Cisco Secure PIX Firewall 6.x e Cisco VPN Client 3.5 para Windows com Autenticação IAS RADIUS do Microsoft Windows 2000 e 2003

Contents

Introduction

Esta configuração de exemplo mostra como configurar o cliente VPN Cisco versão 3.5 para Windows e o firewall Cisco Secure PIX para uso com servidor RADIUS de serviço de autenticação de Internet (IAS) do Microsoft Windows 2000 e 2003. Consulte Microsoft - Checklist: Configurando o IAS para acesso discado e VPN para obter mais informações sobre o IAS.

Consulte Exemplo de Configuração de Autenticação do PIX/ASA 7.x e Cisco VPN Client 4.x para Windows com Microsoft Windows 2003 IAS RADIUS para saber mais sobre o mesmo cenário no PIX/ASA 7.0 com Cisco VPN Client 4.x.

Prerequisites

Requirements

Certifique-se de atender a estes requisitos antes de tentar esta configuração:

- O Cisco Secure PIX Firewall Software Release 6.0 suporta conexões VPN do Cisco VPN Client 3.5 para Windows.
- Este exemplo de configuração pressupõe que o PIX já está operando com a estatística, os conduítes ou as listas de acesso apropriados. O documento atual não pretende ilustrar esses

conceitos básicos, mas mostrar a conectividade com o PIX de um Cisco VPN Client.

Componentes Utilizados

As informações neste documento são baseadas nestas versões de software e hardware:

- Software PIX Firewall versão 6.1.1**Observação:** isso foi testado no software PIX versão 6.1.1, mas deve funcionar em todas as versões 6.x.
- Cisco VPN Client versão 3.5 para Windows
- Windows 2000 e 2003 Server com IAS

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

Conventions

Consulte as Convenções de Dicas Técnicas da Cisco para obter mais informações sobre convenções de documentos.

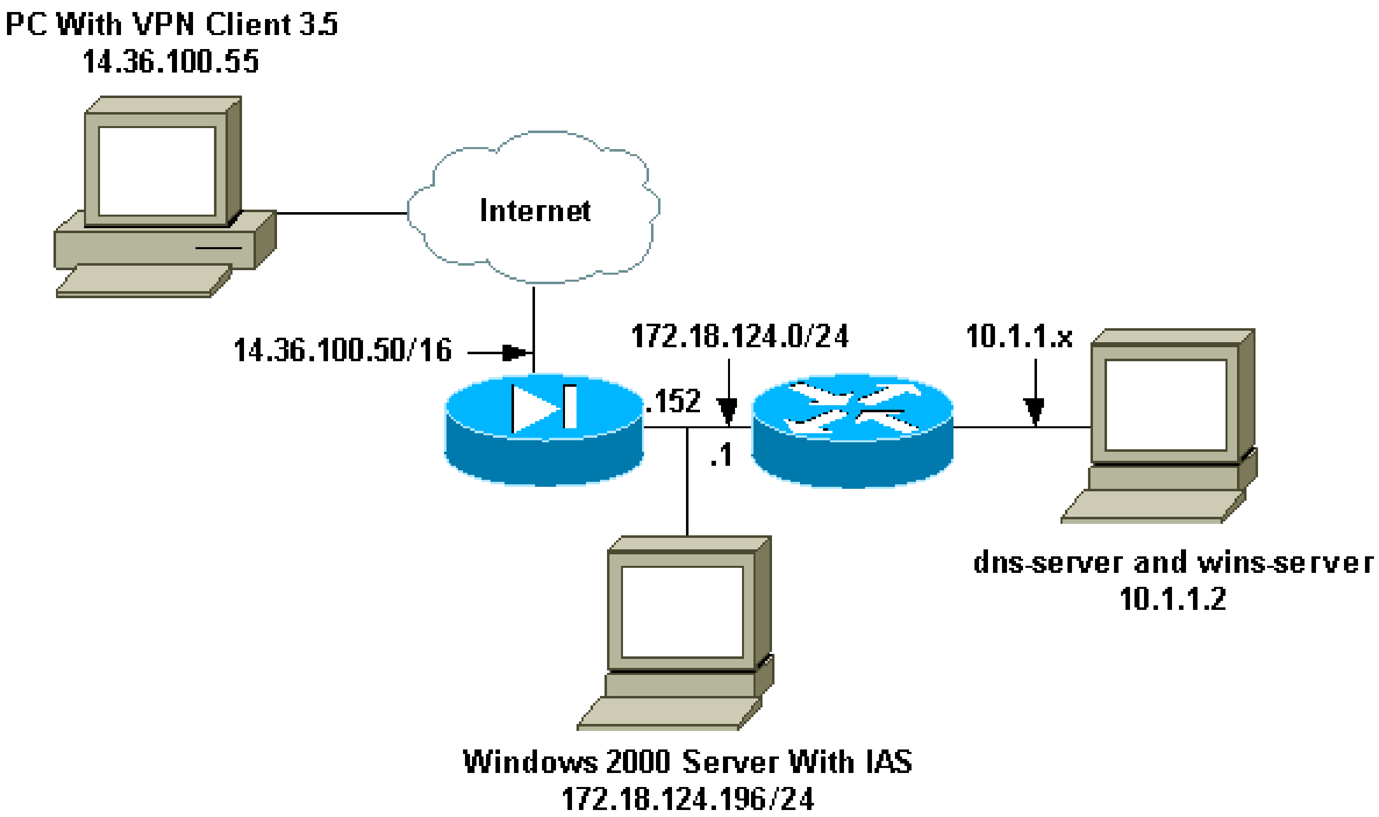
Configurar

Nesta seção, você encontrará informações para configurar os recursos descritos neste documento.

Nota: Use a Command Lookup Tool (somente clientes registrados) para obter mais informações sobre os comandos usados nesta seção.

Diagrama de Rede

Este documento utiliza a seguinte configuração de rede:



Configurações

Este documento utiliza estas configurações.

- Firewall de PIX
- Cisco VPN Client 3.5 para Windows
- Microsoft Windows 2000 Server com IAS
- Microsoft Windows 2003 Server com IAS

Firewall de PIX

Firewall de PIX

```
pixfirewall(config)#write terminal
Building configuration...
: Saved
:
PIX Version 6.1(1)
nameif ethernet0 outside security0
nameif ethernet1 inside security100
enable password 8Ry2YjIyt7RRXU24 encrypted
passwd 2KFQnbNIdI.2KYOU encrypted
hostname pixfirewall
fixup protocol ftp 21
fixup protocol http 80
fixup protocol h323 1720
fixup protocol rsh 514
fixup protocol rtsp 554
fixup protocol smtp 25
fixup protocol sqlnet 1521
fixup protocol sip 5060
fixup protocol skinny 2000
```

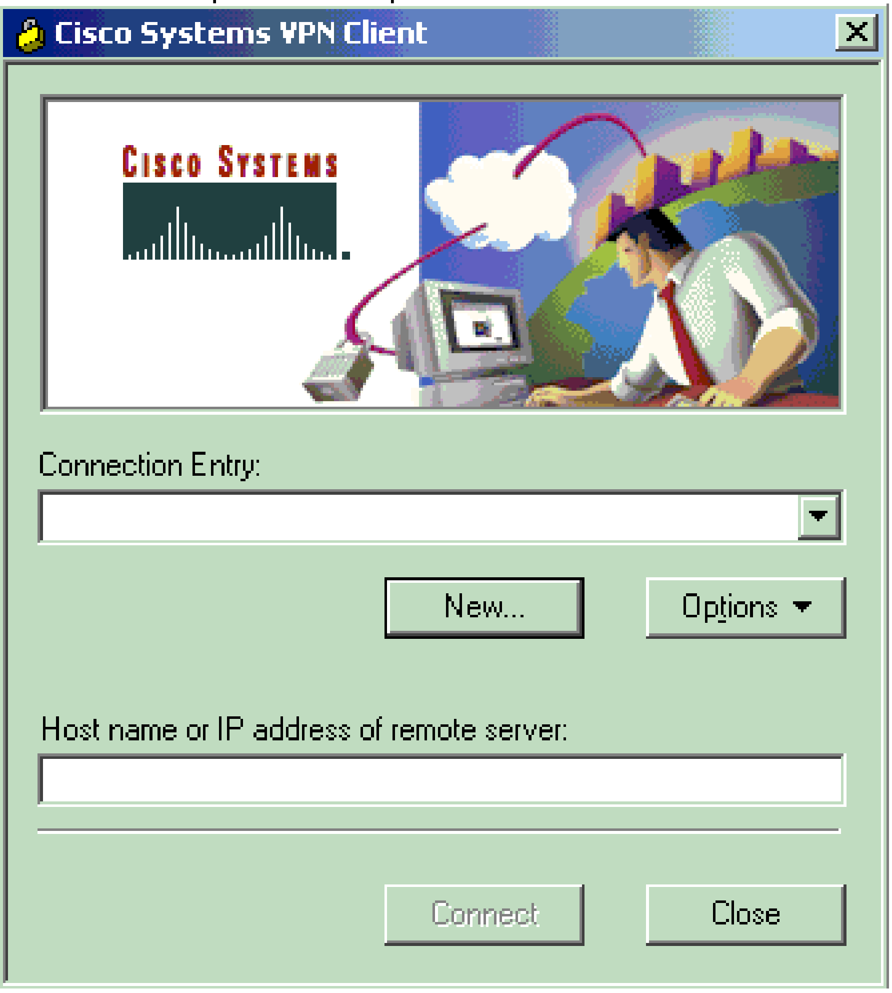
```
names
!--- Issue the access-list command to avoid !--- Network
Address Translation (NAT) on the IPsec packets.

access-list 101 permit ip 10.1.1.0 255.255.255.0
10.1.2.0
  255.255.255.0
pager lines 24
interface ethernet0 auto
interface ethernet1 auto
mtu outside 1500
mtu inside 1500
ip address outside 14.36.100.50 255.255.0.0
ip address inside 172.18.124.152 255.255.255.0
ip audit info action alarm
ip audit attack action alarm
ip local pool ippool 10.1.2.1-10.1.2.254
pdm history enable
arp timeout 14400
global (outside) 1 14.36.100.51
!--- Binding access list 101 to the NAT statement to
avoid !--- NAT on the IPsec packets. nat (inside) 0
access-list 101
Nat (inside) 1 0.0.0.0 0.0.0.0 0 0
route outside 0.0.0.0 0.0.0.0 14.36.1.1 1
route inside 10.1.1.0 255.255.255.0 172.18.124.1
timeout xlate 3:00:00
timeout conn 1:00:00 half-closed 0:10:00 udp 0:02:00
   rpc 0:10:00 h323 0:05:00 sip 0:30:00 sip_media
0:02:00
timeout uauth 0:05:00 absolute
!--- Enable access to the RADIUS protocol.
aaa-server RADIUS protocol radius
!--- Associate the partnerauth protocol to RADIUS. aaa-
server partnerauth protocol radius
aaa-server partnerauth (inside) host 172.18.124.196
cisco123
   timeout 5
no snmp-server location
no snmp-server contact
snmp-server community public
no snmp-server enable traps
floodguard enable
!--- Tell PIX to implicitly permit IPsec traffic. sysopt
connection permit-ipsec
no sysopt route dnat
!--- Configure a transform set that defines how the
traffic is protected. crypto ipsec transform-set myset
esp-des esp-md5-hmac
!--- Create a dynamic crypto map and specify which !---
transform sets are allowed for this dynamic crypto map
entry. crypto dynamic-map dynmap 10 set transform-set
myset
!--- Add the dynamic crypto map set into a static crypto
map set. crypto map mymap 10 ipsec-isakmp dynamic dynmap
!--- Enable the PIX to launch the Xauth application on
the VPN Client. crypto map mymap client authentication
partnerauth
!--- Apply the crypto map to the outside interface.
crypto map mymap interface outside
!--- IKE Policy Configuration. isakmp enable outside
isakmp identity address
isakmp policy 10 authentication pre-share
isakmp policy 10 encryption des
isakmp policy 10 hash md5
isakmp policy 10 group 2
isakmp policy 10 lifetime 86400
!--- IPsec group configuration for VPN Client. vpngroup
vpn3000 address-pool ippool
vpngroup vpn3000 dns-server 10.1.1.2
vpngroup vpn3000 wins-server 10.1.1.2
vpngroup vpn3000 default-domain cisco.com
vpngroup vpn3000 idle-time 1800
vpngroup vpn3000 password ********
telnet timeout 5
ssh timeout 5
terminal width 80
Cryptochecksum:3f9e31533911b8a6bb5c0f06900c2dbc
: end
[OK]
pixfirewall(config)#
```

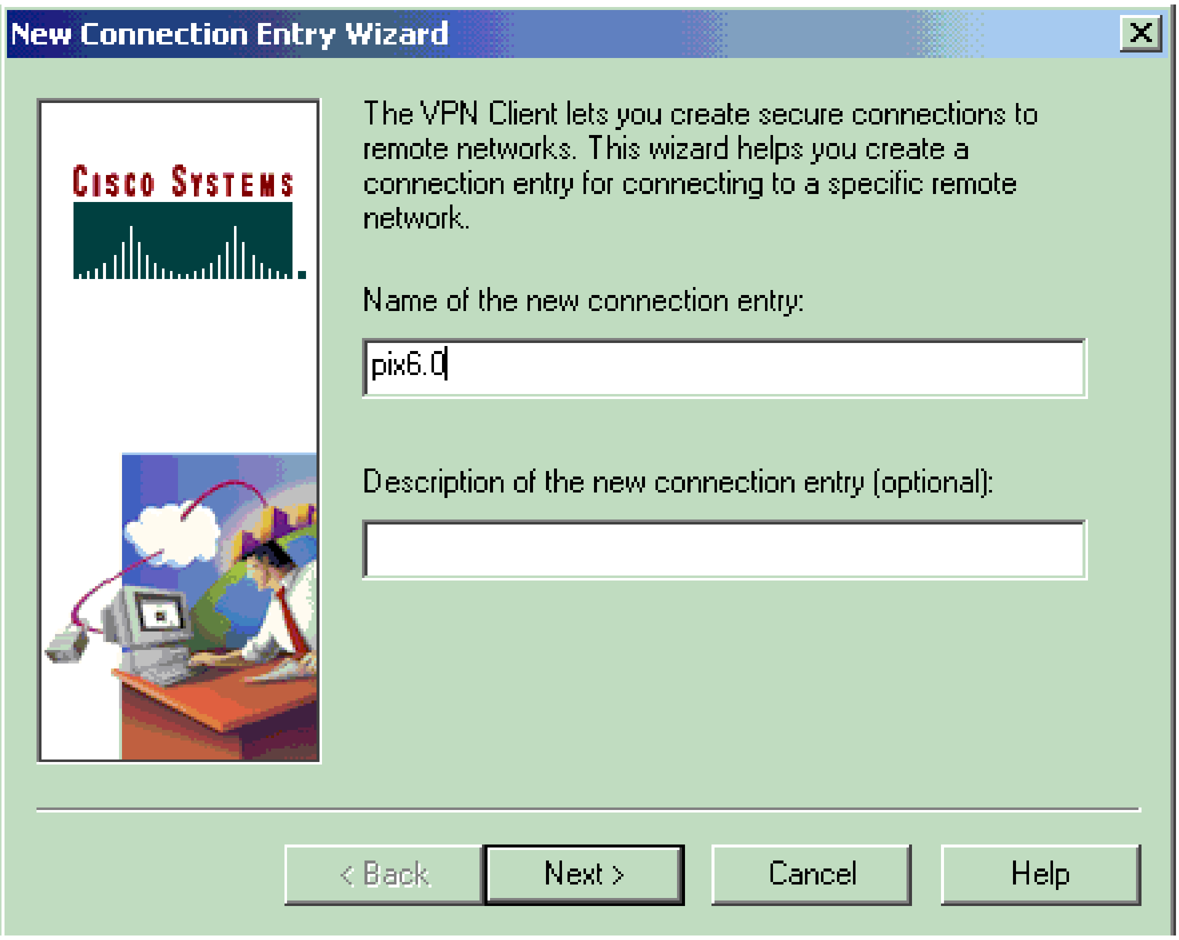
Cisco VPN Client 3.5 para Windows

Esta seção explica como configurar o Cisco VPN Client 3.5 para Windows.

1. Inicie o VPN Client e clique em **New** para criar uma nova conexão.



2. Na caixa Connection Entry, atribua um nome para a



New Connection Entry Wizard

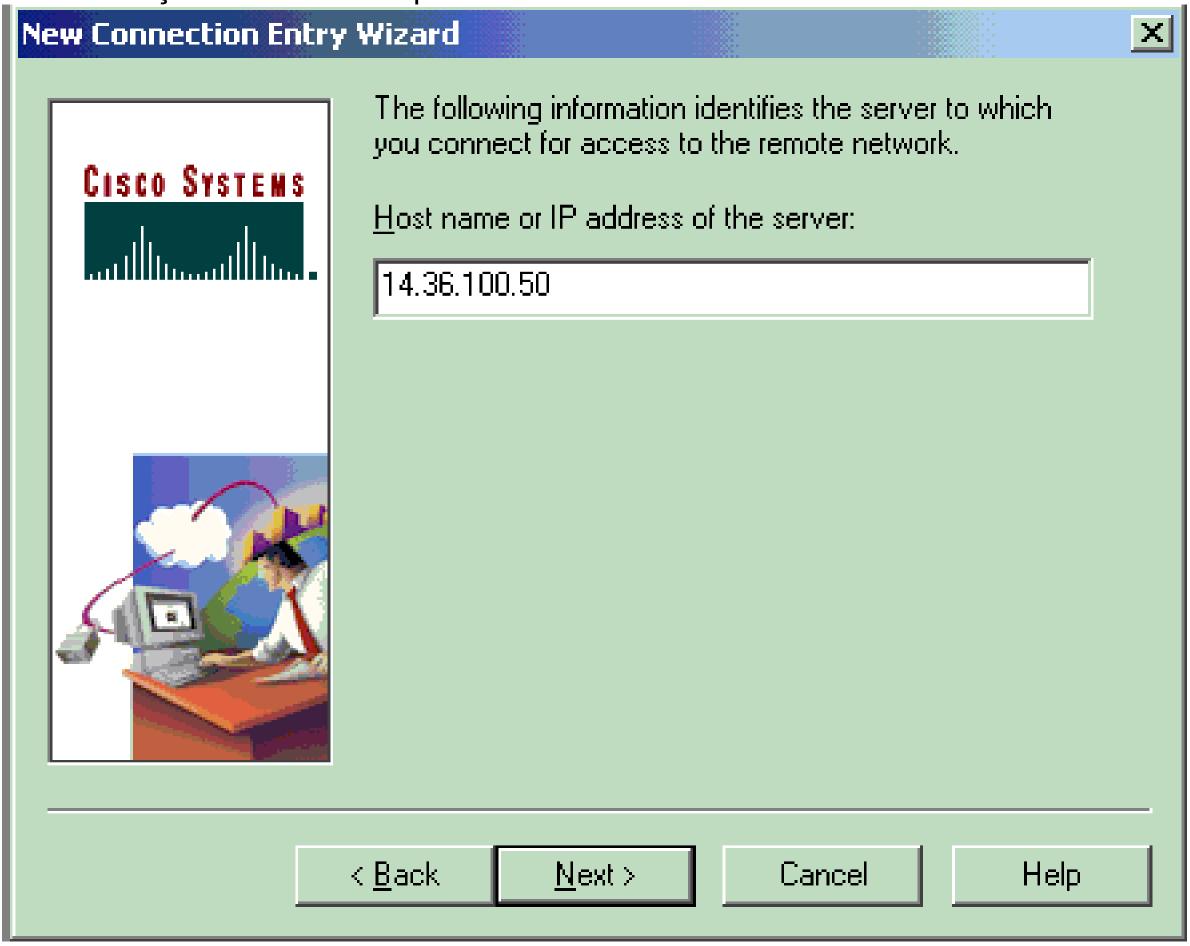
The VPN Client lets you create secure connections to remote networks. This wizard helps you create a connection entry for connecting to a specific remote network.

Name of the new connection entry: pix6.0

Description of the new connection entry (optional):

entrada.

3. Insira o endereço IP da interface pública do



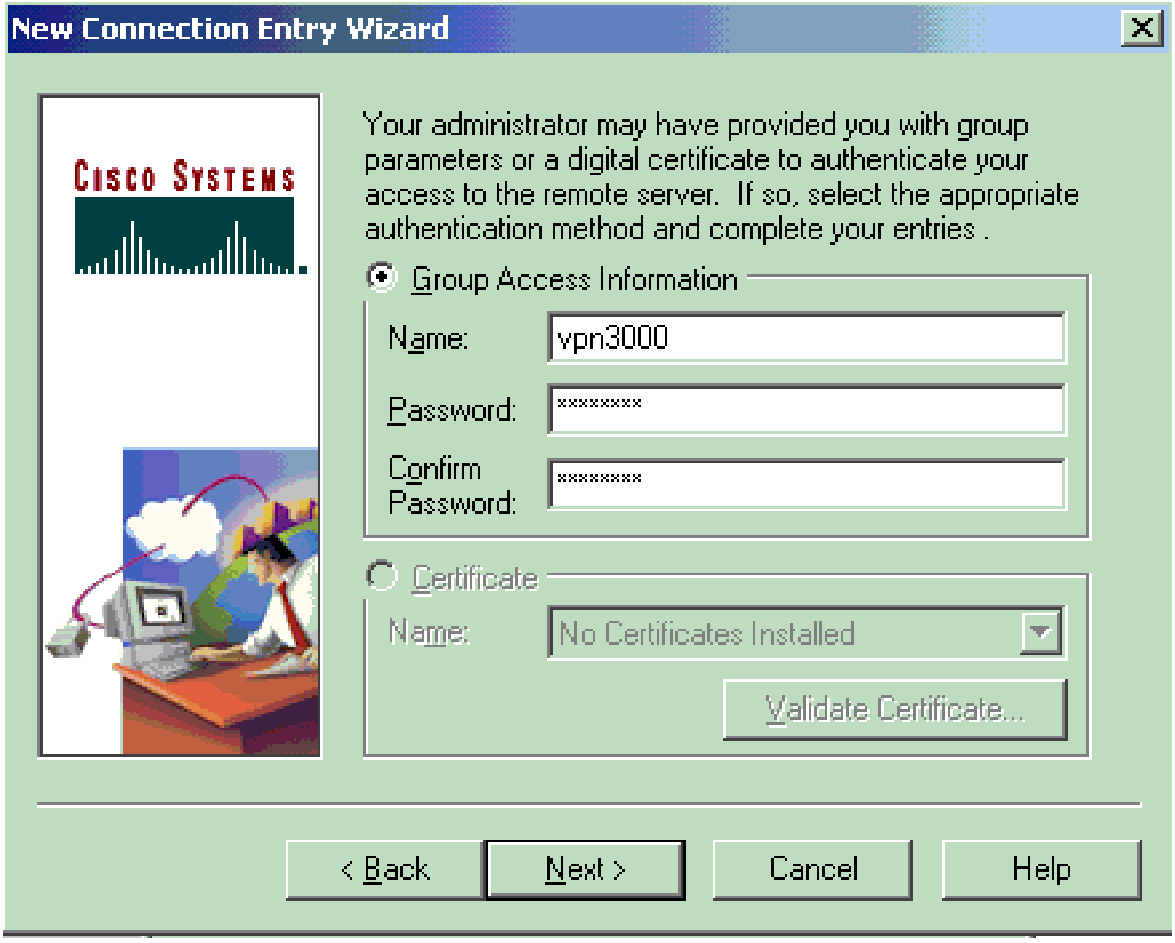
New Connection Entry Wizard

The following information identifies the server to which you connect for access to the remote network.

Host name or IP address of the server: 14.36.100.50

PIX.

4. Em **Group Access Information**, digite o nome do grupo e a senha do



Your administrator may have provided you with group parameters or a digital certificate to authenticate your access to the remote server. If so, select the appropriate authentication method and complete your entries .

● Group Access Information

Name: vpn3000

Password: ********

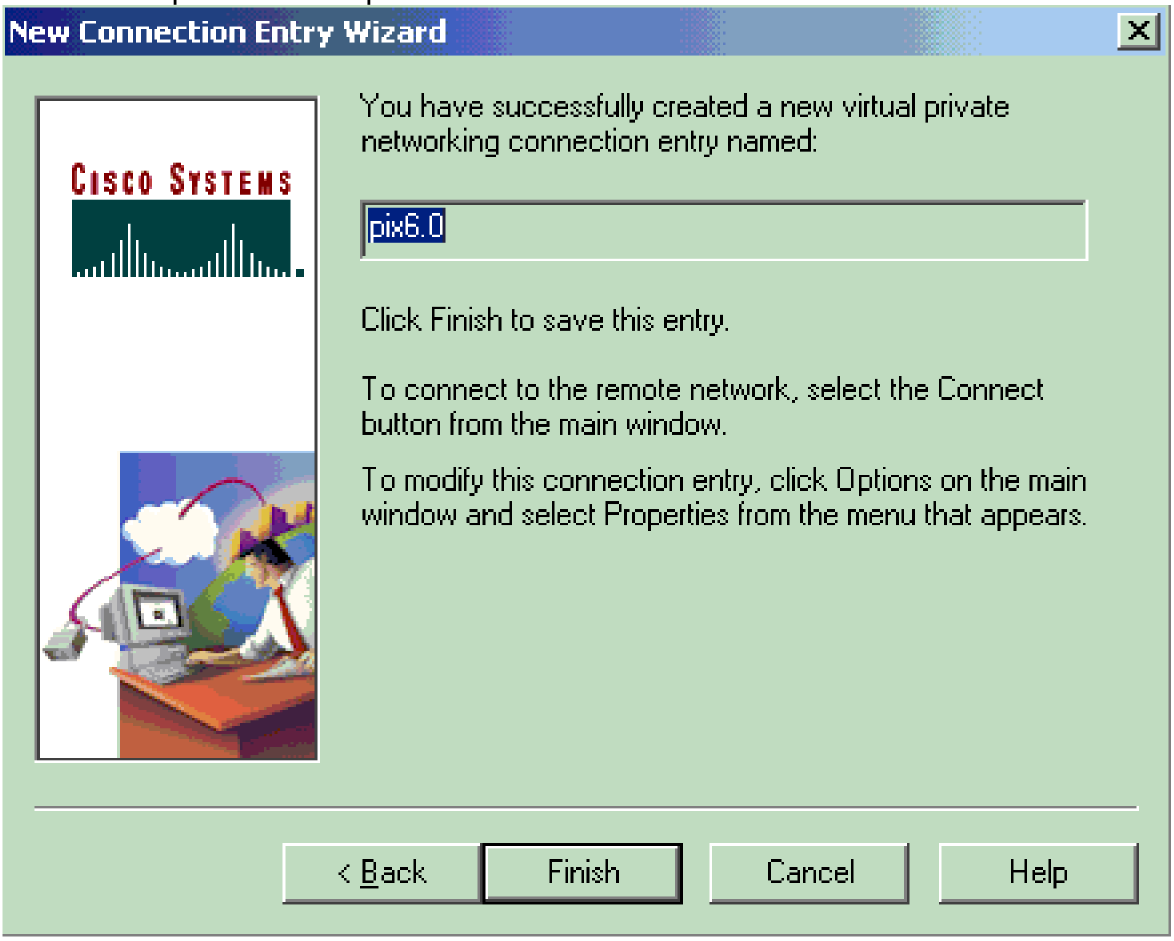
Confirm Password: ********

○ Certificate

Name: No Certificates Installed

grupo.

5. Clique em Encerrar para salvar o perfil no



You have successfully created a new virtual private networking connection entry named:

pix6.0

Click Finish to save this entry.

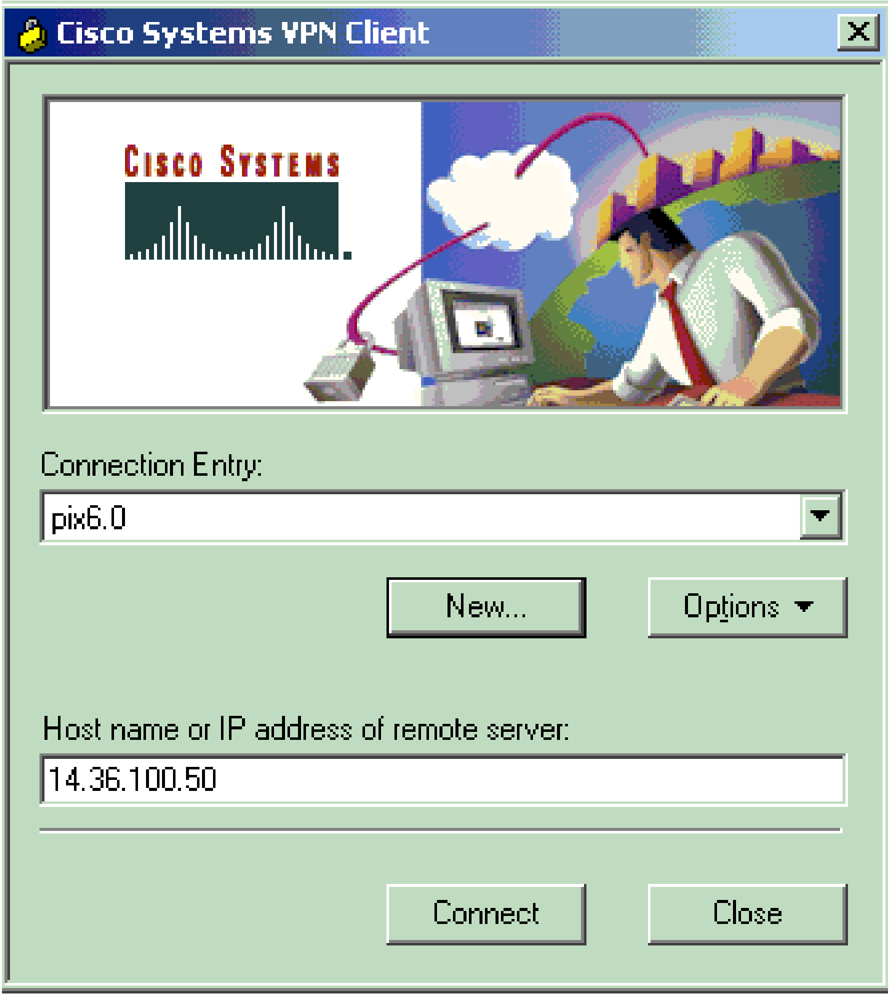
To connect to the remote network, select the Connect button from the main window.

To modify this connection entry, click Options on the main window and select Properties from the menu that appears.

registro.

6. Clique em Connect para conectar ao

PIX.



Connection Entry: pix6.0

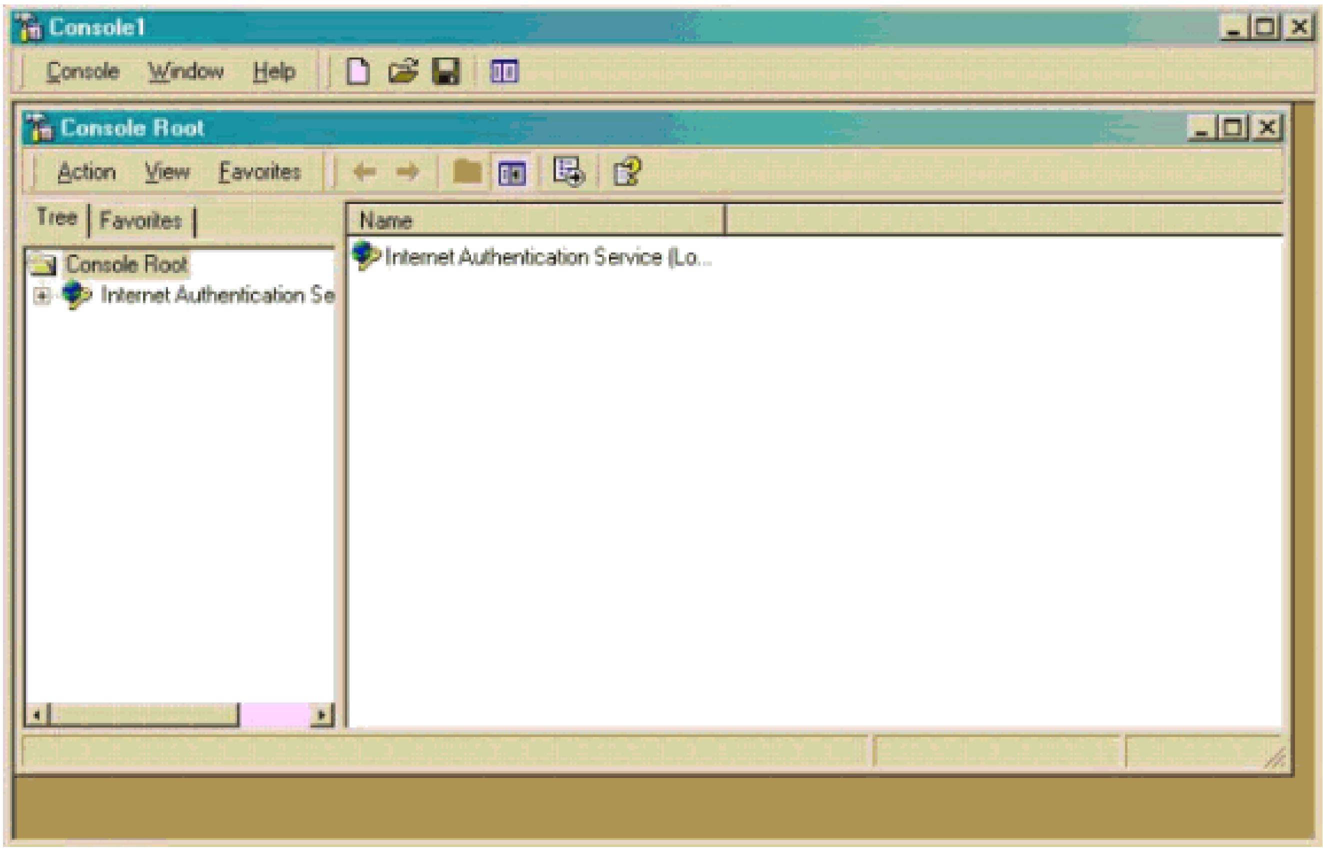
Host name or IP address of remote server: 14.36.100.50

Microsoft Windows 2000 Server com IAS

Conclua estes passos para configurar o servidor Microsoft Windows 2000 com IAS. Essa é uma configuração muito básica para usar um servidor IAS do Windows 2000 para autenticação RADIUS de usuários de VPN. Se você precisar de um projeto mais complexo, entre em contato com a Microsoft para obter assistência.

Observação: estas etapas presumem que o IAS já foi instalado na máquina local. Caso contrário, adicione-o através do **Painel de controle > Adicionar ou remover programas**.

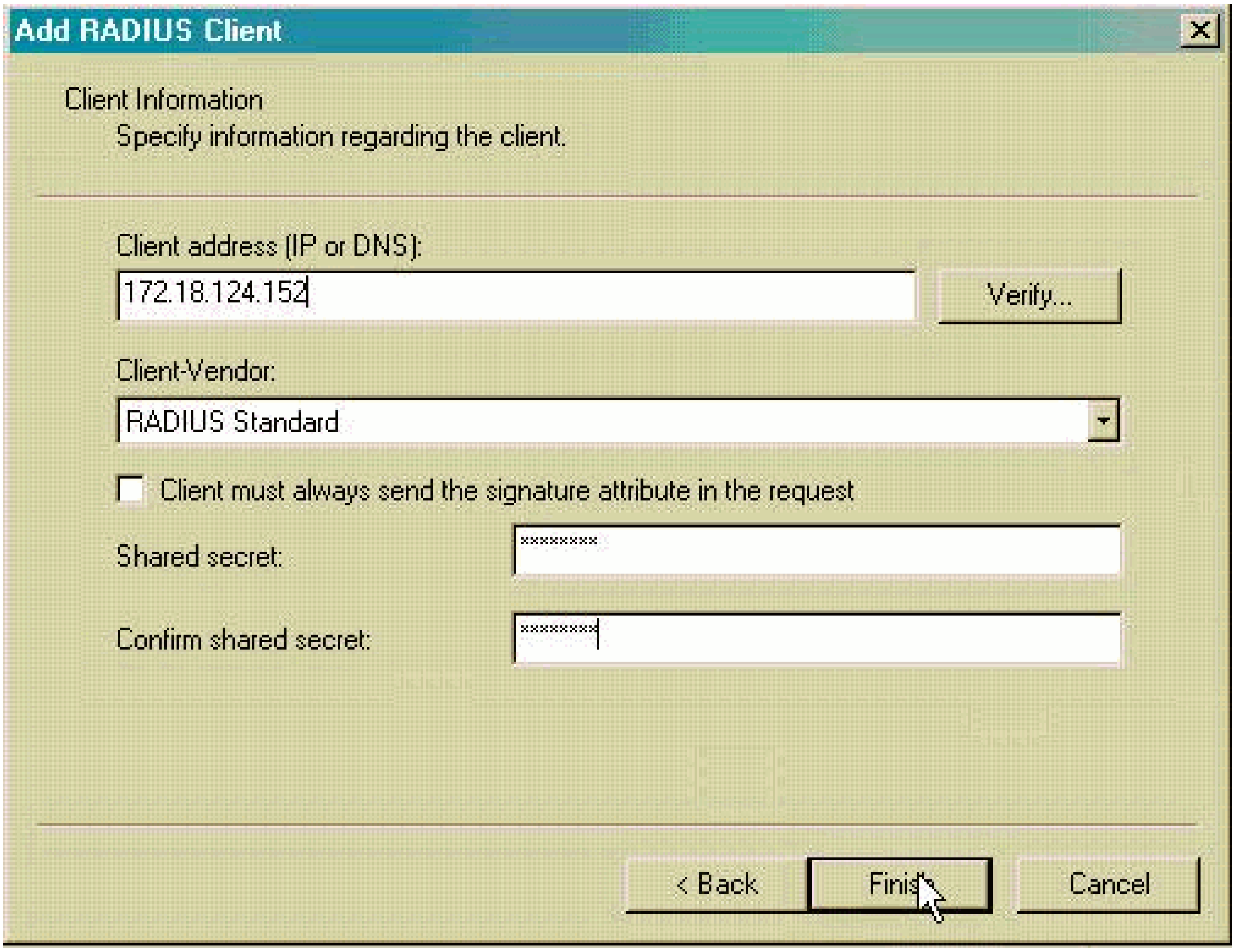
1. Inicie o Microsoft Management Console. Escolha **Iniciar > Executar** e digite **mmc.** Em seguida, clique em “OK”.
2. Escolha **Console > Adicionar Remover Snap-In....** para adicionar o serviço IAS a este console.
3. Clique em **Adicionar** para iniciar uma nova janela com todos os snap-ins autônomos disponíveis. Clique em **Internet Authentication Service (IAS)** e clique em **Add**.
4. Verifique se **Local Computer** está selecionado e clique em **Finish**. Em seguida, clique em **Fechar**.
5. Observe que o IAS agora é adicionado. Clique em **OK** para ver se ele foi adicionado à Raiz do
   Console.



6. Expanda o **Internet Authentication Service** e clique com o botão direito do mouse em **Clients**. Clique em **Novo cliente** e insira um nome. A escolha do nome realmente não importa; será o que você verá nesta visão. Selecione **RADIUS** e clique em **Avançar**.
7. Preencha o **endereço do cliente** com o endereço da interface PIX ao qual o servidor IAS está conectado. Selecione **RADIUS Standard** e adicione o segredo compartilhado para corresponder ao comando inserido no PIX:

   ```
   aaa-server partnerauth (inside) host 172.18.124.196 cisco123 timeout 5
   ```

   Observação: neste exemplo, "cisco123" é o segredo compartilhado.



Add RADIUS Client

Client Information

Specify information regarding the client.

Client address (IP or DNS): 172.18.124.152

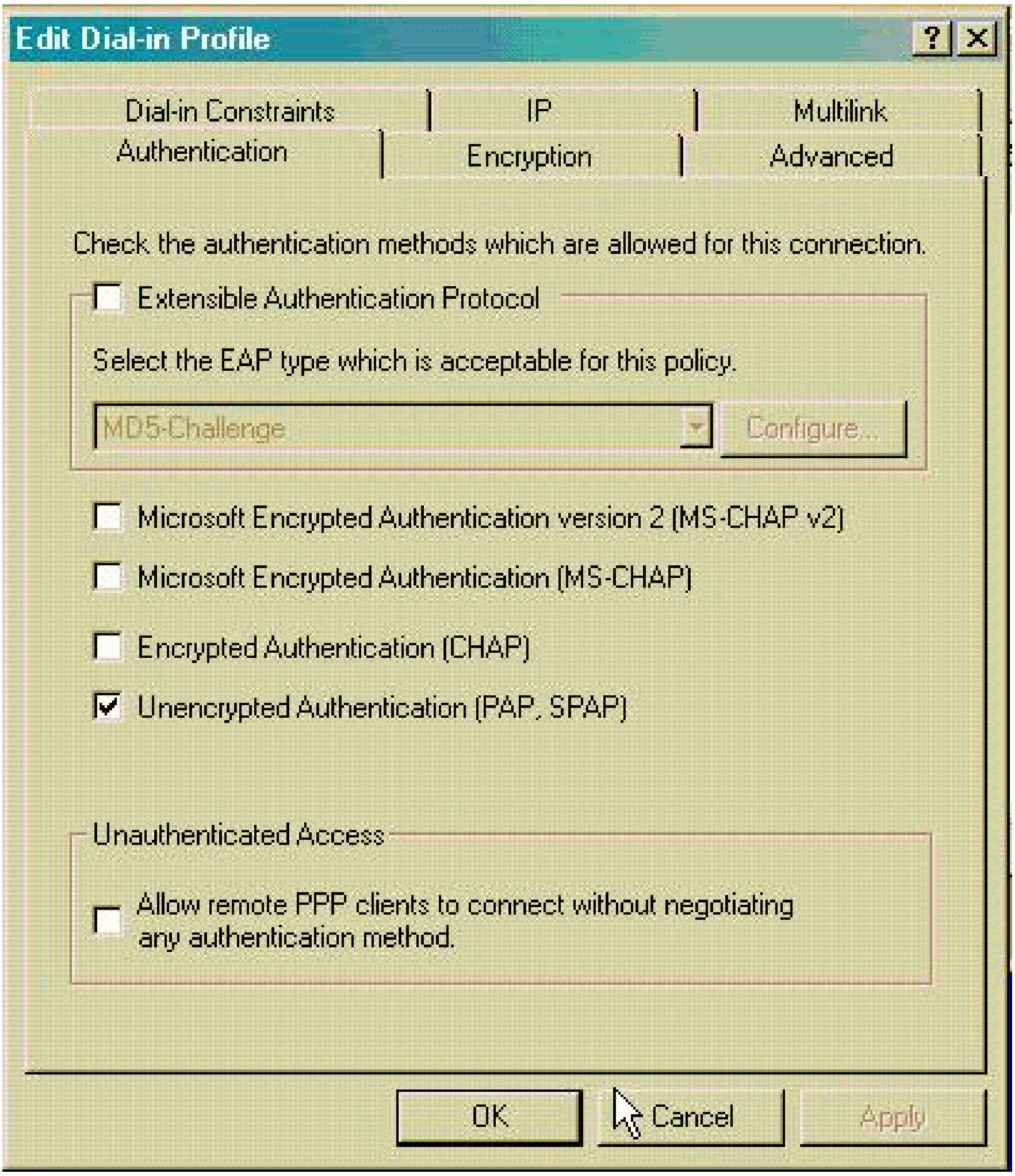
Client-Vendor: RADIUS Standard

□ Client must always send the signature attribute in the request

Shared secret: ********

Confirm shared secret: ********

8. Clique em **Concluir** para retornar à Raiz do Console.
9. Clique em **Remote Access Policies** no painel esquerdo e clique duas vezes na diretiva **Allow access (Permitir acesso) se a permissão de discagem estiver habilitada**.
10. Clique em **Editar perfil** e vá para a guia Autenticação. Em **Authentication Methods**, verifique se apenas **Unencrypted Authentication (PAP, SPAP)** está marcada.**Observação:** o VPN Client só pode usar este método para



Edit Dial-in Profile

Dial-in Constraints | IP | Multilink

Authentication | Encryption | Advanced

Check the authentication methods which are allowed for this connection.

□ Extensible Authentication Protocol

Select the EAP type which is acceptable for this policy.

MD5-Challenge

□ Microsoft Encrypted Authentication version 2 (MS-CHAP v2)

□ Microsoft Encrypted Authentication (MS-CHAP)

□ Encrypted Authentication (CHAP)

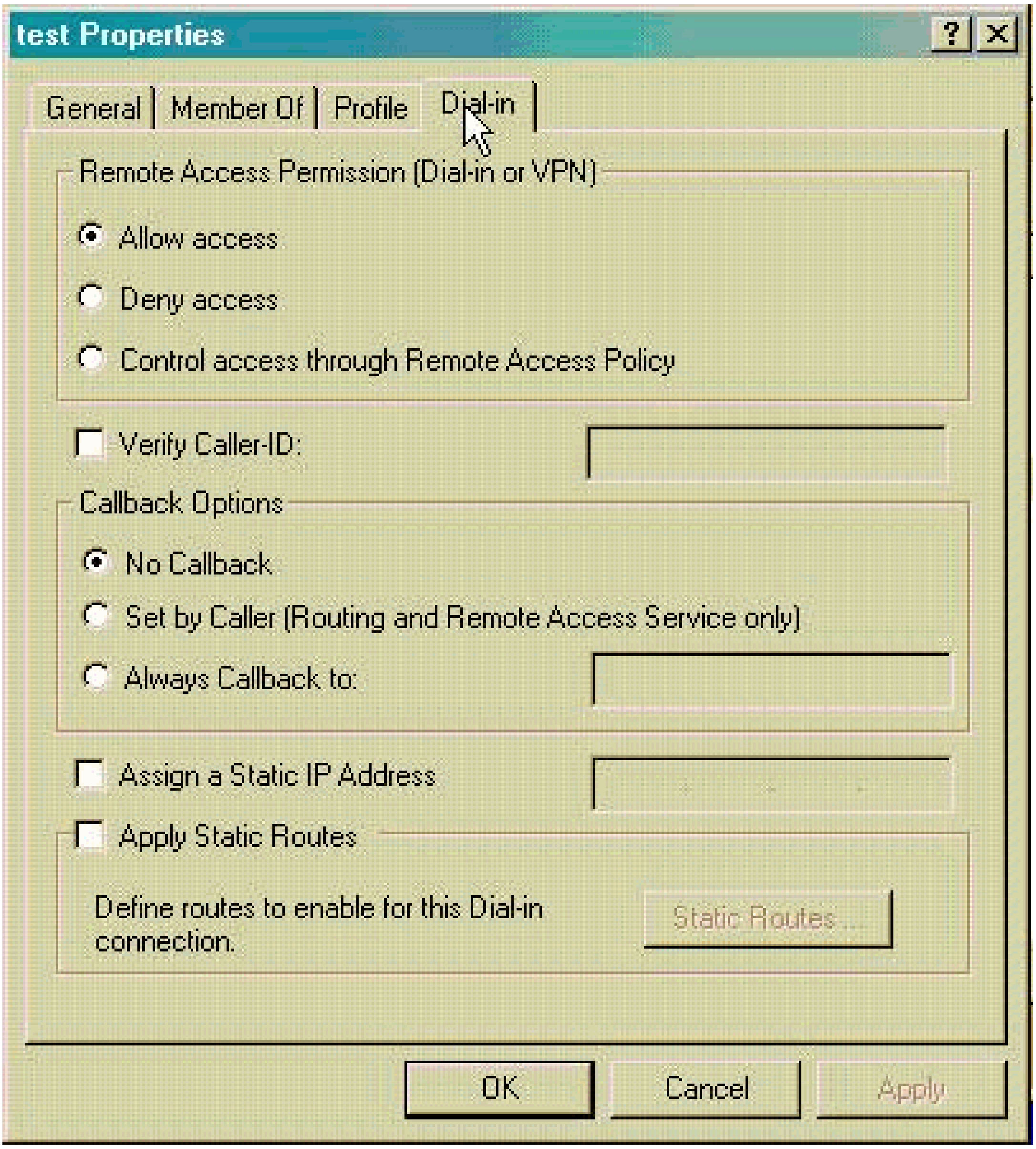
☑ Unencrypted Authentication (PAP, SPAP)

Unauthenticated Access

□ Allow remote PPP clients to connect without negotiating any authentication method.

autenticação.

11. Clique em **Apply** e em **OK** duas vezes.
12. Para modificar os usuários para permitir a conexão, escolha **Console > Add/Remove Snap-in**. Clique em **Adicionar** e selecione o **snap-in Usuários locais e grupos**. Clique em Add. Selecione **Local Computer** e clique em **Finish**. Click **OK**.
13. Expanda **Usuário e grupos locais** e clique na pasta **Usuários** no painel esquerdo. No painel direito, clique duas vezes no usuário que deseja permitir o acesso.
14. Clique na guia Dial-in e selecione **Allow Access** em **Remote Access Permission (Dial-in ou**



Remote Access Permission (Dial-in or VPN)

● Allow access

○ Deny access

○ Control access through Remote Access Policy

□ Verify Caller-ID:

Callback Options

● No Callback

○ Set by Caller (Routing and Remote Access Service only)

○ Always Callback to:

□ Assign a Static IP Address

□ Apply Static Routes

Define routes to enable for this Dial-in connection.

Static Routes...

VPN).

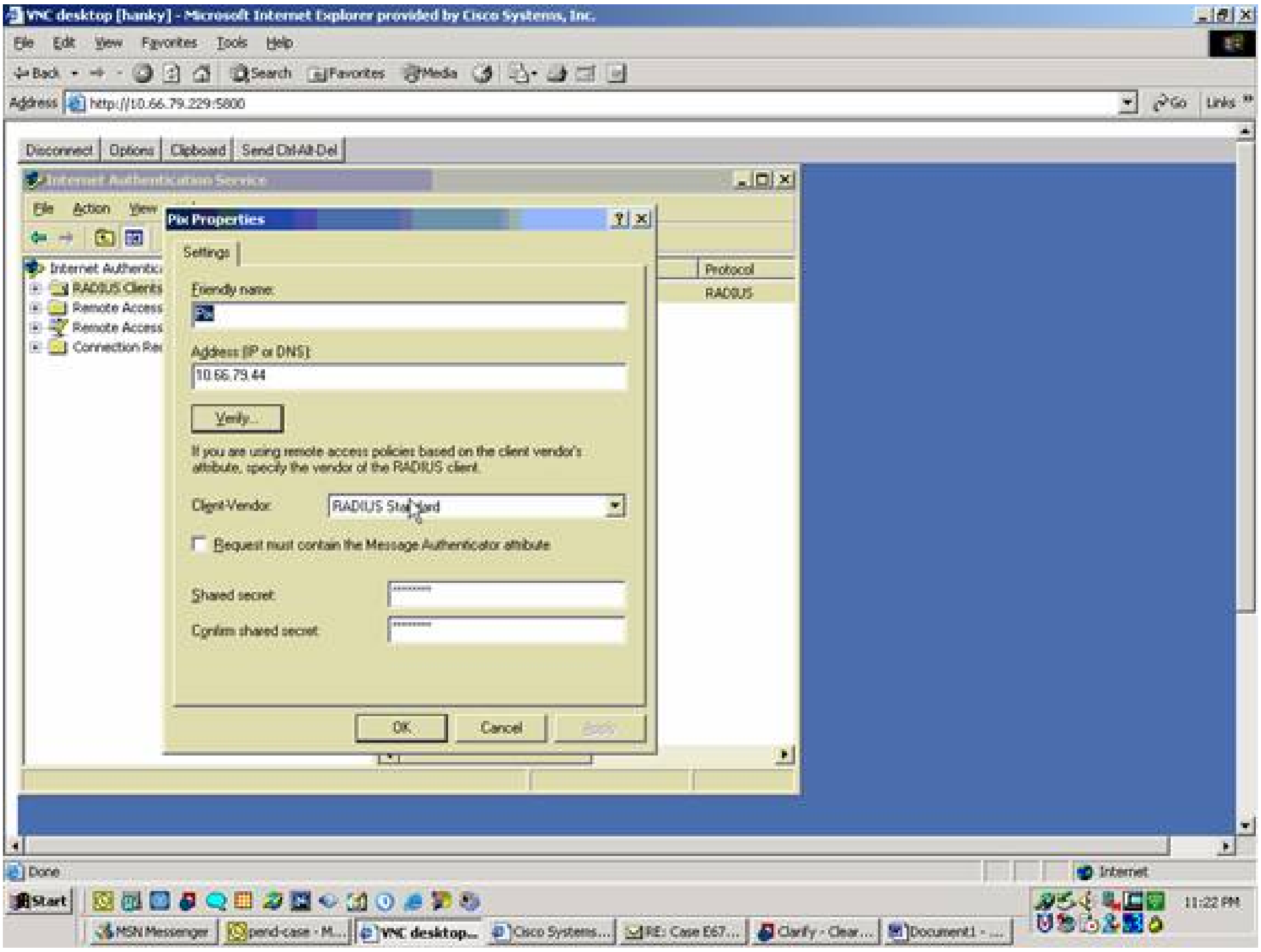
15. Clique em **Aplicar** e em **OK** para concluir a ação. Você pode fechar a tela **Gerenciamento do console** e salvar a sessão, se desejar.
16. Os usuários que você modificou agora devem poder acessar o PIX com o VPN Client 3.5. Lembre-se de que o servidor IAS autentica apenas as informações do usuário. O PIX ainda faz a autenticação de grupo.

Microsoft Windows 2003 Server com IAS

Conclua estes passos para configurar o servidor Microsoft Windows 2003 com IAS.

Observação: estas etapas presumem que o IAS já foi instalado na máquina local. Caso contrário, adicione-o através do **Painel de controle > Adicionar ou remover programas**.

1. Escolha **Administrative Tools > Internet Authentication Service** e clique com o botão direito do mouse em **RADIUS Client** para adicionar um novo cliente RADIUS. Depois de digitar as informações do cliente, clique em **OK**.Este exemplo mostra um cliente chamado "Pix" com um endereço IP de 10.66.79.44. O Client-Vendor está definido como RADIUS Standard e o segredo compartilhado é
   "cisco123".



Friendly name: Pix

Address (IP or DNS): 10.66.79.44

If you are using remote access policies based on the client vendor's attribute, specify the vendor of the RADIUS client.

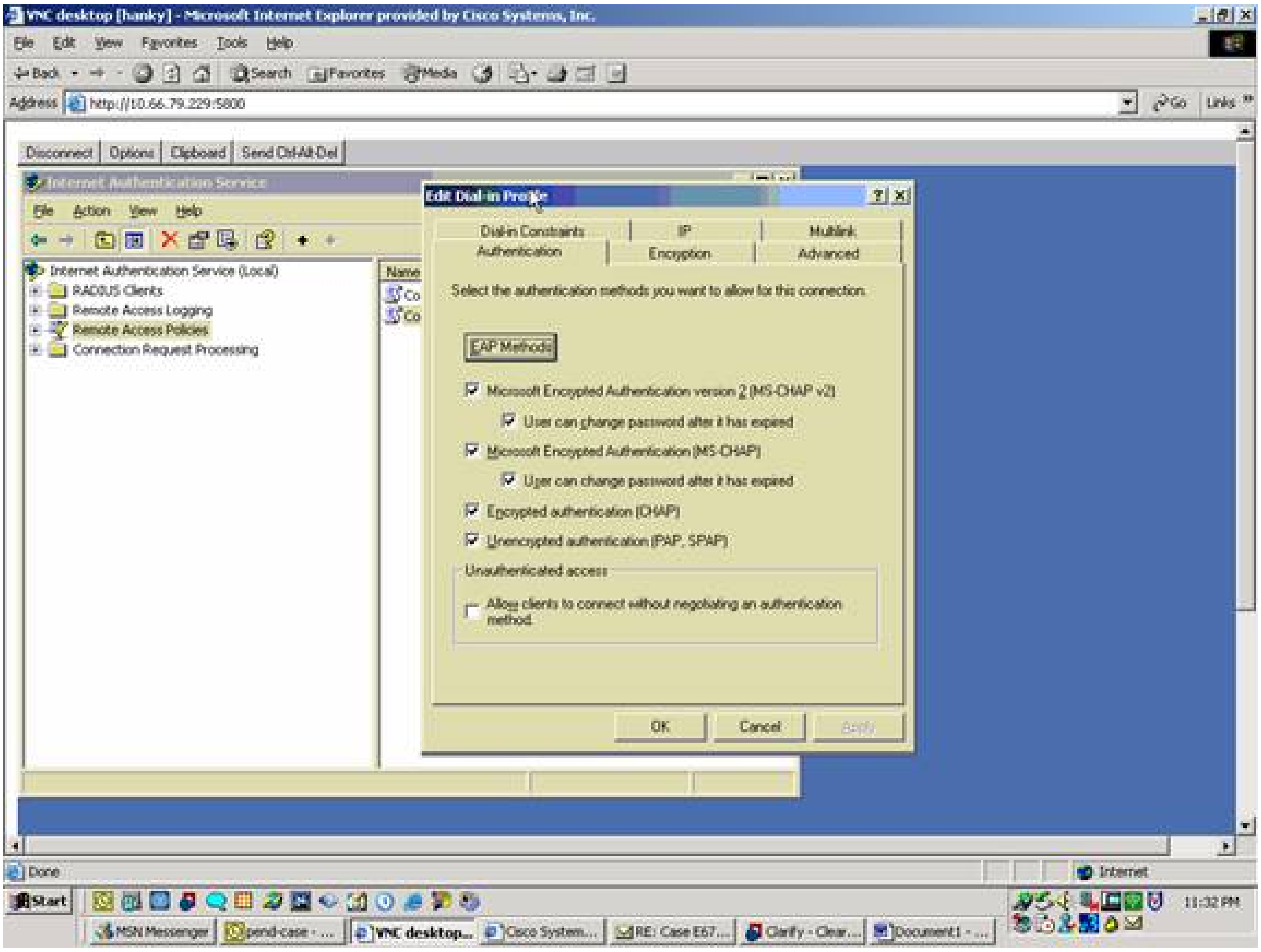
Client-Vendor: RADIUS Standard

☐ Request must contain the Message Authenticator attribute

Shared secret: ********

Confirm shared secret: ********

2. Vá para **Políticas de acesso remoto**, clique com o botão direito do mouse em **Conexões a outros servidores de acesso** e selecione **Propriedades**.
3. Verifique se a opção Grant Remote Access Permissions está selecionada.
4. Clique em **Editar perfil** e marque essas configurações.Na guia Autenticação, marque **Autenticação não criptografada (PAP, SPAP)**.Na guia Encryption (Criptografia), verifique se a opção No Encryption (Sem criptografia) está selecionada.Clique em **OK** quando terminar.



Select the authentication methods you want to allow for this connection.

☑ Microsoft Encrypted Authentication version 2 (MS-CHAP v2)

☑ User can change password after it has expired

☑ Microsoft Encrypted Authentication (MS-CHAP)

☑ User can change password after it has expired

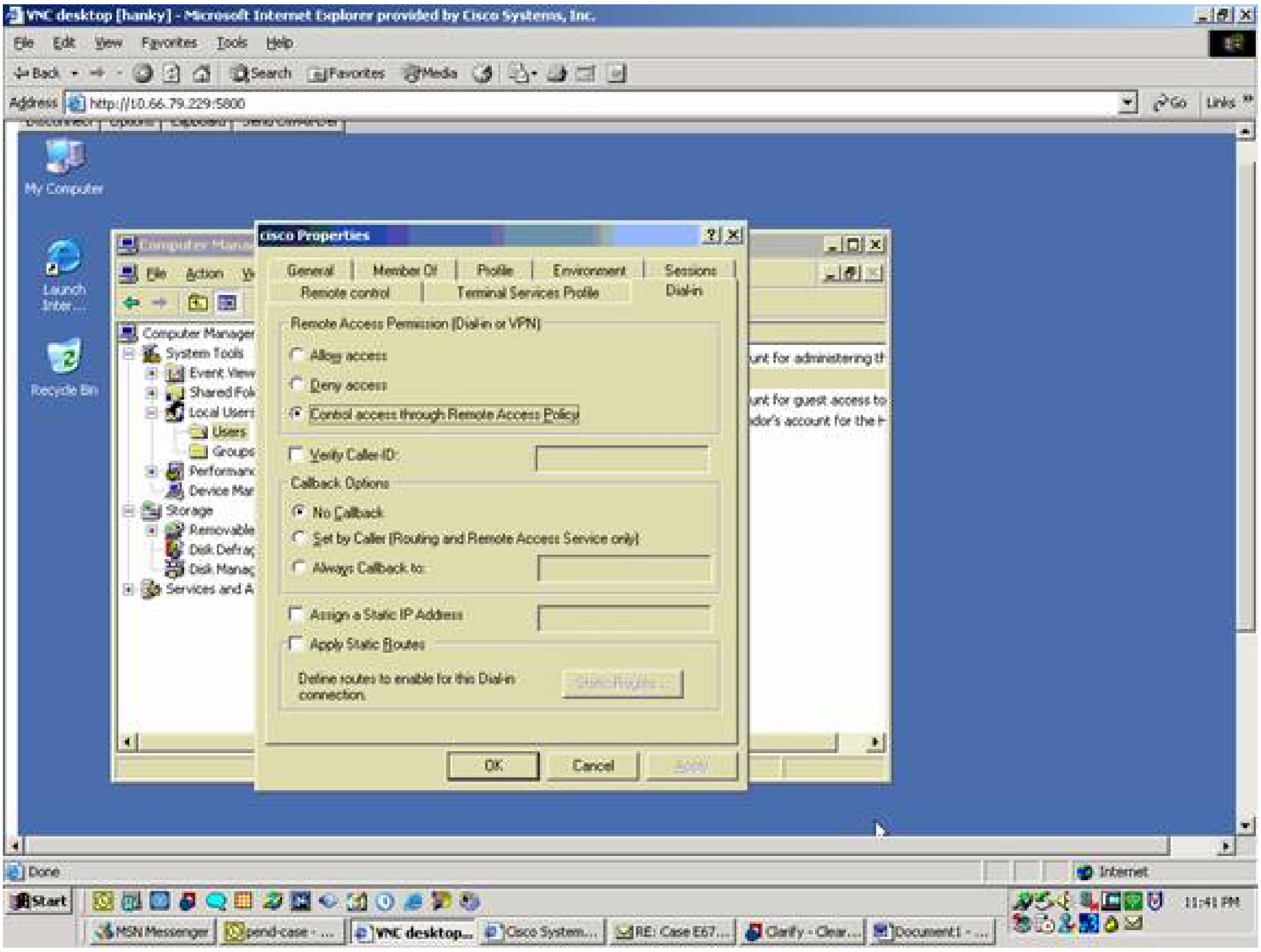
☑ Encrypted authentication (CHAP)

☑ Unencrypted authentication (PAP, SPAP)

Unauthenticated access

□ Allow clients to connect without negotiating an authentication method.

5. Adicione um usuário à conta do computador local. Para fazer isso, escolha **Ferramentas Administrativas > Gerenciamento do Computador > Ferramentas do Sistema > Usuários e Grupos Locais.**. Clique com o botão direito do mouse em **Usuários** e selecione **Novos usuários**.
6. Adicione o usuário com a senha "cisco123" da Cisco e verifique as informações deste perfil.Na guia Geral, certifique-se de que a opção **Senha nunca expirada** esteja selecionada, em vez da opção Usuário deve alterar a senha.Na guia Discar, selecione a opção **Permitir acesso** (ou deixe a configuração padrão de Controle de acesso por meio da Diretiva de acesso remoto).Clique em **OK** quando
   terminar.



cisco Properties

General | Member Of | Profile | Environment | Sessions | Remote control | Terminal Services Profile | Dial-in

Remote Access Permission (Dial-in or VPN)

○ Allow access

○ Deny access

● Control access through Remote Access Policy

□ Verify Caller-ID:

Callback Options

● No Callback

○ Set by Caller (Routing and Remote Access Service only)

○ Always Callback to:

□ Assign a Static IP Address

□ Apply Static Routes

Define routes to enable for this Dial-in connection.

Verificar

Use esta seção para confirmar se a sua configuração funciona corretamente.

A Output Interpreter Tool (somente clientes registrados) (OIT) oferece suporte a determinados comandos show. Use a OIT para exibir uma análise da saída do comando show.

- **show crypto isakmp sa** — Mostra todas as associações de segurança (SAs) IKE atuais em um peer.
- **show crypto ipsec sa** — Mostra as configurações usadas pelas associações de segurança atuais.

Troubleshoot

Esta seção fornece informações que podem ser usadas para o troubleshooting da sua configuração. Para obter informações adicionais, consulte Troubleshooting do PIX para Passar o Tráfego de Dados em um Túnel IPSec Estabelecido.

Comandos para Troubleshooting

Determinados comandos são suportados pela Output Interpreter Tool (somente clientes registrados) , que permite exibir uma análise da saída do comando **show**.

Observação: consulte Informações Importantes sobre Comandos de Depuração antes de usar comandos **debug** e consulte Solução de Problemas de Segurança IP - Compreensão e Uso de Comandos debug.

- **debug crypto ipsec** — Exibir as negociações de IPSec da fase 2.
- **debug crypto isakmp** — Exibir as negociações ISAKMP da fase 1.
- **debug crypto engine** — Visualize o tráfego criptografado.

Exemplo de saída de depuração

- Firewall de PIX
- VPN Client 3.5 para Windows

Firewall de PIX

```
pixfirewall(config)#
crypto_isakmp_process_block: src 14.36.100.55, dest 14.36.100.50
VPN Peer: ISAKMP: Added new peer: ip:14.36.100.55 Total VPN Peers:1
VPN Peer: ISAKMP: Peer ip:14.36.100.55 Ref cnt incremented to:1
   Total VPN Peers:1
OAK_AG exchange
ISAKMP (0): processing SA payload. message ID = 0

ISAKMP (0): Checking ISAKMP transform 1 against priority 10 policy
ISAKMP:      encryption 3DES-CBC
ISAKMP:      hash SHA
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 2 against priority 10 policy
ISAKMP:      encryption 3DES-CBC
ISAKMP:      hash MD5
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 3 against priority 10 policy
ISAKMP:      encryption 3DES-CBC
ISAKMP:      hash SHA
ISAKMP:      default group 2
ISAKMP:      auth pre-share
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 4 against priority 10 policy
ISAKMP:      encryption 3DES-CBC
ISAKMP:      hash MD5
ISAKMP:      default group 2
ISAKMP:      auth pre-share
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 5 against priority 10 policy
ISAKMP:      encryption DES-CBC
ISAKMP:      hash SHA
```

```
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP (0): atts are not acceptable. Next payload is 3
ISAKMP (0): Checking ISAKMP transform 6 against priority 10 policy
ISAKMP:      encryption DES-CBC
ISAKMP:      hash MD5
ISAKMP:      default group 2
ISAKMP:      extended auth pre-share
ISAKMP:      life type in seconds
ISAKMP:      life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP (0): atts are acceptable. Next payload is 3
ISAKMP (0): processing KE payload. message ID = 0

ISAKMP (0): processing NONCE payload. message ID = 0

ISAKMP (0): processing ID payload. message ID = 0
ISAKMP (0): processing vendor id payload

ISAKMP (0): processing vendor id payload

ISAKMP (0): remote peer supports dead peer detection

ISAKMP (0): processing vendor id payload

ISAKMP (0): speaking to a Unity client

ISAKMP: Created a peer node for 14.36.100.55
ISAKMP (0): ID payload
        next-payload : 10
        type         : 1
        protocol     : 17
        port         : 500
        length       : 8
ISAKMP (0): Total payload length: 12
return status is IKMP_NO_ERROR
crypto_isakmp_process_block: src 14.36.100.55, dest 14.36.100.50
OAK_AG exchange
ISAKMP (0): processing HASH payload. message ID = 0
ISAKMP (0): processing NOTIFY payload 24578 protocol 1
        spi 0, message ID = 0
ISAKMP (0): processing notify INITIAL_CONTACTIPSEC(key_engine): got
   a queue event...
IPSEC(key_engine_delete_sas): rec'd delete notify from ISAKMP
IPSEC(key_engine_delete_sas): delete all SAs shared with 14.36.100.55

ISAKMP (0): SA has been authenticated
return status is IKMP_NO_ERROR
ISAKMP/xauth: request attribute XAUTH_TYPE
ISAKMP/xauth: request attribute XAUTH_USER_NAME
ISAKMP/xauth: request attribute XAUTH_USER_PASSWORD
ISAKMP (0:0): initiating peer config to 14.36.100.55. ID = 3870616596
   (0xe6b4ec14)
crypto_isakmp_process_block: src 14.36.100.55, dest 14.36.100.50
ISAKMP_TRANSACTION exchange
ISAKMP (0:0): processing transaction payload from 14.36.100.55.
   message ID = 84
ISAKMP: Config payload CFG_REPLY
return status is IKMP_ERR_NO_RETRANS
ISAKMP (0:0): initiating peer config to 14.36.100.55. ID = 3612718114
   (0xd755b422)
crypto_isakmp_process_block: src 14.36.100.55, dest 14.36.100.50
ISAKMP_TRANSACTION exchange
```

```
ISAKMP (0:0): processing transaction payload from 14.36.100.55.
   message ID = 60
ISAKMP: Config payload CFG_ACK
return status is IKMP_NO_ERROR
crypto_isakmp_process_block: src 14.36.100.55, dest 14.36.100.50
ISAKMP_TRANSACTION exchange
ISAKMP (0:0): processing transaction payload from 14.36.100.55.
   message ID = 0
ISAKMP: Config payload CFG_REQUEST
ISAKMP (0:0): checking request:
ISAKMP: attribute    IP4_ADDRESS (1)
ISAKMP: attribute    IP4_NETMASK (2)
ISAKMP: attribute    IP4_DNS (3)
ISAKMP: attribute    IP4_NBNS (4)
ISAKMP: attribute    ADDRESS_EXPIRY (5)
        Unsupported Attr: 5
ISAKMP: attribute    APPLICATION_VERSION (7)
        Unsupported Attr: 7
ISAKMP: attribute    UNKNOWN (28672)
        Unsupported Attr: 28672
ISAKMP: attribute    UNKNOWN (28673)
        Unsupported Attr: 28673
ISAKMP: attribute    UNKNOWN (28674)
ISAKMP: attribute    UNKNOWN (28676)
ISAKMP: attribute    UNKNOWN (28679)
        Unsupported Attr: 28679
ISAKMP: attribute    UNKNOWN (28680)
        Unsupported Attr: 28680
ISAKMP: attribute    UNKNOWN (28677)
        Unsupported Attr: 28677
ISAKMP (0:0): responding to peer config from 14.36.100.55.
   ID = 3979868003
return status is IKMP_NO_ERROR
crypto_isakmp_process_block: src 14.36.100.55, dest 14.36.100.50
OAK_QM exchange
oakley_process_quick_mode:
OAK_QM_IDLE
ISAKMP (0): processing SA payload. message ID = 1527320241

ISAKMP : Checking IPSec proposal 1

ISAKMP: transform 1, ESP_3DES
ISAKMP:   attributes in transform:
ISAKMP:      authenticator is HMAC-MD5
ISAKMP:      encaps is 1
ISAKMP:      SA life type in seconds
ISAKMP:      SA life duration (VPI) of  0x0 0x20 0xc4 0x9b
   IPSEC(validate_proposal): transform proposal (prot 3, trans
3, hmac_alg 1) not supported

ISAKMP (0): atts not acceptable. Next payload is 0
ISAKMP (0): skipping next ANDed proposal (1)
ISAKMP : Checking IPSec proposal 2

ISAKMP: transform 1, ESP_3DES
ISAKMP:   attributes in transform:
ISAKMP:      authenticator is HMAC-SHA
ISAKMP:      encaps is 1
ISAKMP:      SA life type in seconds
ISAKMP:      SA life duration (VPI) of  0x0 0x20 0xc4 0x9b
   IPSEC(validate_proposal): transform proposal (prot 3, trans
3, hmac_alg 2) not supported

ISAKMP (0): atts not acceptable. Next payload is 0
ISAKMP (0): skipping next ANDed proposal (2)
ISAKMP : Checking IPSec proposal 3

ISAKMP: transform 1, ESP_3DES
ISAKMP:   attributes in transform:
ISAKMP:      authenticator is HMAC-MD5
ISAKMP:      encaps is 1
ISAKMP:      SA life type in seconds
ISAKMP:      SA life duration (VPI) of  0x0 0x20 0xc4 0x9b
   IPSEC(validate_proposal): transform proposal (prot 3, trans
3, hmac_alg 1) not supported

ISAKMP (0): atts not acceptable. Next payload is 0
ISAKMP : Checking IPSec proposal 4

ISAKMP: transform 1, ESP_3DES
ISAKMP:   attributes in transform:
ISAKMP:      authenticator is HMAC-SHA
ISAKMP:      encaps is 1
ISAKMP:      SA life type in seconds
ISAKMP:      SA life duration (VPI) of  0x0 0x20 0xc4 0x9b
   IPSEC(validate_proposal): transform proposal (prot 3, trans
3, hmac_alg 2) not supported

ISAKMP (0): atts not acceptable. Next payload is 0
ISAKMP : Checking IPSec proposal 5

ISAKMP: transform 1, ESP_DES
ISAKMP:   attributes in transform:
ISAKMP:      authenticator is HMAC-MD5
ISAKMP:      encaps is 1
ISAKMP:      SA life type in seconds
ISAKMP:      SA life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP (0): atts are acceptable.
ISAKMP (0): bad SPI size of 2 octets!
ISAKMP : Checking IPSec proposal 6

ISAKMP: transform 1, ESP_DES
ISAKMP:   attributes in transform:
ISAKMP:      authenticator is HMAC-SHA
ISAKMP:      encaps is 1
ISAKMP:      SA life type in seconds
ISAKMP:      SA life duration (VPI) of  0x0 0x20 0xc4 0x9b
   IPSEC(validate_proposal): transform proposal (prot 3, trans
2, hmac_alg 2) not supported

ISAKMP (0): atts not acceptable. Next payload is 0
ISAKMP (0): skipping next ANDed proposal (6)
ISAKMP : Checking IPSec proposal 7

ISAKMP: transform 1, ESP_DES
ISAKMP:   attributes in transform:
ISAKMP:      authenticator is HMAC-MD5
ISAKMP:      encaps is 1
ISAKMP:      SA life type in seconds
ISAKMP:      SA life duration (VPI) of  0x0 0x20 0xc4 0x9b
ISAKMP (0): atts are acceptable.IPSEC(validate_proposal_request):
   proposal part #1,
  (key eng. msg.) dest= 14.36.100.50, src= 14.36.100.55,
    dest_proxy= 14.36.100.50/255.255.255.255/0/0 (type=1),
    src_proxy= 10.1.2.1/255.255.255.255/0/0 (type=1),
    protocol= ESP, transform= esp-des esp-md5-hmac ,
    lifedur= 0s and 0kb,
    spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x4
```

```
ISAKMP (0): processing NONCE payload. message ID = 1527320241

ISAKMP (0): processing ID payload. message ID = 1527320241
ISAKMP (0): ID_IPV4_ADDR src 10.1.2.1 prot 0 port 0
ISAKMP (0): processing ID payload. message ID = 1527320241
ISAKMP (0): ID_IPV4_ADDR dst 14.36.100.50 prot 0 port
   0IPSEC(key_engine): got a queue event...
IPSEC(spi_response): getting spi 0xf39c2217(4087095831) for SA
        from    14.36.100.55 to    14.36.100.50 for prot 3

return status is IKMP_NO_ERROR
crypto_isakmp_process_block: src 14.36.100.55, dest 14.36.100.50
OAK_QM exchange
oakley_process_quick_mode:
OAK_QM_IDLE
ISAKMP (0): processing SA payload. message ID = 3487980779

ISAKMP : Checking IPSec proposal 1

ISAKMP: transform 1, ESP_3DES
ISAKMP:   attributes in transform:
ISAKMP:      authenticator is HMAC-MD5
crypto_isakmp_process_block: src 14.36.100.55, dest 14.36.100.50
OAK_QM exchange
oakley_process_quick_mode:
OAK_QM_AUTH_AWAIT
ISAKMP (0): Creating IPSec SAs
        inbound SA from    14.36.100.55 to    14.36.100.50
             (proxy        10.1.2.1 to    14.36.100.50)
        has spi 4087095831 and conn_id 1 and flags 4
        lifetime of 2147483 seconds
        outbound SA from    14.36.100.50 to    14.36.100.55
             (proxy    14.36.100.50 to        10.1.2.1)
        has spi 1929305241 and conn_id 2 and flags 4
        lifetime of 2147483 secondsIPSEC(key_engine): got a queue event...
IPSEC(initialize_sas): ,
  (key eng. msg.) dest= 14.36.100.50, src= 14.36.100.55,
    dest_proxy= 14.36.100.50/0.0.0.0/0/0 (type=1),
    src_proxy= 10.1.2.1/0.0.0.0/0/0 (type=1),
    protocol= ESP, transform= esp-des esp-md5-hmac ,
    lifedur= 2147483s and 0kb,
    spi= 0xf39c2217(4087095831), conn_id= 1, keysize= 0, flags= 0x4
IPSEC(initialize_sas): ,
  (key eng. msg.) src= 14.36.100.50, dest= 14.36.100.55,
    src_proxy= 14.36.100.50/0.0.0.0/0/0 (type=1),
    dest_proxy= 10.1.2.1/0.0.0.0/0/0 (type=1),
    protocol= ESP, transform= esp-des esp-md5-hmac ,
    lifedur= 2147483s and 0kb,
    spi= 0x72fedc99(1929305241), conn_id= 2, keysize= 0, flags= 0x4

VPN Peer: IPSEC: Peer ip:14.36.100.55 Ref cnt incremented to:2
   Total VPN Peers:1
VPN Peer: IPSEC: Peer ip:14.36.100.55 Ref cnt incremented to:3
   Total VPN Peers:1
return status is IKMP_NO_ERROR
crypto_isakmp_process_block: src 14.36.100.55, dest 14.36.100.50
OAK_QM exchange
oakley_process_quick_mode:
OAK_QM_AUTH_AWAIT
ISAKMP (0): Creating IPSec SAs
        inbound SA from    14.36.100.55 to    14.36.100.50
             (proxy        10.1.2.1 to         0.0.0.0)
        has spi 1791135440 and conn_id 3 and flags 4
        lifetime of 2147483 seconds
        outbound SA from    14.36.100.50 to    14.36.100.55
             (proxy         0.0.0.0 to        10.1.2.1)
        has spi 173725574 and conn_id 4 and flags 4
        lifetime of 2147483 secondsIPSEC(key_engine): got a queue event...
IPSEC(initialize_sas): ,
  (key eng. msg.) dest= 14.36.100.50, src= 14.36.100.55,
    dest_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4),
    src_proxy= 10.1.2.1/0.0.0.0/0/0 (type=1),
    protocol= ESP, transform= esp-des esp-md5-hmac ,
    lifedur= 2147483s and 0kb,
    spi= 0x6ac28ed0(1791135440), conn_id= 3, keysize= 0, flags= 0x4
IPSEC(initialize_sas): ,
  (key eng. msg.) src= 14.36.100.50, dest= 14.36.100.55,
    src_proxy= 0.0.0.0/0.0.0.0/0/0 (type=4),
    dest_proxy= 10.1.2.1/0.0.0.0/0/0 (type=1),
    protocol= ESP, transform= esp-des esp-md5-hmac ,
    lifedur= 2147483s and 0kb,
    spi= 0xa5ad786(173725574), conn_id= 4, keysize= 0, flags= 0x4

VPN Peer: IPSEC: Peer ip:14.36.100.55 Ref cnt incremented to:4
   Total VPN Peers:1
VPN Peer: IPSEC: Peer ip:14.36.100.55 Ref cnt incremented to:5
   Total VPN Peers:1
return status is IKMP_NO_ERROR
crypto_isakmp_process_block: src 14.36.100.55, dest 14.36.100.50
ISAKMP (0): processing NOTIFY payload 36136 protocol 1
        spi 0, message ID = 3443334051
ISAMKP (0): received DPD_R_U_THERE from peer 14.36.100.55
ISAKMP (0): sending NOTIFY message 36137 protocol 1
return status is IKMP_NO_ERR_NO_TRANS
```

VPN Client 3.5 para Windows

```
193    19:00:56.073  01/24/02  Sev=Info/6       DIALER/0x63300002
Initiating connection.

194    19:00:56.073  01/24/02  Sev=Info/4       CM/0x63100002
Begin connection process

195    19:00:56.083  01/24/02  Sev=Info/4       CM/0x63100004
Establish secure connection using Ethernet

196    19:00:56.083  01/24/02  Sev=Info/4       CM/0x63100026
Attempt connection with server "14.36.100.50"

197    19:00:56.083  01/24/02  Sev=Info/6       IKE/0x6300003B
Attempting to establish a connection with 14.36.100.50.

198    19:00:56.124  01/24/02  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK AG (SA, KE, NON, ID, VID, VID, VID)
to 14.36.100.50

199    19:00:56.774  01/24/02  Sev=Info/4       IPSEC/0x63700014
Deleted all keys

200    19:00:59.539  01/24/02  Sev=Info/5       IKE/0x6300002F
Received ISAKMP packet: peer = 14.36.100.50

201    19:00:59.539  01/24/02  Sev=Info/4       IKE/0x63000014
RECEIVING <<< ISAKMP OAK AG (SA, VID, VID, VID, KE, ID, NON, HASH)
from 14.36.100.50
```

```
202    19:00:59.539  01/24/02  Sev=Info/5       IKE/0x63000059
Vendor ID payload = 12F5F28C457168A9702D9FE274CC0100

203    19:00:59.539  01/24/02  Sev=Info/5       IKE/0x63000001
Peer is a Cisco-Unity compliant peer

204    19:00:59.539  01/24/02  Sev=Info/5       IKE/0x63000059
Vendor ID payload = AFCAD71368A1F1C96B8696FC77570100

205    19:00:59.539  01/24/02  Sev=Info/5       IKE/0x63000001
Peer supports DPD

206    19:00:59.539  01/24/02  Sev=Info/5       IKE/0x63000059
Vendor ID payload = 6D761DDC26ACECA1B0ED11FABBB860C4

207    19:00:59.569  01/24/02  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK AG *(HASH, NOTIFY:STATUS_INITIAL_CONTACT)
to 14.36.100.50

208    19:00:59.569  01/24/02  Sev=Info/5       IKE/0x6300002F
Received ISAKMP packet: peer = 14.36.100.50

209    19:00:59.569  01/24/02  Sev=Info/4       IKE/0x63000014
RECEIVING <<< ISAKMP OAK TRANS *(HASH, ATTR) from 14.36.100.50

210    19:00:59.569  01/24/02  Sev=Info/4       CM/0x63100015
Launch xAuth application

211    19:01:04.236  01/24/02  Sev=Info/4       CM/0x63100017
xAuth application returned

212    19:01:04.236  01/24/02  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK TRANS *(HASH, ATTR) to 14.36.100.50

213    19:01:04.496  01/24/02  Sev=Info/5       IKE/0x6300002F
Received ISAKMP packet: peer = 14.36.100.50

214    19:01:04.496  01/24/02  Sev=Info/4       IKE/0x63000014
RECEIVING <<< ISAKMP OAK TRANS *(HASH, ATTR) from 14.36.100.50

215    19:01:04.496  01/24/02  Sev=Info/4       CM/0x6310000E
Established Phase 1 SA.  1 Phase 1 SA in the system

216    19:01:04.506  01/24/02  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK TRANS *(HASH, ATTR) to 14.36.100.50

217    19:01:04.516  01/24/02  Sev=Info/5       IKE/0x6300005D
Client sending a firewall request to concentrator

218    19:01:04.516  01/24/02  Sev=Info/5       IKE/0x6300005C
Firewall Policy: Product=Cisco Integrated Client, Capability=
(Centralized Policy Push).

219    19:01:04.516  01/24/02  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK TRANS *(HASH, ATTR) to 14.36.100.50

220    19:01:04.586  01/24/02  Sev=Info/5       IKE/0x6300002F
Received ISAKMP packet: peer = 14.36.100.50

221    19:01:04.586  01/24/02  Sev=Info/4       IKE/0x63000014
RECEIVING <<< ISAKMP OAK TRANS *(HASH, ATTR) from 14.36.100.50

222    19:01:04.586  01/24/02  Sev=Info/5       IKE/0x63000010
MODE_CFG_REPLY: Attribute = INTERNAL_IPV4_ADDRESS: ,
value = 10.1.2.1

223    19:01:04.586  01/24/02  Sev=Info/5       IKE/0x63000010
MODE_CFG_REPLY: Attribute = INTERNAL_IPV4_DNS(1): ,
value = 10.1.1.2

224    19:01:04.586  01/24/02  Sev=Info/5       IKE/0x63000010
MODE_CFG_REPLY: Attribute = INTERNAL_IPV4_NBNS(1) (a.k.a. WINS)
: , value = 10.1.1.2

225    19:01:04.586  01/24/02  Sev=Info/5       IKE/0x6300000E
MODE_CFG_REPLY: Attribute = MODECFG_UNITY_DEFDOMAIN: ,
value = cisco.com

226    19:01:04.586  01/24/02  Sev=Info/4       CM/0x63100019
Mode Config data received

227    19:01:04.606  01/24/02  Sev=Info/5       IKE/0x63000055
Received a key request from Driver for IP address 14.36.100.50,
GW IP = 14.36.100.50

228    19:01:04.606  01/24/02  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK QM *(HASH, SA, NON, ID, ID) to 14.36.100.50

229    19:01:04.606  01/24/02  Sev=Info/5       IKE/0x63000055
Received a key request from Driver for IP address 10.10.10.255,
GW IP = 14.36.100.50

230    19:01:04.606  01/24/02  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK QM *(HASH, SA, NON, ID, ID) to 14.36.100.50

231    19:01:04.786  01/24/02  Sev=Info/4       IPSEC/0x63700014
Deleted all keys

232    19:01:05.948  01/24/02  Sev=Info/5       IKE/0x6300002F
Received ISAKMP packet: peer = 14.36.100.50

233    19:01:05.948  01/24/02  Sev=Info/4       IKE/0x63000014
RECEIVING <<< ISAKMP OAK QM *(HASH, SA, NON, ID, ID,
NOTIFY:STATUS_RESP_LIFETIME) from 14.36.100.50

234    19:01:05.948  01/24/02  Sev=Info/5       IKE/0x63000044
RESPONDER-LIFETIME notify has value of 28800 seconds

235    19:01:05.948  01/24/02  Sev=Info/5       IKE/0x63000045
RESPONDER-LIFETIME notify has value of 4608000 kb

236    19:01:05.948  01/24/02  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK QM *(HASH) to 14.36.100.50

237    19:01:05.948  01/24/02  Sev=Info/5       IKE/0x63000058
Loading IPsec SA (Message ID = 0x5B090EB1 OUTBOUND SPI =
0xF39C2217 INBOUND SPI = 0x72FEDC99)

238    19:01:05.948  01/24/02  Sev=Info/5       IKE/0x63000025
Loaded OUTBOUND ESP SPI: 0xF39C2217

239    19:01:05.948  01/24/02  Sev=Info/5       IKE/0x63000026
Loaded INBOUND ESP SPI: 0x72FEDC99

240    19:01:05.948  01/24/02  Sev=Info/4       CM/0x6310001A
One secure connection established

241    19:01:05.988  01/24/02  Sev=Info/6       DIALER/0x63300003
```

```
Connection established.

242    19:01:06.078  01/24/02  Sev=Info/6       DIALER/0x63300008
MAPI32 Information - Outlook not default mail client

243    19:01:06.118  01/24/02  Sev=Info/5       IKE/0x6300002F
Received ISAKMP packet: peer = 14.36.100.50

244    19:01:06.118  01/24/02  Sev=Info/4       IKE/0x63000014
RECEIVING <<< ISAKMP OAK QM *(HASH, SA, NON, ID, ID,
NOTIFY:STATUS_RESP_LIFETIME) from 14.36.100.50

245    19:01:06.118  01/24/02  Sev=Info/5       IKE/0x63000044
RESPONDER-LIFETIME notify has value of 28800 seconds

246    19:01:06.118  01/24/02  Sev=Info/5       IKE/0x63000045
RESPONDER-LIFETIME notify has value of 4608000 kb

247    19:01:06.118  01/24/02  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK QM *(HASH) to 14.36.100.50

248    19:01:06.118  01/24/02  Sev=Info/5       IKE/0x63000058
Loading IPsec SA (Message ID = 0xCFE65CEB OUTBOUND SPI =
0x6AC28ED0 INBOUND SPI = 0x0A5AD786)

249    19:01:06.118  01/24/02  Sev=Info/5       IKE/0x63000025
Loaded OUTBOUND ESP SPI: 0x6AC28ED0

250    19:01:06.118  01/24/02  Sev=Info/5       IKE/0x63000026
Loaded INBOUND ESP SPI: 0x0A5AD786

251    19:01:06.118  01/24/02  Sev=Info/4       CM/0x63100022
Additional Phase 2 SA established.

252    19:01:07.020  01/24/02  Sev=Info/4       IPSEC/0x63700010
Created a new key structure

253    19:01:07.020  01/24/02  Sev=Info/4       IPSEC/0x6370000F
Added key with SPI=0x17229cf3 into key list

254    19:01:07.020  01/24/02  Sev=Info/4       IPSEC/0x63700010
Created a new key structure

255    19:01:07.020  01/24/02  Sev=Info/4       IPSEC/0x6370000F
Added key with SPI=0x99dcfe72 into key list

256    19:01:07.020  01/24/02  Sev=Info/4       IPSEC/0x63700010
Created a new key structure

257    19:01:07.020  01/24/02  Sev=Info/4       IPSEC/0x6370000F
Added key with SPI=0xd08ec26a into key list

258    19:01:07.020  01/24/02  Sev=Info/4       IPSEC/0x63700010
Created a new key structure

259    19:01:07.020  01/24/02  Sev=Info/4       IPSEC/0x6370000F
Added key with SPI=0x86d75a0a into key list

260    19:01:15.032  01/24/02  Sev=Info/6       IKE/0x6300003D
Sending DPD request to 14.36.100.50, seq# = 152233542

261    19:01:15.032  01/24/02  Sev=Info/4       IKE/0x63000013
SENDING >>> ISAKMP OAK INFO *(HASH, NOTIFY:DPD_REQUEST)
to 14.36.100.50
```

```
262    19:01:15.032  01/24/02  Sev=Info/5       IKE/0x6300002F
Received ISAKMP packet: peer = 14.36.100.50

263    19:01:15.032  01/24/02  Sev=Info/4       IKE/0x63000014
RECEIVING <<< ISAKMP OAK INFO *(HASH, NOTIFY:DPD_ACK)
from 14.36.100.50

264    19:01:15.032  01/24/02  Sev=Info/5       IKE/0x6300003F
Received DPD ACK from 14.36.100.50, seq# received = 152233542,
seq# expected = 152233542
```

Informações Relacionadas

- Página de suporte do PIX
- Referências de comando PIX
- Página de suporte RADIUS
- Página de suporte do Cisco VPN 3000 Series Concentrator
- Página de suporte ao cliente do Cisco VPN 3000 Series
- Página do suporte de protocolo do IPsec Negotiation/IKE
- Solicitações de Comentários (RFCs)
- Suporte Técnico - Cisco Systems