1 -> [ 3 ]

1) Enter Duplex - Half/Full/Auto
2) Enter Duplex - Full Duplex
3) Enter Duplex - Half Duplex

Quick Ethernet 1 -> [ 1 ]

1) Modify Ethernet 1 IP Address (Private)
2) Modify Ethernet 2 IP Address (Public)
3) Modify Ethernet 3 IP Address (External)
4) Configure Expansion Cards
5) Save changes to Config file
6) Continue
7) Exit

Quick -> 2

This table shows current IP addresses.

    Interface                  IP Address/Subnet Mask           MAC Address
-------------------------------------------------------------------------------
| Ethernet 1 - Private  |      10.31.1.59/255.255.255.0   |  00.90.A4.00.1C.B4
| Ethernet 2 - Public   |         0.0.0.0/0.0.0.0         |
| Ethernet 3 - External |         0.0.0.0/0.0.0.0         |
-------------------------------------------------------------------------------

> Enter IP Address

Quick Ethernet 2 -> [ 0.0.0.0 ] 172.18.124.134

> Enter Subnet Mask

Quick Ethernet 2 -> [ 255.255.0.0 ] 255.255.255.0

1) Ethernet Speed 10 Mbps
2) Ethernet Speed 100 Mbps
3) Ethernet Speed 10/100 Mbps Auto Detect

Quick Ethernet 2 -> [ 3 ]

1) Enter Duplex - Half/Full/Auto
2) Enter Duplex - Full Duplex
3) Enter Duplex - Half Duplex

Quick Ethernet 2 -> [ 1 ]
```

```
1) Modify Ethernet 1 IP Address (Private)
2) Modify Ethernet 2 IP Address (Public)
3) Modify Ethernet 3 IP Address (External)
4) Configure Expansion Cards
5) Save changes to Config file
6) Continue
7) Exit

Quick -> 6

 -- : Assign a system name to this device.

> System Name

Quick -> vpn3000

 -- : Specify a local DNS server, which lets you enter hostnames
 -- : rather than IP addresses while configuring.

> DNS Server

Quick -> [ 0.0.0.0 ]

 -- : Enter your Internet domain name; e.g., yourcompany.com

> Domain

Quick ->

> Default Gateway

Quick -> 172.18.124.1

-- : Configure protocols and encryption options.
-- : This table shows current protocol settings

         PPTP         |        L2TP         |
---------------------------------------------
|       Enabled       |       Enabled       |
|  No Encryption Req  |  No Encryption Req  |
---------------------------------------------

1) Enable  PPTP
2) Disable PPTP

Quick -> [ 1 ]

1) PPTP Encryption Required
2) No Encryption Required

Quick -> [ 2 ]

1) Enable  L2TP
2) Disable L2TP

Quick -> [ 1 ]
1) L2TP Encryption Required
2) No Encryption Required

Quick -> [ 2 ]

1) Enable  IPSec
2) Disable IPSec

Quick -> [ 1 ]
```

```
-- : Configure address assignment for PPTP, L2TP and IPSec.

1) Enable Client Specified Address Assignment
2) Disable Client Specified Address Assignment

Quick -> [ 2 ]

1) Enable Per User Address Assignment
2) Disable Per User Address Assignment

Quick -> [ 2 ]

1) Enable DHCP Address Assignment
2) Disable DHCP Address Assignment

Quick -> [ 2 ]

1) Enable Configured Pool Address Assignment
2) Disable Configured Pool Address Assignment

Quick -> [ 2 ] 1

> Configured Pool Range Start Address

Quick -> 192.168.1.1

> Configured Pool Range End Address

Quick -> [ 0.0.0.0 ] 192.168.1.100

-- : Specify how to authenticate users

1) Internal Authentication Server
2) RADIUS Authentication Server
3) NT Domain Authentication Server
4) SDI Authentication Server
5) Continue

Quick -> [ 1 ] 1

                                   Current Users
-------------------------------------------------------------------------------
                                     No Users
-------------------------------------------------------------------------------

1) Add a User
2) Delete a User
3) Continue

Quick -> 1

> User Name

Quick -> 37297304

> Password

Quick -> *********
Verify -> *********

                                   Current Users
-------------------------------------------------------------------------------
| 1. 37297304                           |                                       |
-------------------------------------------------------------------------------
```

```
1) Add a User
2) Delete a User
3) Continue

Quick -> 3

> IPSec Group Name

Quick -> vpn3000

> IPSec Group Password

Quick -> ********
Verify -> ********

-- : We strongly recommend that you change the password for user admin.

> Reset Admin Password

Quick -> [ ***** ]
Verify ->

1) Goto Main Configuration Menu
2) Save changes to Config file
3) Exit

Quick -> 2

1) Goto Main Configuration Menu
2) Save changes to Config file
3) Exit

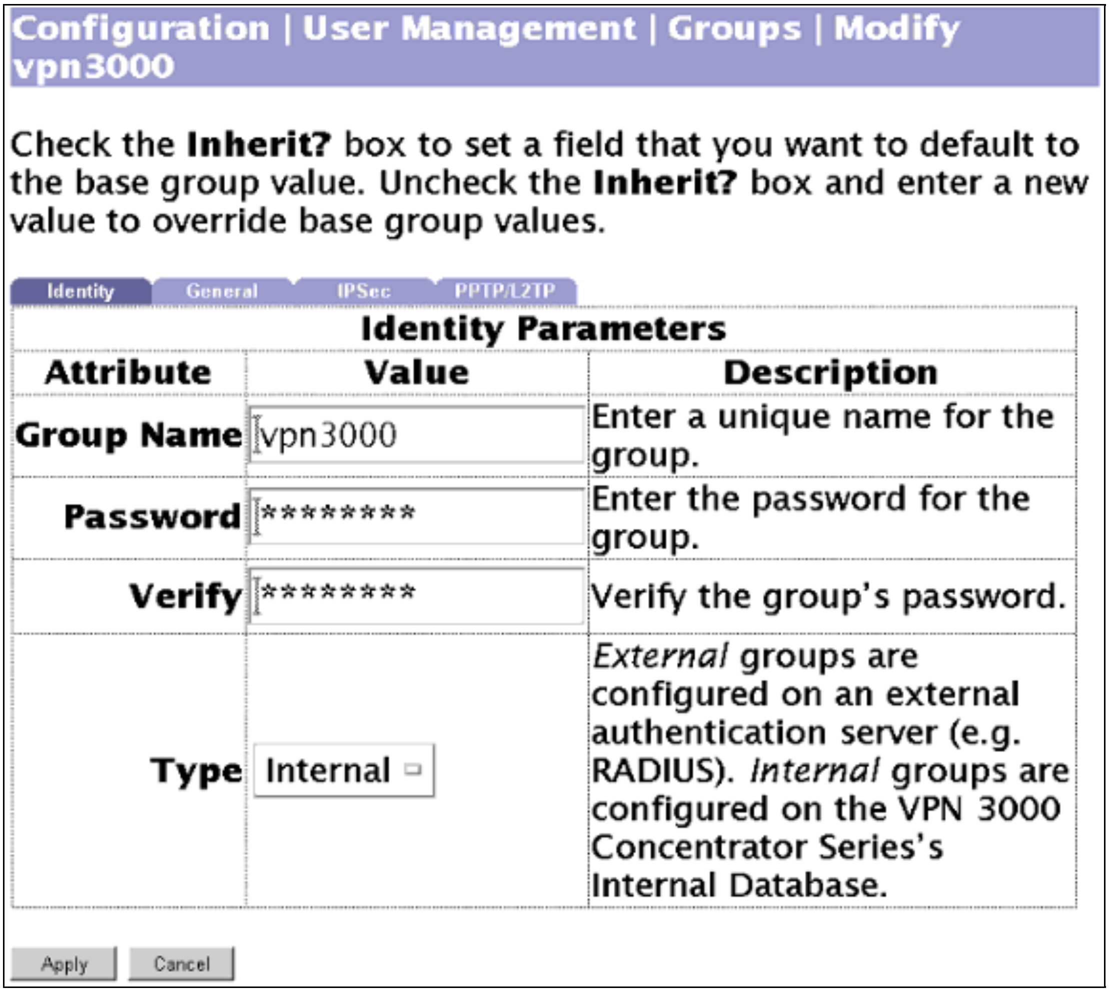
Quick -> 3

Done
```

Modify Existing Configuration (Without SDI)

If the VPN 3000 Concentrator has previously been configured, the following screens are used to verify group, user, and IPSec/IKE settings:

1. Use this screen to add a group with local authentication:



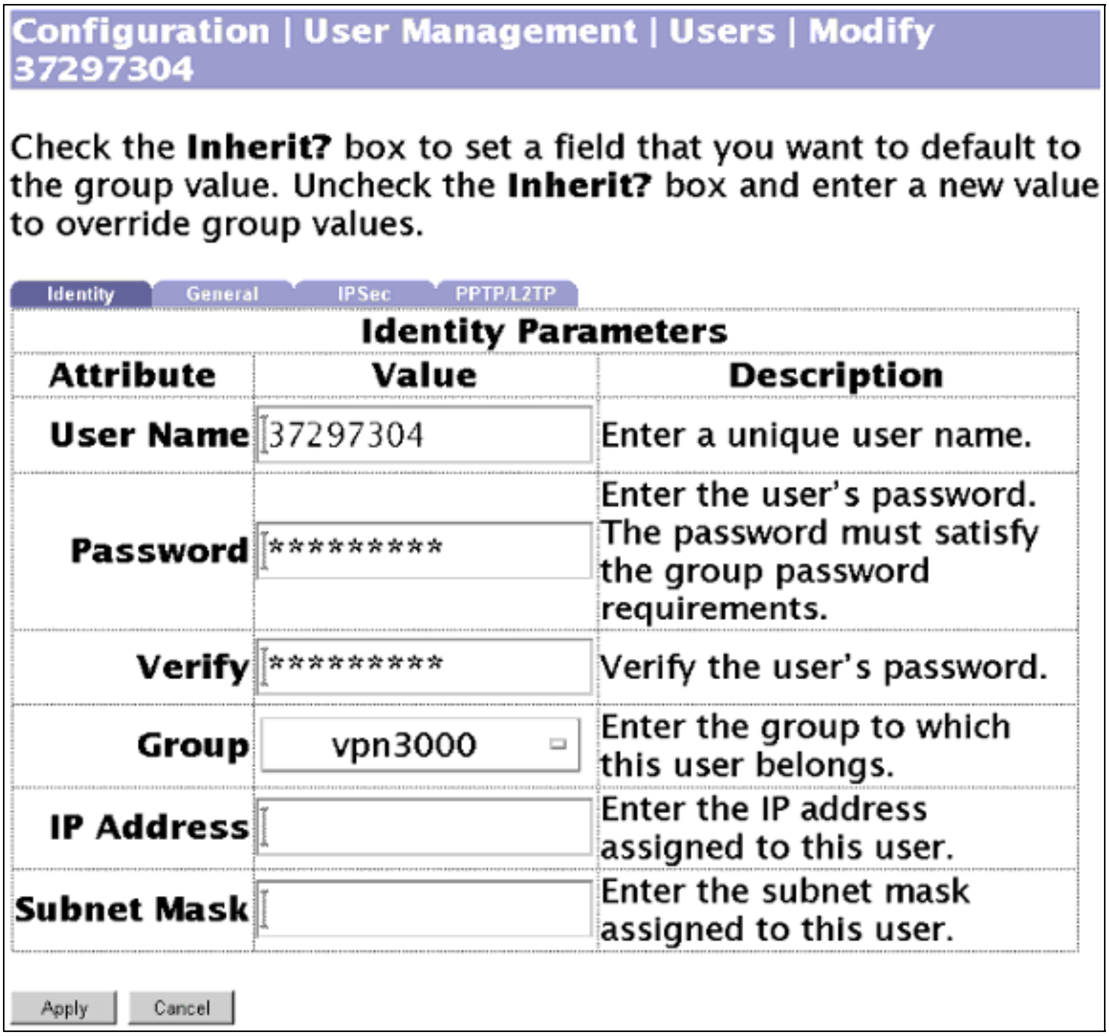
Configuration | User Management | Groups | Modify vpn3000

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

Identity Parameters

Attribute	Value	Description
Group Name	vpn3000	Enter a unique name for the group.
Password	********	Enter the password for the group.
Verify	********	Verify the group's password.
Type	Internal	*External* groups are configured on an external authentication server (e.g. RADIUS). *Internal* groups are configured on the VPN 3000 Concentrator Series's Internal Database.

2. Use this screen to add a user to the group with local authentication:

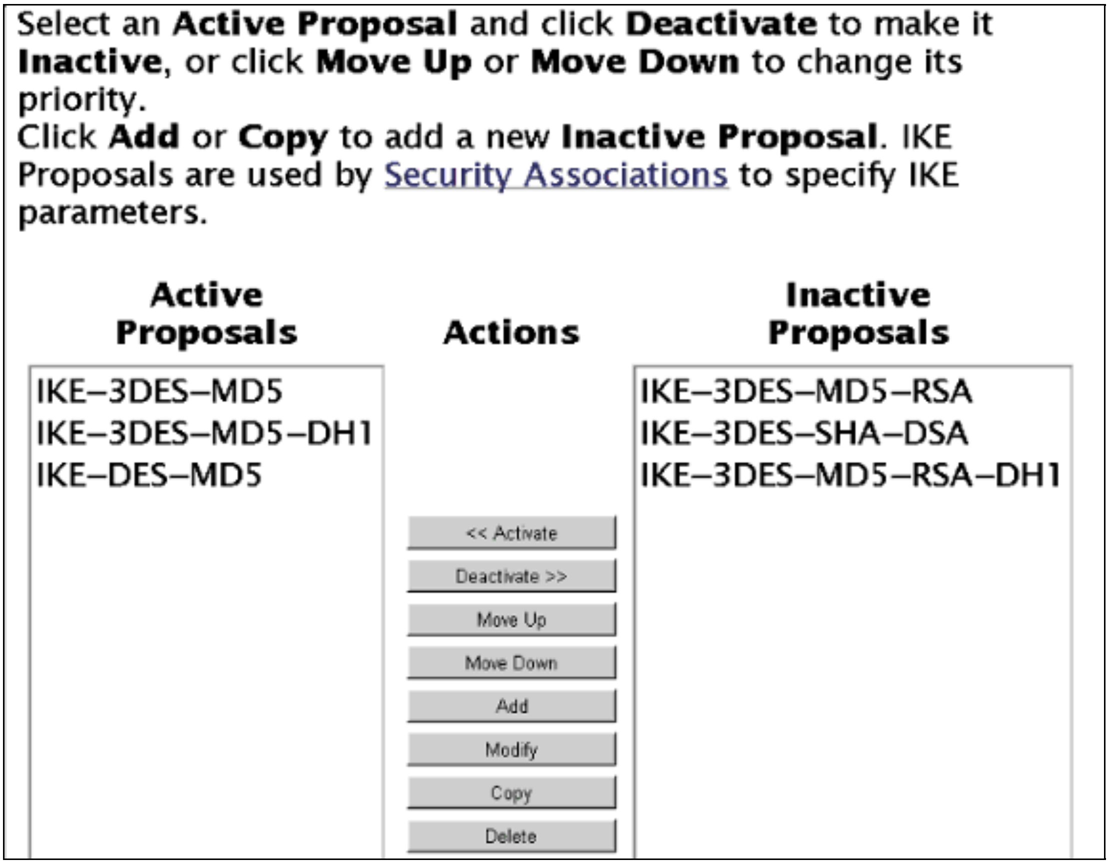


Configuration | User Management | Users | Modify 37297304

Check the **Inherit?** box to set a field that you want to default to the group value. Uncheck the **Inherit?** box and enter a new value to override group values.

Identity Parameters		
Attribute	**Value**	**Description**
User Name	37297304	Enter a unique user name.
Password	*********	Enter the user's password. The password must satisfy the group password requirements.
Verify	*********	Verify the user's password.
Group	vpn3000	Enter the group to which this user belongs.
IP Address		Enter the IP address assigned to this user.
Subnet Mask		Enter the subnet mask assigned to this user.

3. Use the IPSec > IKE proposal screen to add IKE settings (the settings shown are the system defaults):



Select an **Active Proposal** and click **Deactivate** to make it **Inactive**, or click **Move Up** or **Move Down** to change its priority.
Click **Add** or **Copy** to add a new **Inactive Proposal**. IKE Proposals are used by Security Associations to specify IKE parameters.

Active Proposals	Actions	Inactive Proposals
IKE-3DES-MD5 IKE-3DES-MD5-DH1 IKE-DES-MD5		IKE-3DES-MD5-RSA IKE-3DES-SHA-DSA IKE-3DES-MD5-RSA-DH1

Test Cisco VPN Client and VPN 3000 Concentrator Without SDI

After modifying the existing configuration on the VPN 3000 Concentrator, we install the Cisco VPN Client and configured a new connection to terminate at 172.18.124.134 (the public interface of concentrator). Our group access information was "vpn3000" (the name of the group) and the group password was the password for the group. When we clicked **Connect**, the username was "37297304" (name of user) and the user password was the password for the user (stored locally on the VPN 3000 Concentrator; no SDI is involved yet). See Good IPSec Debug With Local Authentication for the IKE, IKEDBG, IKEDECODE, IPSEC, IPSECDBG, IPSECDECODE debug.

Test SDI Server Operation Without VPN 3000 Concentrator

UNIX (Solaris)

1. On the SDI server, create an sditest account using the Solaris admintool.

   The /etc/passwd entry should look like:

   ```
   sditest:x:76:10::/local/0/sditest:/local/0/opt/ace/prog/sdshell
   ```

   Note: Values and the paths to the user's home directory and "sdshell" depend on the system.
2. Assign a token to sditest.
3. Try Telnetting into the UNIX host as sditest. The host prompts you for a UNIX password and the PASSCODE. After authenticating, it lets you in as sditest in that host.

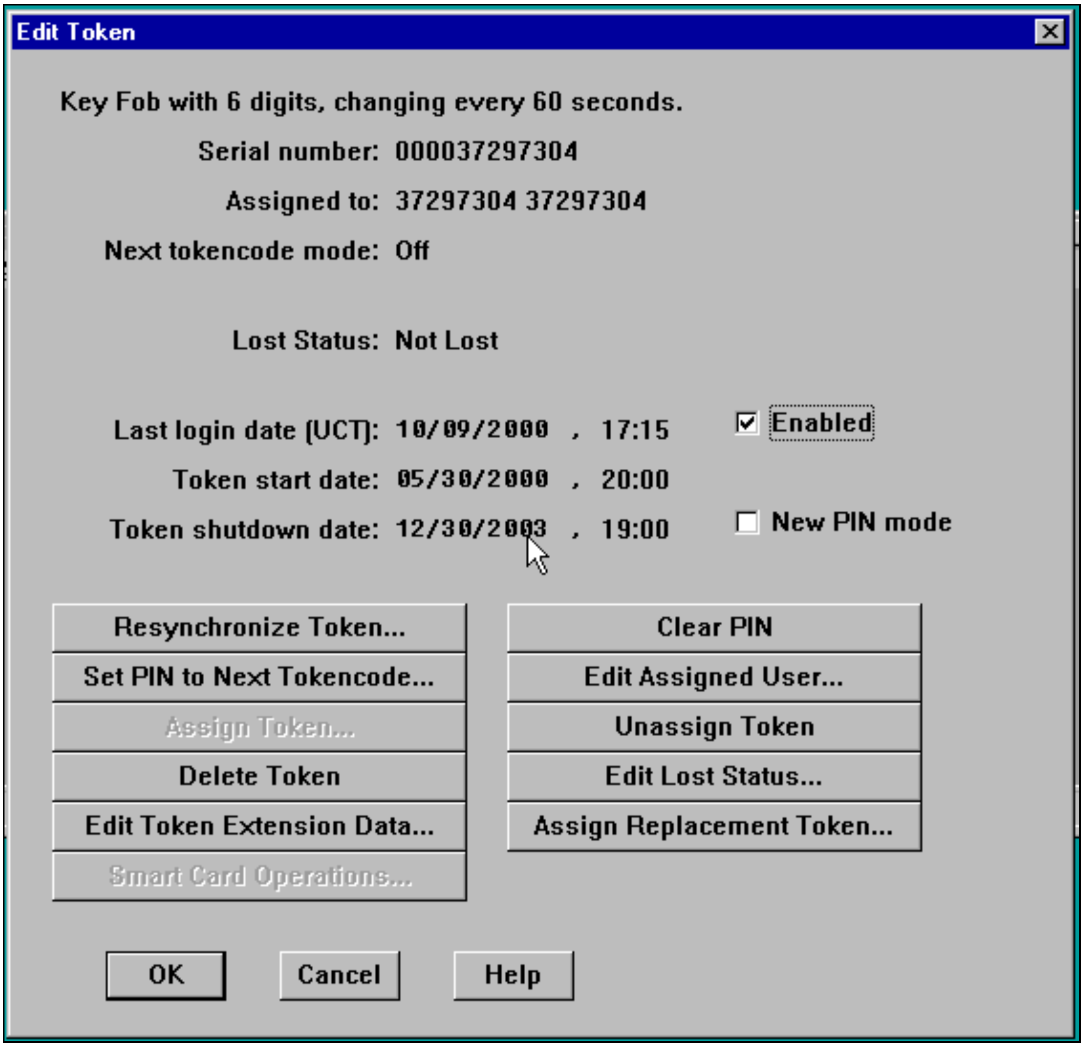
Microsoft Windows NT

1. Install the SecurSight Agent.
2. Select **Programs > SecurSight > Test Authentication**.

Configure SDI/User to Talk to VPN 3000 Concentrator

Use the following steps to configure SDI/User to talk to VPN 3000 Concentrator:

1. On the SDI Server Edit Token screen, verify that the token is "Enabled" and not in New PIN mode.
2. Click **Resynchronize Token** and **Set PIN to Next Tokencode**.



Edit Token

Key Fob with 6 digits, changing every 60 seconds.

Serial number: 000037297304

Assigned to: 37297304 37297304

Next tokencode mode: Off

Lost Status: Not Lost

Last login date (UCT): 10/09/2000 , 17:15

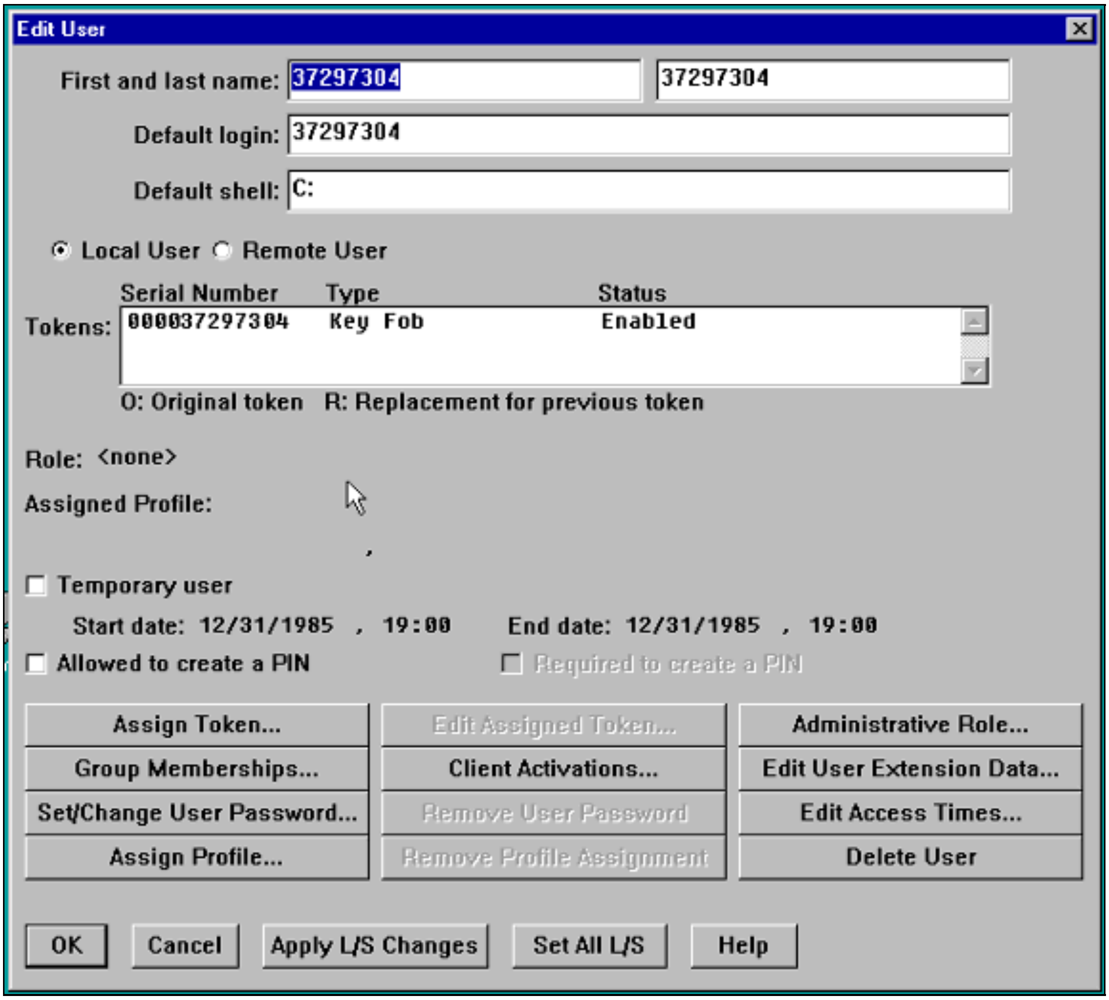
Token start date: 05/30/2000 , 20:00

Token shutdown date: 12/30/2003 , 19:00

☑ Enabled

□ New PIN mode

3. On the Edit User screen, assign a token to the user, and verify that "Allowed to create a PIN" is not checked.
4. Click Client Activations and verify that the VPN 3000 Concentrator is included.



Edit User

First and last name: 37297304 | 37297304

Default login: 37297304

Default shell: C:

● Local User ○ Remote User

Tokens:

Serial Number	Type	Status
000037297304	Key Fob	Enabled

O: Original token R: Replacement for previous token

Role: <none>

Assigned Profile:

□ Temporary user

Start date: 12/31/1985 , 19:00 End date: 12/31/1985 , 19:00

□ Allowed to create a PIN □ Required to create a PIN

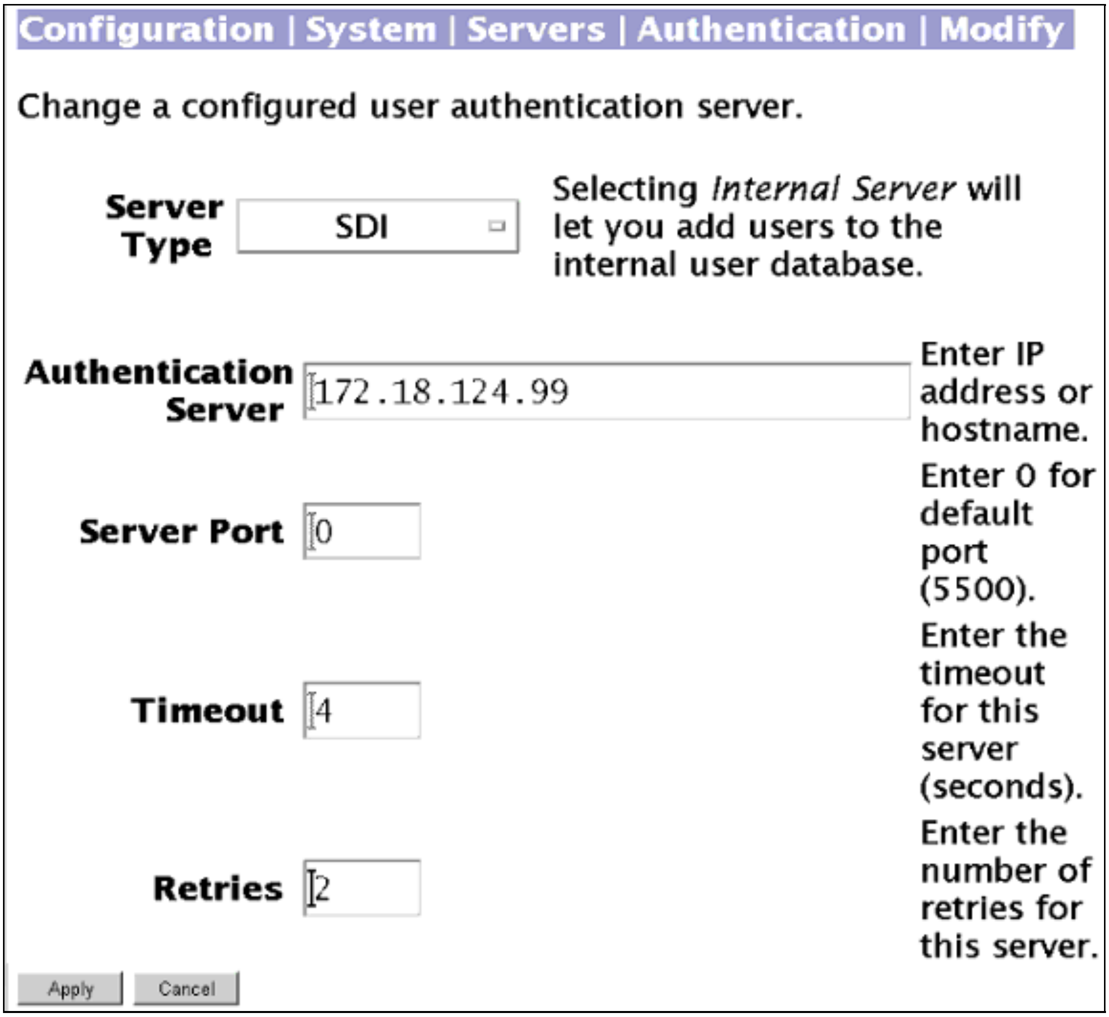
Note: The VPN 3000 Concentrator is considered a client of the SDI server; the screen below is the SDI server Add/Edit Client screen. Because this is a new client, the "Sent Node Secret" box is grayed out. The SDI server has not had the opportunity to send the "node secret" file to the concentrator (this file would be displayed in the concentrator in **Administration** > **File Management** > **Files** section as "SECURID"). After a successful authentication from the VPN 3000, the "node secret" file is displayed on the VPN 3000 Concentrator and the "Sent Node Secret" box is checked.

5. Click **User Activations** and verify that the user is included.

Configure and Test VPN 3000 Concentrator to SDI

Use the following steps to configure and test VPN 3000 Concentrator to SDI.

1. Use the following screen to configure the VPN 3000 Concentrator to authenticate to SDI:



Configuration | System | Servers | Authentication | Modify

Change a configured user authentication server.

Server Type: SDI — Selecting *Internal Server* will let you add users to the internal user database.

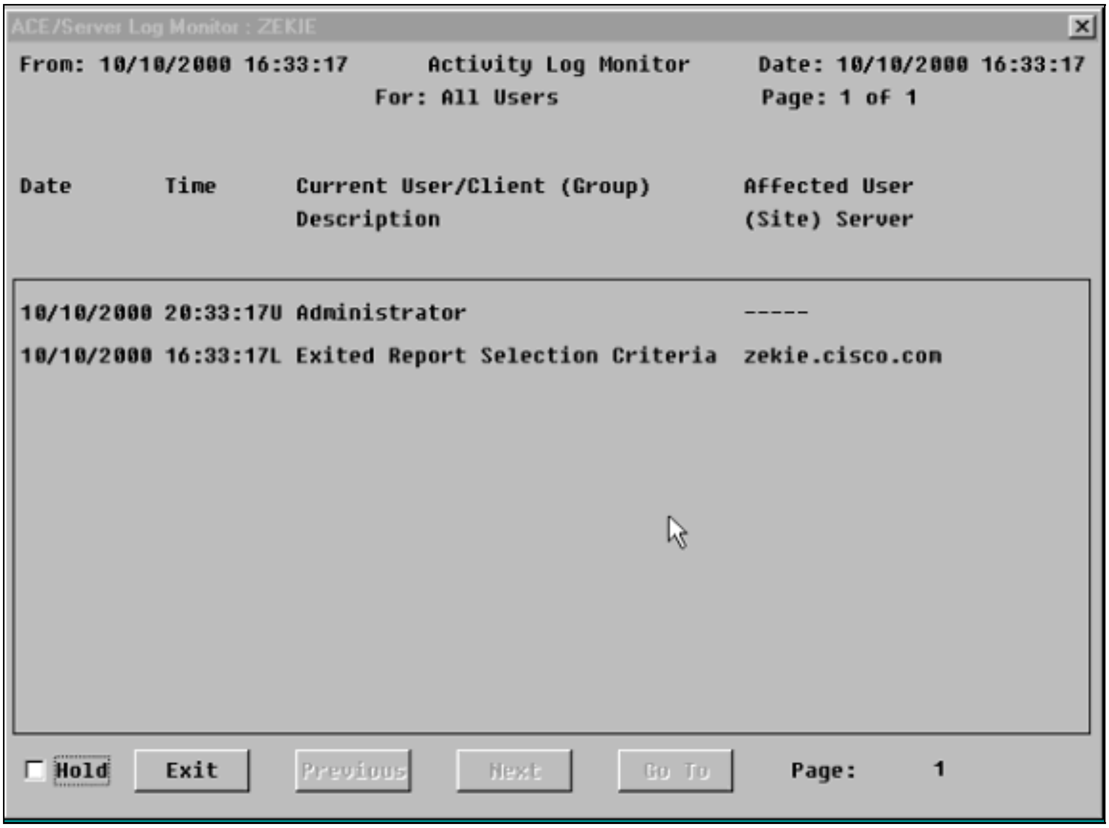
Authentication Server: 172.18.124.99 — Enter IP address or hostname.

Server Port: 0 — Enter 0 for default port (5500).

Timeout: 4 — Enter the timeout for this server (seconds).

Retries: 2 — Enter the number of retries for this server.

2. From **SDI**, go to **Report > Log Monitor > Activity Monitor** and click **OK** to observe incoming requests.

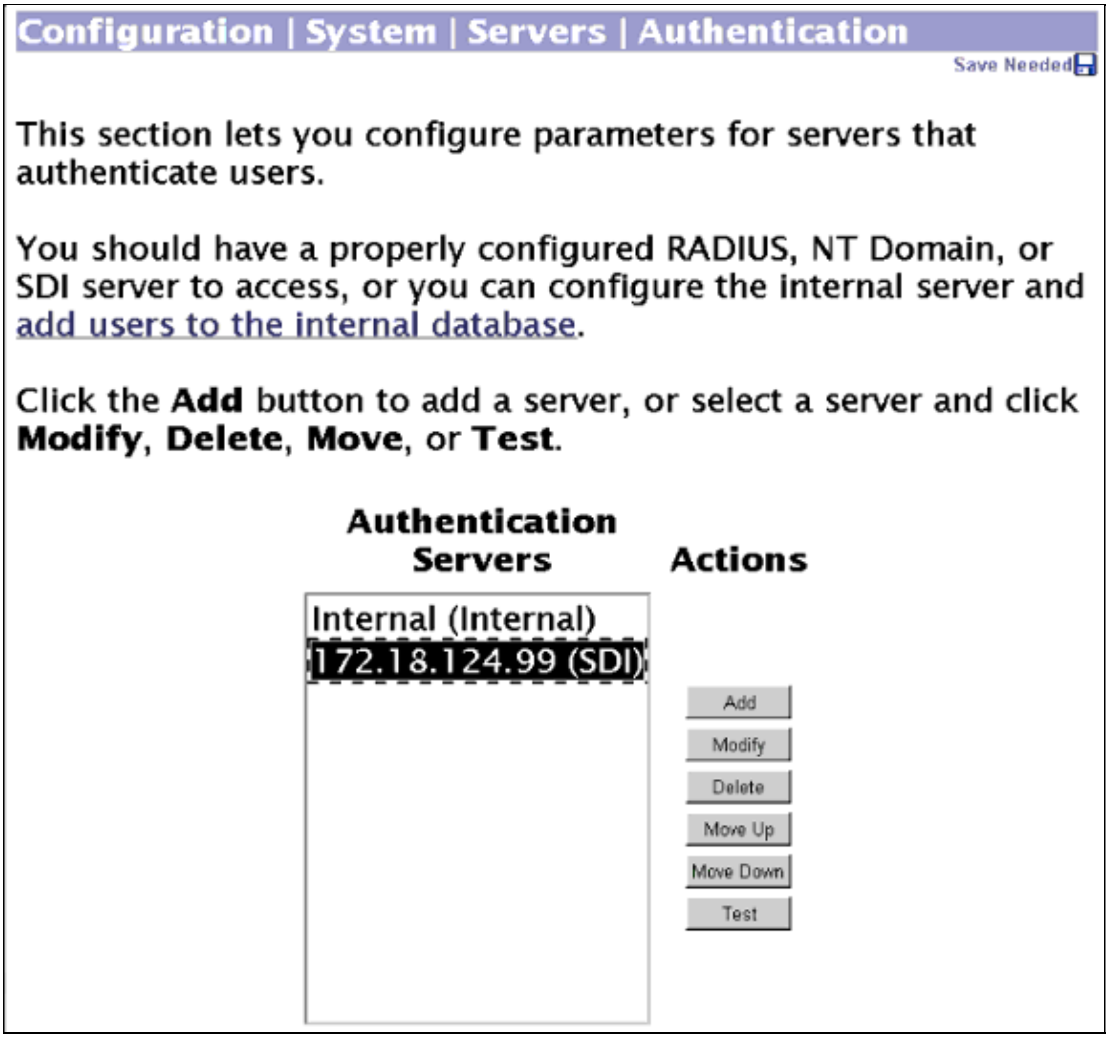


```
From: 10/10/2000 16:33:17      Activity Log Monitor     Date: 10/10/2000 16:33:17
                                For: All Users           Page: 1 of 1

Date        Time       Current User/Client (Group)       Affected User
                       Description                       (Site) Server

10/10/2000 20:33:17U Administrator                       -----
10/10/2000 16:33:17L Exited Report Selection Criteria   zekie.cisco.com
```

3. On the VPN 3000 Concentrator, click **Test** to test the connection.



Configuration | System | Servers | Authentication

This section lets you configure parameters for servers that authenticate users.

You should have a properly configured RADIUS, NT Domain, or SDI server to access, or you can configure the internal server and add users to the internal database.

Click the **Add** button to add a server, or select a server and click **Modify**, **Delete**, **Move**, or **Test**.

Authentication Servers	Actions
Internal (Internal) 172.18.124.99 (SDI)	Add Modify Delete Move Up Move Down Test

4. If authentication is good, the VPN 3000 Concentrator displays:

   Authentication Successful

In the above example, we defined one global SDI server. We can also choose to define individual SDI servers for each group by going to **Configuration > User Management > Groups**, highlighting the respective group, and choosing **Modify Auth Server**.

For debug information, refer to the following sections of this document:

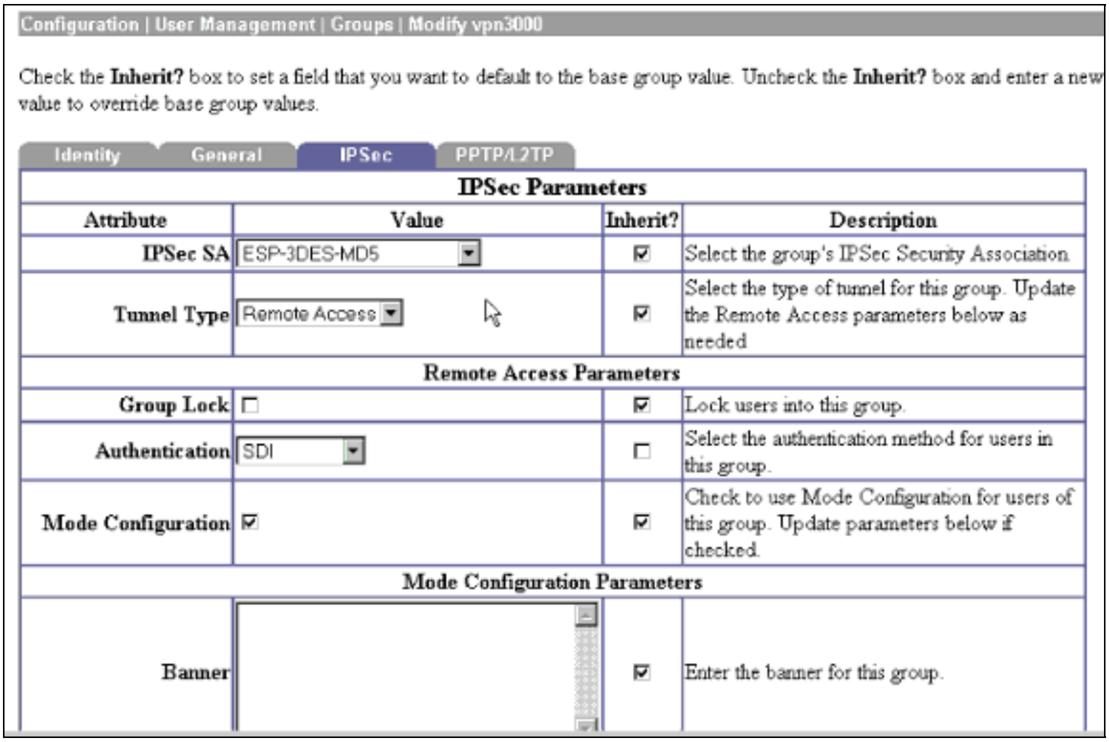
- Turning on Debugging on the VPN 3000 Concentrator
- Good Debug With SDI
- Bad Debugs

Verify

This section provides information you can use to confirm your configuration is working properly.

Test Cisco VPN Client to VPN 3000 Concentrator with SDI

If everything works up to this point, it is time to combine the Cisco VPN Client, VPN 3000 Concentrator, and SDI server. We need to make one change on the VPN 3000 Concentrator by modifying the working group we called "vpn3000" to send requests to the SDI server.



Configuration | User Management | Groups | Modify vpn3000

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

IPSec Parameters

Attribute	Value	Inherit?	Description
IPSec SA	ESP-3DES-MD5	☑	Select the group's IPSec Security Association
Tunnel Type	Remote Access	☑	Select the type of tunnel for this group. Update the Remote Access parameters below as needed
Remote Access Parameters			
Group Lock	□	☑	Lock users into this group.
Authentication	SDI	□	Select the authentication method for users in this group.
Mode Configuration	☑	☑	Check to use Mode Configuration for users of this group. Update parameters below if checked.
Mode Configuration Parameters			
Banner		☑	Enter the banner for this group.

Troubleshoot

This section provides information you can use to troubleshoot your configuration.

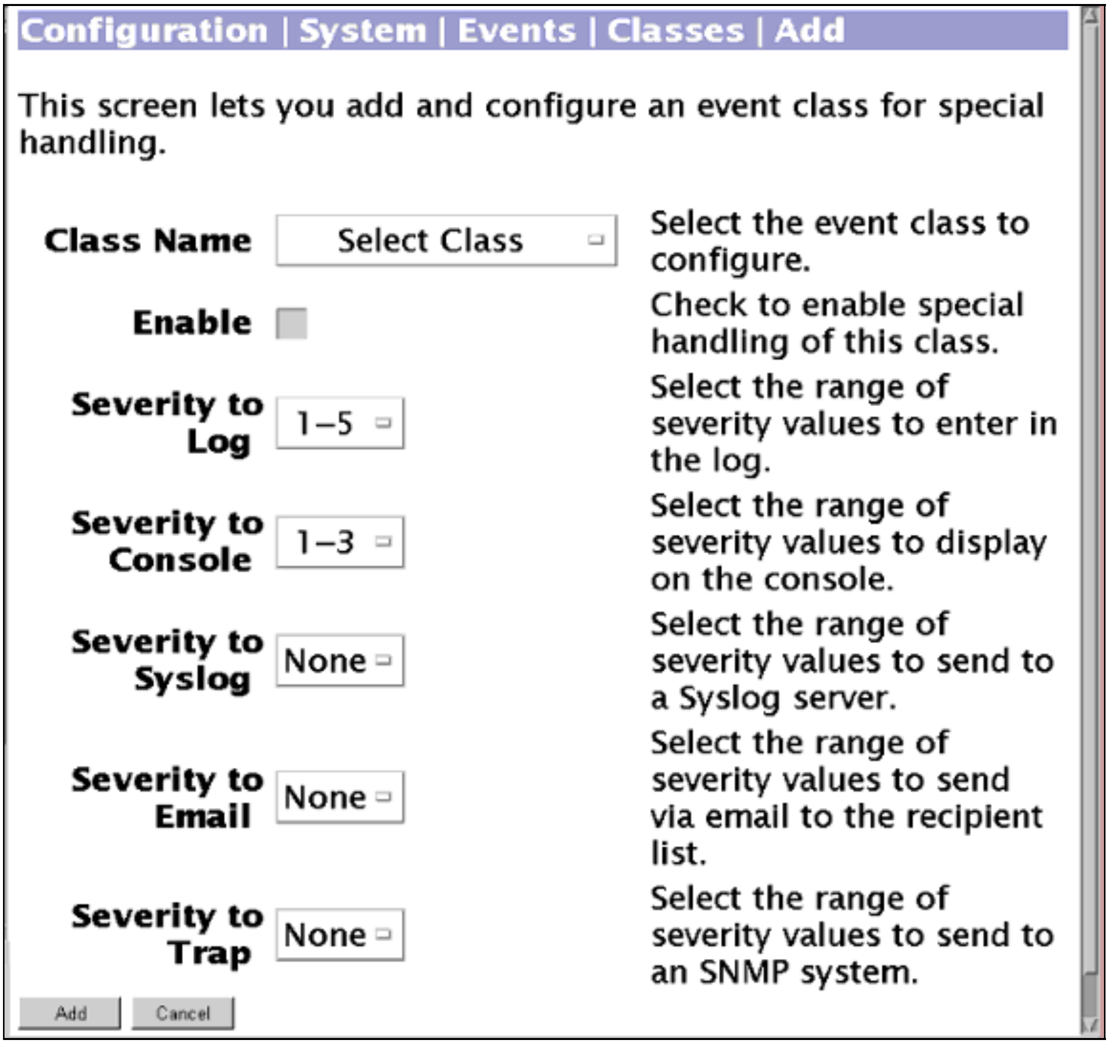
Turning on Debugging on the VPN 3000 Concentrator

Class Name for authentication:

- AUTH
- AUTHDBG
- AUTHDECODE

Class Name for IPSec:

- IKE, IKEDBG, IKEDECODE
- IPSEC, IPSECDBG, IPSECDECODE
- Severity to Log = 1−9
- Severity to Console = 1−3



Configuration | System | Events | Classes | Add

This screen lets you add and configure an event class for special handling.

Class Name Select Class — Select the event class to configure.

Enable □ — Check to enable special handling of this class.

Severity to Log 1−5 — Select the range of severity values to enter in the log.

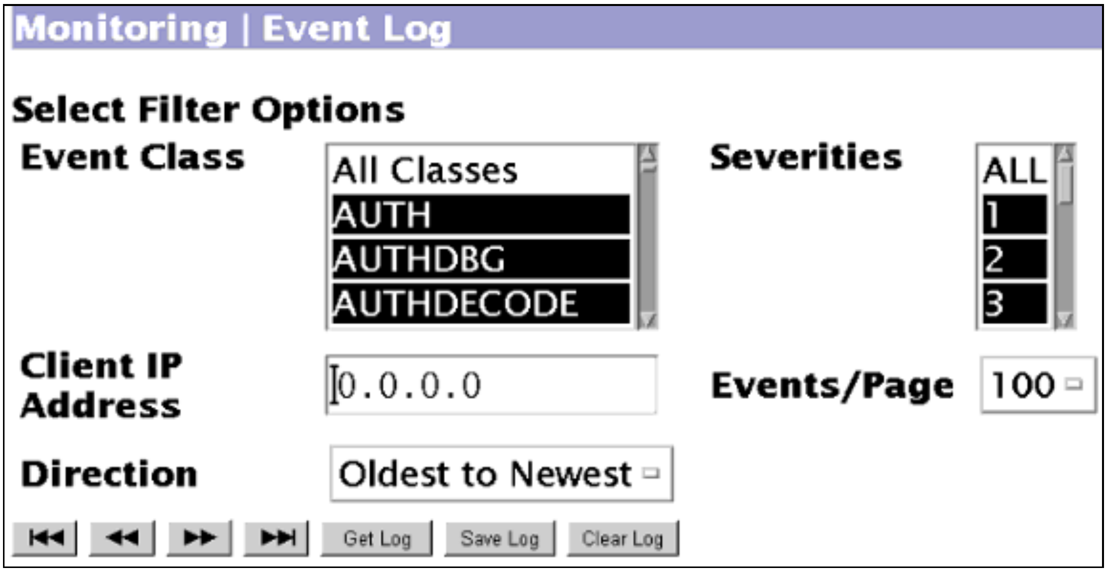
Severity to Console 1−3 — Select the range of severity values to display on the console.

Severity to Syslog None — Select the range of severity values to send to a Syslog server.

Severity to Email None — Select the range of severity values to send via email to the recipient list.

Severity to Trap None — Select the range of severity values to send to an SNMP system.

Click **Get Log** to view the results of the debug operation.



Select Filter Options

Event Class: All Classes, AUTH, AUTHDBG, AUTHDECODE

Severities: ALL, 1, 2, 3

Client IP Address: 0.0.0.0

Events/Page: 100

Direction: Oldest to Newest

Good IPSec Debug With Local Authentication

```
1 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=1 161.44.17.135
ISAKMP HEADER :         ( Version 1.0 )
  Initiator Cookie(8):  9D F3 34 FE 89 BF AA B2
  Responder Cookie(8):  00 00 00 00 00 00 00 00
  Next Payload  :       SA (1)
  Exchange Type :       Oakley Aggressive Mode
  Flags         :       0
  Message ID    :       0
  Length        :       307

7 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=1 161.44.17.135
RECEIVED Message (msgid=0) with payloads :
HDR + SA (1) + KE (4) + NONCE (10) + ID (5) + VENDOR (13) + NONE (0)
... total length : 307

10 10/10/2000 17:12:32.560 SEV=9 IKEDBG/0 RPT=2 161.44.17.135
processing SA payload

11 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=2 161.44.17.135
SA Payload Decode :
  DOI           :       IPSEC (1)
  Situation     :       Identity Only (1)
  Length        :       120

14 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=3 161.44.17.135
Proposal Decode:
  Proposal #    :       1
  Protocol ID   :       ISAKMP (1)
  #of Transforms:       4
  Spi           :       00 00 00 00
  Length        :       108

18 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=4 161.44.17.135
Transform # 1 Decode for Proposal # 1:
  Transform #   :       1
  Transform ID  :       IKE (1)
  Length        :       24

20 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=5 161.44.17.135
Phase 1 SA Attribute Decode for Transform # 1:
  Encryption Alg:       DES-CBC (1)
  Hash Alg      :       MD5 (1)
  DH Group      :       Oakley Group 1 (1)
  Auth Method   :       Preshared Key (1)

24 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=6 161.44.17.135
Transform # 2 Decode for Proposal # 1:
  Transform #   :       2
  Transform ID  :       IKE (1)
  Length        :       24

26 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=7 161.44.17.135
Phase 1 SA Attribute Decode for Transform # 2:
  Encryption Alg:       Triple-DES (5)
  Hash Alg      :       MD5 (1)
  DH Group      :       Oakley Group 1 (1)
  Auth Method   :       Preshared Key (1)

30 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=8 161.44.17.135
Transform # 3 Decode for Proposal # 1:
  Transform #   :       3
  Transform ID  :       IKE (1)
  Length        :       24

32 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=9 161.44.17.135
Phase 1 SA Attribute Decode for Transform # 3:
  Encryption Alg:       Triple-DES (5)
  Hash Alg      :       SHA (2)
  DH Group      :       Oakley Group 1 (1)
  Auth Method   :       Preshared Key (1)

36 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=10 161.44.17.135
Transform # 4 Decode for Proposal # 1:
  Transform #   :       4
  Transform ID  :       IKE (1)
  Length        :       24

38 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=11 161.44.17.135
Phase 1 SA Attribute Decode for Transform # 4:
  Encryption Alg:       DES-CBC (1)
  Hash Alg      :       SHA (2)
  DH Group      :       Oakley Group 1 (1)
  Auth Method   :       Preshared Key (1)

42 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=3 161.44.17.135
Proposal # 1, Transform # 1, Type ISAKMP, Id IKE
Parsing received transform:
  Phase 1 failure against global IKE proposal # 1:
  Mismatched attr types for class DH Group:
    Rcv'd: Oakley Group 1
    Cfg'd: Oakley Group 2

47 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=4 161.44.17.135
  Phase 1 failure against global IKE proposal # 2:
  Mismatched attr types for class Encryption Alg:
    Rcv'd: DES-CBC
    Cfg'd: Triple-DES

50 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=5 161.44.17.135
Proposal # 1, Transform # 2, Type ISAKMP, Id IKE
Parsing received transform:
  Phase 1 failure against global IKE proposal # 1:
  Mismatched attr types for class DH Group:
    Rcv'd: Oakley Group 1
    Cfg'd: Oakley Group 2

55 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=6 161.44.17.135
Proposal # 1, Transform # 3, Type ISAKMP, Id IKE
Parsing received transform:
  Phase 1 failure against global IKE proposal # 1:
  Mismatched attr types for class DH Group:
    Rcv'd: Oakley Group 1
    Cfg'd: Oakley Group 2

60 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=7 161.44.17.135
  Phase 1 failure against global IKE proposal # 2:
  Mismatched attr types for class Hash Alg:
    Rcv'd: SHA
    Cfg'd: MD5

62 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=8 161.44.17.135
  Phase 1 failure against global IKE proposal # 3:
  Mismatched attr types for class Encryption Alg:
    Rcv'd: Triple−DES
    Cfg'd: DES−CBC

65 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=9 161.44.17.135
Proposal # 1, Transform # 4, Type ISAKMP, Id IKE
Parsing received transform:
  Phase 1 failure against global IKE proposal # 1:
  Mismatched attr types for class DH Group:
    Rcv'd: Oakley Group 1
    Cfg'd: Oakley Group 2

70 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=10 161.44.17.135
  Phase 1 failure against global IKE proposal # 2:
  Mismatched attr types for class Encryption Alg:
    Rcv'd: DES−CBC
    Cfg'd: Triple−DES

73 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=11 161.44.17.135
  Phase 1 failure against global IKE proposal # 3:
  Mismatched attr types for class Hash Alg:
    Rcv'd: SHA
    Cfg'd: MD5

75 10/10/2000 17:12:32.560 SEV=7 IKEDBG/0 RPT=12 161.44.17.135
Oakley proposal is acceptable

76 10/10/2000 17:12:32.560 SEV=9 IKEDBG/0 RPT=13 161.44.17.135
processing ke payload

77 10/10/2000 17:12:32.560 SEV=9 IKEDBG/0 RPT=14 161.44.17.135
processing ISA_KE

78 10/10/2000 17:12:32.560 SEV=9 IKEDBG/1 RPT=1 161.44.17.135
processing nonce payload

79 10/10/2000 17:12:32.560 SEV=9 IKEDBG/1 RPT=2 161.44.17.135
Processing ID

80 10/10/2000 17:12:32.560 SEV=9 IKEDBG/1 RPT=3 161.44.17.135
processing vid payload

81 10/10/2000 17:12:32.580 SEV=9 IKEDBG/23 RPT=1 161.44.17.135
Starting group lookup for peer 161.44.17.135

82 10/10/2000 17:12:32.680 SEV=7 IKEDBG/0 RPT=15 161.44.17.135
Found Phase 1 Group (vpn3000)

83 10/10/2000 17:12:32.680 SEV=7 IKEDBG/14 RPT=1 161.44.17.135
Authentication configured for Internal

84 10/10/2000 17:12:32.680 SEV=9 IKEDBG/0 RPT=16 161.44.17.135
constructing ISA_SA for isakmp
```

```
85 10/10/2000 17:12:32.680 SEV=9 IKEDBG/0 RPT=17 161.44.17.135
constructing ke payload

86 10/10/2000 17:12:32.680 SEV=9 IKEDBG/1 RPT=4 161.44.17.135
constructing nonce payload

87 10/10/2000 17:12:32.680 SEV=9 IKE/0 RPT=1 161.44.17.135
Generating keys for Responder...

88 10/10/2000 17:12:32.680 SEV=9 IKEDBG/1 RPT=5 161.44.17.135
constructing ID

89 10/10/2000 17:12:32.680 SEV=9 IKEDBG/0 RPT=18
construct hash payload

90 10/10/2000 17:12:32.680 SEV=9 IKEDBG/0 RPT=19 161.44.17.135
computing hash

91 10/10/2000 17:12:32.680 SEV=9 IKEDBG/1 RPT=6 161.44.17.135
constructing vid payload

92 10/10/2000 17:12:32.680 SEV=8 IKEDBG/0 RPT=20 161.44.17.135
SENDING Message (msgid=0) with payloads :
HDR + SA (1)  ... total length : 248

93 10/10/2000 17:12:32.730 SEV=8 IKEDECODE/0 RPT=12 161.44.17.135
ISAKMP HEADER :         ( Version 1.0 )
  Initiator Cookie(8):  9D F3 34 FE 89 BF AA B2
  Responder Cookie(8):  B7 AD 34 D2 74 4D 05 DA
  Next Payload  :       HASH (8)
  Exchange Type :       Oakley Aggressive Mode
  Flags         :       1   (ENCRYPT )
  Message ID    :       0
  Length        :       52

99 10/10/2000 17:12:32.730 SEV=8 IKEDBG/0 RPT=21 161.44.17.135
RECEIVED Message (msgid=0) with payloads :
HDR + HASH (8) + NONE (0) ... total length : 48

101 10/10/2000 17:12:32.730 SEV=9 IKEDBG/0 RPT=22 161.44.17.135
processing hash

102 10/10/2000 17:12:32.730 SEV=9 IKEDBG/0 RPT=23 161.44.17.135
computing hash

103 10/10/2000 17:12:33.410 SEV=8 IKEDECODE/0 RPT=13 161.44.17.135
ISAKMP HEADER :         ( Version 1.0 )
  Initiator Cookie(8):  9D F3 34 FE 89 BF AA B2
  Responder Cookie(8):  B7 AD 34 D2 74 4D 05 DA
  Next Payload  :       HASH (8)
  Exchange Type :       Oakley Quick Mode
  Flags         :       1   (ENCRYPT )
  Message ID    :       48687ca1
  Length        :       308

110 10/10/2000 17:12:33.410 SEV=9 IKEDBG/21 RPT=1 161.44.17.135
Delay Quick Mode processing, Cert/Trans Exch/RM DSID in progress

111 10/10/2000 17:12:33.410 SEV=9 IKEDBG/0 RPT=24 161.44.17.135
constructing blank hash

112 10/10/2000 17:12:33.410 SEV=9 IKEDBG/0 RPT=25 161.44.17.135
constructing qm hash

113 10/10/2000 17:12:33.410 SEV=8 IKEDBG/0 RPT=26 161.44.17.135
```

```
SENDING Message (msgid=fc2ce5eb) with payloads :
HDR + HASH (8)  ... total length : 68

115 10/10/2000 17:12:44.680 SEV=8 IKEDECODE/0 RPT=14 161.44.17.135
ISAKMP HEADER :         ( Version 1.0 )
  Initiator Cookie(8):  9D F3 34 FE 89 BF AA B2
  Responder Cookie(8):  B7 AD 34 D2 74 4D 05 DA
  Next Payload  :       HASH (8)
  Exchange Type :       Oakley Transactional
  Flags         :       1   (ENCRYPT )
  Message ID    :       fc2ce5eb
  Length        :       92

122 10/10/2000 17:12:44.680 SEV=8 IKEDBG/0 RPT=27 161.44.17.135
RECEIVED Message (msgid=fc2ce5eb) with payloads :
HDR + HASH (8) + ATTR (14) + NONE (0) ... total length : 85

124 10/10/2000 17:12:44.680 SEV=9 IKEDBG/1 RPT=7
process_attr(): Enter!

125 10/10/2000 17:12:44.680 SEV=9 IKEDBG/1 RPT=8
Processing cfg reply attributes.

126 10/10/2000 17:12:44.980 SEV=7 IKEDBG/14 RPT=2 161.44.17.135
User [ 37297304 ]
Authentication configured for Internal

127 10/10/2000 17:12:44.980 SEV=4 IKE/52 RPT=7 161.44.17.135
User [ 37297304 ]
User (37297304) authenticated.

128 10/10/2000 17:12:44.980 SEV=9 IKEDBG/31 RPT=1 161.44.17.135
User [ 37297304 ]
Obtained IP addr (192.168.1.1) prior to initiating Mode Cfg (XAuth enabled)

130 10/10/2000 17:12:44.980 SEV=9 IKEDBG/0 RPT=28 161.44.17.135
User [ 37297304 ]
constructing blank hash

131 10/10/2000 17:12:44.980 SEV=9 IKEDBG/0 RPT=29 161.44.17.135
0000: 00010004 C0A80101 F0010000                 ............

132 10/10/2000 17:12:44.980 SEV=9 IKEDBG/0 RPT=30 161.44.17.135
User [ 37297304 ]
constructing QM hash

133 10/10/2000 17:12:44.980 SEV=8 IKEDBG/0 RPT=31 161.44.17.135
SENDING Message (msgid=fc2ce5eb) with payloads :
HDR + HASH (8)  ... total length : 80

135 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=15 161.44.17.135
ISAKMP HEADER :         ( Version 1.0 )
  Initiator Cookie(8):  9D F3 34 FE 89 BF AA B2
  Responder Cookie(8):  B7 AD 34 D2 74 4D 05 DA
  Next Payload  :       HASH (8)
  Exchange Type :       Oakley Transactional
  Flags         :       1   (ENCRYPT )
  Message ID    :       fc2ce5eb
  Length        :       68

142 10/10/2000 17:12:44.990 SEV=8 IKEDBG/0 RPT=32 161.44.17.135
RECEIVED Message (msgid=fc2ce5eb) with payloads :
HDR + HASH (8) + ATTR (14) + NONE (0) ... total length : 64

144 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=9
process_attr(): Enter!
```

```
145 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=10
Processing cfg ACK attributes

146 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=11
Received IPV4 address ack!

147 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=12
Received Save PW ack!

148 10/10/2000 17:12:44.990 SEV=4 AUTH/21 RPT=18
User 37297304 connected

149 10/10/2000 17:12:44.990 SEV=7 IKEDBG/22 RPT=1 161.44.17.135
User [ 37297304 ]
Resume Quick Mode processing, Cert/Trans Exch/RM DSID completed

151 10/10/2000 17:12:44.990 SEV=8 IKEDBG/0 RPT=33 161.44.17.135
RECEIVED Message (msgid=48687ca1) with payloads :
HDR + HASH (8) + SA (1) + NONCE (10) + ID (5) + ID (5) + NOTIFY (11) + NONE (0)
... total length : 304

154 10/10/2000 17:12:44.990 SEV=9 IKEDBG/0 RPT=34 161.44.17.135
User [ 37297304 ]
processing hash

155 10/10/2000 17:12:44.990 SEV=9 IKEDBG/0 RPT=35 161.44.17.135
User [ 37297304 ]
processing SA payload

156 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=16 161.44.17.135
SA Payload Decode :
  DOI           :       IPSEC (1)
  Situation     :       Identity Only (1)
  Length        :       180

159 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=17 161.44.17.135
Proposal Decode:
  Proposal #    :       1
  Protocol ID   :       ESP (3)
  #of Transforms:       1
  Spi           :       99 15 18 B4
  Length        :       28

163 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=18 161.44.17.135
Transform # 1 Decode for Proposal # 1:
  Transform #   :       1
  Transform ID  :       DES−CBC (2)
  Length        :       16

165 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=19 161.44.17.135
Phase 2 SA Attribute Decode for Transform # 1:
  HMAC Algorithm:       MD5 (1)
  Encapsulation :       Tunnel (1)

167 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=20 161.44.17.135
Proposal Decode:
  Proposal #    :       2
  Protocol ID   :       ESP (3)
  #of Transforms:       1
  Spi           :       99 15 18 B4
  Length        :       28

171 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=21 161.44.17.135
Transform # 1 Decode for Proposal # 2:
  Transform #   :       1
  Transform ID  :       Triple-DES (3)
  Length        :       16

173 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=22 161.44.17.135
Phase 2 SA Attribute Decode for Transform # 1:
  HMAC Algorithm:       MD5 (1)
  Encapsulation :       Tunnel (1)

175 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=23 161.44.17.135
Proposal Decode:
  Proposal #    :       3
  Protocol ID   :       ESP (3)
  #of Transforms:       1
  Spi           :       99 15 18 B4
  Length        :       28

179 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=24 161.44.17.135
Transform # 1 Decode for Proposal # 3:
  Transform #   :       1
  Transform ID  :       DES-CBC (2)
  Length        :       16

181 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=25 161.44.17.135
Phase 2 SA Attribute Decode for Transform # 1:
  HMAC Algorithm:       SHA (2)
  Encapsulation :       Tunnel (1)

183 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=26 161.44.17.135
Proposal Decode:
  Proposal #    :       4
  Protocol ID   :       ESP (3)
  #of Transforms:       1
  Spi           :       99 15 18 B4
  Length        :       28

187 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=27 161.44.17.135
Transform # 1 Decode for Proposal # 4:
  Transform #   :       1
  Transform ID  :       Triple-DES (3)
  Length        :       16

189 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=28 161.44.17.135
Phase 2 SA Attribute Decode for Transform # 1:
  HMAC Algorithm:       SHA (2)
  Encapsulation :       Tunnel (1)

191 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=29 161.44.17.135
Proposal Decode:
  Proposal #    :       5
  Protocol ID   :       ESP (3)
  #of Transforms:       1
  Spi           :       99 15 18 B4
  Length        :       28

195 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=30 161.44.17.135
Transform # 1 Decode for Proposal # 5:
  Transform #   :       1
  Transform ID  :       NULL (11)
  Length        :       16

197 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=31 161.44.17.135
Phase 2 SA Attribute Decode for Transform # 1:
  HMAC Algorithm:       MD5 (1)
  Encapsulation :       Tunnel (1)

199 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=32 161.44.17.135
```

```
Proposal Decode:
  Proposal #    :       6
  Protocol ID   :       ESP (3)
  #of Transforms:       1
  Spi           :       99 15 18 B4
  Length        :       28

203 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=33 161.44.17.135
Transform # 1 Decode for Proposal # 6:
  Transform #   :       1
  Transform ID  :       NULL (11)
  Length        :       16

205 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=34 161.44.17.135
Phase 2 SA Attribute Decode for Transform # 1:
  HMAC Algorithm:       SHA (2)
  Encapsulation :       Tunnel (1)

207 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=13 161.44.17.135
User [ 37297304 ]
processing nonce payload

208 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=14 161.44.17.135
User [ 37297304 ]
Processing ID

209 10/10/2000 17:12:44.990 SEV=5 IKE/25 RPT=13 161.44.17.135
User [ 37297304 ]
Received remote Proxy Host data in ID Payload:
Address 161.44.17.135, Protocol 0, Port 0

212 10/10/2000 17:12:44.990 SEV=7 IKEDBG/1 RPT=15 161.44.17.135
User [ 37297304 ]
Modifying client proxy src address!

213 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=16 161.44.17.135
User [ 37297304 ]
Processing ID

214 10/10/2000 17:12:44.990 SEV=5 IKE/24 RPT=7 161.44.17.135
User [ 37297304 ]
Received local Proxy Host data in ID Payload:
Address 172.18.124.134, Protocol 0, Port 0

217 10/10/2000 17:12:44.990 SEV=9 IKEDBG/0 RPT=36 161.44.17.135
User [ 37297304 ]
Processing Notify payload

218 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=35 161.44.17.135
Notify Payload Decode :
  DOI           :       IPSEC (1)
  Protocol      :       ISAKMP (1)
  Message       :       Initial contact (24578)
  Spi           :       9D F3 34 FE 89 BF AA B2 B7 AD 34 D2 74 4D 05 DA
  Length        :       28

224 10/10/2000 17:12:44.990 SEV=8 IKEDBG/0 RPT=37
QM IsRekeyed old sa not found by addr

225 10/10/2000 17:12:44.990 SEV=5 IKE/66 RPT=13 161.44.17.135
User [ 37297304 ]
IKE Remote Peer configured for SA: ESP−3DES−MD5

226 10/10/2000 17:12:44.990 SEV=9 IKEDBG/0 RPT=38 161.44.17.135
User [ 37297304 ]
processing IPSEC SA
```

```
227 10/10/2000 17:12:44.990 SEV=8 IKEDBG/0 RPT=39
Proposal # 1, Transform # 1, Type ESP, Id DES-CBC
Parsing received transform:
  Phase 2 failure:
  Mismatched transform IDs for protocol ESP:
    Rcv'd: DES-CBC
    Cfg'd: Triple-DES

232 10/10/2000 17:12:45.000 SEV=7 IKEDBG/27 RPT=1 161.44.17.135
User [ 37297304 ]
IPSec SA Proposal # 2, Transform # 1 acceptable

233 10/10/2000 17:12:45.000 SEV=7 IKEDBG/0 RPT=40 161.44.17.135
User [ 37297304 ]
IKE: requesting SPI!

234 10/10/2000 17:12:45.000 SEV=6 IKE/0 RPT=2
AM received unexpected event EV_ACTIVATE_NEW_SA in state AM_ACTIVE

235 10/10/2000 17:12:45.000 SEV=9 IPSECDBG/6 RPT=1
IPSEC key message parse - msgtype 6, len 164, vers 1, pid 00000000, seq 13,
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 300,
lifetime2 2000000000, dsId 2

239 10/10/2000 17:12:45.000 SEV=9 IPSECDBG/1 RPT=1
Processing KEY_GETSPI msg!

240 10/10/2000 17:12:45.000 SEV=7 IPSECDBG/13 RPT=1
Reserved SPI 1773955517

241 10/10/2000 17:12:45.000 SEV=8 IKEDBG/6 RPT=1
IKE got SPI from key engine: SPI = 0x69bc69bd

242 10/10/2000 17:12:45.000 SEV=9 IKEDBG/0 RPT=41 161.44.17.135
User [ 37297304 ]
oakley constructing quick mode

243 10/10/2000 17:12:45.000 SEV=9 IKEDBG/0 RPT=42 161.44.17.135
User [ 37297304 ]
constructing blank hash

244 10/10/2000 17:12:45.000 SEV=9 IKEDBG/0 RPT=43 161.44.17.135
User [ 37297304 ]
constructing ISA_SA for ipsec

245 10/10/2000 17:12:45.000 SEV=9 IKEDBG/1 RPT=17 161.44.17.135
User [ 37297304 ]
constructing ipsec nonce payload

246 10/10/2000 17:12:45.000 SEV=9 IKEDBG/1 RPT=18 161.44.17.135
User [ 37297304 ]
constructing proxy ID

247 10/10/2000 17:12:45.000 SEV=7 IKEDBG/0 RPT=44 161.44.17.135
User [ 37297304 ]
Transmitting Proxy Id:
  Remote host: 192.168.1.1  Protocol 0  Port 0
  Local host:  172.18.124.134  Protocol 0  Port 0

251 10/10/2000 17:12:45.000 SEV=9 IKEDBG/0 RPT=45 161.44.17.135
User [ 37297304 ]
constructing QM hash

252 10/10/2000 17:12:45.000 SEV=8 IKEDBG/0 RPT=46 161.44.17.135
```

```
SENDING Message (msgid=48687ca1) with payloads :
HDR + HASH (8)  ... total length : 136

254 10/10/2000 17:12:45.010 SEV=8 IKEDECODE/0 RPT=36 161.44.17.135
ISAKMP HEADER :         ( Version 1.0 )
  Initiator Cookie(8):  9D F3 34 FE 89 BF AA B2
  Responder Cookie(8):  B7 AD 34 D2 74 4D 05 DA
  Next Payload  :       HASH (8)
  Exchange Type :       Oakley Quick Mode
  Flags         :       1   (ENCRYPT )
  Message ID    :       48687ca1
  Length        :       52

261 10/10/2000 17:12:45.010 SEV=8 IKEDBG/0 RPT=47 161.44.17.135
RECEIVED Message (msgid=48687ca1) with payloads :
HDR + HASH (8) + NONE (0) ... total length : 48

263 10/10/2000 17:12:45.010 SEV=9 IKEDBG/0 RPT=48 161.44.17.135
User [ 37297304 ]
processing hash

264 10/10/2000 17:12:45.010 SEV=9 IKEDBG/0 RPT=49 161.44.17.135
User [ 37297304 ]
loading all IPSEC SAs

265 10/10/2000 17:12:45.010 SEV=9 IKEDBG/1 RPT=19 161.44.17.135
User [ 37297304 ]
Generating Quick Mode Key!

266 10/10/2000 17:12:45.010 SEV=9 IKEDBG/1 RPT=20 161.44.17.135
User [ 37297304 ]
Generating Quick Mode Key!

267 10/10/2000 17:12:45.020 SEV=7 IKEDBG/0 RPT=50 161.44.17.135
User [ 37297304 ]
Loading host:
  Dst: 172.18.124.134
  Src: 192.168.1.1

268 10/10/2000 17:12:45.020 SEV=4 IKE/49 RPT=13 161.44.17.135
User [ 37297304 ]
Security negotiation complete for User (37297304)
Responder, Inbound SPI = 0x69bc69bd, Outbound SPI = 0x991518b4

271 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/6 RPT=2
IPSEC key message parse - msgtype 1, Len 536, vers 1, pid 00000000, seq 0,
err 0, type 2, mode 1, state 64, label 0, pad 0, spi 991518b4, encrKeyLen 24,
hashKeyLen 16, ivlen 8, alg 2, hmacAlg 3, lifetype 0, lifetime1 0,
lifetime2 0, dsId 2

274 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=2
Processing KEY_ADD MSG!

275 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=3
key_msghdr2secassoc(): Enter

276 10/10/2000 17:12:45.020 SEV=7 IPSECDBG/1 RPT=4
No USER filter configured

277 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=5
KeyProcessAdd: Enter

278 10/10/2000 17:12:45.020 SEV=8 IPSECDBG/1 RPT=6
KeyProcessAdd: Adding outbound SA

279 10/10/2000 17:12:45.020 SEV=8 IPSECDBG/1 RPT=7
```

```
KeyProcessAdd: src 172.18.124.134 mask 0.0.0.0, dst 192.168.1.1 mask 0.0.0.0

280 10/10/2000 17:12:45.020 SEV=8 IPSECDBG/1 RPT=8
KeyProcessAdd: FilterIpsecAddIkeSa success

281 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/6 RPT=3
IPSEC key message parse − msgtype 3, Len 292, vers 1, pid 00000000, seq 0,
err 0, type 2, mode 1, state 32, label 0, pad 0, spi 69bc69bd, encrKeyLen 24,
hashKeyLen 16, ivlen 8, alg 2, hmacAlg 3, lifetype 0, lifetime1 0,
lifetime2 0, dsId 2

284 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=9
Processing KEY_UPDATE MSG!

285 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=10
Update inbound SA addresses

286 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=11
key_msghdr2secassoc(): Enter

287 10/10/2000 17:12:45.020 SEV=7 IPSECDBG/1 RPT=12
No USER filter configured

288 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=13
KeyProcessUpdate: Enter
289 10/10/2000 17:12:45.020 SEV=8 IPSECDBG/1 RPT=14
KeyProcessUpdate: success

290 10/10/2000 17:12:45.020 SEV=8 IKEDBG/7 RPT=1
IKE got a KEY_ADD MSG for SA: SPI = 0x991518b4

291 10/10/2000 17:12:45.020 SEV=8 IKEDBG/0 RPT=51
pitcher: rcv KEY_UPDATE, spi 0x69bc69bd
```

Good IPSec Debug With Local Authentication

```
1 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=1 161.44.17.135
ISAKMP HEADER :         ( Version 1.0 )
  Initiator Cookie(8):  9D F3 34 FE 89 BF AA B2
  Responder Cookie(8):  00 00 00 00 00 00 00 00
  Next Payload  :       SA (1)
  Exchange Type :       Oakley Aggressive Mode
  Flags         :       0
  Message ID    :       0
  Length        :       307

7 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=1 161.44.17.135
RECEIVED Message (msgid=0) with payloads :
HDR + SA (1) + KE (4) + NONCE (10) + ID (5) + VENDOR (13) + NONE (0)
... total length : 307

10 10/10/2000 17:12:32.560 SEV=9 IKEDBG/0 RPT=2 161.44.17.135
processing SA payload

11 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=2 161.44.17.135
SA Payload Decode :
  DOI           :       IPSEC (1)
  Situation     :       Identity Only (1)
  Length        :       120

14 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=3 161.44.17.135
Proposal Decode:
  Proposal #    :       1
  Protocol ID   :       ISAKMP (1)
  #of Transforms:       4
  Spi           :       00 00 00 00
  Length        :       108

18 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=4 161.44.17.135
Transform # 1 Decode for Proposal # 1:
  Transform #   :       1
  Transform ID  :       IKE (1)
  Length        :       24

20 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=5 161.44.17.135
Phase 1 SA Attribute Decode for Transform # 1:
  Encryption Alg:       DES−CBC (1)
  Hash Alg      :       MD5 (1)
  DH Group      :       Oakley Group 1 (1)
  Auth Method   :       Preshared Key (1)

24 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=6 161.44.17.135
Transform # 2 Decode for Proposal # 1:
  Transform #   :       2
  Transform ID  :       IKE (1)
  Length        :       24

26 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=7 161.44.17.135
Phase 1 SA Attribute Decode for Transform # 2:
  Encryption Alg:       Triple−DES (5)
  Hash Alg      :       MD5 (1)
  DH Group      :       Oakley Group 1 (1)
  Auth Method   :       Preshared Key (1)

30 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=8 161.44.17.135
Transform # 3 Decode for Proposal # 1:
  Transform #   :       3
  Transform ID  :       IKE (1)
  Length        :       24

32 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=9 161.44.17.135
Phase 1 SA Attribute Decode for Transform # 3:
  Encryption Alg:       Triple−DES (5)
  Hash Alg      :       SHA (2)
  DH Group      :       Oakley Group 1 (1)
  Auth Method   :       Preshared Key (1)

36 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=10 161.44.17.135
Transform # 4 Decode for Proposal # 1:
  Transform #   :       4
  Transform ID  :       IKE (1)
  Length        :       24

38 10/10/2000 17:12:32.560 SEV=8 IKEDECODE/0 RPT=11 161.44.17.135
Phase 1 SA Attribute Decode for Transform # 4:
  Encryption Alg:       DES−CBC (1)
  Hash Alg      :       SHA (2)
  DH Group      :       Oakley Group 1 (1)
  Auth Method   :       Preshared Key (1)

42 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=3 161.44.17.135
Proposal # 1, Transform # 1, Type ISAKMP, Id IKE
Parsing received transform:
  Phase 1 failure against global IKE proposal # 1:
  Mismatched attr types for class DH Group:
    Rcv'd: Oakley Group 1
    Cfg'd: Oakley Group 2

47 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=4 161.44.17.135
  Phase 1 failure against global IKE proposal # 2:
  Mismatched attr types for class Encryption Alg:
    Rcv'd: DES−CBC
    Cfg'd: Triple−DES

50 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=5 161.44.17.135
Proposal # 1, Transform # 2, Type ISAKMP, Id IKE
Parsing received transform:
  Phase 1 failure against global IKE proposal # 1:
  Mismatched attr types for class DH Group:
    Rcv'd: Oakley Group 1
    Cfg'd: Oakley Group 2

55 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=6 161.44.17.135
Proposal # 1, Transform # 3, Type ISAKMP, Id IKE
Parsing received transform:
  Phase 1 failure against global IKE proposal # 1:
  Mismatched attr types for class DH Group:
    Rcv'd: Oakley Group 1
    Cfg'd: Oakley Group 2

60 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=7 161.44.17.135
  Phase 1 failure against global IKE proposal # 2:
  Mismatched attr types for class Hash Alg:
    Rcv'd: SHA
    Cfg'd: MD5

62 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=8 161.44.17.135
  Phase 1 failure against global IKE proposal # 3:
  Mismatched attr types for class Encryption Alg:
    Rcv'd: Triple−DES
    Cfg'd: DES−CBC

65 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=9 161.44.17.135
Proposal # 1, Transform # 4, Type ISAKMP, Id IKE
Parsing received transform:
  Phase 1 failure against global IKE proposal # 1:
  Mismatched attr types for class DH Group:
    Rcv'd: Oakley Group 1
    Cfg'd: Oakley Group 2

70 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=10 161.44.17.135
  Phase 1 failure against global IKE proposal # 2:
  Mismatched attr types for class Encryption Alg:
    Rcv'd: DES−CBC
    Cfg'd: Triple−DES

73 10/10/2000 17:12:32.560 SEV=8 IKEDBG/0 RPT=11 161.44.17.135
  Phase 1 failure against global IKE proposal # 3:
  Mismatched attr types for class Hash Alg:
    Rcv'd: SHA
    Cfg'd: MD5

75 10/10/2000 17:12:32.560 SEV=7 IKEDBG/0 RPT=12 161.44.17.135
Oakley proposal is acceptable

76 10/10/2000 17:12:32.560 SEV=9 IKEDBG/0 RPT=13 161.44.17.135
processing ke payload

77 10/10/2000 17:12:32.560 SEV=9 IKEDBG/0 RPT=14 161.44.17.135
processing ISA_KE

78 10/10/2000 17:12:32.560 SEV=9 IKEDBG/1 RPT=1 161.44.17.135
processing nonce payload

79 10/10/2000 17:12:32.560 SEV=9 IKEDBG/1 RPT=2 161.44.17.135
Processing ID
```

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80 10/10/2000 17:12:32.560 SEV=9 IKEDBG/1 RPT=3 161.44.17.135
processing vid payload

81 10/10/2000 17:12:32.580 SEV=9 IKEDBG/23 RPT=1 161.44.17.135
Starting group lookup for peer 161.44.17.135

82 10/10/2000 17:12:32.680 SEV=7 IKEDBG/0 RPT=15 161.44.17.135
Found Phase 1 Group (vpn3000)

83 10/10/2000 17:12:32.680 SEV=7 IKEDBG/14 RPT=1 161.44.17.135
Authentication configured for Internal

84 10/10/2000 17:12:32.680 SEV=9 IKEDBG/0 RPT=16 161.44.17.135
constructing ISA_SA for isakmp

85 10/10/2000 17:12:32.680 SEV=9 IKEDBG/0 RPT=17 161.44.17.135
constructing ke payload

86 10/10/2000 17:12:32.680 SEV=9 IKEDBG/1 RPT=4 161.44.17.135
constructing nonce payload

87 10/10/2000 17:12:32.680 SEV=9 IKE/0 RPT=1 161.44.17.135
Generating keys for Responder...

88 10/10/2000 17:12:32.680 SEV=9 IKEDBG/1 RPT=5 161.44.17.135
constructing ID

89 10/10/2000 17:12:32.680 SEV=9 IKEDBG/0 RPT=18
construct hash payload

90 10/10/2000 17:12:32.680 SEV=9 IKEDBG/0 RPT=19 161.44.17.135
computing hash

91 10/10/2000 17:12:32.680 SEV=9 IKEDBG/1 RPT=6 161.44.17.135
constructing vid payload

92 10/10/2000 17:12:32.680 SEV=8 IKEDBG/0 RPT=20 161.44.17.135
SENDING Message (msgid=0) with payloads :
HDR + SA (1)  ... total length : 248

93 10/10/2000 17:12:32.730 SEV=8 IKEDECODE/0 RPT=12 161.44.17.135
ISAKMP HEADER :         ( Version 1.0 )
  Initiator Cookie(8):  9D F3 34 FE 89 BF AA B2
  Responder Cookie(8):  B7 AD 34 D2 74 4D 05 DA
  Next Payload  :       HASH (8)
  Exchange Type :       Oakley Aggressive Mode
  Flags         :       1   (ENCRYPT )
  Message ID    :       0
  Length        :       52

99 10/10/2000 17:12:32.730 SEV=8 IKEDBG/0 RPT=21 161.44.17.135
RECEIVED Message (msgid=0) with payloads :
HDR + HASH (8) + NONE (0) ... total length : 48

101 10/10/2000 17:12:32.730 SEV=9 IKEDBG/0 RPT=22 161.44.17.135
processing hash

102 10/10/2000 17:12:32.730 SEV=9 IKEDBG/0 RPT=23 161.44.17.135
computing hash

103 10/10/2000 17:12:33.410 SEV=8 IKEDECODE/0 RPT=13 161.44.17.135
ISAKMP HEADER :         ( Version 1.0 )
  Initiator Cookie(8):  9D F3 34 FE 89 BF AA B2
  Responder Cookie(8):  B7 AD 34 D2 74 4D 05 DA
  Next Payload  :       HASH (8)
  Exchange Type :       Oakley Quick Mode
  Flags         :       1   (ENCRYPT )
  Message ID    :       48687ca1
  Length        :       308

110 10/10/2000 17:12:33.410 SEV=9 IKEDBG/21 RPT=1 161.44.17.135
Delay Quick Mode processing, Cert/Trans Exch/RM DSID in progress

111 10/10/2000 17:12:33.410 SEV=9 IKEDBG/0 RPT=24 161.44.17.135
constructing blank hash

112 10/10/2000 17:12:33.410 SEV=9 IKEDBG/0 RPT=25 161.44.17.135
constructing qm hash

113 10/10/2000 17:12:33.410 SEV=8 IKEDBG/0 RPT=26 161.44.17.135
SENDING Message (msgid=fc2ce5eb) with payloads :
HDR + HASH (8)  ... total length : 68

115 10/10/2000 17:12:44.680 SEV=8 IKEDECODE/0 RPT=14 161.44.17.135
ISAKMP HEADER :         ( Version 1.0 )
  Initiator Cookie(8):  9D F3 34 FE 89 BF AA B2
  Responder Cookie(8):  B7 AD 34 D2 74 4D 05 DA
  Next Payload  :       HASH (8)
  Exchange Type :       Oakley Transactional
  Flags         :       1   (ENCRYPT )
  Message ID    :       fc2ce5eb
  Length        :       92

122 10/10/2000 17:12:44.680 SEV=8 IKEDBG/0 RPT=27 161.44.17.135
RECEIVED Message (msgid=fc2ce5eb) with payloads :
HDR + HASH (8) + ATTR (14) + NONE (0) ... total length : 85

124 10/10/2000 17:12:44.680 SEV=9 IKEDBG/1 RPT=7
process_attr(): Enter!

125 10/10/2000 17:12:44.680 SEV=9 IKEDBG/1 RPT=8
Processing cfg reply attributes.

126 10/10/2000 17:12:44.980 SEV=7 IKEDBG/14 RPT=2 161.44.17.135
User [ 37297304 ]
Authentication configured for Internal

127 10/10/2000 17:12:44.980 SEV=4 IKE/52 RPT=7 161.44.17.135
User [ 37297304 ]
User (37297304) authenticated.

128 10/10/2000 17:12:44.980 SEV=9 IKEDBG/31 RPT=1 161.44.17.135
User [ 37297304 ]
Obtained IP addr (192.168.1.1) prior to initiating Mode Cfg (XAuth enabled)

130 10/10/2000 17:12:44.980 SEV=9 IKEDBG/0 RPT=28 161.44.17.135
User [ 37297304 ]
constructing blank hash

131 10/10/2000 17:12:44.980 SEV=9 IKEDBG/0 RPT=29 161.44.17.135
0000: 00010004 C0A80101 F0010000                 ............

132 10/10/2000 17:12:44.980 SEV=9 IKEDBG/0 RPT=30 161.44.17.135
User [ 37297304 ]
constructing QM hash

133 10/10/2000 17:12:44.980 SEV=8 IKEDBG/0 RPT=31 161.44.17.135
SENDING Message (msgid=fc2ce5eb) with payloads :
HDR + HASH (8)  ... total length : 80

135 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=15 161.44.17.135
ISAKMP HEADER :         ( Version 1.0 )
```

```
  Initiator Cookie(8):  9D F3 34 FE 89 BF AA B2
  Responder Cookie(8):  B7 AD 34 D2 74 4D 05 DA
  Next Payload  :       HASH (8)
  Exchange Type :       Oakley Transactional
  Flags         :       1   (ENCRYPT )
  Message ID    :       fc2ce5eb
  Length        :       68

142 10/10/2000 17:12:44.990 SEV=8 IKEDBG/0 RPT=32 161.44.17.135
RECEIVED Message (msgid=fc2ce5eb) with payloads :
HDR + HASH (8) + ATTR (14) + NONE (0) ... total length : 64

144 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=9
process_attr(): Enter!

145 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=10
Processing cfg ACK attributes

146 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=11
Received IPV4 address ack!

147 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=12
Received Save PW ack!

148 10/10/2000 17:12:44.990 SEV=4 AUTH/21 RPT=18
User 37297304 connected

149 10/10/2000 17:12:44.990 SEV=7 IKEDBG/22 RPT=1 161.44.17.135
User [ 37297304 ]
Resume Quick Mode processing, Cert/Trans Exch/RM DSID completed

151 10/10/2000 17:12:44.990 SEV=8 IKEDBG/0 RPT=33 161.44.17.135
RECEIVED Message (msgid=48687ca1) with payloads :
HDR + HASH (8) + SA (1) + NONCE (10) + ID (5) + ID (5) + NOTIFY (11) + NONE (0)
... total length : 304

154 10/10/2000 17:12:44.990 SEV=9 IKEDBG/0 RPT=34 161.44.17.135
User [ 37297304 ]
processing hash

155 10/10/2000 17:12:44.990 SEV=9 IKEDBG/0 RPT=35 161.44.17.135
User [ 37297304 ]
processing SA payload

156 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=16 161.44.17.135
SA Payload Decode :
  DOI           :       IPSEC (1)
  Situation     :       Identity Only (1)
  Length        :       180

159 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=17 161.44.17.135
Proposal Decode:
  Proposal #    :       1
  Protocol ID   :       ESP (3)
  #of Transforms:       1
  Spi           :       99 15 18 B4
  Length        :       28

163 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=18 161.44.17.135
Transform # 1 Decode for Proposal # 1:
  Transform #   :       1
  Transform ID  :       DES−CBC (2)
  Length        :       16

165 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=19 161.44.17.135
Phase 2 SA Attribute Decode for Transform # 1:
  HMAC Algorithm:       MD5 (1)
  Encapsulation :       Tunnel (1)

167 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=20 161.44.17.135
Proposal Decode:
  Proposal #    :       2
  Protocol ID   :       ESP (3)
  #of Transforms:       1
  Spi           :       99 15 18 B4
  Length        :       28

171 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=21 161.44.17.135
Transform # 1 Decode for Proposal # 2:
  Transform #   :       1
  Transform ID  :       Triple−DES (3)
  Length        :       16

173 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=22 161.44.17.135
Phase 2 SA Attribute Decode for Transform # 1:
  HMAC Algorithm:       MD5 (1)
  Encapsulation :       Tunnel (1)

175 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=23 161.44.17.135
Proposal Decode:
  Proposal #    :       3
  Protocol ID   :       ESP (3)
  #of Transforms:       1
  Spi           :       99 15 18 B4
  Length        :       28

179 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=24 161.44.17.135
Transform # 1 Decode for Proposal # 3:
  Transform #   :       1
  Transform ID  :       DES−CBC (2)
  Length        :       16

181 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=25 161.44.17.135
Phase 2 SA Attribute Decode for Transform # 1:
  HMAC Algorithm:       SHA (2)
  Encapsulation :       Tunnel (1)

183 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=26 161.44.17.135
Proposal Decode:
  Proposal #    :       4
  Protocol ID   :       ESP (3)
  #of Transforms:       1
  Spi           :       99 15 18 B4
  Length        :       28

187 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=27 161.44.17.135
Transform # 1 Decode for Proposal # 4:
  Transform #   :       1
  Transform ID  :       Triple−DES (3)
  Length        :       16

189 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=28 161.44.17.135
Phase 2 SA Attribute Decode for Transform # 1:
  HMAC Algorithm:       SHA (2)
  Encapsulation :       Tunnel (1)

191 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=29 161.44.17.135
Proposal Decode:
  Proposal #    :       5
  Protocol ID   :       ESP (3)
  #of Transforms:       1
  Spi           :       99 15 18 B4
  Length        :       28

195 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=30 161.44.17.135
Transform # 1 Decode for Proposal # 5:
  Transform #   :       1
  Transform ID  :       NULL (11)
  Length        :       16

197 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=31 161.44.17.135
Phase 2 SA Attribute Decode for Transform # 1:
  HMAC Algorithm:       MD5 (1)
  Encapsulation :       Tunnel (1)

199 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=32 161.44.17.135
Proposal Decode:
  Proposal #    :       6
  Protocol ID   :       ESP (3)
  #of Transforms:       1
  Spi           :       99 15 18 B4
  Length        :       28

203 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=33 161.44.17.135
Transform # 1 Decode for Proposal # 6:
  Transform #   :       1
  Transform ID  :       NULL (11)
  Length        :       16

205 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=34 161.44.17.135
Phase 2 SA Attribute Decode for Transform # 1:
  HMAC Algorithm:       SHA (2)
  Encapsulation :       Tunnel (1)

207 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=13 161.44.17.135
User [ 37297304 ]
processing nonce payload

208 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=14 161.44.17.135
User [ 37297304 ]
Processing ID

209 10/10/2000 17:12:44.990 SEV=5 IKE/25 RPT=13 161.44.17.135
User [ 37297304 ]
Received remote Proxy Host data in ID Payload:
Address 161.44.17.135, Protocol 0, Port 0

212 10/10/2000 17:12:44.990 SEV=7 IKEDBG/1 RPT=15 161.44.17.135
User [ 37297304 ]
Modifying client proxy src address!

213 10/10/2000 17:12:44.990 SEV=9 IKEDBG/1 RPT=16 161.44.17.135
User [ 37297304 ]
Processing ID

214 10/10/2000 17:12:44.990 SEV=5 IKE/24 RPT=7 161.44.17.135
User [ 37297304 ]
Received local Proxy Host data in ID Payload:
Address 172.18.124.134, Protocol 0, Port 0

217 10/10/2000 17:12:44.990 SEV=9 IKEDBG/0 RPT=36 161.44.17.135
User [ 37297304 ]
Processing Notify payload

218 10/10/2000 17:12:44.990 SEV=8 IKEDECODE/0 RPT=35 161.44.17.135
Notify Payload Decode :
  DOI           :       IPSEC (1)
  Protocol      :       ISAKMP (1)
  Message       :       Initial contact (24578)
  Spi           :       9D F3 34 FE 89 BF AA B2 B7 AD 34 D2 74 4D 05 DA
  Length        :       28

224 10/10/2000 17:12:44.990 SEV=8 IKEDBG/0 RPT=37
QM IsRekeyed old sa not found by addr

225 10/10/2000 17:12:44.990 SEV=5 IKE/66 RPT=13 161.44.17.135
User [ 37297304 ]
IKE Remote Peer configured for SA: ESP−3DES−MD5

226 10/10/2000 17:12:44.990 SEV=9 IKEDBG/0 RPT=38 161.44.17.135
User [ 37297304 ]
processing IPSEC SA

227 10/10/2000 17:12:44.990 SEV=8 IKEDBG/0 RPT=39
Proposal # 1, Transform # 1, Type ESP, Id DES−CBC
Parsing received transform:
  Phase 2 failure:
  Mismatched transform IDs for protocol ESP:
    Rcv'd: DES−CBC
    Cfg'd: Triple−DES

232 10/10/2000 17:12:45.000 SEV=7 IKEDBG/27 RPT=1 161.44.17.135
User [ 37297304 ]
IPSec SA Proposal # 2, Transform # 1 acceptable

233 10/10/2000 17:12:45.000 SEV=7 IKEDBG/0 RPT=40 161.44.17.135
User [ 37297304 ]
IKE: requesting SPI!

234 10/10/2000 17:12:45.000 SEV=6 IKE/0 RPT=2
AM received unexpected event EV_ACTIVATE_NEW_SA in state AM_ACTIVE

235 10/10/2000 17:12:45.000 SEV=9 IPSECDBG/6 RPT=1
IPSEC key message parse − msgtype 6, len 164, vers 1, pid 00000000, seq 13,
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 300,
lifetime2 2000000000, dsId 2

239 10/10/2000 17:12:45.000 SEV=9 IPSECDBG/1 RPT=1
Processing KEY_GETSPI msg!

240 10/10/2000 17:12:45.000 SEV=7 IPSECDBG/13 RPT=1
Reserved SPI 1773955517

241 10/10/2000 17:12:45.000 SEV=8 IKEDBG/6 RPT=1
IKE got SPI from key engine: SPI = 0x69bc69bd

242 10/10/2000 17:12:45.000 SEV=9 IKEDBG/0 RPT=41 161.44.17.135
User [ 37297304 ]
oakley constructing quick mode

243 10/10/2000 17:12:45.000 SEV=9 IKEDBG/0 RPT=42 161.44.17.135
User [ 37297304 ]
constructing blank hash

244 10/10/2000 17:12:45.000 SEV=9 IKEDBG/0 RPT=43 161.44.17.135
User [ 37297304 ]
constructing ISA_SA for ipsec

245 10/10/2000 17:12:45.000 SEV=9 IKEDBG/1 RPT=17 161.44.17.135
User [ 37297304 ]
constructing ipsec nonce payload

246 10/10/2000 17:12:45.000 SEV=9 IKEDBG/1 RPT=18 161.44.17.135
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User [ 37297304 ]
constructing proxy ID

247 10/10/2000 17:12:45.000 SEV=7 IKEDBG/0 RPT=44 161.44.17.135
User [ 37297304 ]
Transmitting Proxy Id:
  Remote host: 192.168.1.1  Protocol 0  Port 0
  Local host:  172.18.124.134  Protocol 0  Port 0

251 10/10/2000 17:12:45.000 SEV=9 IKEDBG/0 RPT=45 161.44.17.135
User [ 37297304 ]
constructing QM hash

252 10/10/2000 17:12:45.000 SEV=8 IKEDBG/0 RPT=46 161.44.17.135
SENDING Message (msgid=48687ca1) with payloads :
HDR + HASH (8)  ... total length : 136

254 10/10/2000 17:12:45.010 SEV=8 IKEDECODE/0 RPT=36 161.44.17.135
ISAKMP HEADER :         ( Version 1.0 )
  Initiator Cookie(8):  9D F3 34 FE 89 BF AA B2
  Responder Cookie(8):  B7 AD 34 D2 74 4D 05 DA
  Next Payload  :       HASH (8)
  Exchange Type :       Oakley Quick Mode
  Flags         :       1   (ENCRYPT )
  Message ID    :       48687ca1
  Length        :       52

261 10/10/2000 17:12:45.010 SEV=8 IKEDBG/0 RPT=47 161.44.17.135
RECEIVED Message (msgid=48687ca1) with payloads :
HDR + HASH (8) + NONE (0) ... total length : 48

263 10/10/2000 17:12:45.010 SEV=9 IKEDBG/0 RPT=48 161.44.17.135
User [ 37297304 ]
processing hash

264 10/10/2000 17:12:45.010 SEV=9 IKEDBG/0 RPT=49 161.44.17.135
User [ 37297304 ]
loading all IPSEC SAs

265 10/10/2000 17:12:45.010 SEV=9 IKEDBG/1 RPT=19 161.44.17.135
User [ 37297304 ]
Generating Quick Mode Key!

266 10/10/2000 17:12:45.010 SEV=9 IKEDBG/1 RPT=20 161.44.17.135
User [ 37297304 ]
Generating Quick Mode Key!

267 10/10/2000 17:12:45.020 SEV=7 IKEDBG/0 RPT=50 161.44.17.135
User [ 37297304 ]
Loading host:
  Dst: 172.18.124.134
  Src: 192.168.1.1

268 10/10/2000 17:12:45.020 SEV=4 IKE/49 RPT=13 161.44.17.135
User [ 37297304 ]
Security negotiation complete for User (37297304)
Responder, Inbound SPI = 0x69bc69bd, Outbound SPI = 0x991518b4

271 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/6 RPT=2
IPSEC key message parse - msgtype 1, Len 536, vers 1, pid 00000000, seq 0,
err 0, type 2, mode 1, state 64, label 0, pad 0, spi 991518b4, encrKeyLen 24,
hashKeyLen 16, ivlen 8, alg 2, hmacAlg 3, lifetype 0, lifetime1 0,
lifetime2 0, dsId 2

274 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=2
Processing KEY_ADD MSG!
```

```
275 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=3
key_msghdr2secassoc(): Enter

276 10/10/2000 17:12:45.020 SEV=7 IPSECDBG/1 RPT=4
No USER filter configured

277 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=5
KeyProcessAdd: Enter

278 10/10/2000 17:12:45.020 SEV=8 IPSECDBG/1 RPT=6
KeyProcessAdd: Adding outbound SA

279 10/10/2000 17:12:45.020 SEV=8 IPSECDBG/1 RPT=7
KeyProcessAdd: src 172.18.124.134 mask 0.0.0.0, dst 192.168.1.1 mask 0.0.0.0

280 10/10/2000 17:12:45.020 SEV=8 IPSECDBG/1 RPT=8
KeyProcessAdd: FilterIpsecAddIkeSa success

281 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/6 RPT=3
IPSEC key message parse − msgtype 3, Len 292, vers 1, pid 00000000, seq 0,
err 0, type 2, mode 1, state 32, label 0, pad 0, spi 69bc69bd, encrKeyLen 24,
hashKeyLen 16, ivlen 8, alg 2, hmacAlg 3, lifetype 0, lifetime1 0,
lifetime2 0, dsId 2

284 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=9
Processing KEY_UPDATE MSG!

285 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=10
Update inbound SA addresses

286 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=11
key_msghdr2secassoc(): Enter

287 10/10/2000 17:12:45.020 SEV=7 IPSECDBG/1 RPT=12
No USER filter configured

288 10/10/2000 17:12:45.020 SEV=9 IPSECDBG/1 RPT=13
KeyProcessUpdate: Enter
289 10/10/2000 17:12:45.020 SEV=8 IPSECDBG/1 RPT=14
KeyProcessUpdate: success

290 10/10/2000 17:12:45.020 SEV=8 IKEDBG/7 RPT=1
IKE got a KEY_ADD MSG for SA: SPI = 0x991518b4

291 10/10/2000 17:12:45.020 SEV=8 IKEDBG/0 RPT=51
pitcher: rcv KEY_UPDATE, spi 0x69bc69bd
```

Good Debug With SDI

SDI Debug

If successful (first authentication on SDI)

```
10/06/2000   11:57:04/U   37297304/vpn3000             000037297304/37297304
372
10/06/2000   11:57:04/L   Node Secret Sent to Client   zekie.cisco.com
10/06/2000   15:57:05/U   37297304/vpn3000             000037297304/37297304
372
10/06/2000   11:57:05/U   PASSCODE Accepted            zekie.cisco.com
```

If successful (after the first authentication on SDI)

```
10/06/2000   16:06:09U    37297304/vpn3000             000037297304/37297304
```

```
372
10/06/2000   12:06:09L    PASSCODE Accepted            zekie.cisco.com
```

VPN 3000 Concentrator Debug (on test)

Debug "Class Name" for authentication:

- AUTH
- AUTHDBG
- AUTHDECODE

```
4 10/06/2000 14:09:25.000 SEV=8 AUTHDBG/1 RPT=1
AUTH_Open() returns 14

5 10/06/2000 14:09:25.000 SEV=7 AUTH/12 RPT=1
Authentication session opened: handle = 14

6 10/06/2000 14:09:25.000 SEV=8 AUTHDBG/3 RPT=1
AUTH_PutAttrTable(14, 5a2aa0)

7 10/06/2000 14:09:25.000 SEV=8 AUTHDBG/5 RPT=1
AUTH_Authenticate(14, e5187e0, 306bdc)

8 10/06/2000 14:09:25.000 SEV=8 AUTHDBG/59 RPT=1
AUTH_BindServer(71e097c, 0, 0)

9 10/06/2000 14:09:25.000 SEV=9 AUTHDBG/69 RPT=1
Auth Server 649ab4 has been bound to ACB 71e097c, sessions = 1

10 10/06/2000 14:09:25.000 SEV=8 AUTHDBG/65 RPT=1
AUTH_CreateTimer(71e097c, 0, 0)

11 10/06/2000 14:09:25.000 SEV=9 AUTHDBG/72 RPT=1
Reply timer created: handle = 490011

12 10/06/2000 14:09:25.000 SEV=8 AUTHDBG/61 RPT=1
AUTH_BuildMsg(71e097c, 0, 0)

13 10/06/2000 14:09:25.000 SEV=8 AUTHDBG/51 RPT=1
Sdi_Build(71e097c)

14 10/06/2000 14:09:25.010 SEV=8 AUTHDBG/64 RPT=1
AUTH_StartTimer(71e097c, 0, 0)

15 10/06/2000 14:09:25.010 SEV=9 AUTHDBG/73 RPT=1
Reply timer started: handle = 490011, timestamp = 8553930, timeout = 4000

16 10/06/2000 14:09:25.010 SEV=8 AUTHDBG/62 RPT=1
AUTH_SndRequest(71e097c, 0, 0)

17 10/06/2000 14:09:25.010 SEV=8 AUTHDBG/52 RPT=1

Sdi_Xmt(71e097c)

18 10/06/2000 14:09:25.010 SEV=9 AUTHDBG/71 RPT=1
xmit_cnt = 1

19 10/06/2000 14:09:26.080 SEV=8 AUTHDBG/63 RPT=1
AUTH_RcvReply(71e097c, 0, 0)

20 10/06/2000 14:09:26.080 SEV=8 AUTHDBG/53 RPT=1
Sdi_Rcv(71e097c)

21 10/06/2000 14:09:26.080 SEV=8 AUTHDBG/66 RPT=1
```

```
AUTH_DeleteTimer(71e097c, 0, 0)

22 10/06/2000 14:09:26.080 SEV=9 AUTHDBG/74 RPT=1
Reply timer stopped: handle = 490011, timestamp = 8554037

23 10/06/2000 14:09:26.080 SEV=8 AUTHDBG/58 RPT=1
AUTH_Callback(71e097c, 0, 0)

24 10/06/2000 14:09:26.080 SEV=6 AUTH/4 RPT=1
Authentication successful: handle = 14, server = 172.18.124.99, user = 37297304

25 10/06/2000 14:09:26.080 SEV=8 AUTHDBG/2 RPT=1
AUTH_Close(14)

26 10/06/2000 14:09:26.080 SEV=8 AUTHDBG/60 RPT=1
AUTH_UnbindServer(71e097c, 0, 0)

27 10/06/2000 14:09:26.080 SEV=9 AUTHDBG/70 RPT=1
Auth Server 649ab4 has been unbound from ACB 71e097c, sessions = 0

28 10/06/2000 14:09:26.080 SEV=8 AUTHDBG/10 RPT=1
AUTH_Int_FreeAuthCB(71e097c)

29 10/06/2000 14:09:26.080 SEV=9 AUTHDBG/19 RPT=1
instance = 15, clone_instance = 0

30 10/06/2000 14:09:26.080 SEV=7 AUTH/13 RPT=1
Authentication session closed: handle = 14
```

Bad Debugs

Bad username or user not activated on client

SDI debug

```
10/06/2000 16:30:21U junk/vpn3000
10/06/2000 12:30:21L User Not on Client zekie.cisco.com
```

VPN 3000 debug

```
21 10/06/2000 14:20:06.310 SEV=3 AUTH/5 RPT=5
Authentication rejected: Reason = Unspecified
handle = 15, server = 172.18.124.99, user = junk
```

Good username, bad passcode

SDI debug

```
10/06/2000 16:33:07U 37297304/vpn3000   000037297304/37297304 372
10/06/2000 12:33:07L ACCESS DENIED, PASSCODE Incorrect zekie.cisco.com
```

VPN 3000 debug

```
249 10/06/2000 14:22:52.160 SEV=3 AUTH/5 RPT=6
Authentication rejected: Reason = Unspecified
handle = 16, server = 172.18.124.99, user = 37297304
```

SDI Server unreachable or daemon down

SDI debug

Shows nothing (did not receive request)

VPN 3000 debug

```
77 10/06/2000 14:28:55.600 SEV=4 AUTH/9 RPT=7
Authentication failed: Reason = Network error
handle = 17, server = 172.18.124.99, user = 37297304
```

VPN 3000 not configured as client on SDI box

SDI debug

```
10/06/2000 17:37:42U −−/172.18.124.134 −−>/
10/06/2000 13:36:42L Client Not Found   zekie.cisco.com
```

VPN 3000 debug

```
113 10/06/2000 15:26:27.440 SEV=3 AUTH/5 RPT=8
Authentication rejected: Reason = Unspecified
handle = 21, server = 172.18.124.99, user = 37297304
```

Removed VPN 3000 Concentrator as a client from the SDI server, then re−added it

The SDI server tried to send down the SECURID file to replace the old one, but the VPN 3000 already had this file.

Message on SDI

```
10/06/2000 13:42:18L Node Verification Failed zekie.cisco.com
```

VPN 3000 debug

```
21 10/06/2000 15:32:03.030 SEV=3 AUTH/5 RPT=9
Authentication rejected: Reason = Unspecified
handle = 22, server = 172.18.124.99, user = 37297304
```

To resolve this problem, delete the SECURID file on the VPN 3000 Concentrator by going to **Administration** > **File management** > **Files** > **SECURID** > **Delete**. On re−test, the VPN 3000 Concentrator accepts the new file from the SDI server. If **Edit Client** > **Sent Node Secret** check box is grayed out on the SDI, the SDI server was unable to complete the exchange. Once the VPN 3000 Concentrator has the SECURID file, the **Sent Node Secret** check box is checked/not grayed out.

Related Information

- **Configuring the Cisco VPN Client to VPN 3000 Concentrator with IPSec SDI Authentication 5.0 and Later**
- **Cisco VPN 3000 Series Concentrator Support Page**
- **Cisco VPN 3000 Series Client Support Page**
- **IPSec Support Page**
- **Technical Support − Cisco Systems**

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