

ASA 8.x : Allow Split Tunneling for AnyConnect VPN Client on the ASA Configuration Example

Document ID: 100936

Introduction

Prerequisites

- Requirements
- Components Used
- Conventions

Background Information

Configure

- Network Diagram
- ASA Configuration Using ASDM 6.0(2)
- ASA CLI Configuration
- Establish the SSL VPN Connection with SVC

Verify

Troubleshoot

Related Information

Introduction

This document provides step-by-step instructions on how to allow Cisco AnyConnect VPN client access to the Internet while they are tunneled into a Cisco Adaptive Security Appliance (ASA) 8.0.2. This configuration allows the client secure access to corporate resources via SSL while giving unsecured access to the Internet using split tunneling.

Prerequisites

Requirements

Ensure that you meet these requirements before you attempt this configuration:

- ASA Security Appliance needs to run version 8.x
- Cisco AnyConnect VPN Client 2.x

Note: Download the AnyConnect VPN Client package (anyconnect-win*.pkg) from the Cisco Software Download (registered customers only). Copy the AnyConnect VPN client to the ASA's flash memory, which is to be downloaded to the remote user computers in order to establish the SSL VPN connection with the ASA. Refer to the Installing the AnyConnect Client section of the ASA configuration guide for more information.

Components Used

The information in this document is based on these software and hardware versions:

- Cisco 5500 Series ASA that runs software version 8.0(2)
- Cisco AnyConnect SSL VPN Client version for Windows 2.0.0343
- PC which runs Microsoft Vista, Windows XP SP2 or Windows 2000 Professional SP4 with Microsoft Installer version 3.1

- Cisco Adaptive Security Device Manager (ASDM) version 6.0(2)

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

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

Background Information

The Cisco AnyConnect VPN Client provides secure SSL connections to the security appliance for remote users. Without a previously installed client, remote users enter the IP address in their browser of an interface configured to accept SSL VPN connections. Unless the security appliance is configured to redirect http:// requests to https://, users must enter the URL in the form https://<address>.

After entering the URL, the browser connects to that interface and displays the login screen. If the user satisfies the login and authentication, and the security appliance identifies the user as requiring the client, it downloads the client that matches the operating system of the remote computer. After downloading, the client installs and configures itself, establishes a secure SSL connection and either remains or uninstalls itself (depending on the security appliance configuration) when the connection terminates.

In the case of a previously installed client, when the user authenticates, the security appliance examines the revision of the client and upgrades the client as necessary.

When the client negotiates an SSL VPN connection with the security appliance, it connects using Transport Layer Security (TLS), and optionally, Datagram Transport Layer Security (DTLS). DTLS avoids latency and bandwidth problems associated with some SSL connections, and improves the performance of real-time applications that are sensitive to packet delays.

The AnyConnect client can be downloaded from the security appliance, or it can be installed manually on the remote PC by the system administrator. For more information about installing the client manually, refer to the Cisco AnyConnect VPN Client Administrator Guide.

The security appliance downloads the client based on the group policy or username attributes of the user establishing the connection. You can configure the security appliance to automatically download the client, or you can configure it to prompt the remote user about whether to download the client. In the latter case, if the user does not respond, you can configure the security appliance to either download the client after a timeout period or present the login page.

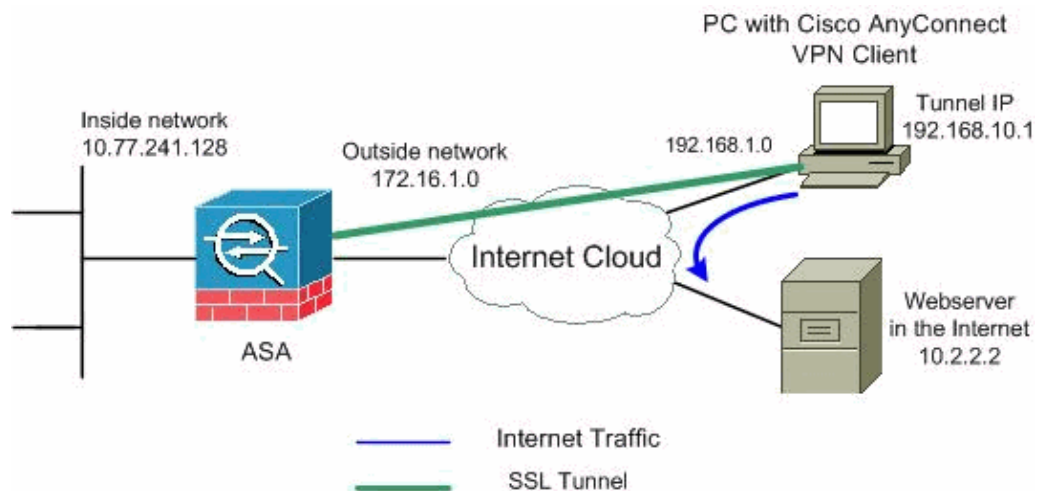
Configure

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

Note: Use the Command Lookup Tool (registered customers only) to obtain more information on the commands used in this section.

Network Diagram

This document uses this network setup:



Note: The IP addressing schemes used in this configuration are not legally routable on the Internet. They are RFC 1918 addresses which have been used in a lab environment.

ASA Configuration Using ASDM 6.0(2)

This document assumes that the basic configuration, such as interface configuration, is already made and works properly.

Note: Refer to Allowing HTTPS Access for ASDM in order to allow the ASA to be configured by the ASDM.

Note: WebVPN and ASDM cannot be enabled on the same ASA interface unless you change the port numbers. Refer to ASDM and WebVPN Enabled on the Same Interface of ASA for more information.

Complete these steps in order to configure the SSL VPN on ASA with split tunneling:

1. Choose **Configuration > Remote Access VPN > Network (Client) Access > Address Management > Address Pools > Add** in order to create an IP address pool **vpnpool**.

The screenshot shows the 'Add IP Pool' dialog box in ASDM. The fields are filled as follows: Name: vpnpool, Starting IP Address: 192.168.10.1, Ending IP Address: 192.168.10.254, and Subnet Mask: 255.255.255.0. There are three buttons at the bottom: OK, Cancel, and Help.

2. Click **Apply**.

Equivalent CLI Configuration:

```
ciscoasa(config)#ip local pool vpnpool 192.168.10.1-192.168.10.254 mask 255.255.255.0
```

3. Enable WebVPN.

- a. Choose **Configuration > Remote Access VPN > Network (Client) Access > SSL VPN Connection Profiles** and under **Access Interfaces**, click the check boxes **Allow Access** and **Enable DTLS** for the outside interface. Also, check the **Enable Cisco AnyConnect VPN Client or legacy SSL VPN Client access on the interface selected in the table below** check box in order to enable SSL VPN on the outside interface.

Configuration > Remote Access VPN > Network (Client) Access > SSL VPN Connection Profiles

The security appliance automatically deploys the Cisco AnyConnect VPN Client or legacy SSL VPN Client to client deployment requires end-user administrative rights. The Cisco AnyConnect VPN Client supports the Layer Security (DTLS) tunneling options.

(More client-related parameters, such as client images and client profiles, can be found at [Client Settings](#))

Access Interfaces

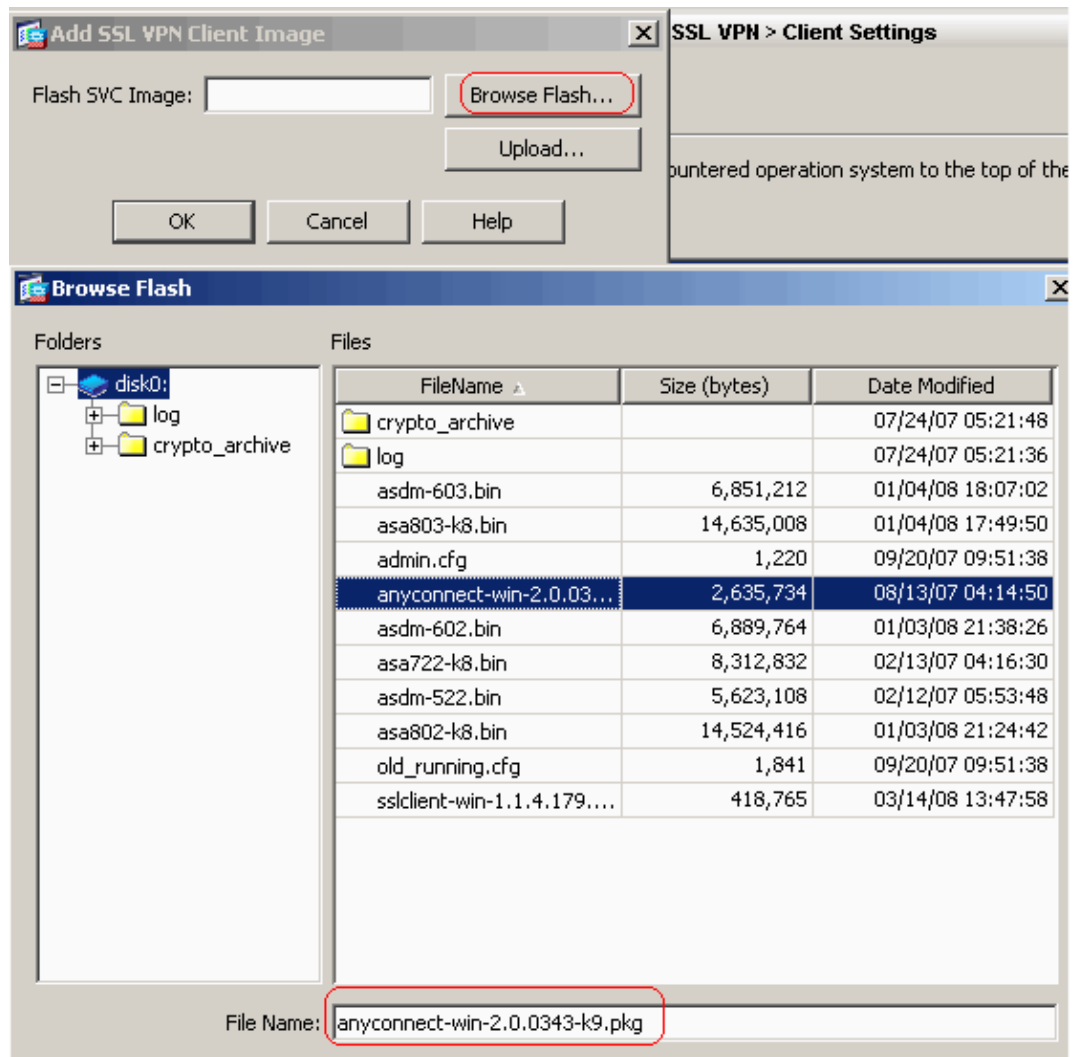
Enable Cisco AnyConnect VPN Client or legacy SSL VPN Client access on the interfaces selected in the

Interface	Allow Access	Require Client Certificate	Enable DTLS
outside	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
inside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

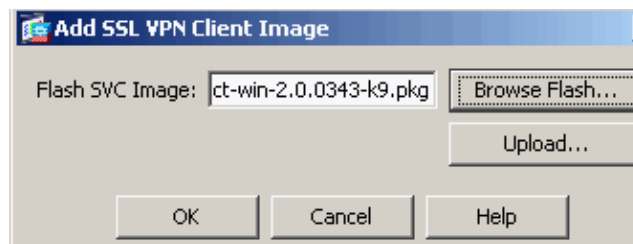
Access Port: DTLS Port:

Click here to [Assign Certificate to Interface](#).

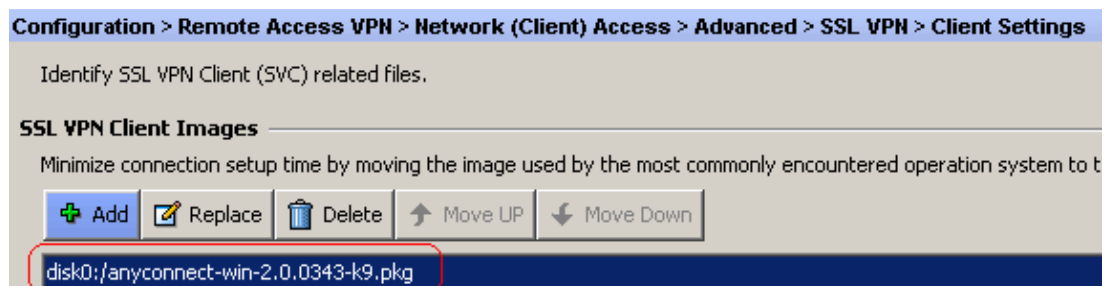
- b. Click **Apply**.
- c. Choose **Configuration > Remote Access VPN > Network (Client) Access > Advanced > SSL VPN > Client Settings > Add** in order to add the Cisco AnyConnect VPN client image from the flash memory of ASA as shown.



d. Click **OK**.



e. Click **Add**.



Equivalent CLI Configuration:

Cisco ASA 8.0(2)

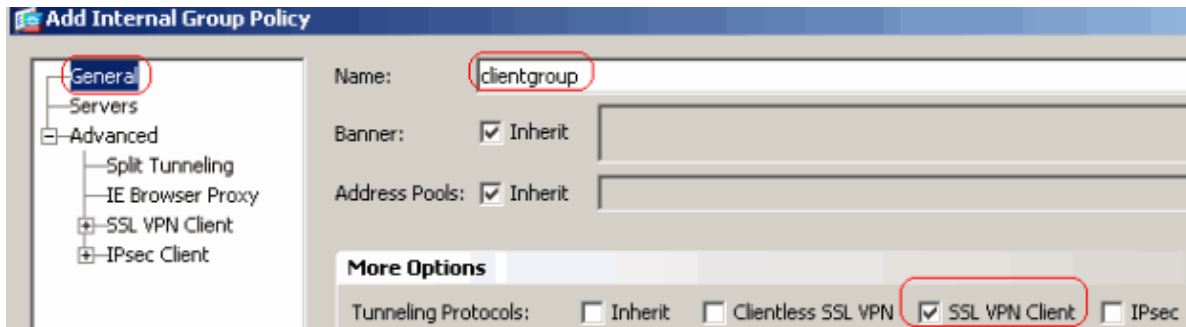
```

ciscoasa(config)#webvpn
ciscoasa(config-webvpn)#enable outside
ciscoasa(config-webvpn)#svc image disk0:/anyconnect-win-2.0.0343-k9.pkg 1
ciscoasa(config-webvpn)#tunnel-group-list enable
ciscoasa(config-webvpn)#svc enable

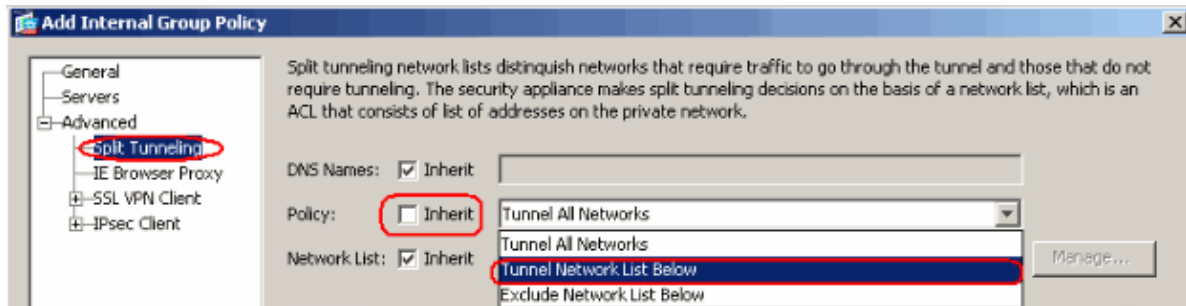
```

4. Configure Group Policy.

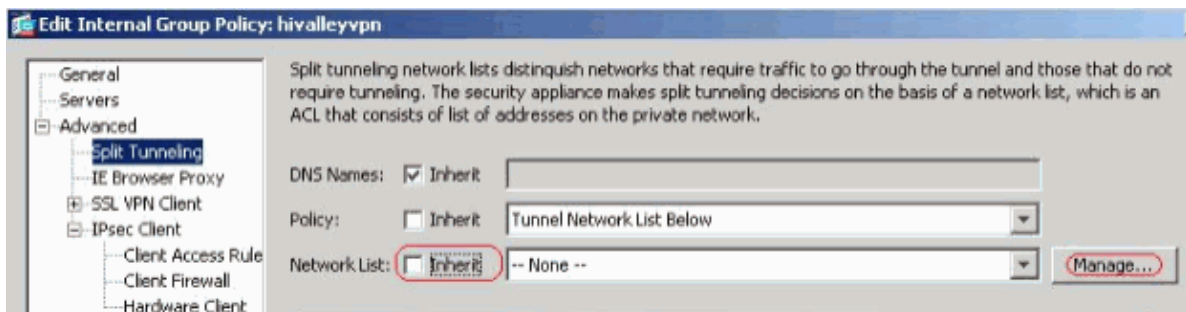
- a. Choose **Configuration > Remote Access VPN > Network (Client) Access > Group Policies** in order to create an internal group policy **clientgroup**. Under the **General** tab, select the **SSL VPN Client** check box in order to enable the WebVPN as tunneling protocol.



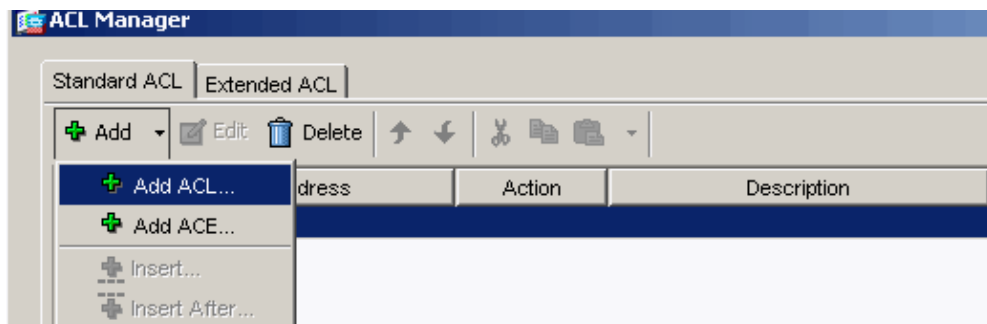
- b. In the **Advanced > Split Tunneling** tab, uncheck the **Inherit** check box for Split Tunnel Policy and chose **Tunnel Network List Below** from the drop down list.



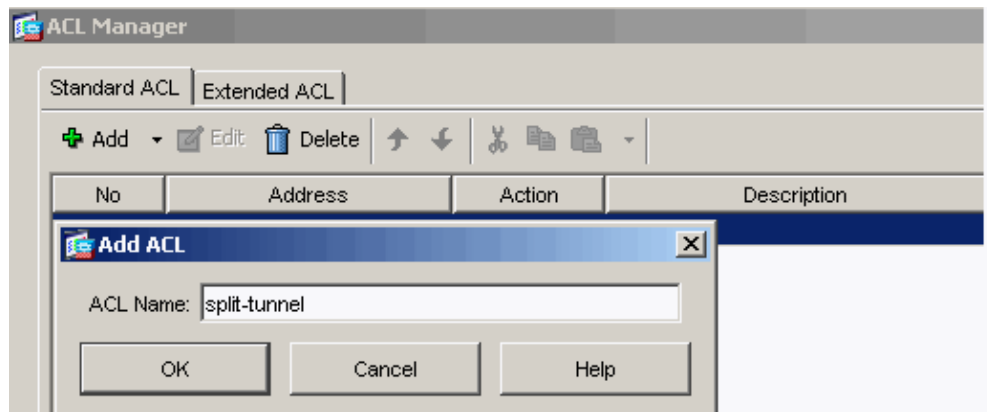
- c. Uncheck the **Inherit** check box for **Split Tunnel Network List** and then click **Manage** in order to launch the ACL Manager.



- d. Within the ACL Manager, choose **Add > Add ACL...** in order to create a new access list.



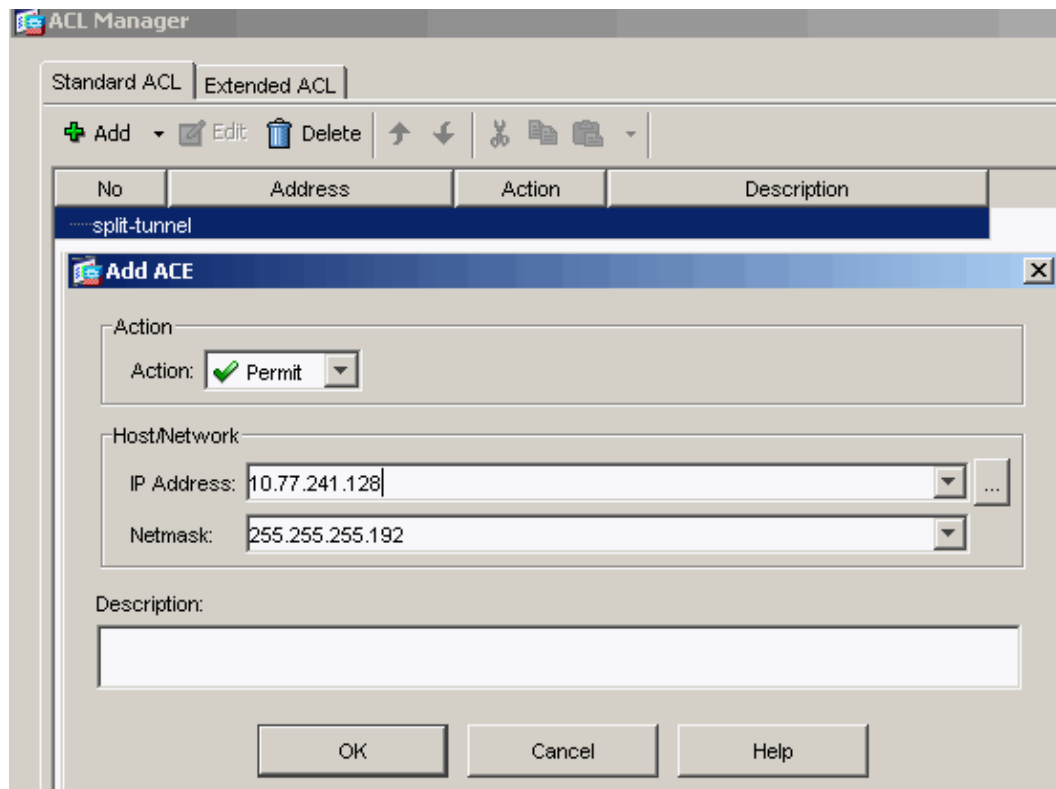
e. Provide a name for the ACL and click **OK**.



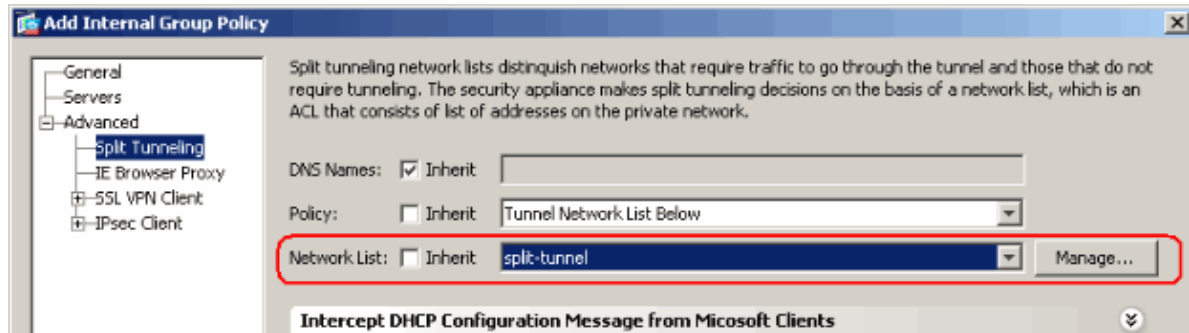
f. Once the ACL name is created, choose **Add > Add ACE** in order to add an Access Control Entry (ACE).

Define the ACE that corresponds to the LAN behind the ASA. In this case, the network is 10.77.241.128/26 and select **Permit** as the Action.

g. Click **OK** in order to exit the ACL Manager.



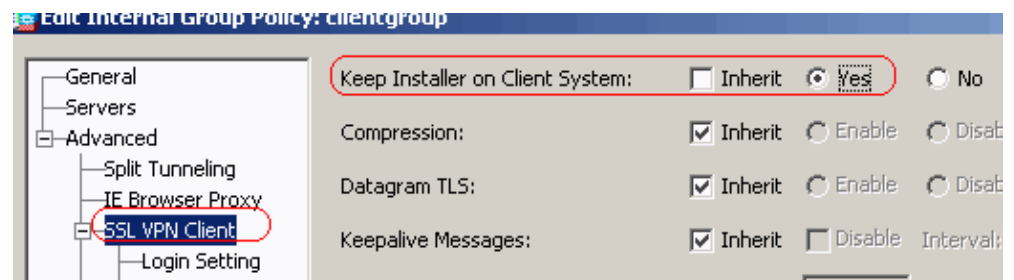
h. Make sure that the ACL you just created is selected for the split-tunnel Network List. Click **OK** in order to return to the Group Policy configuration.



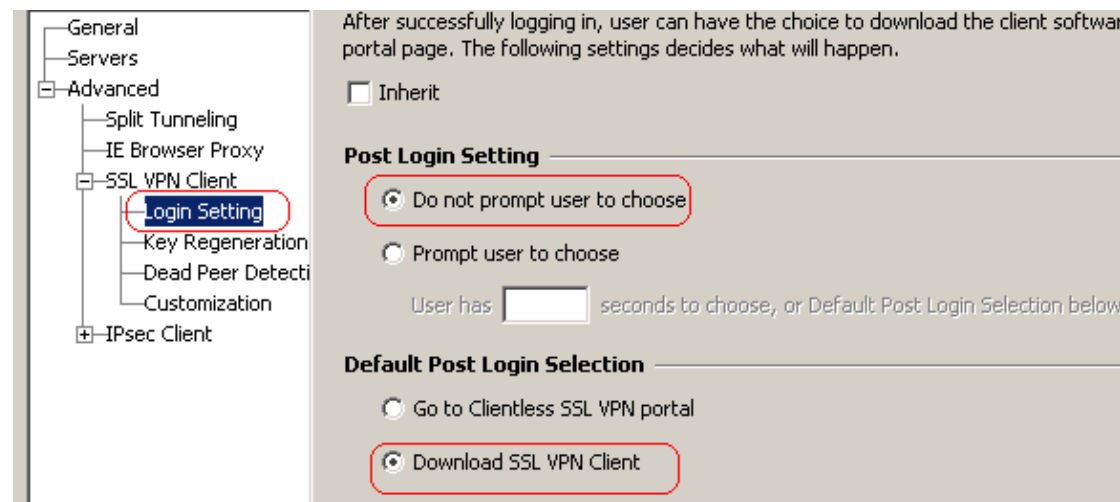
- i. On the main page, click **Apply** and then Send (if required) in order to send the commands to the ASA.
- j. Configure the **SSL VPN** settings under Group policy mode.

- a. For the Keep Installer on Client System option, uncheck the **Inherit** check box, and click the **Yes** radio button.

This action allows the SVC software to remain on the client machine. Therefore, the ASA is not required to download the SVC software to the client each time a connection is made. This option is a good choice for remote users who often access the corporate network.



- b. Click **Login Setting** in order to set the **Post Login Setting** and **Default Post Login Selection** as shown.

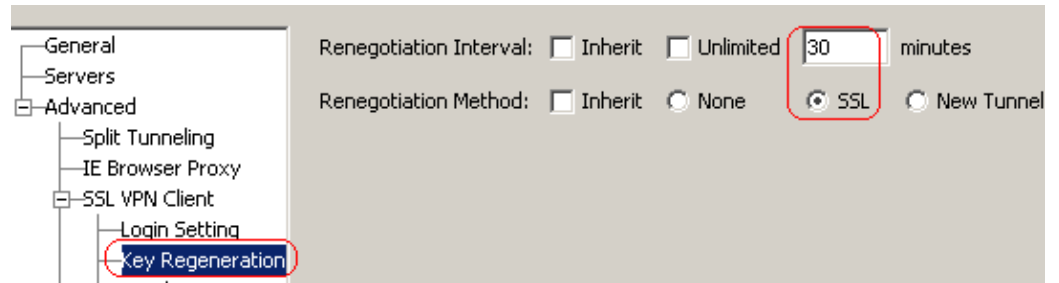


- c. For the Renegotiation Interval option, uncheck the **Inherit** box, uncheck the **Unlimited** check box, and enter the number of minutes until rekey.

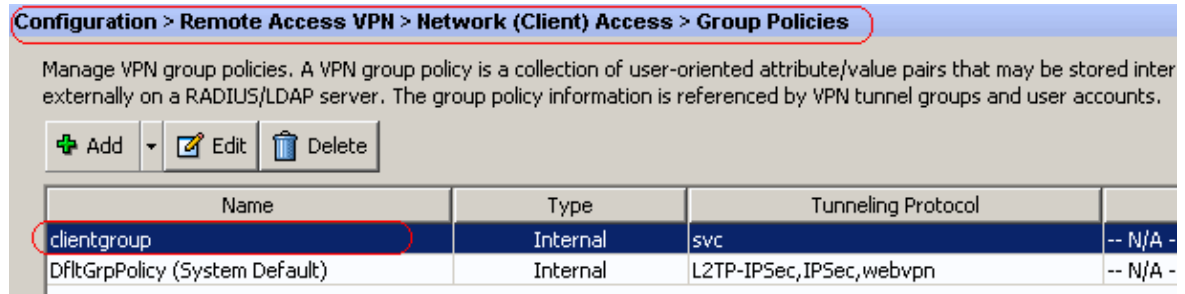
Security is enhanced by setting limits on the length of time a key is valid.

- d. For the Renegotiation Method option, uncheck the **Inherit** check box, and click the **SSL** radio button.

Renegotiation can use the present SSL tunnel or a new tunnel created expressly for renegotiation.



k. Click **OK** and then **Apply**.



Equivalent CLI Configuration:

```

Cisco ASA 8.0(2)
ciscoasa(config)#access-list split-tunnel standard permit 10.77.241.128 255.255.255
ciscoasa(config)#group-policy clientgroup internal
ciscoasa(config)#group-policyclientgroup attributes
ciscoasa(config-group-policy)#vpn-tunnel-protocol webvpn
ciscoasa(config-group-policy)#split-tunnel-policy tunnelspecified
ciscoasa(config-group-policy)#split-tunnel-network-list value split-tunnel
ciscoasa(config-group-policy)#webvpn
ciscoasa(config-group-webvpn)#svc ask none default svc
ciscoasa(config-group-webvpn)#svc keep-installer installed
ciscoasa(config-group-webvpn)#svc rekey time 30
ciscoasa(config-group-webvpn)#svc rekey method ssl
  
```

5. Choose **Configuration > Remote Access VPN > AAA Setup > Local Users > Add** in order to create a new user account **ssluser1**. Click **OK** and then **Apply**.

Equivalent CLI Configuration:

```
Cisco ASA 8.0(2)
ciscoasa(config)#username ssluser1 password asdmASA@
```

6. Choose **Configuration > Remote Access VPN > AAA Setup > AAA Servers Groups > Edit** in order to modify the default server group LOCAL by checking the **Enable Local User Lockout** check box with maximum attempts value as **16**.

7. Click **OK** and then **Apply**.

Equivalent CLI Configuration:

```
Cisco ASA 8.0(2)
ciscoasa(config)#aaa local authentication attempts max-fail 16
```

8. Configure Tunnel Group.

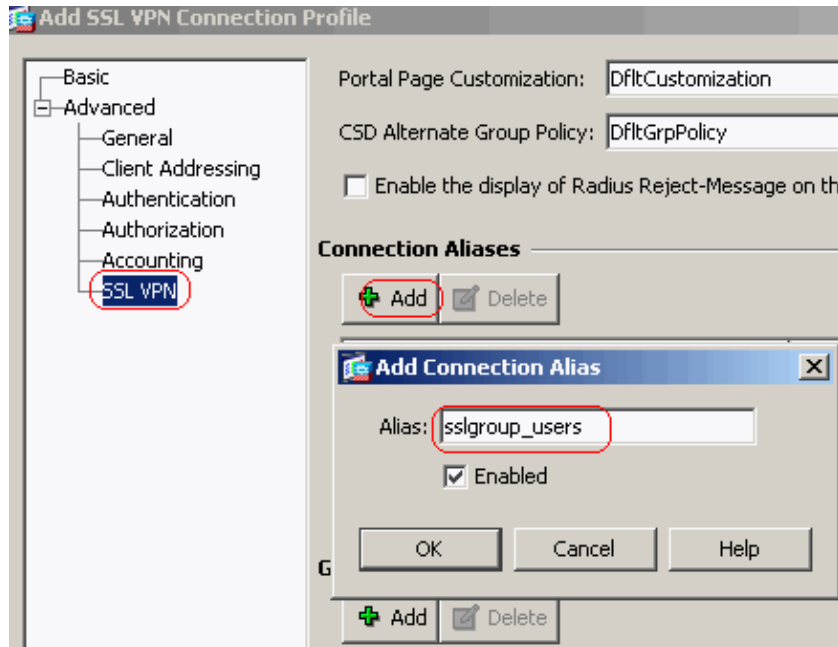
a. Choose **Configuration > Remote Access VPN > Network (Client) Access > SSL VPN Connection Profiles Connection Profiles > Add** in order to create a new tunnel group **sslgroup**.

b. In the **Basic** tab, you can perform the list of configurations as shown:

- ◇ Name the Tunnel group as **sslgroup**.
- ◇ Under Client Address Assignment, choose the address pool **vpnpool** from the drop down list.
- ◇ Under Default Group Policy, choose the group policy **clientgroup** from the drop down list.

The screenshot shows the 'Add SSL VPN Connection Profile' dialog box. The 'Basic' tab is active. The 'Name' field contains 'sslgroup'. The 'Authentication' section has 'Method' set to 'AAA' and 'AAA Server Group' set to 'LOCAL'. The 'Client Address Assignment' section has 'Client Address Pools' set to 'vpnpool'. The 'Default Group Policy' section has 'Group Policy' set to 'clientgroup' and 'SSL VPN Client Protocol' checked as 'Enabled'. Red boxes highlight the 'Basic' tab, 'sslgroup', 'vpnpool', and 'clientgroup' fields.

c. Under the **SSL VPN > Connection Aliases** tab, specify the group alias name as **sslgroup_users** and click **OK**.



d. Click **OK** and then **Apply**.

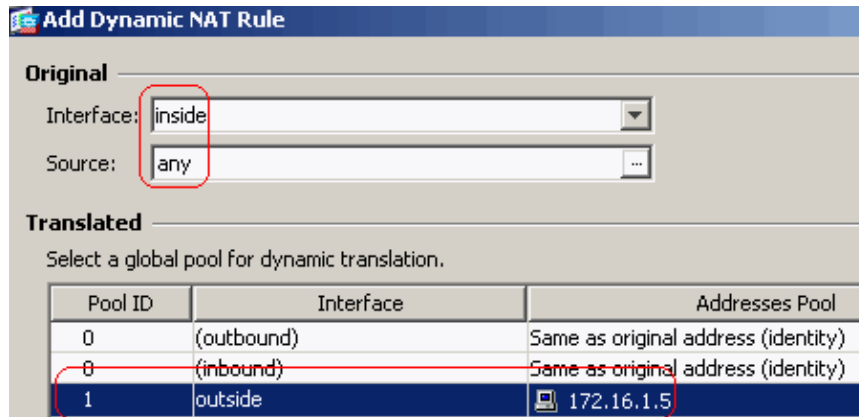
Equivalent CLI Configuration:

```

Cisco ASA 8.0(2)
ciscoasa(config)#tunnel-group sslgroup type remote-access
ciscoasa(config)#tunnel-group sslgroup general-attributes
ciscoasa(config-tunnel-general)#address-pool vpnpool
ciscoasa(config-tunnel-general)#default-group-policy clientgroup
ciscoasa(config-tunnel-general)#exit
ciscoasa(config)#tunnel-group sslgroup webvpn-attributes
ciscoasa(config-tunnel-webvpn)#group-alias sslgroup_users enable
  
```

9. Configure NAT.

a. Choose **Configuration > Firewall > NAT Rules > Add Dynamic NAT Rule** so the traffic that comes from the inside network can be translated with outside IP address 172.16.1.5.



b. Click **OK**.

c. Click **OK**.

Configuration > Firewall > NAT Rules					
#	Type	Original			Interface
		Source	Destination	Service	
[-] inside (1 Dynamic rules)					
1	Dynamic	any			outside

d. Click **Apply**.

Equivalent CLI Configuration:

```

Cisco ASA 8.0(2)
ciscoasa(config)#global (outside) 1 172.16.1.5
ciscoasa(config)#nat (inside) 1 0.0.0.0 0.0.0.0
```

ASA CLI Configuration

```

Cisco ASA 8.0(2)
ciscoasa(config)#show running-config
: Saved
:
ASA Version 8.0(2)
!
hostname ciscoasa
domain-name default.domain.invalid
enable password 8Ry2YjIyt7RRXU24 encrypted
names
!
interface Ethernet0/0
 nameif inside
 security-level 100
 ip address 10.77.241.142 255.255.255.192
!
interface Ethernet0/1
 nameif outside
 security-level 0
 ip address 172.16.1.1 255.255.255.0
!
interface Ethernet0/2
 shutdown
 no nameif
 no security-level
 no ip address
!
interface Ethernet0/3
 shutdown
 no nameif
 no security-level
 no ip address
!
interface Management0/0
 shutdown
 no nameif
 no security-level
 no ip address
!
passwd 2KFQnbNIdI.2KYOU encrypted
boot system disk0:/asa802-k8.bin
ftp mode passive
clock timezone IST 5 30
```

```

dns server-group DefaultDNS
 domain-name default.domain.invalid
access-list split-tunnel standard permit 10.77.241.128 255.255.255.192

!--- ACL for Split Tunnel network list for encryption.

pager lines 24
logging enable
logging asdm informational
mtu inside 1500
mtu outside 1500
ip local pool vpnpool 192.168.10.1-192.168.10.254 mask 255.255.255.0

!--- The address pool for the Cisco AnyConnect SSL VPN Clients

no failover
icmp unreachable rate-limit 1 burst-size 1
asdm image disk0:/asdm-602.bin
no asdm history enable
arp timeout 14400
global (outside) 1 172.16.1.5

!--- The global address for Internet access used by VPN Clients.
!--- Note: Uses an RFC 1918 range for lab setup.
!--- Apply an address from your public range provided by your ISP.

nat (inside) 1 0.0.0.0 0.0.0.0

route outside 0.0.0.0 0.0.0.0 172.16.1.2 1
timeout xlate 3:00:00
timeout conn 1:00:00 half-closed 0:10:00 udp 0:02:00 icmp 0:00:02
timeout sunrpc 0:10:00 h323 0:05:00 h225 1:00:00 mgcp 0:05:00 mgcp-pat 0:05:00
timeout sip 0:30:00 sip_media 0:02:00 sip-invite 0:03:00 sip-disconnect 0:02:00
timeout uauth 0:05:00 absolute
dynamic-access-policy-record DfltAccessPolicy
http server enable
http 0.0.0.0 0.0.0.0 inside
no snmp-server location
no snmp-server contact
snmp-server enable traps snmp authentication linkup linkdown coldstart
no crypto isakmp nat-traversal
telnet timeout 5
ssh timeout 5
console timeout 0
threat-detection basic-threat
threat-detection statistics access-list
!
class-map inspection_default
 match default-inspection-traffic
!
!
policy-map type inspect dns preset_dns_map
 parameters
  message-length maximum 512
policy-map global_policy
 class inspection_default
  inspect dns preset_dns_map
  inspect ftp
  inspect h323 h225
  inspect h323 ras
  inspect netbios

```

```
inspect rsh
inspect rtsp
inspect skinny
inspect esmtp
inspect sqlnet
inspect sunrpc
inspect tftp
inspect sip
inspect xdmcp
!
service-policy global_policy global
webvpn
  enable outside

  !--- Enable WebVPN on the outside interface

  svc image disk0:/anyconnect-win-2.0.0343-k9.pkg 1

  !--- Assign an order to the AnyConnect SSL VPN Client image

  svc enable

  !--- Enable the security appliance to download SVC images to remote computers

  tunnel-group-list enable

  !--- Enable the display of the tunnel-group list on the WebVPN Login page

  group-policy clientgroup internal

  !--- Create an internal group policy "clientgroup"

  group-policy clientgroup attributes
    vpn-tunnel-protocol svc

  !--- Specify SSL as a permitted VPN tunneling protocol

  split-tunnel-policy tunnelspecified
  split-tunnel-network-list value split-tunnel

  !--- Encrypt the traffic specified in the split tunnel ACL only

  webvpn
    svc keep-installer installed

  !--- When the security appliance and the SVC perform a rekey, they renegotiate
  !--- the crypto keys and initialization vectors, increasing the security of the connection.

  svc rekey time 30
```

```

!--- Command that specifies the number of minutes from the start of the
!--- session until the rekey takes place, from 1 to 10080 (1 week).

svc rekey method ssl

!--- Command that specifies that SSL renegotiation takes place during SVC rekey.

svc ask none default svc

username ssluser1 password ZRhW85jZqEaVd5P. encrypted

!--- Create a user account "ssluser1"

tunnel-group sslgroup type remote-access

!--- Create a tunnel group "sslgroup" with type as remote access

tunnel-group sslgroup general-attributes
address-pool vpnpool

!--- Associate the address pool vpnpool created

default-group-policy clientgroup

!--- Associate the group policy "clientgroup" created

tunnel-group sslgroup webvpn-attributes
group-alias sslgroup_users enable

!--- Configure the group alias as sslgroup-users

prompt hostname context
Cryptochecksum:af3c4bfc4ffc07414c4dfbd29c5262a9
: end
ciscoasa(config)#

```

Establish the SSL VPN Connection with SVC

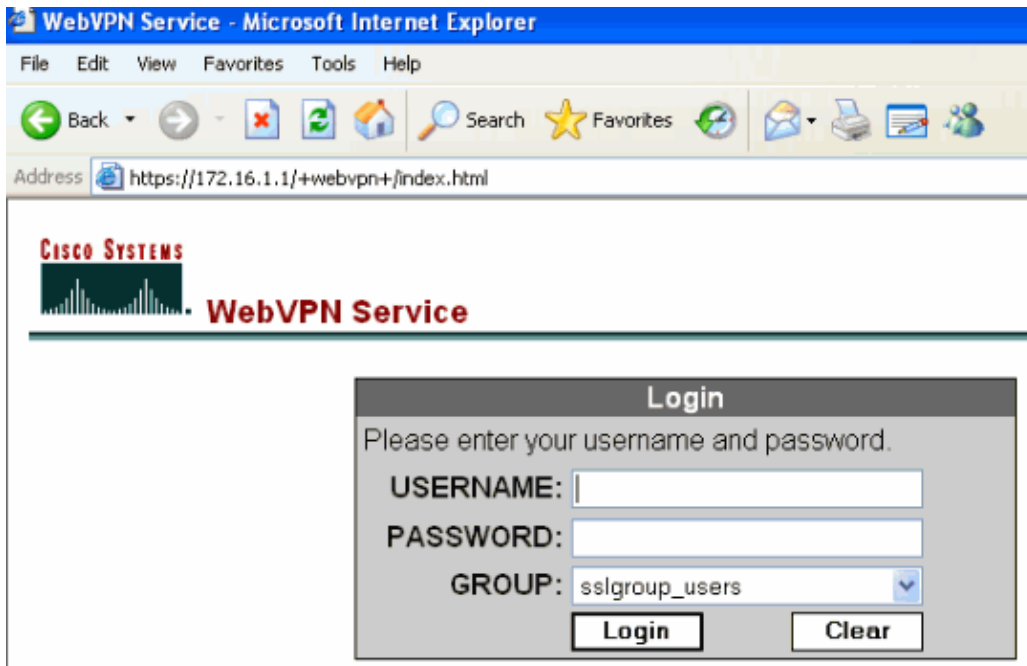
Complete these steps in order to establish a SSL VPN connection with ASA:

1. Enter the URL or IP address of the ASA's WebVPN interface in your web browser in the format as shown.

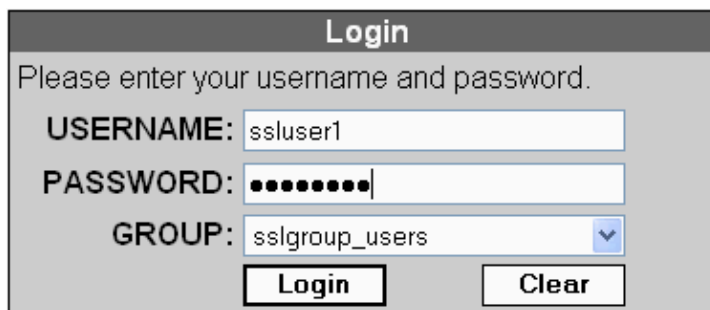
https://url

OR

https://<IP address of the ASA WebVPN interface>



2. Enter your username and password. Also, choose your respective group from the drop down list as shown.



This window appears before the SSL VPN connection is established.

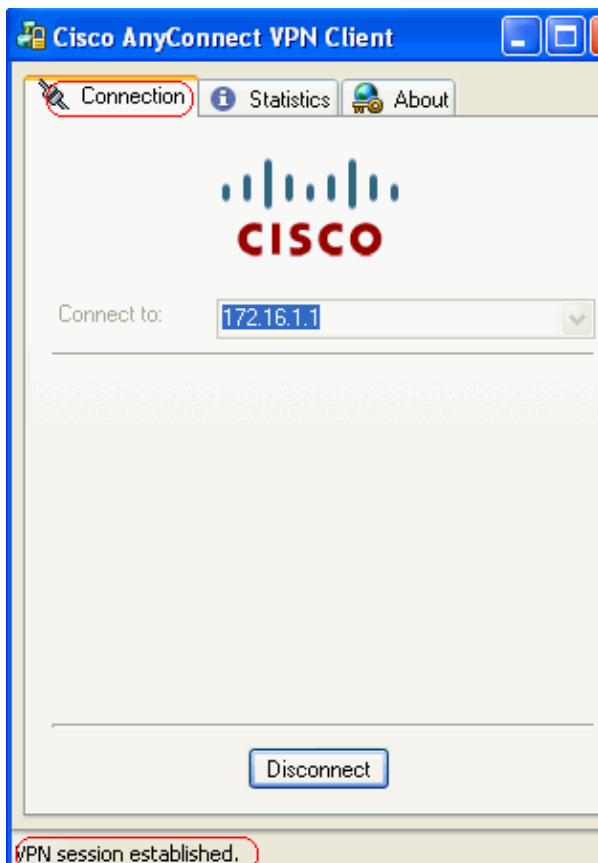


Note: ActiveX software must be installed in your computer before you download the SVC.

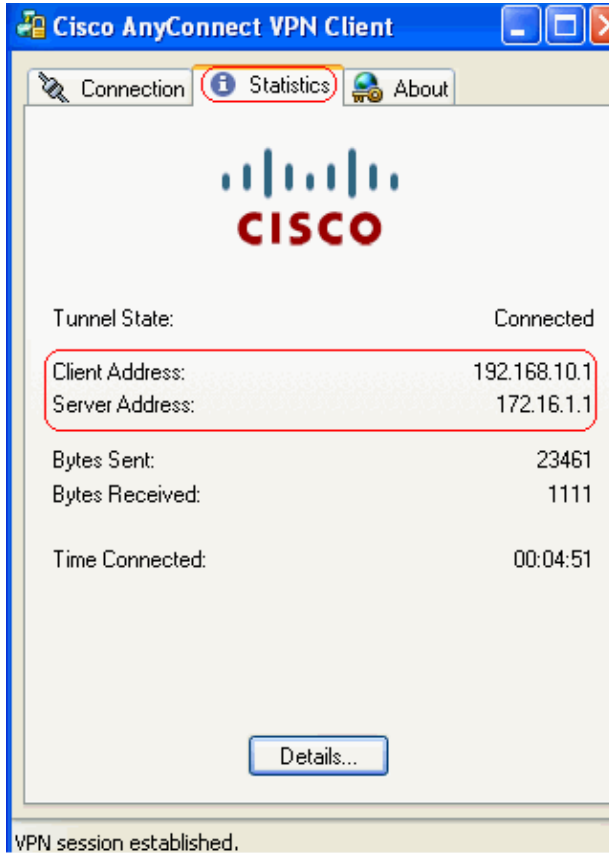
You receive this window once the connection is established.



3. Click the lock which appears in the task bar of your computer.



This window appears and provides information about the SSL connection. For example, **192.168.10.1** is the assigned IP by the ASA, etc.



This window shows the Cisco AnyConnect VPN Client Version information.



Verify

Use this section to confirm that your configuration works properly.

The Output Interpreter Tool (registered customers only) (OIT) supports certain **show** commands. Use the OIT to view an analysis of **show** command output.

- **show webvpn svc** Displays the SVC images stored in the ASA flash memory.

```
ciscoasa#show webvpn svc
1. disk0:/anyconnect-win-2.0.0343-k9.pkg 1
   CISCO STC win2k+
   2,0,0343
   Mon 04/23/2007  4:16:34.63
```

1 SSL VPN Client(s) installed

- **show vpn-sessiondb svc** Displays the information about the current SSL connections.

```
ciscoasa#show vpn-sessiondb svc

Session Type: SVC

Username       : ssluser1                Index       : 12
Assigned IP    : 192.168.10.1          Public IP   : 192.168.1.1
Protocol       : Clientless SSL-Tunnel DTL...
Encryption    : RC4 AES128              Hashing     : SHA1
Bytes Tx       : 194118                Bytes Rx    : 197448
Group Policy   : clientgroup          Tunnel Group : sslgroup
Login Time     : 17:12:23 IST Mon Mar 24 2008
Duration       : 0h:12m:00s
NAC Result     : Unknown
VLAN Mapping   : N/A                  VLAN        : none
```

- **show webvpn group-alias** Displays the configured alias for various groups.

```
ciscoasa#show webvpn group-alias
Tunnel Group: sslgroup  Group Alias: sslgroup_users enabled
```

- In ASDM, choose **Monitoring > VPN > VPN Statistics > Sessions** in order to know the current WebVPN sessions in the ASA.

Remote Access	Site-to-Site	SSL VPN			E-mail Proxy	VPN Load Balancing
0	0	Clientless	With Client	Total	0	0
0	0	0	0	0	0	0

Filter By: **SSL VPN Client** -- All Sessions -- Filter

Username IP Address	Group Policy Connection	Protocol Encryption	Login Time Duration	Byt Byt
ssluser1 192.168.10.1	clientgroup sslgroup	Clientless SSL-Tunnel DT... RC4 AES128	17:12:23 IST Mon Mar 24 2008 0h:03m:31s	194118 192474

Troubleshoot

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

1. **vpn-sessiondb logoff name <username>** Command to logoff the SSL VPN session for the particular username.

```

ciscoasa#vpn-sessiondb logoff name ssluser1
Do you want to logoff the VPN session(s)? [confirm] Y
INFO: Number of sessions with name "ssluser1" logged off : 1

ciscoasa#Called vpn_remove_uauth: success!
webvpn_svc_np_tear_down: no ACL
webvpn_svc_np_tear_down: no IPv6 ACL
np_svc_destroy_session(0xB000)

```

Similarly, you can use the **vpn-sessiondb logoff svc** command in order to terminate all the SVC sessions.

- Note:** If the PC goes to standby or hibernate mode, then the SSL VPN connection can be terminated.

```

webvpn_rx_data_cstp
webvpn_rx_data_cstp: got message
SVC message: t/s=5/16: Client PC is going into suspend mode (Sleep, Hibernate, e
tc)
Called vpn_remove_uauth: success!
webvpn_svc_np_tear_down: no ACL
webvpn_svc_np_tear_down: no IPv6 ACL
np_svc_destroy_session(0xA000)

```

```

ciscoasa#show vpn-sessiondb svc
INFO: There are presently no active sessions

```

- debug webvpn svc <1-255>** Provides the real time webvpn events in order to establish the session.

```

Ciscoasa#debug webvpn svc 7

webvpn_rx_data_tunnel_connect
CSTP state = HEADER_PROCESSING
http_parse_cstp_method()
...input: 'CONNECT /CSCOSSLC/tunnel HTTP/1.1'
webvpn_cstp_parse_request_field()
...input: 'Host: 172.16.1.1'
Processing CSTP header line: 'Host: 172.16.1.1'
webvpn_cstp_parse_request_field()
...input: 'User-Agent: Cisco AnyConnect VPN Client 2, 0, 0343'
Processing CSTP header line: 'User-Agent: Cisco AnyConnect VPN Client 2, 0, 0343'
'
Setting user-agent to: 'Cisco AnyConnect VPN Client 2, 0, 0343'
webvpn_cstp_parse_request_field()
...input: 'Cookie: webvpn=16885952@12288@1206098825@D251883E8625B92C1338D631B08B
7D75F4EDEF26'
Processing CSTP header line: 'Cookie: webvpn=16885952@12288@1206098825@D251883E8
625B92C1338D631B08B7D75F4EDEF26'
Found WebVPN cookie: 'webvpn=16885952@12288@1206098825@D251883E8625B92C1338D631B
08B7D75F4EDEF26'
WebVPN Cookie: 'webvpn=16885952@12288@1206098825@D251883E8625B92C1338D631B08B7D7
5F4EDEF26'
webvpn_cstp_parse_request_field()
...input: 'X-CSTP-Version: 1'
Processing CSTP header line: 'X-CSTP-Version: 1'
Setting version to '1'
webvpn_cstp_parse_request_field()
...input: 'X-CSTP-Hostname: tacweb'
Processing CSTP header line: 'X-CSTP-Hostname: tacweb'
Setting hostname to: 'tacweb'
webvpn_cstp_parse_request_field()
...input: 'X-CSTP-Accept-Encoding: deflate;q=1.0'
Processing CSTP header line: 'X-CSTP-Accept-Encoding: deflate;q=1.0'
webvpn_cstp_parse_request_field()
...input: 'X-CSTP-MTU: 1206'
Processing CSTP header line: 'X-CSTP-MTU: 1206'
webvpn_cstp_parse_request_field()
...input: 'X-CSTP-Address-Type: IPv4'

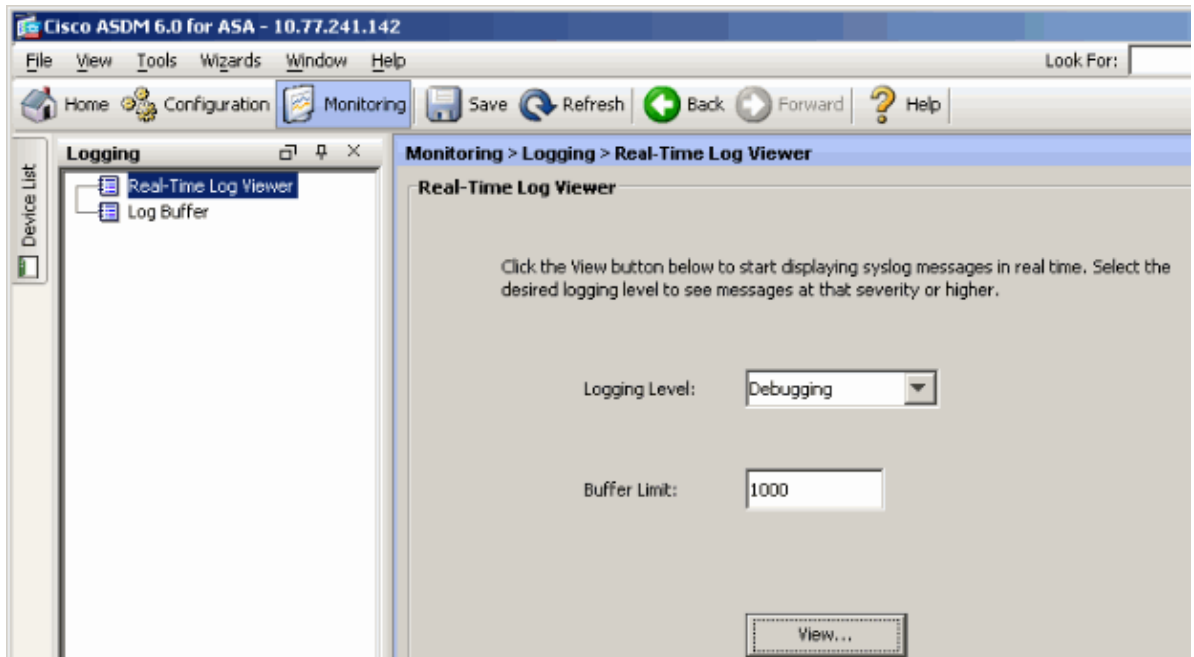
```

```

Processing CSTP header line: 'X-CSTP-Address-Type: IPv4'
webvpn_cstp_parse_request_field()
...input: 'X-DTLS-Master-Secret: CE151BA2107437EDE5EC4F5EE6AEBAC12031550B1812D40
642E22C6AF9501758FF3B7B5545973C06F6393C92E59693'
Processing CSTP header line: 'X-DTLS-Master-Secret: CE151BA2107437EDE5EC4F5EE6AE
BAC12031550B1812D40642E22C6AF9501758FF3B7B5545973C06F6393C92E59693'
webvpn_cstp_parse_request_field()
...input: 'X-DTLS-CipherSuite: AES256-SHA:AES128-SHA:DES-CBC3-SHA:DES-CBC-SHA'
Processing CSTP header line: 'X-DTLS-CipherSuite: AES256-SHA:AES128-SHA:DES-CBC3
-SHA:DES-CBC-SHA'
Validating address: 0.0.0.0
CSTP state = WAIT_FOR_ADDRESS
webvpn_cstp_accept_address: 192.168.10.1/0.0.0.0
CSTP state = HAVE_ADDRESS
No subnetmask... must calculate it
SVC: NP setup
np_svc_create_session(0x3000, 0xD41611E8, TRUE)
webvpn_svc_np_setup
SVC ACL Name: NULL
SVC ACL ID: -1
SVC ACL ID: -1
vpn_put_uauth success!
SVC IPv6 ACL Name: NULL
SVC IPv6 ACL ID: -1
SVC: adding to sessmgmt
SVC: Sending response
Unable to initiate NAC, NAC might not be enabled or invalid policy
CSTP state = CONNECTED
webvpn_rx_data_cstp
webvpn_rx_data_cstp: got internal message
Unable to initiate NAC, NAC might not be enabled or invalid policy

```

4. In ASDM, choose **Monitoring > Logging > Real-time Log Viewer > View** in order to see the real time events.



This example shows that the SSL session has been established with the head end device.

Real-Time Log Viewer - 10.77.241.142

File Tools Window Help

Pause Copy Save Clear Color Settings Create Rule Show Rule Show Details Help

Filter By: Filter Show All Find:

Severity	Date	Time	Syslog ID	Source IP	Destination IP	Message
6	Mar 21 2008	20:03:36	725007	10.77.233.74		SSL session with client inside:10.77.233.74/1026 terminated.
6	Mar 21 2008	20:03:35	106015	10.77.233.74	10.77.241.142	Deny TCP (no connection) from 10.77.233.74/1026 to 10.77.241.142/44
6	Mar 21 2008	20:03:35	302014	10.77.233.74	10.77.241.142	Teardown TCP connection 700 for inside:10.77.233.74/1026 to NP Identif
6	Mar 21 2008	20:03:35	605005	0.0.0.0	0.0.0.0	Login permitted from 0.0.0.0/1026 to inside:0.0.0.0/https for user "enabl
6	Mar 21 2008	20:03:35	725002	10.77.233.74		Device completed SSL handshake with client inside:10.77.233.74/1026
6	Mar 21 2008	20:03:35	725003	10.77.233.74		SSL client inside:10.77.233.74/1026 request to resume previous session.
6	Mar 21 2008	20:03:35	725001	10.77.233.74		Starting SSL handshake with client inside:10.77.233.74/1026 for TLSv1 se
6	Mar 21 2008	20:03:35	302013	10.77.233.74	10.77.241.142	Built inbound TCP connection 700 for inside:10.77.233.74/1026 (10.77.23

%ASA-6-725002: Device completed SSL handshake with remote_device_interface_name:IP_address/port

The SSL handshake has completed successfully with the remote device.

Related Information

- [Cisco 5500 Series Adaptive Security Appliance Support Page](#)
- [Release Notes for AnyConnect VPN Client, Release 2.0](#)
- [ASA/PIX: Allow Split Tunneling for VPN Clients on the ASA Configuration Example](#)
- [Router Allows VPN Clients to Connect IPsec and Internet Using Split Tunneling Configuration Example](#)
- [PIX/ASA 7.x and VPN Client for Public Internet VPN on a Stick Configuration Example](#)
- [SSL VPN Client \(SVC\) on ASA with ASDM Configuration Example](#)
- [Technical Support & Documentation – Cisco Systems](#)

Contacts & Feedback | Help | Site Map

© 2008 – 2009 Cisco Systems, Inc. All rights reserved. Terms & Conditions | Privacy Statement | Cookie Policy | Trademarks of Cisco Systems, Inc.

Updated: Oct 02, 2009

Document ID: 100936