Configuración de Cisco Secure VPN Client 1.1 para Windows con IOS mediante la autenticación local ampliada

Contenido

Introducción

Este documento muestra configuraciones de ejemplo para la autenticación extendida local (Xauth) con el cliente VPN. Esta función proporciona autenticación a un usuario que tiene instalado Cisco Secure VPN Client 1.1 en su PC solicitando al usuario un nombre de usuario y una contraseña. Refiérase a Configuración de Cisco VPN Client 3.x para Windows a IOS Usando Autenticación Extendida Local para obtener información sobre la misma configuración usando Cisco VPN Client 3.x (recomendado).

Prerequisites

Requirements

Xauth también se puede configurar para TACACS+ y RADIUS con VPN Client.

Xauth incluye *solamente autenticación*, no *autorización* (donde los usuarios pueden ir una vez que se establece la conexión). *La contabilidad* (a donde fueron los usuarios) no se implementa.

La configuración debe funcionar sin Xauth antes de implementar Xauth. El ejemplo de este documento muestra la configuración de modo (configuración de modo) y la traducción de direcciones de red (NAT) además de Xauth, pero se supone que la conectividad IPsec está presente antes de agregar los comandos Xauth.

Componentes Utilizados

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

- VPN Client versión 1.1 (o posterior)
- Software Cisco IOS® versión 12.1.2.2.T, 12.1.2.2.P (o posterior)
- La autenticación local se probó con un Cisco 3660 que ejecuta c3660-jo3s56i-mz.121-2.3.T

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

Convenciones

Consulte Convenciones de Consejos TécnicosCisco para obtener más información sobre las convenciones del documento.

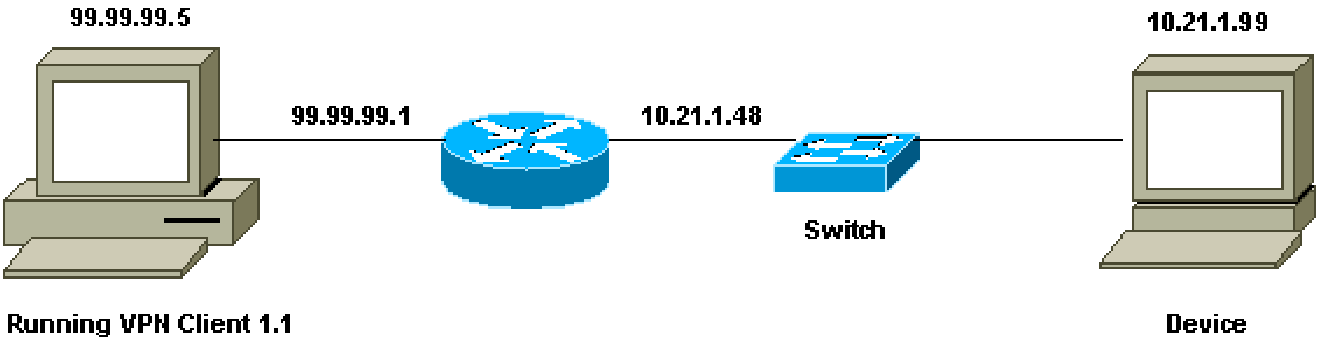
Configurar

En esta sección encontrará la información para configurar las funciones descritas en este documento.

Nota: Utilice la herramienta Command Lookup (sólo para clientes registrados) para obtener más información sobre los comandos utilizados en esta sección.

Diagrama de la red

Este documento utiliza esta configuración de red:



Configuración de cliente VPN 1.1

```
Network Security policy:
 1- Myconn
        My Identity = ip address
                Connection security: Secure
                Remote Party Identity and addressing
```

```
                         ID Type: IP subnet
                         10.21.1.0 (range of inside network)
                         Port all Protocol all

                 Connect using secure tunnel
                         ID Type: IP address
                         99.99.99.1
                         Pre-shared key = cisco1234

         Authentication (Phase 1)
         Proposal 1
                 Authentication method: pre-shared key
                 Encryp Alg: DES
                 Hash Alg: MD5
                 SA life: Unspecified
                 Key Group: DH 1

         Key exchange (Phase 2)
         Proposal 1
                 Encapsulation ESP
                 Encrypt Alg: DES
                 Hash Alg: MD5
                 Encap: tunnel
                 SA life: Unspecified
                 no AH

 2- Other Connections
             Connection security: Non-secure
             Local Network Interface
                 Name: Any
                 IP Addr: Any
                 Port: All
```

Con Xauth habilitado en el router, cuando el usuario intenta conectarse a un dispositivo dentro del router (aquí se **realizó un ping -t #.#.#.#**), aparece una pantalla gris:

```
User Authentication for 3660
Username:
Password:
```

Configuraciones

Configuración del Router para Xauth Local

```
Current configuration:
!
version 12.1
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname goss-e4-3660
!
!--- Required for Xauth. aaa new-model
AAA authentication login default line
!--- Defines the list for Xauth. AAA authentication
login xauth_list local
!
username john password 0 doe
!
memory-size iomem 30
ip subnet-zero
```

```
!
ip audit notify log
ip audit po max-events 100
cns event-service server
!
!--- Defines IKE policy. Default encryption is DES. !---
If you want to have 3DES encryption for IKE and your
image is !--- a 3DES image, put "encryption 3des" under
the ISAKMP !--- policy configuration mode. !--- This
must match the parameters in the "Authentication (Phase
1)" proposal !--- on the VPN Client. crypto isakmp
policy 10
hash md5
authentication pre-share
!--- Wildcard pre-shared key for all the clients. crypto
isakmp key cisco1234 address 0.0.0.0 0.0.0.0
!--- Address pool for client-mode configuration
addresses. crypto isakmp client configuration address-
pool local ourpool

!--- Define the IPsec transform set. !--- These
parameters must match Phase 2 proposal parameters !---
configured on the client. !--- If you have 3DES image
and would like to encrypt your data using 3DES, !--- the
line appears as follows: !--- crypto ipsec transform-set
ts esp-3des esp-md5-hmac. crypto ipsec transform-set
mypolicy esp-des esp-md5-hmac
!--- Create a dynamic crypto map that specifies the
transform set to use. crypto dynamic-map dyna 10
set transform-set mypolicy
!
!--- Enable the Xauth with the specified list. crypto
map test client authentication list xauth_list
!--- Enable ModeConfig initiation and response. crypto
map test client configuration address initiate
crypto map test client configuration address respond
!--- Create regular crypto map based on the dynamic
crypto map. crypto map test 5 ipsec-isakmp dynamic dyna
!
interface FastEthernet0/0
ip address 10.21.1.48 255.255.255.0
ip nat inside
duplex auto
speed auto
!
interface FastEthernet0/1
ip address 99.99.99.1 255.255.255.0
ip Nat outside
no ip route-cache
no ip mroute-cache
duplex auto
speed 10
!--- Apply the crypto map to the public interface of the
router. crypto map test
!
interface Ethernet2/0
no ip address
shutdown
!
interface Ethernet2/1
no ip address
shutdown
!
!--- Define the pool of addresses for ModeConfig (see
reference !--- earlier in this output). ip local pool
ourpool 10.2.1.1 10.2.1.254
ip Nat pool outsidepool 99.99.99.50 99.99.99.60 netmask
255.255.255.0
ip Nat inside source route-map nonat pool outsidepool
ip classless
ip route 0.0.0.0 0.0.0.0 10.21.1.1
no ip http server
!
access-list 101 deny ip 10.21.1.0 0.0.0.255 10.2.1.0
0.0.0.255
access-list 101 permit ip 10.21.1.0 0.0.0.255 any
route-map nonat permit 10
match ip address 101
!
line con 0
transport input none
line aux 0
line vty 0 4
password ww
!
end
```

Verificación

Actualmente, no hay un procedimiento de verificación disponible para esta configuración.

Troubleshoot

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

Comandos para resolución de problemas

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

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

- **debug aaa authentication — Muestra información sobre autenticación de AAA/TACACS+.**
- **debug crypto isakmp — Muestra mensajes acerca de eventos IKE.**
- **debug crypto ipsec — Muestra eventos de IPSec.**
- **debug crypto key-exchange**: muestra los mensajes de intercambio de claves públicas de Digital Signature Standard (DSS).
- **clear crypto isakmp**—Especifica qué conexión se borrará.
- **clear crypto sa**: elimina las asociaciones de seguridad IPsec.

Ejemplo de resultado del comando debug

```
goss-e4-3660#show debug
General OS:
  AAA Authentication debugging is on
Cryptographic Subsystem:
  Crypto ISAKMP debugging is on
  Crypto Engine debugging is on
  Crypto IPSEC debugging is on
goss-e4-3660#term mon
goss-e4-3660#
01:37:58: ISAKMP (0:0): received packet from 99.99.99.5
    (N) NEW SA
01:37:58: ISAKMP: local port 500, remote port 500
01:37:58: ISAKMP (0:1): Setting client config settings
    627D1E3C
01:37:58: ISAKMP (0:1): (Re)Setting client xauth list
    xauth_list and state
01:37:58: ISAKMP: Created a peer node for 99.99.99.5
01:37:58: ISAKMP: Locking struct 627D1E3C from
    crypto_ikmp_config_initialize_sa
01:37:58: ISAKMP (0:1): processing SA payload. message ID = 0
!--- Pre-shared key matched. 01:37:58: ISAKMP (0:1): found peer pre-shared key
    matching 99.99.99.5
01:37:58: ISAKMP (0:1): Checking ISAKMP transform 1
    against priority 10 policy
01:37:58: ISAKMP:      encryption DES-CBC
01:37:58: ISAKMP:      hash MD5
01:37:58: ISAKMP:      default group 1
01:37:58: ISAKMP:      auth pre-share
!--- ISAKMP policy proposed by VPN Client matched the configured ISAKMP policy. 01:37:58: ISAKMP
(0:1): atts are acceptable. Next payload is 0
01:37:58: CryptoEngine0: generate alg parameter
01:37:58: CRYPTO_ENGINE: Dh phase 1 status: 0
01:37:58: CRYPTO_ENGINE: DH phase 1 status: 0
01:37:58: ISAKMP (0:1): SA is doing pre-shared key authentication
    using id type ID_IPV4_ADDR
01:37:58: ISAKMP (0:1): sending packet to 99.99.99.5 (R) MM_SA_SETUP
01:37:59: ISAKMP (0:1): received packet from 99.99.99.5
    (R) MM_SA_SETUP
01:37:59: ISAKMP (0:1): processing KE payload. Message ID = 0
01:37:59: CryptoEngine0: generate alg parameter
01:37:59: ISAKMP (0:1): processing NONCE payload. Message ID = 0
01:37:59: ISAKMP (0:1): found peer pre-shared key matching 99.99.99.5
01:37:59: CryptoEngine0: create ISAKMP SKEYID for conn id 1
01:37:59: ISAKMP (0:1): SKEYID state generated
01:37:59: ISAKMP (0:1): processing vendor id payload
01:37:59: ISAKMP (0:1): processing vendor id payload
01:37:59: ISAKMP (0:1): sending packet to 99.99.99.5 (R) MM_KEY_EXCH
01:37:59: ISAKMP (0:1): received packet from 99.99.99.5
    (R) MM_KEY_EXCH
01:37:59: ISAKMP (0:1): processing ID payload. Message ID = 0
01:37:59: ISAKMP (0:1): processing HASH payload. Message ID = 0
01:37:59: CryptoEngine0: generate hmac context for conn id 1
01:37:59: ISAKMP (0:1): processing NOTIFY INITIAL_CONTACT protocol 1
        spi 0, message ID = 0
01:37:59: ISAKMP (0:1): SA has been authenticated with 99.99.99.5
01:37:59: ISAKMP (1): ID payload
        next-payload : 8
        type         : 1
        protocol     : 17
        port         : 500
        length       : 8
01:37:59: ISAKMP (1): Total payload length: 12
01:37:59: CryptoEngine0: generate hmac context for conn id 1
01:37:59: CryptoEngine0: clear DH number for conn id 1
!--- Starting Xauth. 01:37:59: ISAKMP (0:1): sending packet to 99.99.99.5 (R) CONF_XAUTH
01:38:00: ISAKMP (0:1): received packet from 99.99.99.5
```

```
    (R) CONF_XAUTH
01:38:00: ISAKMP (0:1): (Re)Setting client xauth list
    xauth_list and state
01:38:00: ISAKMP (0:1): Need XAUTH
01:38:00: AAA: parse name=ISAKMP idb type=-1 tty=-1
01:38:00: AAA/MEMORY: create_user (0x627D27D0) user='' ruser=''
    port='ISAKMP' rem_addr='99.99.99.5' authen_type=ASCII
    service=LOGIN priv=0
01:38:00: AAA/AUTHEN/START (324819201): port='ISAKMP'
    list='xauth_list' action=LOGIN service=LOGIN
01:38:00: AAA/AUTHEN/START (324819201): found list xauth_list
01:38:00: AAA/AUTHEN/START (324819201): Method=LOCAL
01:38:00: AAA/AUTHEN (324819201): status = GETUSER
01:38:00: ISAKMP: got callback 1
01:38:00: ISAKMP/xauth: request attribute XAUTH_TYPE
01:38:00: ISAKMP/xauth: request attribute XAUTH_MESSAGE
01:38:00: ISAKMP/xauth: request attribute XAUTH_USER_NAME
01:38:00: ISAKMP/xauth: request attribute XAUTH_USER_PASSWORD
01:38:00: CryptoEngine0: generate hmac context for conn id 1
01:38:00: ISAKMP (0:1): initiating peer config to 99.99.99.5.
    ID = 944484565
01:38:00: ISAKMP (0:1): sending packet to 99.99.99.5 (R) CONF_XAUTH
01:38:02: IPSEC(decapsulate): error in decapsulation
    crypto_ipsec_sa_exists
!--- The user has delayed the input of the username/password. 01:38:05: ISAKMP (0:1):
retransmitting phase 2 CONF_XAUTH
    944484565 ...
01:38:05: ISAKMP (0:1): incrementing error counter on sa:
    retransmit phase 2
01:38:05: ISAKMP (0:1): incrementing error counter on sa:
    retransmit phase 2
01:38:05: ISAKMP (0:1): retransmitting phase 2 944484565 CONF_XAUTH
01:38:05: ISAKMP (0:1): sending packet to 99.99.99.5 (R) CONF_XAUTH
01:38:08: ISAKMP (0:1): received packet from 99.99.99.5
    (R) CONF_XAUTH
01:38:08: ISAKMP (0:1): processing transaction payload
    from 99.99.99.5. Message ID = 944484565
01:38:08: CryptoEngine0: generate hmac context for conn id 1
01:38:08: ISAKMP: Config payload REPLY
01:38:08: ISAKMP/xauth: reply attribute XAUTH_TYPE
01:38:08: ISAKMP/xauth: reply attribute XAUTH_USER_NAME
01:38:08: ISAKMP/xauth: reply attribute XAUTH_USER_PASSWORD
01:38:08: AAA/AUTHEN/CONT (324819201): continue_login
    (user='(undef)')
01:38:08: AAA/AUTHEN (324819201): status = GETUSER
01:38:08: AAA/AUTHEN/CONT (324819201): Method=LOCAL
01:38:08: AAA/AUTHEN (324819201): status = GETPASS
01:38:08: AAA/AUTHEN/CONT (324819201): continue_login
    (user='john')
01:38:08: AAA/AUTHEN (324819201): status = GETPASS
01:38:08: AAA/AUTHEN/CONT (324819201): Method=LOCAL
01:38:08: AAA/AUTHEN (324819201): status = PASS
01:38:08: ISAKMP: got callback 1
01:38:08: CryptoEngine0: generate hmac context for conn id 1
01:38:08: ISAKMP (0:1): initiating peer config to 99.99.99.5.
    ID = 944484565
01:38:08: ISAKMP (0:1): sending packet to 99.99.99.5 (R) CONF_XAUTH
01:38:08: ISAKMP (0:1): received packet from 99.99.99.5
    (R) CONF_XAUTH
01:38:08: ISAKMP (0:1): processing transaction payload from 99.99.99.5.
    Message ID = 944484565
01:38:08: CryptoEngine0: generate hmac context for conn id 1
01:38:08: ISAKMP: Config payload ACK
!--- Xauth finished. 01:38:08: ISAKMP (0:1): deleting node 944484565 error FALSE
```

```
    reason "done with transaction"
01:38:08: ISAKMP (0:1): allocating address 10.2.1.2
01:38:08: CryptoEngine0: generate hmac context for conn id 1
01:38:08: ISAKMP (0:1): initiating peer config to 99.99.99.5.
    ID = -2139076758
01:38:08: ISAKMP (0:1): sending packet to 99.99.99.5 (R) CONF_ADDR
01:38:08: ISAKMP (0:1): received packet from 99.99.99.5 (R) CONF_ADDR
01:38:08: ISAKMP (0:1): processing transaction payload
    from 99.99.99.5. Message ID = -2139076758
01:38:08: CryptoEngine0: generate hmac context for conn id 1
01:38:08: ISAKMP: Config payload ACK
01:38:08: ISAKMP (0:1): peer accepted the address!
01:38:08: ISAKMP (0:1): adding static route for 10.2.1.2
01:38:08: ISAKMP (0:1): installing route 10.2.1.2 255.255.255.255
    99.99.99.5
01:38:08: ISAKMP (0:1): deleting node -2139076758 error FALSE
    reason "done with transaction"
01:38:08: ISAKMP (0:1): Delaying response to QM request.
01:38:09: ISAKMP (0:1): received packet from 99.99.99.5 (R) QM_IDLE
01:38:09: ISAKMP (0:1): (Re)Setting client xauth list
    xauth_list and state
01:38:09: CryptoEngine0: generate hmac context for conn id 1
01:38:09: ISAKMP (0:1): processing HASH payload.
    Message ID = -1138778119
01:38:09: ISAKMP (0:1): processing SA payload.
    Message ID = -1138778119
01:38:09: ISAKMP (0:1): Checking IPSec proposal 1
01:38:09: ISAKMP: transform 1, ESP_DES
01:38:09: ISAKMP:   attributes in transform:
01:38:09: ISAKMP:      authenticator is HMAC-MD5
01:38:09: ISAKMP:      encaps is 1
01:38:09: validate proposal 0
 !--- Proposed Phase 2 transform set matched configured IPsec transform set. 01:38:09: ISAKMP
(0:1): atts are acceptable.
01:38:09: IPSEC(validate_proposal_request): proposal part #1,
  (key eng. msg.) dest= 99.99.99.1, src= 99.99.99.5,
    dest_proxy= 10.21.1.0/255.255.255.0/0/0 (type=4),
    src_proxy= 10.2.1.2/255.255.255.255/0/0 (type=1),
    protocol= ESP, transform= ESP-Des esp-md5-hmac ,
    lifedur= 0s and 0kb,
    spi= 0x0(0), conn_id= 0, keysize= 0, flags= 0x4
01:38:09: validate proposal request 0
01:38:09: ISAKMP (0:1): processing NONCE payload.
    Message ID = -1138778119
01:38:09: ISAKMP (0:1): processing ID payload.
    Message ID = -1138778119
01:38:09: ISAKMP (1): ID_IPV4_ADDR src 10.2.1.2 prot 0 port 0
01:38:09: ISAKMP (0:1): processing ID payload.
    Message ID = -1138778119
01:38:09: ISAKMP (1): ID_IPV4_ADDR_SUBNET dst 10.21.1.0/255.255.255.0
    prot 0 port 0
01:38:09: ISAKMP (0:1): asking for 1 spis from ipsec
01:38:09: IPSEC(key_engine): got a queue event...
01:38:09: IPSEC(spi_response): getting spi 3339398037 for SA
        from 99.99.99.5      to 99.99.99.1      for prot 3
01:38:09: ISAKMP: received ke message (2/1)
01:38:10: CryptoEngine0: generate hmac context for conn id 1
01:38:10: ISAKMP (0:1): sending packet to 99.99.99.5 (R) QM_IDLE
01:38:10: ISAKMP (0:1): received packet from 99.99.99.5
    (R) QM_IDLE
01:38:10: CryptoEngine0: generate hmac context for conn id 1
01:38:10: ipsec allocate flow 0
01:38:10: ipsec allocate flow 0
01:38:10: ISAKMP (0:1): Creating IPSec SAs
```

```
01:38:10:         inbound SA from 99.99.99.5 to 99.99.99.1
        (proxy 10.2.1.2 to 10.21.1.0)
01:38:10:         has spi 0xC70B2B95 and conn_id 2000
    and flags 4
01:38:10:         outbound SA from 99.99.99.1 to 99.99.99.5
    (proxy 10.21.1.0 to 10.2.1.2)
01:38:10:         has spi -1679939467 and conn_id 2001
    and flags 4
01:38:10: ISAKMP (0:1): deleting node -1769610309 error FALSE
    reason "saved qm no longer needed"
01:38:10: ISAKMP (0:1): deleting node -1138778119 error FALSE
    reason "quick mode done (await()"
01:38:10: IPSEC(key_engine): got a queue event...
 !--- IPsec SAs created. 01:38:10: IPSEC(initialize_sas): ,
  (key Eng. msg.) dest= 99.99.99.1, src= 99.99.99.5,
    dest_proxy= 10.21.1.0/255.255.255.0/0/0 (type=4),
    src_proxy= 10.2.1.2/0.0.0.0/0/0 (type=1),
    protocol= ESP, transform= ESP-Des esp-md5-hmac ,
    lifedur= 0s and 0kb,
    spi= 0xC70B2B95(3339398037), conn_id= 2000,
    keysize= 0, flags= 0x4
01:38:10: IPSEC(initialize_sas): ,
  (key Eng. msg.) src= 99.99.99.1, dest= 99.99.99.5,
    src_proxy= 10.21.1.0/255.255.255.0/0/0 (type=4),
    dest_proxy= 10.2.1.2/0.0.0.0/0/0 (type=1),
    protocol= ESP, transform= ESP-Des esp-md5-hmac ,
    lifedur= 0s and 0kb,
    spi= 0x9BDE2875(2615027829), conn_id= 2001,
    keysize= 0, flags= 0x4
01:38:10: IPSEC(create_sa): sa created,
  (sa) sa_dest= 99.99.99.1, sa_prot= 50,
    sa_spi= 0xC70B2B95(3339398037),
    sa_trans= ESP-Des esp-md5-hmac , sa_conn_id= 2000
01:38:10: IPSEC(create_sa): sa created,
  (sa) sa_dest= 99.99.99.5, sa_prot= 50,
    sa_spi= 0x9BDE2875(2615027829),
    sa_trans= ESP-Des esp-md5-hmac , sa_conn_id= 2001
01:38:10: ISAKMP: received ke message (4/1)
01:38:10: ISAKMP: Locking struct 627D1E3C for IPSEC
```

Información Relacionada

- EOS y EOL para Cisco Secure VPN Client
- Negociación IPSec/Protocolos IKE
- Soporte Técnico y Documentación - Cisco Systems