

## 210-260 Dumps

### Implementing Cisco Network Security

<https://www.certleader.com/210-260-dumps.html>



#### NEW QUESTION 1

What is the Cisco preferred countermeasure to mitigate CAM overflows?

- A. Port security
- B. Dynamic port security
- C. IP source guard
- D. Root guard

**Answer: B**

**Explanation:** <http://www.cisco.com/c/en/us/support/docs/switches/catalyst-3750-series-switches/72846-layer2-secftrs-catl3fixed.html>

#### NEW QUESTION 2

Which Cisco Security Manager application collects information about device status and uses it to generate notifications and alerts?

- A. FlexConfig
- B. Device Manager
- C. Report Manager
- D. Health and Performance Monitor

**Answer: D**

**Explanation:** Health and Performance Monitor (HPM) • Monitors and displays key health, performance and VPN data for ASA and IPS devices in your network. This information includes critical and non-critical issues, such as memory usage, interface status, dropped packets, tunnel status, and so on. You also can categorize devices for normal or priority monitoring, and set different alert rules for the priority devices.

Source:

[http://www.cisco.com/c/en/us/td/docs/security/security\\_management/cisco\\_security\\_manager/security\\_manager/4-4/user/guide/CSMUserGuide\\_wrapper/HPMchap.pdf](http://www.cisco.com/c/en/us/td/docs/security/security_management/cisco_security_manager/security_manager/4-4/user/guide/CSMUserGuide_wrapper/HPMchap.pdf)

#### NEW QUESTION 3

Which TACACS+ server-authentication protocols are supported on Cisco ASA firewalls? (Choose three.)

- A. EAP
- B. ASCII
- C. PAP
- D. PEAP
- E. MS-CHAPv1
- F. MS-CHAPv2

**Answer: BCE**

**Explanation:** The ASA supports TACACS+ server authentication with the following protocols: ASCII, PAP, CHAP, and MS-CHAPv1.

Source:

[http://www.cisco.com/c/en/us/td/docs/security/asa/asa91/configuration/general/asa\\_91\\_general\\_config/aaa\\_tacacs.pdf](http://www.cisco.com/c/en/us/td/docs/security/asa/asa91/configuration/general/asa_91_general_config/aaa_tacacs.pdf)

#### NEW QUESTION 4

What is an advantage of placing an IPS on the inside of a network?

- A. It can provide higher throughput.
- B. It receives traffic that has already been filtered.
- C. It receives every inbound packet.
- D. It can provide greater security.

**Answer: B**

**Explanation:** Firewalls are generally designed to be on the network perimeter and can handle dropping a lot of the non-legitimate traffic (attacks, scans etc.) very quickly at the ingress interface, often in hardware.

An IDS/IPS is, generally speaking, doing more deep packet inspections and that is a much more computationally expensive undertaking. For that reason, we prefer to filter what gets to it with the firewall line of defense before engaging the IDS/IPS to analyze the traffic flow.

In an even more protected environment, we would also put a first line of defense in ACLs on an edge router between the firewall and the public network(s).

Source: <https://supportforums.cisco.com/discussion/12428821/correct-placement-idsips-network-architecture>

#### NEW QUESTION 5

Refer to the exhibit.

```

R1#show snmp
Chassis: FTX123456789
0 SNMP packets input
 6 Bad SNMP version errors
 3 Unknown community name
 9 Illegal operation for community name supplied
 4 Encoding errors
 2 Number of requested variables
 0 Number of altered variables
98 Get-request PDUs
12 Get-next PDUs
 2 Set-request PDUs
 0 Input queue packet drops (Maximum queue size 1000)
0 SNMP packets output
 0 Too big errors (Maximum packet size 1500)
 0 No such name errors
 0 Bad values errors
 0 General errors
31 Response PDUs
 1 Trap PDUs
    
```

How many times was a read-only string used to attempt a write operation?

- A. 9
- B. 6
- C. 4
- D. 3
- E. 2

**Answer:** A

**Explanation:** To check the status of Simple Network Management Protocol (SNMP) communications, use the show snmp command in user EXEC or privileged EXEC mode.

Illegal operation for community name supplied: Number of packets requesting an operation not allowed for that community

Source:

<http://www.cisco.com/c/en/us/td/docs/ios/netmgmt/command>

#### NEW QUESTION 6

What features can protect the data plane? (Choose three.)

- A. policing
- B. ACLs
- C. IPS
- D. antispoofing
- E. QoS
- F. DHCP-snooping

**Answer:** BDF

**Explanation:** + Block unwanted traffic at the router. If your corporate policy does not allow TFTP traffic, just implement ACLs that deny traffic that is not allowed.  
+ Reduce spoofing attacks. For example, you can filter (deny) packets trying to enter your network (from the outside) that claim to have a source IP address that is from your internal network.  
+ Dynamic Host Configuration Protocol (DHCP) snooping to prevent a rogue DHCP server from handing out incorrect default gateway information and to protect a DHCP server from a starvation attack Source: Cisco Official Certification Guide, Best Practices for Protecting the Data Plane , p.271

#### NEW QUESTION 7

Scenario

Given the new additional connectivity requirements and the topology diagram, use ASDM to accomplish the required ASA configurations to meet the requirements.

New additional connectivity requirements:

Once the correct ASA configurations have been configured: To access ASDM, click the ASA icon in the topology diagram.

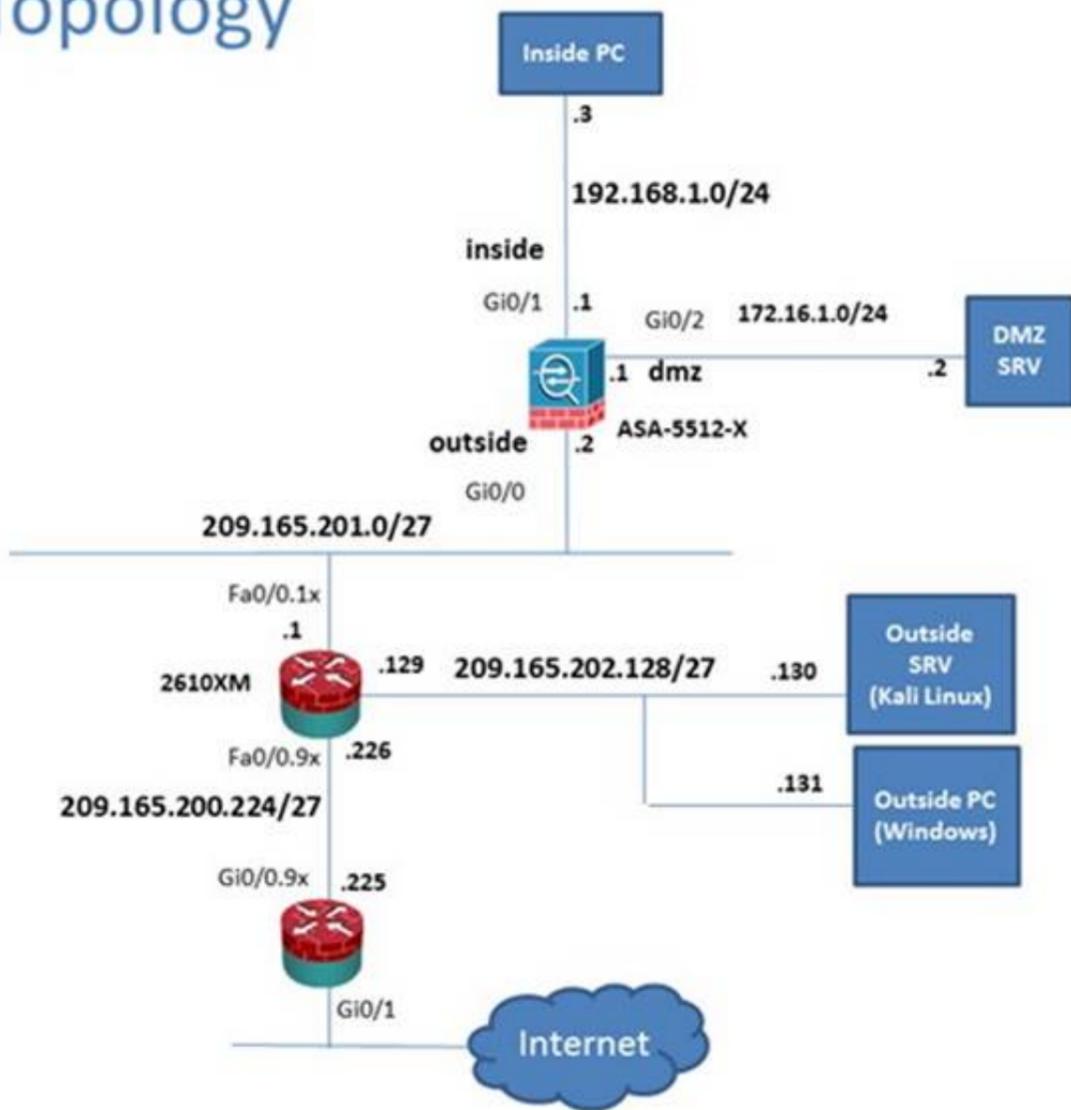
To access the Firefox Browser on the Outside PC, click the Outside PC icon in the topology diagram. To access the Command prompt on the Inside PC, click the Inside PC icon in the topology diagram. Note:

After you make the configuration changes in ASDM, remember to click Apply to apply the configuration changes.

Not all ASDM screens are enabled in this simulation, if some screen is not enabled, try to use different methods to configure the ASA to meet the requirements.

In this simulation, some of the ASDM screens may not look and function exactly like the real ASDM.

# Lab Topology



The screenshot shows the Cisco ASDM 7.5 interface for ASA-5512-X. The main dashboard includes several sections:

- Device Information:** Host Name: P17-ASAsecure-x.local, ASA Version: 100.14(6)13, ASDM Version: 7.5(1)1, Firewall Mode: Routed, Environment Status: OK.
- Interface Status:**

Interface	IP Address/Mask	Line	Link	Kbps
dmz	172.16.1.1/24	up	up	0
inside	192.168.1.1/24	up	up	4
mgmt	10.10.10.2/24	up	up	0
outside	209.165.201.2/24	up	up	0
- System Resources Status:** Memory Usage (MB) graph showing usage around 500MB.
- Traffic Status:** Connections Per Second Usage and 'outside' Interface Traffic Usage (Kbps) graphs.
- Latest ASDM Syslog Messages:**

Severity	Date	Time	Syslog ID	Source IP	Source	Destination IP	Destine Description
6	May 13 2015	12:35:09	302016	10.81.254.202	123	209.165.201.2	65535 Teardown UDP connection 15136525 for outside: 10.81.254.202/123 to identity: 209.165.201.2/65535(any) duration 0:02:01 bytes 96
6	May 13 2015	12:35:08	300015	192.168.1.3	14676	192.168.1.1	443 Deny TCP (no connection) from 192.168.1.3/14676 to 192.168.1.1/443 flags FIN ACK on interface inside
6	May 13 2015	12:35:08	302014	192.168.1.3	14676	192.168.1.1	443 Teardown TCP connection 15136528 for inside: 192.168.1.3/14676 to identity: 192.168.1.1/443 duration 0:00:00 bytes 299 TCP Reset-O

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The main window displays the 'Monitoring > Interfaces > ARP Table' page. A table lists ARP entries for various interfaces. Below the table are buttons for 'Clear Dynamic ARP Entries' and 'Refresh'. The status bar at the bottom indicates 'Data Refreshed Successfully' and 'Last Updated: 5/19/15 9:32:02 AM'.

Interface	IP Address	MAC Address	Proxy Arp
outside	209.165.201.1	000c.3014.3820	No
inside	192.168.1.4	0050.5633.3333	No
inside	192.168.1.3	0050.5611.1111	No
inside	192.168.1.2	0050.5622.2222	No
inside	192.168.1.56	0050.5692.5c7b	No
inside	192.168.1.55	0006.85e6.98f3	No
dmz	172.16.1.2	0050.5644.4444	No
ngmt	10.10.10.1	000c.3014.3820	No

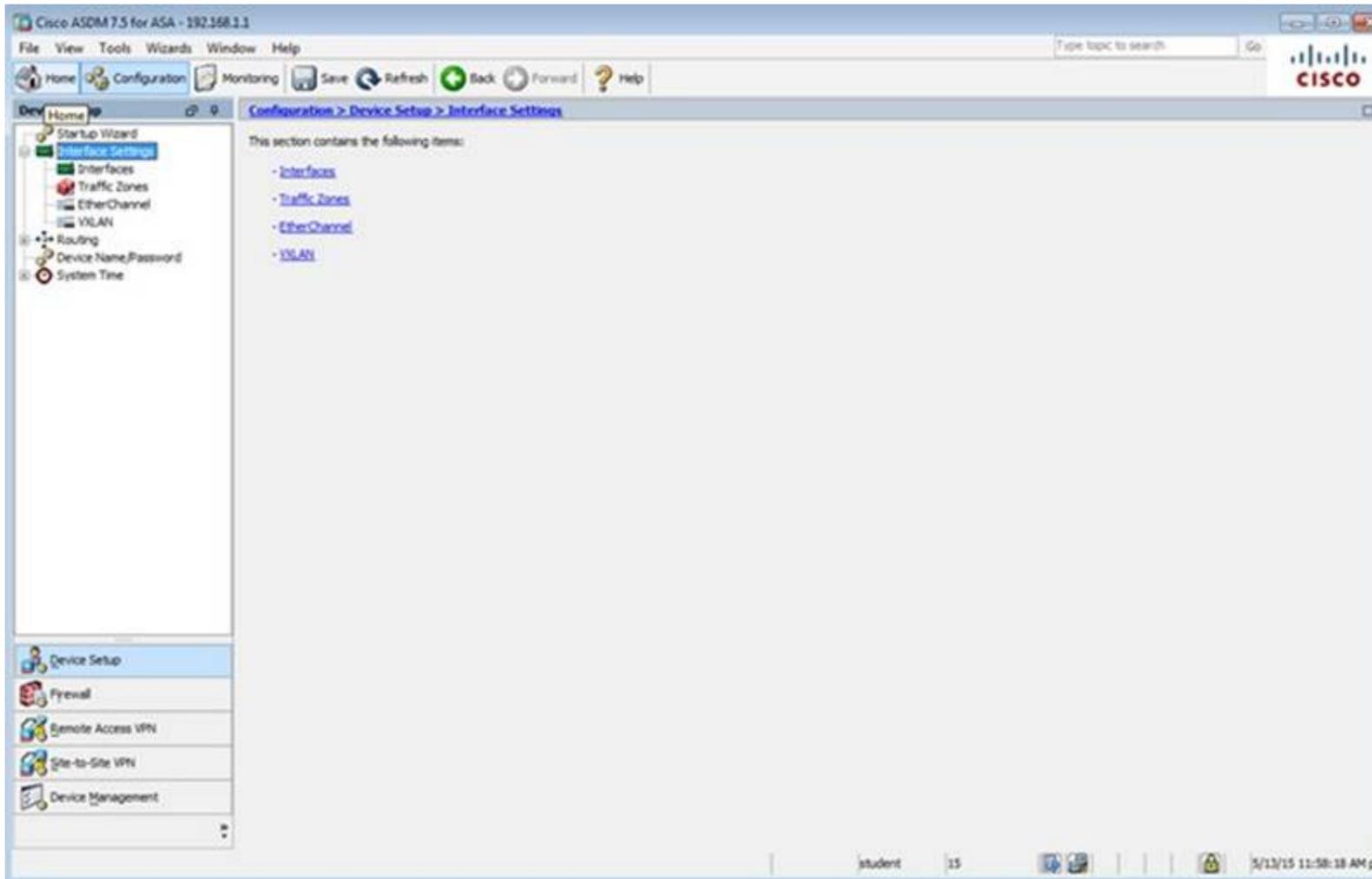
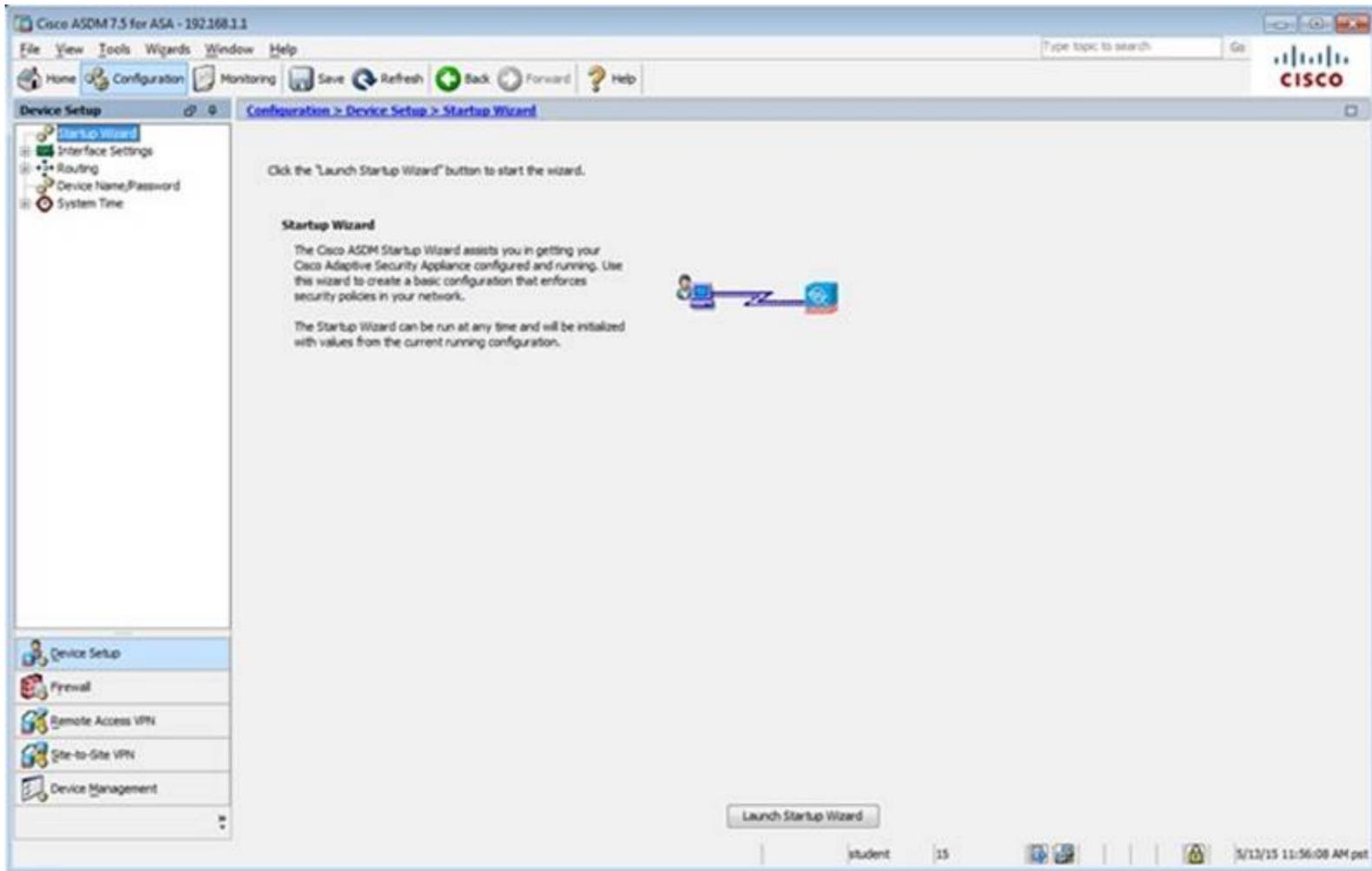
The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The main window displays the 'Monitoring > VPN > VPN Statistics > Sessions' page. It features a table with columns for Type, Active, Cumulative, Peak Concurrent, and Inactive. Below the table are filter options and a detailed table for session statistics. The status bar at the bottom indicates 'Data Refreshed Successfully' and 'Last Updated: 5/19/15 9:33:12 AM'.

Type	Active	Cumulative	Peak Concurrent	Inactive
Clientless VPN				
Browser				

Connection Profile	Protocol	Login Time	Bytes Tx	Cer Auth Int	Cer Auth Left
IP Address	Encryption	Duration	Bytes Rx		

Filter By: Clientless SSL VPN -- All Sessions -- Filter



The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface configuration page. The breadcrumb trail is Configuration > Device Setup > Interface Settings > Interfaces. The left sidebar shows the navigation tree with 'Interfaces' selected under 'Interface Settings'. The main area displays a table of interfaces with the following data:

Interface	Name	Zone	Route Map	State	Security Level	IP Address	Subnet Mask Prefix Length	Group	Type
GigabitEthernet0	outside			Enabled		0.0.0.0/0.0.0.0	255.255.255.0		Hardware
GigabitEthernet1	inside			Enabled	100	192.168.1.1	255.255.255.0		Hardware
GigabitEthernet2	dmz			Enabled		172.16.1.1	255.255.255.0		Hardware
GigabitEthernet3				Enabled					Hardware
GigabitEthernet4				Enabled					Hardware
GigabitEthernet5	mgmt			Enabled	100	10.10.10.2	255.255.255.0		Hardware
Management0				Enabled					Hardware

Below the table, there are three checkboxes for traffic rules:

- Enable traffic between two or more interfaces which are configured with same security levels
- Enable traffic between two or more hosts connected to the same interface
- Enable jumbo frame reservation

Buttons for 'Apply' and 'Reset' are located at the bottom of the configuration area.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 management access configuration page. The breadcrumb trail is Configuration > Device Management > Management Access. The left sidebar shows the navigation tree with 'Management Access' selected under 'Device Management'. The main area displays a list of items under the heading 'This section contains the following items:':

- [ASDM/HTTPS/Telnet/SSH](#)
- [HTTP Certificate Rule](#)
- [Command Line \(CLI\)](#)
- [File Access](#)
- [ICMP](#)
- [Management Interface](#)
- [Management Session Quota](#)
- [SNMP](#)
- [Management Access Rules](#)

The bottom of the screen shows the system tray with the user 'student' and the time '5/13/15 11:59:28 AM pdt'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The navigation pane on the left is expanded to 'Management Access > ASDM/HTTPS/Telnet/SSH'. The main content area displays a table for specifying allowed hosts/networks:

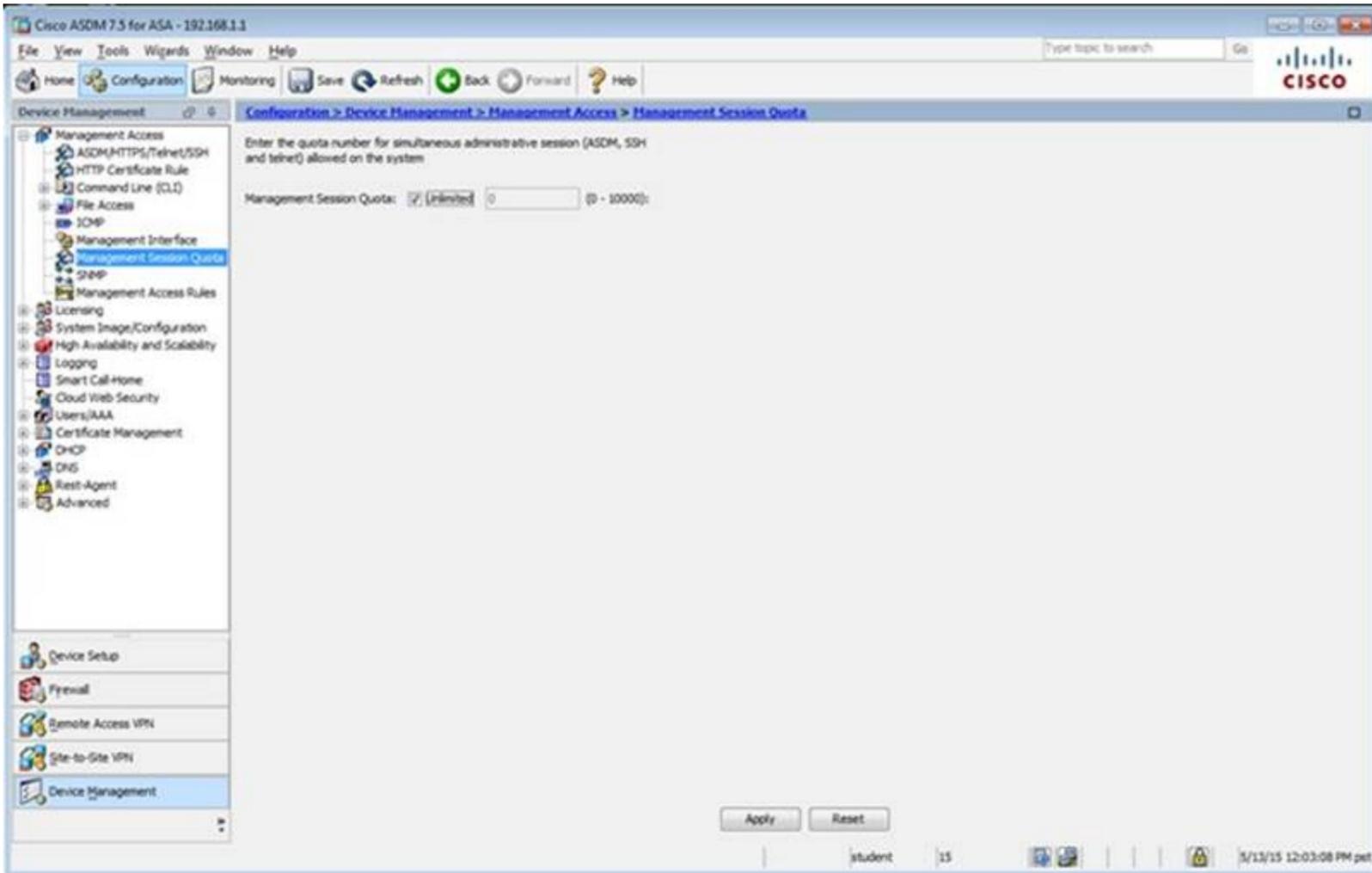
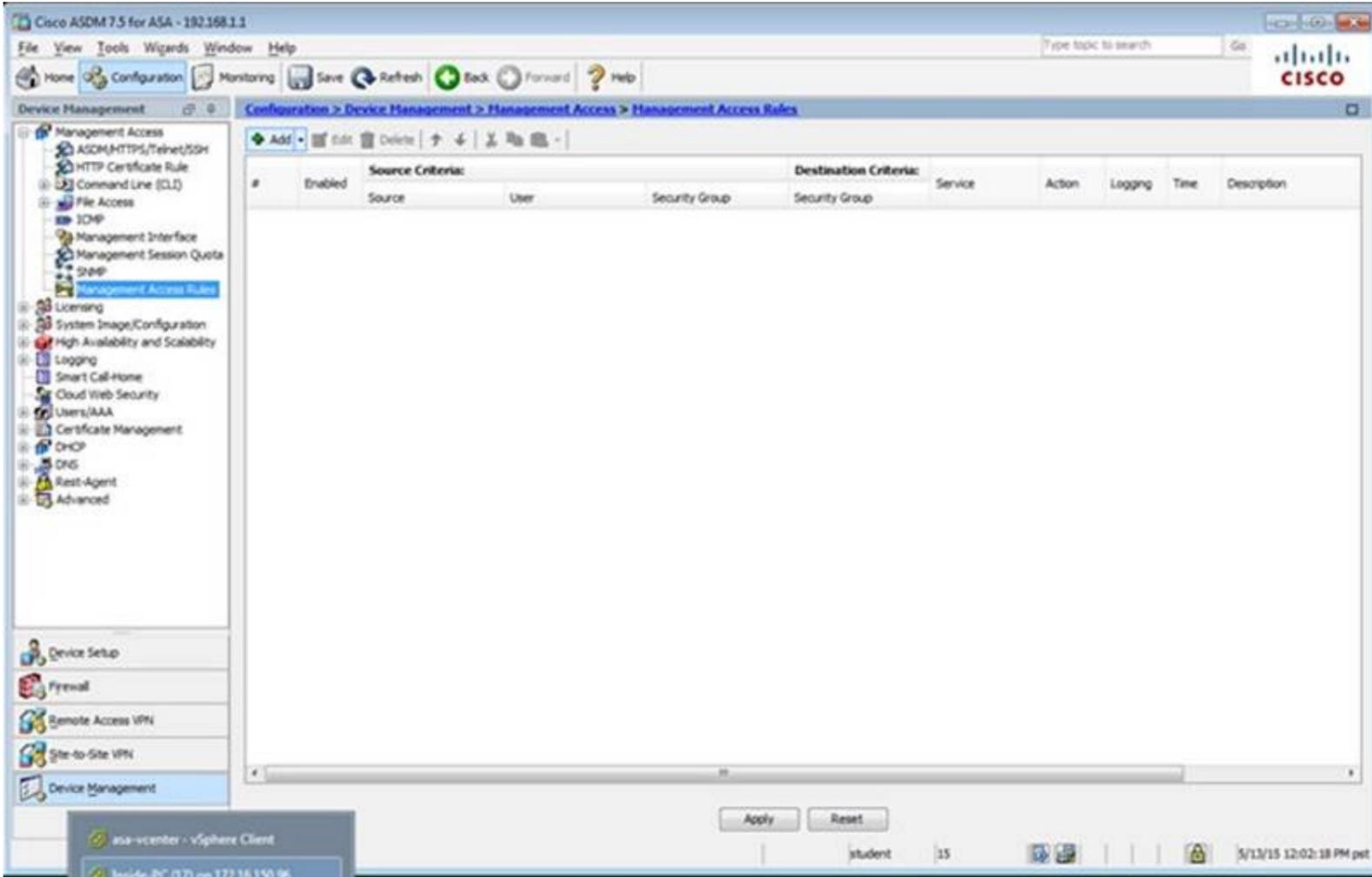
Type	Interface	IP Address	Mask/Prefix Length
Telnet	mgmt	10.10.10.1	255.255.255.255
SSH	inside	192.168.1.2	255.255.255.255
ASDM/HTTPS	inside	192.168.1.0	255.255.255.0

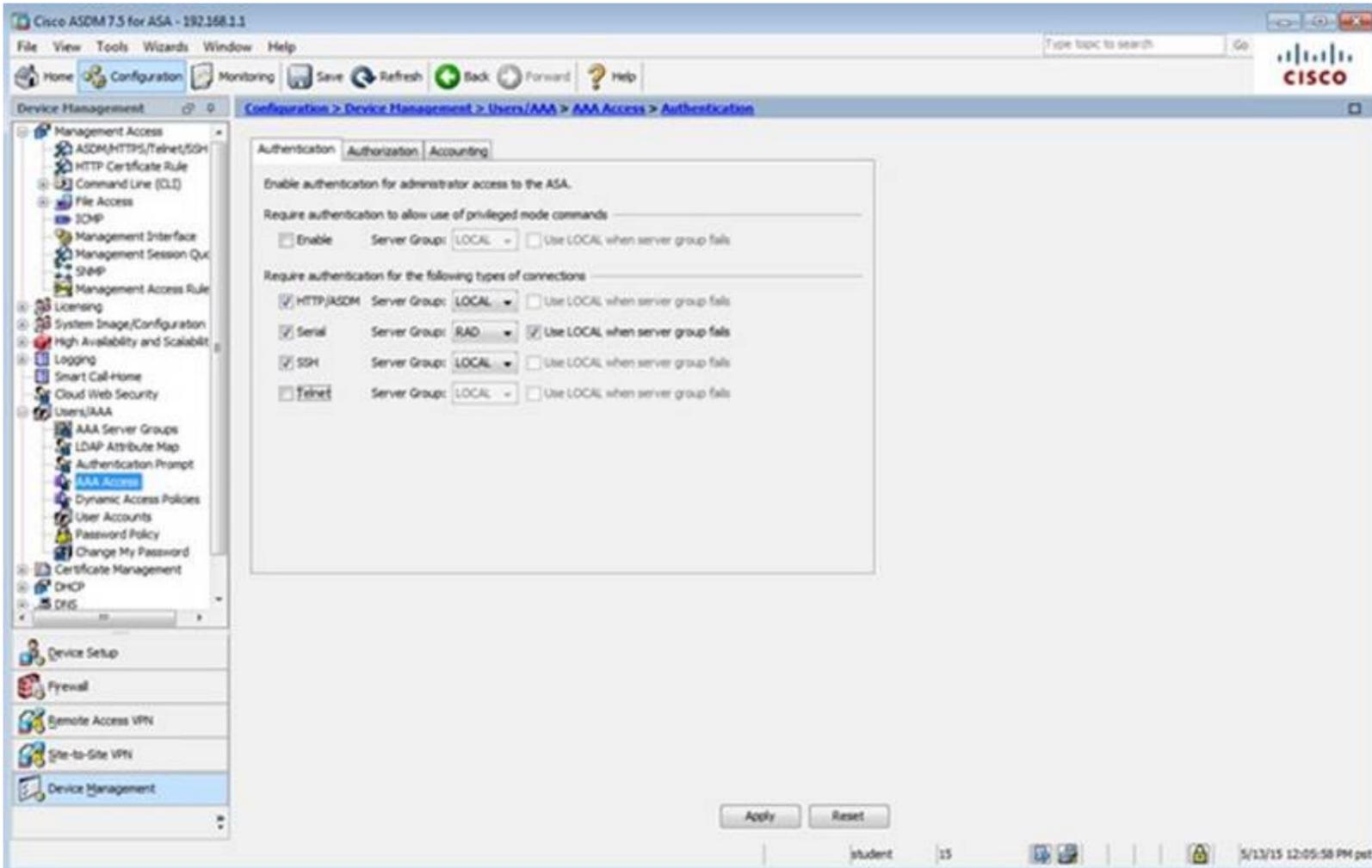
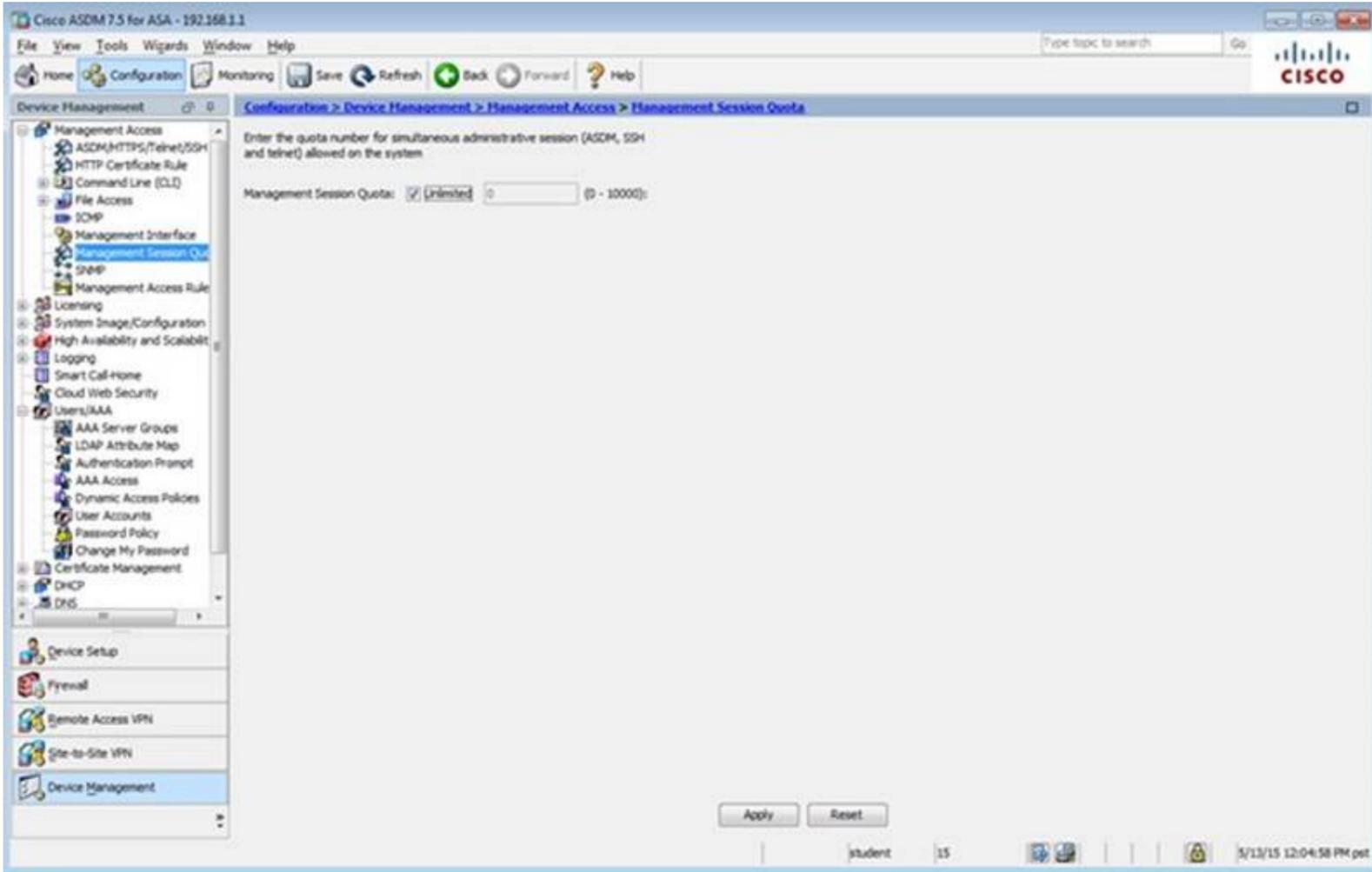
Below the table, there are sections for 'Http Settings', 'Telnet Settings', and 'SSH Settings'. The 'Http Settings' section includes 'Enable HTTP Server' (checked), 'Port Number' (443), 'Idle Timeout' (20 minutes), and 'Session Timeout' (minutes). The 'Telnet Settings' section includes 'Telnet Timeout' (5 minutes). The 'SSH Settings' section includes 'Allowed SSH Version(s)' (1 & 2), 'SSH Timeout' (5 minutes), and 'DH Key Exchange' (Group 1 selected).

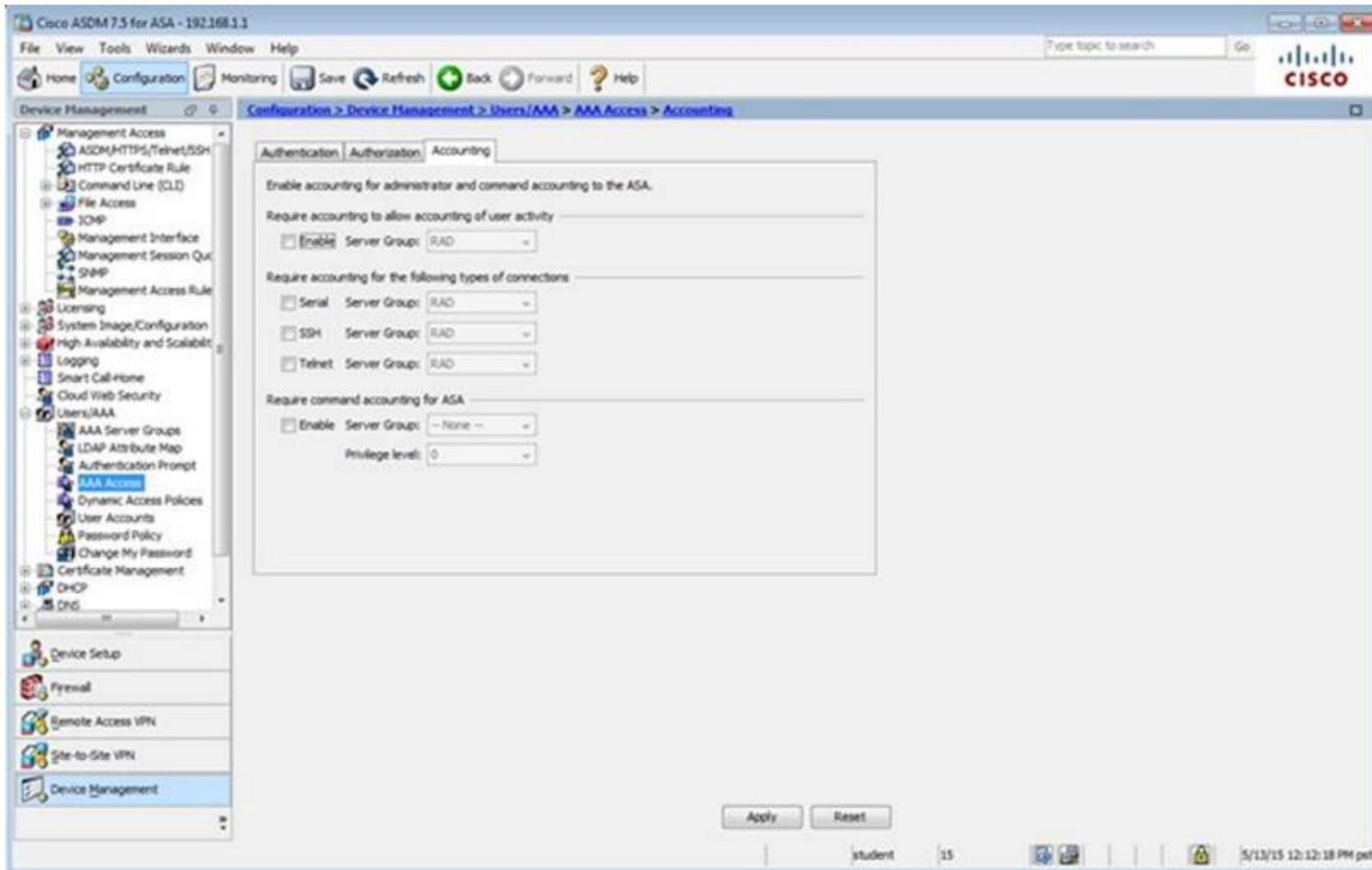
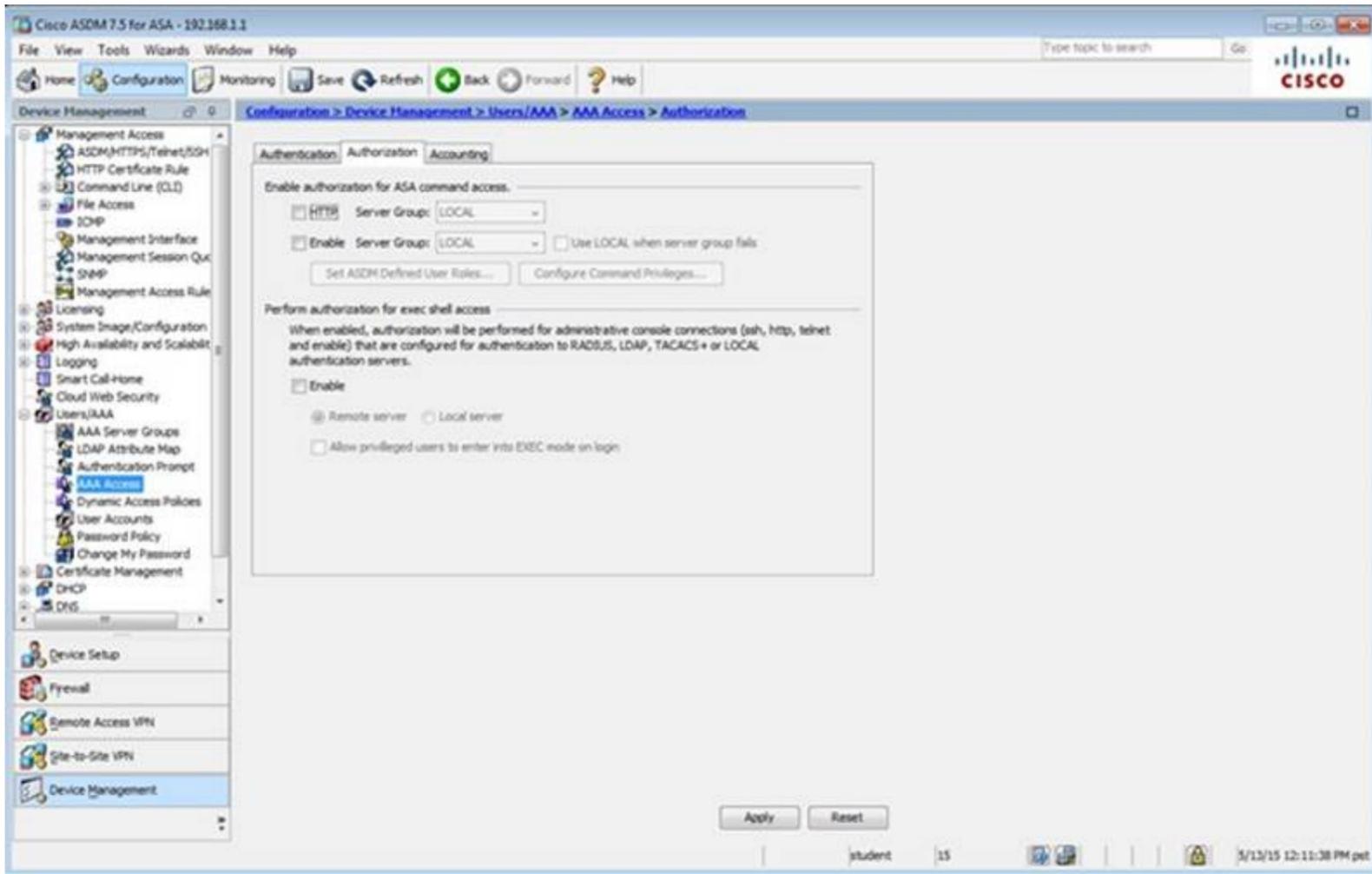
The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The navigation pane on the left is expanded to 'Management Access > Management Interface'. The main content area displays the 'Management Interface' configuration page with the following text:

Enable or disable the Management Access feature for an interface. Once you enable this feature on an internal interface, you will be able to perform ASA management functions, such as running ASDM, on this interface using an IPsec VPN client, SSL VPN client, or a site-to-site tunnel.

Management Access Interface: --None--







The screenshot shows the Cisco ASDM 7.5 interface for configuration. The left sidebar is set to 'Device Management' > 'Users/AAA' > 'AAA Server Groups'. The main pane displays a table of AAA Server Groups:

Server Group	Protocol	Accounting Mode	Reactivation Mode	Dead Time	Max Failed Attempts
LOCAL	LOCAL				
myAD	LDAP	Single	Depletion	10	3
myCDA	RADIUS	Single	Depletion	10	3

Below the table, there is a section for 'Servers in the Selected Group' with a table:

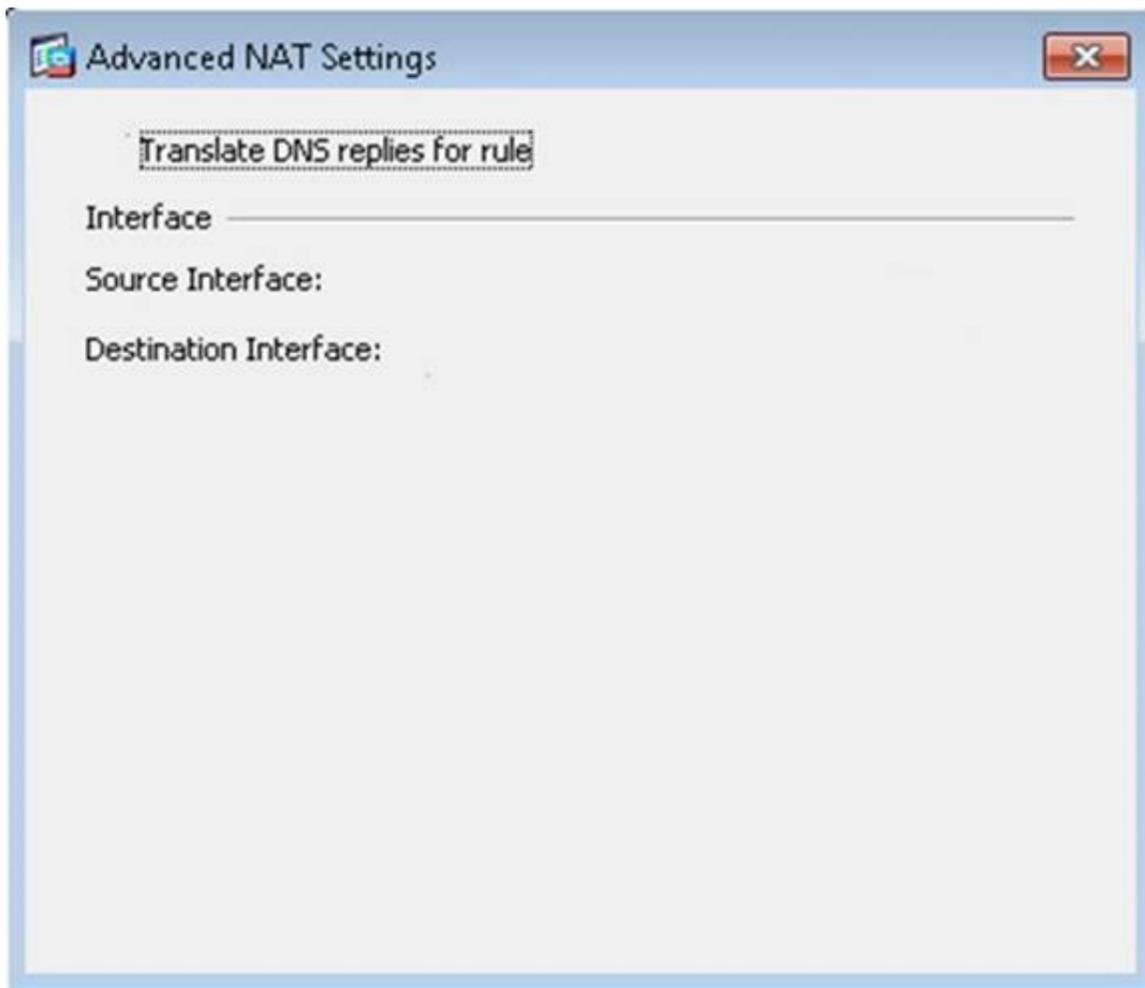
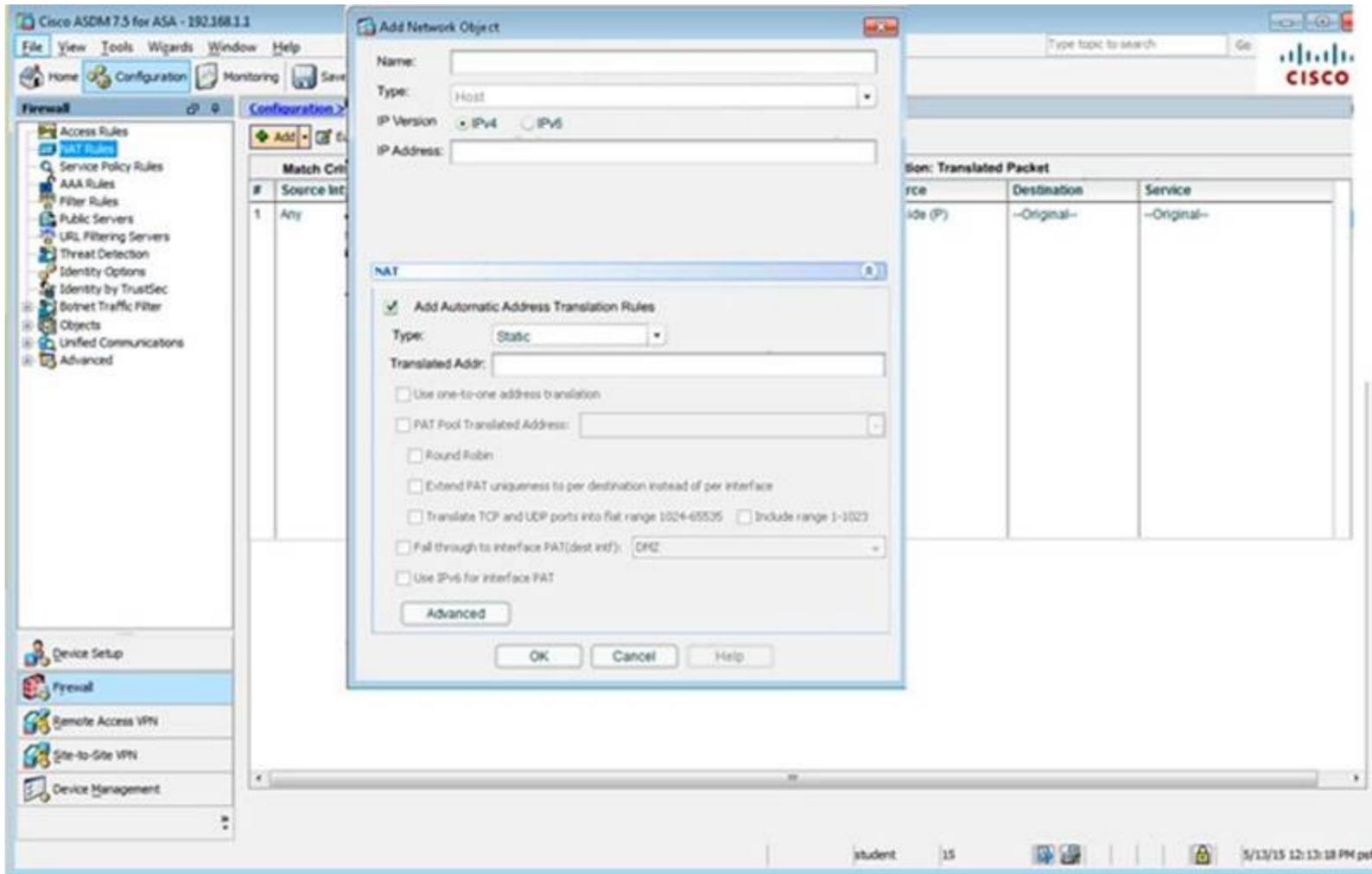
Server Name or IP Address	Interface	Timeout
192.168.1.200	inside	10

At the bottom of the configuration pane, there is an 'LDAP Attribute Map' section with 'Apply' and 'Reset' buttons.

The screenshot shows the Cisco ASDM 7.5 interface for configuration. The left sidebar is set to 'Firewall' > 'NAT Rules'. The main pane displays a table of NAT Rules:

#	Source Intf	Dest Intf	Source	Destination	Service	Source	Destination	Service	Options	Description
1	Any	outside	any-host	any	any	outside (P)	-- Original --	-- Original --		

The interface includes various configuration options like 'Add', 'Edit', 'Delete', and 'Packet Trace' at the top of the main pane.



**Browse Translated Addr**

Filter:  Filter Clear

Name	IP Address	Netmask	Description	Object NAT Address
<b>Network Objects</b>				
DMZ-ser...	172.16.1.50			
ESA	172.16.1.55			
HQ-srv	10.10.3.20			
TRANSL...	192.0.2.100			
<b>Interfaces</b>				
DMZ				
Guest				
inside				
manage...				
outside				
Site-To...				

Selected Translated Addr

Translated Addr ->

Cisco ASDM 7.5 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

Firewall Configuration > Firewall > Objects > Local Users

Create entries in the ASA local user database.

Command authorization must be enabled in order for the user account privileges to be enforced. To enable command authorization, go to [Authorization](#).

AAA authentication console commands must be enabled in order for certain access restrictions to be enforced. To enable AAA authentication command go to [Authentication](#).

Username	Privilege Level (Role)	Access Restrictions	VPN Group Policy	VPN Group Lock
student	15	Full	-- Inherit Group Policy --	-- Inherit Group Policy --
enable_15	15	Full	N/A	N/A
pao	15	Full	-- Inherit Group Policy --	-- Inherit Group Policy --

End:   Match Case

student 15 5/13/15 12:14:18 PM pet

The screenshot shows the Cisco ASDM 7.5 interface for ASA configuration. The left sidebar contains a tree view with 'Network Objects/Groups' selected. The main pane displays a table of Network Objects:

Name	IP Address	Netmask	Description
any			
any-host	0.0.0.0	0.0.0.0	
any4			
any6			
facebook	www.facebook.com		
My_ASA_Demo_Obj	1.10.8.20		

The screenshot shows the Cisco ASDM 7.5 interface for ASA configuration. The left sidebar contains a tree view with 'Service Policy Rules' selected. The main pane displays a table of Service Policy Rules:

Name	#	Enabled	Match	Source	Src Security Group	Destination	Dest Security Group	Service	Time	Rule Actions	Description
Interface: dmz; Policy: asdmf_policy			Match	any		any		any traffic class-default			
Interface: inside; Policy: asasmf_policy			Match	any		any		any traffic class-default			
Global; Policy: global_policy			Match	any		any		default inspec...		Inspect DNS Map preset... Inspect SMTP	

**Edit Service Policy Rule**

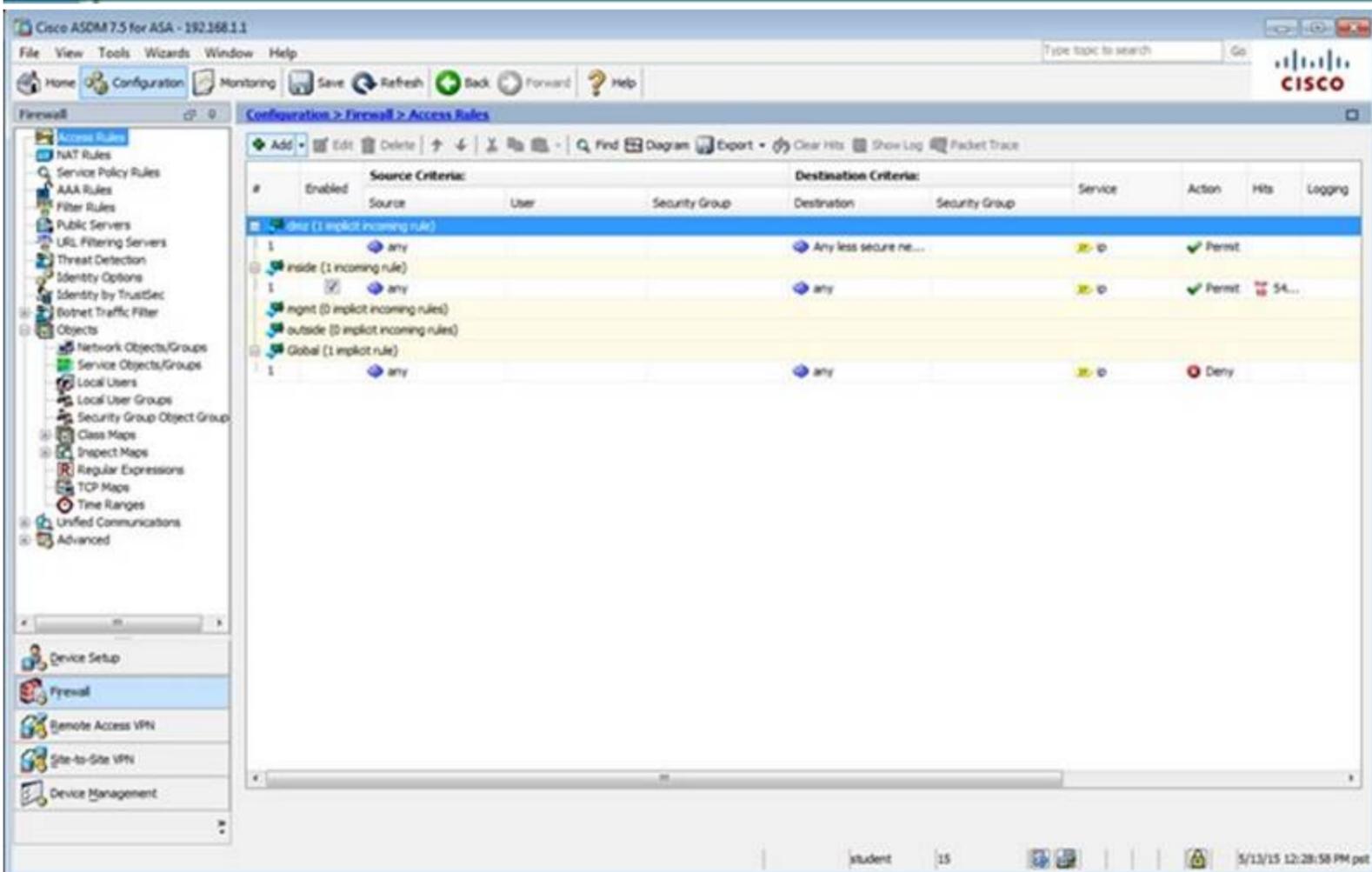
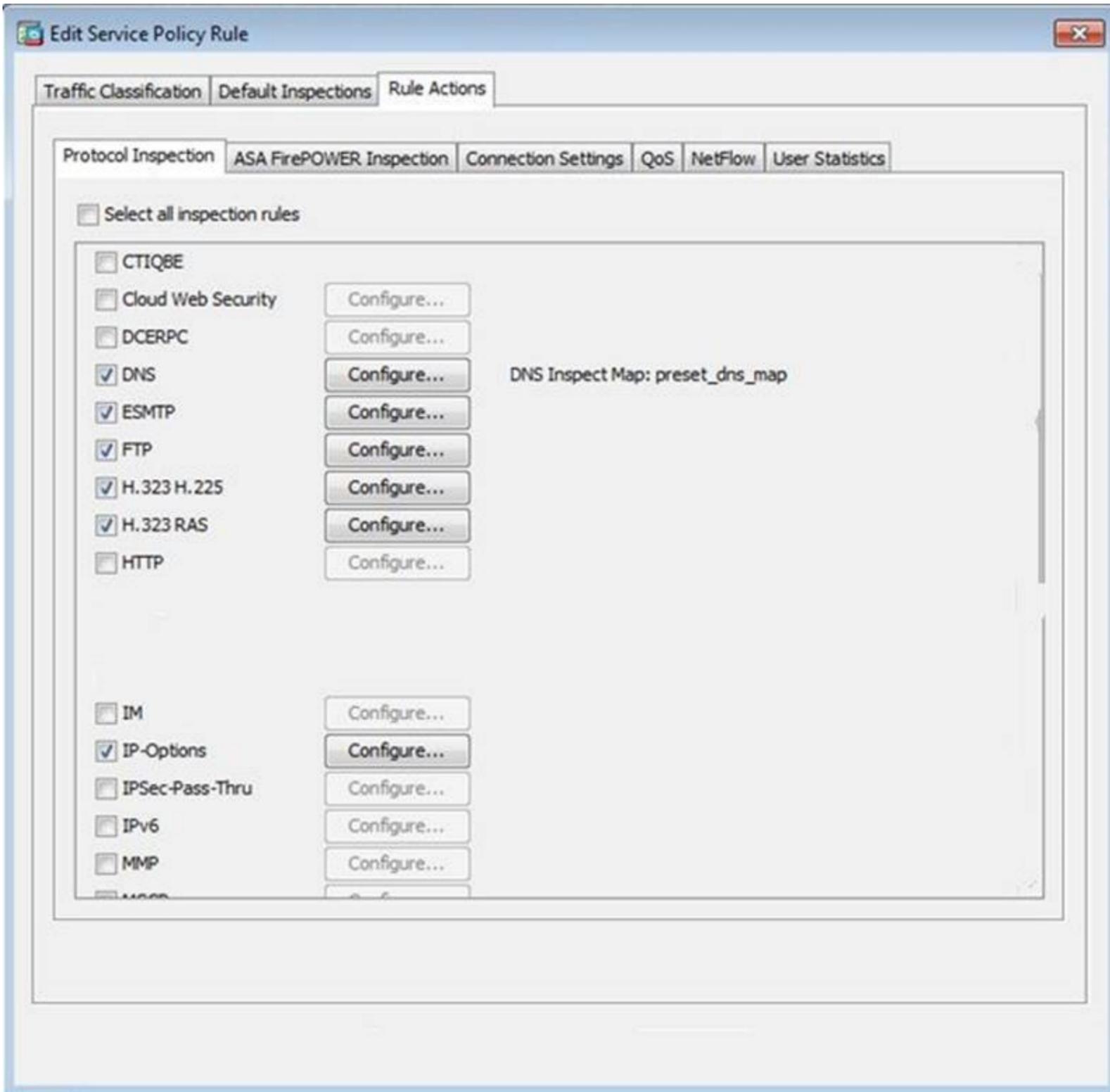
Traffic Classification | Default Inspections | Rule Actions

Name: inspection\_default

Description (optional):

Traffic Match Criteria

- Default Inspection Traffic
- Source and Destination IP Address (uses ACL)
- Tunnel Group
- TCP or UDP Destination Port
- RTP Range
- IP DiffServ CodePoints (DSCP)
- IP Precedence
- Any traffic



**Add Access Rule**

Interface:

Action:

Source Criteria

Source: any

User:

Security Group:

Destination Criteria

Destination:

Security Group:

Service:

Description:

Enable Logging

Logging Level: Default

More Options

OK Cancel Help

Filter:  Filter Clear

Protocol	Name	Source Ports	Des...	ICMP	Descr...
tcp	citrix-ica	default (1-65535)	1494		
tcp	ctiqbe	default (1-65535)	2748		
tcp	daytime	default (1-65535)	13		
tcp	discard	default (1-65535)	9		
tcp	domain	default (1-65535)	53		
tcp	echo	default (1-65535)	7		
tcp	exec	default (1-65535)	512		
tcp	finger	default (1-65535)	79		
tcp	ftp	default (1-65535)	21		
tcp	ftp-data	default (1-65535)	20		
tcp	gopher	default (1-65535)	70		
tcp	h323	default (1-65535)	1720		
tcp	hostname	default (1-65535)	101		
tcp	http	default (1-65535)	80		
tcp	https	default (1-65535)	443		
tcp	ident	default (1-65535)	113		
tcp	imap4	default (1-65535)	143		
tcp	irc	default (1-65535)	194		
tcp	kerberos	default (1-65535)	750		
tcp	klogin	default (1-65535)	543		
tcp	kshell	default (1-65535)	544		

Selected Service:

Service ->

OK Cancel

Cisco ASDM 7.5 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

Remote Access VPN Configuration > Remote Access VPN > Introduction

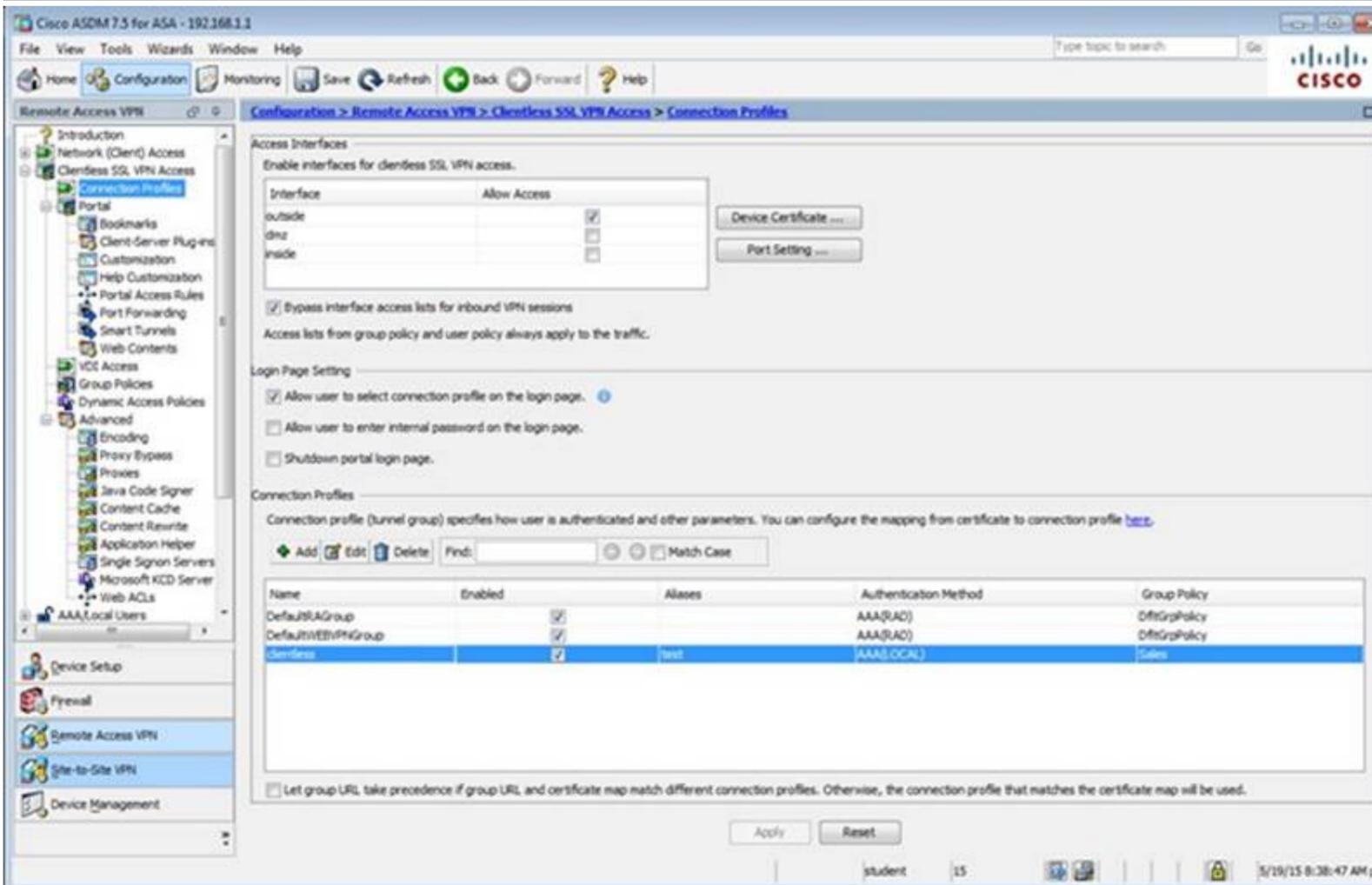
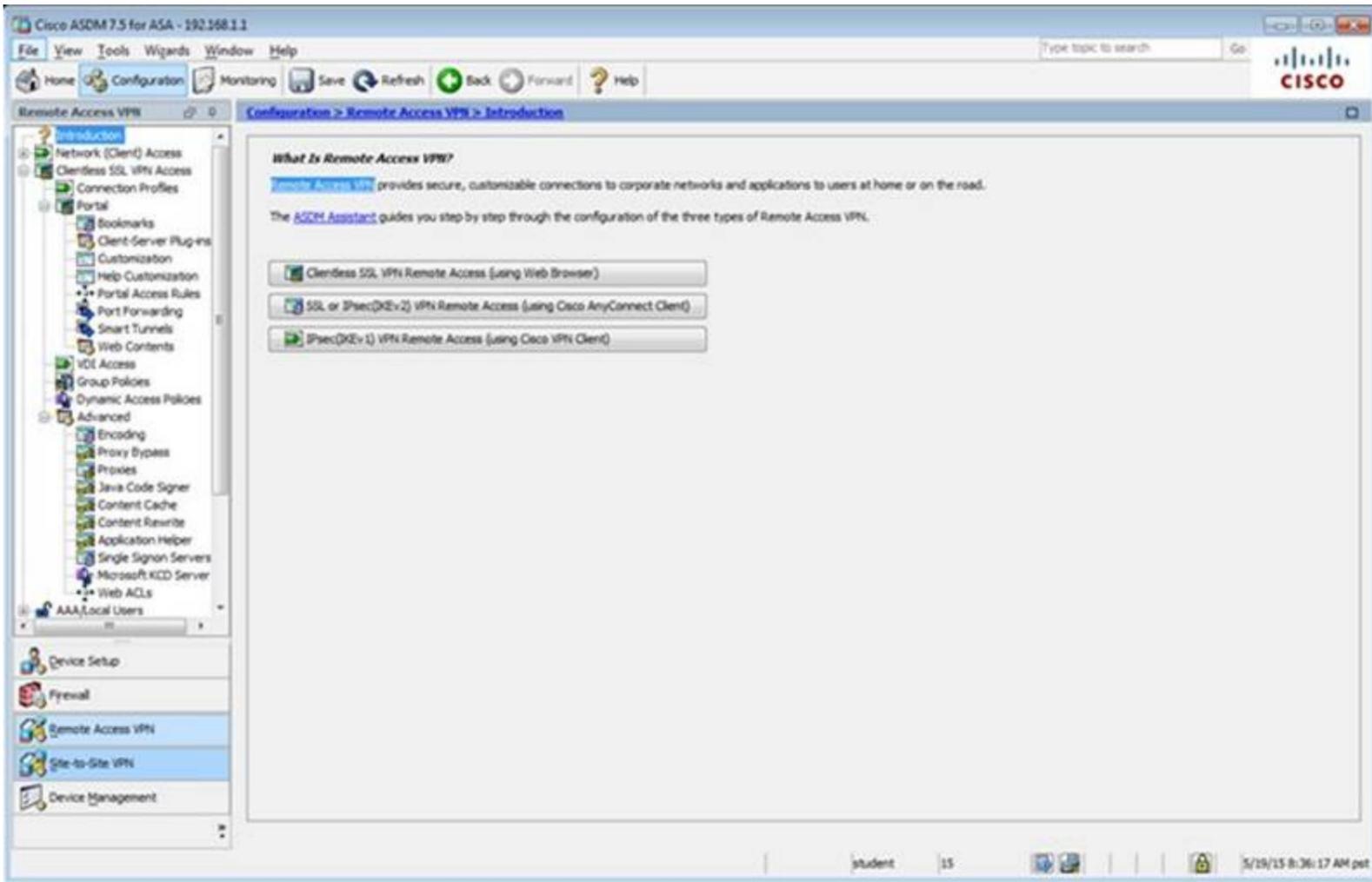
**What is Remote Access VPN?**

Remote Access VPN provides secure, customizable connections to corporate networks and applications to users at home or on the road.

The ASDM Assistant guides you step by step through the configuration of the three types of Remote Access VPN.

- Clientless SSL VPN Remote Access (using Web Browser)
- SSL or IPsec(IKEv2) VPN Remote Access (using Cisco AnyConnect Client)
- IPsec(IKEv1) VPN Remote Access (using Cisco VPN Client)

student 15 5/19/15 8:47:07 AM pdt



**Edit Clientless SSL VPN Connection Profile: clientless**

**Basic** | **Advanced**

Name: clientless  
Aliases: test

**Authentication**  
Method:  AAA  Certificate  Both  
AAA Server Group: LOCAL Manage...  
 Use LOCAL if Server Group fails

**DNS**  
Server Group: DefaultDNS Manage...  
(Following fields are attributes of the DNS server group selected above.)  
Servers: 192.168.1.2  
Domain Name: secure-x.local

**Default Group Policy**  
Group Policy: Sales Manage...  
(Following field is an attribute of the group policy selected above.)  
 Enable clientless SSL VPN protocol

Find:   Next  Previous

OK Cancel Help

**Edit Clientless SSL VPN Connection Profile: clientless**

Basic

Advanced

- General
- Authentication
- Secondary Authentication
- Authorization
- Accounting
- NetBIOS Servers
- Clientless SSL VPN**

Login and Logout Page Customization: **DfltCustomization** Manage...

Enable the display of Radius Reject-Message on the login screen when authentication is rejected

Enable the display of SecurId messages on the login screen

Connection Aliases

This SSL VPN access method will present a list of aliases configured for all connection profiles. You must enable the Login Page Setting in the main panel to complete the configuration.

+ Add - Delete (The table is in-line editable.) i

Alias	Enabled
test	<input checked="" type="checkbox"/>

Group URLs

This SSL VPN access method will automatically select the connection profile, without the need for user selection.

+ Add - Delete (The table is in-line editable.) i

URL	Enabled
https://209.165.201.2/test	<input checked="" type="checkbox"/>

You can chose not to run Cisco Secure Desktop (CSD) on client machine when using group URLs defined above to access the ASA. (If a client connects using a connection alias, this setting is ignored)

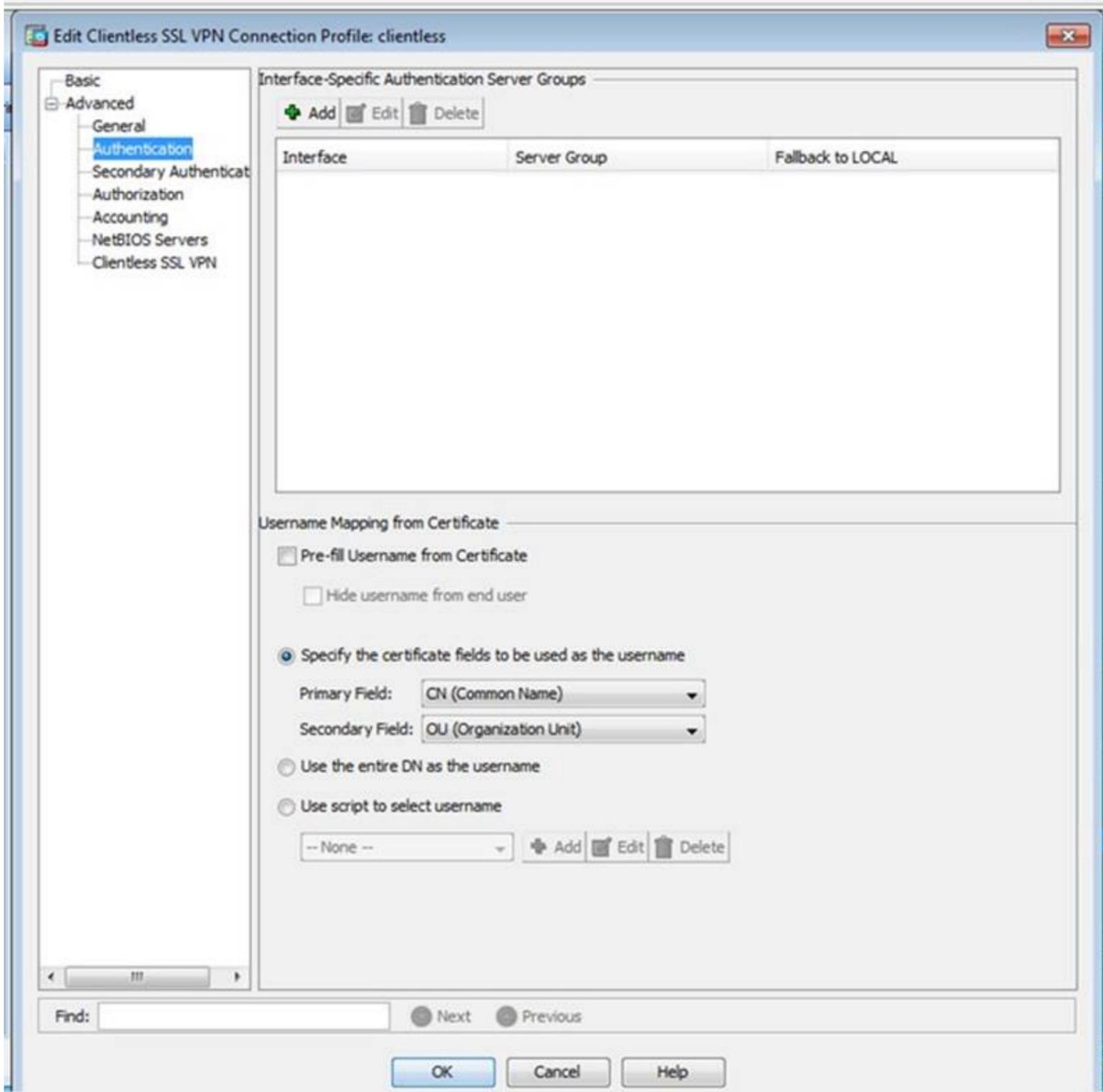
Always run CSD

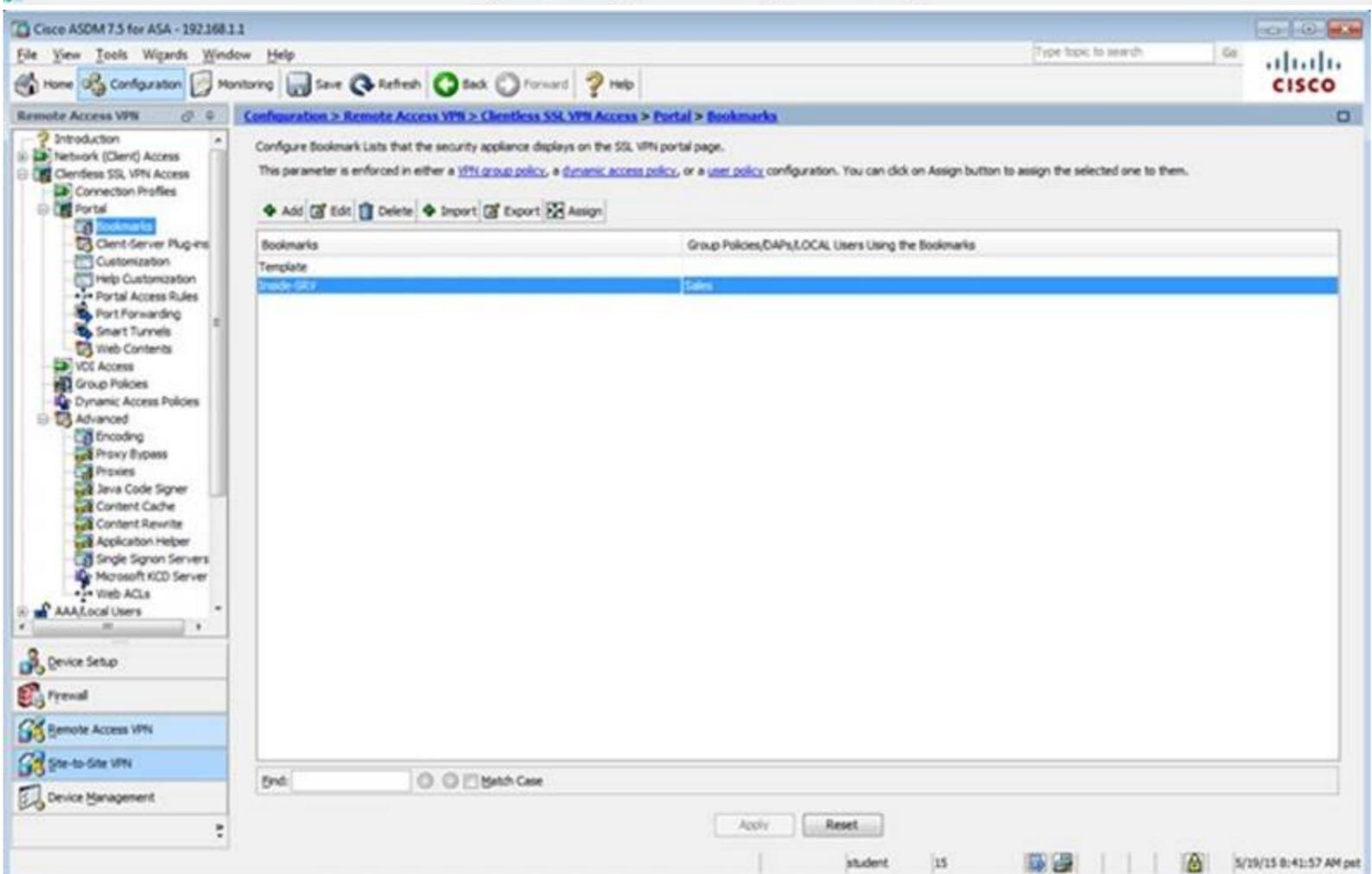
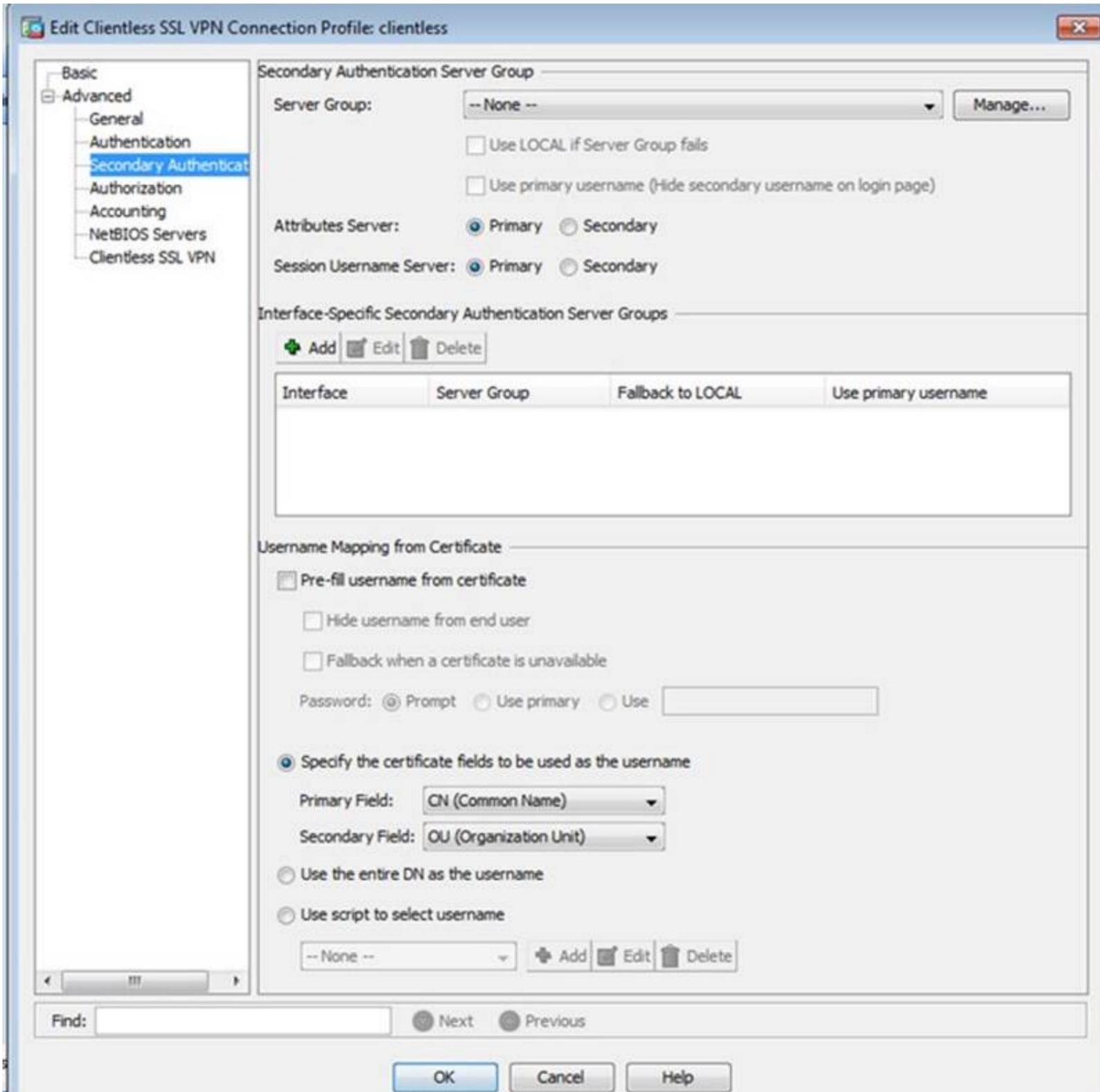
Disable CSD for both AnyConnect and Clientless SSL VPN

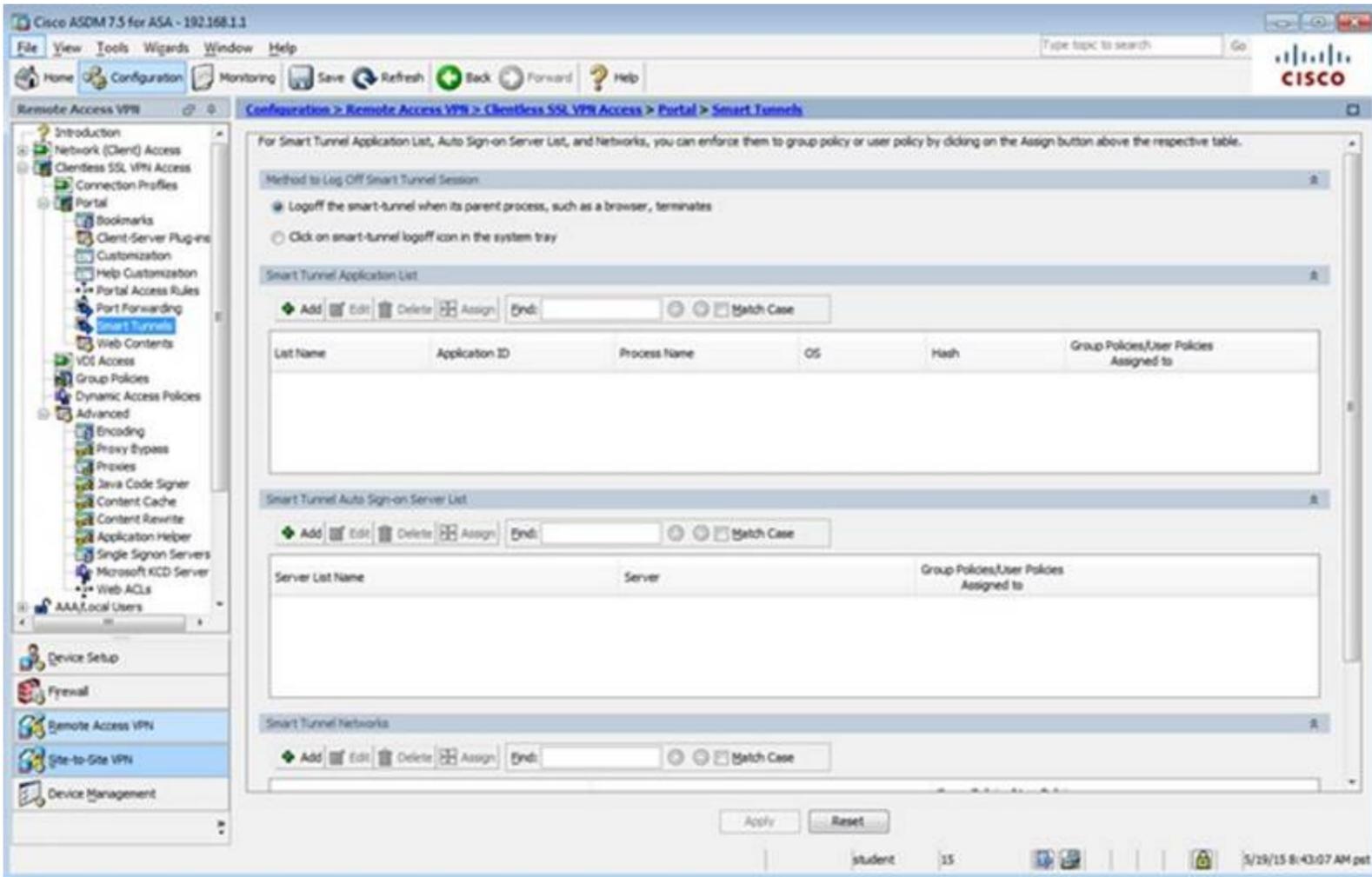
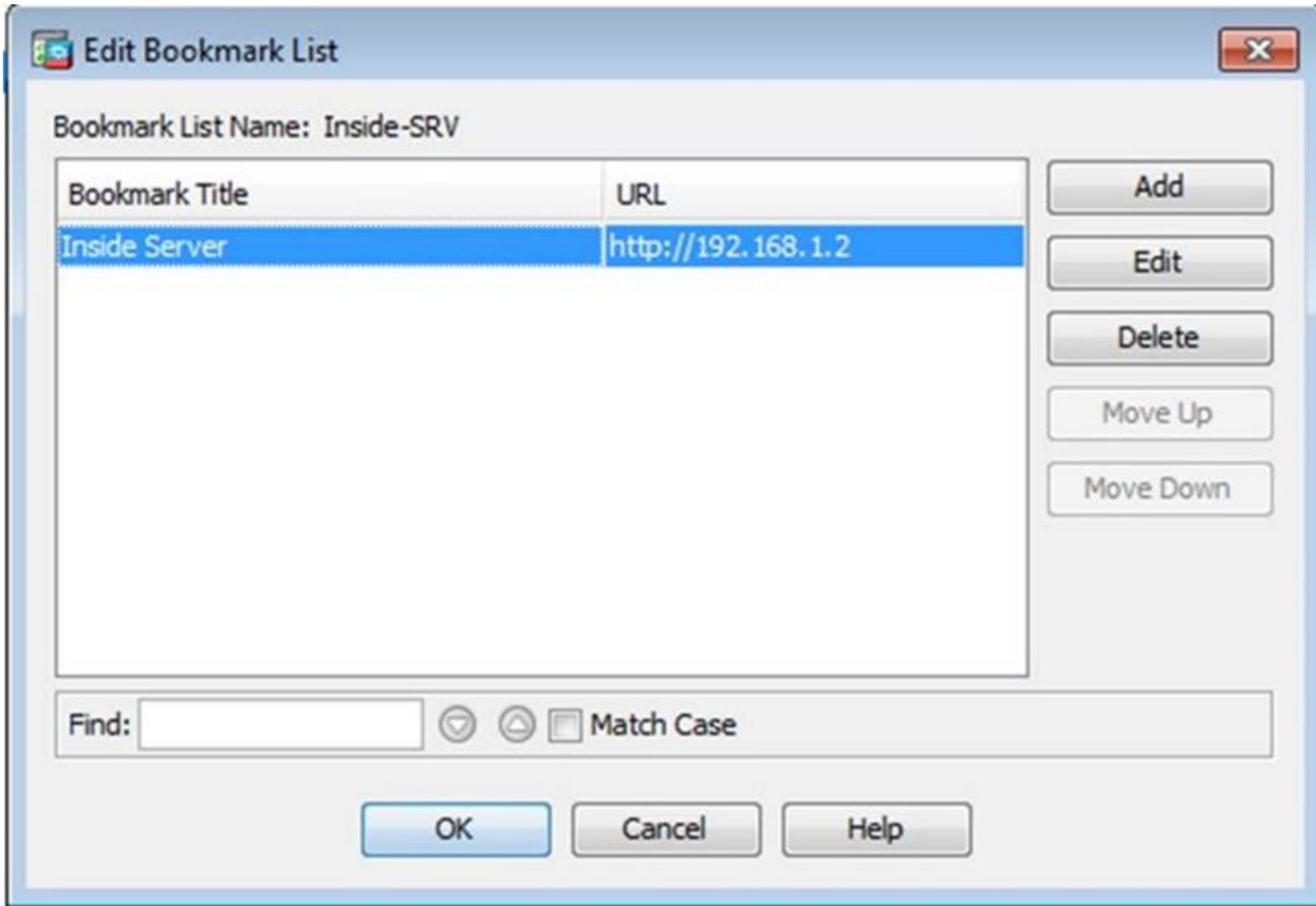
Disable CSD for AnyConnect only

Find:  Next Previous

OK Cancel Help







The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The breadcrumb navigation is: Configuration > Remote Access VPN > Clientless SSL VPN Access > Portal > Port Forwarding. The main content area contains the following text:

Configure Port Forwarding Lists that the security appliance uses to grant users access to TCP-based applications over a clientless SSL VPN connection. This parameter is enforced in either a [VPN group policy](#), a [dynamic access policy](#), or a [user policy](#) configuration. You can click on Assign button to assign the selected one to them.

Below the text is a table with the following columns: List Name, Local TCP Port, Remote Server, Remote TCP Port, Description, and Group Policies/User Policies Assigned to. The table is currently empty.

At the bottom of the configuration area, there are 'Apply' and 'Reset' buttons. The status bar at the bottom right shows the user 'student' and the time '5/19/15 8:43:47 AM pet'.

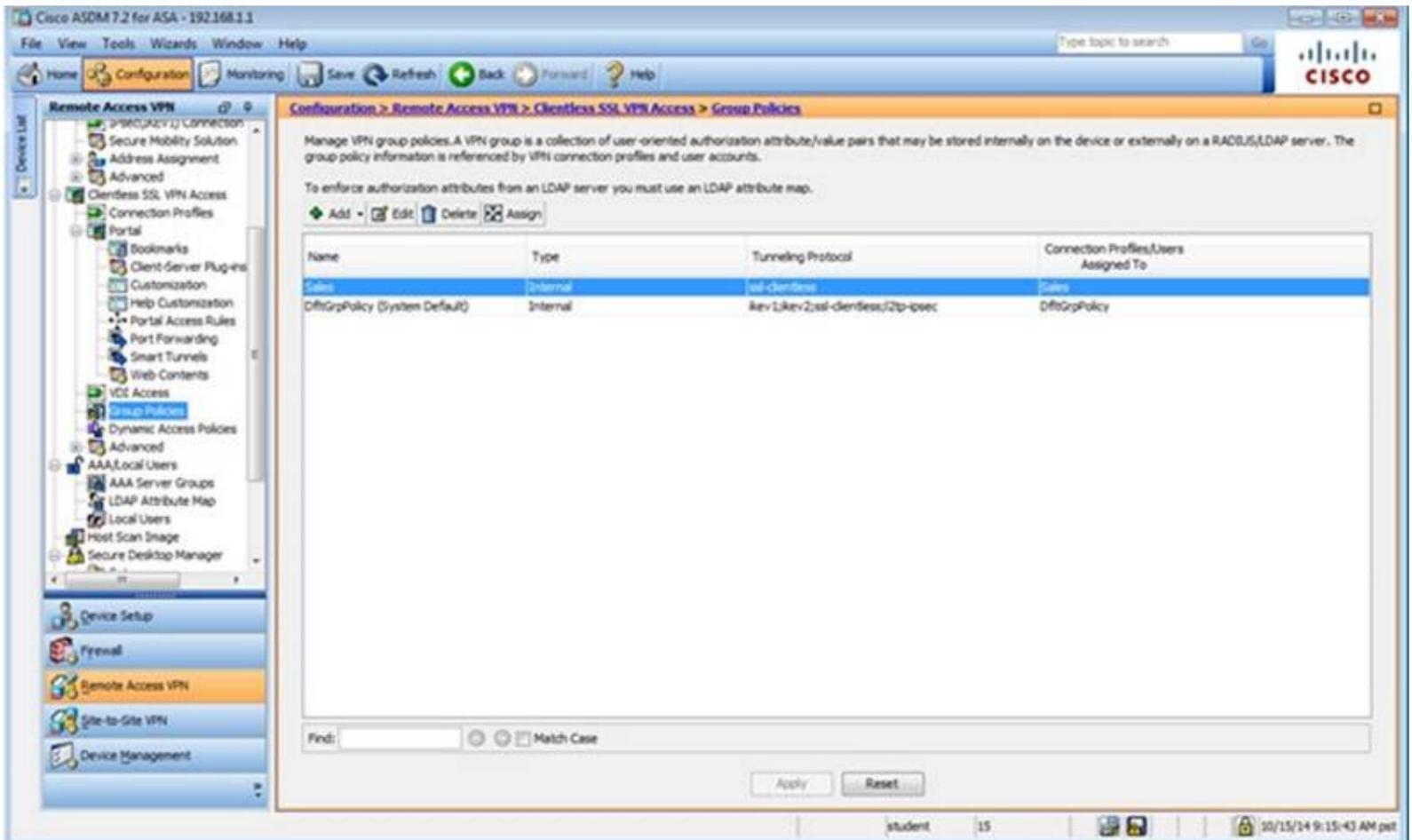
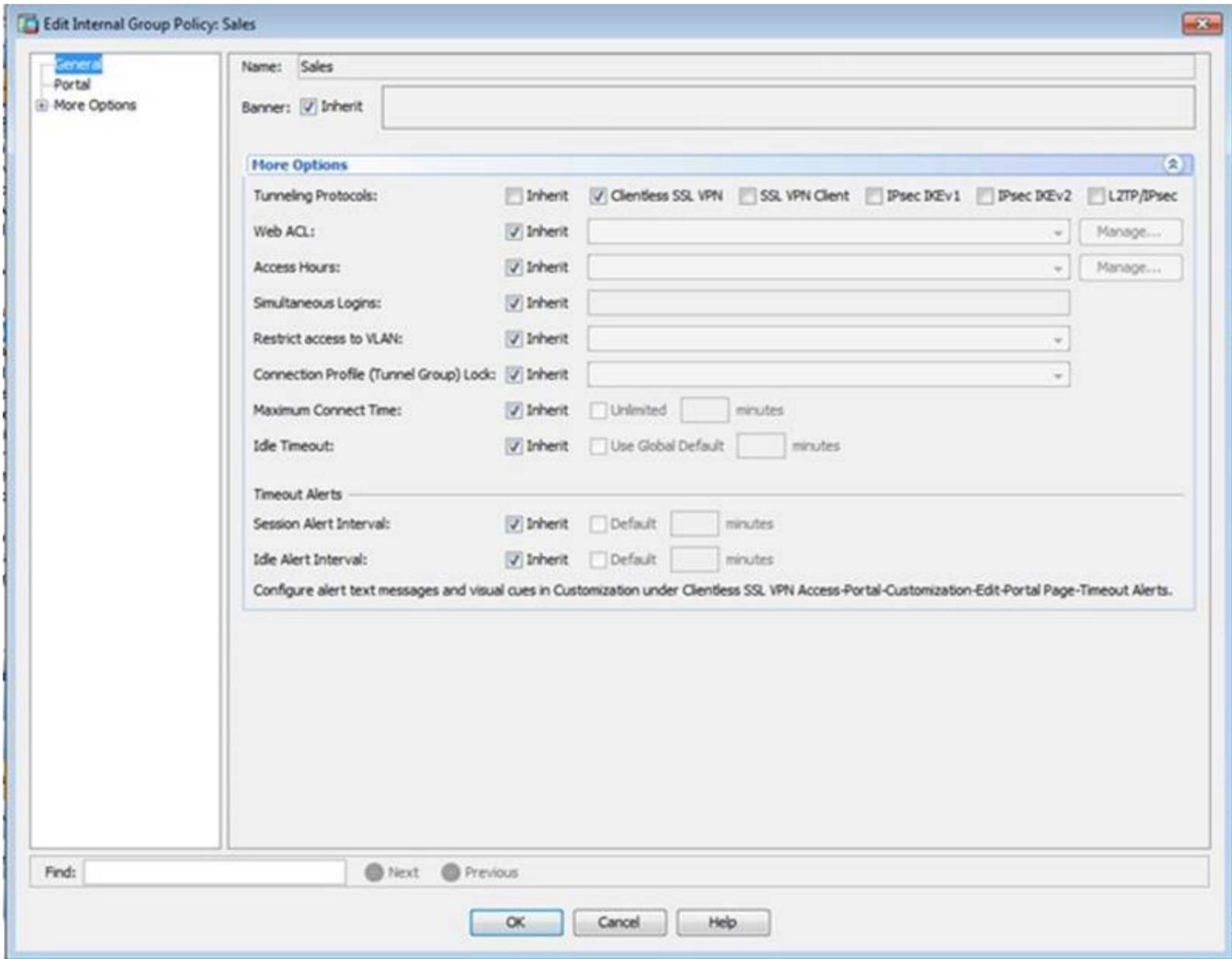
The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The breadcrumb navigation is: Configuration > Remote Access VPN > Clientless SSL VPN Access > Group Policies. The main content area contains the following text:

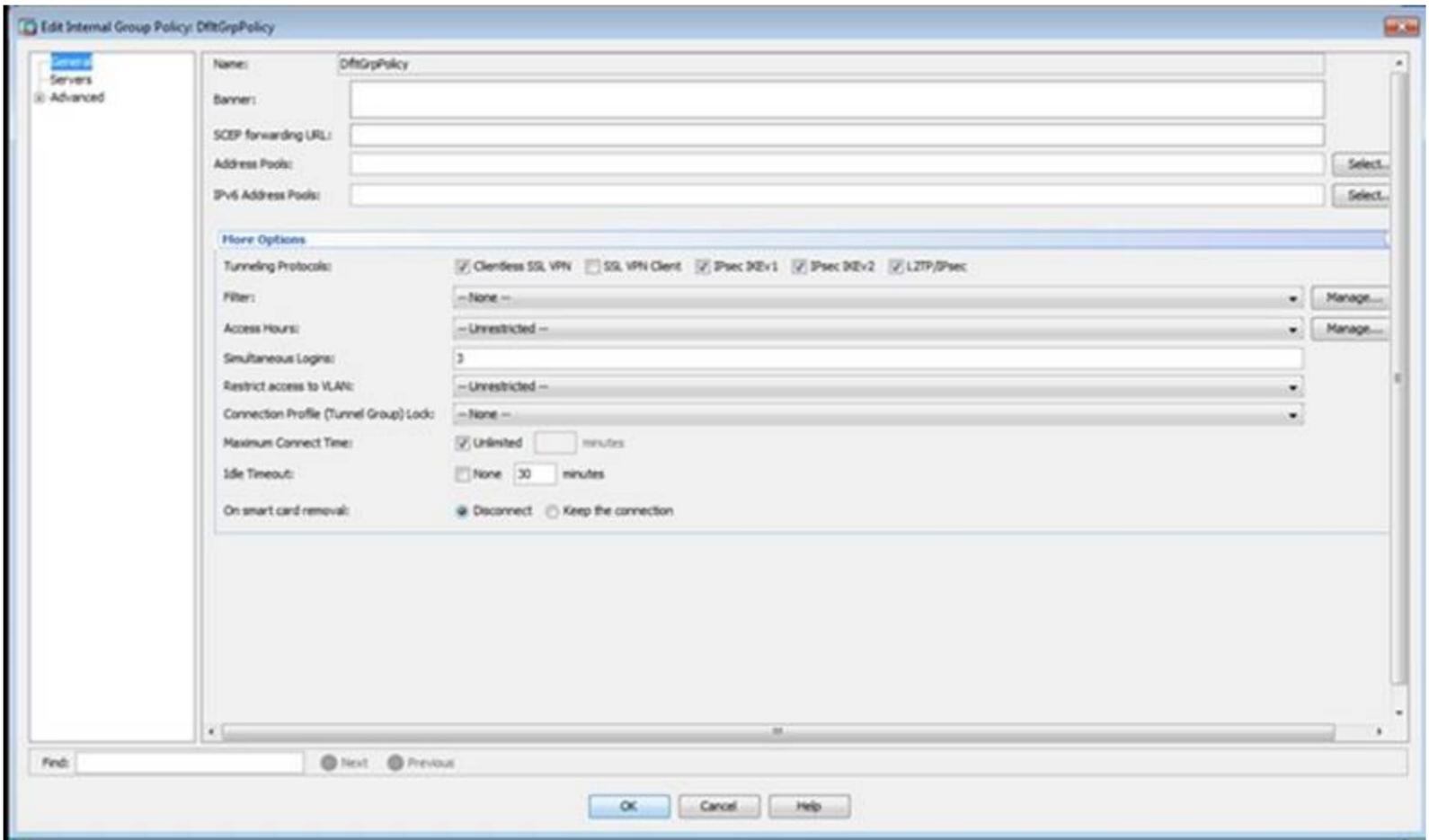
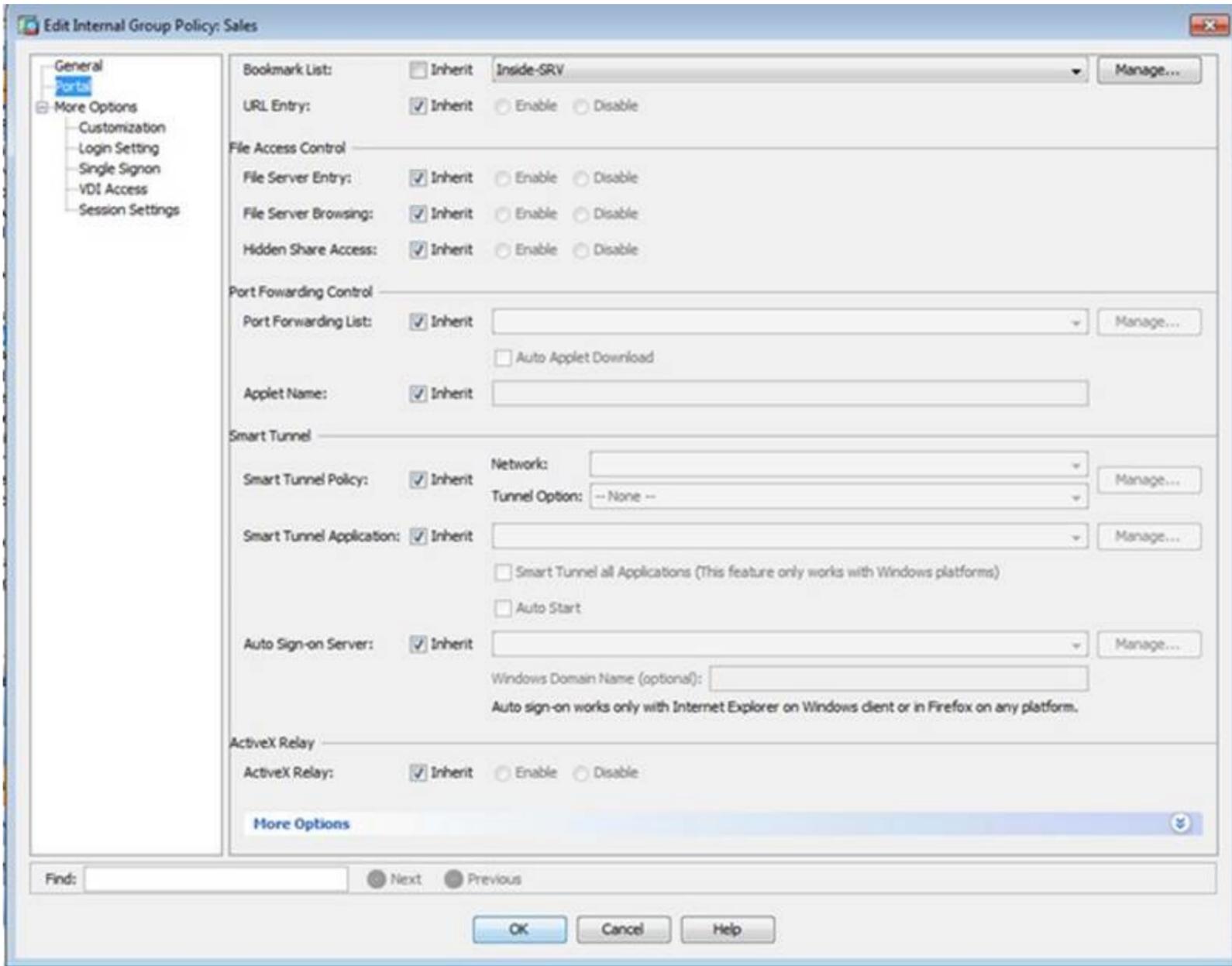
Manage VPN group policies. A VPN group is a collection of user-oriented authorization attribute/value pairs that may be stored internally on the device or externally on a RADIUS/LDAP server. The group policy information is referenced by VPN connection profiles and user accounts. To enforce authorization attributes from an LDAP server you must use an [LDAP attribute map](#).

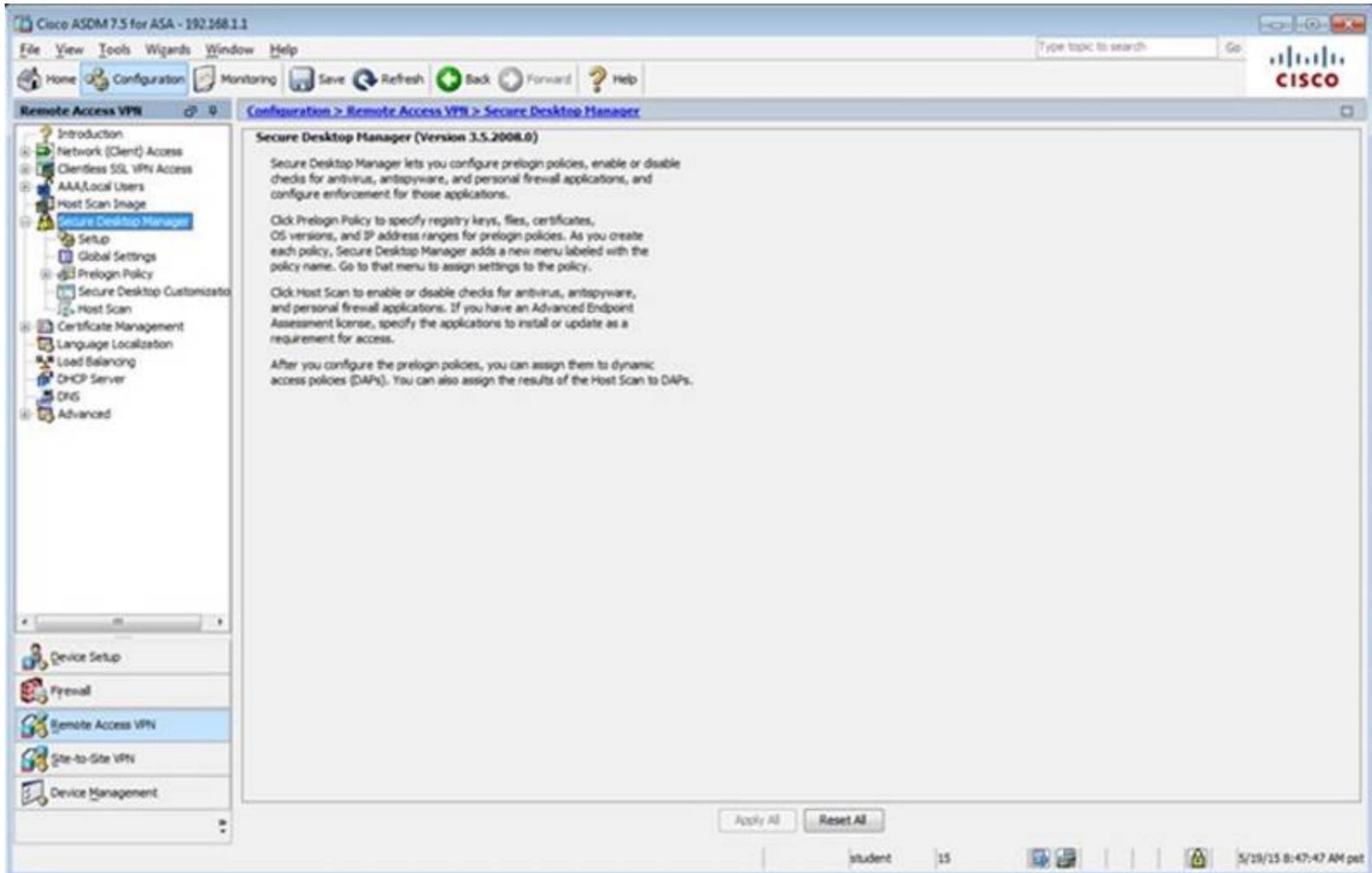
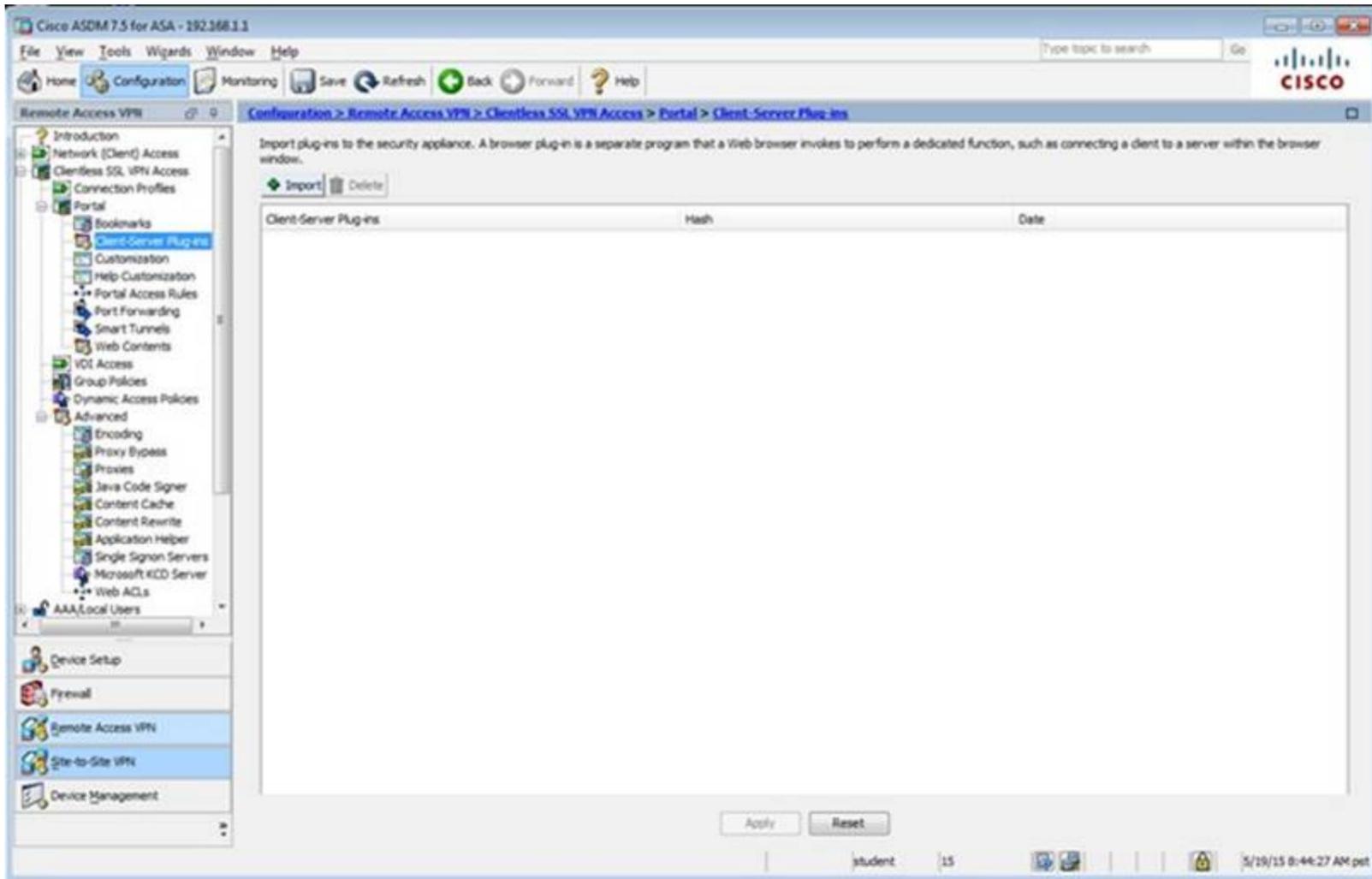
Below the text is a table with the following columns: Name, Type, Tunneling Protocol, and Connection Profiles/Users Assigned To. The table contains two entries:

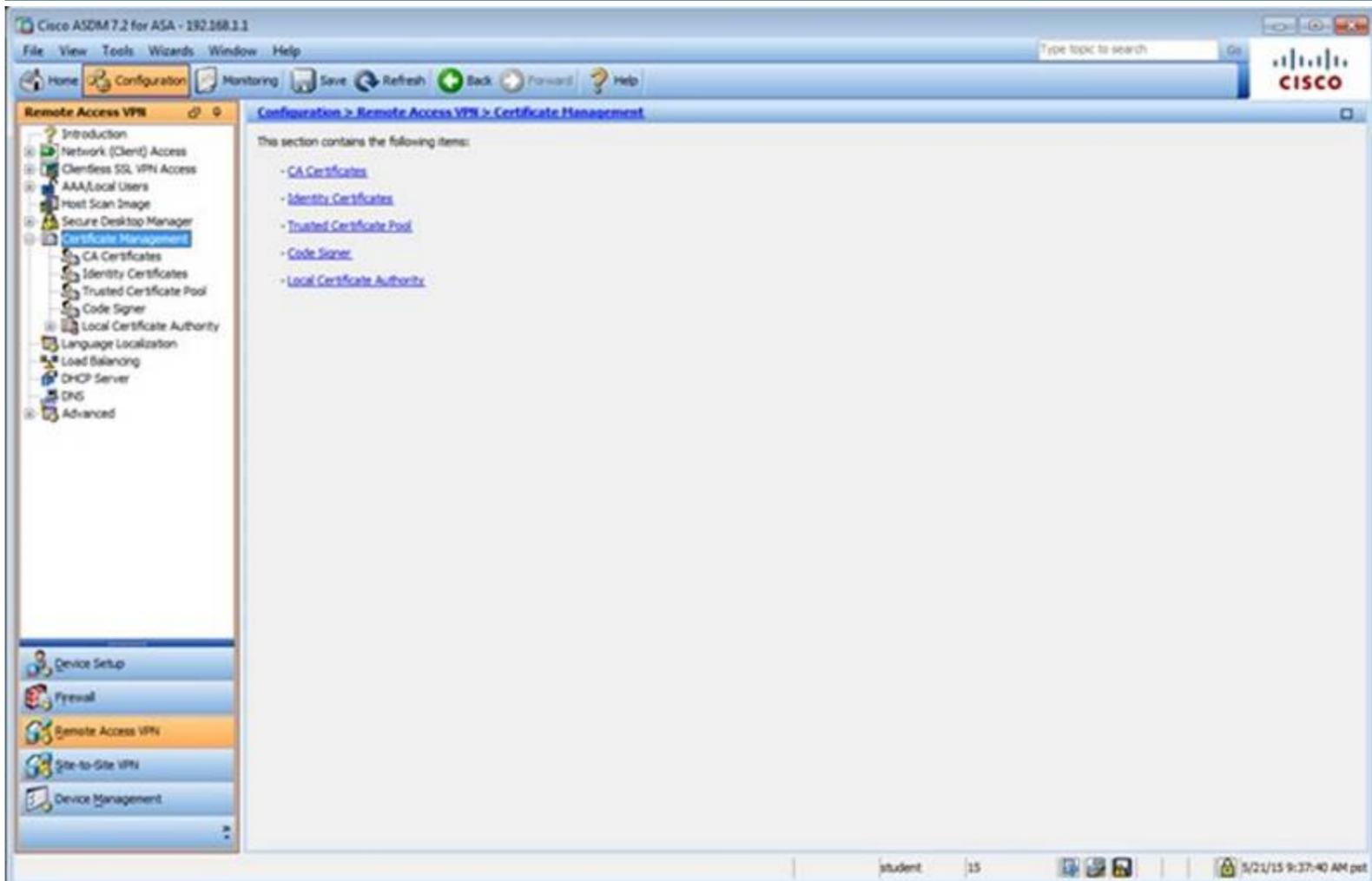
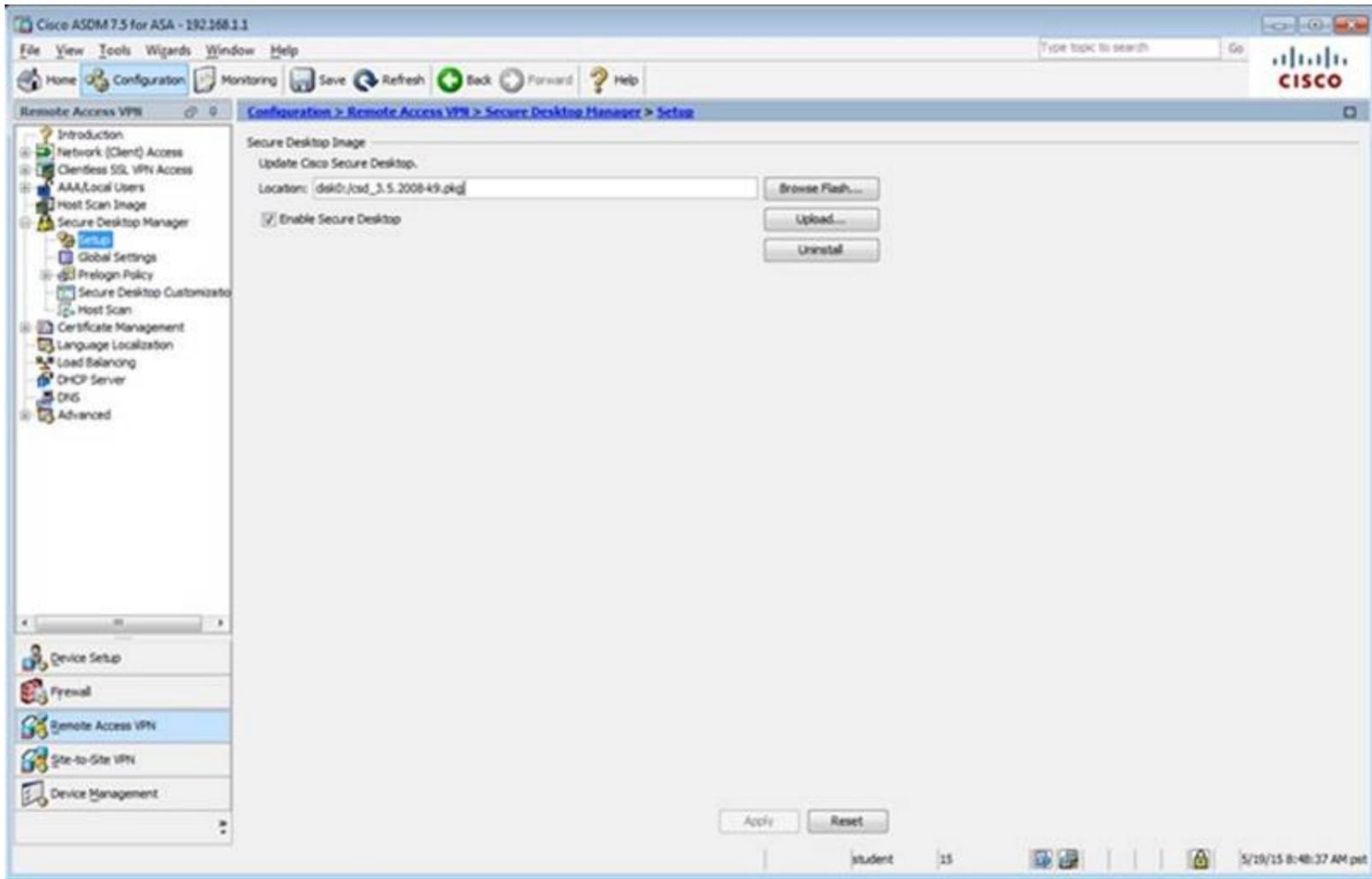
Name	Type	Tunneling Protocol	Connection Profiles/Users Assigned To
Calvin	Internal	ssl-clientless	Clientless
OffeGrpPolicy (System Default)	Internal	Rev 1;rev 2;ssl-clientless/2tp-espsec	DefaultRAGroup;DefaultR2;Group;DefaultRADMGroup;Def...

At the bottom of the configuration area, there are 'Apply' and 'Reset' buttons. The status bar at the bottom right shows the user 'student' and the time '5/19/15 8:49:27 AM pet'.









The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The navigation pane on the left is expanded to 'Remote Access VPN > Certificate Management > Identity Certificates'. The main content area displays a table of issued certificates:

Issued To	Issued By	Expiry Date	Associated Trustpoints	Usage	Public Key Type
ipaddress=172.17.17.172	ipaddress=172.17.17.172	11:30:33 pm Oct 20 2024	ASDM_TrustPoint1	General Purpose	RSA (2048 bits)

Below the table, there are sections for 'Certificate Expiration Alerts' (Send the first alert before: 60 days, Repeat Alert Interval: 7 days) and 'Public CA Enrollment' (Enroll ASA SSL certificate with Entrust, Launch ASDM Identity Certificate Wizard). Buttons for 'Apply' and 'Reset' are at the bottom.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The navigation pane on the left is expanded to 'Remote Access VPN > Advanced'. The main content area displays a list of items under the heading 'This section contains the following items:':

- [Advanced Management](#)
- [SSL Settings](#)
- [Certificate to AnyConnect and Clientless SSL VPN Connection Profile Maps](#)
- [HTTP Redirect](#)
- [Maximum VPN Sessions](#)
- [Crypto Engine](#)
- [E-mail Proxy](#)

The bottom of the screen shows the user 'student' and the date '5/19/15 8:52:47 AM pst'.

Cisco ASDM 7.5 for ASA - 192.168.1.1

Configuration > Remote Access VPN > Advanced > SSL Settings

Configure SSL parameters. These parameters affect both ASDM and SSL VPN access.

The minimum SSL version for the security appliance to negotiate as a "server": TLS V1

The minimum SSL version for the security appliance to negotiate as a "client": TLS V1

Diffie-Hellman group to be used with SSL: Group2 - 1024-bit modAas

ECDH group to be used with SSL: Group19 - 256-bit EC

Encryption

Cipher Version	Cipher Security Level	Cipher Algorithms/ Custom String
Default	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...
TLSV1	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...
TLSV1.1	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...
TLSV1.2	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...
DTLSV1	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...

Server Name Indication (SNI)

Domain	Certificate
dmz	ASDM_TrustPoint1.h...

Certificates

Specify which certificates, if any, should be used for SSL authentication on each interface. The fallback certificate will be used on interfaces not associated with a certificate of their own.

Apply Reset

student 15 5/19/15 8:54:07 AM pet

Cisco ASDM 7.5 for ASA - 192.168.1.1

Configuration > Remote Access VPN > Advanced > Maximum VPN Sessions

Configure the maximum number of VPN sessions allowed at any given time.

Maximum AnyConnect Sessions: 2

Maximum Other VPN Sessions: 250

Apply Reset

student 15 5/19/15 8:54:47 AM pet

The screenshot shows the Cisco ASDM 7.5 interface for ASA - 192.168.1.1. The left sidebar contains a navigation tree with categories like Remote Access VPN, Site-to-Site VPN, and Device Management. The main content area is titled "Configuration > Remote Access VPN > Network (Client) Access". It features a search bar at the top right and a "CISCO" logo. The main text area contains the following content:

**What Is Network (Client) Access?**  
After a VPN client, such as AnyConnect, is authenticated, remote users can access corporate networks or applications as if they were on-site. The data traffic between remote users and the corporate network is secured by being encrypted when going through the Internet.

The [ASDM Assistant](#) provides simple "How Do I" steps for configuring Network (Client) Access.

**Important Concepts**  
Following are some important concepts for setting up a connection.

**1. SSL tunnel and IPsec tunnel**  
They are two different ways to encrypt data traffic. An SSL tunnel uses SSL protocol to encrypt data, while an IPsec tunnel uses IPsec protocol. Cisco AnyConnect VPN Client supports SSL and IPsec(DKv2) protocols, Cisco VPN Client supports only IPsec(DKv1) protocol.

**2. User and connection profile**  
To access corporate network resources, remote users must authenticate, and identify which Connection Profile (Tunnel Group) to use. This connection profile specifies how the security appliance authenticates users.

You configure user account database in [AAA Local Users](#).  
You configure AnyConnect connection profile in [AnyConnect Connection Profiles](#), IPsec connection profile in [IPsec\(DKv1\) Connection Profiles](#).

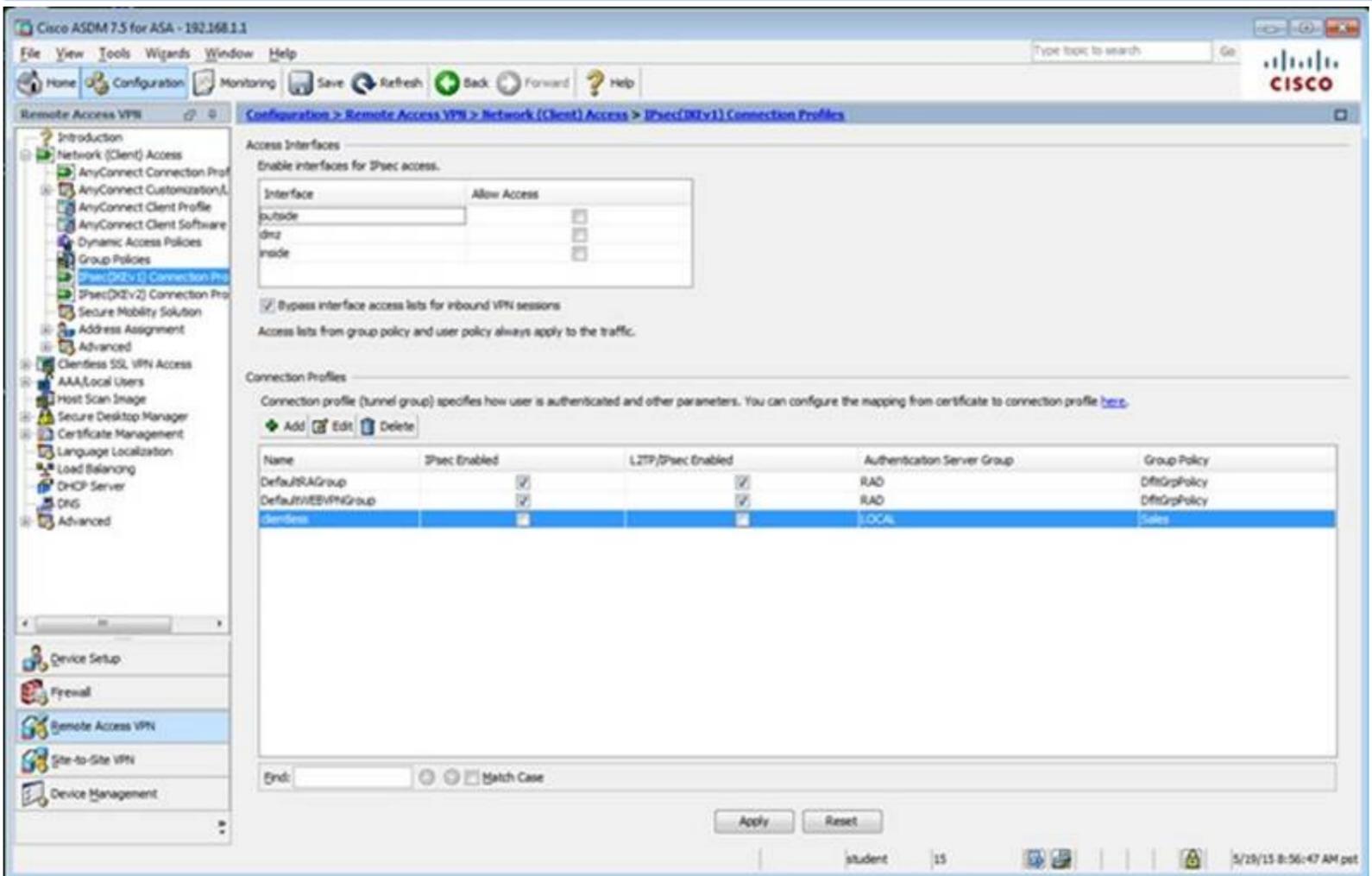
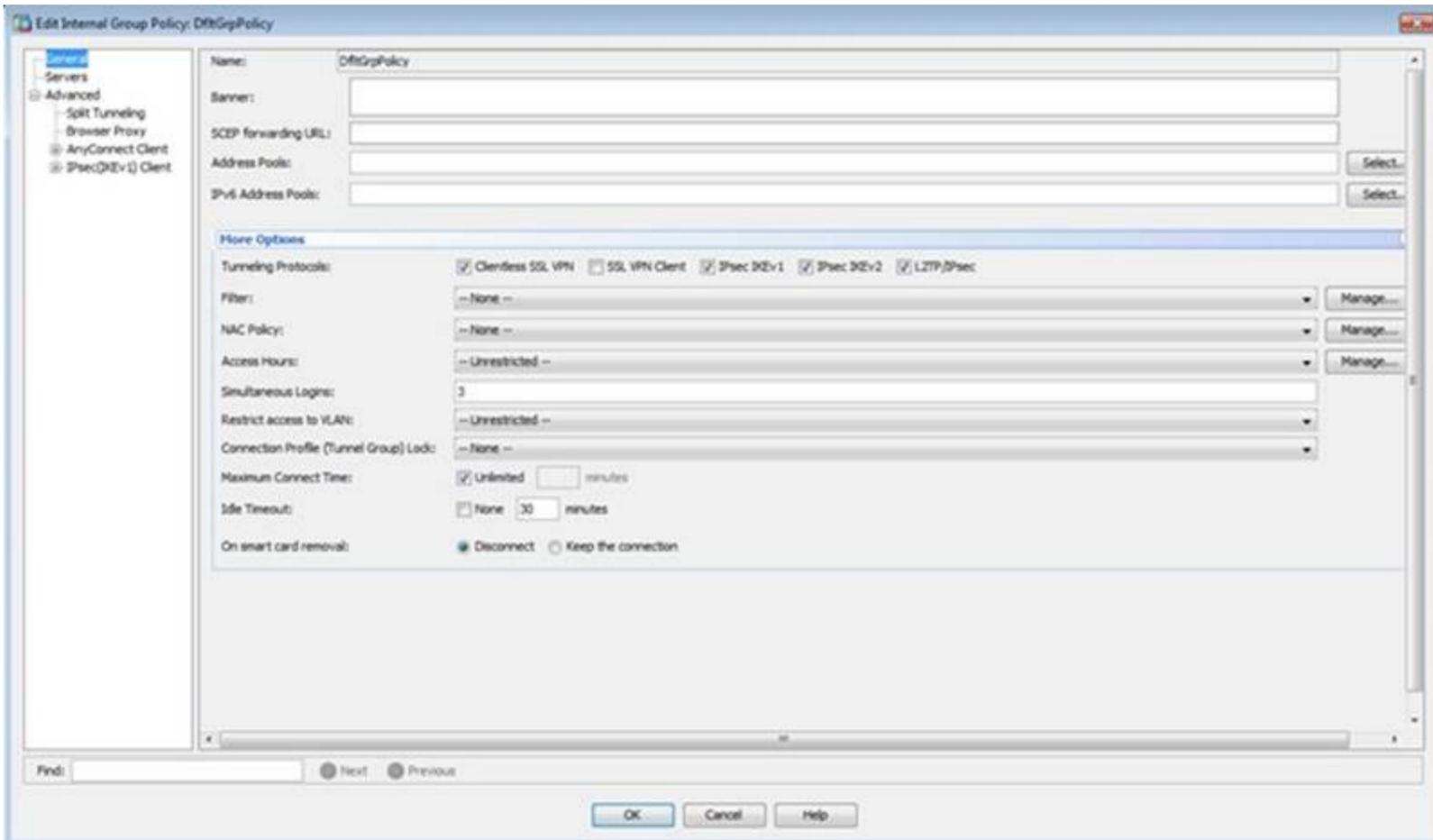
**3. Access policy**  
Access policies control how remote users can access corporate networks. An access policy includes the following:

- Session control - how long a session can remain idle before it is closed.
- Endpoint security - determines the conditions that remote PCs must satisfy to connect, for example, requiring up-to-date anti-virus software.

You configure session control policies in [Dynamic Access Policies](#) or [Group Policies](#).  
You configure endpoint security policies for AnyConnect client in [Secure Desktop Manager](#). You also have the option to setup [NAC](#) based ending security policies.

The bottom status bar shows the user "student", page number "15", and the date/time "3/28/15 8:55:47 AM pet".

This is a duplicate of the screenshot above, showing the same Cisco ASDM 7.5 interface for ASA - 192.168.1.1. The content in the main text area is identical to the first screenshot, including the sections on "What Is Network (Client) Access?", "Important Concepts", and "Access policy". The status bar at the bottom also shows "student", "15", and "3/28/15 8:55:47 AM pet".



The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The main window displays the configuration for 'AnyConnect Connection Profiles'. The left sidebar shows a tree view with 'Remote Access VPN' selected. The main content area includes the following sections:

- Access Interfaces:** A table for configuring access on various interfaces.

Interface	SSL Access		IPsec (IKEv2) Access	
	Allow Access	Enable DTLS	Allow Access	Enable Client Services
outside	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dmz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
inside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Login Page Setting:**
  - Allow user to select connection profile on the login page.
  - Shutdown portal login page.
- Connection Profiles:** A table listing configured profiles.

Name	SSL Enabled	IPsec Enabled	Aliases	Authentication Method	Group Policy
DefaultRAGroup	<input type="checkbox"/>	<input checked="" type="checkbox"/>		AAA(RAC)	DfltGrpPolicy
DefaultWEBVPNGroup	<input type="checkbox"/>	<input checked="" type="checkbox"/>		AAA(RAC)	DfltGrpPolicy
Students	<input type="checkbox"/>	<input checked="" type="checkbox"/>	test	AAA(OCA)	StuGrp

Buttons for 'Device Certificate...', 'Port Settings...', 'Apply', and 'Reset' are visible. The status bar at the bottom shows 'student 15' and the date '5/19/15 8:58:17 AM pdt'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The main window displays the configuration for 'AAA/Local Users'. The left sidebar shows a tree view with 'Remote Access VPN' selected. The main content area includes the following sections:

- Introduction:** This section contains the following items:
  - AAA Server Groups
  - LDAP Attribute Map
  - MDM Proxy
  - Local Users

The status bar at the bottom shows 'student 15' and the date '5/19/15 8:58:57 AM pdt'.

Configuration > Remote Access VPN > AAA/Local Users > Local Users

Create entries in the ASA local user database.

Command authorization must be enabled in order for the user account privileges to be enforced. To enable command authorization, go to [Authorization](#).

AAA authentication console commands must be enabled in order for certain access restrictions to be enforced. To enable AAA authentication command go to [Authentication](#).

Username	Privilege Level (Role)	Access Restrictions	VPN Group Policy	VPN Group Lock
student	15	Full	-- Inherit Group Policy --	-- Inherit Group Policy --
enable_15	15	Full	N/A	N/A
plao	15	Full	-- Inherit Group Policy --	-- Inherit Group Policy --

End:  Match Case

Apply Reset

student 15 5/19/15 8:59:27 AM pet

Configuration > Remote Access VPN > AAA/Local Users > AAA Server Groups

AAA Server Groups

Server Group	Protocol	Accounting Mode	Reactivation Mode	Dead Time	Max Failed Attempts
LOCAL	LOCAL				
RAO	RADIUS	Single	Depletion	10	3
myAD	LDAP		Depletion	10	3
myCDA	RADIUS	Single	Depletion	10	3

Servers in the Selected Group

Server Name or IP Address	Interface	Timeout
---------------------------	-----------	---------

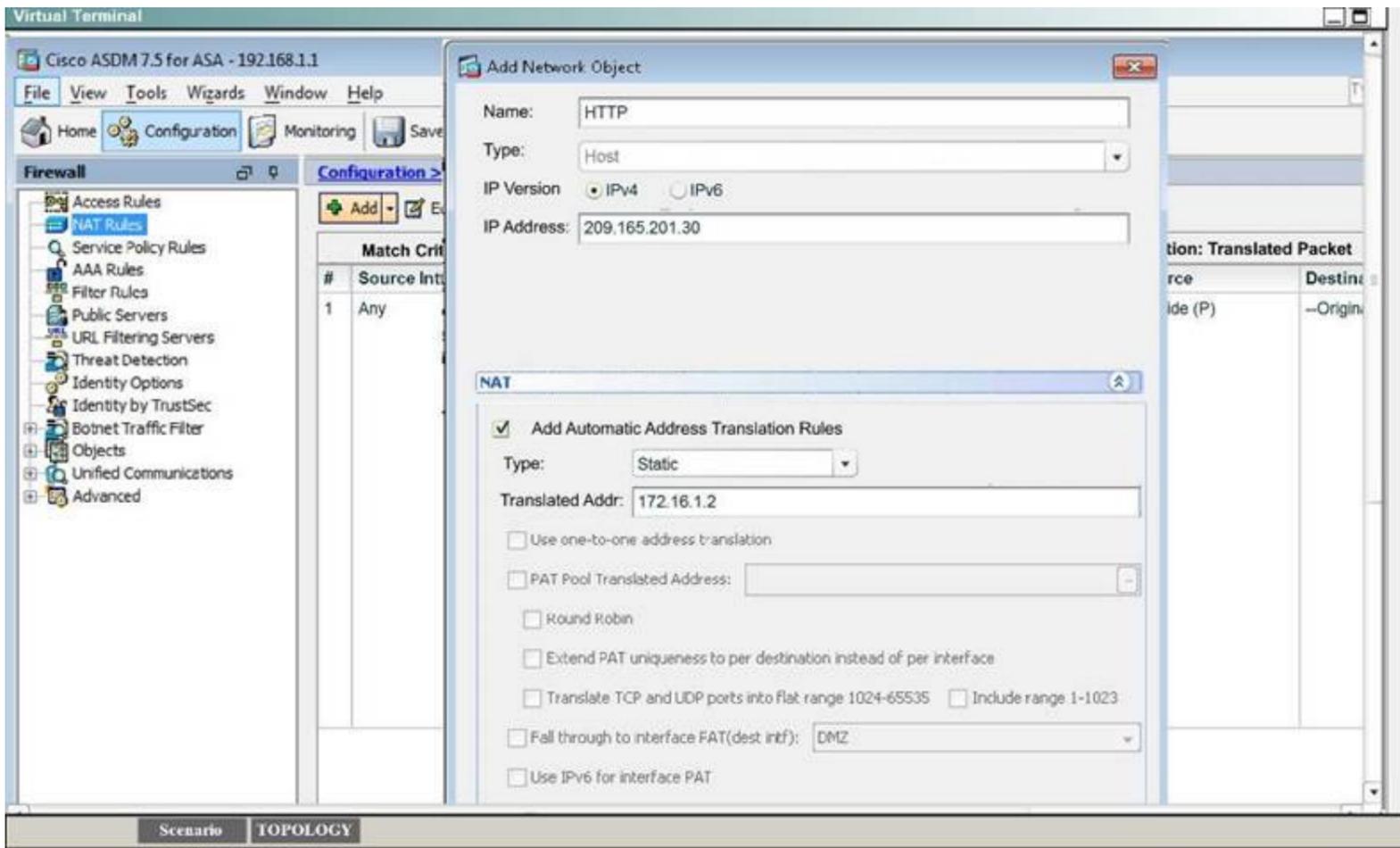
LDAP Attribute Map

Apply Reset

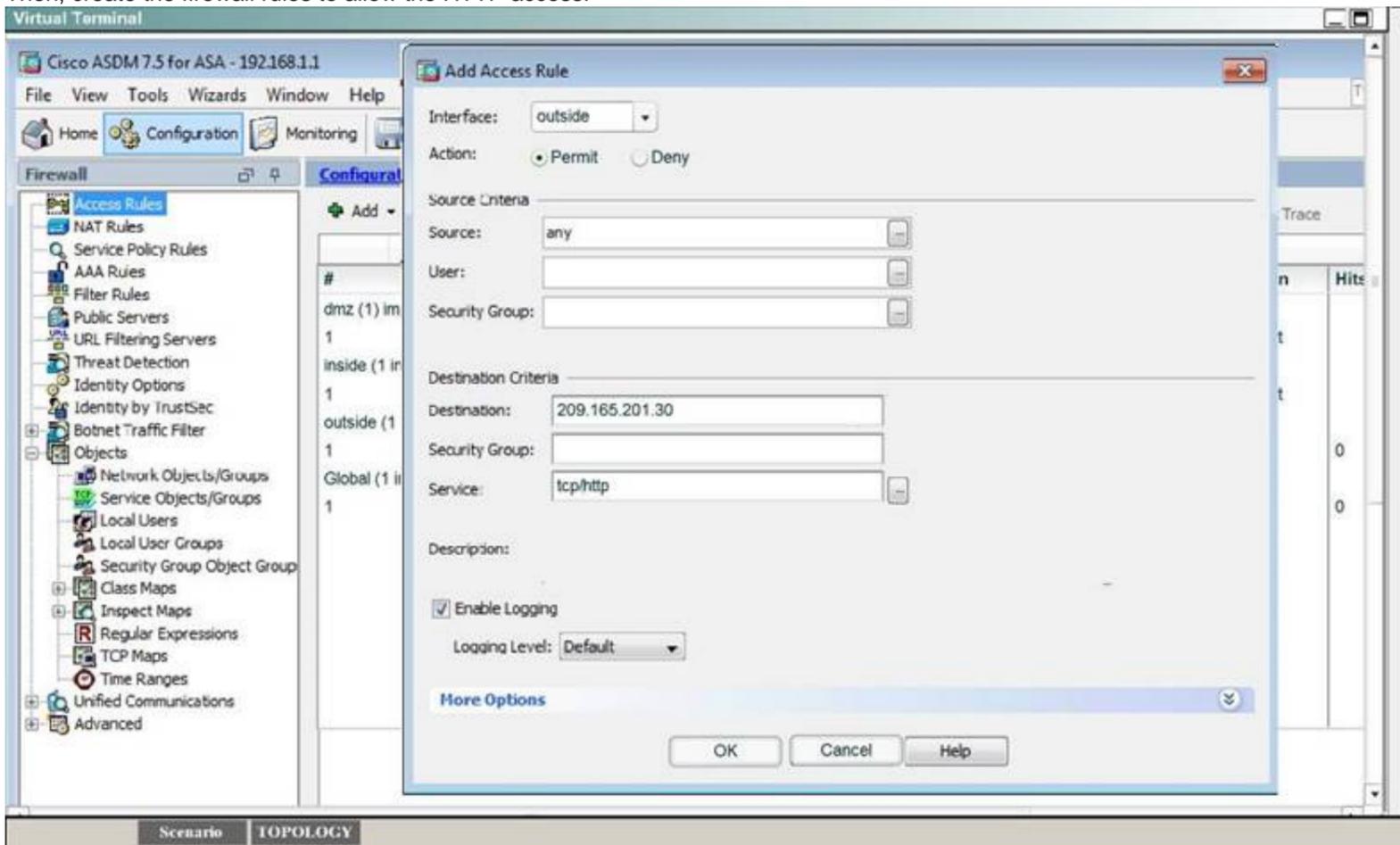
student 15 5/19/15 8:59:57 AM pet

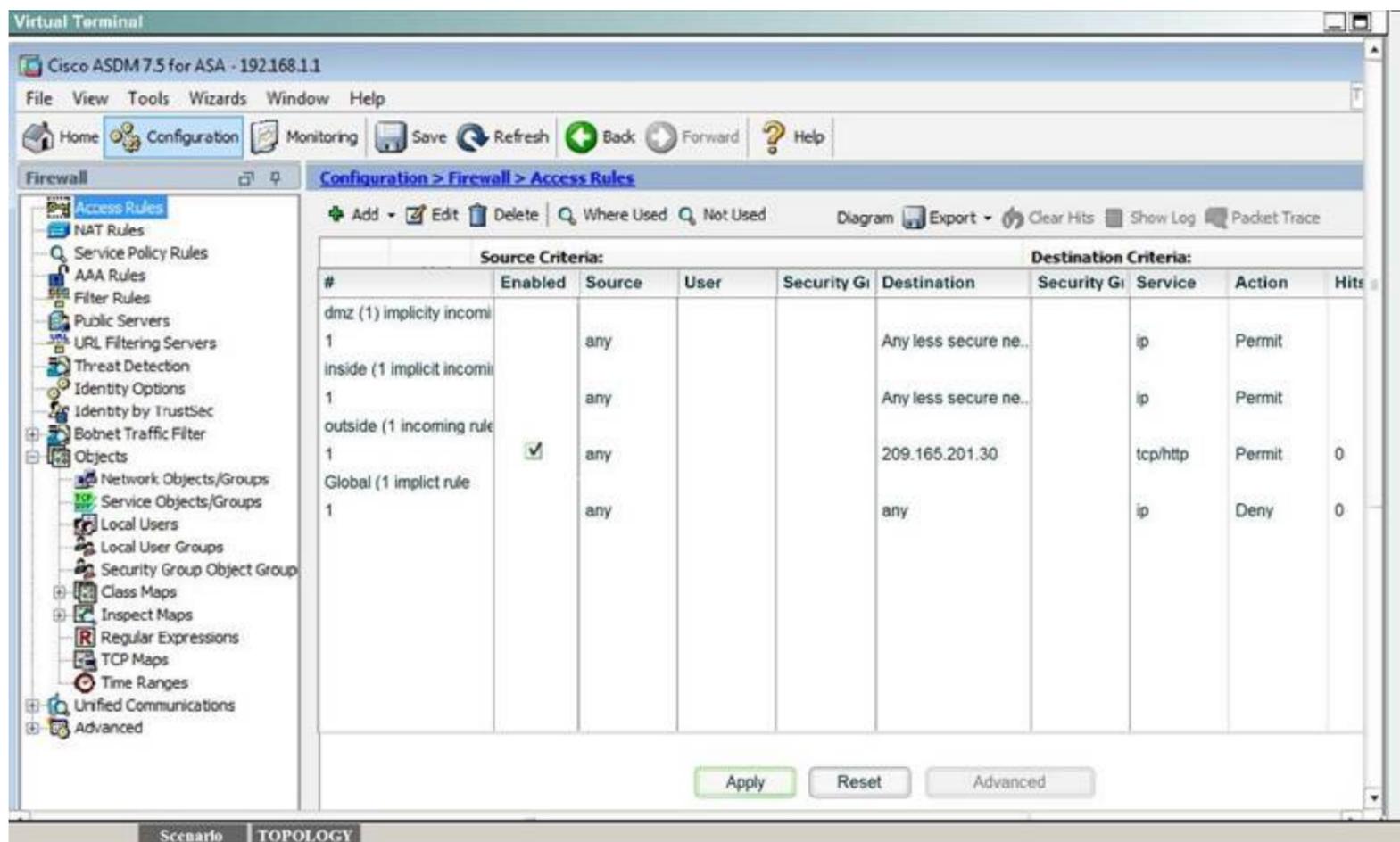
**Answer:**

**Explanation:** First, for the HTTP access we need to create a NAT object. Here I called it HTTP but it can be given any name.



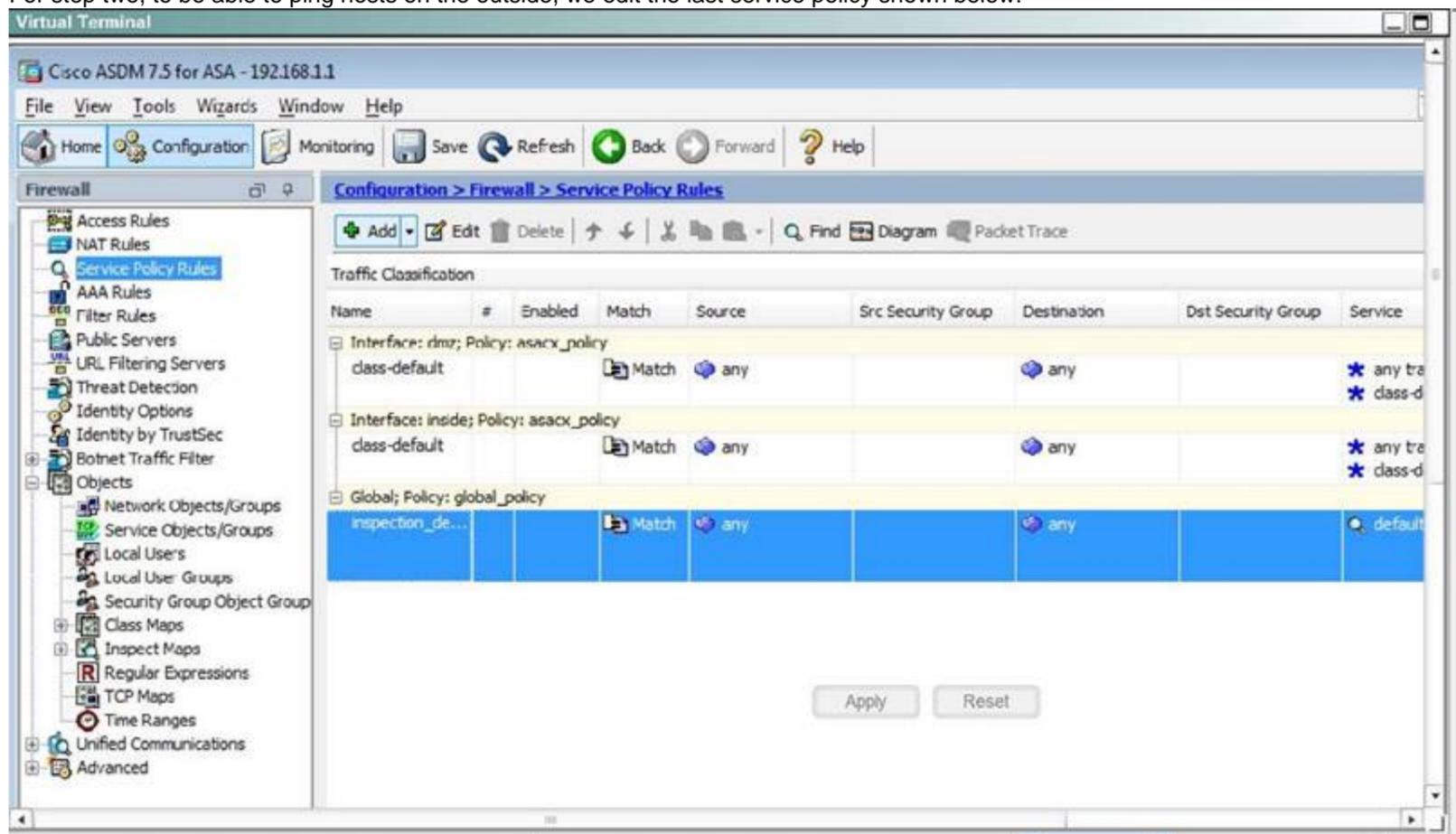
Then, create the firewall rules to allow the HTTP access:



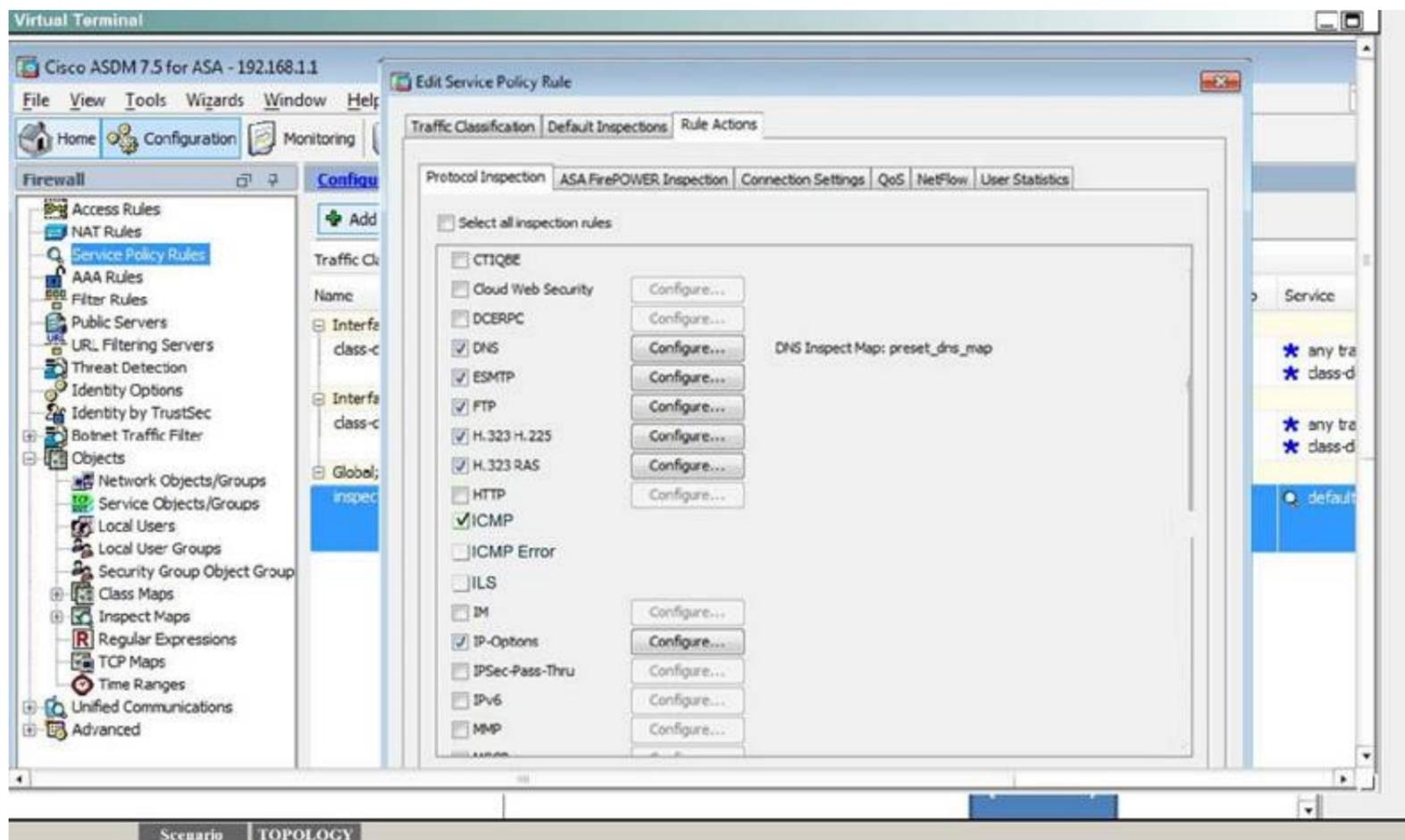


You can verify using the outside PC to HTTP into 209.165.201.30.

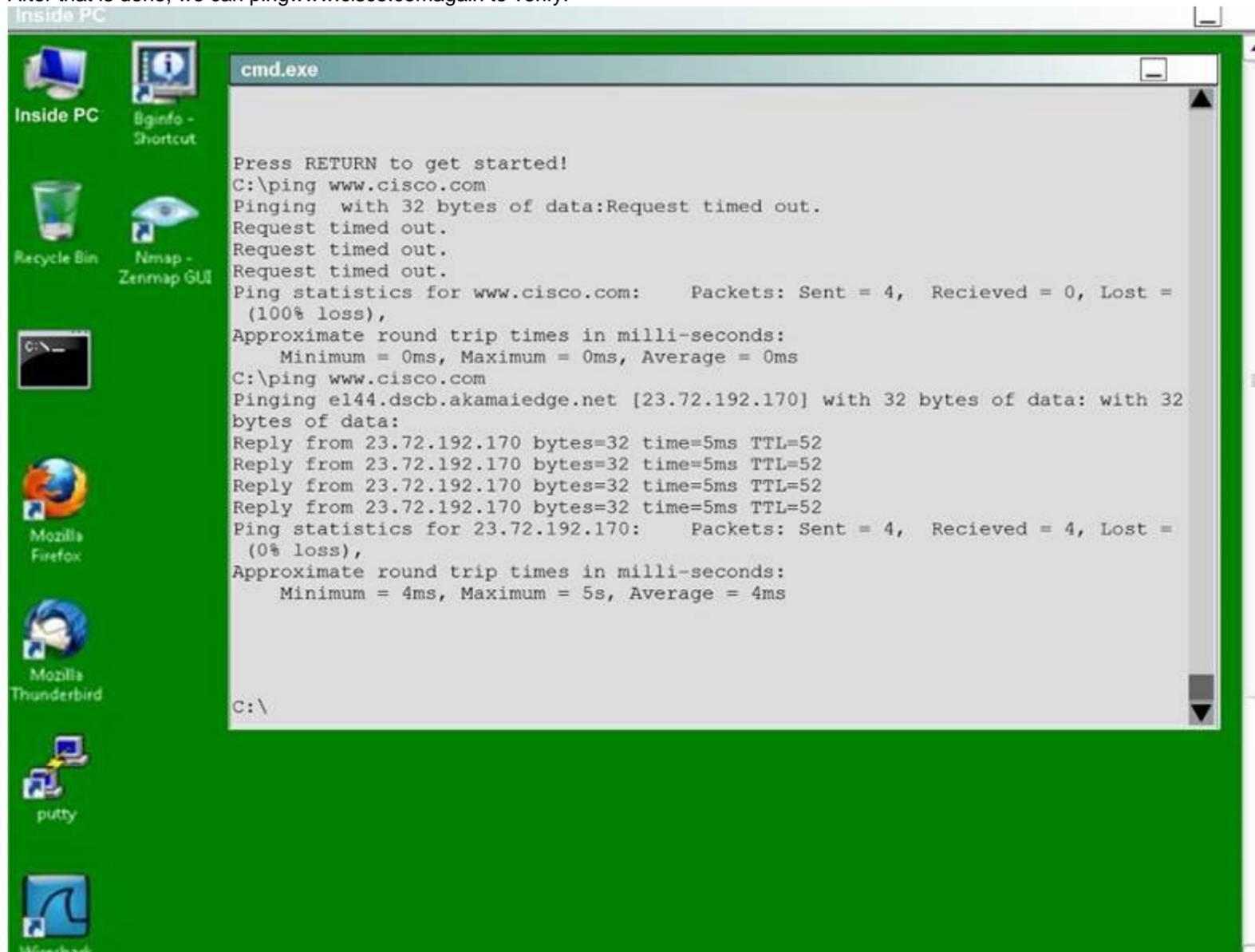
For step two, to be able to ping hosts on the outside, we edit the last service policy shown below:



And then check the ICMP box only as shown below, then hit Apply.



After that is done, we can ping www.cisco.com again to verify:



**NEW QUESTION 8**  
Refer to the exhibit.

```

current_peer: 10.1.1.5
  PERMIT, flags={origin_is_acl,}
    #pkts encaps: 1205, #pkts encrypt: 1205, #pkts digest 1205
    #pkts decaps: 1168, #pkts decrypt: 1168, #pkts verify 1168
    #pkts compressed: 0, #pkts decompressed: 0
    #pkts not compressed: 0, #pkts compr. failed: 0,
    #pkts decompress failed: 0, #send errors 0, #recv errors 0
    local crypto endpt.: 10.1.1.1, remote crypto endpt.: 10.1.1.5

```

While troubleshooting site-to-site VPN, you issued the show crypto ipsec sa command. What does the given output show?

- A. IPsec Phase 2 is established between 10.1.1.1 and 10.1.1.5.
- B. ISAKMP security associations are established between 10.1.1.5 and 10.1.1.1.
- C. IKE version 2 security associations are established between 10.1.1.1 and 10.1.1.5.
- D. IPsec Phase 2 is down due to a mismatch between encrypted and decrypted packets.

**Answer:** A

**Explanation:** This command shows IPsec SAs built between peers - IPsec Phase2. The encrypted tunnel is build between 10.1.1.5 and 10.1.1.1 (the router from which we issued the command).

#### NEW QUESTION 9

What is one requirement for locking a wired or wireless device from ISE?

- A. The ISE agent must be installed on the device.
- B. The device must be connected to the network when the lock command is executed.
- C. The user must approve the locking action.
- D. The organization must implement an acceptable use policy allowing device locking.

**Answer:** A

**Explanation:** Agents are applications that reside on client machines logging into the Cisco ISE network. Agents can be persistent (like the AnyConnect, Cisco NAC Agent for Windows and Mac OS X) and remain on the client machine after installation, even when the client is not logged into the network. Agents can also be temporal (like the Cisco NAC Web Agent), removing themselves from the client machine after the login session has terminated.

Source:

[http://www.cisco.com/c/en/us/td/docs/security/ise/2-0/admin\\_guide/b\\_ise\\_admin\\_guide\\_20/b\\_ise\\_admin\\_guide\\_20\\_chapter\\_010101.html](http://www.cisco.com/c/en/us/td/docs/security/ise/2-0/admin_guide/b_ise_admin_guide_20/b_ise_admin_guide_20_chapter_010101.html)

#### NEW QUESTION 10

Which statement about a PVLAN isolated port configured on a switch is true?

- A. The isolated port can communicate only with the promiscuous port.
- B. The isolated port can communicate with other isolated ports and the promiscuous port.
- C. The isolated port can communicate only with community ports.
- D. The isolated port can communicate only with other isolated ports.

**Answer:** A

**Explanation:** Isolated -- An isolated port is a host port that belongs to an isolated secondary VLAN. This port has complete isolation from other ports within the same private VLAN domain, except that it can communicate with associated promiscuous ports. Private VLANs block all traffic to isolated ports except traffic from promiscuous ports. Traffic received from an isolated port is forwarded only to promiscuous ports. You can have more than one isolated port in a specified isolated VLAN. Each port is completely isolated from all other ports in the isolated VLAN.

Source:

<http://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/configuration/guide/cli/CLIConfigurationGuide/PrivateVLANs.html>

#### NEW QUESTION 10

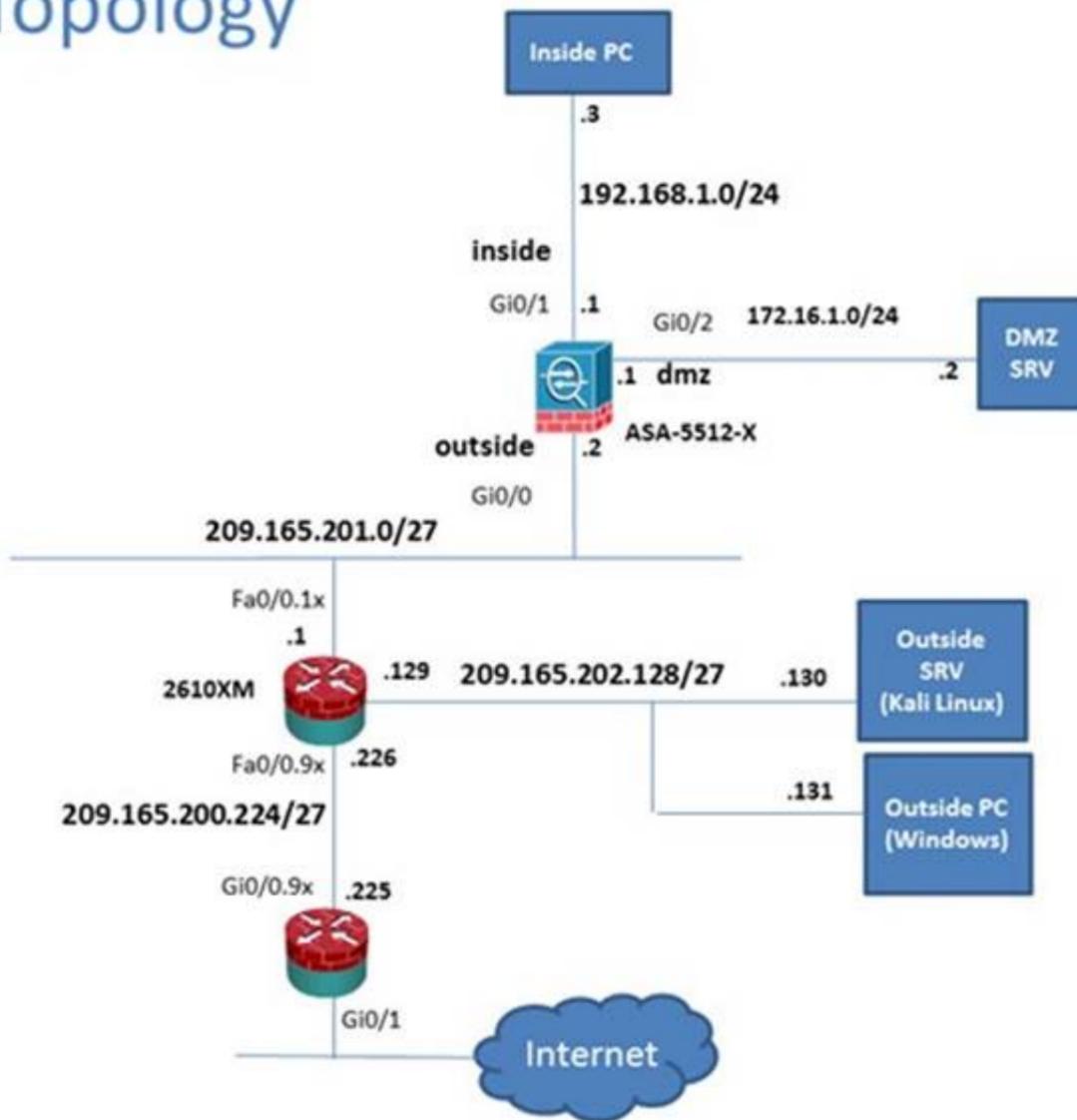
Scenario

In this simulation, you have access to ASDM only. Review the various ASA configurations using ASDM then answer the five multiple choice questions about the ASA SSLVPN configurations.

To access ASDM, click the ASA icon in the topology diagram. Note: Not all ASDM functionalities are enabled in this simulation.

To see all the menu options available on the left navigation pane, you may also need to un-expand the expanded menu first.

# Lab Topology



The screenshot shows the Cisco ASDM 7.5 for ASA configuration interface. The main window displays the following information:

- Device Information:**
  - Host Name: P17-ASA.secure-x.local
  - ASA Version: 100.14(6)13
  - ASDM Version: 7.5(1)1
  - Firewall Mode: Routed
  - Environment Status: OK
  - Device Uptime: 11d 21h 42m 47s
  - Device Type: ASA 5512
  - Context Mode: Single
  - Total Flash: 4096 MB
- Interface Status:**

Interface	IP Address/Mask	Line	Link	Kbps
dmz	172.16.1.1/24	up	up	0
inside	192.168.1.1/24	up	up	4
mgmt	10.10.10.2/24	up	up	0
outside	209.165.201.2/24	up	up	0
- System Resources Status:**
  - Memory Usage (MB): Graph showing usage around 500 MB.
  - Connections Per Second Usage: Graph showing 0 connections.
  - 'outside' Interface Traffic Usage (Kbps): Graph showing 0 input and output Kbps.
- Latest ASDM Syslog Messages:**

Severity	Date	Time	Syslog ID	Source IP	Source	Destination IP	Destina Description
6	May 13 2015	12:35:09	302016	10.81.254.202	123	209.165.201.2	65535 Teardown LDP connection 15136525 for outside:10.81.254.202/123 to identity:209.165.201.2/65535(any) duration 0:02:01 bytes 96
6	May 13 2015	12:35:08	106015	192.168.1.3	14676	192.168.1.1	443 Deny TCP (no connection) from 192.168.1.3/14676 to 192.168.1.1/443 flags FDV AOX on interface inside
6	May 13 2015	12:35:08	302014	192.168.1.3	14676	192.168.1.1	443 Teardown TCP connection 15136528 for inside:192.168.1.3/14676 to identity:192.168.1.1/443 duration 0:00:00 bytes 299 TCP Reset O

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The main window displays the 'Monitoring > Interfaces > ARP Table' page. The ARP Table contains the following entries:

Interface	IP Address	MAC Address	Proxy Arp
outside	209.165.201.1	000c.3014.3820	No
inside	192.168.1.4	0050.5633.3333	No
inside	192.168.1.3	0050.5611.1111	No
inside	192.168.1.2	0050.5622.2222	No
inside	192.168.1.56	0050.5692.5c7b	No
inside	192.168.1.55	0006.86e6.98f3	No
dmz	172.16.1.2	0050.5644.4444	No
mgmt	10.10.10.1	000c.3014.3820	No

Buttons for 'Clear Dynamic ARP Entries' and 'Refresh' are visible at the bottom of the table area. The status bar at the bottom indicates 'Data Refreshed Successfully.' and 'Last Updated: 5/19/15 9:32:02 AM'.

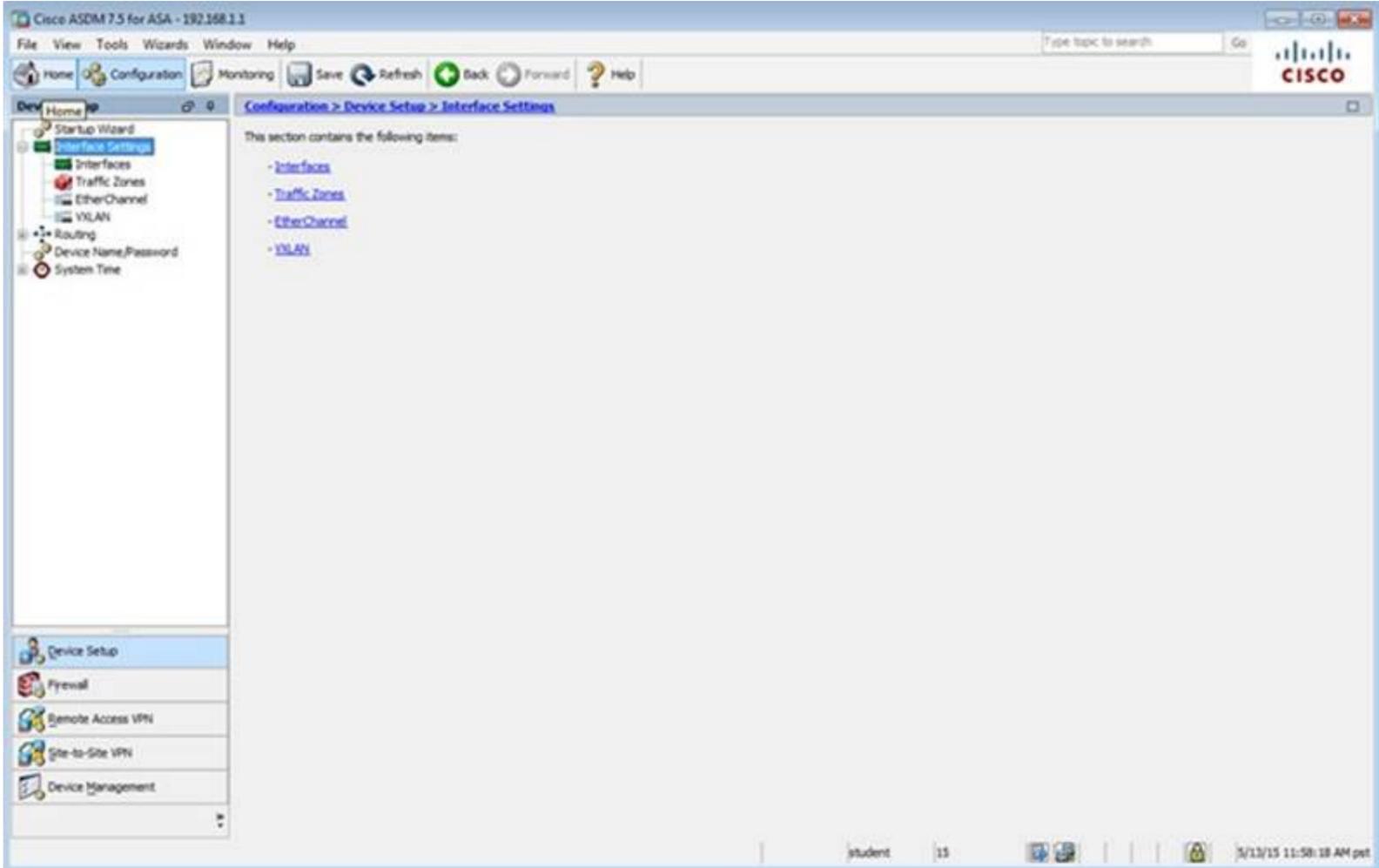
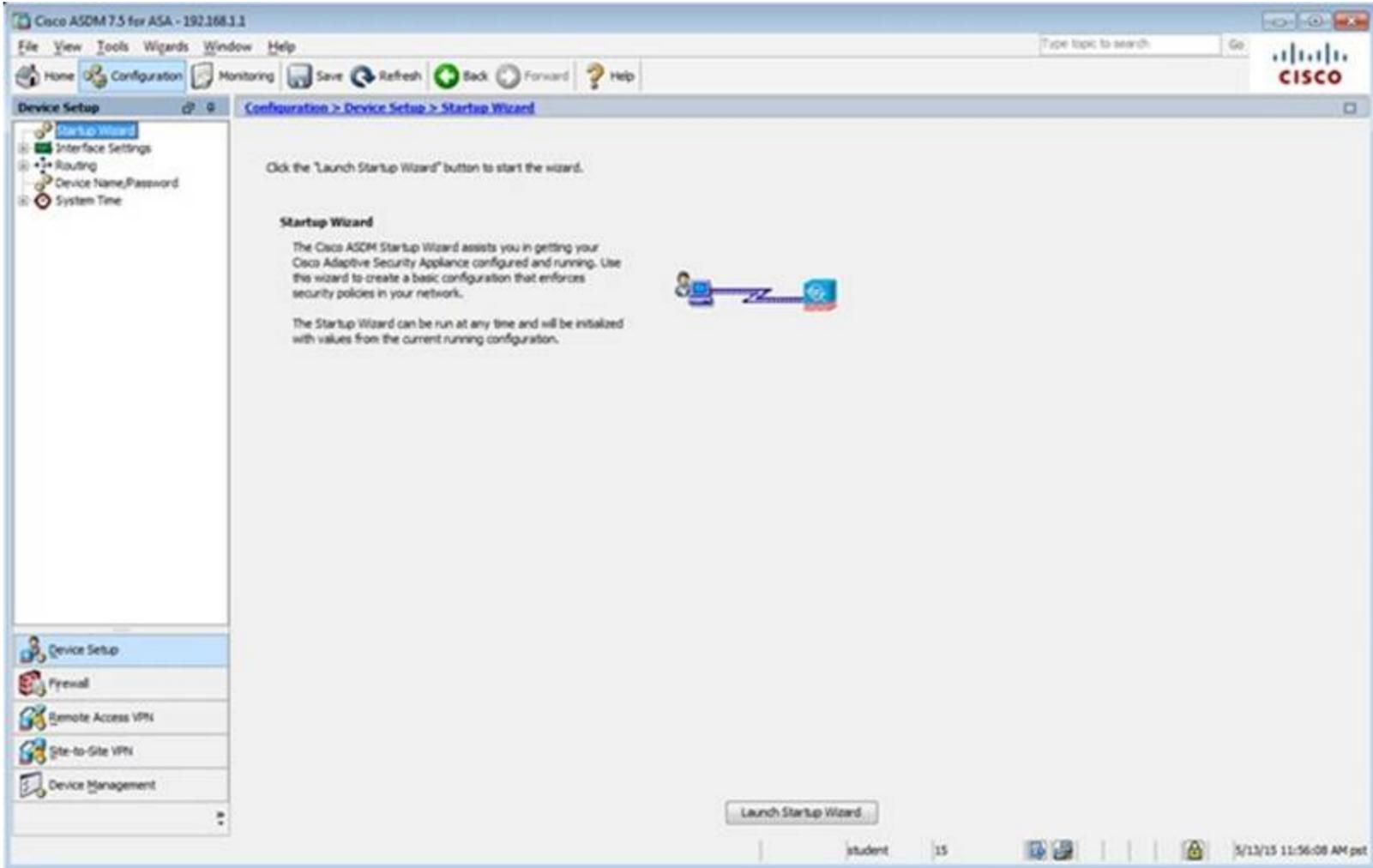
The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The main window displays the 'Monitoring > VPN > VPN Statistics > Sessions' page. The page shows a summary table and a detailed session table.

Type	Active	Cumulative	Peak Concurrent	Inactive
Clientless VPN	1	1	1	1
Browser	1	1	1	1

Below the summary table, there is a filter section: 'Filter By: Clientless SSL VPN -- All Sessions --'. The detailed session table shows the following entry:

Username	Group Policy	Protocol	Encryption	Login Time	Duration	Bytes Tx	Bytes Rx
student	sales	Clientless	Clientless (IPsec)	08:05:46 pm Thu May 21 2015	0h09m19s	338774	41633

Buttons for 'Details', 'Logout', and 'Ping' are visible on the right side of the session table. The status bar at the bottom indicates 'Data Refreshed Successfully.' and 'Last Updated: 5/19/15 9:33:12 AM'.



The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface configuration page. The breadcrumb trail is Configuration > Device Setup > Interface Settings > Interfaces. The left sidebar shows the navigation tree with 'Interfaces' selected under 'Interface Settings'. The main area contains a table of interfaces and their configurations.

Interface	Name	Zone	Route Map	State	Security Level	IP Address	Subnet Mask Prefix Length	Group	Type
GigabitEthernet0/0	outside			Enabled		0.0.0.0/0.0.0.0	255.255.255.0		Hardware
GigabitEthernet0/1	inside			Enabled	100	192.168.1.1	255.255.255.0		Hardware
GigabitEthernet0/2	dmz			Enabled		172.16.1.1	255.255.255.0		Hardware
GigabitEthernet0/3				Enabled					Hardware
GigabitEthernet0/4				Enabled					Hardware
GigabitEthernet0/5	mgmt			Enabled		100.10.10.10.2	255.255.255.0		Hardware
Management0/0				Enabled					Hardware

Below the table, there are three checkboxes for advanced settings:

- Enable traffic between two or more interfaces which are configured with same security levels
- Enable traffic between two or more hosts connected to the same interface
- Enable jumbo frame reservation

Buttons for 'Apply' and 'Reset' are located at the bottom of the configuration area.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 Management Access configuration page. The breadcrumb trail is Configuration > Device Management > Management Access. The left sidebar shows the navigation tree with 'Management Access' selected under 'Device Management'. The main area displays a list of items contained in this section.

This section contains the following items:

- [ASDM/HTTPS/Telnet/SSH](#)
- [HTTP Certificate Rule](#)
- [Command Line \(CLI\)](#)
- [File Access](#)
- [SCP](#)
- [Management Interface](#)
- [Management Session Quota](#)
- [SNMP](#)
- [Management Access Rules](#)

Buttons for 'Apply' and 'Reset' are located at the bottom of the configuration area.

Cisco ASDM 7.5 for ASA - 192.168.1.1

Configuration > Device Management > Management Access > ASDM/HTTPS/Telnet/SSH

Specify the addresses of all hosts/networks which are allowed to access the ASA using ASDM/HTTPS/Telnet/SSH.

Type	Interface	IP Address	Mask/Prefix Length
Telnet	mgmt	10.10.10.1	255.255.255.255
SSH	inside	192.168.1.0	255.255.255.0
ASDM/HTTPS	inside	192.168.1.0	255.255.255.0

Http Settings

Enable HTTP Server

Port Number: 443

Idle Timeout: 20 minutes

Session Timeout: minutes

Require client certificate to access ASDM on the following interfaces

Interfaces: [Dropdown]

Telnet Settings

Telnet Timeout: 5 minutes

SSH Settings

Allowed SSH Version(s): 1 & 2

SSH Timeout: 5 minutes

DH Key Exchange:  Group 1  Group 14

Apply Reset

student 15 5/13/15 12:00:38 PM pet

Cisco ASDM 7.5 for ASA - 192.168.1.1

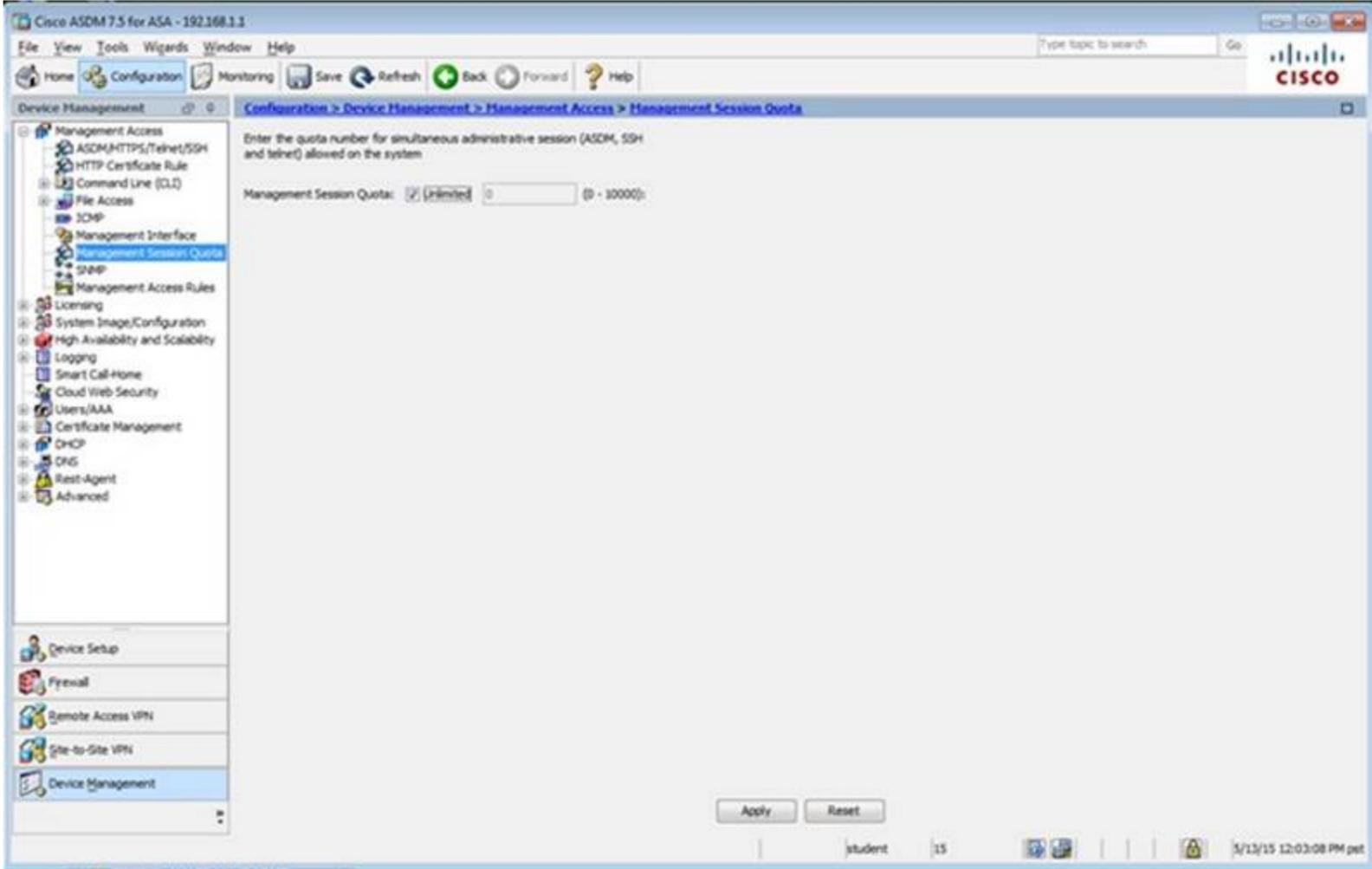
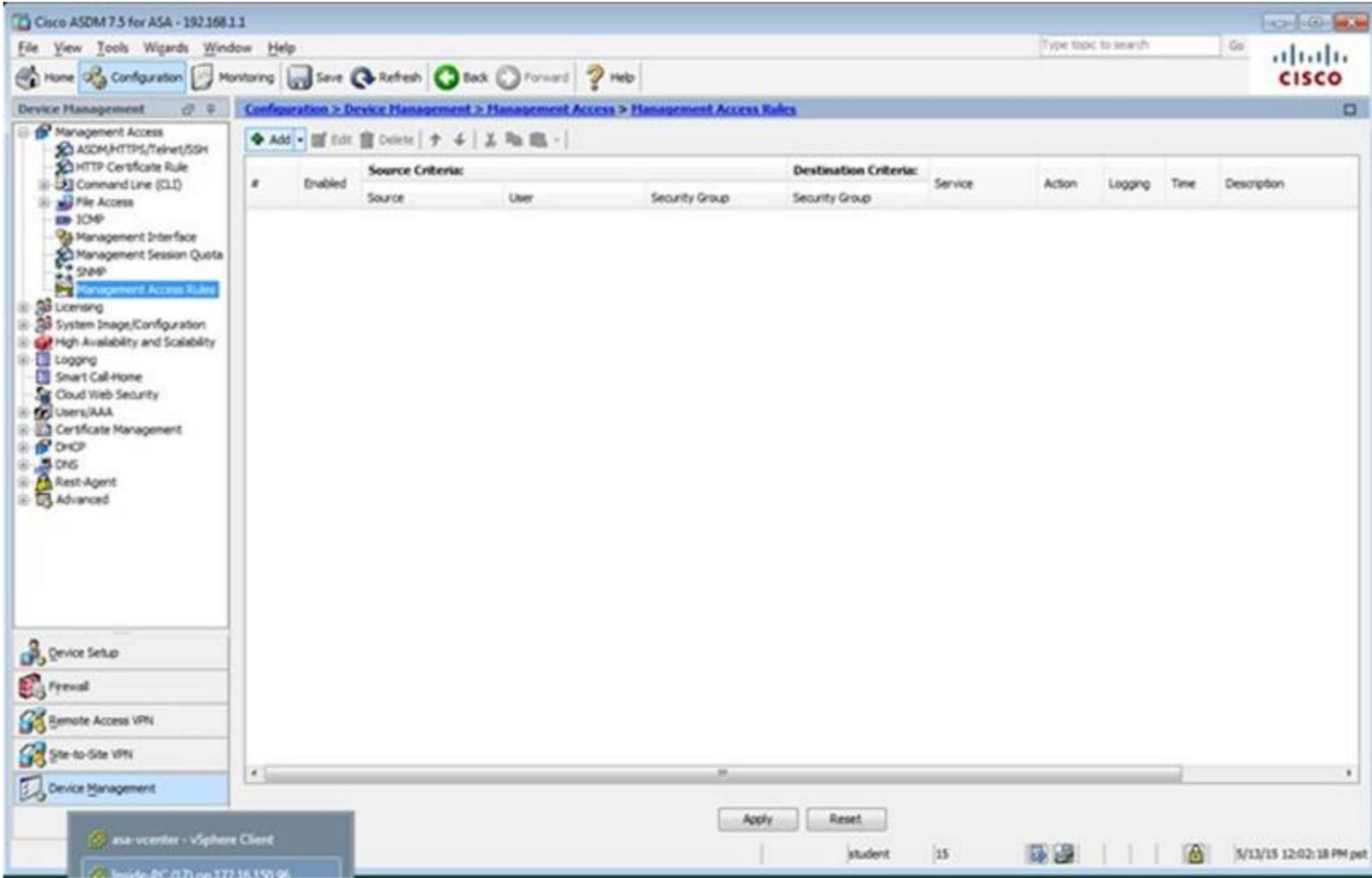
Configuration > Device Management > Management Access > Management Interface

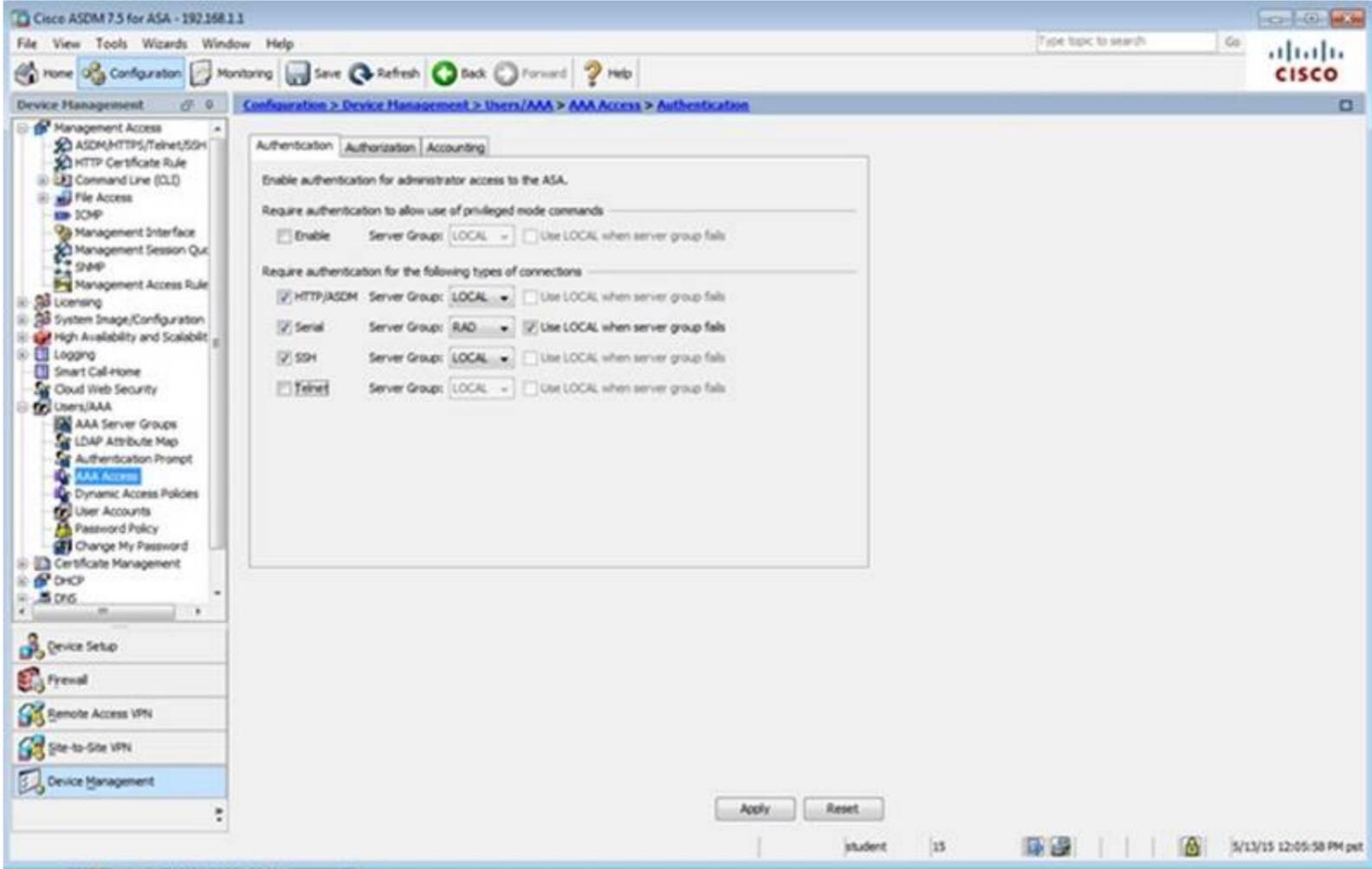
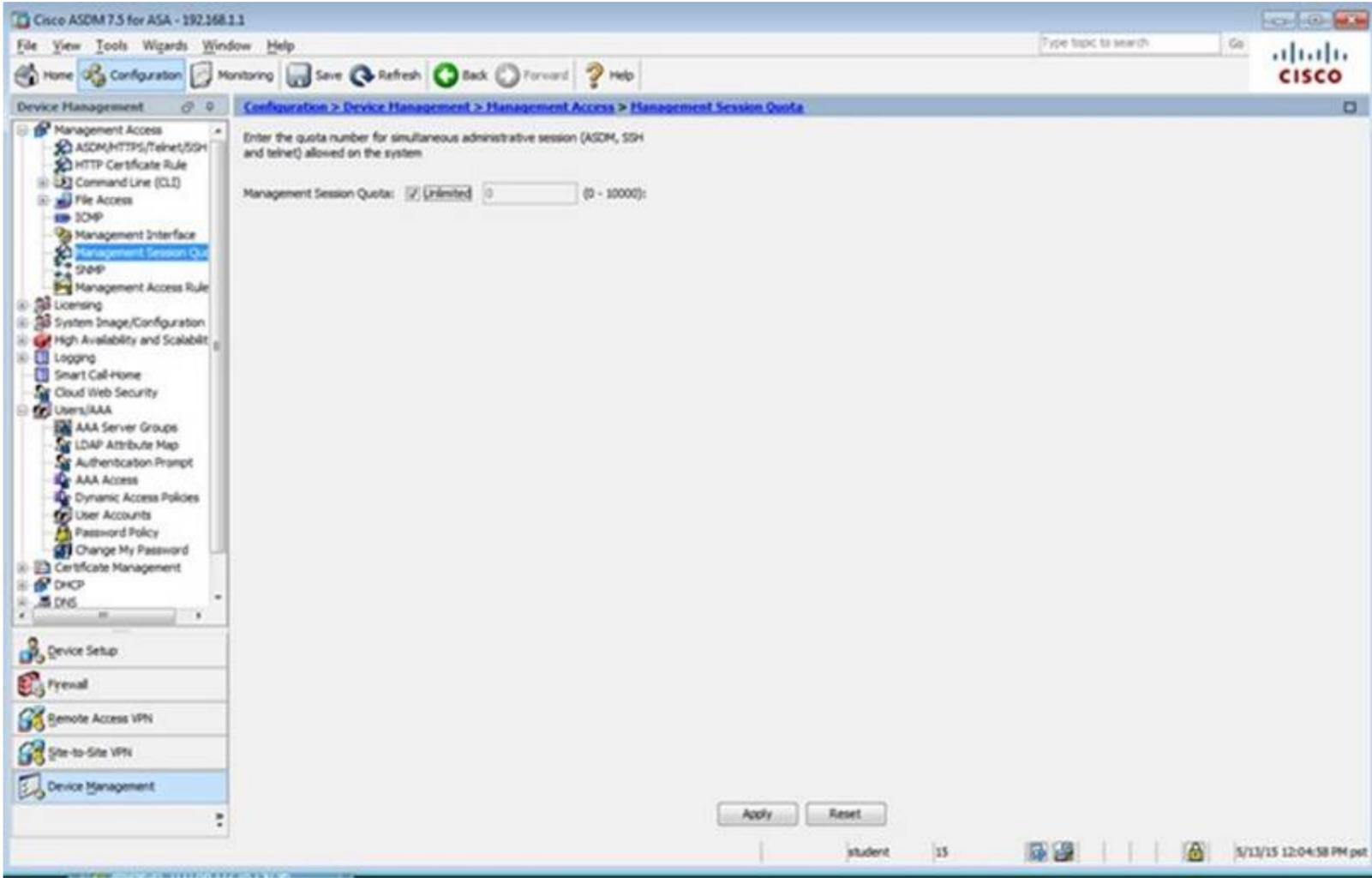
Enable or disable the Management Access feature for an interface. Once you enable this feature on an internal interface, you will be able to perform ASA management functions, such as running ASDM, on this interface using an IPsec VPN client, SSL VPN client, or a site-to-site tunnel.

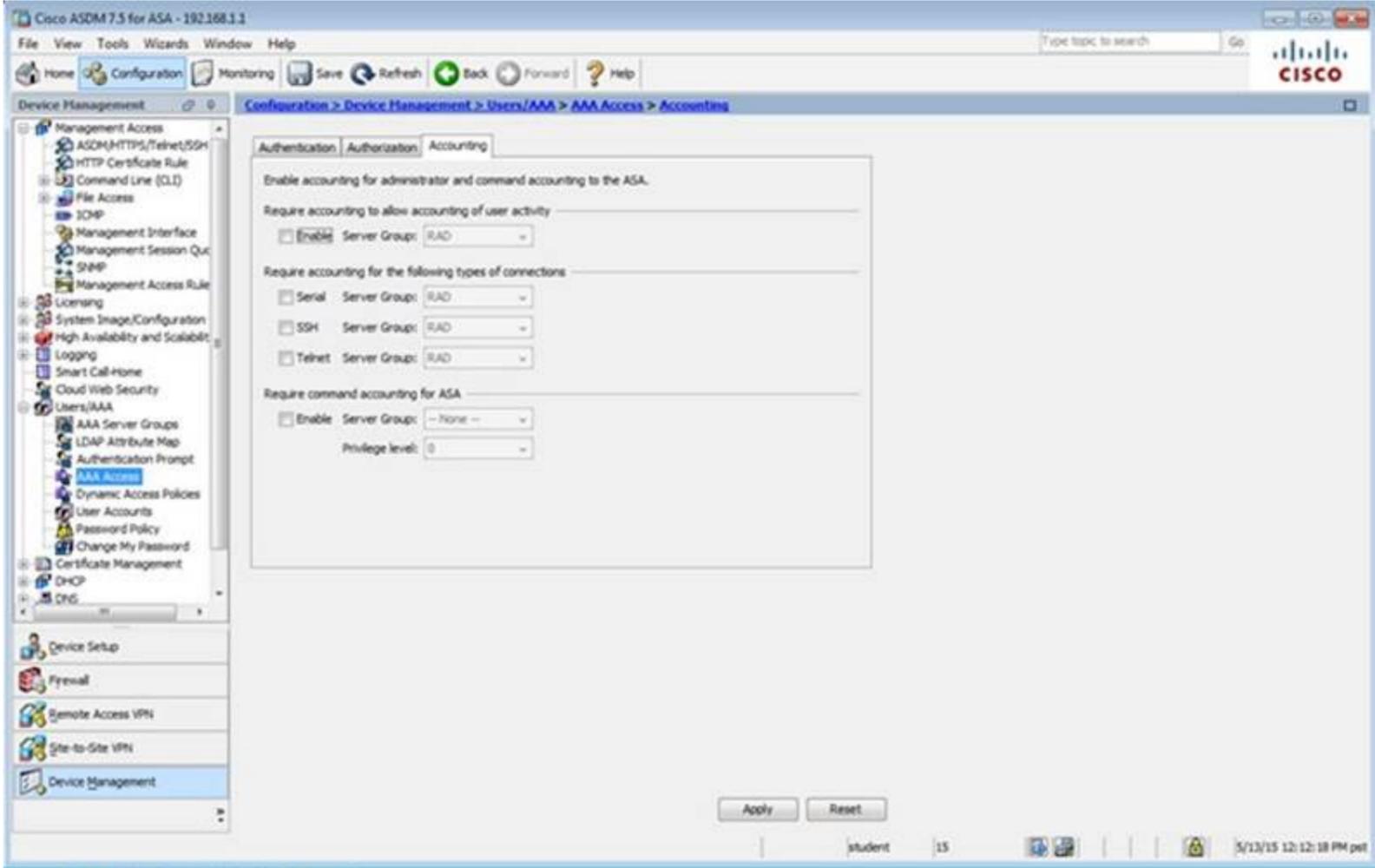
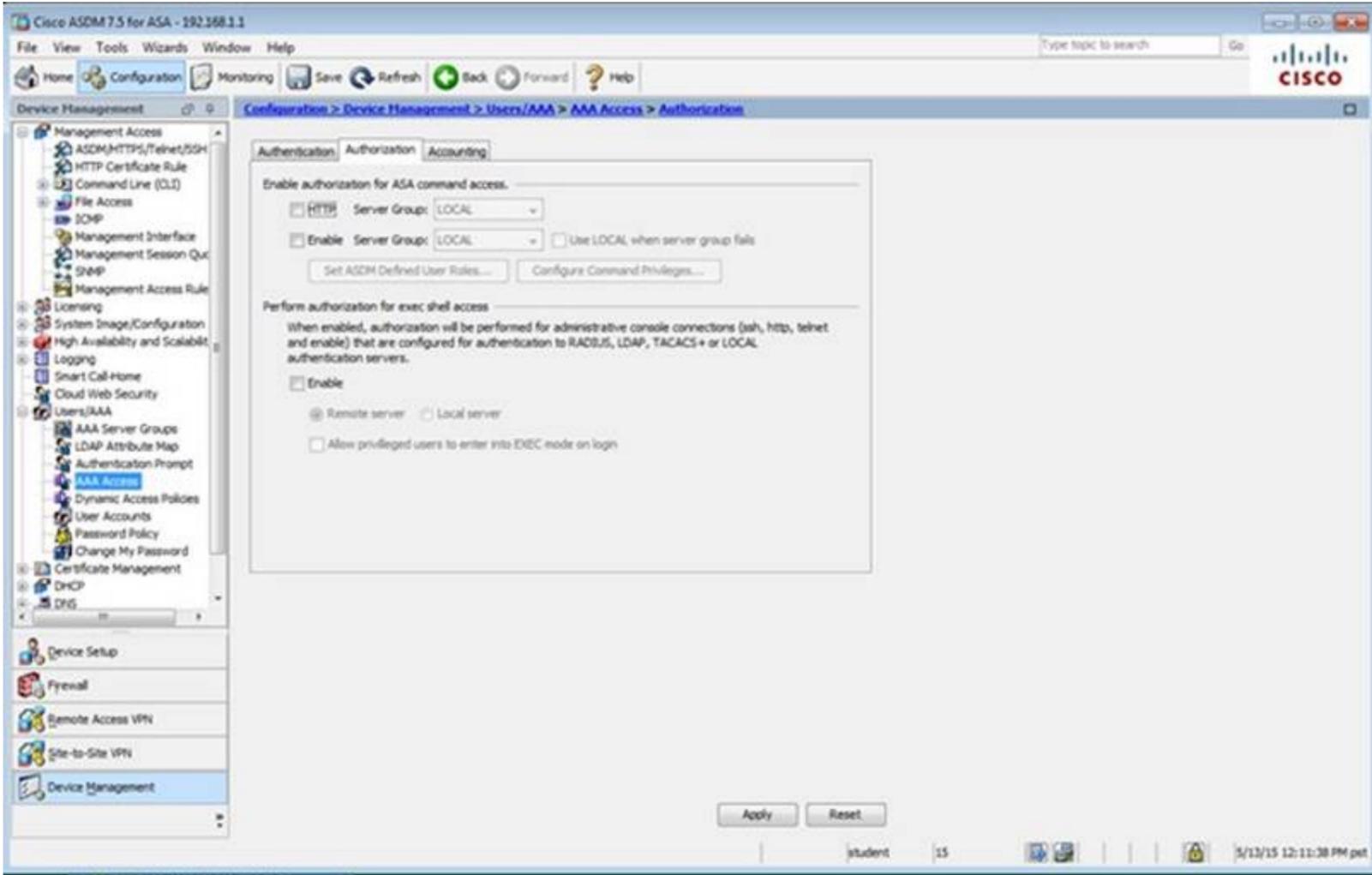
Management Access Interface: [None]

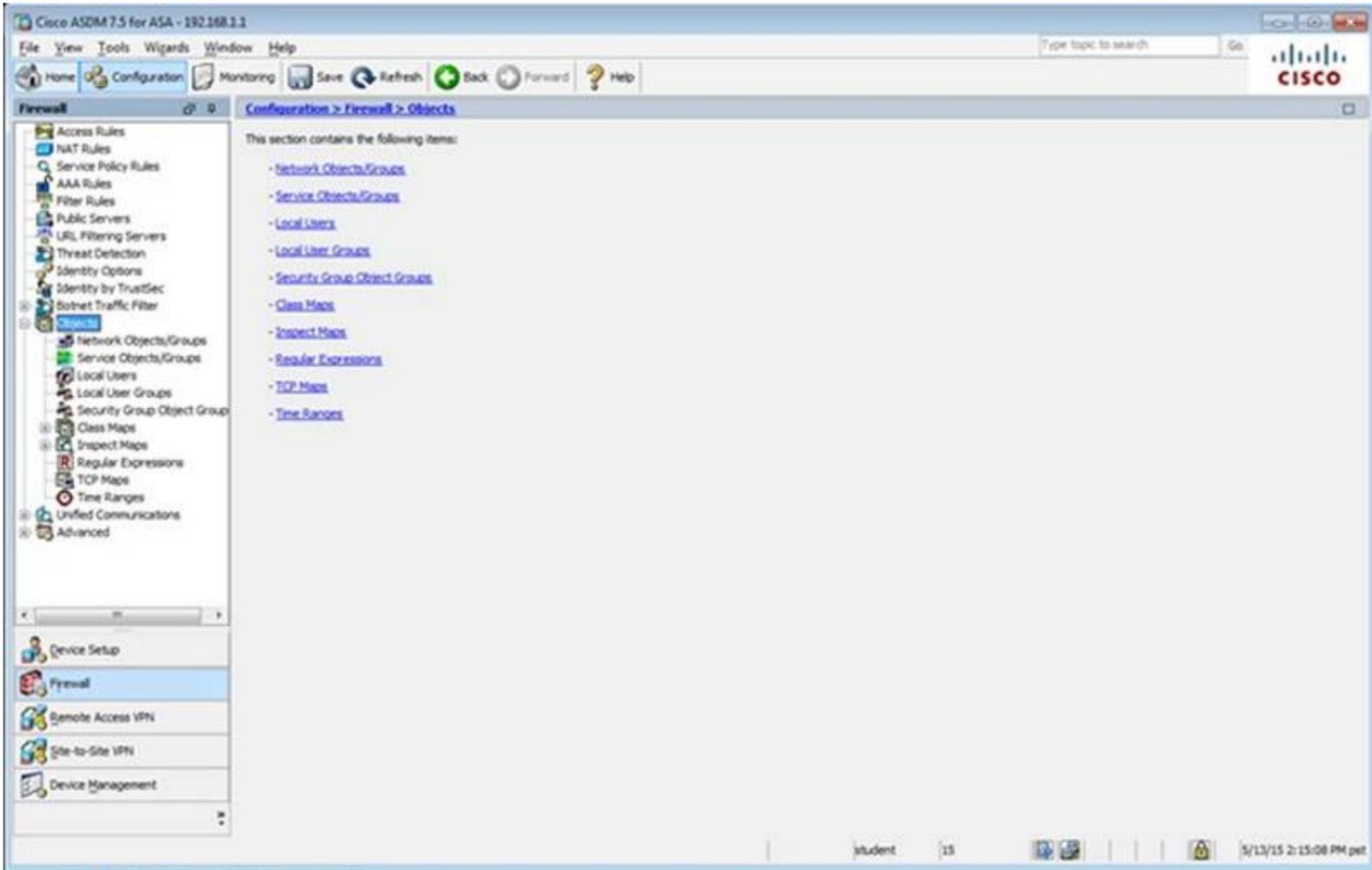
Apply Reset

student 15 5/13/15 12:01:38 PM pet









Configuration > Firewall > Objects > Local Users

Create entries in the ASA local user database.

Command authorization must be enabled in order for the user account privileges to be enforced. To enable command authorization, go to [Authorization](#).

AAA authentication console commands must be enabled in order for certain access restrictions to be enforced. To enable AAA authentication command go to [Authentication](#).

Username	Privilege Level (Role)	Access Restrictions	VPN Group Policy	VPN Group Lock
student	15	Full	-- Inherit Group Policy --	-- Inherit Group Policy --
enable_15	15	Full	N/A	N/A
pao	15	Full	-- Inherit Group Policy --	-- Inherit Group Policy --

Apply Reset

student 15 3/13/15 12:14:18 PM pet

Configuration > Firewall > Objects > Network Objects/Groups

Filters: [Filter/Clear]

Name	IP Address	Netmask	Description	Object NAT Address
any				
any-host	0.0.0.0	0.0.0.0		outside (P)
any4				
any6				
facebook	www.facebook.com			
My_ASA_Demo_Obj	1.10.8.20			

Apply Reset

student 15 3/13/15 12:30:08 PM pet

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar shows the configuration tree with 'Service Policy Rules' selected. The main pane displays the 'Configuration > Firewall > Service Policy Rules' view. A table lists traffic classification rules:

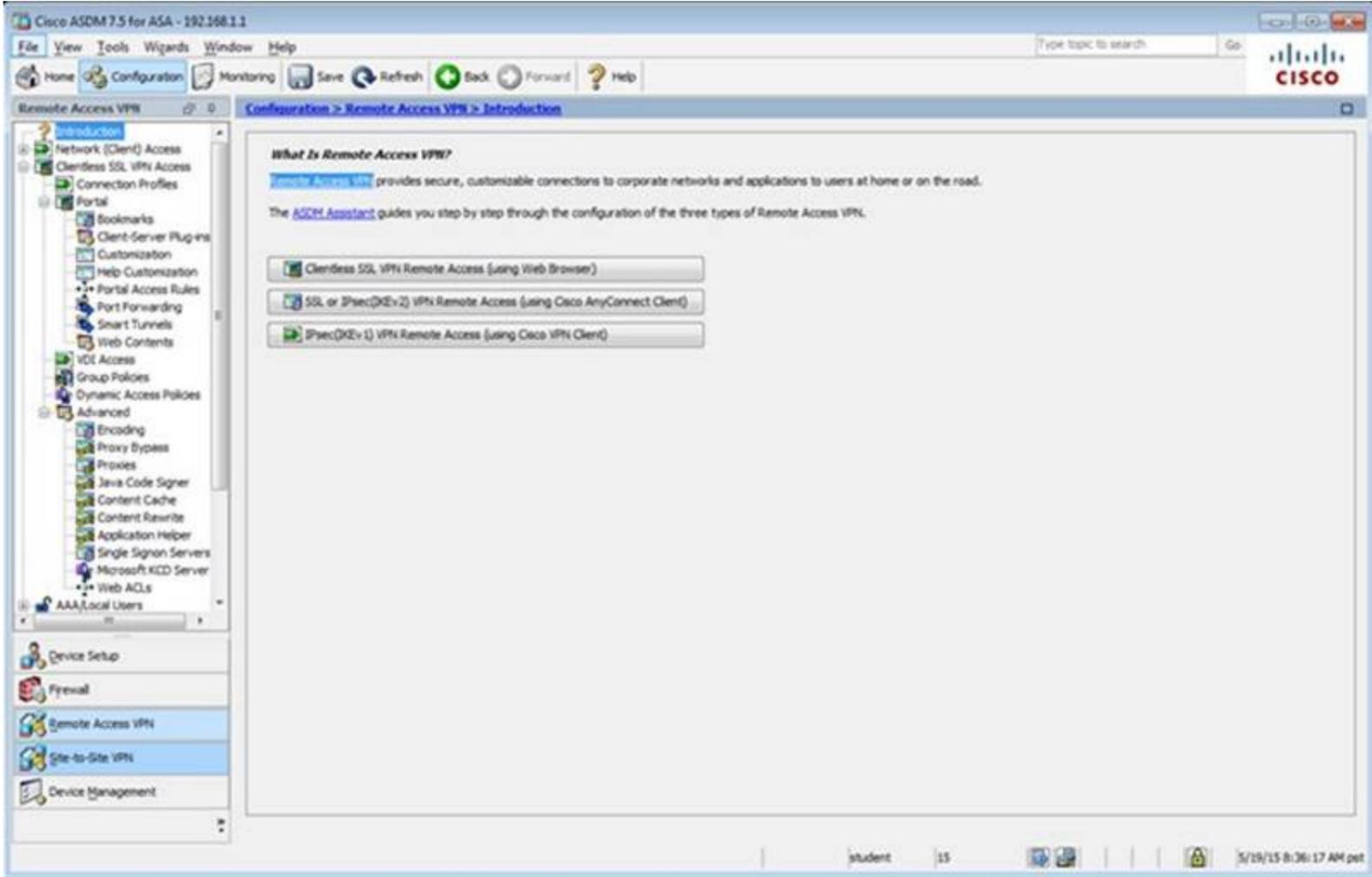
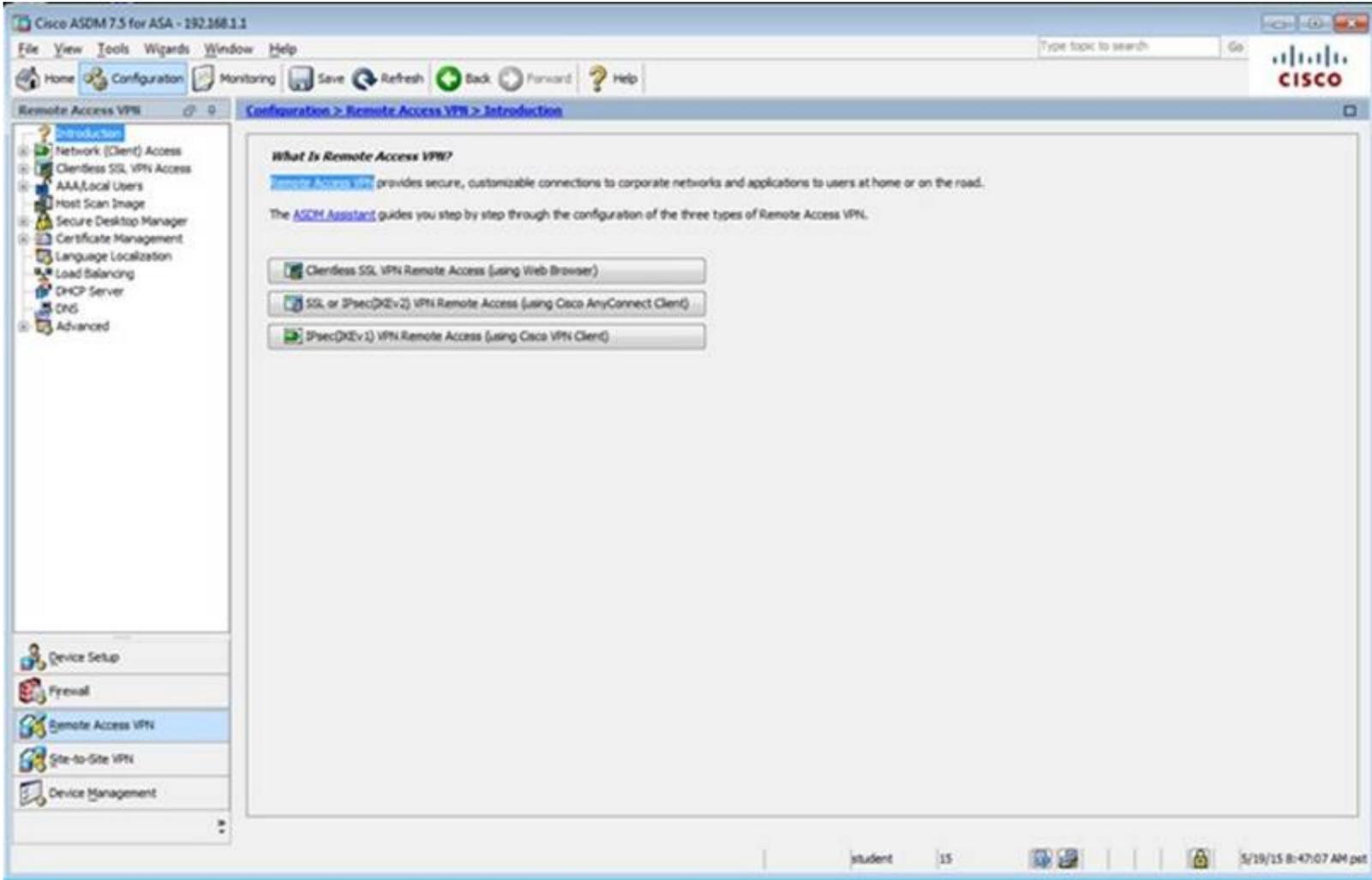
Name	#	Enabled	Match	Source	Src Security Group	Destination	Dest Security Group	Service	Time	Rule Actions	Descr
<b>Interface: dmz; Policy: asdmf_policy</b>											
class-default			Match	any		any		any traffic			
<b>Interface: inside; Policy: asaaf_policy</b>											
class-default			Match	any		any		any traffic			
<b>Global; Policy: global_policy</b>											
inspection_de...			Match	any		any		default-inspec...		Inspect DNS Map preset... Inspect SMTP (14 more inspect actions)	

Buttons for 'Apply' and 'Reset' are visible at the bottom of the configuration pane.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar shows the configuration tree with 'Access Rules' selected. The main pane displays the 'Configuration > Firewall > Access Rules' view. A table lists access rules with source and destination criteria:

#	Enabled	Source Criteria:			Destination Criteria:		Service	Action	Hits	Logging
		Source	User	Security Group	Destination	Security Group				
<b>dmz (1 implicit incoming rule)</b>										
1		any			Any less secure ne...		Permit			
<b>inside (1 incoming rule)</b>										
1		any			any		Permit	54...		
<b>ngint (0 implicit incoming rules)</b>										
<b>outside (0 implicit incoming rules)</b>										
<b>Global (1 implicit rule)</b>										
1		any			any		Deny			

Buttons for 'Apply', 'Reset', and 'Advanced...' are visible at the bottom of the configuration pane.



The screenshot shows the Cisco ASDM interface for configuring Clientless SSL VPN Access. The breadcrumb trail is: Configuration > Remote Access VPN > Clientless SSL VPN Access > Connection Profiles. The left sidebar shows a tree view with 'Connection Profiles' selected under 'Clientless SSL VPN Access'. The main area is divided into sections: 'Access Interfaces', 'Login Page Setting', and 'Connection Profiles'. The 'Access Interfaces' section has a table for enabling interfaces:

Interface	Allow Access
outside	<input checked="" type="checkbox"/>
dmz	<input type="checkbox"/>
inside	<input type="checkbox"/>

Below this, there are checkboxes for 'Bypass interface access lists for inbound VPN sessions' (checked) and 'Access lists from group policy and user policy always apply to the traffic.' (checked). The 'Login Page Setting' section has checkboxes for 'Allow user to select connection profile on the login page.' (checked), 'Allow user to enter internal password on the login page.' (unchecked), and 'Shutdown portal login page.' (unchecked). The 'Connection Profiles' section contains a table of existing profiles:

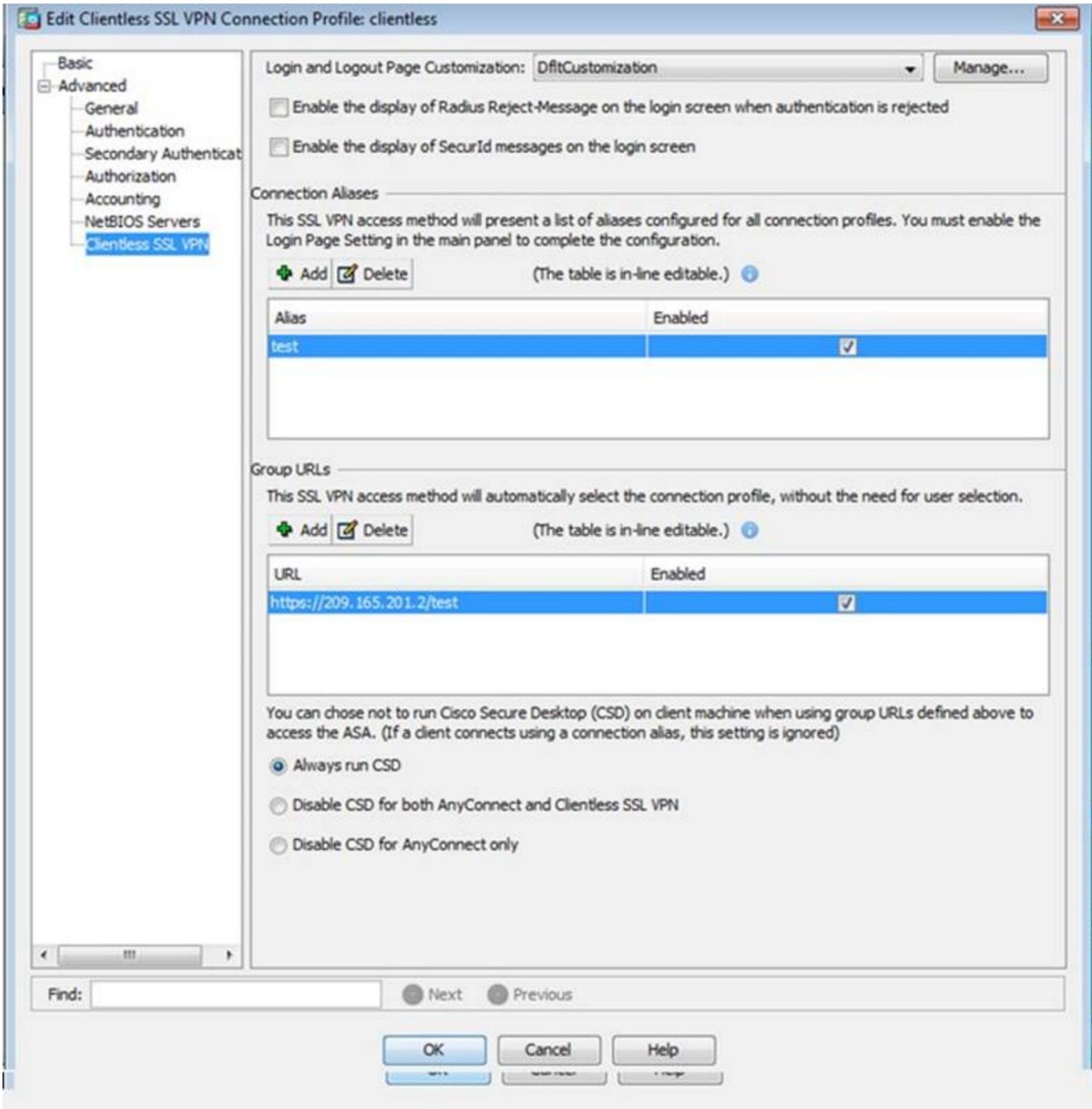
Name	Enabled	Aliases	Authentication Method	Group Policy
DefaultRAGroup	<input checked="" type="checkbox"/>		AAA(RAD)	DfltGrpPolicy
DefaultWEBVPNGroup	<input checked="" type="checkbox"/>		AAA(RAD)	DfltGrpPolicy
clientless	<input checked="" type="checkbox"/>	test	AAA(LOCAL)	Sales

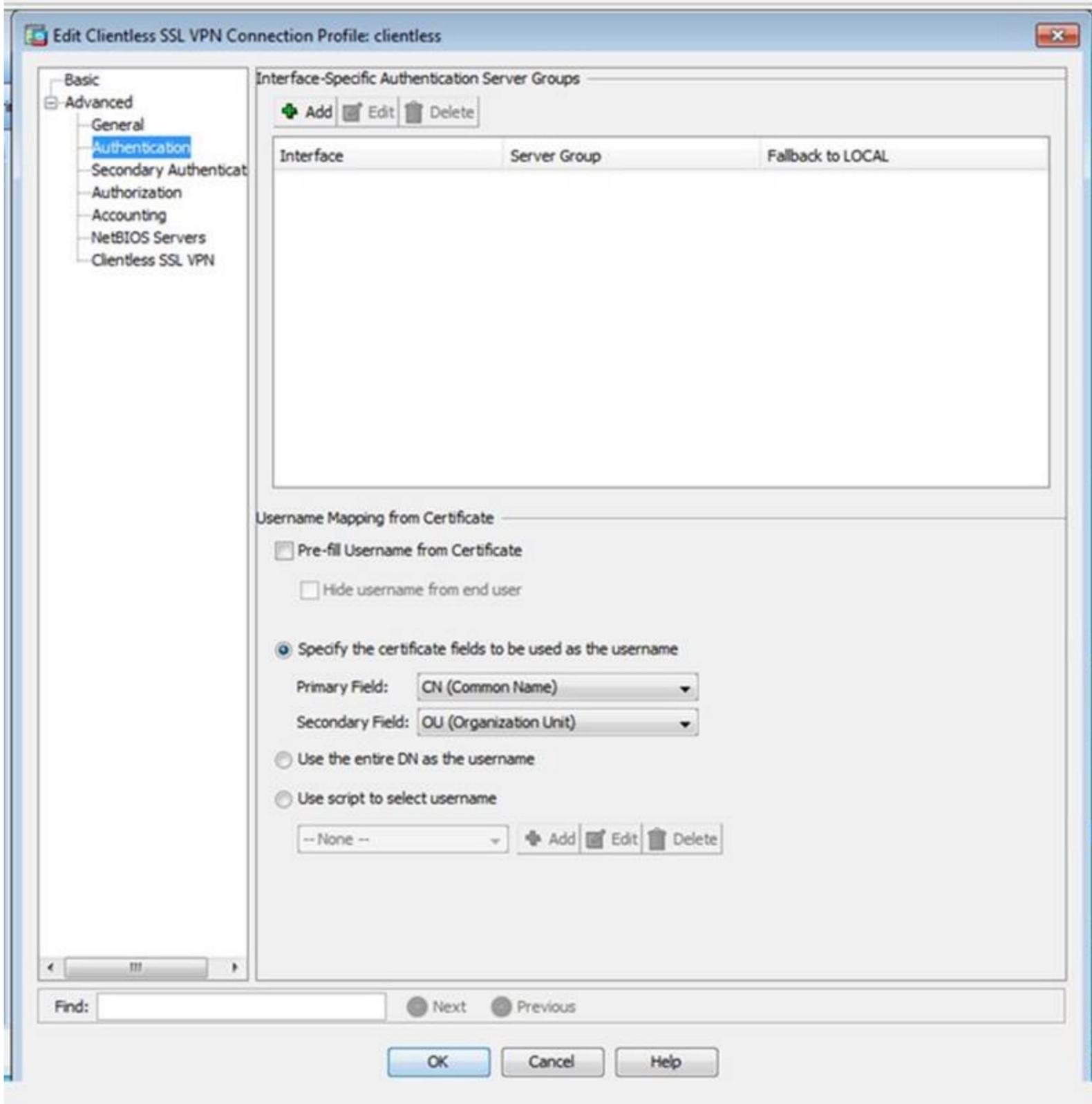
Buttons for 'Add', 'Edit', 'Delete', and 'Find' are visible. At the bottom, there are 'Apply' and 'Reset' buttons.

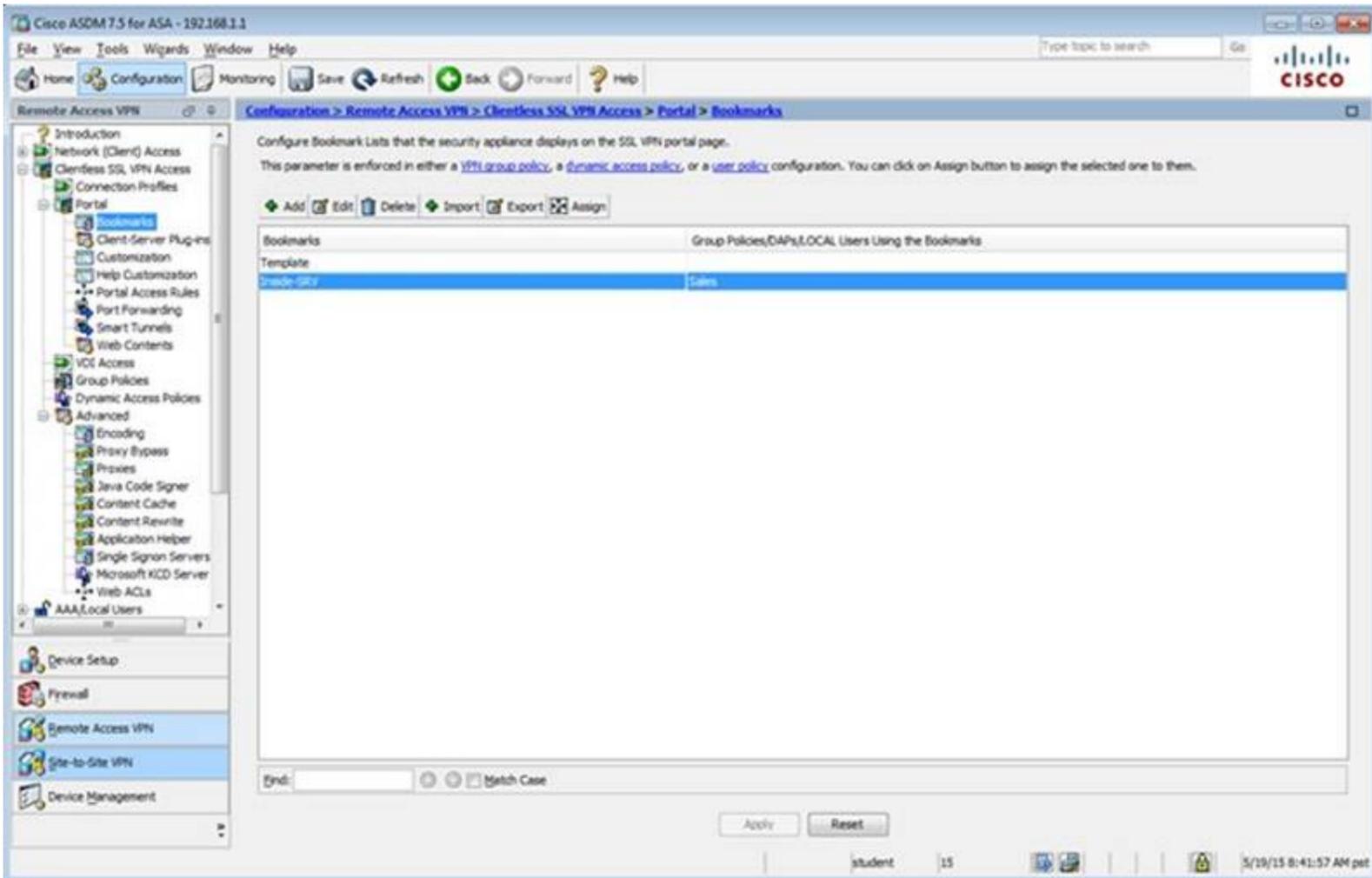
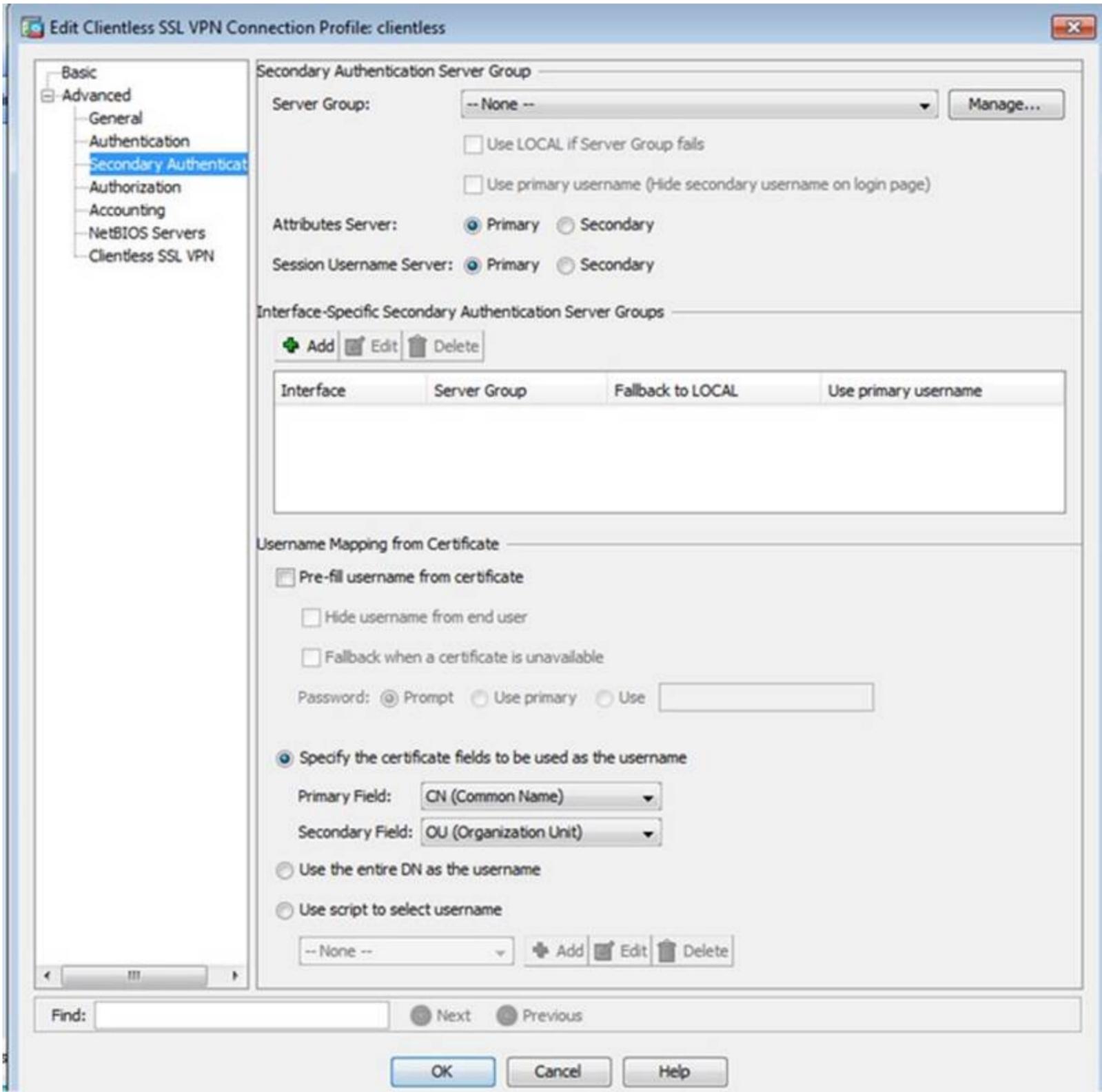
The screenshot shows the 'Edit Clientless SSL VPN Connection Profile: clientless' dialog box. It has a 'Basic' tab selected. The fields are as follows:

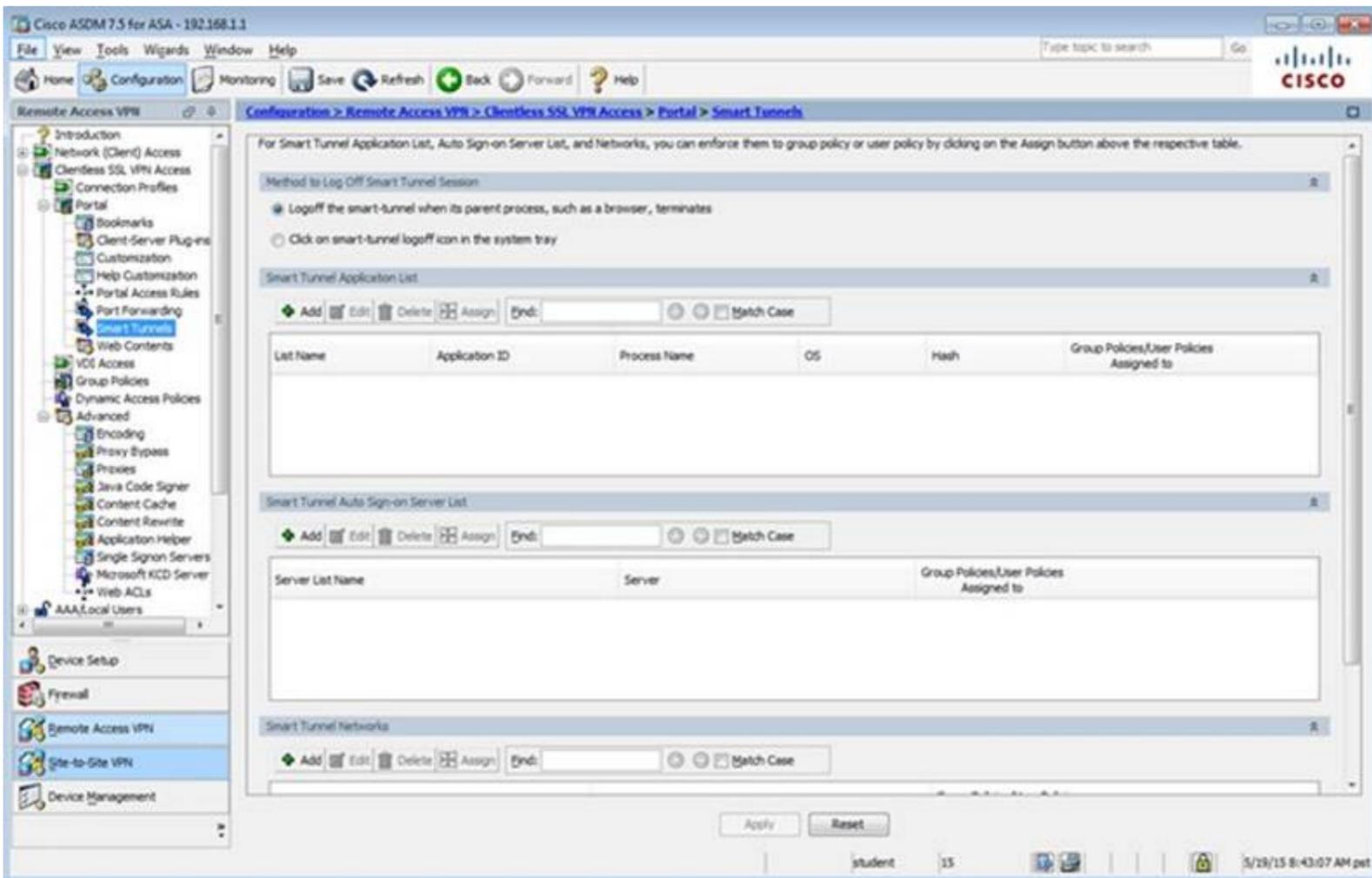
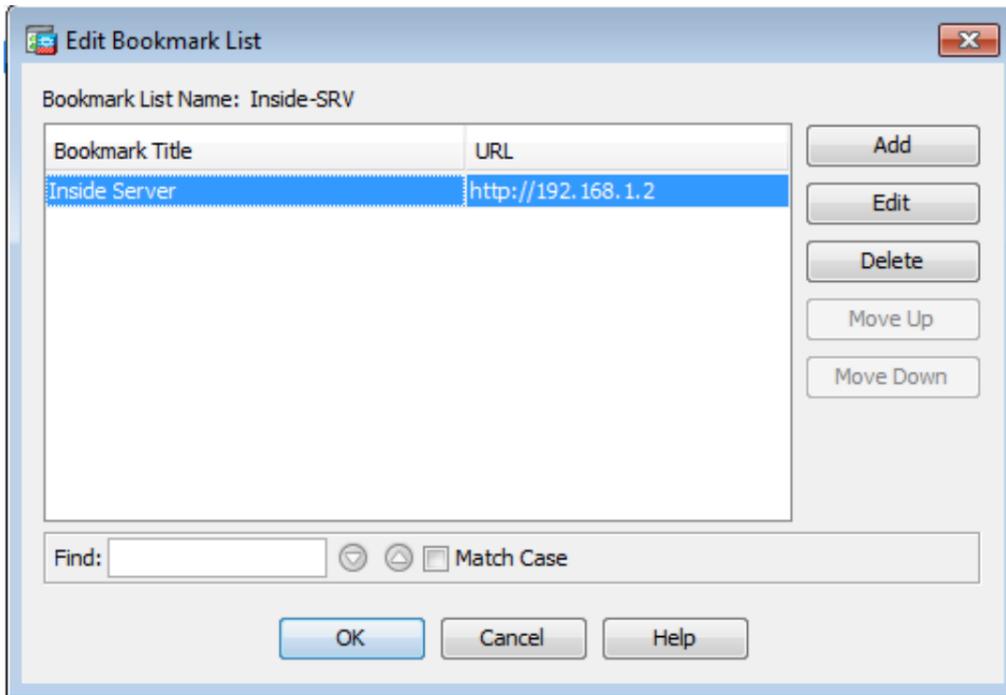
- Name: clientless
- Aliases: test
- Authentication Method: AAA (selected), Certificate, Both
- AAA Server Group: LOCAL (dropdown), with a 'Manage...' button and a checkbox for 'Use LOCAL if Server Group fails' (unchecked).
- DNS Server Group: DefaultDNS (dropdown), with a 'Manage...' button. Below it, a note says '(Following fields are attributes of the DNS server group selected above.)' and fields for Servers: 192.168.1.2 and Domain Name: secure-x.local.
- Default Group Policy: Sales (dropdown), with a 'Manage...' button. Below it, a note says '(Following field is an attribute of the group policy selected above.)' and a checkbox for 'Enable clientless SSL VPN protocol' (checked).

At the bottom, there is a 'Find:' field, 'Next' and 'Previous' buttons, and 'OK', 'Cancel', and 'Help' buttons.









Configure Port Forwarding Lists that the security appliance uses to grant users access to TCP-based applications over a clientless SSL VPN connection. This parameter is enforced in either a [VPN group policy](#), a [dynamic access policy](#), or a [user policy](#) configuration. You can click on Assign button to assign the selected one to them.

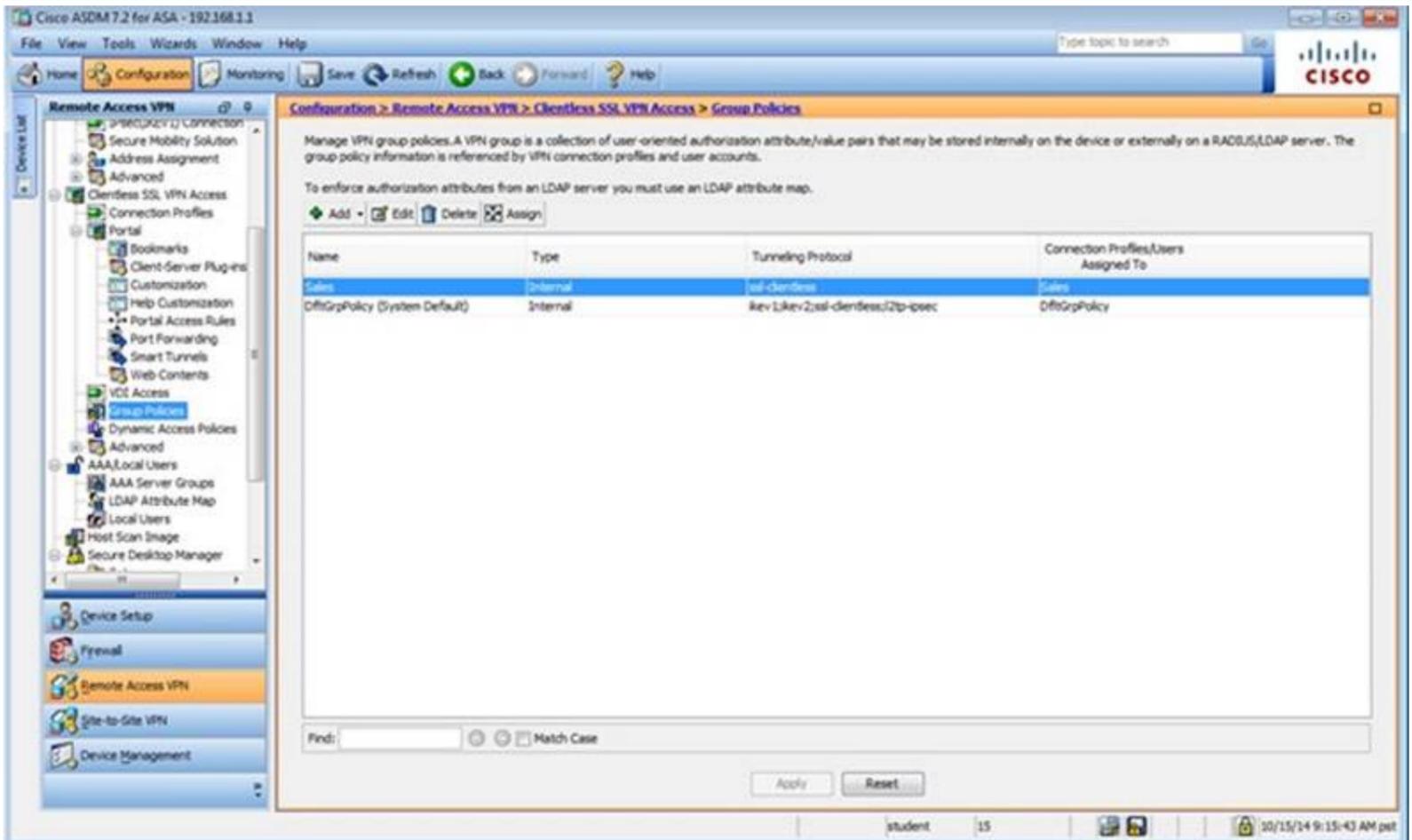
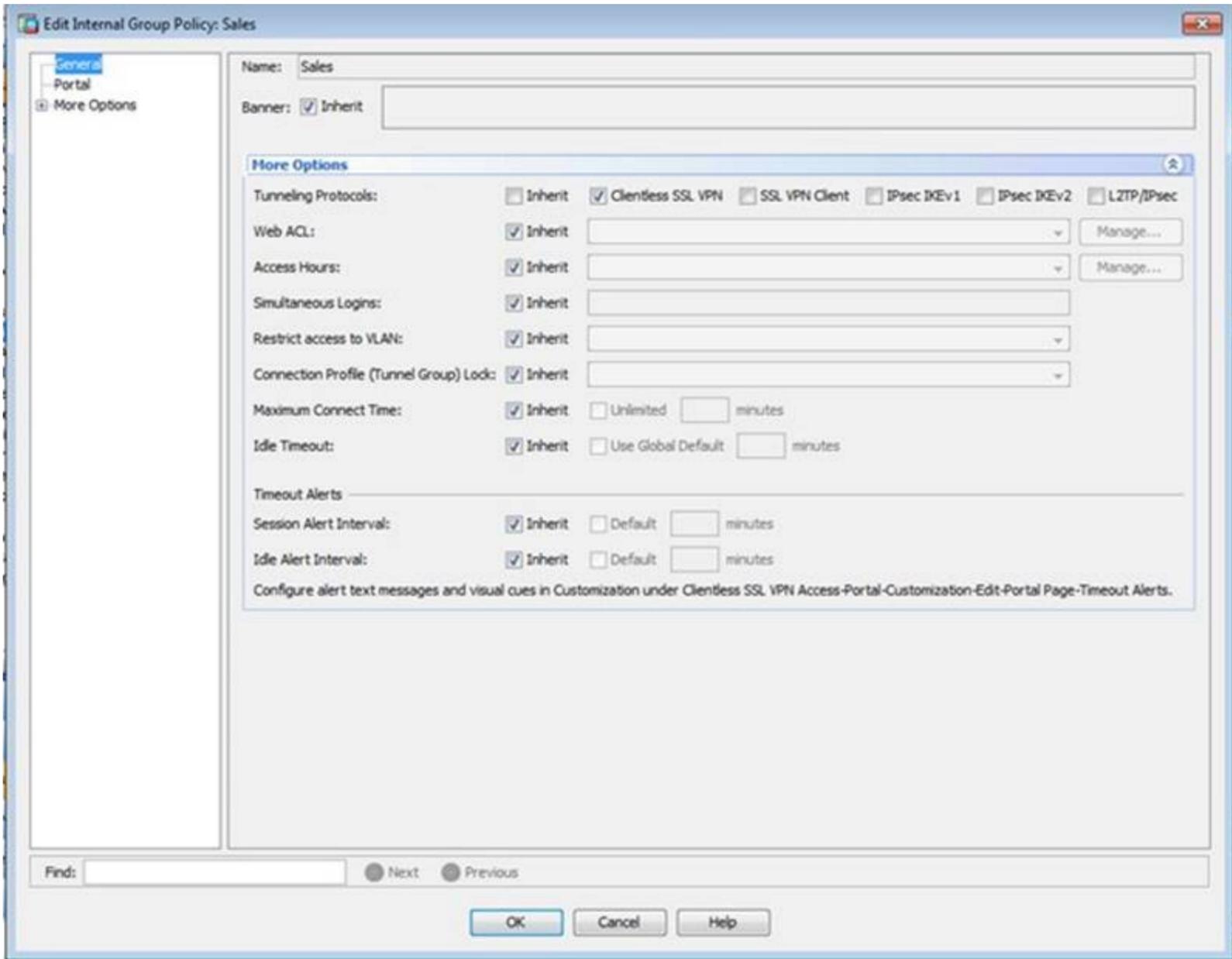
List Name	Local TCP Port	Remote Server	Remote TCP Port	Description	Group Policies/User Policies Assigned to
-----------	----------------	---------------	-----------------	-------------	--

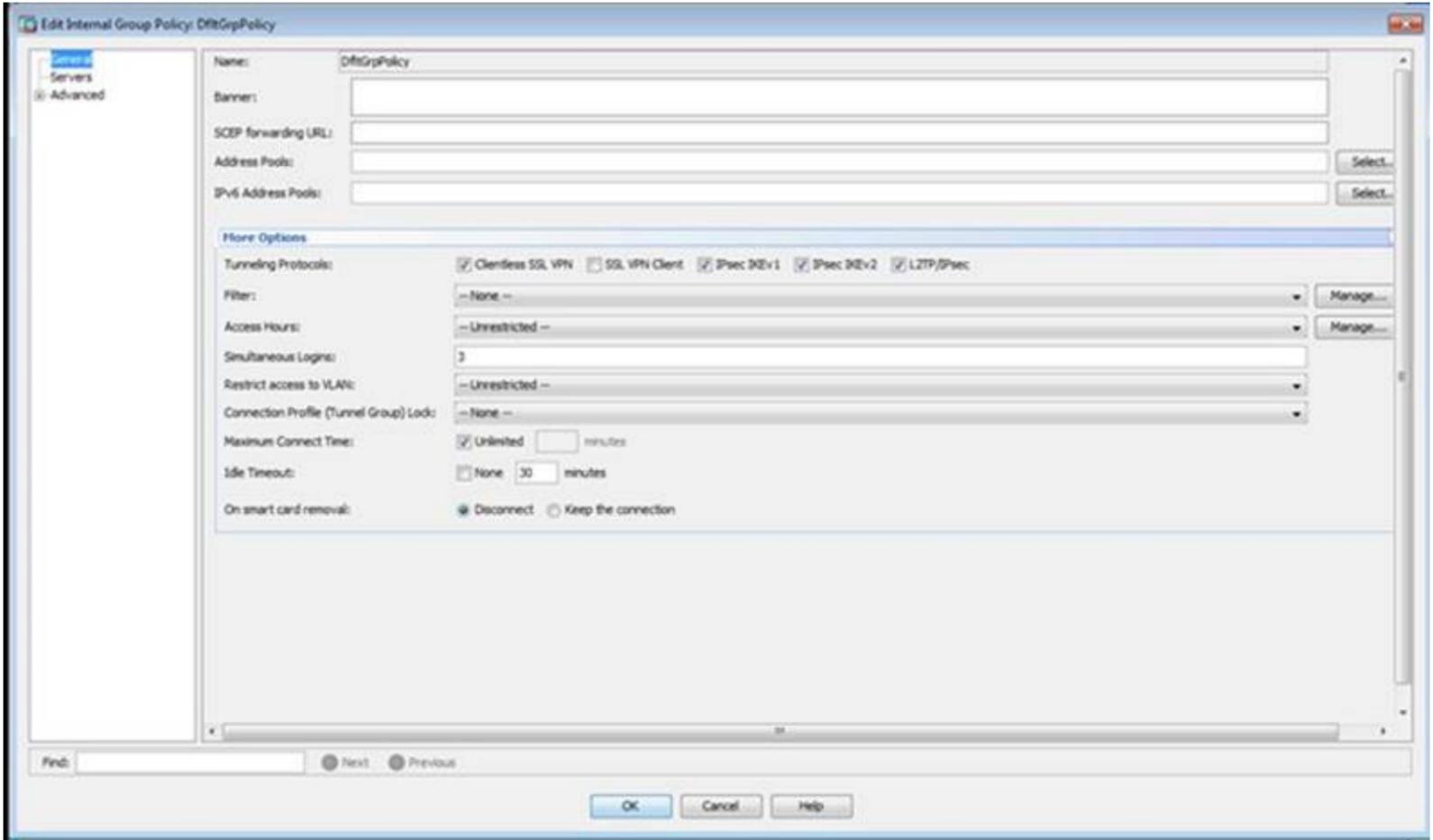
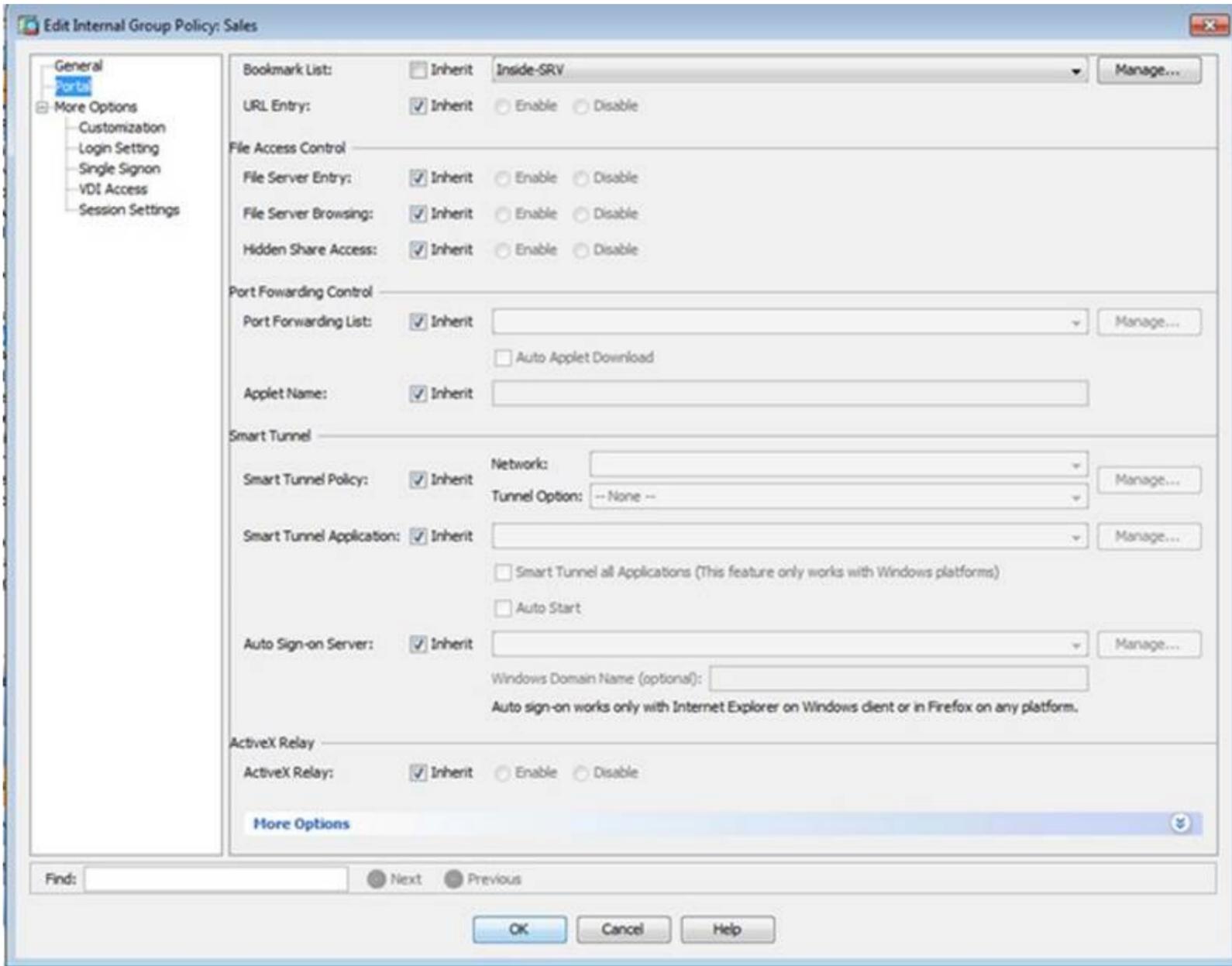
Find:

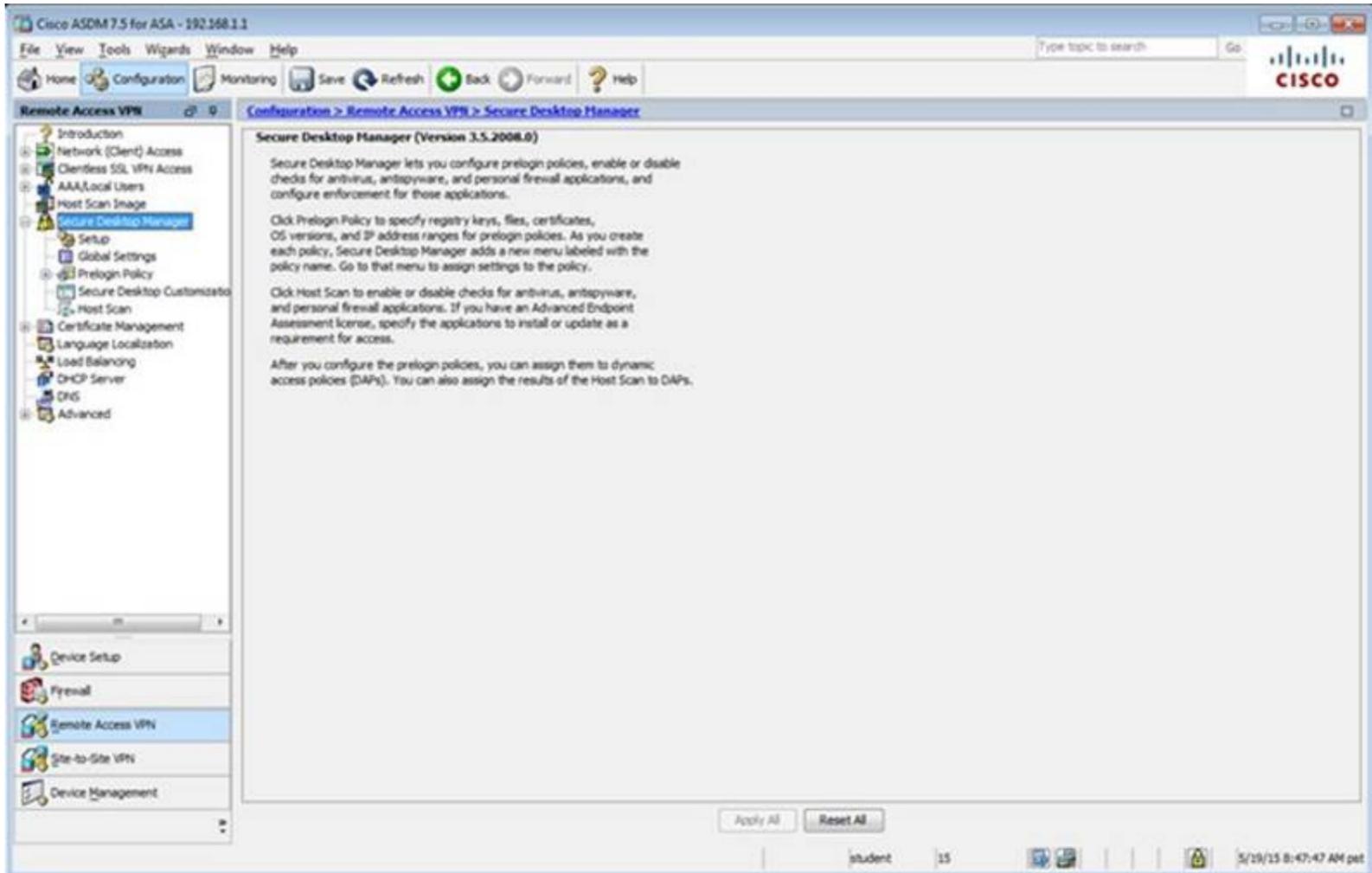
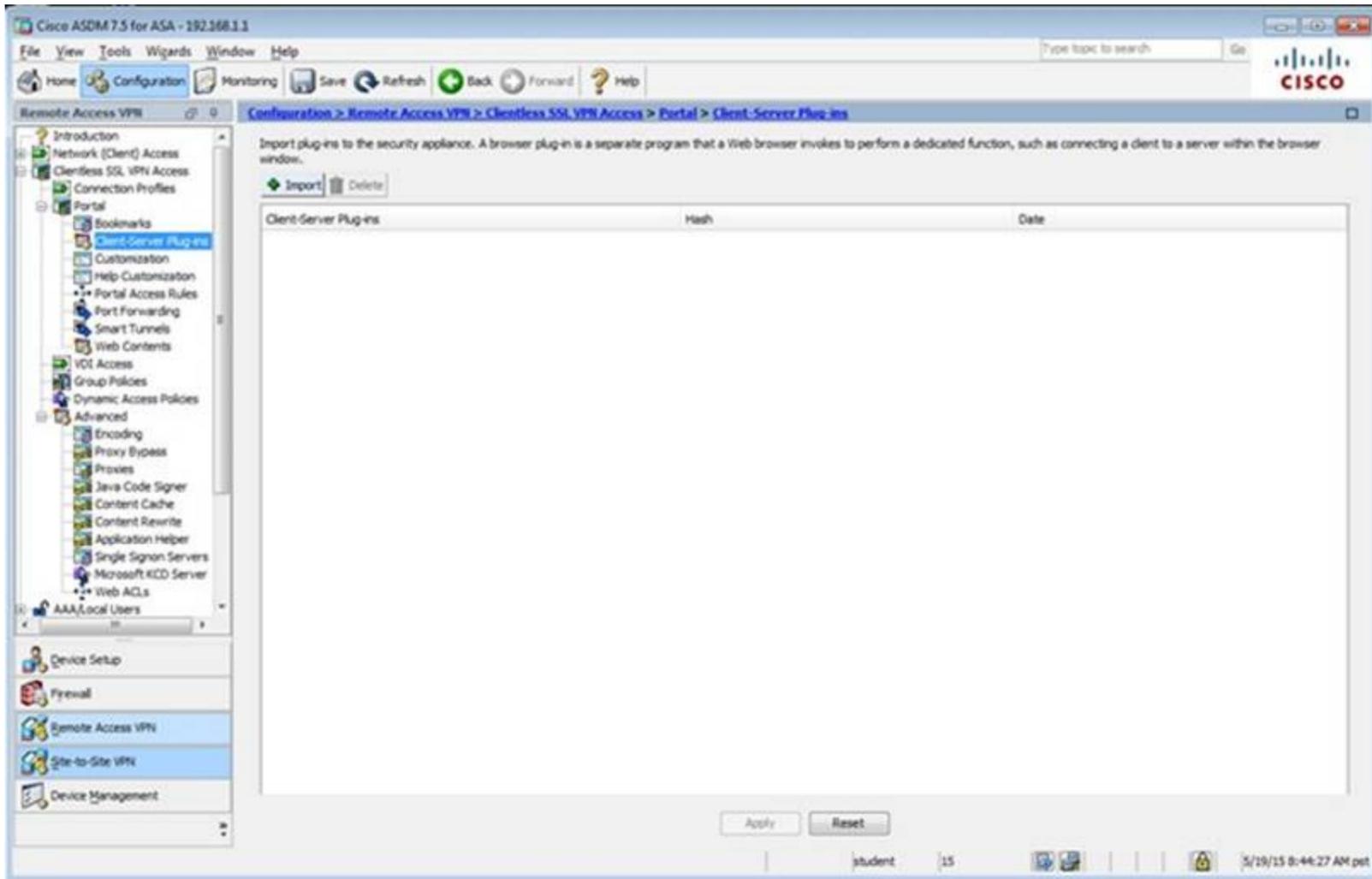
Manage VPN group policies. A VPN group is a collection of user-oriented authorization attribute/value pairs that may be stored internally on the device or externally on a RADIUS/LDAP server. The group policy information is referenced by VPN connection profiles and user accounts. To enforce authorization attributes from an LDAP server you must use an [LDAP attribute map](#).

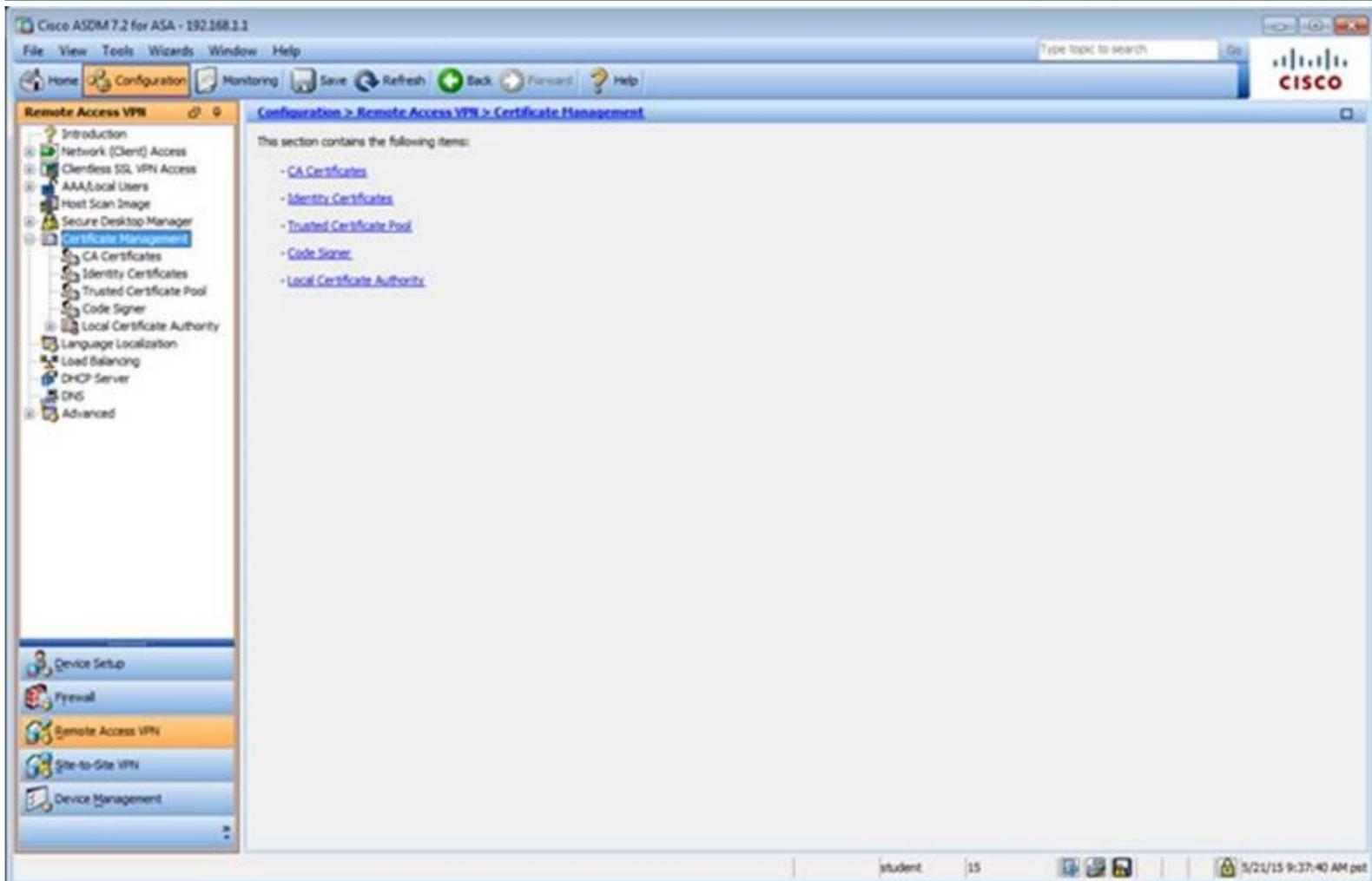
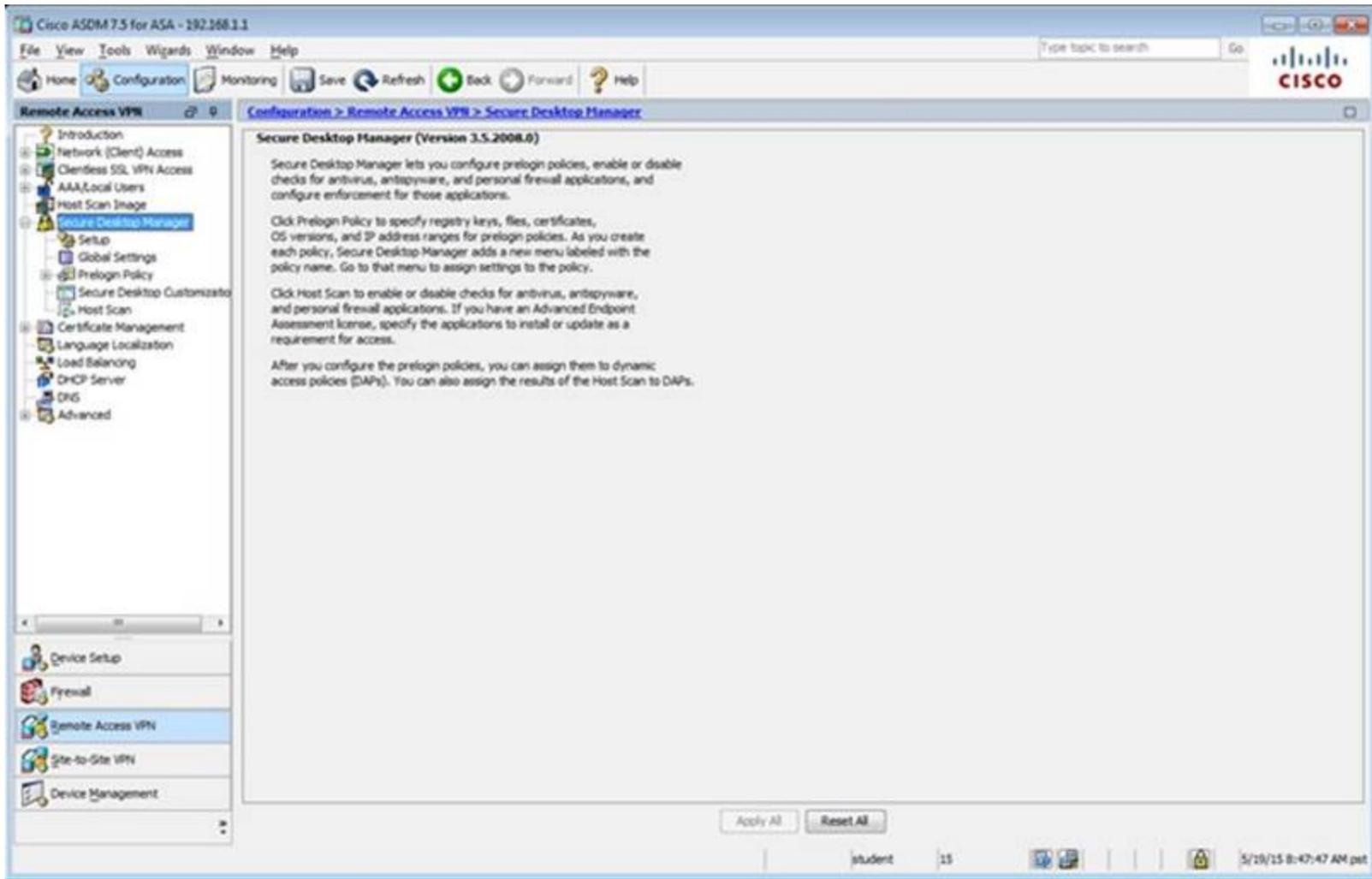
Name	Type	Tunneling Protocol	Connection Profiles/Users Assigned To
calm	Internal	ssl-clientless	Clientless
DefaultPolicy (System Default)	Internal	Rev 1:rev 2:ssl-clientless/2tp-espsec	DefaultRAGroup/Default 2,Group/DefaultRAGroup/Def...

Find:









The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The navigation pane on the left is expanded to 'Remote Access VPN > Certificate Management > Identity Certificates'. The main content area displays a table of issued certificates:

Issued To	Issued By	Expiry Date	Associated Trustpoints	Usage	Public Key Type
asdmname=IP17-ASA.sec	asdmname=IP17-ASA.sec	11: 10:33 pm Dec 20 2024	ASDM_TrustPoint1	General Purpose	RSA (2048 bits)

Below the table, there are sections for 'Certificate Expiration Alerts' (Send the first alert before: 60 days, Repeat Alert Interval: 7 days) and 'Public CA Enrollment' (Enroll ASA SSL certificate with Entrust, Launch ASDM Identity Certificate Wizard). Buttons for 'Apply' and 'Reset' are at the bottom.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The navigation pane on the left is expanded to 'Remote Access VPN > Advanced'. The main content area displays a list of items under the heading 'This section contains the following items:':

- [Advanced Enrollment](#)
- [SSL Settings](#)
- [Certificate to AnyConnect and Clientless SSL VPN Connection Profile Maps](#)
- [HTTP Redirect](#)
- [Maximum VPN Sessions](#)
- [Crypto Engine](#)
- [Email Proxy](#)

The bottom of the screen shows the user 'student' and the time '5/19/15 8:52:47 AM pt'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The navigation pane on the left is expanded to 'Remote Access VPN' > 'Advanced' > 'SSL Settings'. The main content area is titled 'Configure SSL parameters. These parameters affect both ASDM and SSL VPN access.' It contains several configuration options:

- The minimum SSL version for the security appliance to negotiate as a "server": TLS V1
- The minimum SSL version for the security appliance to negotiate as a "client": TLS V1
- Diffie-Hellman group to be used with SSL: Group2 - 1024-bit modAas
- ECDH group to be used with SSL: Group19 - 256-bit EC

Below these options is an 'Encryption' table:

Cipher Version	Cipher Security Level	Cipher Algorithms/ Custom String
Default	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...
TLSV1	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...
TLSV1.1	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...
TLSV1.2	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...
DTLSV1	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...

At the bottom of the main area is the 'Server Name Indication (SNI)' section, which includes a table for mapping domains to certificates:

Domain	Certificate
dmz	ASDM_TrustPoint1.h...

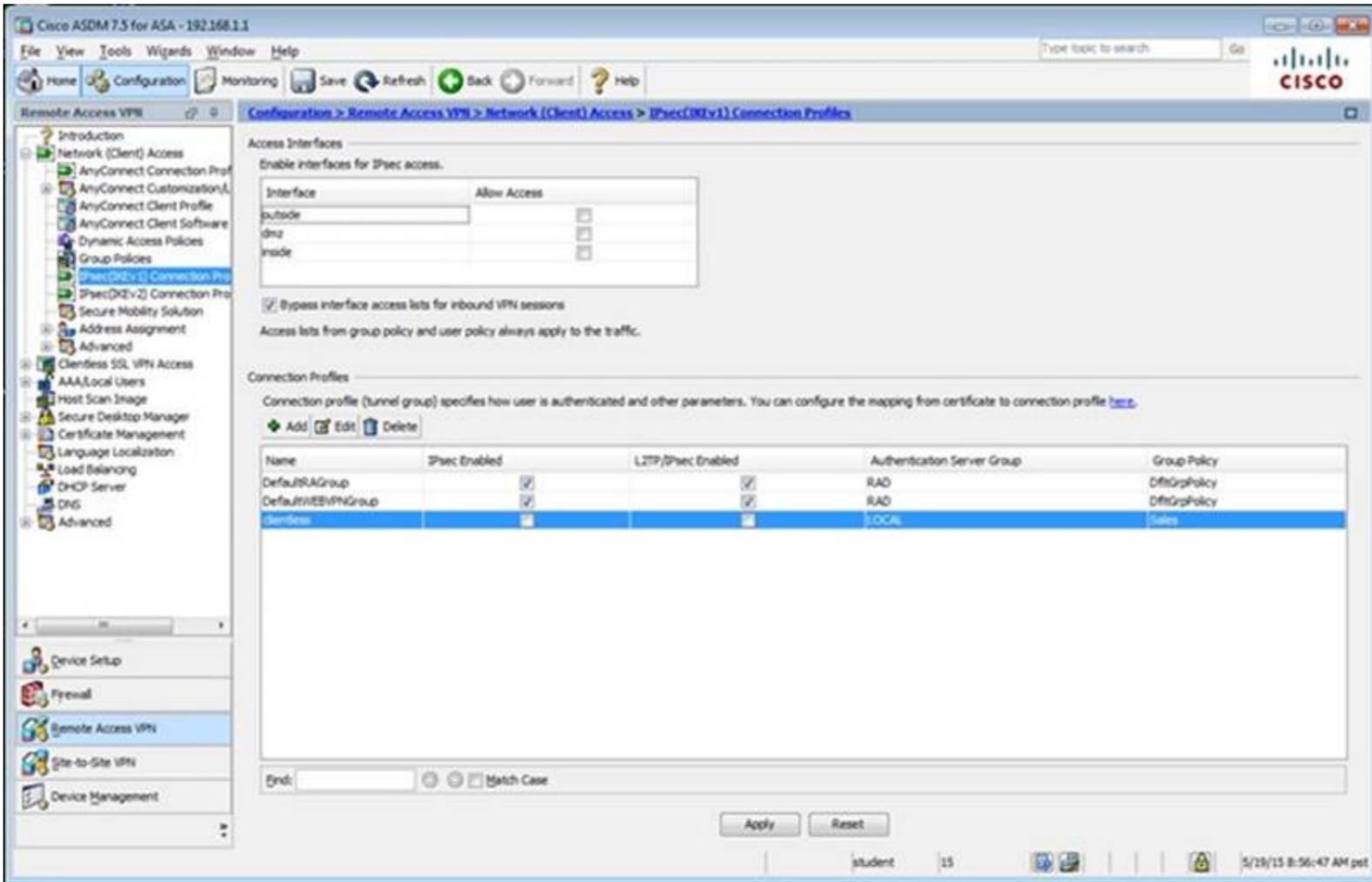
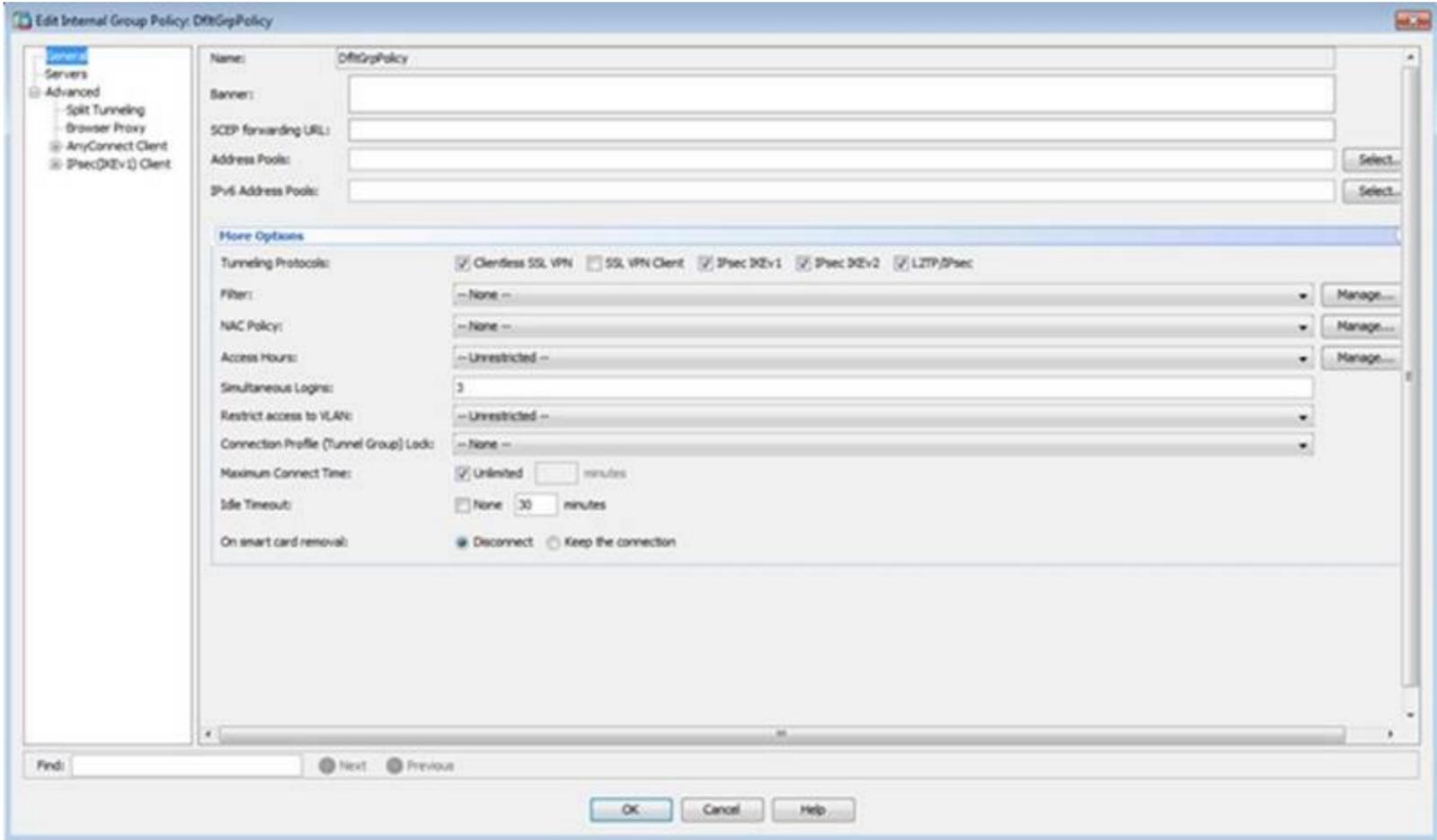
Buttons for 'Apply' and 'Reset' are visible at the bottom of the configuration area. The status bar at the bottom right shows the user 'student' and the time '5/19/15 8:54:07 AM pet'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The navigation pane on the left is expanded to 'Remote Access VPN' > 'Advanced' > 'Maximum VPN Sessions'. The main content area is titled 'Configure the maximum number of VPN sessions allowed at any given time.' It contains two configuration options:

- Maximum AnyConnect Sessions: 2
- Maximum Other VPN Sessions: 250

Buttons for 'Apply' and 'Reset' are visible at the bottom of the configuration area. The status bar at the bottom right shows the user 'student' and the time '5/19/15 8:54:47 AM pet'.





The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The main window displays the configuration for 'AnyConnect Connection Profiles'. The left sidebar shows the navigation tree with 'AnyConnect Connection Profiles' selected. The main content area includes the following sections:

- Access Interfaces:** A table for configuring access on interfaces.
 

Interface	SSL Access		IPsec (IKEv2) Access	
	Allow Access	Enable DTLS	Allow Access	Enable Client Services
outside	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dmz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
inside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Login Page Setting:**
  - Allow user to select connection profile on the login page.
  - Shutdown portal login page.
- Connection Profiles:** A table listing configured profiles.
 

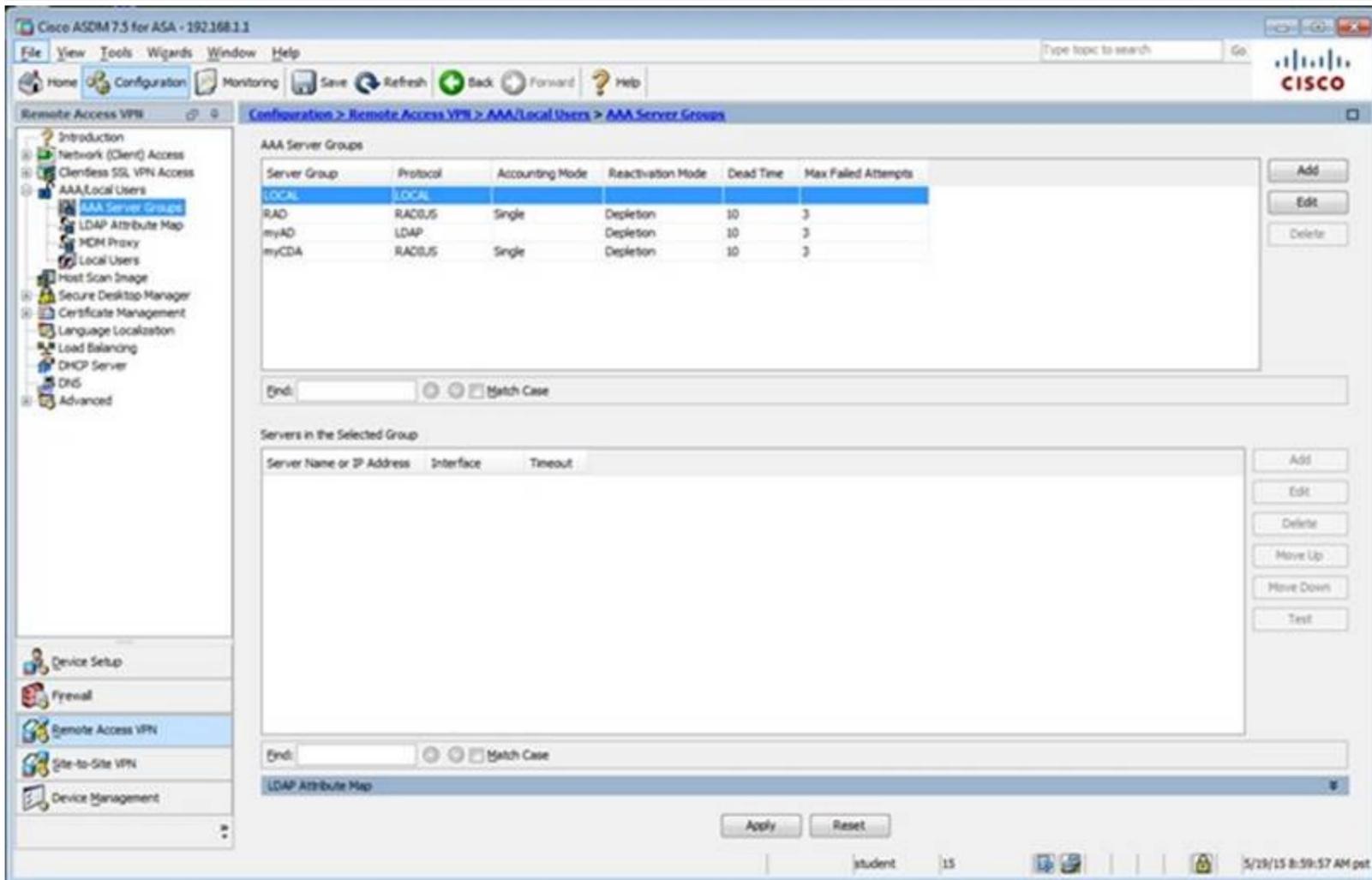
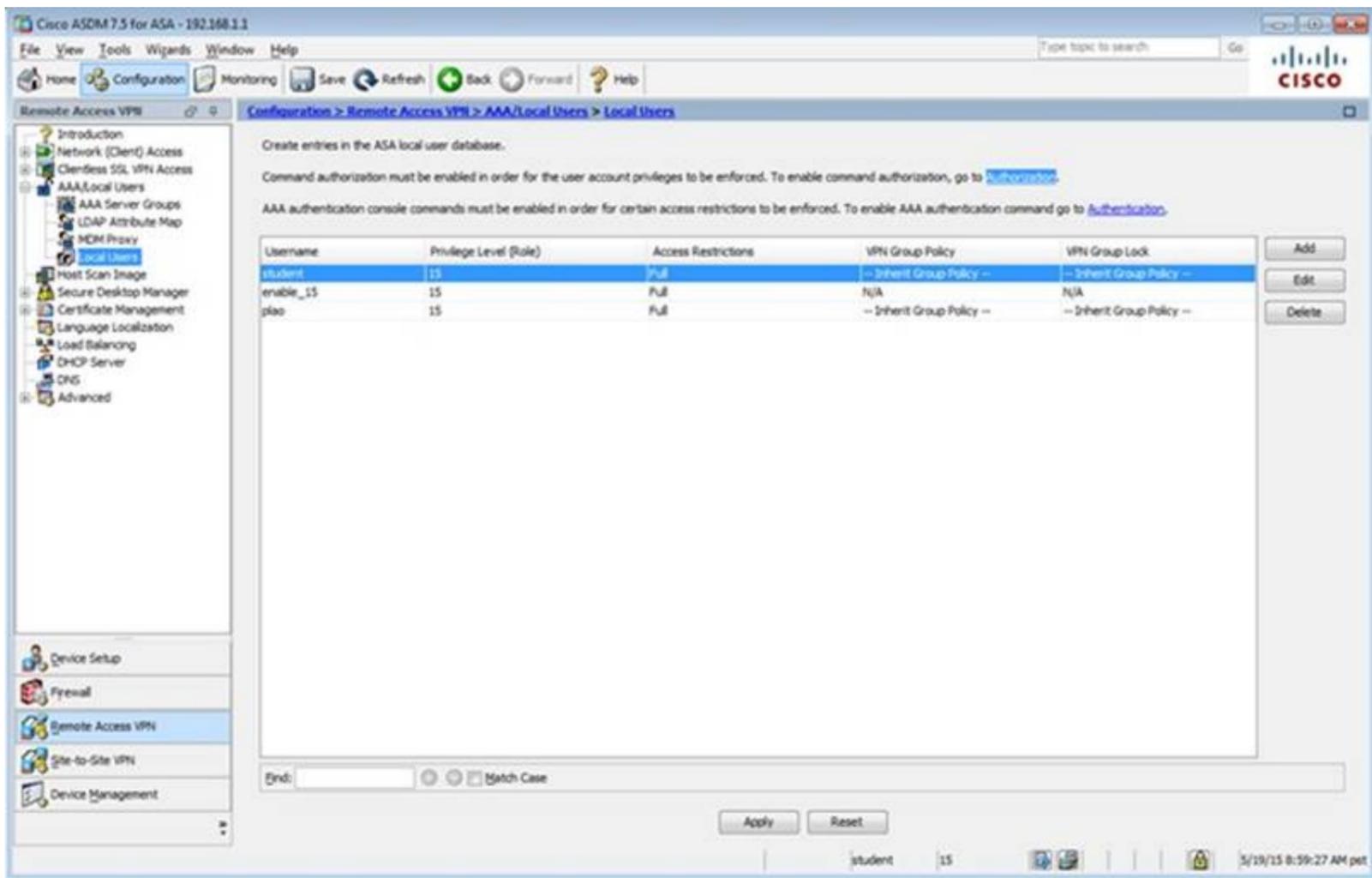
Name	SSL Enabled	IPsec Enabled	Aliases	Authentication Method	Group Policy
DefaultRAGroup	<input type="checkbox"/>	<input checked="" type="checkbox"/>		AAA(RAC)	DfltGrpPolicy
DefaultISEVPNGroup	<input type="checkbox"/>	<input checked="" type="checkbox"/>		AAA(RAC)	DfltGrpPolicy
anyconnect	<input type="checkbox"/>	<input type="checkbox"/>	test	AAA(OCA)	Sales

Buttons for 'Device Certificate...', 'Port Settings...', 'Apply', and 'Reset' are visible. The status bar at the bottom shows 'student', '15', and the date '5/19/15 8:58:17 AM pet'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The main window displays the configuration for 'AAA/Local Users'. The left sidebar shows the navigation tree with 'AAA/Local Users' selected. The main content area includes the following sections:

- Introduction:** This section contains the following items:
  - AAA Server Groups
  - LDAP Attribute Map
  - MDM Proxy
  - Local Users

The status bar at the bottom shows 'student', '15', and the date '5/19/15 8:58:57 AM pet'.

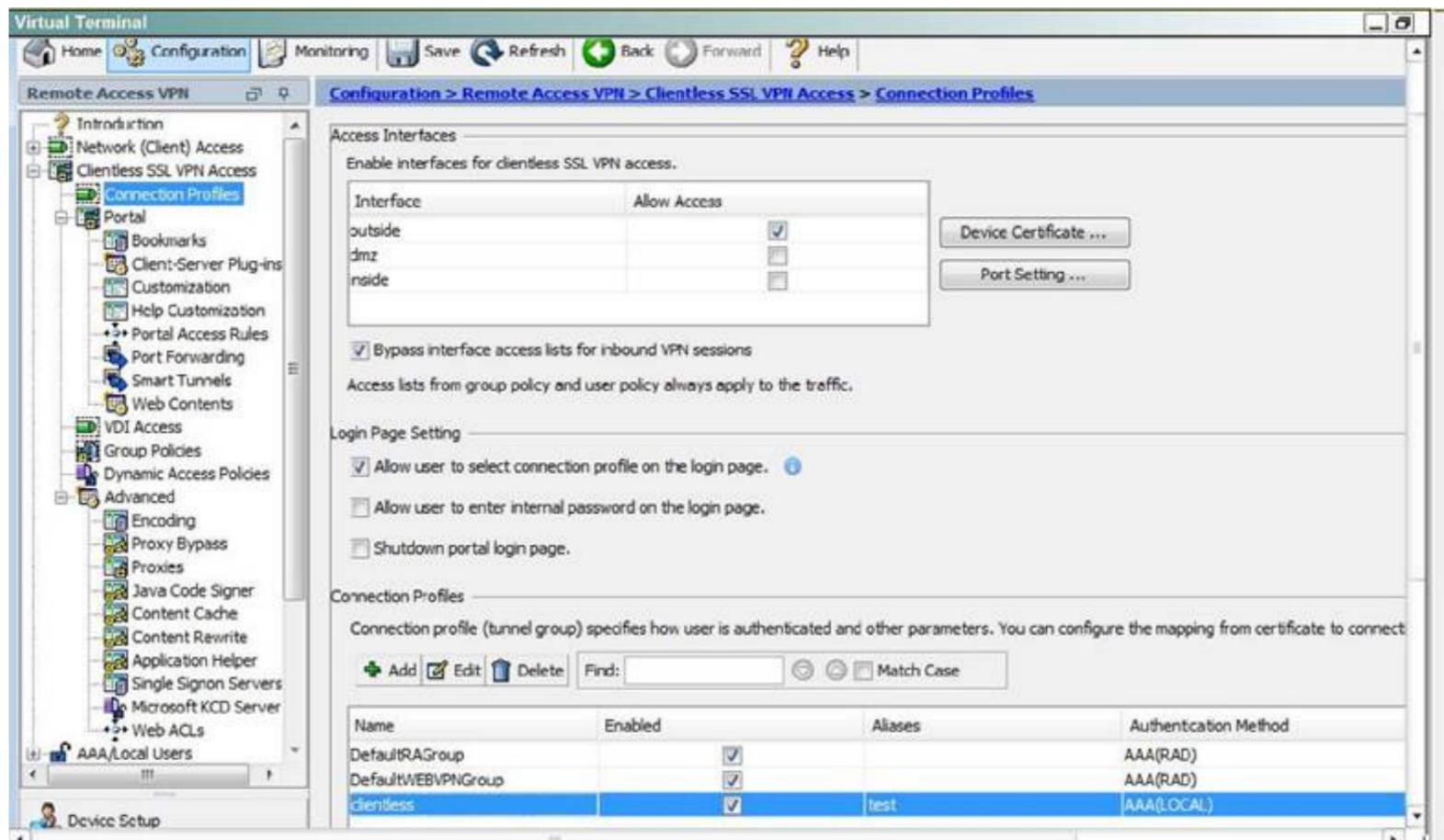


Which user authentication method is used when users login to the Clientless SSLVPN portal using <https://209.165.201.2/test?>

- A. AAA with LOCAL database
- B. AAA with RADIUS server
- C. Certificate
- D. Both Certificate and AAA with LOCAL database
- E. Both Certificate and AAA with RADIUS server

**Answer:** A

**Explanation:** This can be seen from the Connection Profiles Tab of the Remote Access VPN configuration, where the alias of test is being used,



**NEW QUESTION 11**

Which EAP method uses Protected Access Credentials?

- A. EAP-FAST
- B. EAP-TLS
- C. EAP-PEAP
- D. EAP-GTC

**Answer:** A

**Explanation:** Flexible Authentication via Secure Tunneling (EAP-FAST) is a protocol proposal by Cisco Systems as a replacement for LEAP. The protocol was designed to address the weaknesses of LEAP while preserving the "lightweight" implementation. Use of server certificates is optional in EAP-FAST. EAP-FAST uses a Protected Access Credential (PAC) to establish a TLS tunnel in which client credentials are verified.

Source: [https://en.wikipedia.org/wiki/Extensible\\_Authentication\\_Protocol](https://en.wikipedia.org/wiki/Extensible_Authentication_Protocol)

**NEW QUESTION 14**

Which two statements about stateless firewalls are true? (Choose two.)

- A. They compare the 5-tuple of each incoming packet against configurable rules.
- B. They cannot track connections.
- C. They are designed to work most efficiently with stateless protocols such as HTTP or HTTPS.
- D. Cisco IOS cannot implement them because the platform is stateful by nature.
- E. The Cisco ASA is implicitly stateless because it blocks all traffic by default.

**Answer:** AB

**Explanation:** In stateless inspection, the firewall inspects a packet to determine the 5-tuple--source and destination IP addresses and ports, and protocol--information contained in the packet. This static information is then compared against configurable rules to determine whether to allow or drop the packet. In stateless inspection the firewall examines each packet individually, it is unaware of the packets that have passed through before it, and has no way of knowing if any given packet is part of an existing connection, is trying to establish a new connection, or is a rogue packet.

Source:

[http://www.cisco.com/c/en/us/td/docs/wireless/asr\\_5000/19-0/XMART/PSF/19-PSF-Admin/19-PSF-Admin\\_chapter\\_01.html](http://www.cisco.com/c/en/us/td/docs/wireless/asr_5000/19-0/XMART/PSF/19-PSF-Admin/19-PSF-Admin_chapter_01.html)

**NEW QUESTION 18**

What is the purpose of a honeypot IPS?

- A. To create customized policies
- B. To detect unknown attacks
- C. To normalize streams
- D. To collect information about attacks

**Answer:** D

**Explanation:** Honeypot systems use a dummy server to attract attacks. The purpose of the honeypot approach is to distract attacks away from real network devices. By staging different types of vulnerabilities in the honeypot server, you can analyze incoming types of attacks and malicious traffic patterns.

Source:

<http://www.ciscopress.com/articles/article.asp?p=1336425>

#### NEW QUESTION 21

You have implemented a Sourcefire IPS and configured it to block certain addresses utilizing Security Intelligence IP Address Reputation. A user calls and is not able to access a certain IP address. What action can you take to allow the user access to the IP address?

- A. Create a whitelist and add the appropriate IP address to allow the traffic.
- B. Create a custom blacklist to allow the traffic.
- C. Create a user based access control rule to allow the traffic.
- D. Create a network based access control rule to allow the traffic.
- E. Create a rule to bypass inspection to allow the traffic.

**Answer:** A

**Explanation:** Using Security Intelligence Whitelists

In addition to a blacklist, each access control policy has an associated whitelist, which you can also populate with Security Intelligence objects. A policy's whitelist overrides its blacklist. That is, the system evaluates traffic with a whitelisted source or destination IP address using access control rules, even if the IP address is also blacklisted. In general, use the whitelist if a blacklist is still useful, but is too broad in scope and incorrectly blocks traffic that you want to inspect.

Source:

<http://www.cisco.com/c/en/us/td/docs/security/firesight/541/user-guide/FireSIGHT-System-UserGuide-v5401/AC-Secint-Blacklisting.pdf>

#### NEW QUESTION 25

Which type of secure connectivity does an extranet provide?

- A. other company networks to your company network
- B. remote branch offices to your company network
- C. your company network to the Internet
- D. new networks to your company network

**Answer:** A

**Explanation:** What is an Extranet? In the simplest terms possible, an extranet is a type of network that crosses organizational boundaries, giving outsiders access to information and resources stored inside the organization's internal network (Loshin, p. 14).

Source: <https://www.sans.org/reading-room/whitepapers/firewalls/securing-extranet-connections-816>

#### NEW QUESTION 29

Refer to the exhibit.

```
crypto ikev1 policy 1
encryption aes
hash md5
authentication pre-share
group 2
lifetime 14400
```

What is the effect of the given command sequence?

- A. It configures IKE Phase 1.
- B. It configures a site-to-site VPN tunnel.
- C. It configures a crypto policy with a key size of 14400.
- D. It configures IPsec Phase 2.

**Answer:** A

**Explanation:** Configure the IPsec phase1 with the 5 parameters HAGLE (Hashing-Authentication-Group-Lifetime-Encryption)

#### NEW QUESTION 34

What can the SMTP preprocessor in FirePOWER normalize?

- A. It can extract and decode email attachments in client to server traffic.
- B. It can look up the email sender.
- C. It compares known threats to the email sender.
- D. It can forward the SMTP traffic to an email filter server.
- E. It uses the Traffic Anomaly Detector.

**Answer:** A

**Explanation:** Decoding SMTP Traffic

The SMTP preprocessor instructs the rules engine to normalize SMTP commands. The preprocessor can also extract and decode email attachments in client-to-server traffic and, depending on the software version, extract email file names, addresses, and header data to provide context when displaying intrusion events triggered by SMTP traffic.

Source:

<http://www.cisco.com/c/en/us/td/docs/security/firesight/541/firepower-module-user-guide/asa-firepower-module-user-guide-v541/NAP-App-Layer.html#85623>

**NEW QUESTION 37**

Refer to the exhibit.

```
UDP outside 209.165.201.225:53 inside 10.0.0.10:52464, idle 0:00:01, bytes 266, flags -
```

What type of firewall would use the given configuration line?

- A. a stateful firewall
- B. a personal firewall
- C. a proxy firewall
- D. an application firewall
- E. a stateless firewall

**Answer:** A

**Explanation:** The output is from "show conn" command on an ASA. This is another example output I've simulated `ciscoasa# show conn 20 in use, 21 most used`  
UDP OUTSIDE 172.16.0.100:53 INSIDE 10.10.10.2:59655, idle 0:00:06, bytes 39, flags -

**NEW QUESTION 38**

What is the transition order of STP states on a Layer 2 switch interface?

- A. listening, learning, blocking, forwarding, disabled
- B. listening, blocking, learning, forwarding, disabled
- C. blocking, listening, learning, forwarding, disabled
- D. forwarding, listening, learning, blocking, disabled

**Answer:** C

**Explanation:** STP switch port states:

- + Blocking - A port that would cause a switching loop if it were active. No user data is sent or received over a blocking port, but it may go into forwarding mode if the other links in use fail and the spanning tree algorithm determines the port may transition to the forwarding state. BPDU data is still received in blocking state. Prevents the use of looped paths.
- + Listening - The switch processes BPDUs and awaits possible new information that would cause it to return to the blocking state. It does not populate the MAC address table and it does not forward frames.
- + Learning - While the port does not yet forward frames it does learn source addresses from frames received and adds them to the filtering database (switching database). It populates the MAC address table, but does not forward frames.
- + Forwarding - A port receiving and sending data, normal operation. STP still monitors incoming BPDUs that would indicate it should return to the blocking state to prevent a loop.
- + Disabled - Not strictly part of STP, a network administrator can manually disable a port Source: [https://en.wikipedia.org/wiki/Spanning\\_Tree\\_Protocol](https://en.wikipedia.org/wiki/Spanning_Tree_Protocol)

**NEW QUESTION 39**

What VPN feature allows traffic to exit the security appliance through the same interface it entered?

- A. hairpinning
- B. NAT
- C. NAT traversal
- D. split tunneling

**Answer:** A

**Explanation:** In network computing, hairpinning (or NAT loopback) describes a communication between two hosts behind the same NAT device using their mapped endpoint. Because not all NAT devices support this communication configuration, applications must be aware of it. Hairpinning is where a machine on the LAN is able to access another machine on the LAN via the external IP address of the LAN/router (with port forwarding set up on the router to direct requests to the appropriate machine on the LAN).  
Source: <https://en.wikipedia.org/wiki/Hairpinning>

**NEW QUESTION 42**

When a switch has multiple links connected to a downstream switch, what is the first step that STP takes to prevent loops?

- A. STP elects the root bridge
- B. STP selects the root port
- C. STP selects the designated port
- D. STP blocks one of the ports

**Answer:** A

**Explanation:** First when the switches are powered on all the ports are in Blocking state (20 sec), during this time the + Root Bridge is elected by exchanging BPDUs  
+ The other switches will elect their Root ports  
+ Every network segment will choose their Designated port Source: <https://learningnetwork.cisco.com/thread/7677>

**NEW QUESTION 47**

Refer to the exhibit.

```
crypto map mymap 20 match address 201
access-list 201 permit ip 10.10.10.0 255.255.255.0 10.100.100.0 255.255.255.0
```

What is the effect of the given command sequence?

- A. It defines IPSec policy for traffic sourced from 10.10.10.0/24 with a destination of 10.100.100.0/24.
- B. It defines IPSec policy for traffic sourced from 10.100.100.0/24 with a destination of 10.10.10.0/24.
- C. It defines IKE policy for traffic sourced from 10.10.10.0/24 with a destination of 10.100.100.0/24.
- D. It defines IKE policy for traffic sourced from 10.100.100.0/24 with a destination of 10.10.10.0/24.

**Answer:** A

**Explanation:** A crypto ACL is a case for an extended ACL where we specify the source and destination address of the networks to be encrypted.

**NEW QUESTION 49**

In a security context, which action can you take to address compliance?

- A. Implement rules to prevent a vulnerability.
- B. Correct or counteract a vulnerability.
- C. Reduce the severity of a vulnerability.
- D. Follow directions from the security appliance manufacturer to remediate a vulnerability.

**Answer:** A

**Explanation:** In general, compliance means conforming to a rule, such as a specification, policy, standard or law. Source: [https://en.wikipedia.org/wiki/Regulatory\\_compliance](https://en.wikipedia.org/wiki/Regulatory_compliance)

**NEW QUESTION 52**

When a company puts a security policy in place, what is the effect on the company's business?

- A. Minimizing risk
- B. Minimizing total cost of ownership
- C. Minimizing liability
- D. Maximizing compliance

**Answer:** A

**Explanation:** The first step in protecting a business network is creating a security policy. A security policy is a formal, published document that defines roles, responsibilities, acceptable use, and key security practices for a company. It is a required component of a complete security framework, and it should be used to guide investment in security defenses.

Source:

[http://www.cisco.com/warp/public/cc/so/neso/sqso/secsol/setdm\\_wp.htm](http://www.cisco.com/warp/public/cc/so/neso/sqso/secsol/setdm_wp.htm)

**NEW QUESTION 55**

Which sensor mode can deny attackers inline?

- A. IPS
- B. fail-close
- C. IDS
- D. fail-open

**Answer:** A

**Explanation:** Deny attacker inline: This action denies packets from the source IP address of the attacker for a configurable duration of time, after which the deny action can be dynamically removed.

Available only if the sensor is configured as an IPS.

Source: Cisco Official Certification Guide, Table 17-4 Possible Sensor Responses to Detected Attacks , p.465

**NEW QUESTION 57**

Which command is needed to enable SSH support on a Cisco Router?

- A. crypto key lock rsa
- B. crypto key generate rsa
- C. crypto key zeroize rsa
- D. crypto key unlock rsa

**Answer:** B

**Explanation:** There are four steps required to enable SSH support on a Cisco IOS router:

+ Configure the hostname command.  
 + Configure the DNS domain.  
 + Generate the SSH key to be used.  
 + Enable SSH transport support for the virtual type terminal (vty).  
 !--- Step 1: Configure the hostname if you have not previously done so. hostname carter  
 !--- The aaa new-model command causes the local username and password on the router !--- to be used in the absence of other AAA statements.  
 aaa new-model  
 username cisco password 0 cisco  
 !--- Step 2: Configure the DNS domain of the router. ip domain-name rtp.cisco.com  
 !--- Step 3: Generate an SSH key to be used with SSH.  
 crypto key generate rsa ip ssh time-out 60  
 ip ssh authentication-retries 2  
 !--- Step 4: By default the vtys' transport is Telnet. In this case, !--- Telnet is disabled and only SSH is supported.  
 line vty 0 4 transport input SSH Source:  
<http://www.cisco.com/c/en/us/support/docs/security-vpn/secure-shell-ssh/4145-ssh.html#settingupanosrouterassh>

**NEW QUESTION 58**

What type of packet creates and performs network operations on a network device?

- A. control plane packets
- B. data plane packets
- C. management plane packets
- D. services plane packets

**Answer:** A

**Explanation:** /Reference/ b\_syssec\_cr42crs/b\_syssec\_cr41crs\_chapter\_0100.html#wp2198915138

**NEW QUESTION 63**

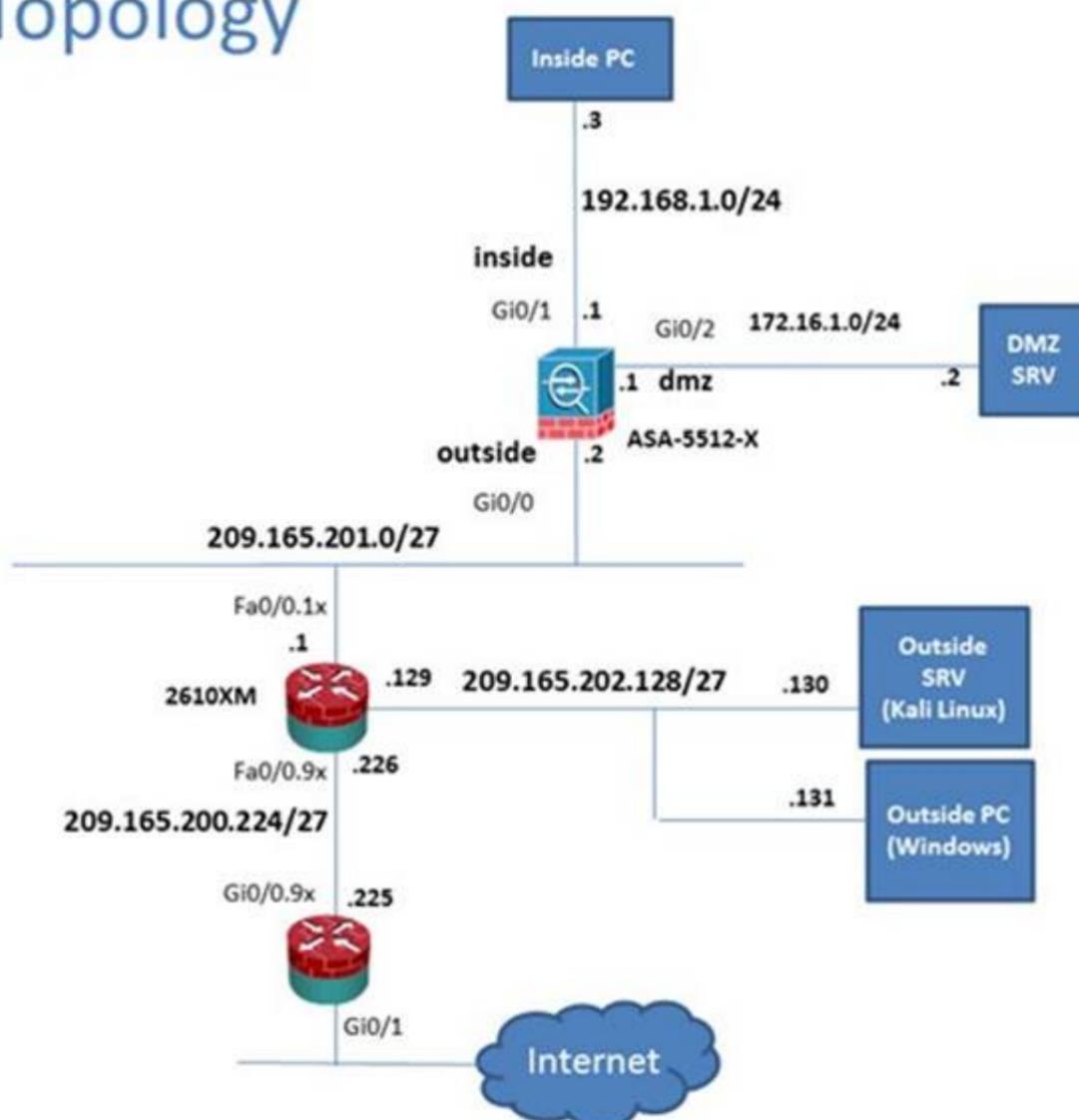
Scenario

In this simulation, you have access to ASDM only. Review the various ASA configurations using ASDM then answer the five multiple choice questions about the ASA SSLVPN configurations.

To access ASDM, click the ASA icon in the topology diagram. Note: Not all ASDM functionalities are enabled in this simulation.

To see all the menu options available on the left navigation pane, you may also need to un-expand the expanded menu first.

# Lab Topology



**Device Information**

General License

Host Name: **P17-ASA.secure-x.local**  
 ASA Version: **100.14(6)13**  
 ASDM Version: **7.5(1)1**  
 Firewall Mode: **Routed**  
 Environment Status: **OK**

Device Uptime: **11d 21h 42m 47s**  
 Device Type: **ASA 5512**  
 Context Mode: **Single**  
 Total Flash: **4096 MB**

**Interface Status**

Interface	IP Address/Mask	Line	Link	Kbps
dmz	172.16.1.1/24	up	up	0
inside	192.168.1.1/24	up	up	4
mgmt	10.10.10.2/24	up	up	0
outside	209.165.201.2/24	up	up	0

**System Resources Status**

Total Memory Usage | Total CPU Usage | Core Usage | Details

Memory Usage (MB)

Connections Per Second Usage

'outside' Interface Traffic Usage (Kbps)

**Latest ASDM Syslog Messages**

Severity	Date	Time	Syslog ID	Source IP	Source	Destination IP	Destina	Description
6	May 13 2015	12:35:09	302016	10.81.254.202	123	209.165.201.2	65535	Teardown UDP connection 15136525 for outside:10.81.254.202/123 to identity:209.165.201.2/65535(any) duration 0:02:01 bytes 96
6	May 13 2015	12:35:08	106015	192.168.1.3	14676	192.168.1.1	443	Deny TCP (no connector) from 192.168.1.3/14676 to 192.168.1.1/443 flags FIN ACK on interface inside
6	May 13 2015	12:35:08	302014	192.168.1.3	14676	192.168.1.1	443	Teardown TCP connection 15136528 for inside:192.168.1.3/14676 to identity:192.168.1.1/443 duration 0:00:00 bytes 299 TCP Reset-O

**Monitoring > Interfaces > ARP Table**

Each row represents one ARP table entry.

Interface	IP Address	MAC Address	Proxy Arp
outside	209.165.201.1	000c.3014.3820	No
inside	192.168.1.4	0050.5633.3333	No
inside	192.168.1.3	0050.5611.1111	No
inside	192.168.1.2	0050.5622.2222	No
inside	192.168.1.56	0050.5692.5c7b	No
inside	192.168.1.55	0006.f6e6.98f3	No
dmz	172.16.1.2	0050.5644.4444	No
mgmt	10.10.10.1	000c.3014.3820	No

Buttons: Refresh, Clear Dynamic ARP Entries

Last Updated: 5/19/15 9:32:02 AM

Data Refreshed Successfully.

**VPN Statistics > Sessions**

Type	Active	Cumulative	Peak Concurrent	Inactive
Clientless VPN		1	1	1
Browser		1	1	1

Filter By: Clientless SSL VPN -- All Sessions -- Filter

Username	SP Address	Group Policy	Connection Profile	Protocol	Encryption	Login Time	Duration	Bytes Tx	Bytes Rx
student	209.185.202.131	Sales	Clientless	Clientless	Clientless (IPsec)	06:05:46 pm Thu May 21 2015	2h:09m:19s	118774	41633

Refresh

Last Updated: 5/20/15 9:33:12 AM

Data Refreshed Successfully.

**Configuration > Device Setup > Startup Wizard**

Click the "Launch Startup Wizard" button to start the wizard.

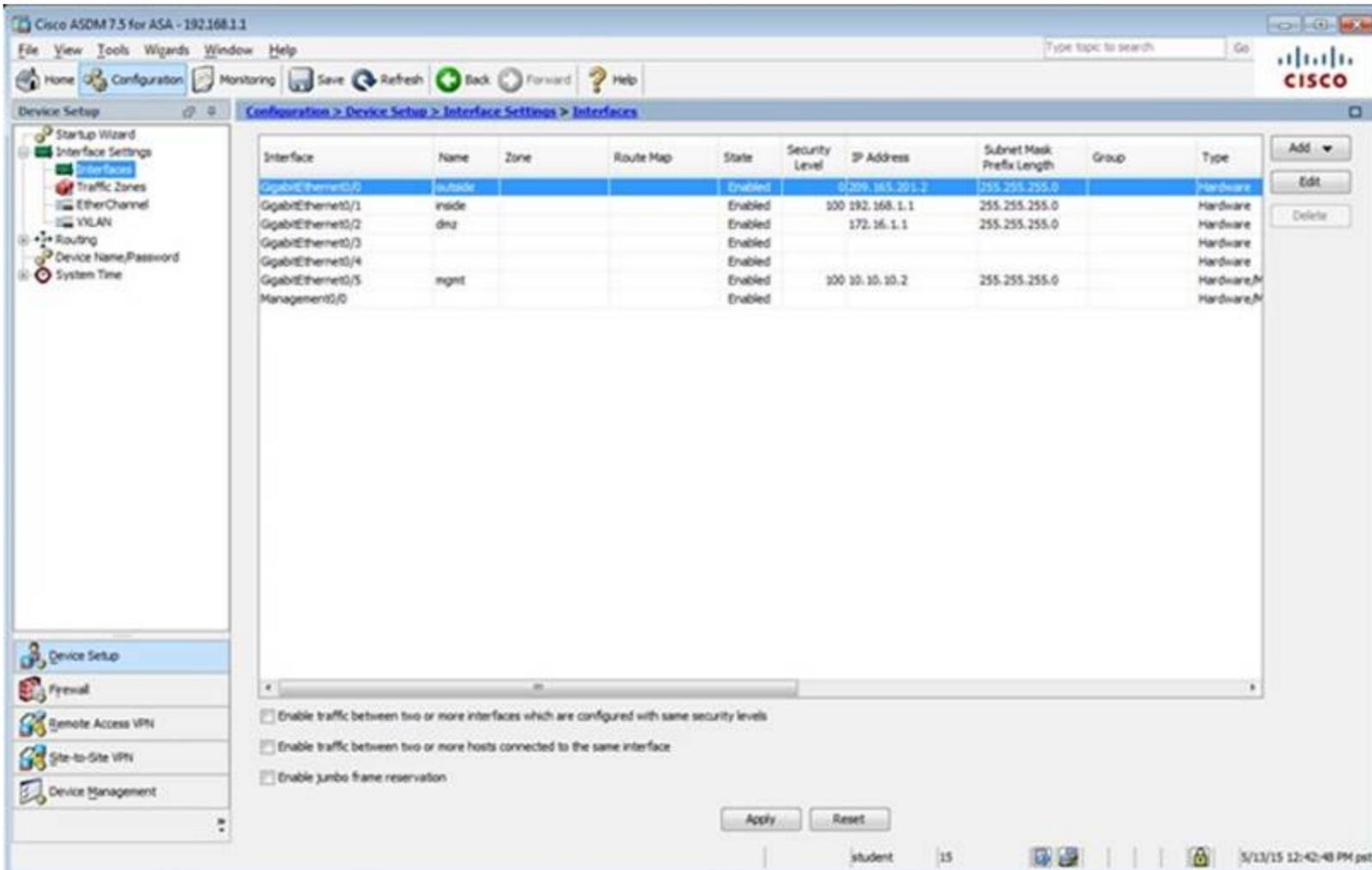
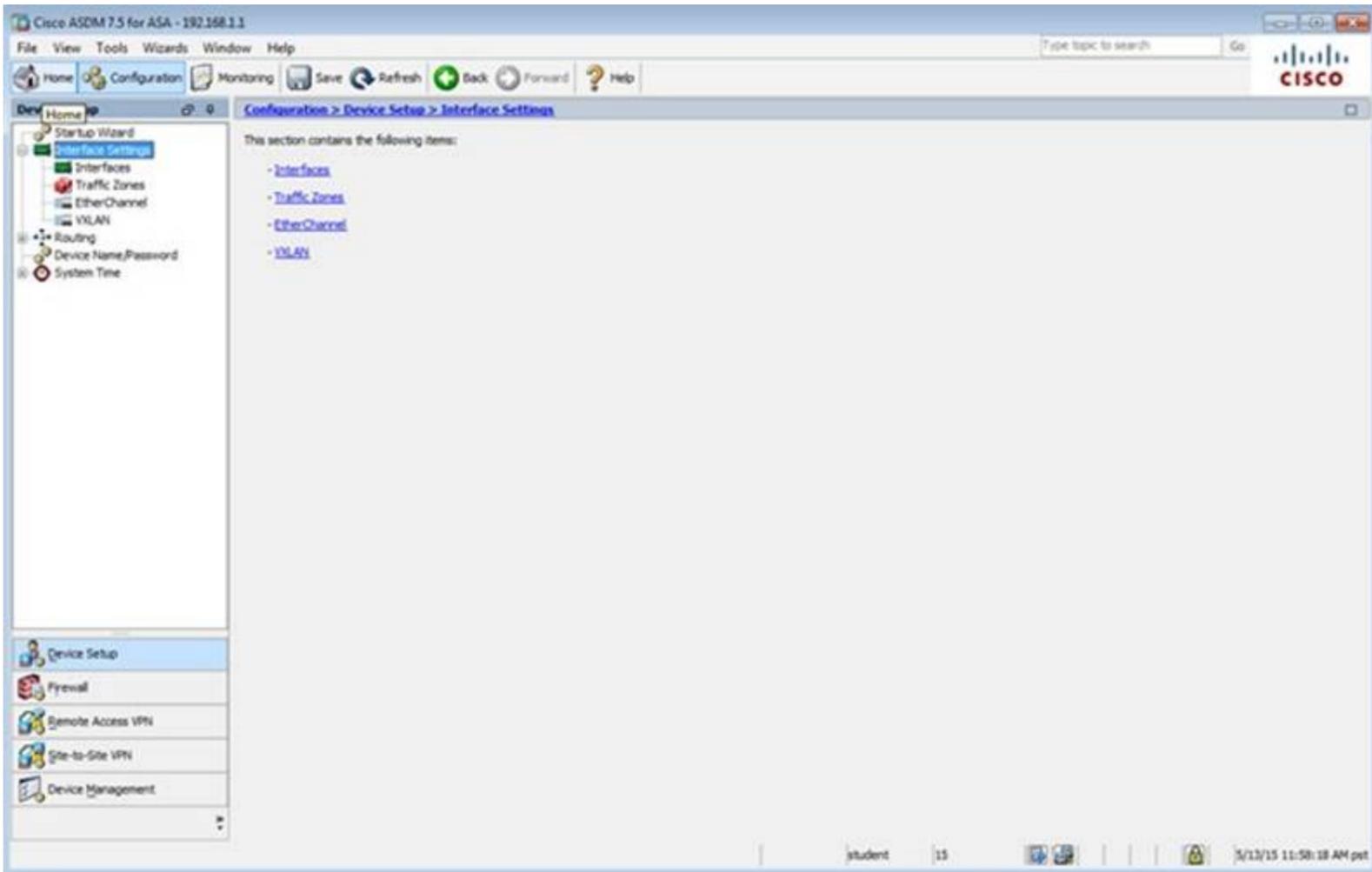
**Startup Wizard**

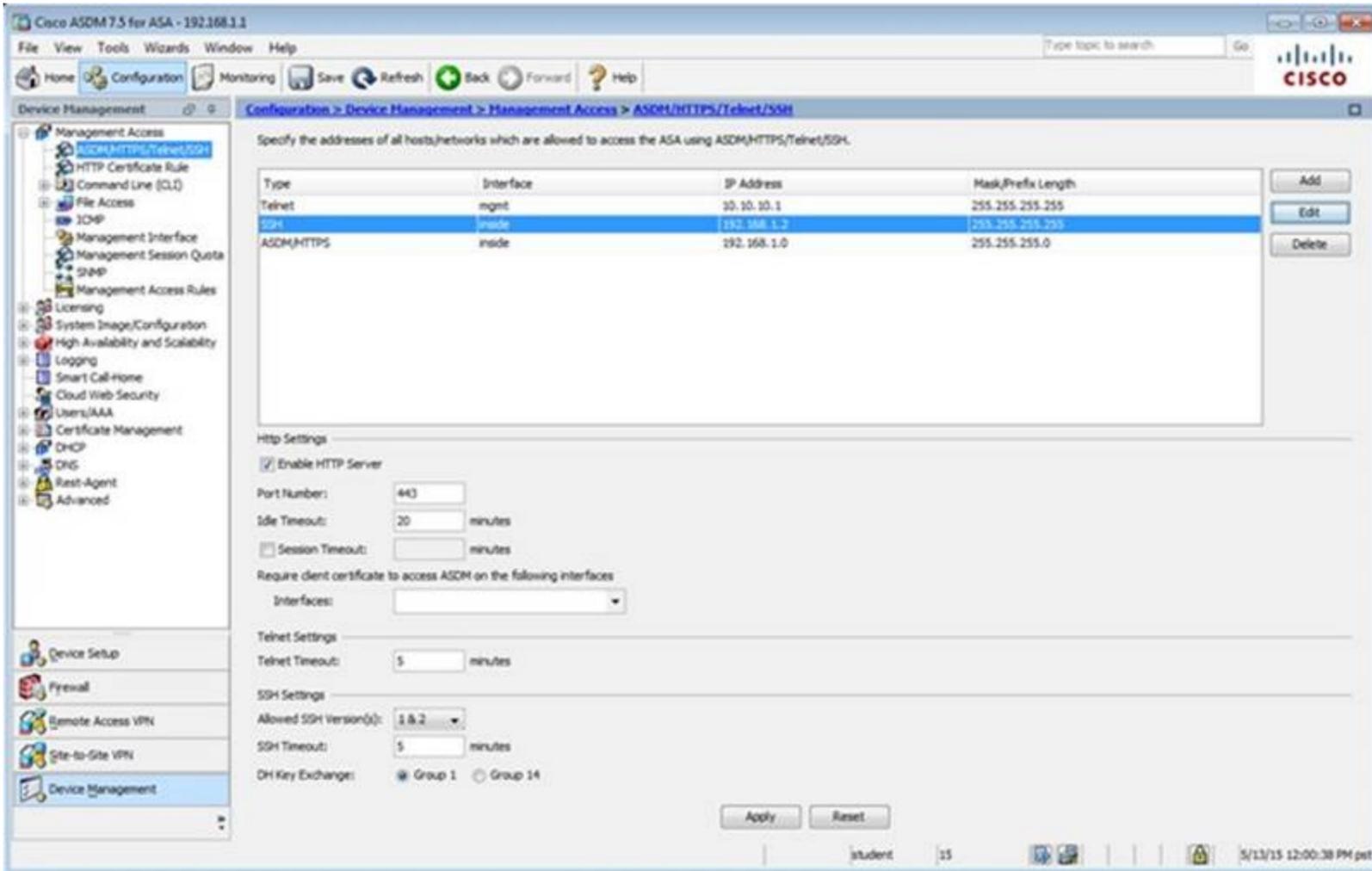
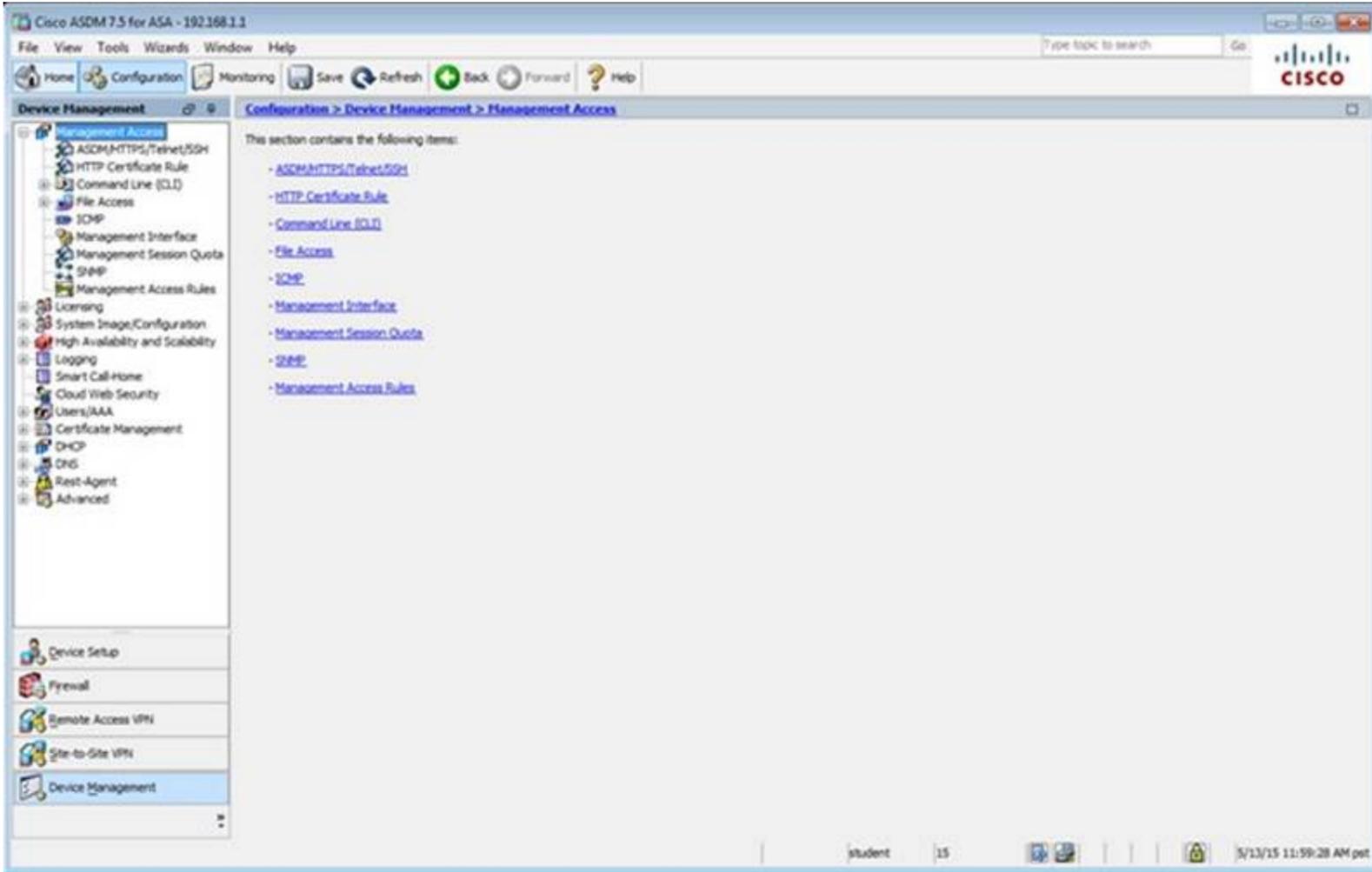
The Cisco ASDM Startup Wizard assists you in getting your Cisco Adaptive Security Appliance configured and running. Use this wizard to create a basic configuration that enforces security policies in your network.

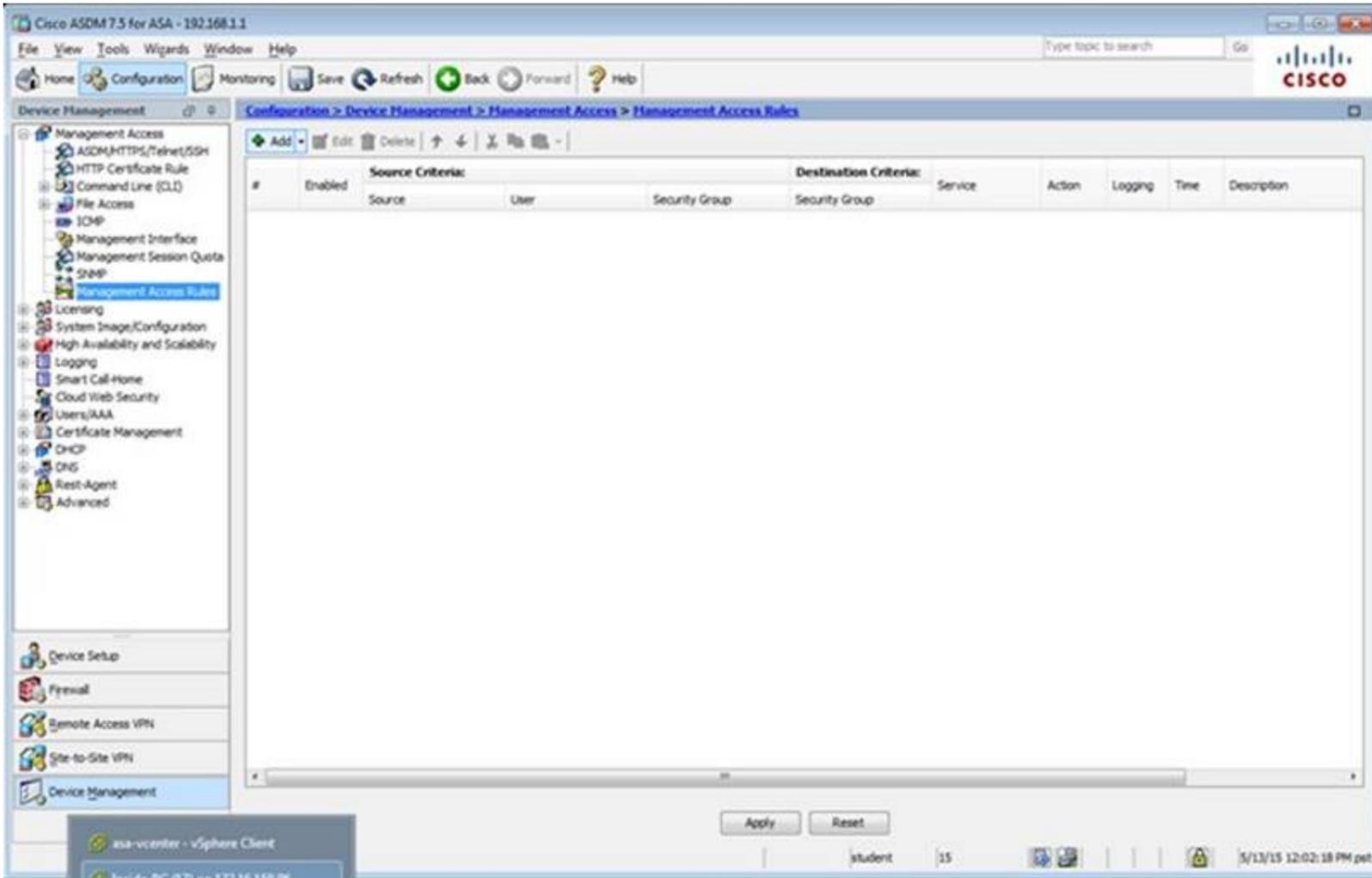
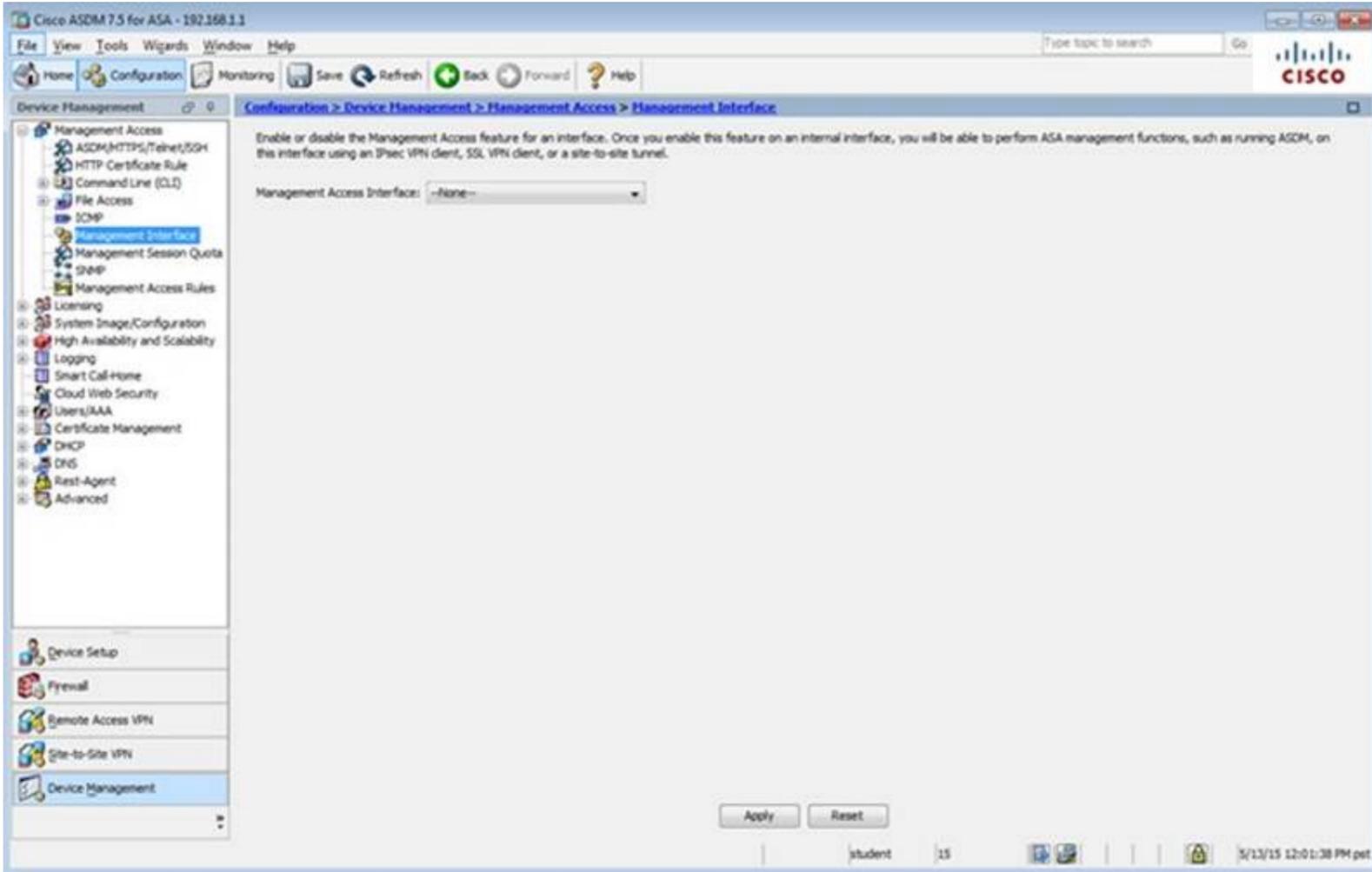
The Startup Wizard can be run at any time and will be initialized with values from the current running configuration.

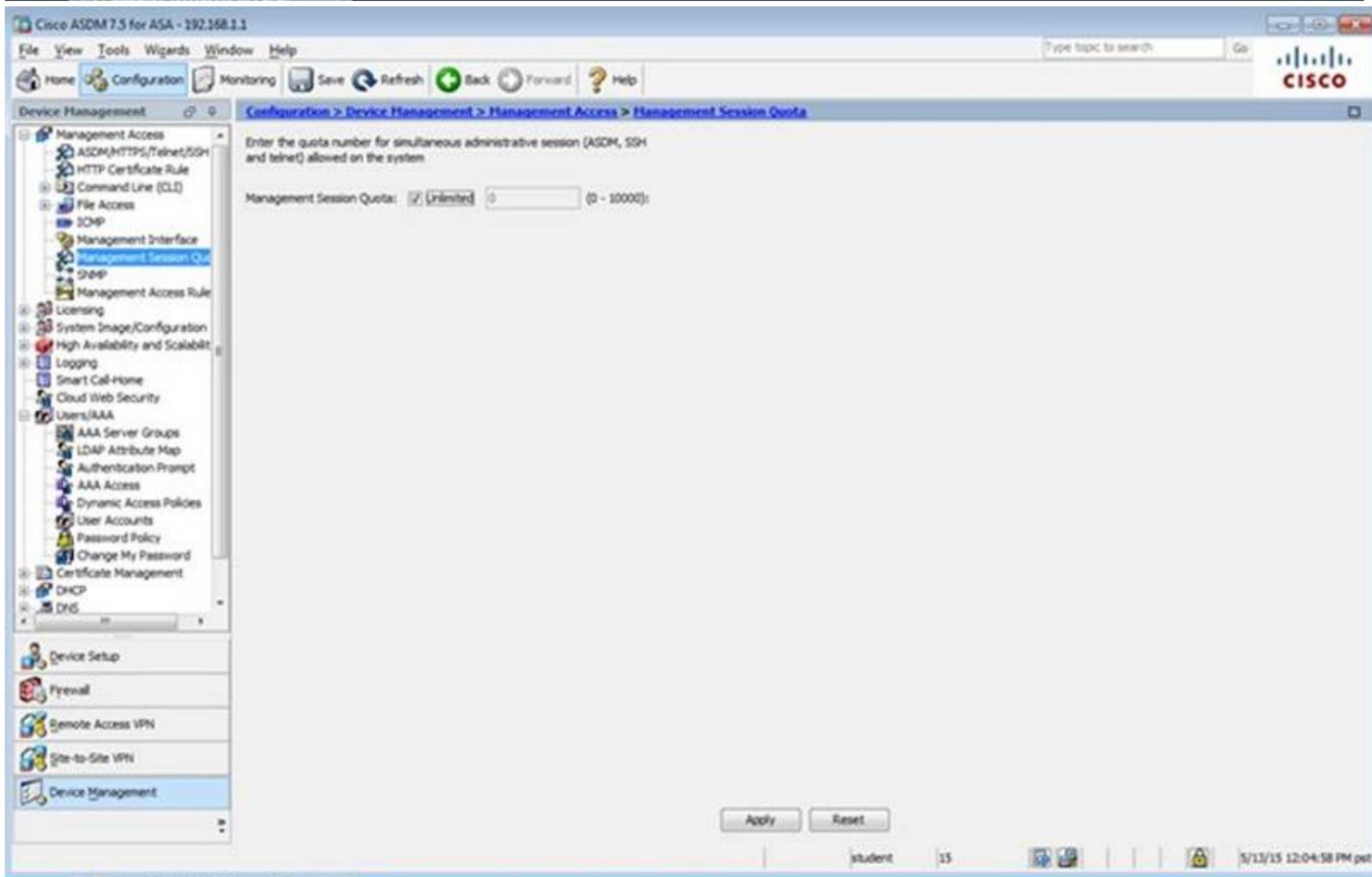
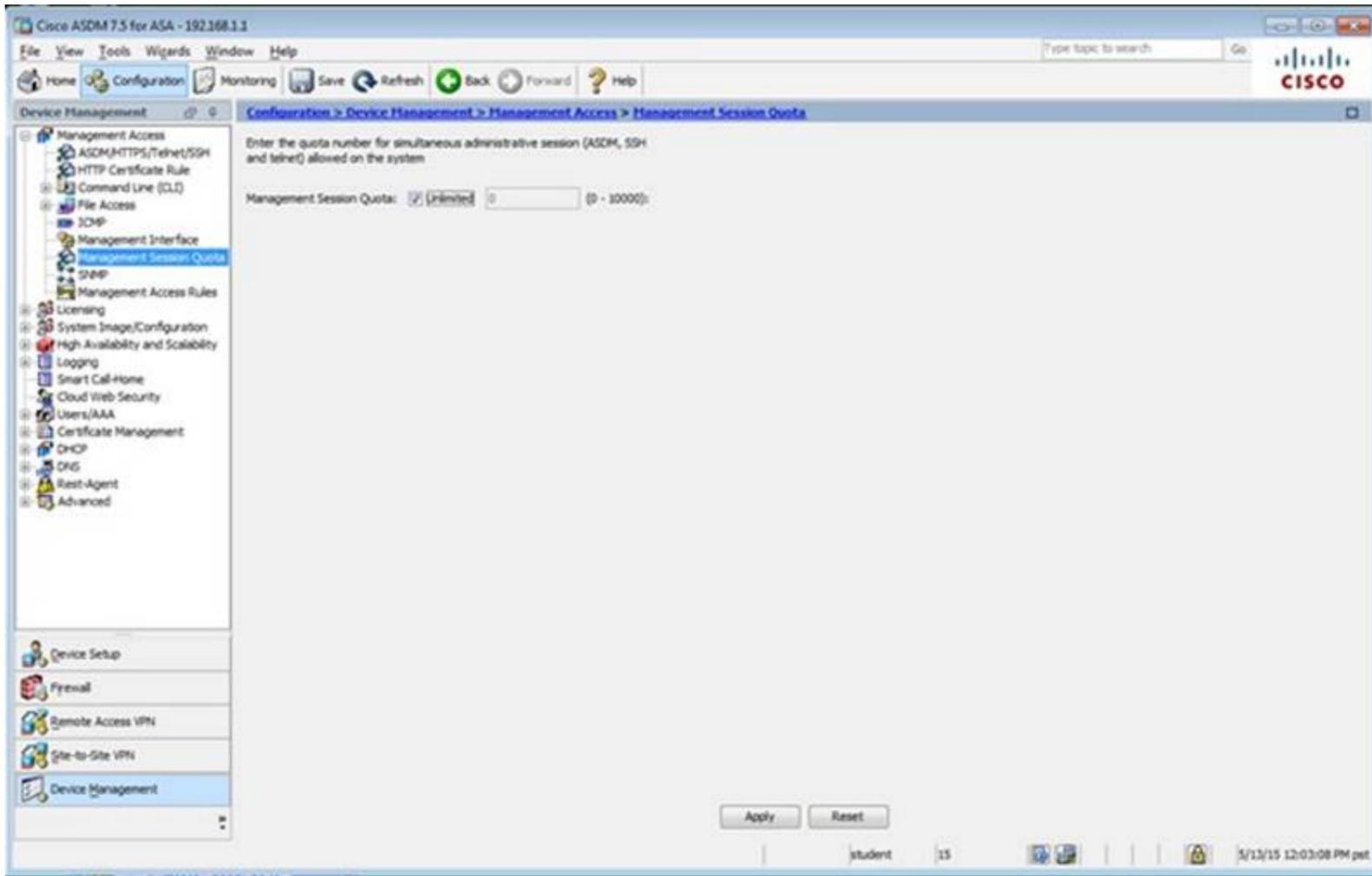
Launch Startup Wizard

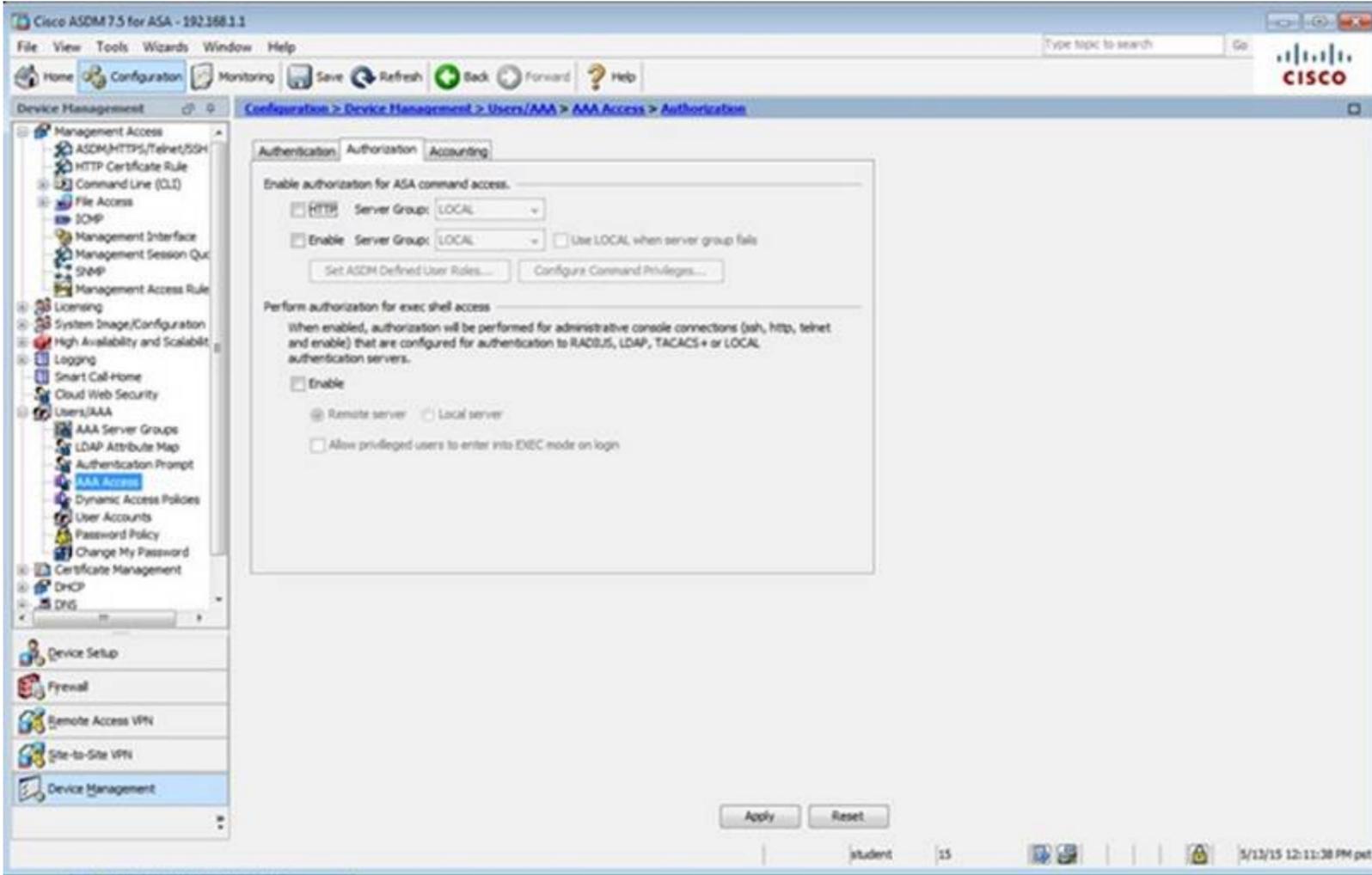
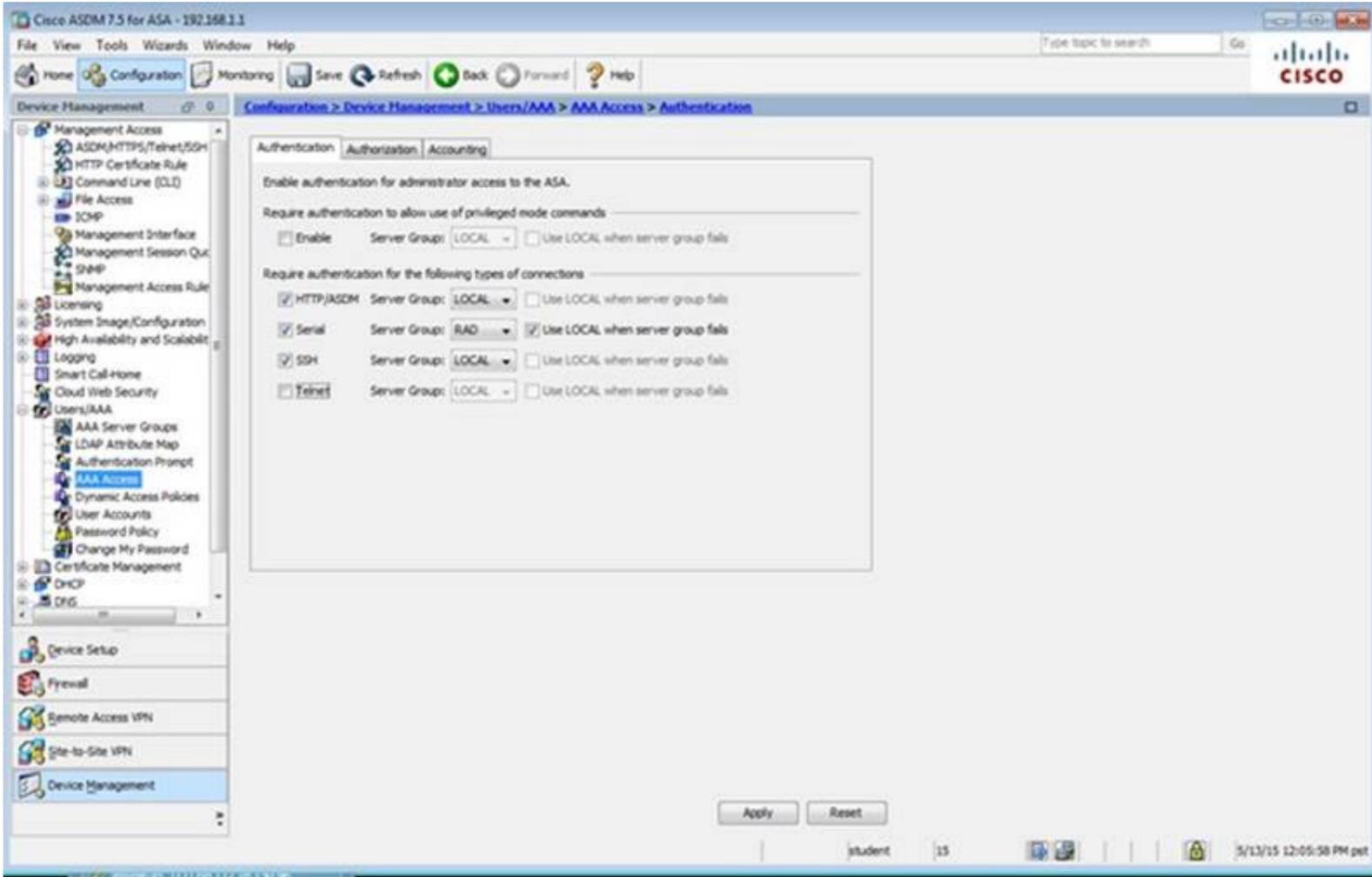
5/20/15 11:56:08 AM pt

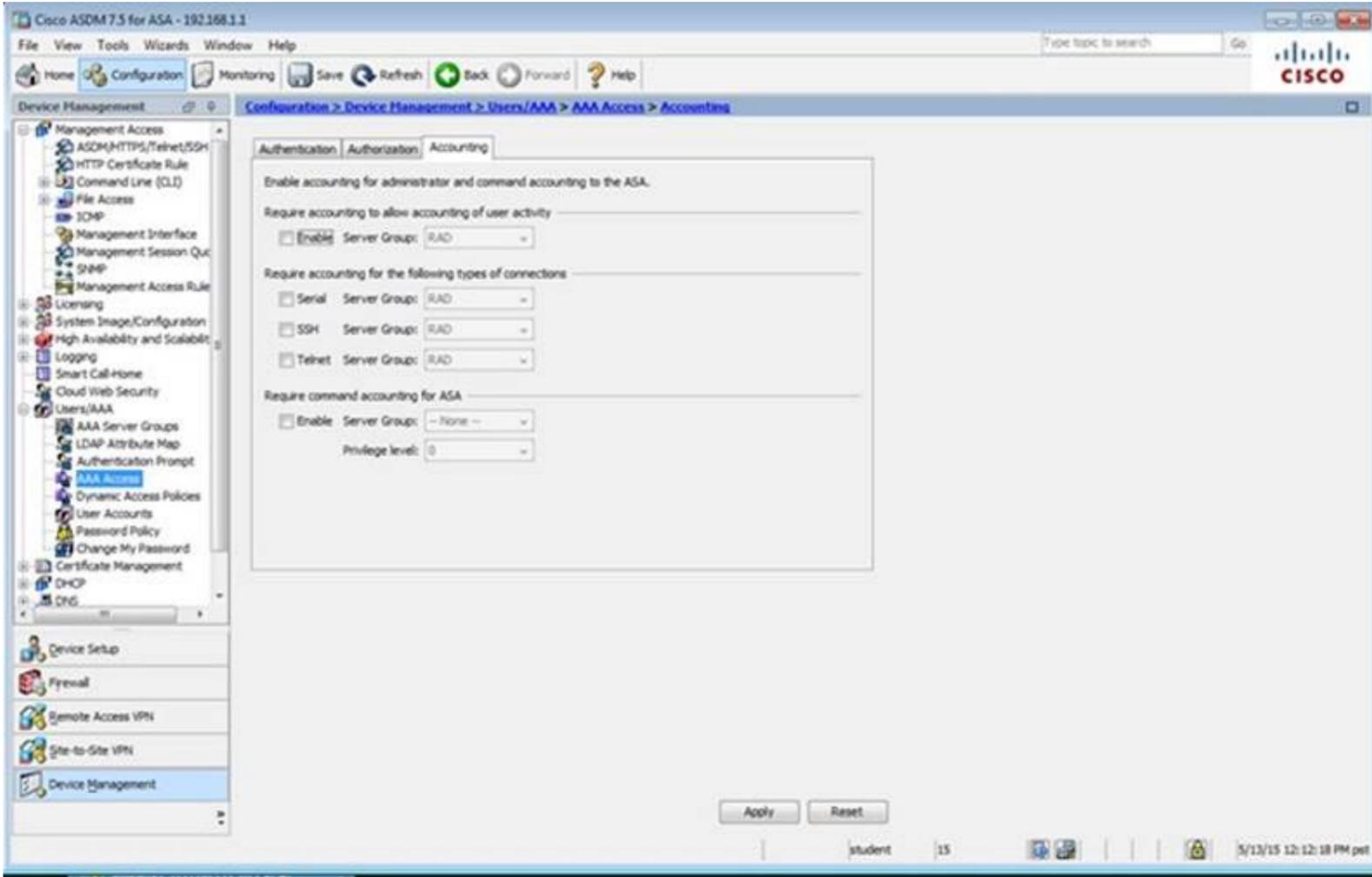


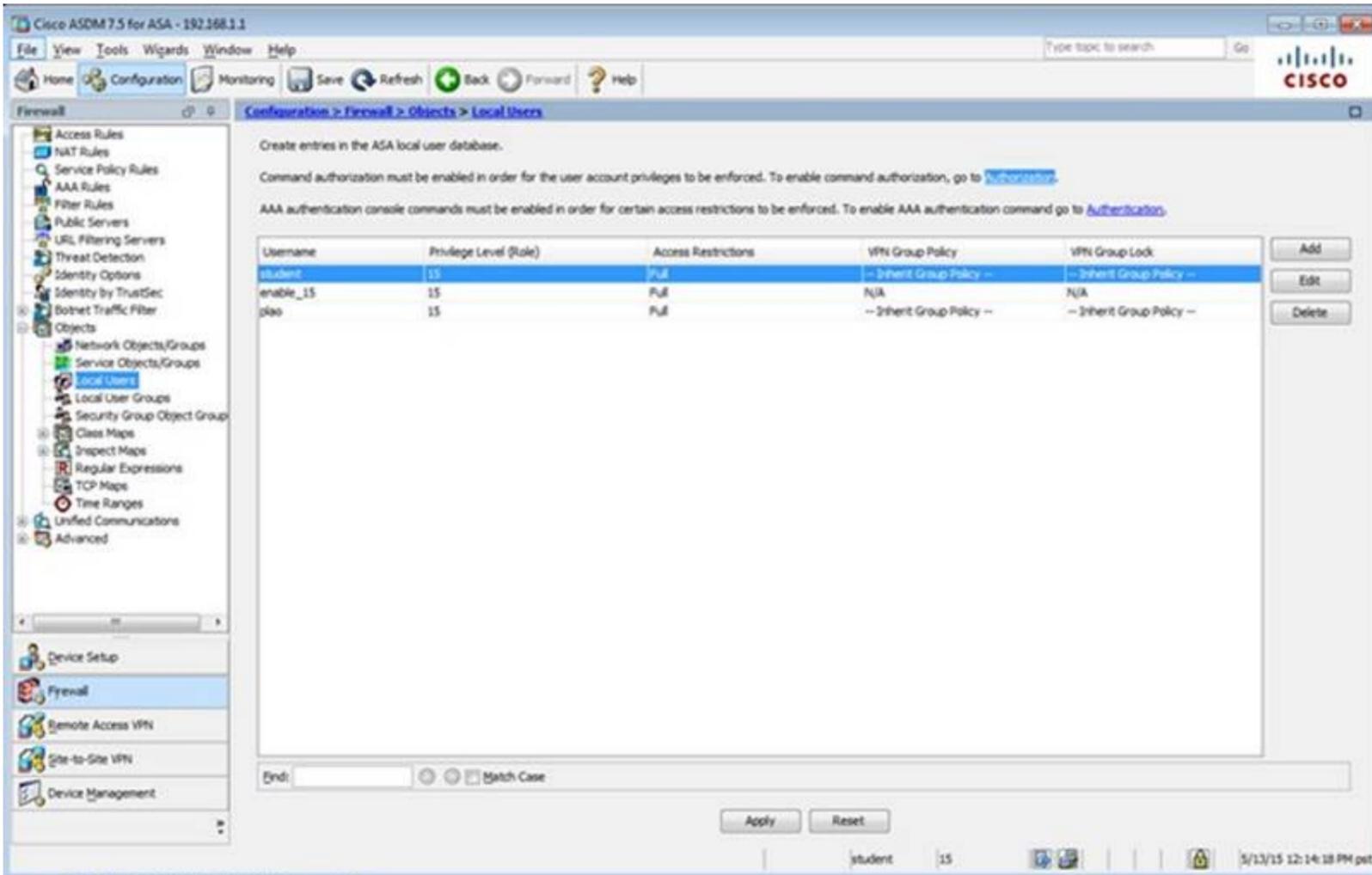
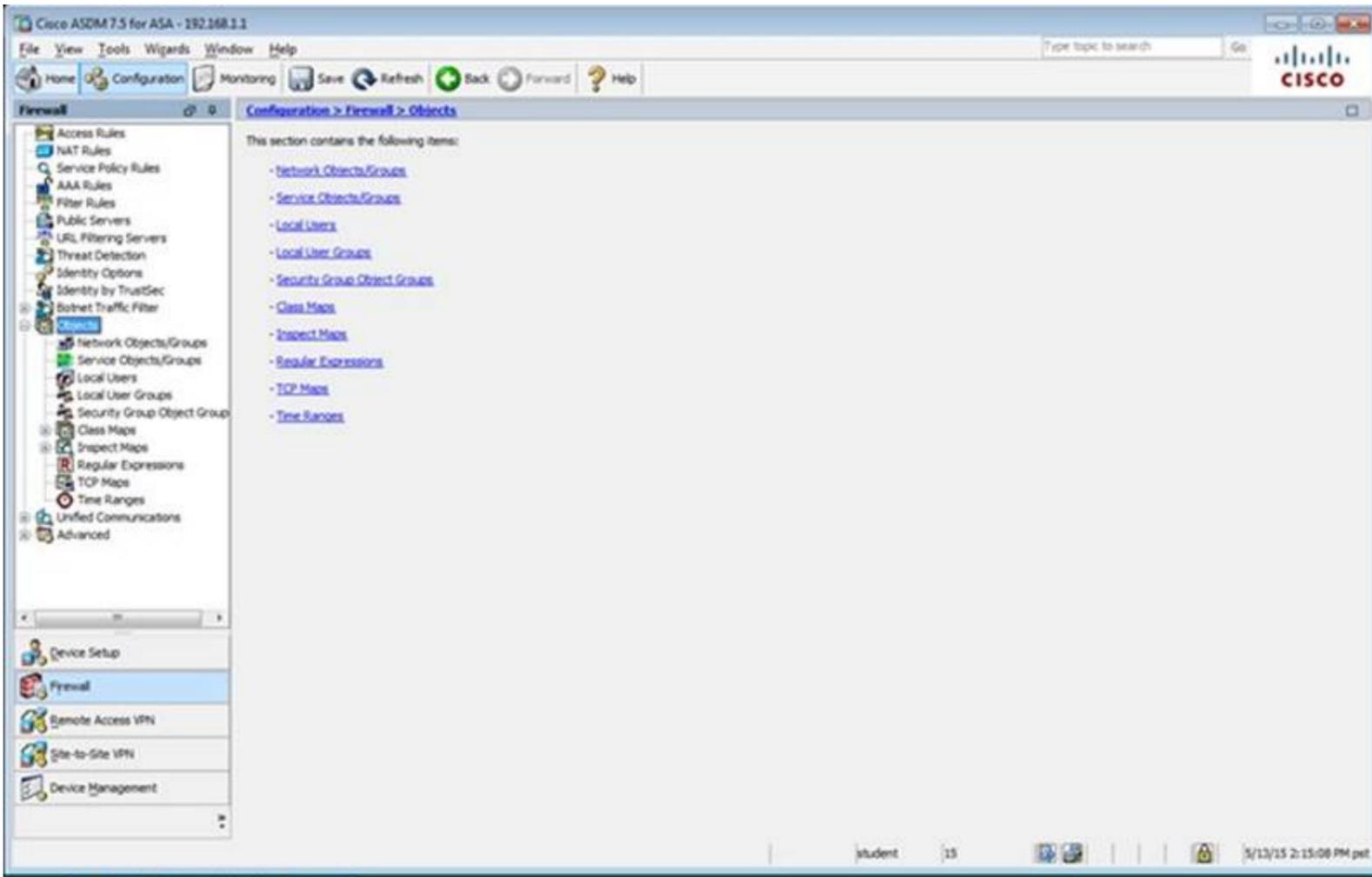












**Configuration > Firewall > Objects > Network Objects/Groups**

Name	IP Address	Netmask	Description	Object NAT Address
any				
any-host	0.0.0.0	0.0.0.0		outside (P)
any4				
any6				
facebook	www.facebook.com			
My_ASA_Demo_Obj	1.10.8.20			

Buttons: Apply, Reset

Status: student | 15 | 5/13/15 12:30:08 PM pet

**Configuration > Firewall > Service Policy Rules**

Name	#	Enabled	Match	Source	Src Security Group	Destination	Dest Security Group	Service	Time	Rule Actions	Description
<b>Interface: dmz; Policy: asdmf_policy</b>											
class-default			Match	any		any		any traffic			
								class-default			
<b>Interface: inside; Policy: asasmf_policy</b>											
class-default			Match	any		any		any traffic			
								class-default			
<b>Global; Policy: global_policy</b>											
inspection_de...			Match	any		any		default-inspec...		Inspect DNS Map preset...	Inspect SMTP (14 more inspect actions)

Buttons: Apply, Reset

Status: student | 15 | 5/13/15 12:15:48 PM pet

The screenshot shows the Cisco ASDM 7.5 interface for configuration. The left sidebar shows a tree view with 'Firewall' selected. The main pane is titled 'Configuration > Firewall > Access Rules'. It displays a table of access rules with columns for #, Enabled, Source Criteria, Destination Criteria, Service, Action, Hits, and Logging.

#	Enabled	Source Criteria:	Destination Criteria:	Service	Action	Hits	Logging
		Source	User	Security Group	Destination	Security Group	
1	<input checked="" type="checkbox"/>	any			Any less secure ne...		Permit
1	<input checked="" type="checkbox"/>	inside (1 implicit rule)			any		Permit 54...
1	<input checked="" type="checkbox"/>	any			any		Permit
1	<input checked="" type="checkbox"/>	any			any		Deny

Buttons at the bottom include 'Apply', 'Reset', and 'Advanced...'. The status bar shows 'student' and '15'.

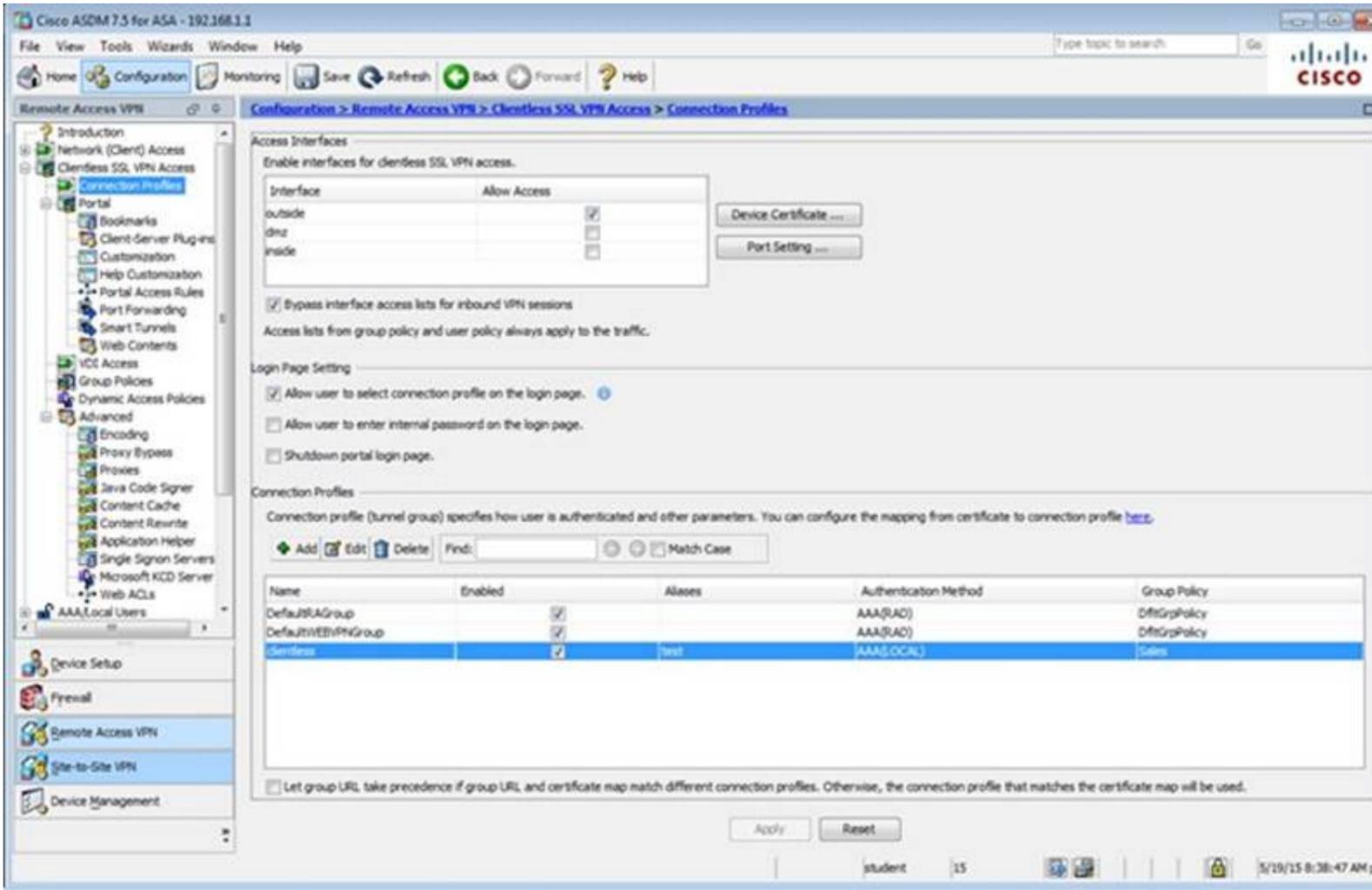
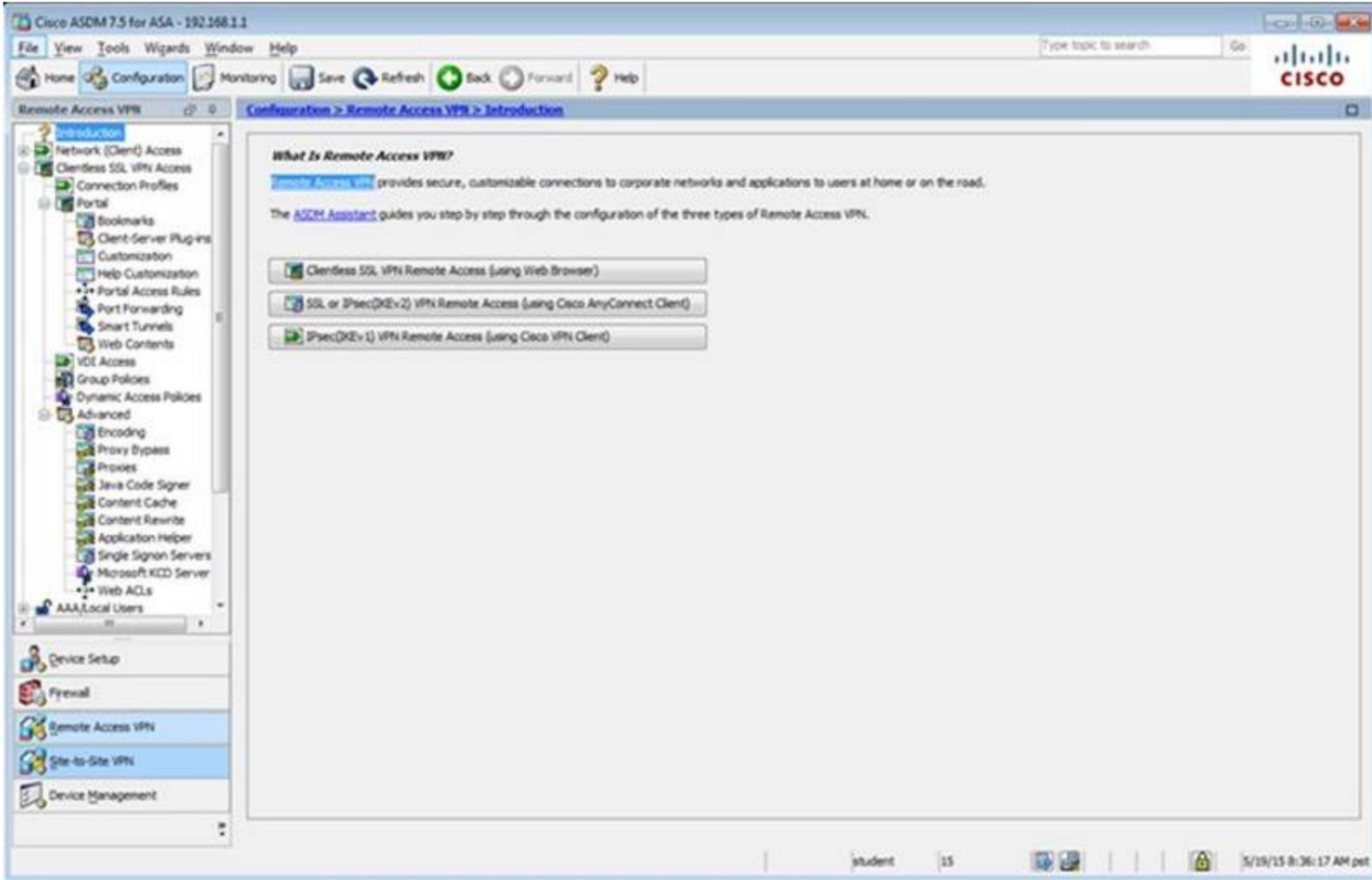
The screenshot shows the 'Remote Access VPN' configuration page in Cisco ASDM 7.5. The left sidebar shows 'Remote Access VPN' selected. The main pane is titled 'Configuration > Remote Access VPN > Introduction'. It contains the following text:

**What is Remote Access VPN?**  
[Remote Access VPN](#) provides secure, customizable connections to corporate networks and applications to users at home or on the road.  
 The [ASDM Assistant](#) guides you step by step through the configuration of the three types of Remote Access VPN.

Three buttons are visible below the text:

- Cleartext SSL VPN Remote Access (using Web Browser)
- SSL or IPsec (IKEv2) VPN Remote Access (using Cisco AnyConnect Client)
- IPsec (IKEv1) VPN Remote Access (using Cisco VPN Client)

The status bar at the bottom shows 'student' and '15'.



**Edit Clientless SSL VPN Connection Profile: clientless**

**Advanced**

Name: clientless  
Aliases: test

**Authentication**  
Method:  AAA  Certificate  Both  
AAA Server Group: LOCAL Manage...  
 Use LOCAL if Server Group fails

**DNS**  
Server Group: DefaultDNS Manage...  
(Following fields are attributes of the DNS server group selected above.)  
Servers: 192.168.1.2  
Domain Name: secure-x.local

**Default Group Policy**  
Group Policy: Sales Manage...  
(Following field is an attribute of the group policy selected above.)  
 Enable clientless SSL VPN protocol

Find:   Next  Previous

OK Cancel Help

**Edit Clientless SSL VPN Connection Profile: clientless**

Basic

Advanced

- General
- Authentication
- Secondary Authentication
- Authorization
- Accounting
- NetBIOS Servers
- Clientless SSL VPN**

Login and Logout Page Customization: **DfltCustomization** Manage...

Enable the display of Radius Reject-Message on the login screen when authentication is rejected

Enable the display of SecurId messages on the login screen

Connection Aliases

This SSL VPN access method will present a list of aliases configured for all connection profiles. You must enable the Login Page Setting in the main panel to complete the configuration.

+ Add - Delete (The table is in-line editable.) i

Alias	Enabled
test	<input checked="" type="checkbox"/>

Group URLs

This SSL VPN access method will automatically select the connection profile, without the need for user selection.

+ Add - Delete (The table is in-line editable.) i

URL	Enabled
https://209.165.201.2/test	<input checked="" type="checkbox"/>

You can chose not to run Cisco Secure Desktop (CSD) on client machine when using group URLs defined above to access the ASA. (If a client connects using a connection alias, this setting is ignored)

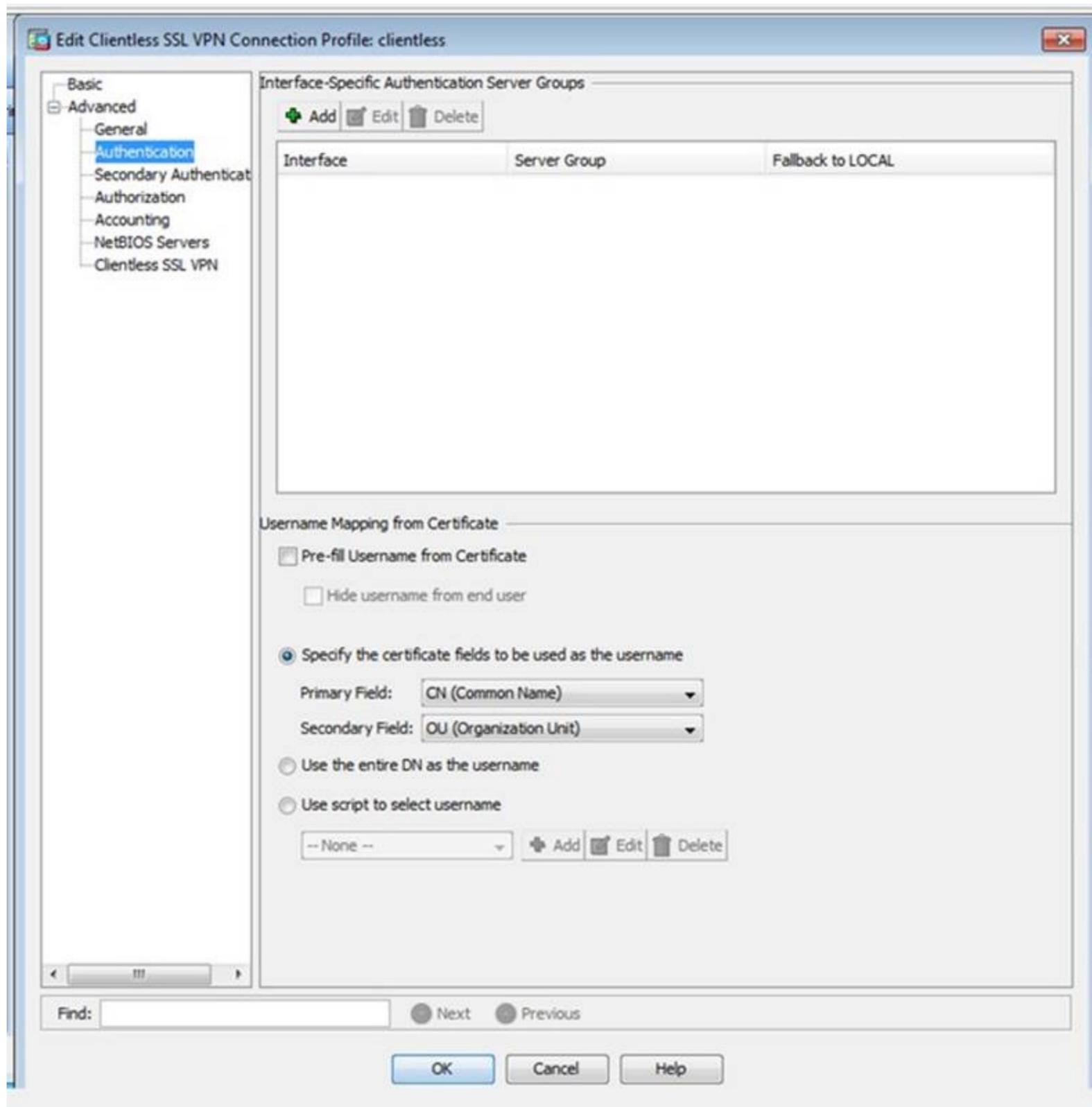
Always run CSD

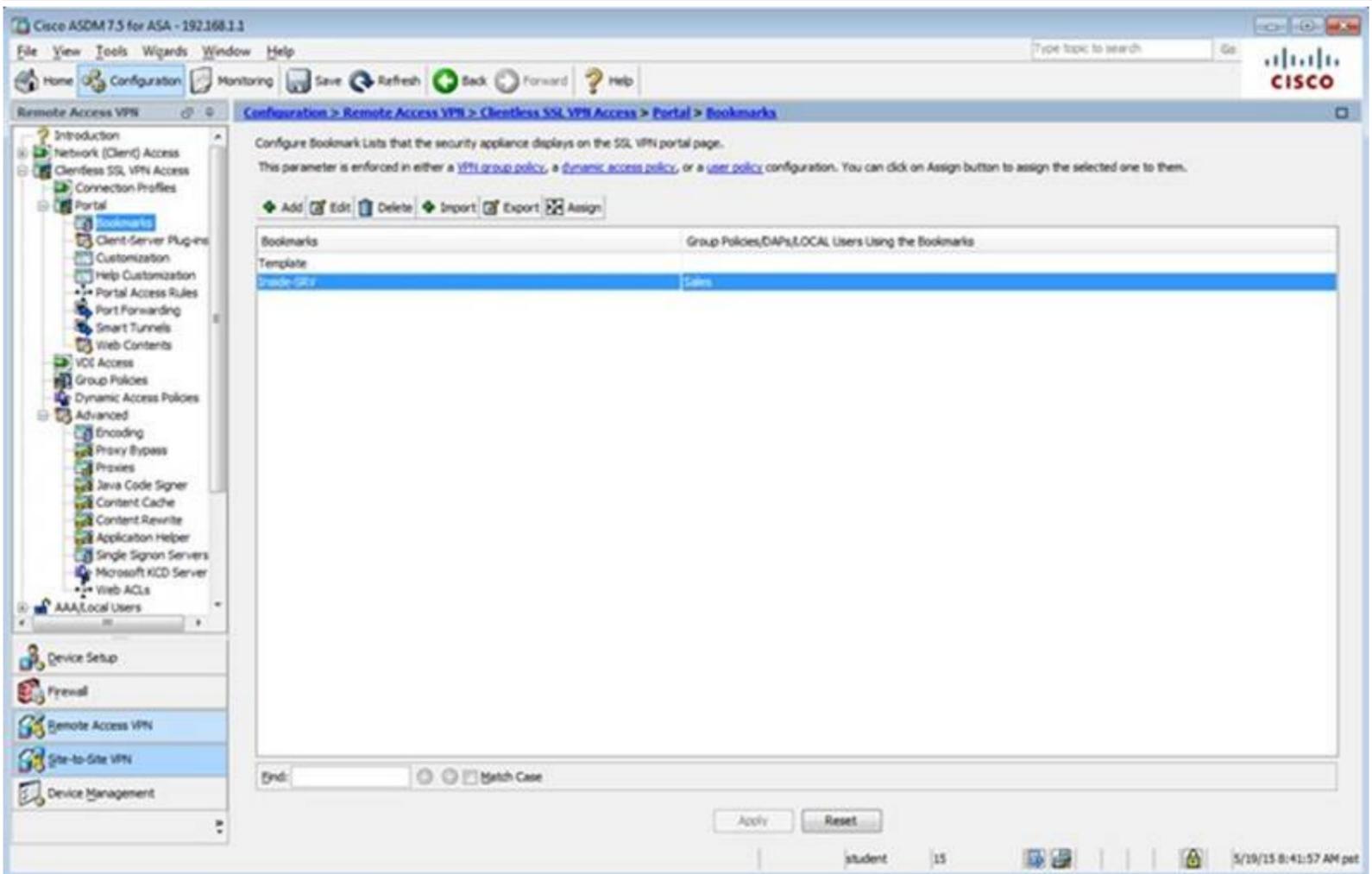
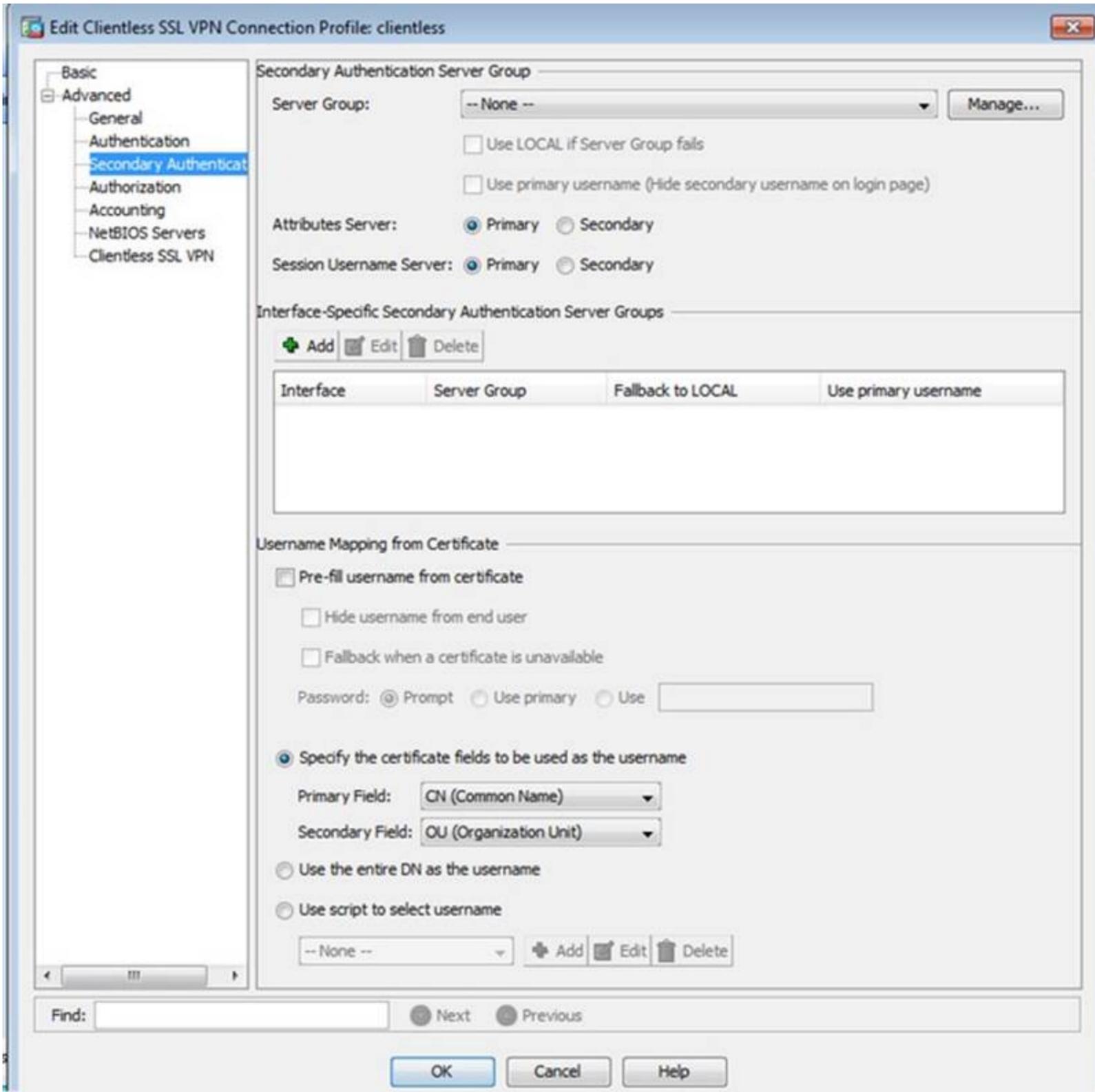
Disable CSD for both AnyConnect and Clientless SSL VPN

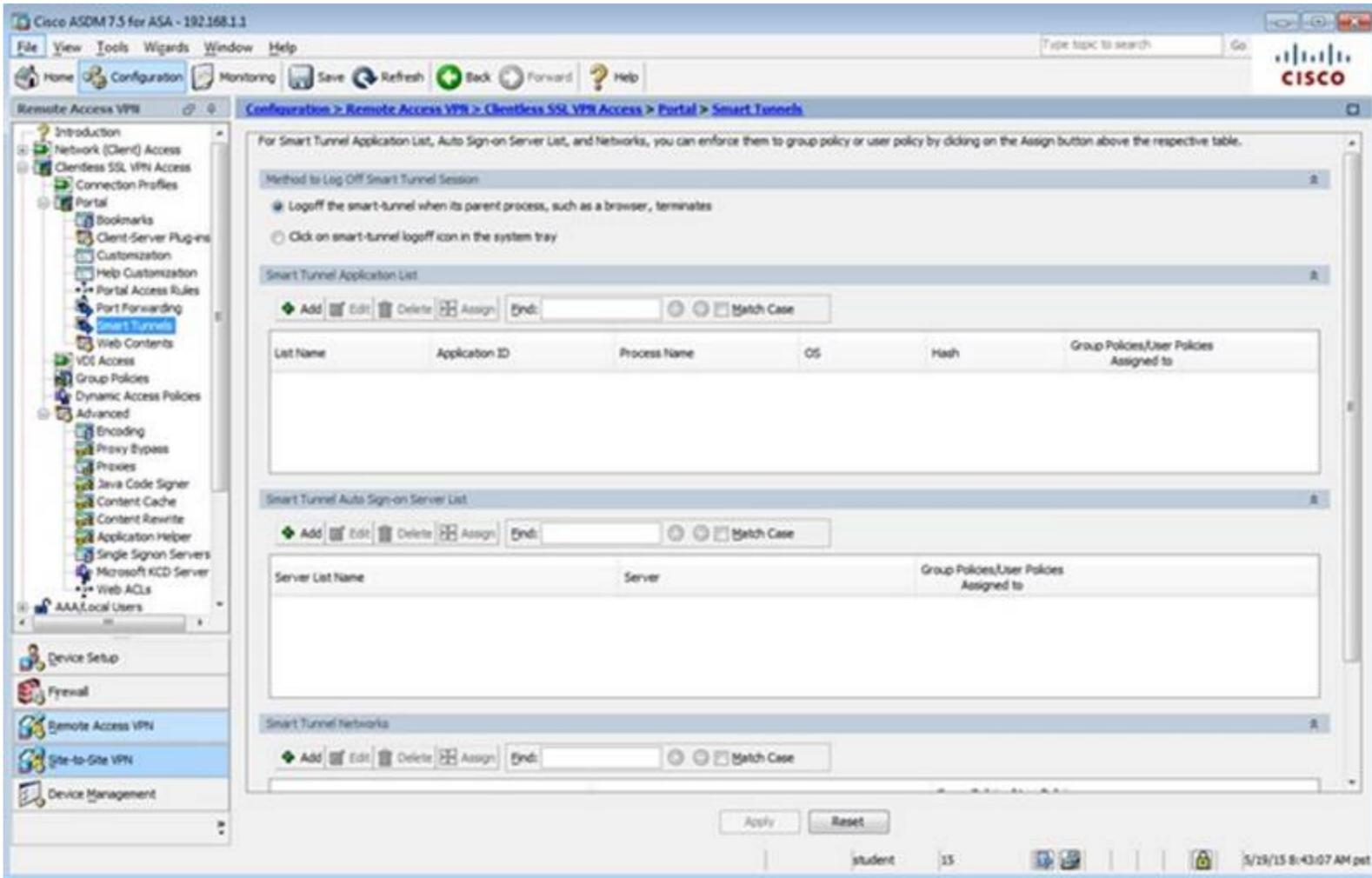
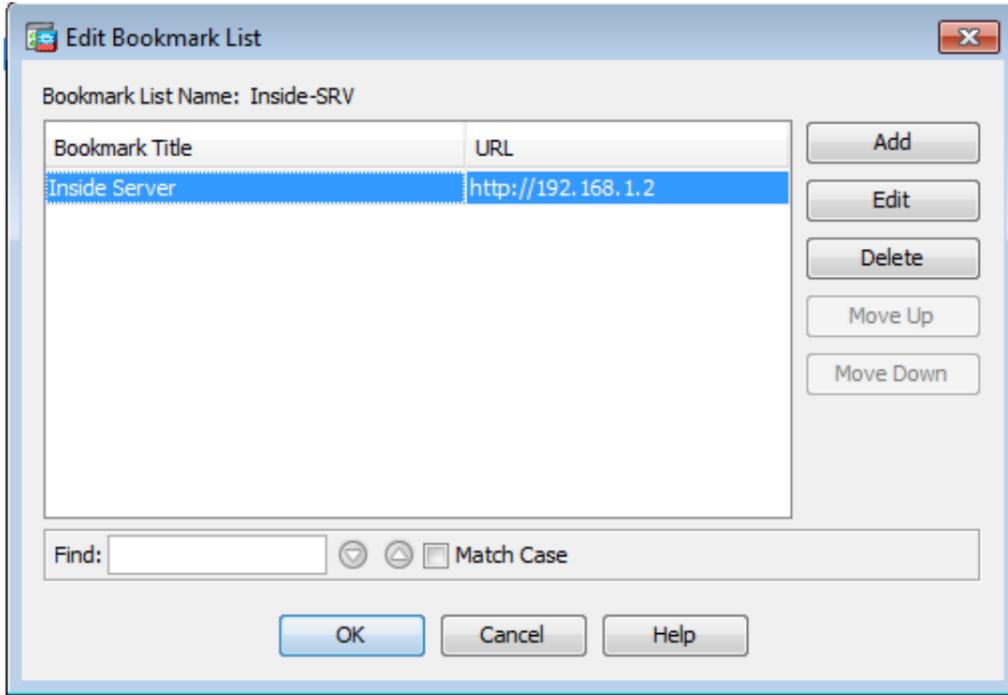
Disable CSD for AnyConnect only

Find:  Next Previous

OK Cancel Help







The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The navigation pane on the left is expanded to 'Remote Access VPN > Clientless SSL VPN Access > Portal > Port Forwarding'. The main content area contains the following text:

Configure Port Forwarding Lists that the security appliance uses to grant users access to TCP-based applications over a clientless SSL VPN connection. This parameter is enforced in either a [VPN group policy](#), a [dynamic access policy](#), or a [user policy](#) configuration. You can click on Assign button to assign the selected one to them.

Below the text is a table with the following columns: List Name, Local TCP Port, Remote Server, Remote TCP Port, Description, and Group Policies/User Policies Assigned to. The table is currently empty.

At the bottom of the page, there are 'Apply' and 'Reset' buttons, a search bar with 'Find:' and 'Match Case' options, and a status bar showing 'student | 15' and the date '5/19/15 8:43:47 AM pet'.

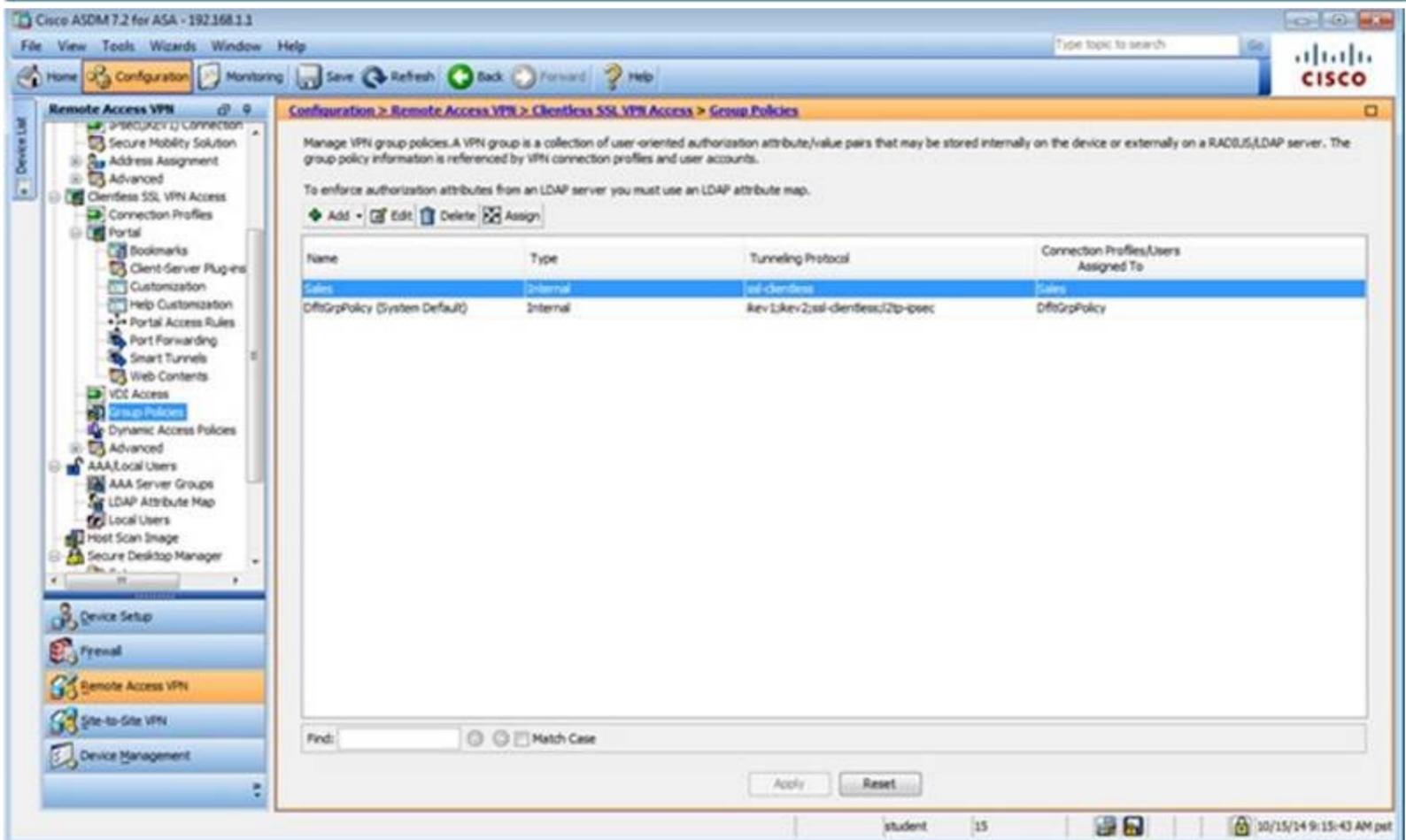
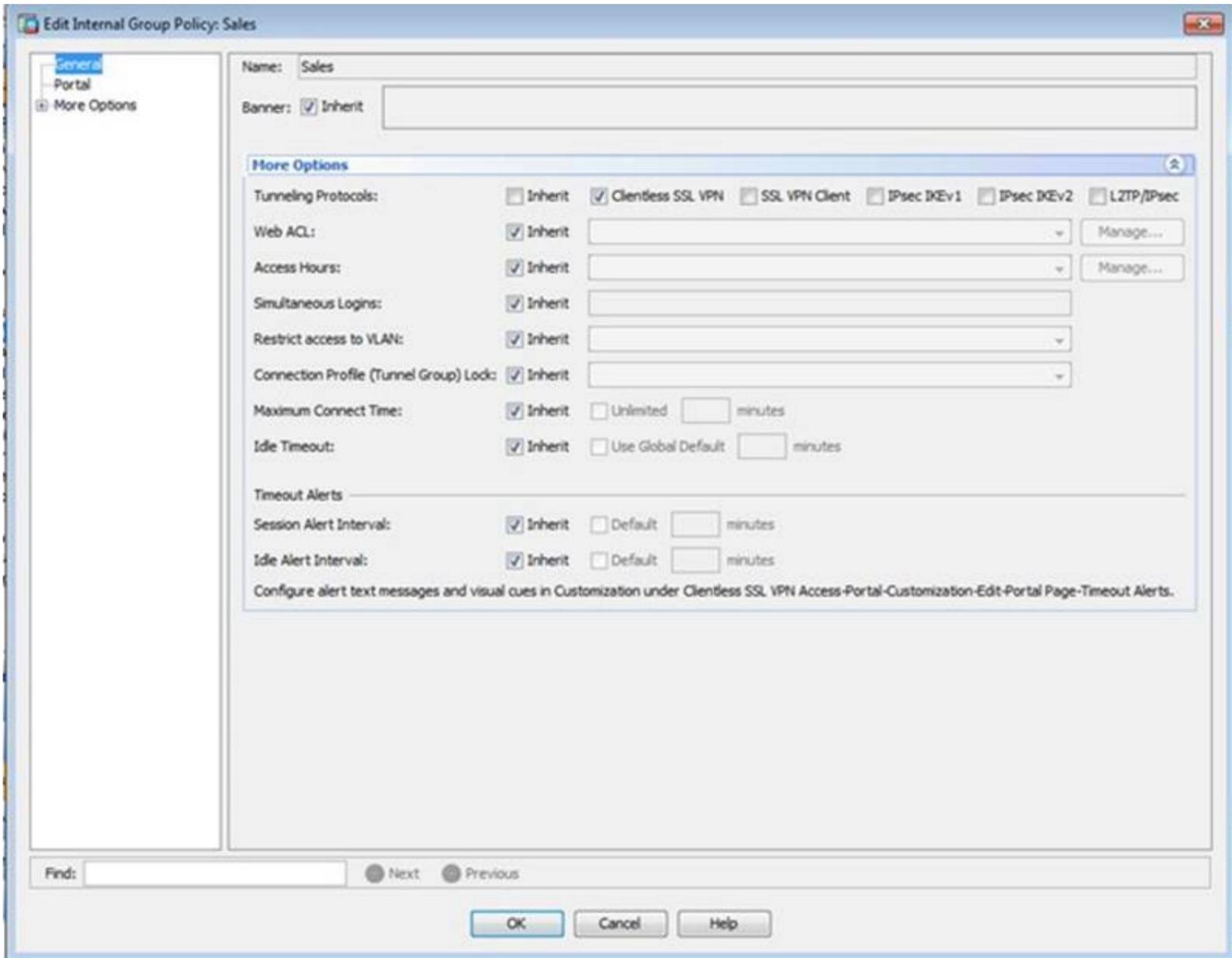
The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The navigation pane on the left is expanded to 'Remote Access VPN > Clientless SSL VPN Access > Group Policies'. The main content area contains the following text:

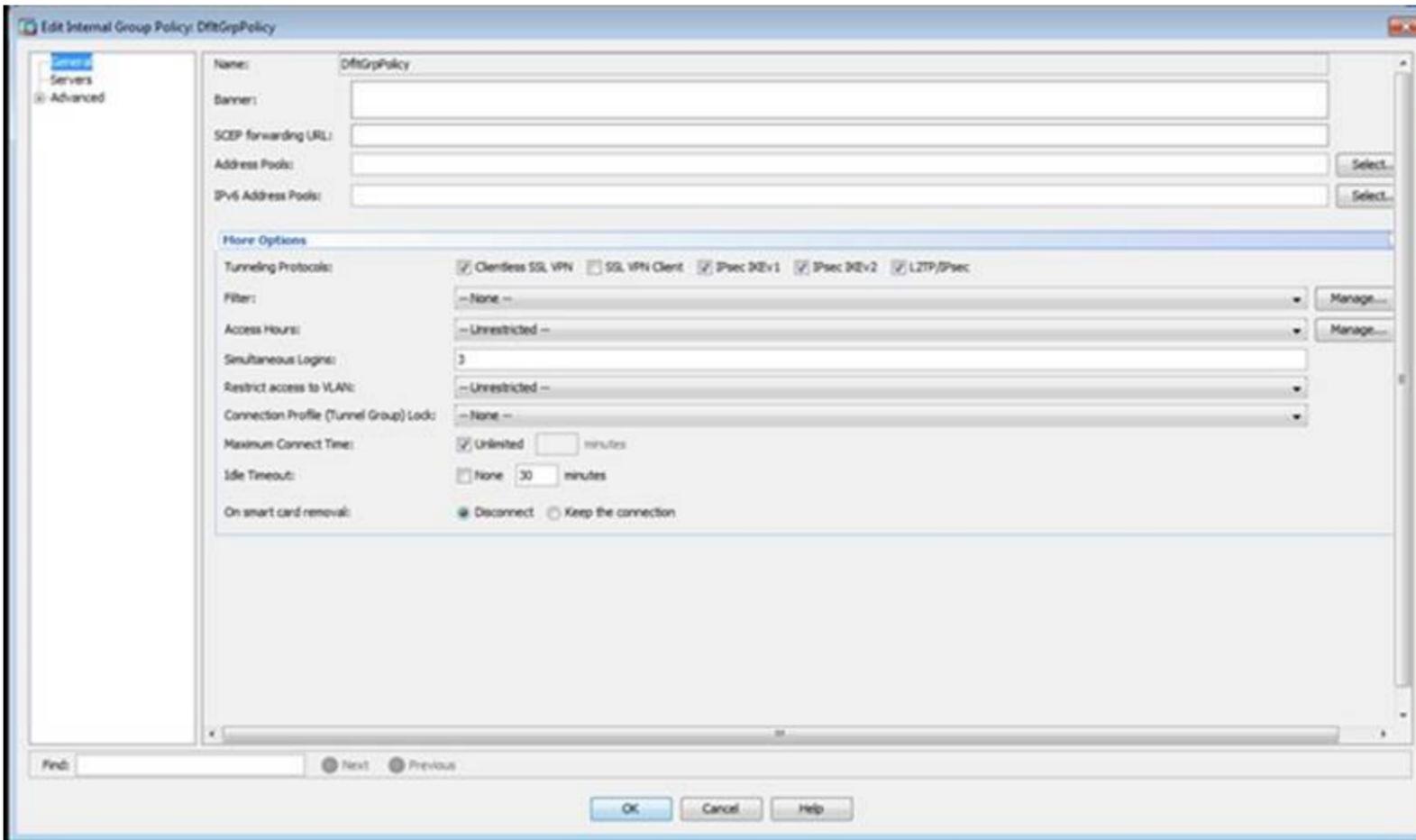
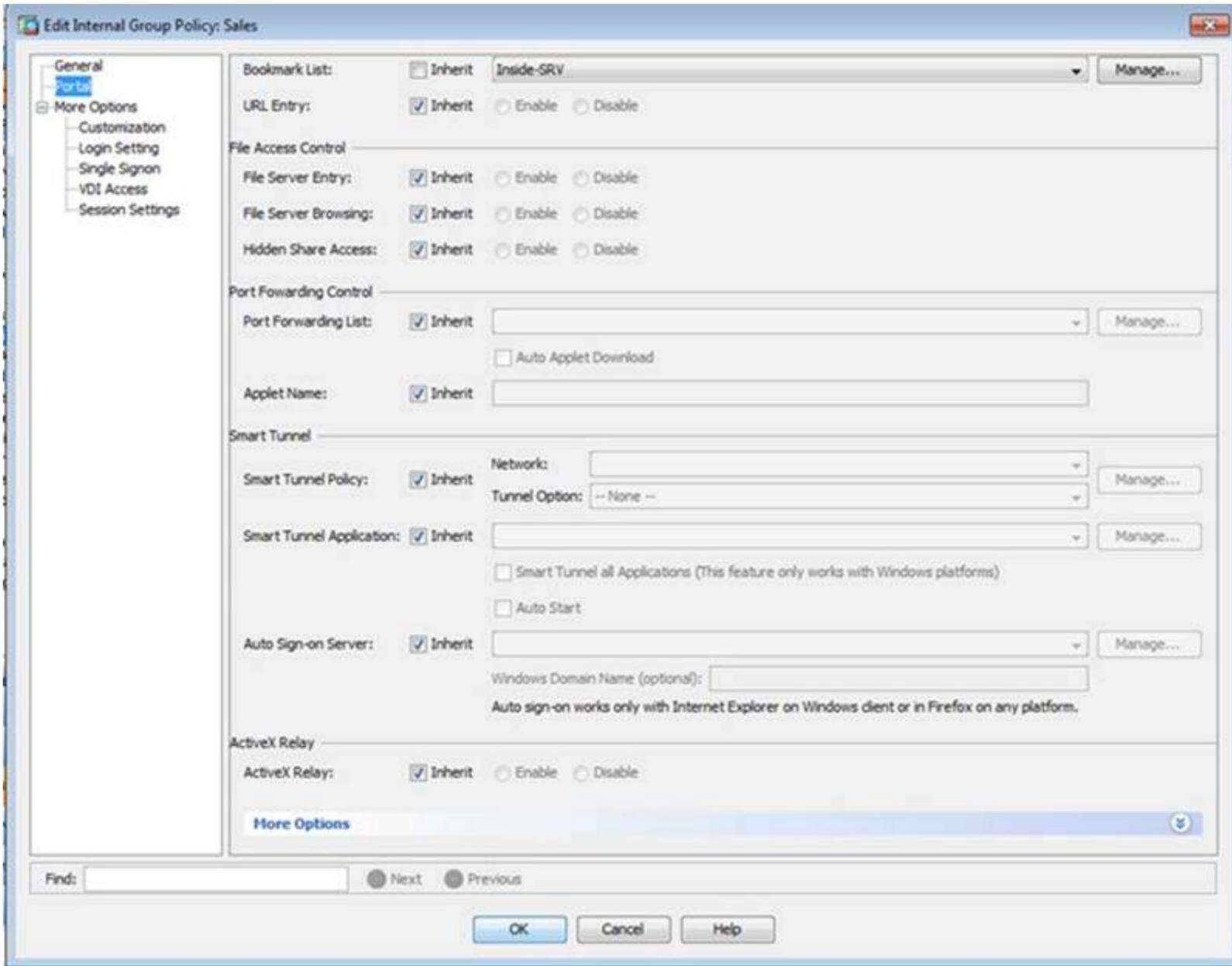
Manage VPN group policies. A VPN group is a collection of user-oriented authorization attribute/value pairs that may be stored internally on the device or externally on a RADIUS/LDAP server. The group policy information is referenced by VPN connection profiles and user accounts. To enforce authorization attributes from an LDAP server you must use an [LDAP attribute map](#).

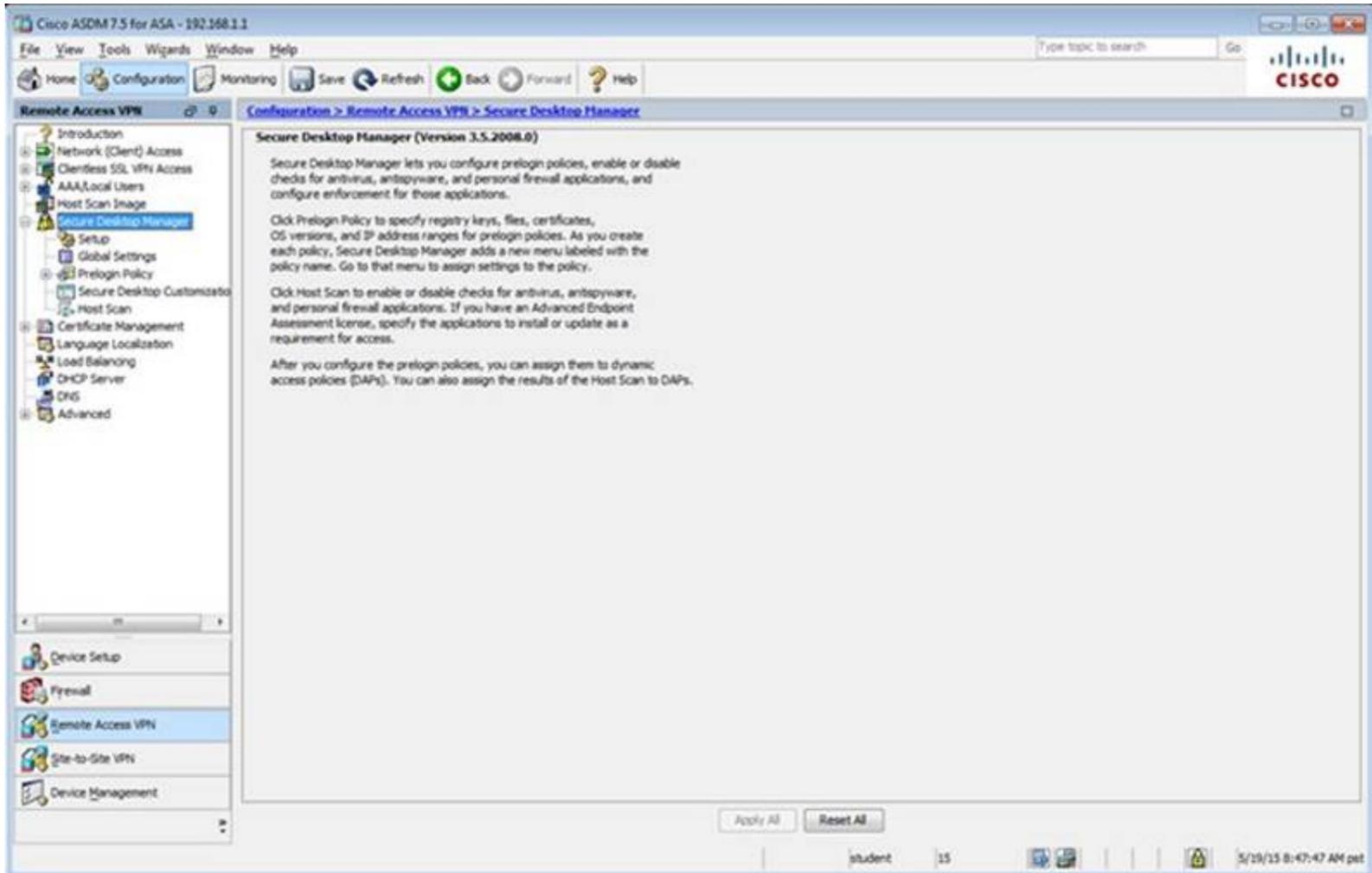
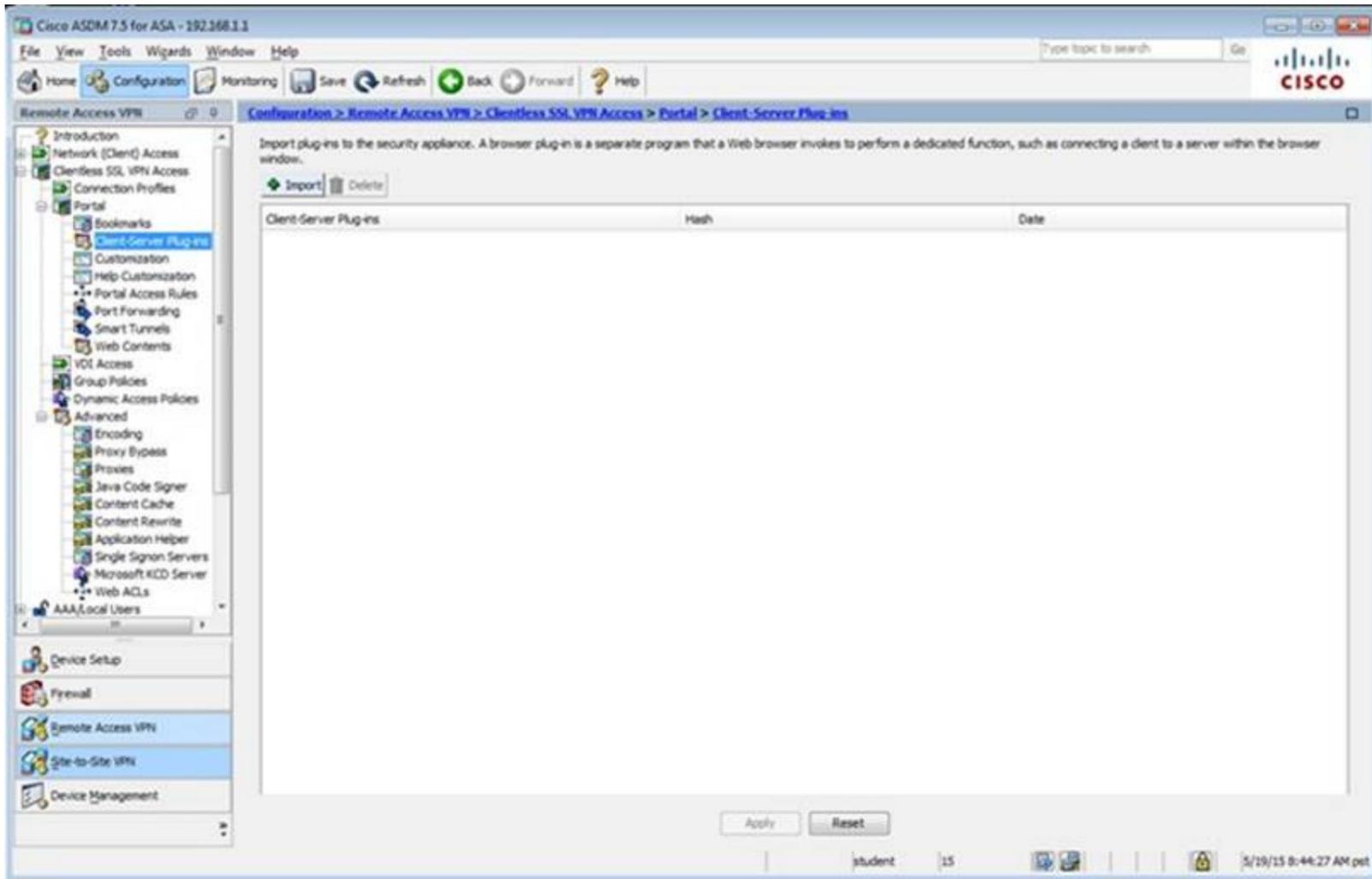
Below the text is a table with the following columns: Name, Type, Tunneling Protocol, and Connection Profiles/Users Assigned To. The table contains two entries:

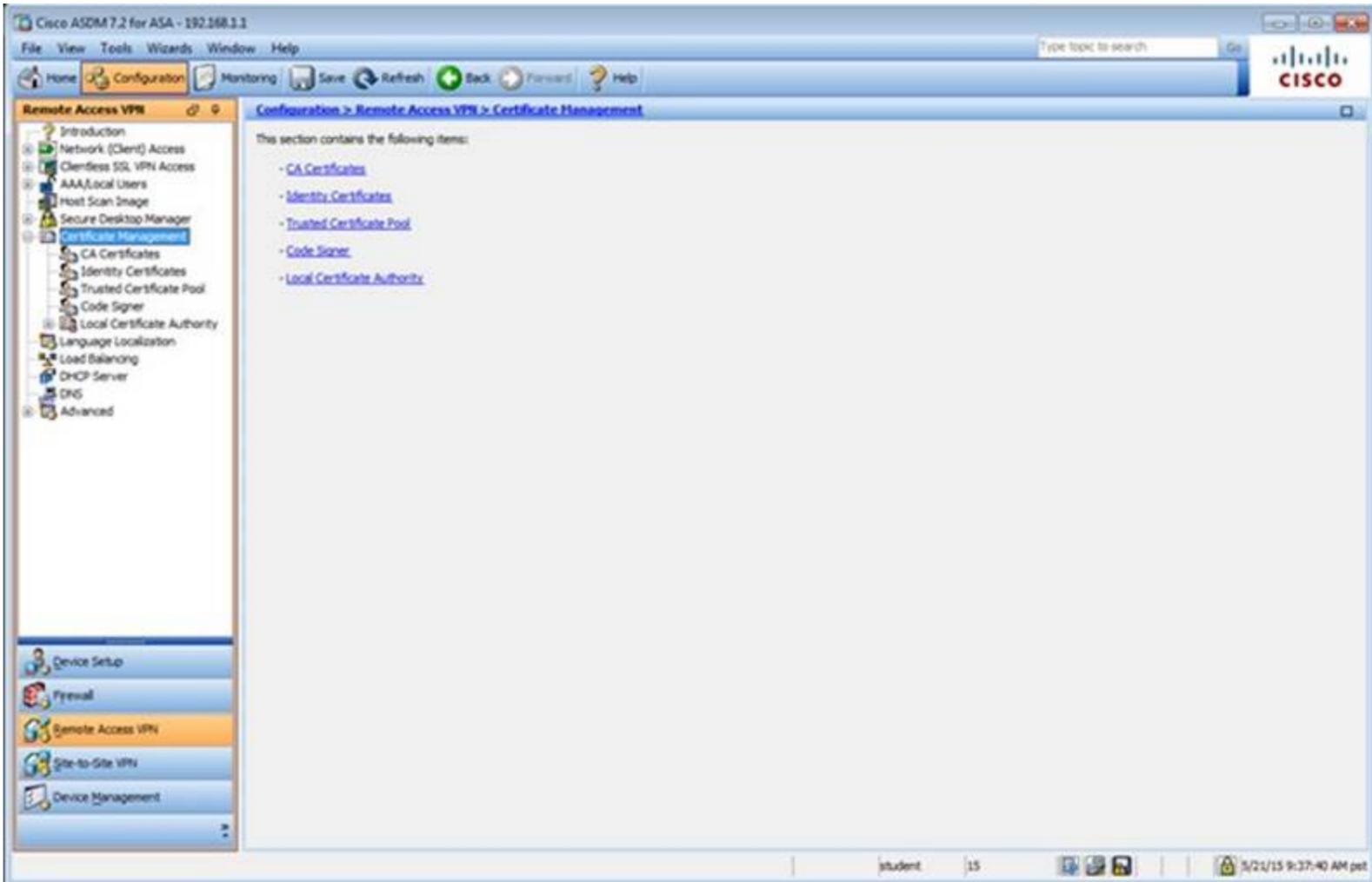
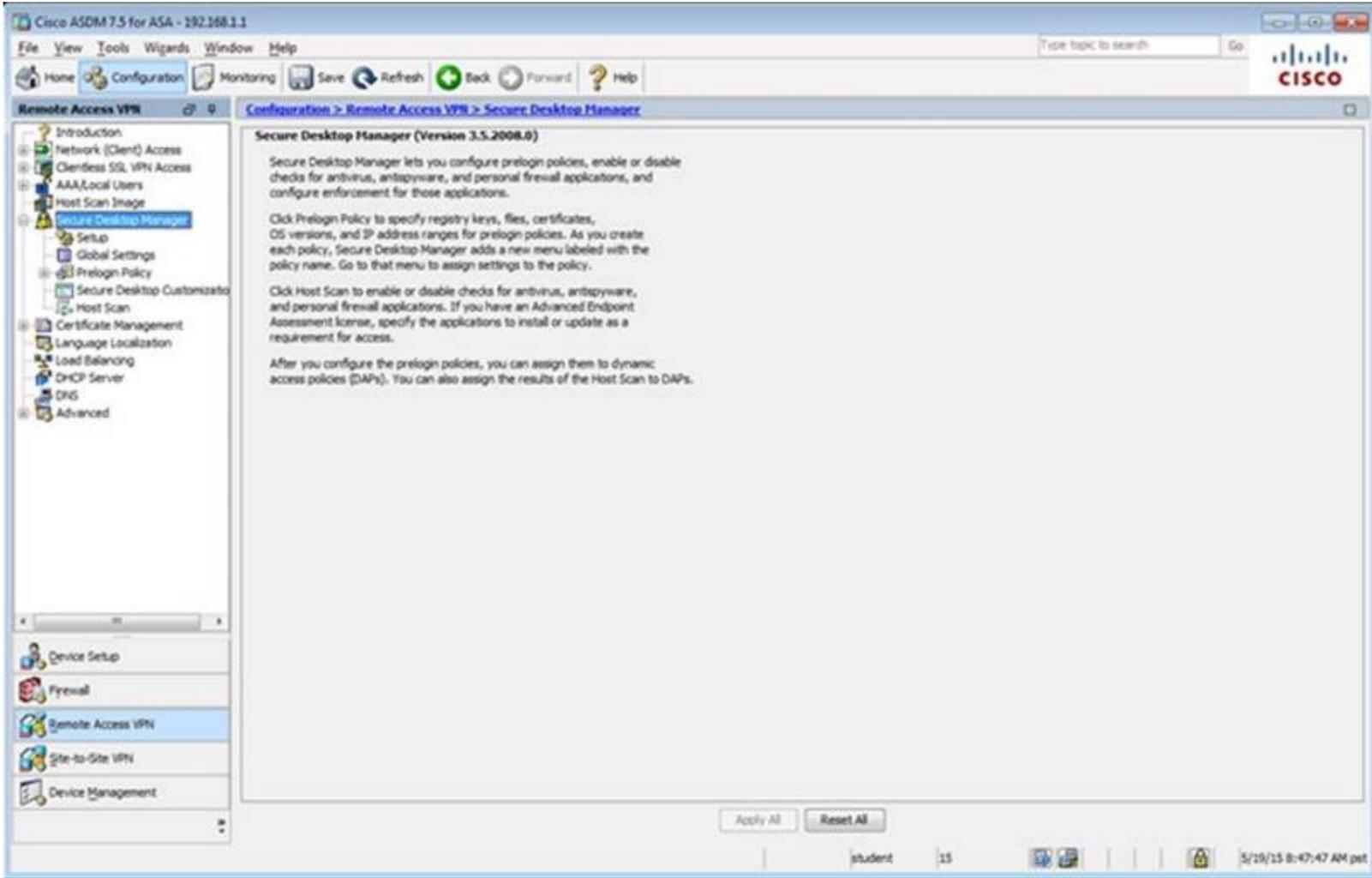
Name	Type	Tunneling Protocol	Connection Profiles/Users Assigned To
Calvin	Internal	ssl-clientless	Clientless
DefaultPolicy (System Default)	Internal	Rev 1;rev 2;ssl-clientless;2ip-espsec	DefaultRAGroup;DefaultL2;Group;DefaultRAMP;Group;Def...

At the bottom of the page, there are 'Apply' and 'Reset' buttons, a search bar with 'Find:' and 'Match Case' options, and a status bar showing 'student | 15' and the date '5/19/15 8:49:27 AM pet'.









The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The navigation pane on the left is expanded to 'Remote Access VPN > Certificate Management > Identity Certificates'. The main content area displays a table of issued certificates:

Issued To	Issued By	Expiry Date	Associated Trustpoints	Usage	Public Key Type
asdmname@P17-ASA.sec	asdmname@P17-ASA.sec	11:20:33 pm Dec 20 2024	ASDM_TrustPoint1	General Purpose	RSA (2048 bits)

Below the table, there are sections for 'Certificate Expiration Alerts' (Send the first alert before: 60 days, Repeat Alert Interval: 7 days) and 'Public CA Enrollment' (Enroll ASA SSL certificate with Entrust, Launch ASDM Identity Certificate Wizard). Buttons for 'Apply' and 'Reset' are at the bottom.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The navigation pane on the left is expanded to 'Remote Access VPN > Advanced'. The main content area displays a list of items under the heading 'This section contains the following items:':

- [Advanced Enrollment](#)
- [SSL Settings](#)
- [Certificate to AnyConnect and Clientless SSL VPN Connection Profile Maps](#)
- [HTTP Redirect](#)
- [Maximum VPN Sessions](#)
- [Crypto Engine](#)
- [Email Proxy](#)

The bottom of the screen shows the user 'student' and the date '5/19/15 8:52:47 AM pt'.

Cisco ASDM 7.5 for ASA - 192.168.1.1

Configuration > Remote Access VPN > Advanced > SSL Settings

Configure SSL parameters. These parameters affect both ASDM and SSL VPN access.

The minimum SSL version for the security appliance to negotiate as a "server": TLS V1

The minimum SSL version for the security appliance to negotiate as a "client": TLS V1

Diffie-Hellman group to be used with SSL: Group2 - 1024-bit modAas

ECDH group to be used with SSL: Group19 - 256-bit EC

Encryption

Cipher Version	Cipher Security Level	Cipher Algorithms/ Custom String
Default	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...
TLSV1	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...
TLSV1.1	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...
TLSV1.2	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...
DTLSV1	Medium	DES-CBC3-SHA AES128-SHA DHE-RSA-AES128-SHA AES256-SHA ...

Server Name Indication (SNI)

Domain	Certificate
dmz	ASDM_TrustPoint1.h...

Certificates

Specify which certificates, if any, should be used for SSL authentication on each interface. The fallback certificate will be used on interfaces not associated with a certificate of their own.

Apply Reset

student 15 5/19/15 8:54:07 AM pet

Cisco ASDM 7.5 for ASA - 192.168.1.1

Configuration > Remote Access VPN > Advanced > Maximum VPN Sessions

Configure the maximum number of VPN sessions allowed at any given time.

Maximum AnyConnect Sessions: 2

Maximum Other VPN Sessions: 250

Apply Reset

student 15 5/19/15 8:54:47 AM pet

**Configuration > Remote Access VPN > Network (Client) Access**

**What is Network (Client) Access?**  
 After a VPN client, such as AnyConnect, is authenticated, remote users can access corporate networks or applications as if they were on-site. The data traffic between remote users and the corporate network is secured by being encrypted when going through the Internet.

The **ASDM Assistant** provides simple "You Do It" steps for configuring Network (Client) Access.

**Important Concepts**  
 Following are some important concepts for setting up a connection.

**1. SSL tunnel and IPsec tunnel**  
 There are two different ways to encrypt data traffic. An SSL tunnel uses SSL protocol to encrypt data, while an IPsec tunnel uses IPsec protocol. Cisco AnyConnect VPN Client supports SSL and IPsec (IKEv2) protocols, Cisco VPN Client supports only IPsec (IKEv1) protocol.

**2. User and connection profile**  
 To access corporate network resources, remote users must authenticate, and identify which Connection Profile (Tunnel Group) to use. This connection profile specifies how the security appliance authenticates users.

You configure user account database in [AAA/Local Users](#).  
 You configure AnyConnect connection profile in [AnyConnect Connection Profiles](#), IPsec connection profile in [IPsec \(IKEv1\) Connection Profiles](#).

**3. Access policy**  
 Access policies control how remote users can access corporate networks. An access policy includes the following:

- Session control - how long a session can remain idle before it is closed.
- Endpoint security - determines the conditions that remote PCs must satisfy to connect, for example, requiring up-to-date anti-virus software.

You configure session control policies in [Dynamic Access Policies](#) or [Group Policies](#).  
 You configure endpoint security policies for AnyConnect client in [Secure Desktop Manager](#). You also have the option to setup [NAC](#) based endpoint security policies.

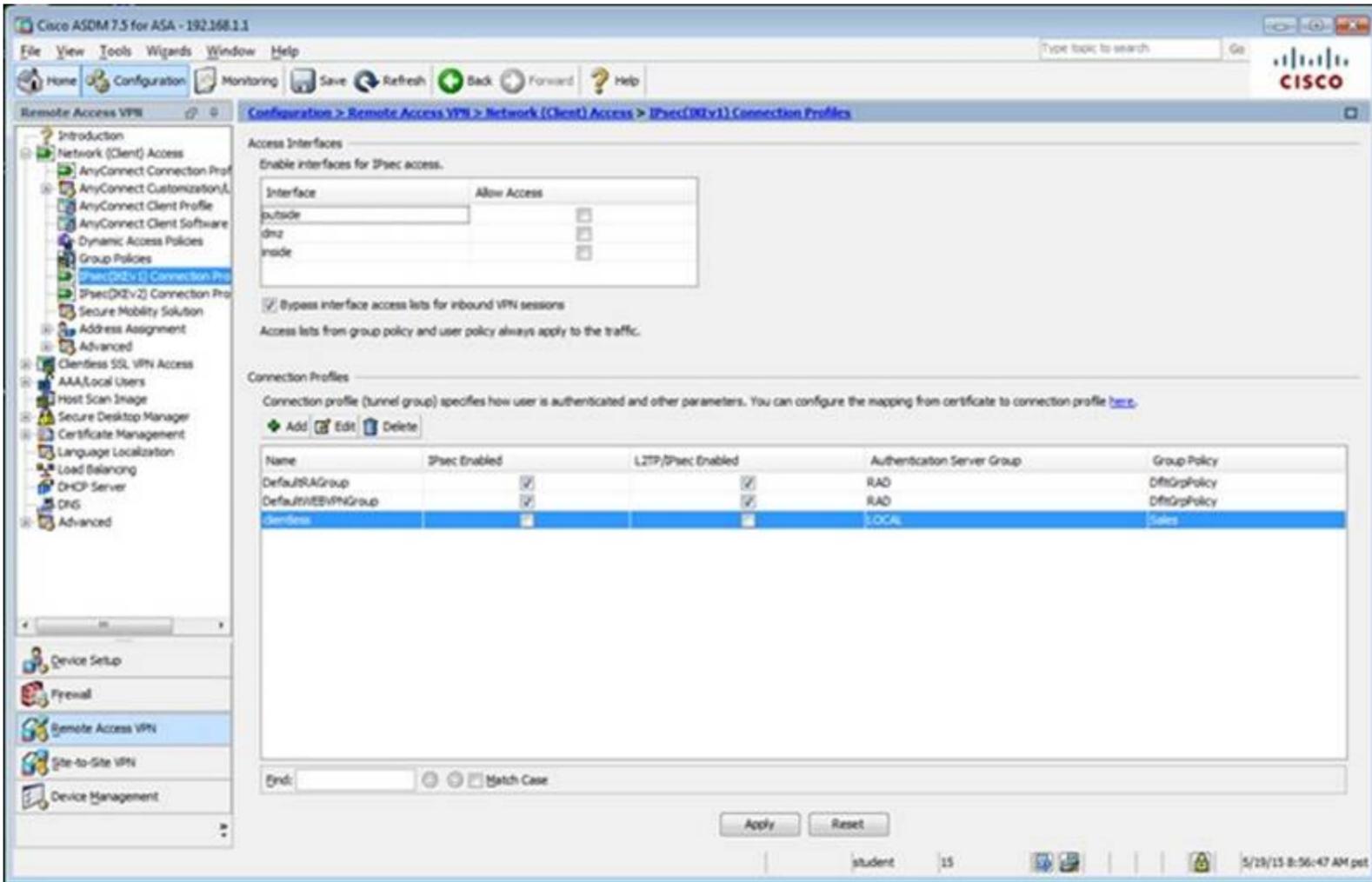
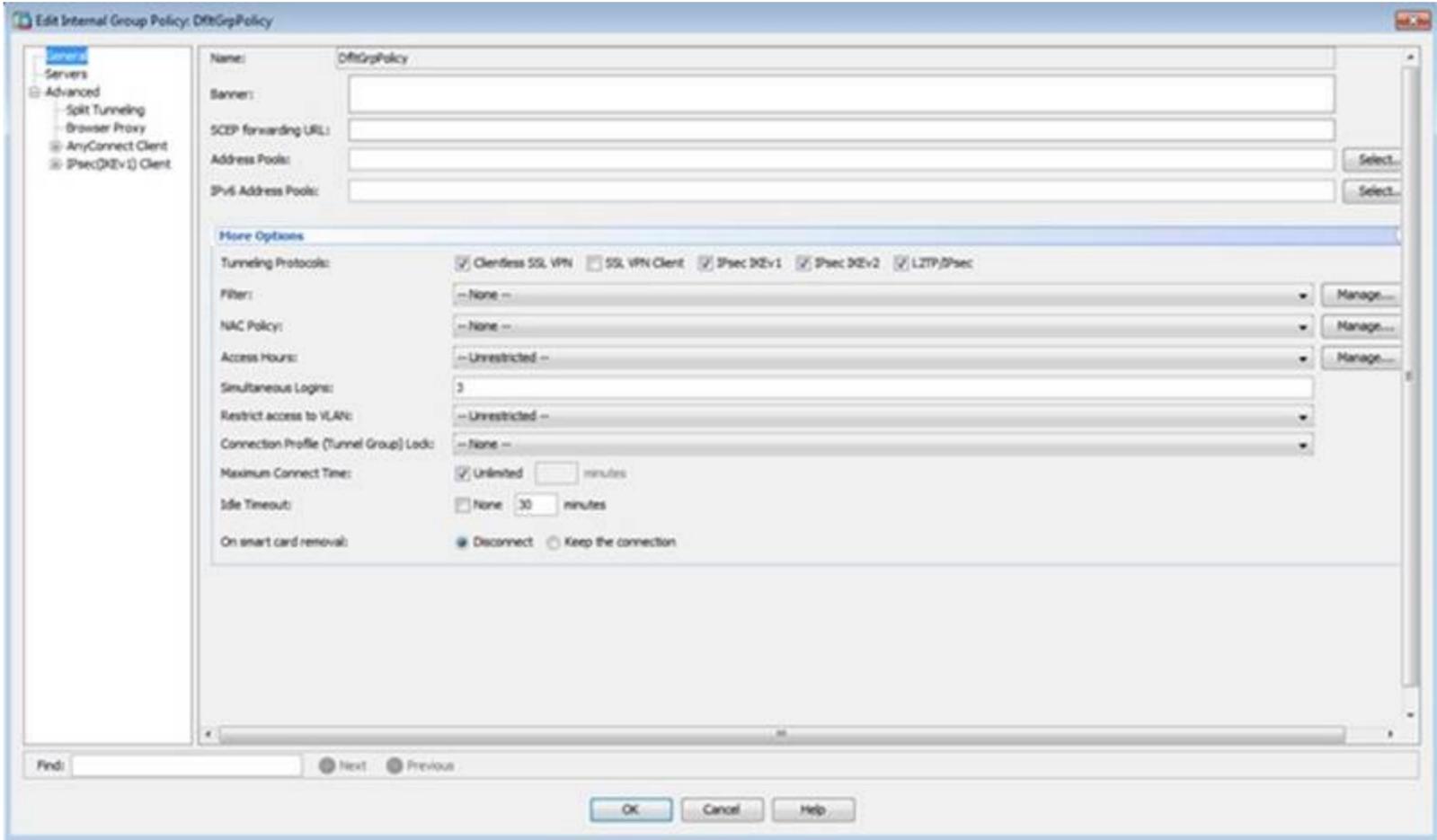
**Configuration > Remote Access VPN > Network (Client) Access > Group Policies**

Manage VPN group policies. A VPN group is a collection of user-oriented authorization attribute/value pairs that may be stored internally on the device or externally on a RADIUS/LDAP server. The group policy information is referenced by VPN connection profiles and user accounts.

To enforce authorization attributes from an LDAP server you must use an [LDAP attribute map](#).

Name	Type	Tunneling Protocol	Connection Profiles/Users Assigned To
Sales	Internal	ssl-clientless	clientless
DfltGrpPolicy (System Default)	Internal	rev-1,ikev2,ssl-clientless,ikev1-ipsec	DefaultRAGroup,Default_3_Group,DefaultTCHVPNGroup

Find:



The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The main window displays the configuration for 'AnyConnect Connection Profiles'. The left sidebar shows a tree view with 'Remote Access VPN' selected. The main content area includes:

- Introduction:** The security appliance automatically deploys the Cisco AnyConnect VPN Client to remote users upon connection. The initial client deployment requires end-user administrative rights. The Cisco AnyConnect VPN Client supports IPsec (IKEv2) tunnel as well as SSL tunnel with Datagram Transport Layer Security (DTLS) tunneling options.
- Access Interfaces:**
  - Enable Cisco AnyConnect VPN Client access on the interfaces selected in the table below.
  - SSL access must be enabled if you allow AnyConnect client to be launched from a browser (Web Launch).

Interface	SSL Access		IPsec (IKEv2) Access	
	Allow Access	Enable DTLS	Allow Access	Enable Client Services
outside	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
dmz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
inside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

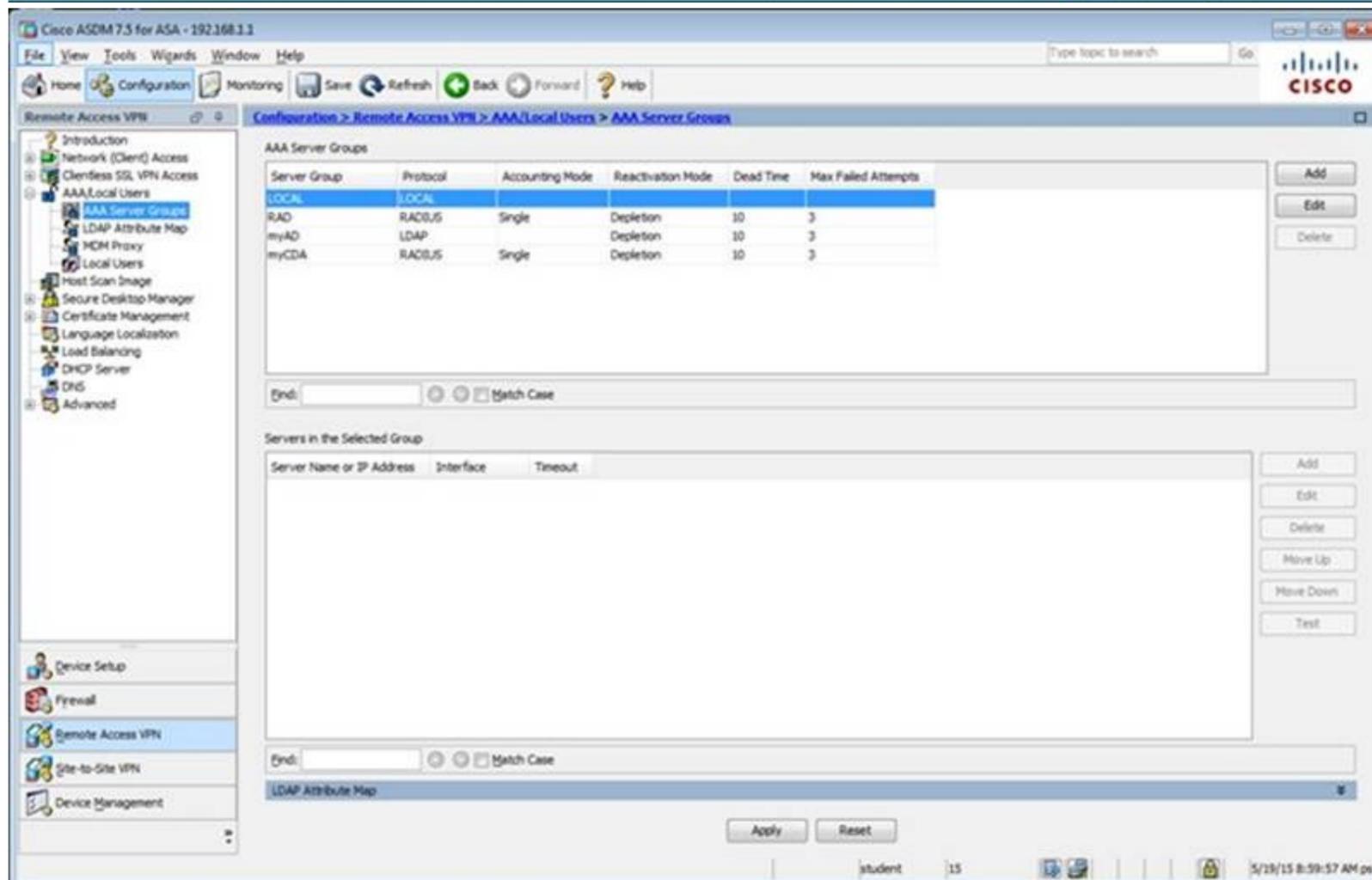
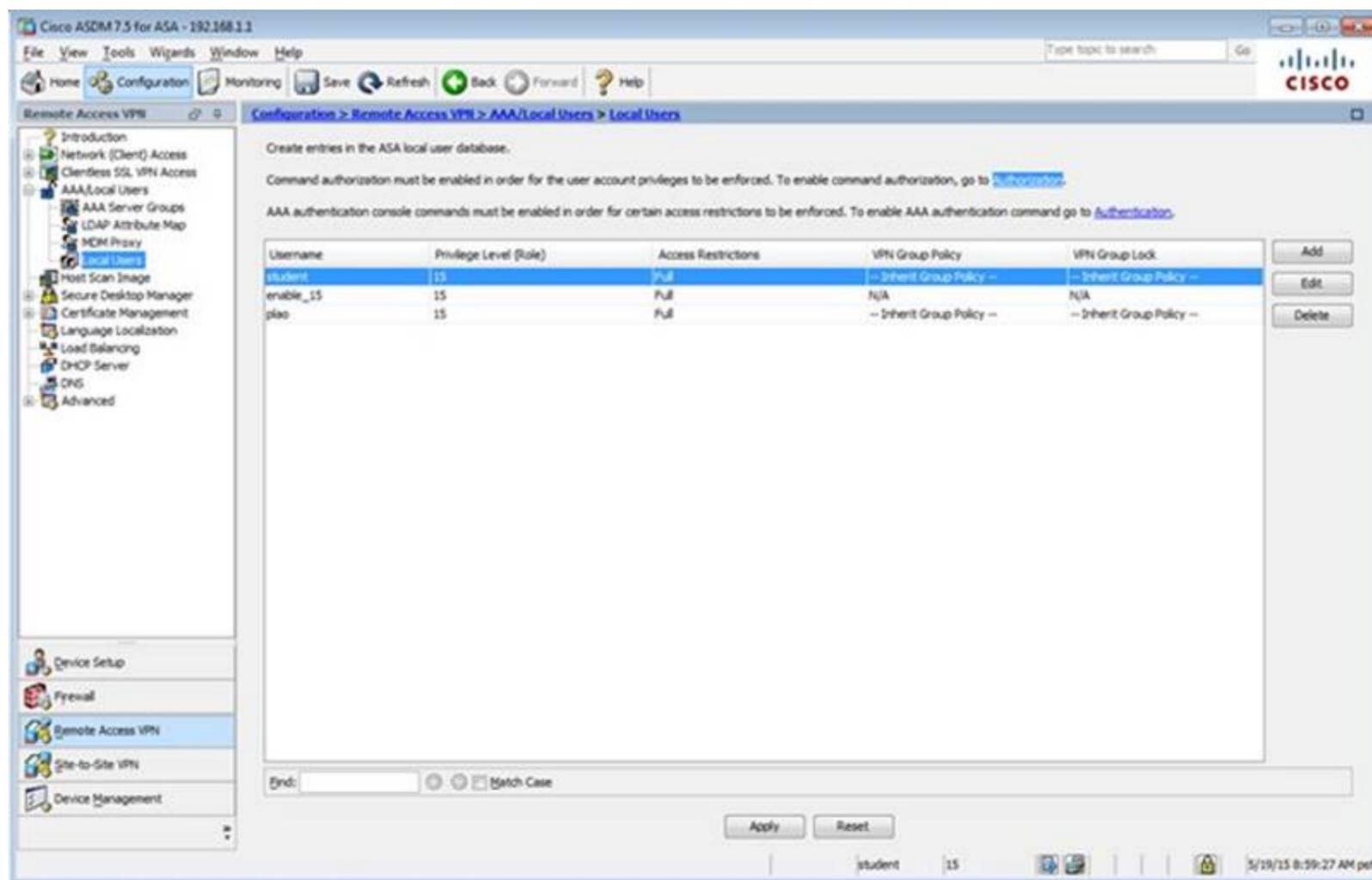
  - Bypass interface access lists for inbound VPN sessions.
  - Access lists from group policy and user policy always apply to the traffic.
- Login Page Setting:**
  - Allow user to select connection profile on the login page.
  - Shutdown portal login page.
- Connection Profiles:**
  - Connection profile (tunnel group) specifies how user is authenticated and other parameters. You can configure the mapping from certificate to connection profile [here](#).
  - Buttons: Add, Edit, Delete, End: [input type="text"], Match Case.

Name	SSL Enabled	IPsec Enabled	Aliases	Authentication Method	Group Policy
DefaultRAGroup	<input type="checkbox"/>	<input checked="" type="checkbox"/>		AAA(RAC)	DfltGrpPolicy
DefaultWEBVPNGroup	<input type="checkbox"/>	<input checked="" type="checkbox"/>		AAA(RAC)	DfltGrpPolicy
test	<input type="checkbox"/>	<input type="checkbox"/>	test	AAA(OCA)	Sales

  - Let group URL take precedence if group URL and certificate map match different connection profiles. Otherwise, the connection profile that matches the certificate map will be used.
  - Buttons: Apply, Reset.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The main window displays the configuration for 'AAA/Local Users'. The left sidebar shows a tree view with 'Remote Access VPN' selected. The main content area includes:

- Introduction:** This section contains the following items:
- Links to:
  - AAA Server Groups
  - LDAP Attribute Map
  - MDM Proxy
  - Local Users

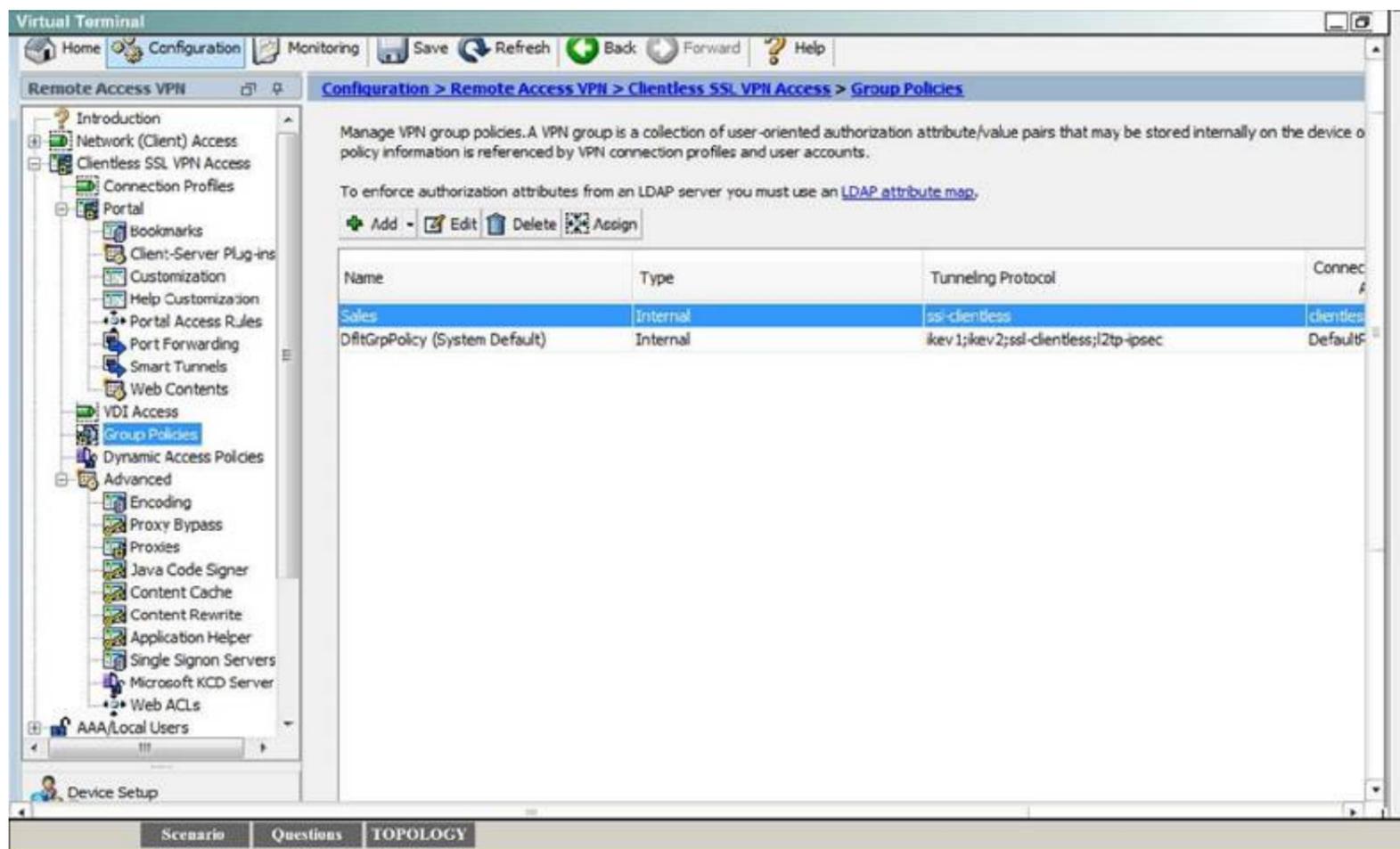


Which for tunneling protocols are enabled in the DfltGrpPolicy group policy? (Choose four)

- A. Clientless SSL VPN
- B. SSL VPN Client
- C. PPTP
- D. L2TP/IPsec
- E. IPsec IKEv1
- F. IPsec IKEv2

**Answer:** ADEF

**Explanation:** By clicking one the Configuration-> Remote Access -> Clientless CCL VPN Access-> Group Policies tab you can view the DfltGrpPolicy protocols as shown below:



**NEW QUESTION 66**

Which FirePOWER preprocessor engine is used to prevent SYN attacks?

- A. Rate-Based Prevention
- B. Portscan Detection
- C. IP Defragmentation
- D. Inline Normalization

**Answer:** A

**Explanation:** Rate-based attack prevention identifies abnormal traffic patterns and attempts to minimize the impact of that traffic on legitimate requests. Rate-based attacks usually have one of the following characteristics:

- + any traffic containing excessive incomplete connections to hosts on the network, indicating a SYN flood attack
- + any traffic containing excessive complete connections to hosts on the network, indicating a TCP/IP connection flood attack
- + excessive rule matches in traffic going to a particular destination IP address or addresses or coming from a particular source IP address or addresses.
- + excessive matches for a particular rule across all traffic. Preventing SYN Attacks

The SYN attack prevention option helps you protect your network hosts against SYN floods. You can protect individual hosts or whole networks based on the number of packets seen over a period of time. If your device is deployed passively, you can generate events. If your device is placed inline, you can also drop the malicious packets. After the timeout period elapses, if the rate condition has stopped, the event generation and packet dropping stops.

Source:  
<http://www.cisco.com/c/en/us/td/docs/security/firesight/541/firepower-module-user-guide/asa-firepower-module-user-guide-v541/Intrusion-Threat-Detection.html>

**NEW QUESTION 70**

Which tasks is the session management path responsible for? (Choose three.)

- A. Verifying IP checksums
- B. Performing route lookup
- C. Performing session lookup
- D. Allocating NAT translations
- E. Checking TCP sequence numbers
- F. Checking packets against the access list

**Answer:** BDF

**Explanation:** The ASA has to check the packet against access lists and perform other tasks to determine if the packet is allowed or denied. To perform this check, the first packet of the session goes through the "session management path," and depending on the type of traffic, it might also pass through the "control plane path." The session management path is responsible for the following tasks:

- + Performing the access list checks
- + Performing route lookups
- + Allocating NAT translations (xlates)
- + Establishing sessions in the "fast path"

Source:  
<http://www.cisco.com/c/en/us/td/docs/security/asa/asa82/configuration/guide/config/intro.html>

**NEW QUESTION 73**

How does the Cisco ASA use Active Directory to authorize VPN users?

- A. It queries the Active Directory server for a specific attribute for the specified user.
- B. It sends the username and password to retrieve an ACCEPT or REJECT message from the Active Directory server.
- C. It downloads and stores the Active Directory database to query for future authorization requests.
- D. It redirects requests to the Active Directory server defined for the VPN group.

**Answer:** A

**Explanation:** When ASA needs to authenticate a user to the configured LDAP server, it first tries to login using the login DN provided. After successful login to the LDAP server, ASA sends a search query for the username provided by the VPN user. This search query is created based on the naming attribute provided in the configuration. LDAP replies to the query with the complete DN of the user. At this stage ASA sends a second login attempt to the LDAP server. In this attempt, ASA tries to login to the LDAP server using the VPN user's full DN and password provided by the user. A successful login to the LDAP server will indicate that the credentials provided by the VPN user are correct and the tunnel negotiation will move to the Phase 2.

Source:

<http://www.networkworld.com/article/2228531/cisco-subnet/using-your-active-directory-for-vpn-authentication-on-asa.html>

#### NEW QUESTION 75

Which two authentication types does OSPF support? (Choose two.)

- A. plaintext
- B. MD5
- C. HMAC
- D. AES 256
- E. SHA-1
- F. DES

**Answer:** AB

**Explanation:** These are the three different types of authentication supported by OSPF + Null Authentication--This is also called Type 0 and it means no authentication information is included in the packet header. It is the default.

+ Plain Text Authentication--This is also called Type 1 and it uses simple clear-text passwords.

+ MD5 Authentication--This is also called Type 2 and it uses MD5 cryptographic passwords.

Source:

<http://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13697-25.html>

#### NEW QUESTION 79

If a switch port goes into a blocked state only when a superior BPDU is received, what mechanism must be in use?

- A. STP root guard
- B. EtherChannel guard
- C. loop guard
- D. STP BPDU guard

**Answer:** A

**Explanation:** Root guard allows the device to participate in STP as long as the device does not try to become the root. If root guard blocks the port, subsequent recovery is automatic. Recovery occurs as soon as the offending device ceases to send superior BPDUs.

Source:

<http://www.cisco.com/c/en/us/support/docs/lan-switching/spanning-tree-protocol/10588-74.html>

#### NEW QUESTION 80

Refer to the exhibit.

```
authentication event fail action next-method
authentication event no-response action authorize vlan 101
authentication order mab dot1x webauth
authentication priority dot1x mab
authentication port-control auto
dot1x pae authenticator
```

If a supplicant supplies incorrect credentials for all authentication methods configured on the switch, how will the switch respond?

- A. The supplicant will fail to advance beyond the webauth method.
- B. The switch will cycle through the configured authentication methods indefinitely.
- C. The authentication attempt will time out and the switch will place the port into the unauthorized state.
- D. The authentication attempt will time out and the switch will place the port into VLAN 101.

**Answer:** A

**Explanation:** Flexible authentication (FlexAuth) is a set of features that allows IT administrators to configure the sequence and priority of IEEE 802.1X, MAC authentication bypass (MAB), and switch-based web authentication (local WebAuth).

Case 2: Order MABDot1x and Priority Dot1x MAB

If you change the order so that MAB comes before IEEE 802.1X authentication and change the default priority so that IEEE 802.1X authentication precedes MAB, then every device in the network will still be subject to MAB, but devices that pass MAB can subsequently go through IEEE 802.1X authentication.

Special consideration must be paid to what happens if a device fails IEEE 802.1X authentication after successful MAB. First, the device will have temporary network access between the time MAB succeeds and IEEE 802.1X authentication fails. What happens next depends on the configured event-fail behavior.

If next-method is configured and a third authentication method (such as WebAuth) is not enabled, then the switch will return to the first method (MAB) after the held

period. MAB will succeed, and the device will again have temporary access until and unless the supplicant tries to authenticate again. If next-method failure handling and local WebAuth are both configured after IEEE 802.1X authentication fails, local WebAuth ignores EAPoL-Start commands from the supplicant.

MAB -->MAB Pass--> Port Authorized by MAB --> EAPoL-Start Received --> IEEE 802.1x MAB -->MABFail--> IEEE 802.1x (config-if)#authentication order mab dot1x (config-if)#authentication priority dot1x mab Source: [http://www.cisco.com/c/en/us/products/collateral/ios-nx-os-software/identity-based-networking-service/application\\_note\\_c27-573287.html](http://www.cisco.com/c/en/us/products/collateral/ios-nx-os-software/identity-based-networking-service/application_note_c27-573287.html)

#### NEW QUESTION 84

When is the best time to perform an anti-virus signature update?

- A. Every time a new update is available.
- B. When the local scanner has detected a new virus.
- C. When a new virus is discovered in the wild.
- D. When the system detects a browser hook.

**Answer:** A

**Explanation:** Source:

<http://www.techrepublic.com/article/four-steps-to-keeping-current-with-antivirus-signature-updates/>

#### NEW QUESTION 88

Which statement about personal firewalls is true?

- A. They can protect a system by denying probing requests.
- B. They are resilient against kernel attacks.
- C. They can protect email messages and private documents in a similar way to a VPN.
- D. They can protect the network against attacks.

**Answer:** A

**Explanation:** + Block or alert the user about all unauthorized inbound or outbound connection attempts + Allows the user to control which programs can and cannot access the local network and/or Internet and provide the user with information about an application that makes a connection attempt + Hide the computer from port scans by not responding to unsolicited network traffic + Monitor applications that are listening for incoming connections + Monitor and regulate all incoming and outgoing Internet users + Prevent unwanted network traffic from locally installed applications + Provide information about the destination server with which an application is attempting to communicate + Track recent incoming events, outgoing events, and intrusion events to see who has accessed or tried to access your computer.

+ Personal Firewall blocks and prevents hacking attempt or attack from hackers Source: [https://en.wikipedia.org/wiki/Personal\\_firewall](https://en.wikipedia.org/wiki/Personal_firewall)

#### NEW QUESTION 90

You want to allow all of your company's users to access the Internet without allowing other Web servers to collect the IP addresses of individual users. What two solutions can you use? (Choose two).

- A. Configure a proxy server to hide users' local IP addresses.
- B. Assign unique IP addresses to all users.
- C. Assign the same IP address to all users.
- D. Install a Web content filter to hide users' local IP addresses.
- E. Configure a firewall to use Port Address Translation.

**Answer:** AE

**Explanation:** In computer networks, a proxy server is a server (a computer system or an application) that acts as an intermediary for requests from clients seeking resources from other servers.[1] A client connects to the proxy server, requesting some service, such as a file, connection, web page, or other resource available from a different server and the proxy server evaluates the request as a way to simplify and control its complexity.

Proxies were invented to add structure and encapsulation to distributed systems.[2] Today, most proxies are web proxies, facilitating access to content on the World Wide Web and providing anonymity.

Source: [https://en.wikipedia.org/wiki/Proxy\\_server](https://en.wikipedia.org/wiki/Proxy_server)

Port Address Translation (PAT) is a subset of NAT, and it is still swapping out the source IP address as traffic goes through the NAT/PAT device, except with PAT everyone does not get their own unique translated address. Instead, the PAT device keeps track of individual sessions based on port numbers and other unique identifiers, and then forwards all packets using a single source IP address, which is shared. This is often referred to as NAT with overload; we are hiding multiple IP addresses on a single global address.

Source: Cisco Official Certification Guide, Port Address Translation, p.368

#### NEW QUESTION 95

A clientless SSL VPN user who is connecting on a Windows Vista computer is missing the menu option for Remote Desktop Protocol on the portal web page. Which action should you take to begin troubleshooting?

- A. Ensure that the RDP2 plug-in is installed on the VPN gateway
- B. Reboot the VPN gateway
- C. Instruct the user to reconnect to the VPN gateway
- D. Ensure that the RDP plug-in is installed on the VPN gateway

**Answer:** D

**Explanation:** + RDP plug-in: This is the original plug-in created that contains both the Java and ActiveX Client. + RDP2 plug-in: Due to changes within the RDP protocol, the Proper Java RDP Client was updated in order to support Microsoft Windows 2003 Terminal Servers and Windows Vista Terminal Servers.

Source:

<http://www.cisco.com/c/en/us/support/docs/security/asa-5500-x-series-next-generation-firewalls/113600-technote-product-00.html>

#### NEW QUESTION 99

What type of security support is provided by the Open Web Application Security Project?

- A. Education about common Web site vulnerabilities.
- B. A Web site security framework.
- C. A security discussion forum for Web site developers.
- D. Scoring of common vulnerabilities and exposures.

**Answer:** A

**Explanation:** The Open Web Application Security Project (OWASP) is a worldwide not-for-profit charitable organization focused on improving the security of software. Our mission is to make software security visible, so that individuals and organizations are able to make informed decisions. OWASP is in a unique position to provide impartial, practical information about AppSec to individuals, corporations, universities, government agencies and other organizations worldwide.  
Source: [https://www.owasp.org/index.php/Main\\_Page](https://www.owasp.org/index.php/Main_Page)

#### NEW QUESTION 103

Which two statements about Telnet access to the ASA are true? (Choose two).

- A. You may VPN to the lowest security interface to telnet to an inside interface.
- B. You must configure an AAA server to enable Telnet.
- C. You can access all interfaces on an ASA using Telnet.
- D. You must use the command virtual telnet to enable Telnet.
- E. Best practice is to disable Telnet and use SSH.

**Answer:** AE

**Explanation:** The ASA allows Telnet and SSH connections to the ASA for management purposes. You cannot use Telnet to the lowest security interface unless you use Telnet inside an IPsec tunnel.

Source:

[http://www.cisco.com/c/en/us/td/docs/security/asa/asa82/configuration/guide/config/access\\_management.html#wp1054101](http://www.cisco.com/c/en/us/td/docs/security/asa/asa82/configuration/guide/config/access_management.html#wp1054101)

#### NEW QUESTION 108

In which two situations should you use out-of-band management? (Choose two.)

- A. when a network device fails to forward packets
- B. when you require ROMMON access
- C. when management applications need concurrent access to the device
- D. when you require administrator access from multiple locations
- E. when the control plane fails to respond

**Answer:** AB

**Explanation:** OOB management is used for devices at the headquarters and is accomplished by connecting dedicated management ports or spare Ethernet ports on devices directly to the dedicated OOB management network hosting the management and monitoring applications and services. The OOB management network can be either implemented as a collection of dedicated hardware or based on VLAN isolation.

Source:

[http://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Security/SAFE\\_RG/SAFE\\_rg/chap9.html](http://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Security/SAFE_RG/SAFE_rg/chap9.html)

#### NEW QUESTION 109

Which type of mirroring does SPAN technology perform?

- A. Remote mirroring over Layer 2
- B. Remote mirroring over Layer 3
- C. Local mirroring over Layer 2
- D. Local mirroring over Layer 3

**Answer:** C

**Explanation:** You can analyze network traffic passing through ports or VLANs by using SPAN or RSPAN to send a copy of the traffic to another port on the switch or on another switch that has been connected to a network analyzer or other monitoring or security device.

Local SPAN supports a SPAN session entirely within one switch; all source ports or source VLANs and destination ports are in the same switch or switch stack.

Each local SPAN session or RSPAN destination session must have a destination port (also called a monitoring port) that receives a copy of traffic from the source ports or VLANs and sends the SPAN packets to the user, usually a network analyzer:

+ If ingress traffic forwarding is enabled for a network security device, the destination port forwards traffic at Layer 2.

Source:

[http://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960/software/release/12-2\\_55\\_se/configuration/guide/scg\\_2960/swspan.html](http://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst2960/software/release/12-2_55_se/configuration/guide/scg_2960/swspan.html)

#### NEW QUESTION 113

Which two services define cloud networks? (Choose two.)

- A. Infrastructure as a Service
- B. Platform as a Service
- C. Security as a Service
- D. Compute as a Service
- E. Tenancy as a Service

**Answer:** AB

**Explanation:** The NIST's definition of cloud computing defines the service models as follows:[2] + Software as a Service (SaaS). The capability provided to the consumer is to use the provider's applications running on a cloud infrastructure. The applications are accessible from various client devices through either a thin client interface, such as a web browser (e.g., web-based email), or a program interface. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, storage, or even individual application capabilities, with the possible exception of limited user-specific application configuration settings.

+ Platform as a Service (PaaS). The capability provided to the consumer is to deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools supported by the provider. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.

+ Infrastructure as a Service (IaaS). The capability provided to the consumer is to provision processing, storage, networks, and other fundamental computing resources where the consumer is able to deploy and run arbitrary software, which can include operating systems and applications. The consumer does not manage or control the underlying cloud infrastructure but has control over operating systems, storage, and deployed applications; and possibly limited control of select networking components (e.g., host firewalls).

Source: [https://en.wikipedia.org/wiki/Cloud\\_computing#Service\\_models](https://en.wikipedia.org/wiki/Cloud_computing#Service_models)

#### NEW QUESTION 114

If a packet matches more than one class map in an individual feature type's policy map, how does the ASA handle the packet?

- A. The ASA will apply the actions from only the first matching class map it finds for the feature type.
- B. The ASA will apply the actions from only the most specific matching class map it finds for the feature type.
- C. The ASA will apply the actions from all matching class maps it finds for the feature type.
- D. The ASA will apply the actions from only the last matching class map it finds for the feature type.

**Answer:** A

**Explanation:** I suppose this could be an Explanation:. Not 100% confident about this. The Explanation: refers to an interface, but the question doesn't specify that. See the following information for how a packet matches class maps in a policy map for a given interface:

1. A packet can match only one class map in the policy map for each feature type.
2. When the packet matches a class map for a feature type, the ASA does not attempt to match it to any subsequent class maps for that feature type.
3. If the packet matches a subsequent class map for a different feature type, however, then the ASA also applies the actions for the subsequent class map, if supported. See the "Incompatibility of Certain Feature Actions" section for more information about unsupported combinations.

If a packet matches a class map for connection limits, and also matches a class map for an application inspection, then both actions are applied.

If a packet matches a class map for HTTP inspection, but also matches another class map that includes HTTP inspection, then the second class map actions are not applied.

Source:

[http://www.cisco.com/c/en/us/td/docs/security/asa/asa84/configuration/guide/asa\\_84\\_cli\\_config/mpf\\_service\\_policy.html](http://www.cisco.com/c/en/us/td/docs/security/asa/asa84/configuration/guide/asa_84_cli_config/mpf_service_policy.html)

#### NEW QUESTION 119

Which two next-generation encryption algorithms does Cisco recommend? (Choose two.)

- A. AES
- B. 3DES
- C. DES
- D. MD5
- E. DH-1024
- F. SHA-384

**Answer:** AF

**Explanation:** The Suite B next-generation encryption (NGE) includes algorithms for authenticated encryption, digital signatures, key establishment, and cryptographic hashing, as listed here:

- + Elliptic Curve Cryptography (ECC) replaces RSA signatures with the ECDSA algorithm + AES in the Galois/Counter Mode (GCM) of operation
- + ECCDigital Signature Algorithm
- + SHA-256, SHA-384, and SHA-512

Source: Cisco Official Certification Guide, Next-Generation Encryption Protocols, p.97

#### NEW QUESTION 123

What are purposes of the Internet Key Exchange in an IPsec VPN? (Choose two.)

- A. The Internet Key Exchange protocol establishes security associations
- B. The Internet Key Exchange protocol provides data confidentiality
- C. The Internet Key Exchange protocol provides replay detection
- D. The Internet Key Exchange protocol is responsible for mutual authentication

**Answer:** AD

**Explanation:** IPsec uses the Internet Key Exchange (IKE) protocol to negotiate and establish secured site-to-site or remote access virtual private network (VPN) tunnels. IKE is a framework provided by the Internet Security Association and Key Management Protocol (ISAKMP) and parts of two other key management protocols, namely Oakley and Secure Key Exchange Mechanism (SKEME).

In IKE Phase 1 IPsec peers negotiate and authenticate each other. In Phase 2 they negotiate keying materials and algorithms for the encryption of the data being transferred over the IPsec tunnel.

Source: Cisco Official Certification Guide, The Internet Key Exchange (IKE) Protocol, p.123

#### NEW QUESTION 124

Which type of firewall can act on the behalf of the end device?

- A. Stateful packet
- B. Application
- C. Packet
- D. Proxy

**Answer:** D

**Explanation:** Application firewalls, as indicated by the name, work at Layer 7, or the application layer of the OSI model. These devices act on behalf of a client (aka proxy) for requested services.

Because application/proxy firewalls act on behalf of a client, they provide an additional "buffer" from port scans, application attacks, and so on. For example, if an attacker found a vulnerability in an application, the attacker would have to compromise the application/proxy firewall before attacking devices behind the firewall. The application/proxy firewall can also be patched quickly in the event that a vulnerability is discovered. The same may not hold true for patching all the internal devices.

Source:

<http://www.networkworld.com/article/2255950/lan-wan/chapter-1--types-of-firewalls.html>

#### NEW QUESTION 129

According to Cisco best practices, which three protocols should the default ACL allow on an access port to enable wired BYOD devices to supply valid credentials and connect to the network? (Choose three.)

- A. BOOTP
- B. TFTP
- C. DNS
- D. MAB
- E. HTTP
- F. 802.1x

**Answer:** ABC

**Explanation:** ACLs are the primary method through which policy enforcement is done at access layer switches for wired devices within the campus.

ACL-DEFAULT--This ACL is configured on the access layer switch and used as a default ACL on the port. Its purpose is to prevent un-authorized access.

An example of a default ACL on a campus access layer switch is shown below: Extended IP access list ACL-DEFAULT

```
10 permit udp any eq bootpc any eq bootps log (2604 matches) 20 permit udp any host 10.230.1.45 eq domain 30 permit icmp any any
```

```
40 permit udp any any eq tftp
```

```
50 deny ip any any log (40 matches)
```

As seen from the output above, ACL-DEFAULT allows DHCP, DNS, ICMP, and TFTP traffic and denies everything else.

Source:

[http://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Borderless\\_Networks/Unified\\_Access/BYOD\\_Design\\_Guide/BYOD\\_Wired.html](http://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Borderless_Networks/Unified_Access/BYOD_Design_Guide/BYOD_Wired.html)

MAB is an access control technique that Cisco provides and it is called MAC Authentication Bypass.

#### NEW QUESTION 131

Which network device does NTP authenticate?

- A. Only the time source
- B. Only the client device
- C. The firewall and the client device
- D. The client device and the time source

**Answer:** A

**Explanation:** You can configure the device to authenticate the time sources to which the local clock is synchronized. When you enable NTP authentication, the device synchronizes to a time source only if the source carries one of the authentication keys specified by the ntp trusted-key command. The device drops any packets that fail the authentication check and prevents them from updating the local clock. NTP authentication is disabled by default.

Source:

[http://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/5\\_x/nx-os/system\\_management/configuration/guide/sm\\_nx\\_os\\_cg/sm\\_3ntp.html#wp1100303%0A](http://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/5_x/nx-os/system_management/configuration/guide/sm_nx_os_cg/sm_3ntp.html#wp1100303%0A)

#### NEW QUESTION 136

What type of algorithm uses the same key to encrypt and decrypt data?

- A. a symmetric algorithm
- B. an asymmetric algorithm
- C. a Public Key Infrastructure algorithm
- D. an IP security algorithm

**Answer:** A

**Explanation:** A symmetric encryption algorithm, also known as a symmetrical cipher, uses the same key to encrypt the data and decrypt the data.

Source: Cisco Official Certification Guide, p.93

#### NEW QUESTION 140

Which option is the most effective placement of an IPS device within the infrastructure?

- A. Inline, behind the internet router and firewall
- B. Inline, before the internet router and firewall
- C. Promiscuously, after the Internet router and before the firewall
- D. Promiscuously, before the Internet router and the firewall

**Answer:** A

**Explanation:** Firewalls are generally designed to be on the network perimeter and can handle dropping a lot of the non- legitimate traffic (attacks, scans etc.) very quickly at the ingress interface, often in hardware.

An IDS/IPS is, generally speaking, doing more deep packet inspections and that is a much more computationally expensive undertaking. For that reason, we prefer to filter what gets to it with the firewall line of defense before engaging the IDS/IPS to analyze the traffic flow.

Source: <https://supportforums.cisco.com/discussion/12428821/correct-placement-idsips-network-architecture>

#### NEW QUESTION 141

For what reason would you configure multiple security contexts on the ASA firewall?

- A. To separate different departments and business units.
- B. To enable the use of VRFs on routers that are adjacently connected.
- C. To provide redundancy and high availability within the organization.
- D. To enable the use of multicast routing and QoS through the firewall.

**Answer:** A

**Explanation:** You can partition a single ASA into multiple virtual devices, known as security contexts. Each context is an independent device, with its own security policy, interfaces, and administrators. Multiple contexts are similar to having multiple standalone devices.

Common Uses for Security Contexts

+ You are a service provider and want to sell security services to many customers. By enabling multiple security contexts on the ASA, you can implement a cost-effective, space-saving solution that keeps all customer traffic separate and secure, and also eases configuration.

+ You are a large enterprise or a college campus and want to keep departments completely separate.

+ You are an enterprise that wants to provide distinct security policies to different departments.

+ You have any network that requires more than one ASA.

Source:

[http://www.cisco.com/c/en/us/td/docs/security/asa/asa84/configuration/guide/asa\\_84\\_cli\\_config/mode\\_contexts.html](http://www.cisco.com/c/en/us/td/docs/security/asa/asa84/configuration/guide/asa_84_cli_config/mode_contexts.html)

#### NEW QUESTION 142

Which components does HMAC use to determine the authenticity and integrity of a message? (Choose two.)

- A. The password
- B. The hash
- C. The key
- D. The transform set

**Answer:** BC

**Explanation:** In cryptography, a keyed-hash message authentication code (HMAC) is a specific type of message authentication code (MAC) involving a cryptographic hash function and a secret cryptographic key. It may be used to simultaneously verify both the data integrity and the authentication of a message.

Source: [https://en.wikipedia.org/wiki/Hash-based\\_message\\_authentication\\_code](https://en.wikipedia.org/wiki/Hash-based_message_authentication_code)

#### NEW QUESTION 144

Which statements about reflexive access lists are true? (Choose three.)

- A. Reflexive access lists create a permanent ACE
- B. Reflexive access lists approximate session filtering using the established keyword
- C. Reflexive access lists can be attached to standard named IP ACLs
- D. Reflexive access lists support UDP sessions
- E. Reflexive access lists can be attached to extended named IP ACLs
- F. Reflexive access lists support TCP sessions

**Answer:** DEF

**Explanation:** To define a reflexive access list, you use an entry in an extended named IP access list. This entry must use the reflect keyword.

A reflexive access list is triggered when a new IP upper-layer session (such as TCP or UDP) is initiated from inside your network, with a packet traveling to the external network.

Moreover, the previous method of using the established keyword was available only for the TCP upper-layer protocol. So, for the other upper-layer protocols (such as UDP, ICMP, and so forth), you would have to either permit all incoming traffic or define all possible permissible source/destination host/port address pairs for each protocol. (Besides being an unmanageable task, this could exhaust NVRAM space.) Source:

[http://www.cisco.com/c/en/us/td/docs/ios/12\\_2/security/configuration/guide/fsecur\\_c/scfreflx.html#54908](http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/configuration/guide/fsecur_c/scfreflx.html#54908)

#### NEW QUESTION 148

Which source port does IKE use when NAT has been detected between two VPN gateways?

- A. TCP 4500
- B. TCP 500
- C. UDP 4500
- D. UDP 500

**Answer:** C

**Explanation:** The IKE protocol uses UDP packets, usually on port 500

NAT traversal: The encapsulation of IKE and ESP in UDP port 4500 enables these protocols to pass through a device or firewall performing NAT

Source: [https://en.wikipedia.org/wiki/Internet\\_Key\\_Exchange](https://en.wikipedia.org/wiki/Internet_Key_Exchange)

#### NEW QUESTION 151

When an IPS detects an attack, which action can the IPS take to prevent the attack from spreading?

- A. Deny the connection inline.
- B. Perform a Layer 6 reset.
- C. Deploy an antimalware system.
- D. Enable bypass mode.

**Answer:** A

**Explanation:** Deny connection inline: This action terminates the packet that triggered the action and future packets that are part of the same TCP connection. The attacker could open up a new TCP session (using different port numbers), which could still be permitted through the inline IPS.

Available only if the sensor is configured as an IPS.

Source: Cisco Official Certification Guide, Table 17-4 Possible Sensor Responses to Detected Attacks, p.465

#### NEW QUESTION 153

Which syslog severity level is level number 7?

- A. Warning
- B. Informational
- C. Notification
- D. Debugging

**Answer:** D

**Explanation:** Remember: There is a mnemonic device for remembering the order of the eight syslog levels: "Every Awesome Cisco Engineer Will Need Icecream Daily"

0 - Emergency

1 - Alert

2 - Critical

3 - Error

4 - Warning

5 - Notification

6 - Informational

7 - Debugging

#### NEW QUESTION 154

What is a possible reason for the error message?Router(config)#aaa server?% Unrecognized command

- A. The command syntax requires a space after the word "server"
- B. The command is invalid on the target device
- C. The router is already running the latest operating system
- D. The router is a new device on which the aaa new-model command must be applied before continuing

**Answer:** D

**Explanation:** Before you can use any of the services AAA network security services provide, you must enable AAA. Source:

[http://www.cisco.com/c/en/us/td/docs/ios/12\\_2/security/configuration/guide/fsecur\\_c/scfaaa.html](http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/configuration/guide/fsecur_c/scfaaa.html)

#### NEW QUESTION 158

Which Sourcefire logging action should you choose to record the most detail about a connection?

- A. Enable logging at the end of the session.
- B. Enable logging at the beginning of the session.
- C. Enable alerts via SNMP to log events off-box.
- D. Enable eStreamer to log events off-box.

**Answer:** A

**Explanation:** FirePOWER (former Sourcefire)

Logging the Beginning And End of Connections

When the system detects a connection, in most cases you can log it at its beginning and its end.

For a single non-blocked connection, the end-of-connection event contains all of the information in the beginning-of-connection event, as well as information gathered over the duration of the session.

Source:

<http://www.cisco.com/c/en/us/td/docs/security/firesight/541/firepower-module-user-guide/asa-firepower-module-user-guide-v541/AC-Connection-Logging.html#15726>

Topic 2, Exam Pool B

#### NEW QUESTION 162

Which security measures can protect the control plane of a Cisco router? (Choose two.)

- A. CCPr
- B. Parser views
- C. Access control lists
- D. Port security
- E. CoPP

**Answer:** AE

**Explanation:** Three Ways to Secure the Control Plane

+ Control plane policing (CoPP): You can configure this as a filter for any traffic destined to an IP address on the router itself.

+ Control plane protection (CPPr): This allows for a more detailed classification of traffic (more than CoPP) that is going to use the CPU for handling.

+ Routing protocol authentication

For example, you could decide and configure the router to believe that SSH is acceptable at 100 packets per second, syslog is acceptable at 200 packets per second, and so on. Traffic that exceeds the thresholds can be safely dropped if it is not from one of your specific management stations.

You can specify all those details in the policy.

You learn more about control plane security in Chapter 13, "Securing Routing Protocols and the Control Plane."

Selective Packet Discard (SPD) provides the ability to Although not necessarily a security feature, prioritize certain types of packets (for example, routing protocol packets and Layer 2 keepalive messages, route processor [RP]). SPD provides priority of critical control plane traffic which are received by the over traffic that is less important or, worse yet, is being sent maliciously to starve the CPU of resources required for the RP.

Source: Cisco Official Certification Guide, Table 10-3 Three Ways to Secure the Control Plane , p.269

#### NEW QUESTION 167

Refer to the exhibit.

```
Username HelpDesk privilege 9 password 0 helpdesk
Username Monitor privilege 8 password 0 watcher
Username Admin password checkme
Username Admin privilege 6 autocommand show running
Privilege exec level 6 configure terminal
```

The Admin user is unable to enter configuration mode on a device with the given configuration. What change can you make to the configuration to correct the problem?

- A. Remove the autocommand keyword and arguments from the username admin privilege line.
- B. Change the Privilege exec level value to 15.
- C. Remove the two Username Admin lines.
- D. Remove the Privilege exec line.

**Answer:** A

#### NEW QUESTION 171

Which two authentication types does OSPF support? (Choose two.)

- A. plaintext
- B. MD5
- C. HMAC
- D. AES 256
- E. SHA-1
- F. DES

**Answer:** AB

#### NEW QUESTION 174

Which statement about IOS privilege levels is true?

- A. Each privilege level supports the commands at its own level and all levels below it.
- B. Each privilege level supports the commands at its own level and all levels above it.
- C. Privilege-level commands are set explicitly for each user.
- D. Each privilege level is independent of all other privilege levels.

**Answer:** A

#### NEW QUESTION 178

In which three ways does the RADIUS protocol differ from TACACS? (Choose three.)

- A. RADIUS uses UDP to communicate with the NAS.
- B. RADIUS encrypts only the password field in an authentication packet.
- C. RADIUS authenticates and authorizes simultaneously, causing fewer packets to be transmitted.
- D. RADIUS uses TCP to communicate with the NAS.
- E. RADIUS can encrypt the entire packet that is sent to the NAS.
- F. RADIUS supports per-command authorization.

**Answer:** ABC

**Explanation:** Cisco Official Certification Guide, Table 3-2 TACACS+ Versus RADIUS, p.40

#### NEW QUESTION 183

What is a benefit of a web application firewall?

- A. It blocks known vulnerabilities without patching applications.
- B. It simplifies troubleshooting.
- C. It accelerates web traffic.
- D. It supports all networking protocols.

**Answer:** A

**Explanation:** A Web Application Firewall (or WAF) filters, monitors, and blocks HTTP traffic to and from a web application. A WAF is differentiated from a regular firewall in that a WAF is able to filter the content of specific web applications while regular firewalls serve as a safety gate between servers. By inspecting HTTP traffic, it can prevent attacks stemming from web application security flaws, such as SQL injection, Cross-Site Scripting (XSS) and security misconfigurations.  
Source: [https://en.wikipedia.org/wiki/Web\\_application\\_firewall](https://en.wikipedia.org/wiki/Web_application_firewall)

#### NEW QUESTION 188

Which IPS mode provides the maximum number of actions?

- A. inline
- B. promiscuous
- C. span
- D. failover
- E. bypass

**Answer:** A

**Explanation:** The first option is to put a sensor inline with the traffic, which just means that any traffic going through your network is forced to go in one physical or logical port on the sensor.

Because the sensor is inline with the network, and because it can drop a packet and deny that packet from ever reaching its final destination (because it might cause harm to that destination), the sensor has in fact just prevented that attack from being carried out. That is the concept behind intrusion prevention systems (IPS).

Whenever you hear IPS mentioned, you immediately know that the sensor is inline with the traffic, which makes it possible to prevent the attack from making it further into the network.

Source: Cisco Official Certification Guide, Difference Between IPS and IDS, p.460

#### NEW QUESTION 189

Which type of encryption technology has the broadest platform support to protect operating systems?

- A. software
- B. hardware
- C. middleware
- D. file-level

**Answer:** A

**Explanation:** Much commercial and free software enables you to encrypt files in an end-user workstation or mobile device. The following are a few examples of free solutions:

+ GPG: GPG also enables you to encrypt files and folders on a Windows, Mac, or Linux system. GPG is free.

+ The built-in MAC OS X Disk Utility: Disk Utility enables you to create secure disk images by encrypting files with AES 128-bit or AES 256-bit encryption.

+ TrueCrypt: A free encryption tool for Windows, Mac, and Linux systems.

+ AxCrypt: A free Windows-only file encryption tool.

+ BitLocker: Full disk encryption feature included in several Windows operating systems.

+ Many Linux distributions such as Ubuntu: Allow you to encrypt the home directory of a user with built-in utilities.

+ MAC OS X FileVault: Supports full disk encryption on Mac OS X systems. The following are a few examples of commercial file encryption software:

+ Symantec Endpoint Encryption

+ PGP Whole Disk Encryption

+ McAfee Endpoint Encryption (SafeBoot)

+ Trend Micro Endpoint Encryption

Source: Cisco Official Certification Guide, Encrypting Endpoint Data at Rest, p.501

#### NEW QUESTION 194

Refer to the exhibit.

dst	src	state	conn-id	slot
10.10.10.2	10.1.1.5	QM_IDLE	1	0

While troubleshooting site-to-site VPN, you issued the show crypto isakmp sa command. What does the given output show?

- A. IPsec Phase 1 is established between 10.10.10.2 and 10.1.1.5.
- B. IPsec Phase 2 is established between 10.10.10.2 and 10.1.1.5.
- C. IPsec Phase 1 is down due to a QM\_IDLE state.
- D. IPsec Phase 2 is down due to a QM\_IDLE state.

**Answer:** A

#### NEW QUESTION 195

What mechanism does asymmetric cryptography use to secure data?

- A. a public/private key pair
- B. shared secret keys
- C. an RSA nonce
- D. an MD5 hash

**Answer:** A

**Explanation:** Public key cryptography, or asymmetric cryptography, is any cryptographic system that uses pairs of keys: public keys which may be disseminated widely, and private keys which are known only to the owner. This accomplishes two functions: authentication, which is when the public key is used to verify that a holder of the paired private key sent the message, and encryption, whereby only the holder of the paired private key can decrypt the message encrypted with the public key.

Source: [https://en.wikipedia.org/wiki/Public-key\\_cryptography](https://en.wikipedia.org/wiki/Public-key_cryptography)

#### NEW QUESTION 200

Which statement about the communication between interfaces on the same security level is true?

- A. Interfaces on the same security level require additional configuration to permit inter-interface communication.
- B. Configuring interfaces on the same security level can cause asymmetric routing.
- C. All traffic is allowed by default between interfaces on the same security level.
- D. You can configure only one interface on an individual security level.

**Answer:** A

**Explanation:** By default, if two interfaces are both at the exact same security level, traffic is not allowed between those two interfaces.

To permit communication between interfaces with equal security levels, or to allow traffic to enter and exit the same interface, use the same-security-traffic command in global configuration mode.

#same-security-traffic

permit {inter-interface | intra-interface} Source: Cisco Official Certification Guide, The Default Flow of Traffic, p.422

<http://www.cisco.com/c/en/us/td/docs/security/asa/asa82/command>

#### NEW QUESTION 205

What is a valid implicit permit rule for traffic that is traversing the ASA firewall?

- A. ARPs in both directions are permitted in transparent mode only.
- B. Unicast IPv4 traffic from a higher security interface to a lower security interface is permitted in routed mode only.
- C. Unicast IPv6 traffic from a higher security interface to a lower security interface is permitted in transparent mode only.
- D. Only BPDUs from a higher security interface to a lower security interface are permitted in transparent mode.
- E. Only BPDUs from a higher security interface to a lower security interface are permitted in routed mode.

**Answer:** A

**Explanation:** ARPs are allowed through the transparent firewall in both directions without an ACL. ARP traffic can be controlled by ARP inspection.

Source: <http://www.cisco.com/c/en/us/td/docs/security/asa/asa93/configuration/general/asa-general-cli/intro-fw.html>

#### NEW QUESTION 206

Which three statements describe DHCP spoofing attacks? (Choose three.)

- A. They can modify traffic in transit.
- B. They are used to perform man-in-the-middle attacks.
- C. They use ARP poisoning.
- D. They can access most network devices.
- E. They protect the identity of the attacker by masking the DHCP address.
- F. They can physically modify the network gateway.

**Answer:** ABC

**Explanation:** DHCP spoofing occurs when an attacker attempts to respond to DHCP requests and trying to list themselves (spoofs) as the default gateway or DNS server, hence, initiating a man in the middle attack. With that, it is possible that they can intercept traffic from users before forwarding to the real gateway or perform DoS by flooding the real DHCP server with request to choke ip address resources.

Source: <https://learningnetwork.cisco.com/thread/67229> <https://learningnetwork.cisco.com/docs/DOC-24355>

Also when i took the exam, it asked me for only 2 options. AB is correct

#### NEW QUESTION 209

What are two uses of SIEM software? (Choose two.)

- A. collecting and archiving syslog data
- B. alerting administrators to security events in real time
- C. performing automatic network audits
- D. configuring firewall and IDS devices
- E. scanning email for suspicious attachments

**Answer:** AB

**Explanation:** Security Information Event Management SIEM

+ Log collection of event records from sources throughout the organization provides important forensic tools and helps to address compliance reporting requirements.

+ Normalization maps log messages from different systems into a common data model, enabling the organization to connect and analyze related events, even if they are initially logged in different source formats.

+ Correlation links logs and events from disparate systems or applications, speeding detection of and reaction to security threats.

+ Aggregation reduces the volume of event data by consolidating duplicate event records. + Reporting presents the correlated, aggregated event data in real-time monitoring and long-term summaries.

Source:

[http://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise/design-zone-smart-business-architecture/sbaSIEM\\_deployG.pdf](http://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise/design-zone-smart-business-architecture/sbaSIEM_deployG.pdf)

#### NEW QUESTION 214

Which statement provides the best definition of malware?

- A. Malware is unwanted software that is harmful or destructive.
- B. Malware is software used by nation states to commit cyber crimes.
- C. Malware is a collection of worms, viruses, and Trojan horses that is distributed as a single package.
- D. Malware is tools and applications that remove unwanted programs.

**Answer:** A

**Explanation:** Malware, short for malicious software, is any software used to disrupt computer or mobile operations, gather sensitive information, gain access to private computer systems, or display unwanted advertising.[1] Before the term malware was coined by Yisrael Radai in 1990, malicious software was referred to as computer viruses.

Source: <https://en.wikipedia.org/wiki/Malware>

#### NEW QUESTION 219

Which type of security control is defense in depth?

- A. Threat mitigation
- B. Risk analysis
- C. Botnet mitigation
- D. Overt and covert channels

**Answer:** A

**Explanation:** Defense in-depth is the key to stopping most, but not all, network and computer related attacks. It's a concept of deploying several layers of defense that mitigate security threats.

Source:

<http://security2b.blogspot.ro/2006/12/what-is-defense-in-depth-and-why-is-it.html>

#### NEW QUESTION 222

When an administrator initiates a device wipe command from the ISE, what is the immediate effect?

- A. It requests the administrator to choose between erasing all device data or only managed corporate data.
- B. It requests the administrator to enter the device PIN or password before proceeding with the operation.
- C. It notifies the device user and proceeds with the erase operation.
- D. It immediately erases all data on the device.

**Answer:** A

**Explanation:** Cisco ISE allows you to wipe or turn on pin lock for a device that is lost. From the MDM Access drop-down list, choose any one of the following options:

+ Full Wipe -- Depending on the MDM vendor, this option either removes the corporate apps or resets the device to the factory settings.

+ Corporate Wipe -- Removes applications that you have configured in the MDM server policies + PIN Lock

-- Locks the device

Source:

[http://www.cisco.com/c/en/us/td/docs/security/ise/1-4/admin\\_guide/b\\_ise\\_admin\\_guide\\_14/](http://www.cisco.com/c/en/us/td/docs/security/ise/1-4/admin_guide/b_ise_admin_guide_14/)

[b\\_ise\\_admin\\_guide\\_14\\_chapter\\_01001.html#task\\_820C9C2A1A6647E995CA5AAB01E1CDEF](http://www.cisco.com/c/en/us/td/docs/security/ise/1-4/admin_guide/b_ise_admin_guide_14_chapter_01001.html#task_820C9C2A1A6647E995CA5AAB01E1CDEF)

**NEW QUESTION 223**

Which protocols use encryption to protect the confidentiality of data transmitted between two parties? (Choose two.)

- A. FTP
- B. SSH
- C. Telnet
- D. AAA
- E. HTTPS
- F. HTTP

**Answer:** BE

**Explanation:** + Secure Shell (SSH) provides the same functionality as Telnet, in that it gives you a CLI to a router or switch; unlike Telnet, however, SSH encrypts all the packets that are used in the session.

+ For graphical user interface (GUI) management tools such as CCP, use HTTPS rather than HTTP because, like SSH, it encrypts the session, which provides confidentiality for the packets in that session.

Source: Cisco Official Certification Guide, Encrypted Management Protocols, p.287

**NEW QUESTION 225**

In which three cases does the ASA firewall permit inbound HTTP GET requests during normal operations? (Choose three).

- A. when matching NAT entries are configured
- B. when matching ACL entries are configured
- C. when the firewall receives a SYN-ACK packet
- D. when the firewall receives a SYN packet
- E. when the firewall requires HTTP inspection
- F. when the firewall requires strict HTTP inspection

**Answer:** ABD

**Explanation:** <https://supportforums.cisco.com/discussion/11809846/asa-5505-using-nat-allowing-incoming-traffic-https>

<https://supportforums.cisco.com/discussion/12473551/asa-what-allowing-return-http-traffic>

**NEW QUESTION 226**

Which two features are commonly used CoPP and CPPr to protect the control plane? (Choose two.)

- A. QoS
- B. traffic classification
- C. access lists
- D. policy maps
- E. class maps
- F. Cisco Express Forwarding

**Answer:** AB

**NEW QUESTION 227**

What are the three layers of a hierarchical network design? (Choose three.)

- A. access
- B. core
- C. distribution
- D. user
- E. server
- F. Internet

**Answer:** ABC

**Explanation:** A typical enterprise hierarchical LAN campus network design includes the following three layers:

+ Access layer: Provides workgroup/user access to the network + Distribution layer: Provides policy-based connectivity and controls the boundary between the access and core layers

+ Core layer: Provides fast transport between distribution switches within the enterprise campus Source: <http://www.ciscopress.com/articles/article.asp?p=2202410&seqNum=4>

**NEW QUESTION 228**

What configuration allows AnyConnect to automatically establish a VPN session when a user logs in to the computer?

- A. always-on
- B. proxy
- C. transparent mode
- D. Trusted Network Detection

**Answer:** A

**Explanation:** You can configure AnyConnect to establish a VPN session automatically after the user logs in to a computer. The VPN session remains open until the user logs out of the computer, or the session timer or idle session timer expires. The group policy assigned to the session specifies these timer values. If

AnyConnect loses the connection with the ASA, the ASA and the client retain the resources assigned to the session until one of these timers expire. AnyConnect continually attempts to reestablish the connection to reactivate the session if it is still open; otherwise, it continually attempts to establish a new VPN session.

Source:

[http://www.cisco.com/c/en/us/td/docs/security/vpn\\_client/anyconnect/anyconnect30/administration/guide/anyconnectadmin30/ac03vpn.pdf](http://www.cisco.com/c/en/us/td/docs/security/vpn_client/anyconnect/anyconnect30/administration/guide/anyconnectadmin30/ac03vpn.pdf)

**NEW QUESTION 233**

Which type of PVLAN port allows hosts in the same VLAN to communicate directly with each other?

- A. community for hosts in the PVLAN
- B. promiscuous for hosts in the PVLAN
- C. isolated for hosts in the PVLAN
- D. span for hosts in the PVLAN

**Answer:** A

**Explanation:** The types of private VLAN ports are as follows:

+ Promiscuous - The promiscuous port can communicate with all interfaces, including the community and isolated host ports, that belong to those secondary VLANs associated to the promiscuous port and associated with the primary VLAN

+ Isolated - This port has complete isolation from other ports within the same private VLAN domain, except that it can communicate with associated promiscuous ports.

+ Community -- A community port is a host port that belongs to a community secondary VLAN. Community ports communicate with other ports in the same community VLAN and with associated promiscuous ports.

These interfaces are isolated from all other interfaces in other communities and from all isolated ports within the private VLAN domain.

Source:

<http://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/configuration/guide/cli/CLIConfigurationGuide/PrivateVLANs.html#42874>

**NEW QUESTION 236**

What is the primary purpose of a defined rule in an IPS?

- A. to configure an event action that takes place when a signature is triggered
- B. to define a set of actions that occur when a specific user logs in to the system
- C. to configure an event action that is pre-defined by the system administrator
- D. to detect internal attacks

**Answer:** A

**NEW QUESTION 238**

On which Cisco Configuration Professional screen do you enable AAA

- A. AAA Summary
- B. AAA Servers and Groups
- C. Authentication Policies
- D. Authorization Policies

**Answer:** A

**NEW QUESTION 242**

What improvement does EAP-FASTv2 provide over EAP-FAST?

- A. It allows multiple credentials to be passed in a single EAP exchange.
- B. It supports more secure encryption protocols.
- C. It allows faster authentication by using fewer packets.
- D. It addresses security vulnerabilities found in the original protocol.

**Answer:** A

**Explanation:** As an enhancement to EAP-FAST, a differentiation was made to have a User PAC and a Machine PAC. After a successful machine-authentication, ISE will issue a Machine-PAC to the client. Then, when processing a user- authentication, ISE will request the Machine-PAC to prove that the machine was successfully authenticated, too. This is the first time in 802.1X history that multiple credentials have been able to be authenticated within a single EAP transaction, and it is known as "EAP Chaining".

Source:

<http://www.networkworld.com/article/2223672/access-control/which-eap-types-do-you-need-for-which-identity-projects.html>

**NEW QUESTION 245**

A data breach has occurred and your company database has been copied. Which security principle has been violated?

- A. confidentiality
- B. availability
- C. access
- D. control

**Answer:** A

**Explanation:** Confidentiality: There are two types of data: data in motion as it moves across the network; and data at rest, when data is sitting on storage media (server, local workstation, in the cloud, and so forth). Confidentiality means that only the authorized individuals/ systems can view sensitive or classified

information.

Source: Cisco Official Certification Guide, Confidentiality, Integrity, and Availability, p.6

#### NEW QUESTION 246

Refer to the exhibit.

```
tacacs server tacacs1
  address ipv4 1.1.1.1
  timeout 20
  single-connection

tacacs server tacacs2
  address ipv4 2.2.2.2
  timeout 20
  single-connection

tacacs server tacacs3
  address ipv4 3.3.3.3
  timeout 20
  single-connection
```

Which statement about the given configuration is true?

- A. The single-connection command causes the device to establish one connection for all TACACS transactions.
- B. The single-connection command causes the device to process one TACACS request and then move to the next server.
- C. The timeout command causes the device to move to the next server after 20 seconds of TACACS inactivity.
- D. The router communicates with the NAS on the default port, TCP 1645.

**Answer:** A

**Explanation:** tacacs-server host host-name [port integer] [timeout integer] [key string] [single-connection] [nat] The single-connection keyword specifies a single connection (only valid with CiscoSecure Release 1.0.1 or later). Rather than have the router open and close a TCP connection to the server each time it must communicate, the single-connection option maintains a single open connection between the router and the server. The single connection is more efficient because it allows the server to handle a higher number of TACACS operations.

Source:

[http://www.cisco.com/c/en/us/td/docs/ios/12\\_2/security/command](http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/command)

#### NEW QUESTION 248

Refer to the exhibit.

```
Username Engineer privilege 9 password 0 configure
Username Monitor privilege 8 password 0 watcher
Username HelpDesk privilege 6 password help
Privilege exec level 6 show running
Privilege exec level 7 show start-up
Privilege exec level 9 configure terminal
Privilege exec level 10 interface
```

Which line in this configuration prevents the HelpDesk user from modifying the interface configuration?

- A. Privilege exec level 9 configure terminal
- B. Privilege exec level 10 interface
- C. Username HelpDesk privilege 6 password help
- D. Privilege exec level 7 show start-up

**Answer:** A

**Explanation:** Command A sets the "configure terminal" command at privilege level 9, which is a higher level than HelpDesk has access to. Also, some of the dumps say "Privilege exec level 9 show configure terminal" in the config and the answer options. This is not a different version of the question, it is a mistake. The line "show configure terminal" is not a valid command in Cisco IOS.

#### NEW QUESTION 251

How does a device on a network using ISE receive its digital certificate during the new-device registration process?

- A. ISE acts as a SCEP proxy to enable the device to receive a certificate from a central CA server.
- B. ISE issues a certificate from its internal CA server.
- C. ISE issues a pre-defined certificate from a local database.
- D. The device requests a new certificate directly from a central CA.

**Answer:** A

**Explanation:** SCEP Profile Configuration on ISE

Within this design, ISE is acting as a Simple Certificate Enrollment Protocol (SCEP) proxy server, thereby allowing mobile clients to obtain their digital certificates from the CA server. This important feature of ISE allows all endpoints, such as iOS, Android, Windows, and MAC, to obtain digital certificates through the ISE. This feature combined with the initial registration process greatly simplifies the provisioning of digital certificates on endpoints.

Source:

[http://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Borderless\\_Networks/Unified\\_Access/BYOD\\_Design\\_Guide/BYOD\\_ISE.html](http://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Borderless_Networks/Unified_Access/BYOD_Design_Guide/BYOD_ISE.html)

### NEW QUESTION 255

How can FirePOWER block malicious email attachments?

- A. It forwards email requests to an external signature engine.
- B. It scans inbound email messages for known bad URLs.
- C. It sends the traffic through a file policy.
- D. It sends an alert to the administrator to verify suspicious email messages.

**Answer:** C

**Explanation:** A file policy is a set of configurations that the system uses to perform advanced malware protection and file control, as part of your overall access control configuration.

A file policy, like its parent access control policy, contains rules that determine how the system handles files that match the conditions of each rule. You can configure separate file rules to take different actions for different file types, application protocols, or directions of transfer.

You can associate a single file policy with an access control rule whose action is Allow, Interactive Block, or Interactive Block with reset. The system then uses that file policy to inspect network traffic that meets the conditions of the access control rule.

Source:

<http://www.cisco.com/c/en/us/td/docs/security/firesight/541/firepower-module-user-guide/asa-firepower-module-user-guide-v541/AMP-Config.html>

### NEW QUESTION 256

Which of the following statements about access lists are true? (Choose three.)

- A. Extended access lists should be placed as near as possible to the destination
- B. Extended access lists should be placed as near as possible to the source
- C. Standard access lists should be placed as near as possible to the destination
- D. Standard access lists should be placed as near as possible to the source
- E. Standard access lists filter on the source address
- F. Standard access lists filter on the destination address

**Answer:** BCE

**Explanation:** Source:

<http://www.ciscopress.com/articles/article.asp?p=1697887> Standard ACL

- 1) Able Restrict, deny & filter packets by Host Ip or subnet only.
- 2) Best Practice is put Std. ACL restriction near from Source Host/Subnet (Interface-In-bound).
- 3) No Protocol based restriction. (Only HOST IP). Extended ACL
- 1) More flexible then Standard ACL.
- 2) You can filter packets by Host/Subnet as well as Protocol/TCP/Port/UDP/Port.
- 3) Best Practice is put restriction near from Destination Host/Subnet. (Interface-Outbound)

Topic 3, Exam Pool C

### NEW QUESTION 260

ACisco ASA appliance has three interfaces configured. The first interface is the inside interface with a security level of 100. The second interface is the DMZ interface with a security level of 50. The third interface is the outside interface with a security level of 0.

By default, without any access list configured, which five types of traffic are permitted? (Choose five.)

- A. outbound traffic initiated from the inside to the DMZ
- B. outbound traffic initiated from the DMZ to the outside
- C. outbound traffic initiated from the inside to the outside
- D. inbound traffic initiated from the outside to the DMZ
- E. inbound traffic initiated from the outside to the inside
- F. inbound traffic initiated from the DMZ to the inside
- G. HTTP return traffic originating from the inside network and returning via the outside interface
- H. HTTP return traffic originating from the inside network and returning via the DMZ interface
- I. HTTP return traffic originating from the DMZ network and returning via the inside interface
- J. HTTP return traffic originating from the outside network and returning via the inside interface

**Answer:** ABCGH

**Explanation:**

<http://www.cisco.com/en/US/docs/security/asa/asa70/configuration/guide/intparam.html>

Security Level

Overview

Each interface must have a security level from 0 (lowest) to 100 (highest). For example, you should assign your most secure network, such as the inside host network, to level 100. While the outside network connected to the Internet can be level 0. Other networks, such as DMZs can be in between. You can assign interfaces to the same security level. See the "Allowing Communication Between Interfaces on the Same Security Level" section for more information.

The level controls the following behavior:

- Network access — By default, there is an implicit permit from a higher security interface to a lower security interface (outbound). Hosts on the higher security interface can access any host on a lower security interface. You can limit access by applying an access list to the interface. If you enable communication for same security interfaces (see the "Allowing Communication Between Interfaces on the Same Security Level" section), there is an implicit permit for interfaces to access other interfaces on the same security level or lower.

- Inspection engines — Some inspection engines are dependent on the security level. For same security interfaces, inspection engines apply to traffic in either direction.

- NetBIOS inspection engine—Applied only for outbound connections.

- OraServ inspection engine — If a control connection for the OraServ port exists between a pair of hosts, then only an inbound data connection is permitted through the security appliance.

- Filtering—HTTP(S) and FTP filtering applies only for outbound connections (from a higher level to a lower level).

For same security interfaces, you can filter traffic in either direction.

•NAT control — When you enable NAT control, you must configure NAT for hosts on a higher security interface (inside) when they access hosts on a lower security interface (outside).

Without NAT control, or for some security interfaces, you can choose to use NAT between any interface, or you can choose not to use NAT. Keep in mind that configuring NAT for an outside interface might require a special keyword.

•established command — This command allows return connections from a lower security host to a higher security host if there is already an established connection from the higher level host to the lower level host.

For some security interfaces, you can configure established commands for both directions.

**NEW QUESTION 262**

Which ports must be open between a AAA server and a Microsoft server to permit active directory authentication?

- A. 445 and 389
- B. 888 and 3389
- C. 636 and 4445
- D. 363 and 983

**Answer:** A

**NEW QUESTION 265**

Which type of Cisco ASA access list entry can be configured to match multiple entries in a single statement?

- A. nested object-class
- B. class-map
- C. extended wildcard matching
- D. object groups

**Answer:** D

**Explanation:** :

Reference: <http://www.cisco.com/en/US/docs/security/asa/asa82/configuration/guide/objectgroups.html>

Information About Object Groups

By grouping like objects together, you can use the object group in an ACE instead of having to enter an ACE for each object separately. You can create the following types of object groups:

- Protocol
- Network
- Service
- ICMP type

For example, consider the following three object groups:

- MyServices — Includes the TCP and UDP port numbers of the service requests that are allowed access to the internal network.
- TrustedHosts — Includes the host and network addresses allowed access to the greatest range of services and servers.
- PublicServers — Includes the host addresses of servers to which the greatest access is provided.

After creating these groups, you could use a single ACE to allow trusted hosts to make specific service requests to a group of public servers.

You can also nest object groups in other object groups.

**NEW QUESTION 267**

Command ip ospf authentication key 1 is implemented in which level.

- A. Interface
- B. process
- C. global
- D. enable

**Answer:** A

**Explanation:** Use the ip ospf authentication-key interface command to specify this password. If you enable MD5 authentication with the message-digest keyword, you must configure a password with the ip ospf message-digest-key interface command.

```
interface GigabitEthernet0/1
```

```
ip address 192.168.10.1 255.255.255.0
```

```
ip ospf authentication message-digest
```

```
ip ospf message-digest-key 1 md5 CCNA
```

Source: Cisco Official Certification Guide, Implement Routing Update Authentication on OSPF, p.348 The OSPFv2 Cryptographic Authentication feature allows you to configure a key chain on the OSPF interface to authenticate OSPFv2 packets by using HMAC-SHA algorithms. You can use an existing key chain that is being used by another protocol, or you can create a key chain specifically for OSPFv2.

If OSPFv2 is configured to use a key chain, all MD5 keys that were previously configured using the ip ospf message-digest-key command are ignored.

```
Device> enable
```

```
Device# configure terminal
```

```
Device(config)# interface GigabitEthernet0/0/0
```

```
Device (config-if)# ip ospf authentication key-chain sample1 Device (config-if)# end
```

Source:

[http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute\\_ospf/configuration/xe-3s/iro-xe-3s-book/iro-ospfv2-crypto-authen-xe.html](http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/xe-3s/iro-xe-3s-book/iro-ospfv2-crypto-authen-xe.html)

In both cases OSPF and OSPFv1 the ip ospf authentication is inserted at interface level

**NEW QUESTION 270**

Which two features of Cisco Web Reputation tracking can mitigate web-based threats? (Choose Two)

- A. outbreak filter

- B. buffer overflow filter
- C. bayesian filter
- D. web reputation filter
- E. exploit filtering

**Answer:** AD

**Explanation:** Cisco IronPort Outbreak Filters provide a critical first layer of defense against new outbreaks. With this proven preventive solution, protection begins hours before signatures used by traditional antivirus solutions are in place. Real-world results show an average 14-hour lead time over reactive antivirus solutions. SenderBase, the world's largest email and web traffic monitoring network, provides real-time protection. The Cisco IronPort SenderBase Network captures data from over 120,000 contributing organizations around the world.

Source: [http://www.cisco.com/c/en/us/products/security/email-security-appliance/outbreak\\_filters\\_index.html](http://www.cisco.com/c/en/us/products/security/email-security-appliance/outbreak_filters_index.html)

#### NEW QUESTION 275

Which two statements about the self zone on Cisco zone based policy firewall are true ? (Choose two)

- A. multiple interfaces can be assigned to the self zone .
- B. traffic entering the self zone must match a rule.
- C. zone pairs that include the self zone apply to traffic transiting the device.
- D. it can be either the source zone or destination zone .
- E. it supports statefull inspection for multicast traffic

**Answer:** AD

#### NEW QUESTION 278

When setting up a site-to-site VPN with PSK authentication on a Cisco router, which two elements must be configured under crypto map? (Choose two.)

- A. nat
- B. transform-set
- C. reverse-route
- D. peer
- E. pfs

**Answer:** BD

#### NEW QUESTION 281

Within an 802.1X enabled network with the Auth Fail feature configured, when does a switch port get placed into a restricted VLAN?

- A. When 802.1X is not globally enabled on the Cisco catalyst switch
- B. When AAA new-model is enabled
- C. When a connected client fails to authenticate after a certain number of attempts
- D. If a connected client does not support 802.1X
- E. After a connected client exceeds a specific idle time

**Answer:** C

#### NEW QUESTION 282

On Cisco ISR routers, for what purpose is the realm-cisco.pub public encryption key used?

- A. used for SSH server/client authentication and encryption
- B. used to verify the digital signature of the IPS signature file
- C. used to generate a persistent self-signed identity certificate for the ISR so administrators can authenticate the ISR when accessing it using Cisco Configuration Professional
- D. used to enable asymmetric encryption on IPsec and SSL VPNs
- E. used during the DH exchanges on IPsec VPNs

**Answer:** B

**Explanation:** [http://www.cisco.com/en/US/prod/collateral/iosswrel/ps6537/ps6586/ps6634/prod\\_white\\_paper0900aecd805c4e](http://www.cisco.com/en/US/prod/collateral/iosswrel/ps6537/ps6586/ps6634/prod_white_paper0900aecd805c4e) Step 1: Downloading IOS IPS files  
The first step is to download IOS IPS signature package files and public crypto key from Cisco.com. Step 1.1: Download the required signature files from Cisco.com to your PC

• Location: <http://tools.cisco.com/support/downloads/go/Model.x?mdfid=281442967&mdfLevel=Software%20Family&treeName=Security&modelName=Cisco%20IOS%20Intrusion%20Preventio>

• Files to download:

IOS-Sxxx-CLI.pkg: Signature package - download the latest signature package.

realm-cisco.pub.key.txt: Public Crypto key - this is the crypto key used by IOS IPS

#### NEW QUESTION 287

What port option in a PVLAN that can communicate with every other port?

- A. Promiscuous ports
- B. Community ports
- C. Ethernet ports
- D. Isolate ports

**Answer:** A

**Explanation:** + Promiscuous -- A promiscuous port belongs to the primary VLAN. The promiscuous port can communicate with all interfaces, including the community and isolated host ports, that belong to those secondary VLANs associated to the promiscuous port and associated with the primary VLAN.  
+ Isolated -- An isolated port is a host port that belongs to an isolated secondary VLAN. This port has complete isolation from other ports within the same private VLAN domain, except that it can communicate with associated promiscuous ports  
+Community -- A community port is a host port that belongs to a community secondary VLAN. Community ports communicate with other ports in the same community VLAN and with associated promiscuous ports Source: <http://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/configuration/guide/cli/CLIConfigurationGuide/PrivateVLANs.html>

**NEW QUESTION 291**

Referencing the CIA model, in which scenario is a hash-only function most appropriate?

- A. securing wireless transmissions.
- B. securing data in files.
- C. securing real-time traffic
- D. securing data at rest

**Answer:** A

**NEW QUESTION 294**

Which type of encryption technology has the broadcast platform support?

- A. Middleware
- B. Hardware
- C. Software
- D. File-level

**Answer:** C

**NEW QUESTION 299**

What encryption technology has broadest platform support

- A. hardware
- B. middleware
- C. Software
- D. File level

**Answer:** C

**NEW QUESTION 300**

When AAA login authentication is configured on Cisco routers, which two authentication methods should be used as the final method to ensure that the administrator can still log in to the router in case the external AAA server fails? (Choose two.)

- A. group RADIUS
- B. group TACACS+
- C. local
- D. krb5
- E. enable
- F. if-authenticated

**Answer:** CE

**Explanation:** [http://www.cisco.com/en/US/docs/ios/12\\_2/security/configuration/guide/scftplus.html](http://www.cisco.com/en/US/docs/ios/12_2/security/configuration/guide/scftplus.html) TACACS+ Authentication Examples

The following example shows how to configure TACACS+ as the security protocol for PPP authentication: aaa new-model

```
aaa authentication ppp test group tacacs+ local tacacs-server host 10.1.2.3
```

```
tacacs-server key goaway interface serial 0
```

```
ppp authentication chap pap test
```

The lines in the preceding sample configuration are defined as follows:

- The aaa new-model command enables the AAA security services.
- The aaa authentication command defines a method list, "test," to be used on serial interfaces running PPP. The keyword group tacacs+ means that authentication will be done through TACACS+. If TACACS+ returns an ERROR of some sort during authentication, the keyword local indicates that authentication will be attempted using the local database on the network access server.

[http://www.cisco.com/en/US/tech/tk59/technologies\\_tech\\_note09186a00800946a3.shtml](http://www.cisco.com/en/US/tech/tk59/technologies_tech_note09186a00800946a3.shtml)

Authentication Start to configure TAC+ on the router.

Enter enable mode and type configure terminal before the command set. This command syntax ensures that you are not locked out of the router initially, providing the tac\_plus\_executable is not running:

```
!-- Turn on TAC+. aaa new-model
```

```
enable password whatever
```

```
!-- These are lists of authentication methods.
```

```
!-- "linmethod", "vtymethod", "conmethod", and
```

```
!-- so on are names of lists, and the methods
```

```
!-- listed on the same lines are the methods
```

```
!-- in the order to be tried. As used here, if
```

```
!-- authentication fails due to the
```

```
!-- tac_plus_executable not being started, the
```

```
!-- enable password is accepted because
```

```
!-- it is in each list.
```

```
!
```

aaa authentication login linmethod tacacs+ enable aaa authentication login vtymethod tacacs+ enable aaa authentication login conmethod tacacs+ enable

**NEW QUESTION 302**

With which technology do apply integrity, confidentiality and authenticate the source

- A. IPSec
- B. IKE
- C. Certificate authority
- D. Data encryption standards

**Answer:** A

**Explanation:** IPsec is a collection of protocols and algorithms used to protect IP packets at Layer 3 (hence the name of IP Security [IPsec]). IPsec provides the core benefits of confidentiality through encryption, data integrity through hashing and HMAC, and authentication using digital signatures or using a pre-shared key (PSK) that is just for the authentication, similar to a password.

Source: Cisco Official Certification Guide, IPsec and SSL, p.97

**NEW QUESTION 307**

What is example of social engineering

- A. Gaining access to a building through an unlocked door.
- B. something about inserting a random flash drive.
- C. gaining access to server room by posing as IT
- D. Watching other user put in username and password (something around there)

**Answer:** C

**NEW QUESTION 308**

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