

210-260 Dumps

Implementing Cisco Network Security

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



NEW QUESTION 1

What VPN feature allows Internet traffic and local LAN/WAN traffic to use the same network connection?

- A. split tunneling
- B. hairpinning
- C. tunnel mode
- D. transparent mode

Answer: A

Explanation: Split tunneling is a computer networking concept which allows a mobile user to access dissimilar security domains like a public network (e.g., the Internet) and a local LAN or WAN at the same time, using the same or different network connections. This connection state is usually facilitated through the simultaneous use of, a Local Area Network (LAN) Network Interface Card (NIC), radio NIC, Wireless Local Area Network (WLAN) NIC, and VPN client software application without the benefit of access control.

Source: https://en.wikipedia.org/wiki/Split_tunneling

NEW QUESTION 2

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 3

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

NEW QUESTION 4

If you change the native VLAN on the trunk port to an unused VLAN, what happens if an attacker attempts a double-tagging attack?

- A. The trunk port would go into an error-disabled state.
- B. A VLAN hopping attack would be successful.
- C. A VLAN hopping attack would be prevented.
- D. The attacked VLAN will be pruned.

Answer: C

Explanation: VLAN hopping is a computer security exploit, a method of attacking networked resources on a virtual LAN (VLAN). The basic concept behind all VLAN hopping attacks is for an attacking host on a VLAN to gain access to traffic on other VLANs that would normally not be accessible. There are two primary methods of VLAN hopping: switch spoofing and double tagging.

Double Tagging can only be exploited when switches use "Native VLANs". Double Tagging can be mitigated by either one of the following actions:

+ Simply do not put any hosts on VLAN 1 (The default VLAN)

+ Change the native VLAN on all trunk ports to an unused VLAN ID Source: https://en.wikipedia.org/wiki/VLAN_hopping

NEW QUESTION 5

What is the effect of the send-lifetime local 23:59:00 31 December 31 2013 infinite command?

- A. It configures the device to begin transmitting the authentication key to other devices at 00:00:00 local time on January 1, 2014 and continue using the key indefinitely.
- B. It configures the device to begin transmitting the authentication key to other devices at 23:59:00 local time on December 31, 2013 and continue using the key indefinitely.
- C. It configures the device to begin accepting the authentication key from other devices immediately and stop accepting the key at 23:59:00 local time on December 31, 2013.
- D. It configures the device to generate a new authentication key and transmit it to other devices at 23:59:00 local time on December 31, 2013.
- E. It configures the device to begin accepting the authentication key from other devices at 23:59:00 local time on December 31, 2013 and continue accepting the

key indefinitely.

F. It configures the device to begin accepting the authentication key from other devices at 00:00:00 local time on January 1, 2014 and continue accepting the key indefinitely.

Answer: B

Explanation: #secure boot-image

This command enables or disables the securing of the running Cisco IOS image. Because this command has the effect of "hiding" the running image, the image file will not be included in any directory listing of the disk.

Source:

<http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/security/s1/sec-s1-cr-book/sec-cr-s1.html#wp3328121947>

NEW QUESTION 6

Which command causes a Layer 2 switch interface to operate as a Layer 3 interface?

- A. no switchport nonnegotiate
- B. switchport
- C. no switchport mode dynamic auto
- D. no switchport

Answer: D

Explanation: The no switchport command makes the interface Layer 3 capable.

Source:

<http://www.cisco.com/c/en/us/support/docs/lan-switching/inter-vlan-routing/41860-howto-L3-intervlanrouting.html>

NEW QUESTION 7

What is the only permitted operation for processing multicast traffic on zone-based firewalls?

- A. Only control plane policing can protect the control plane against multicast traffic.
- B. Stateful inspection of multicast traffic is supported only for the self-zone.
- C. Stateful inspection for multicast traffic is supported only between the self-zone and the internal zone.
- D. Stateful inspection of multicast traffic is supported only for the internal zone.

Answer: A

Explanation: Neither Cisco IOS ZFW or Classic Firewall include stateful inspection support for multicast traffic. So the only choice is A.

Source: <http://www.cisco.com/c/en/us/support/docs/security/ios-firewall/98628-zone-design-guide.html>

NEW QUESTION 8

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 9

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 10

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.

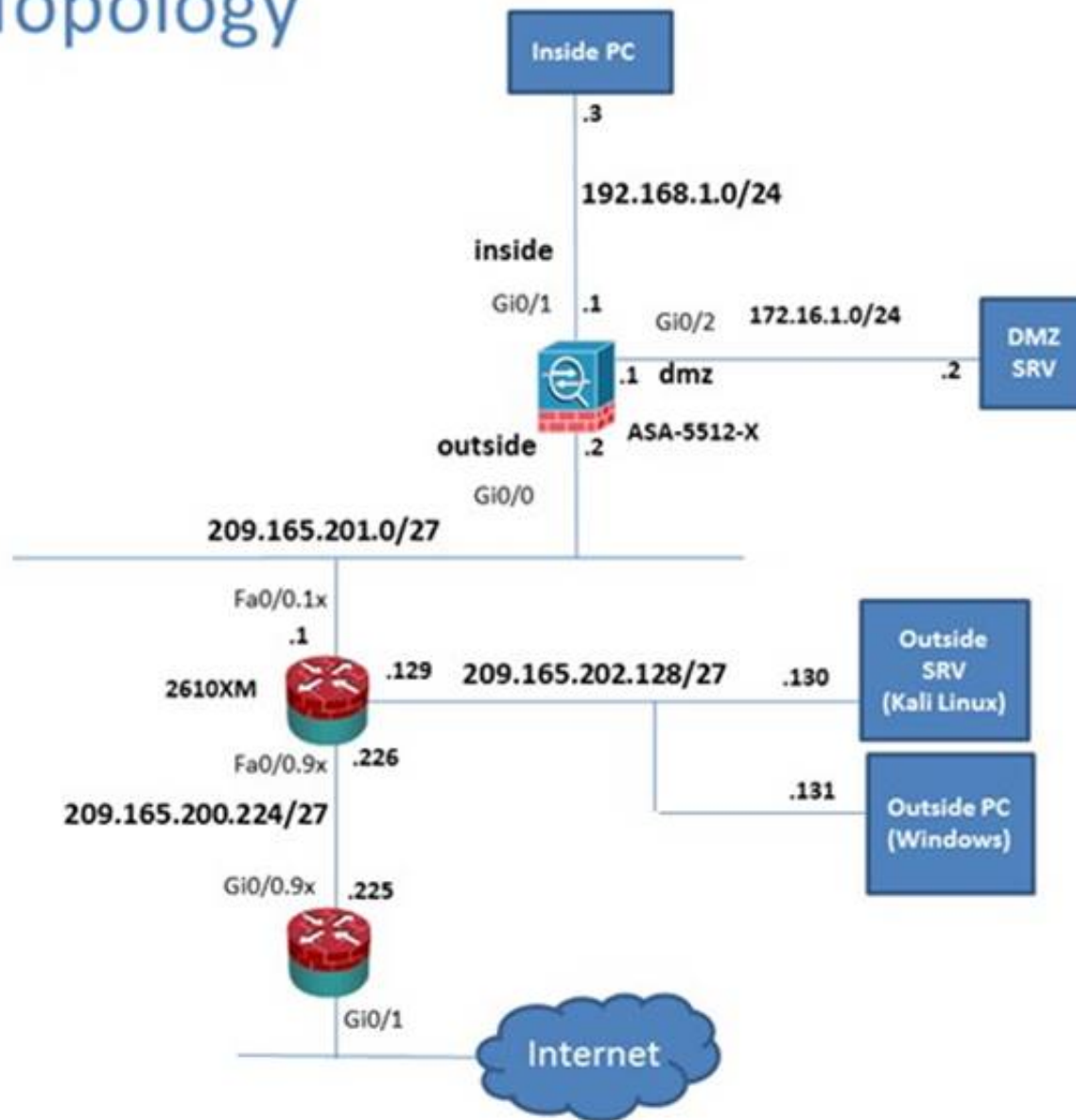
To access the Firefox Browser on the Outside PC, click the Outside PC icon in the topology diagram. To access the Command prompt on the Inside PC, click the Inside PC icon in the topology diagram. Note:

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 'Device Information' tab is active, displaying the following details:

- 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

The 'Interface Status' tab shows the following 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

The 'System Resources Status' tab shows memory usage (500MB) and CPU usage (0%). The 'Traffic Status' tab shows connections per second usage and interface traffic usage (Input Kbps: 0, Output Kbps: 0). The 'Latest ASDM Syslog Messages' tab shows the following messages:

Severity	Date	Time	Syslog ID	Source IP	Source	Destination IP	Destination 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 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

Cisco ASDM 7.5 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

Interfaces

- Interfaces
- VPN
- Botnet Traffic Filter
- Routing
- Properties
- Logging

Monitoring > Interfaces > ARP Table

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	0006.85e6.98f3	No
dmz	172.16.1.2	0050.5644.4444	No
mgmt	10.10.10.1	000c.3014.3820	No

Clear Dynamic ARP Entries

Refresh

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

Data Refreshed Successfully.

student 15 5/19/15 8:32:27 AM pet

Cisco ASDM 7.5 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

VPN

- VPN Statistics
- Sessions
- VPN Cluster Loads
- Crypto Statistics
- Compression Statistics
- Encryption Statistics
- Global IKE/Ipsec Statistics
- Protocol Statistics
- VLAN Mapping Sessions
- MDM Proxy Statistics
- MDM Proxy Sessions
- Clientless SSL VPN
- VPN Connection Graphs
- VISA Sessions

Monitoring > VPN > VPN Statistics > Sessions

Type Active Cumulative Peak Concurrent Inactive

Clientless VPN

Browser

Filter By: IPsec Site-to-Site -- All Sessions -- Filter

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

Details Logout Ping

To sort VPN sessions, right-click on the above table and select Table Sort Order from popup menu.

Logout By: -- All Sessions -- Logout Sessions

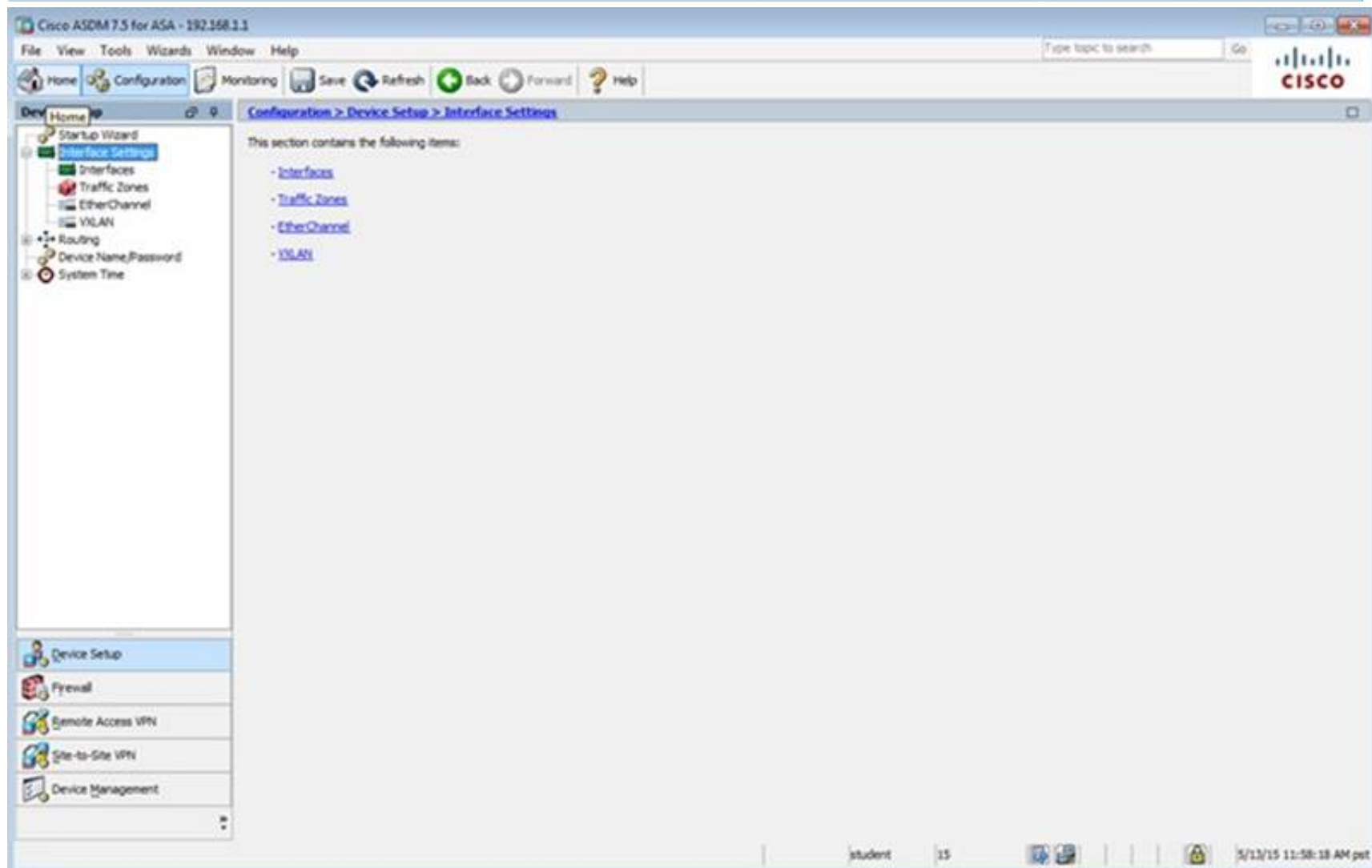
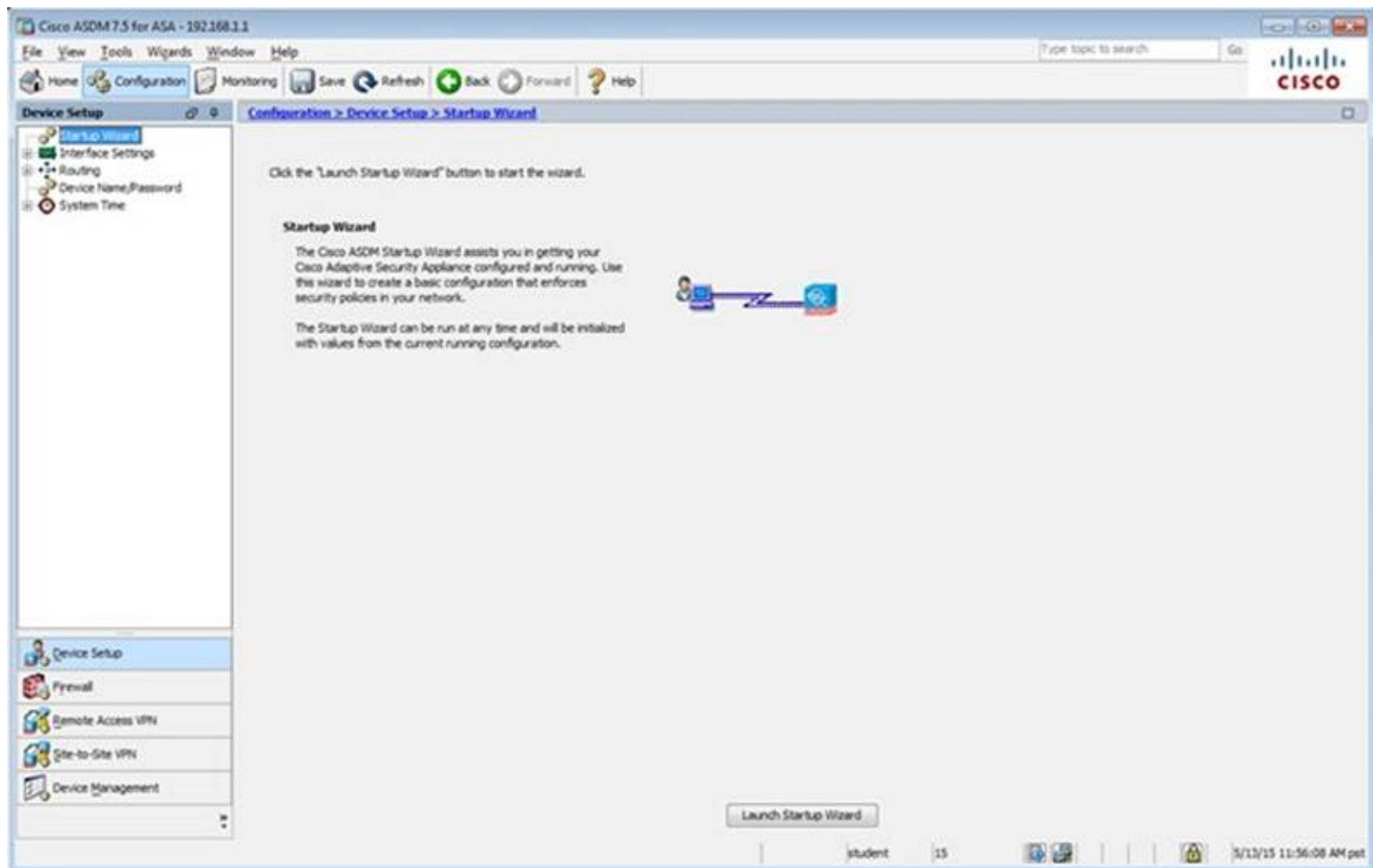
Refresh

Last Updated: 5/19/15 9:33:12 AM

Data Refreshed Successfully.

student 15 5/19/15 8:33:37 AM pet

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



The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the 'Device Setup' tree with 'Interfaces' selected. The main pane shows the 'Configuration > Device Setup > Interface Settings > Interfaces' page. A table lists the configured interfaces:

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 traffic rules:

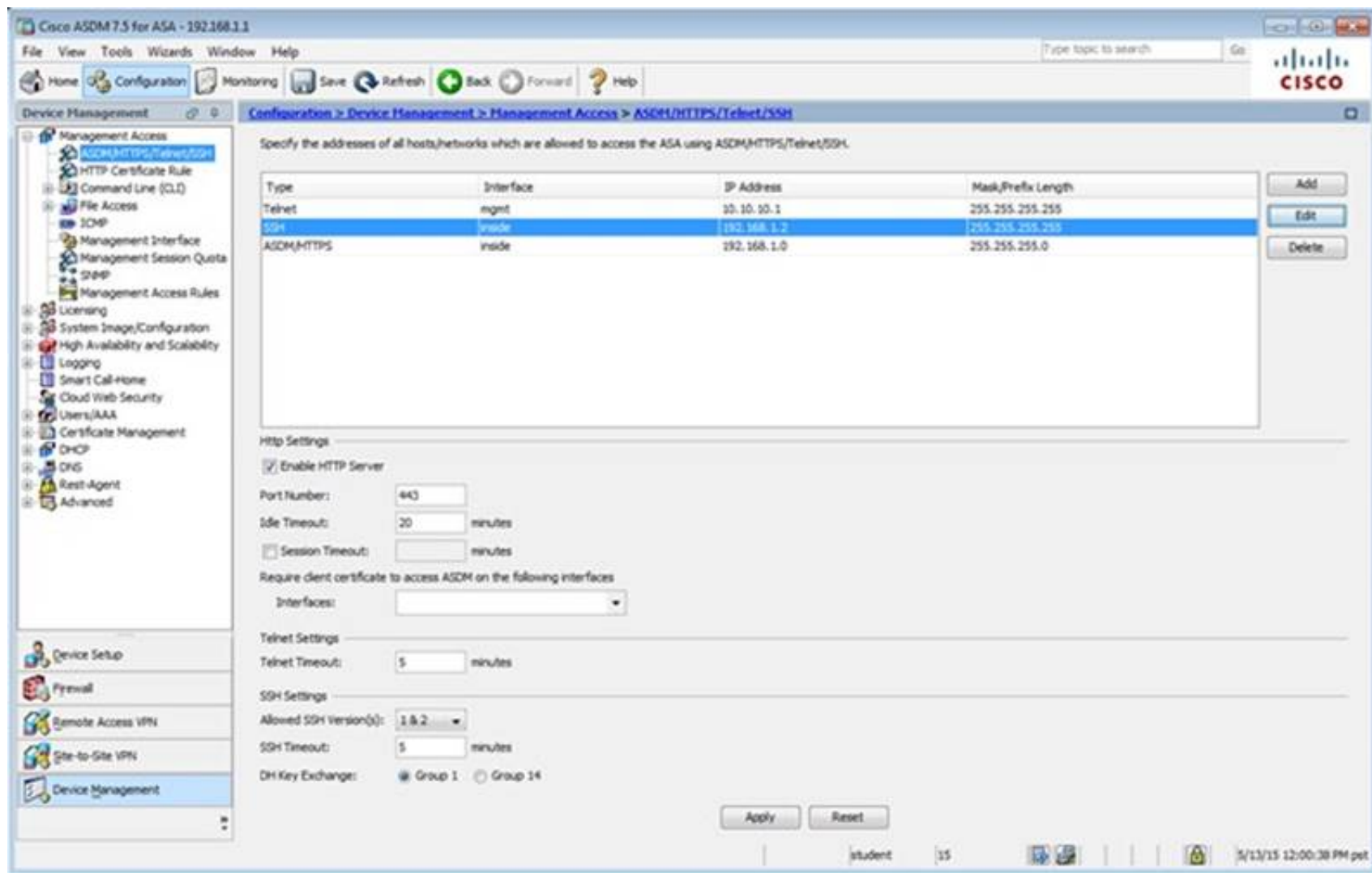
- ☐ Enable traffic between two or more interfaces which are configured with same security levels
- ☐ Enable traffic between two or more hosts connected to the same interface
- ☐ Enable jumbo frame reservation

Buttons for 'Apply' and 'Reset' are at the bottom. The status bar shows 'student' and '15'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the 'Device Management' tree with 'Management Access' selected. The main pane shows the 'Configuration > Device Management > Management Access' page. It lists 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 status bar shows 'student' and '15'.



Cisco ASDM 7.5 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

Device Management

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	192.168.1.2	255.255.255.255
ASDM/HTTPS	inside	192.168.1.0	255.255.255.0

Buttons: Add, Edit, Delete

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:

Telnet Settings

Telnet Timeout: 5 minutes

SSH Settings

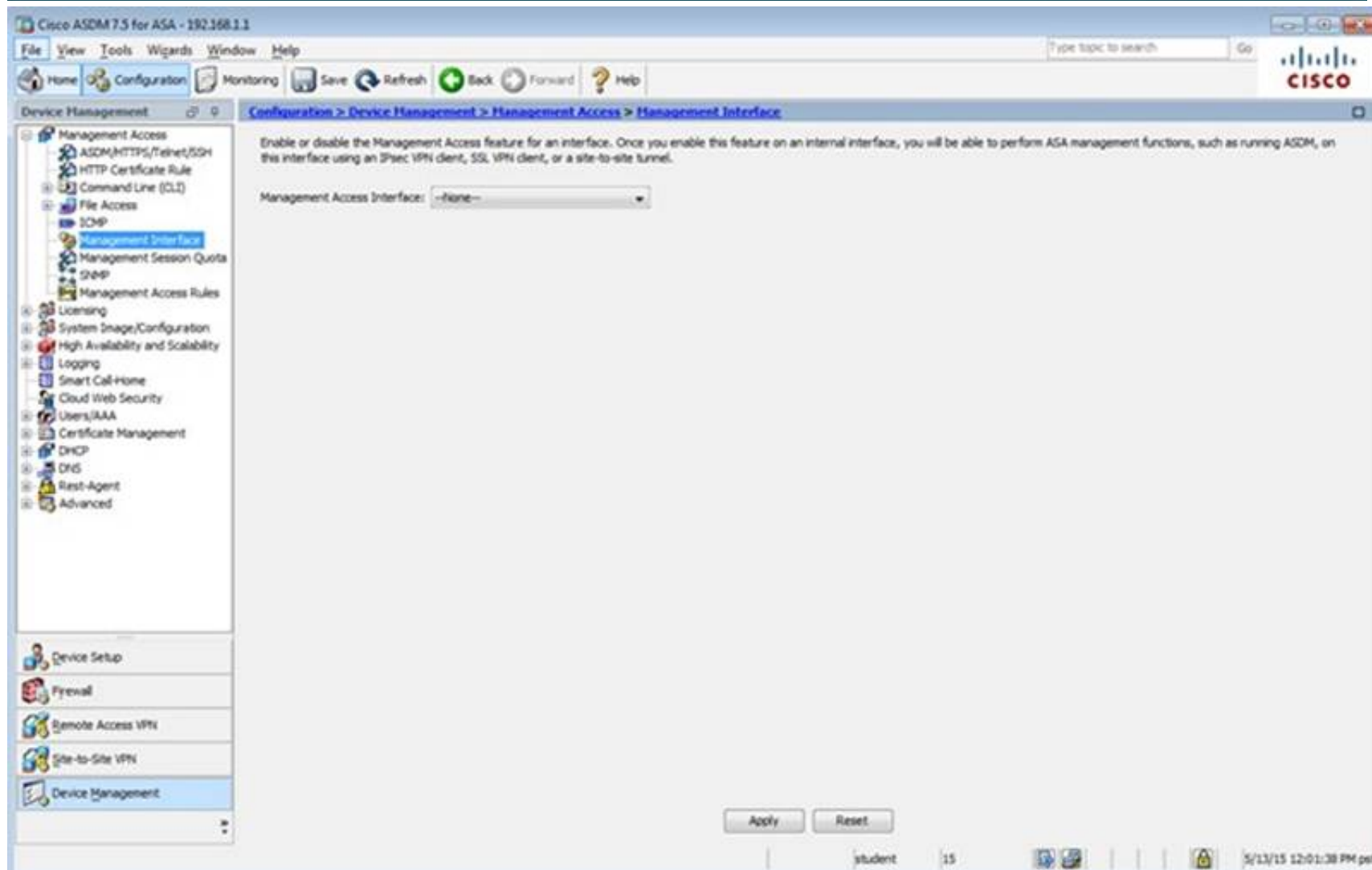
Allowed SSH Version(s): 1 & 2

SSH Timeout: 5 minutes

DH Key Exchange: ☒ Group 1 ☐ Group 14

Buttons: Apply, Reset

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



Cisco ASDM 7.5 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

Device Management

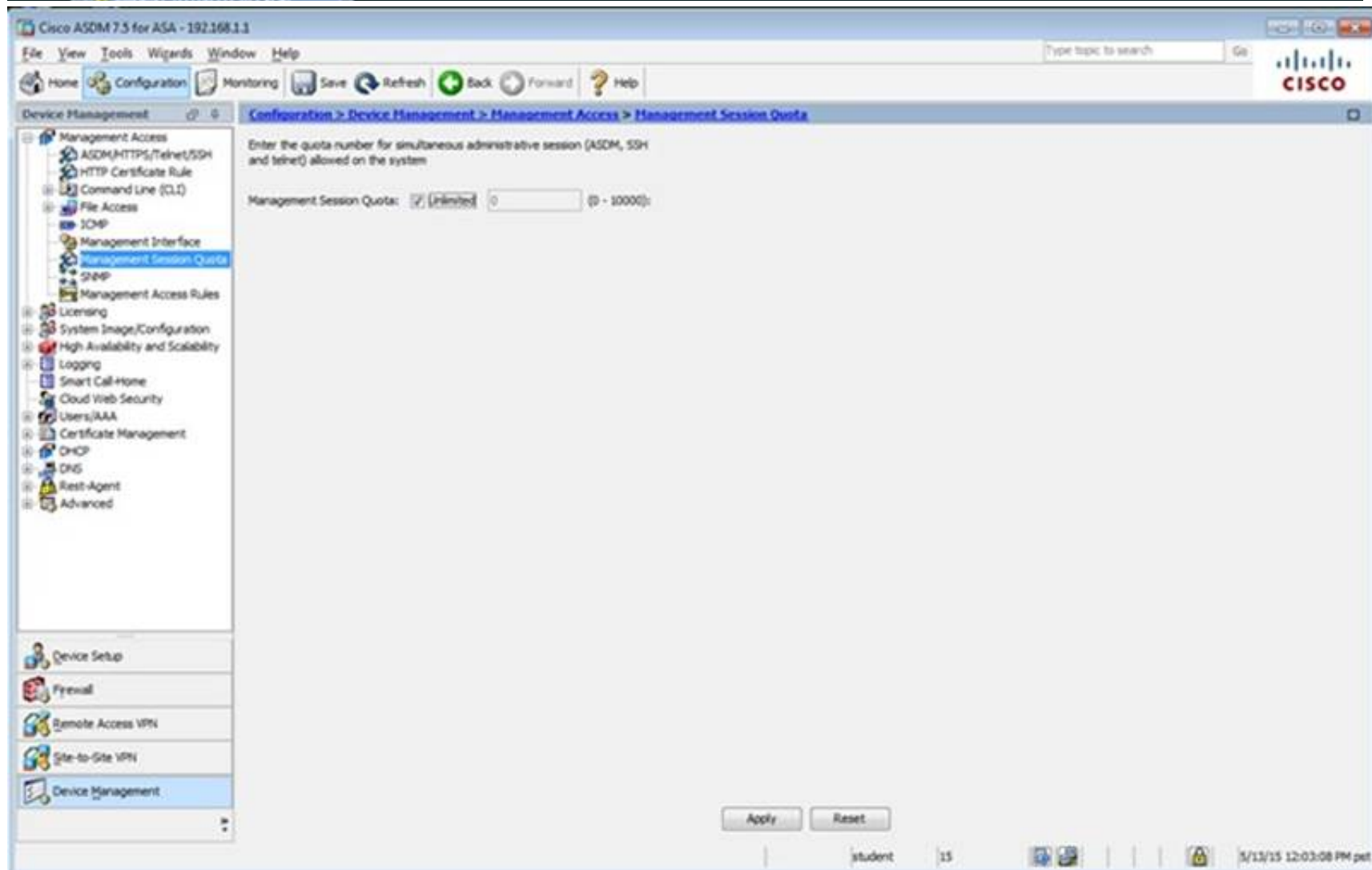
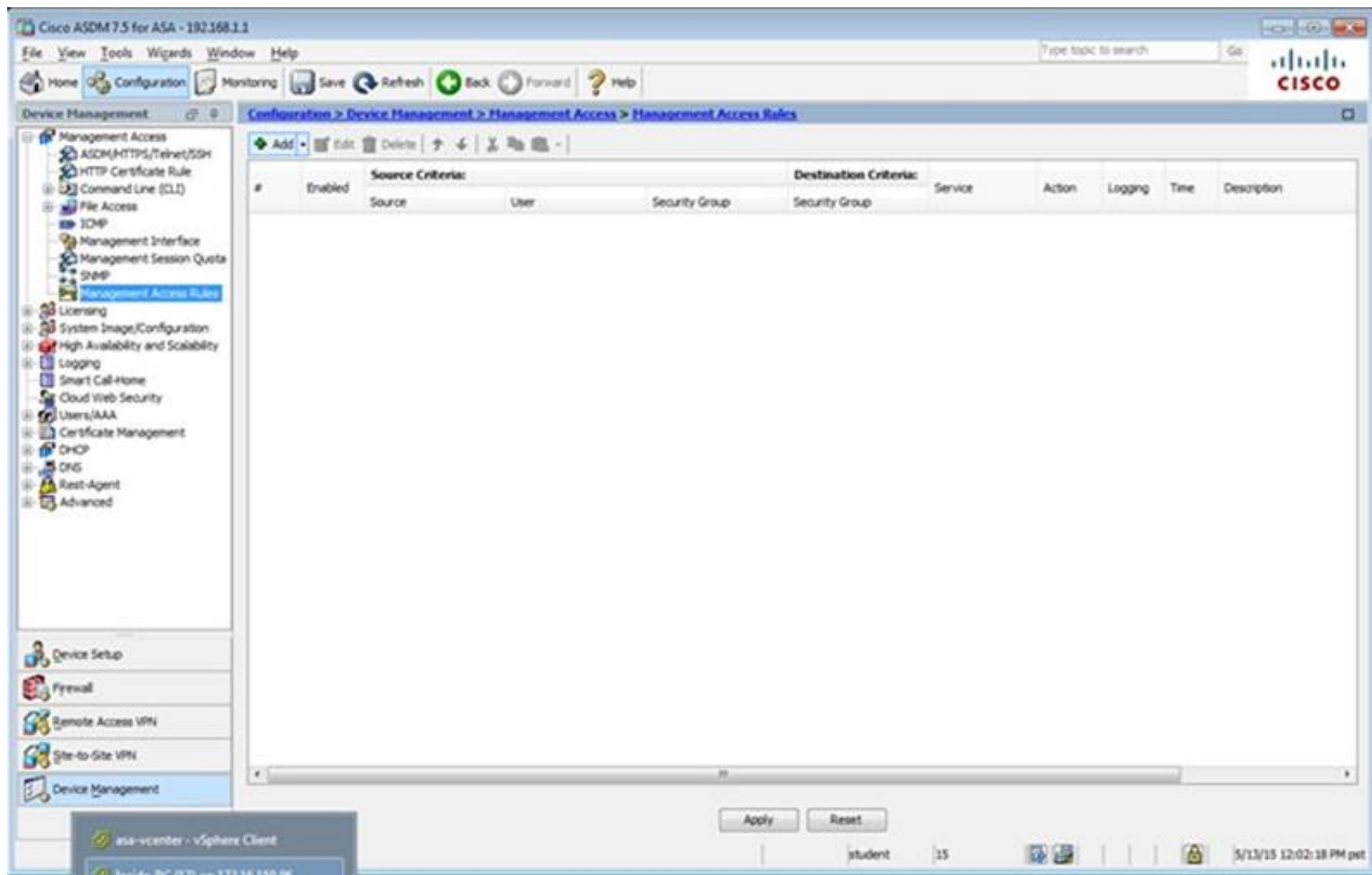
Configuration > Device Management > Management Access > Management Interface

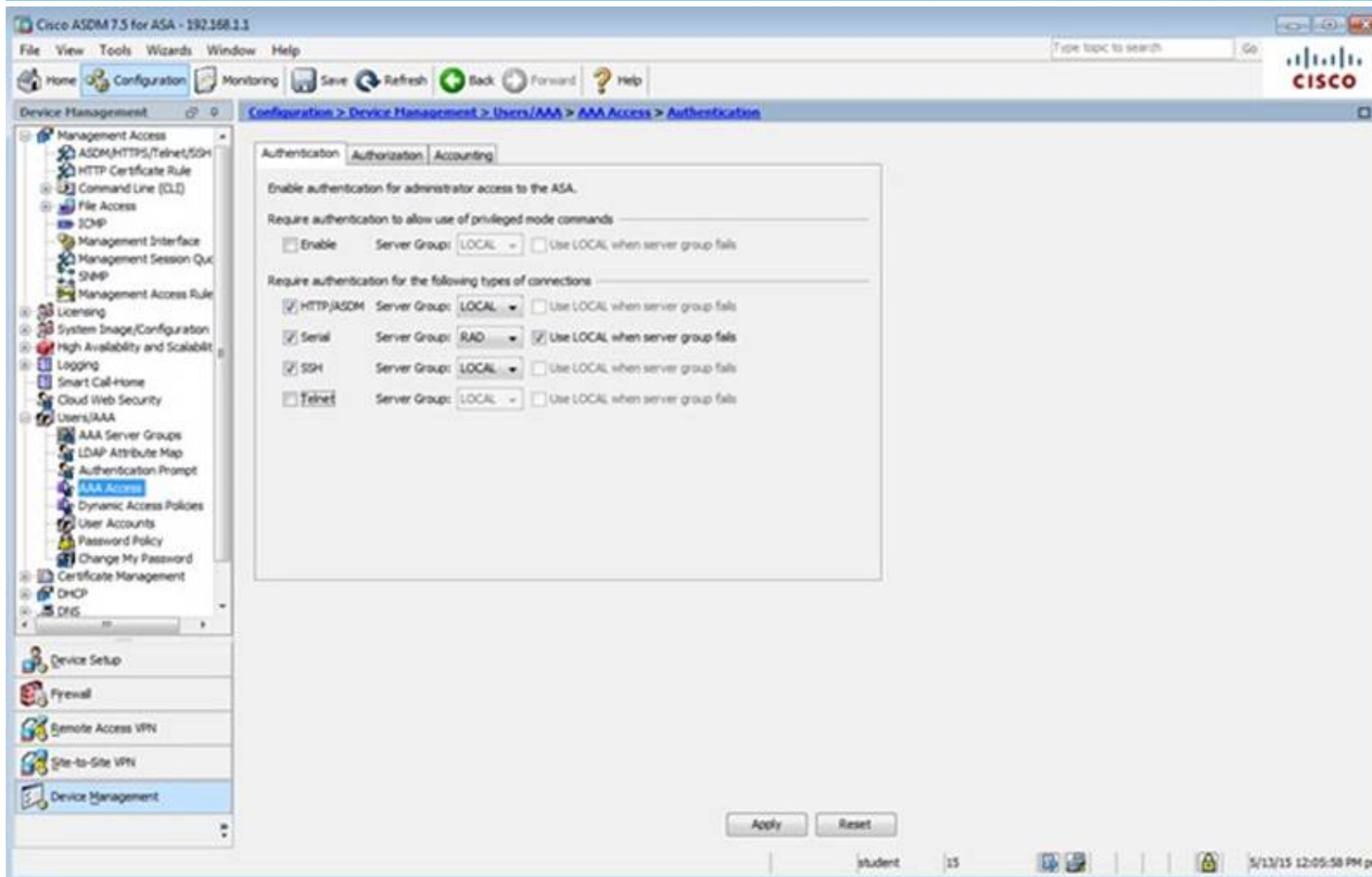
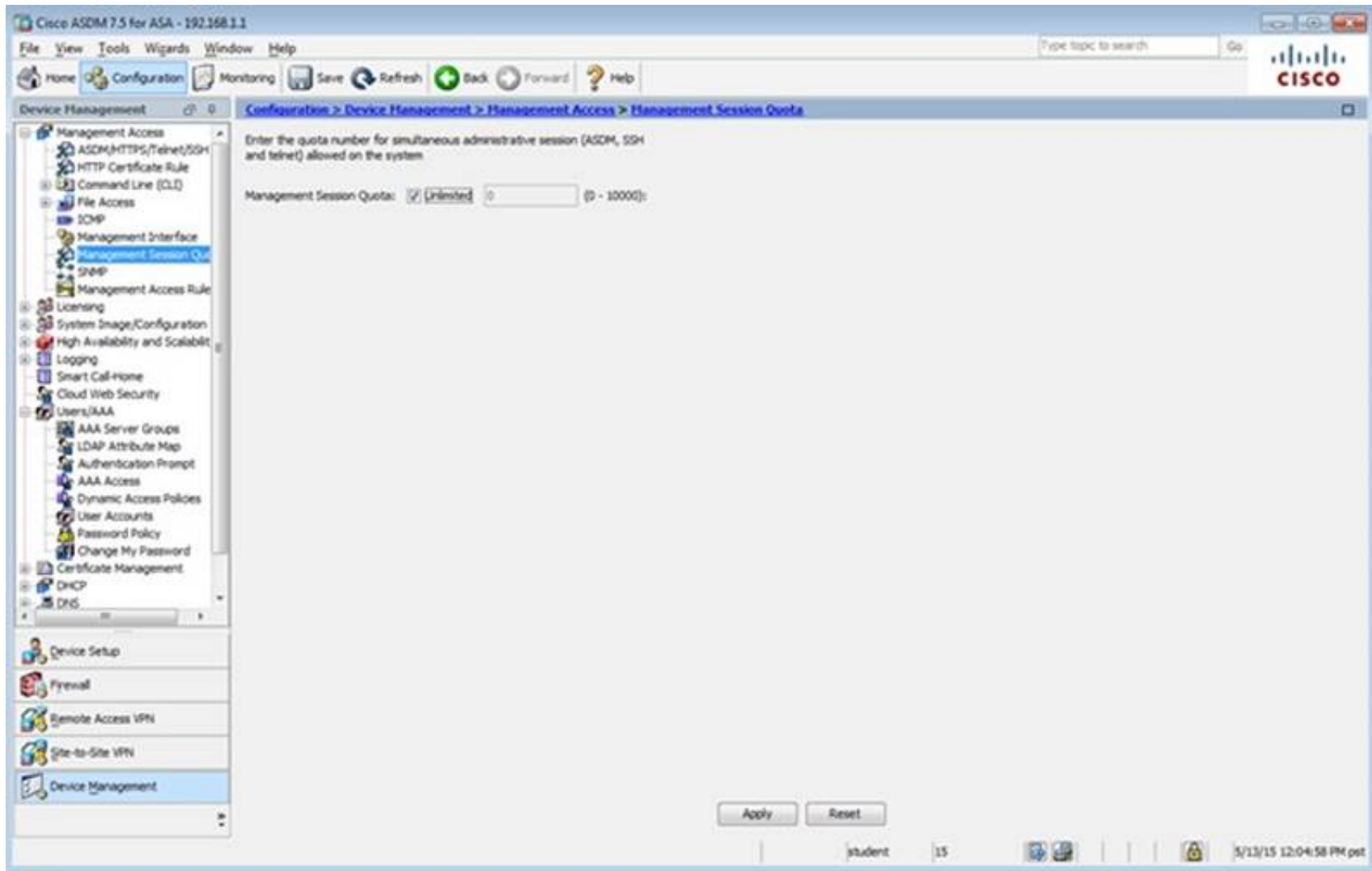
Enable or disable the Management Access feature for an interface. Once you enable this feature on an internal interface, you will be able to perform ASA management functions, such as running ASDM, on this interface using an IPsec VPN client, SSL VPN client, or a site-to-site tunnel.

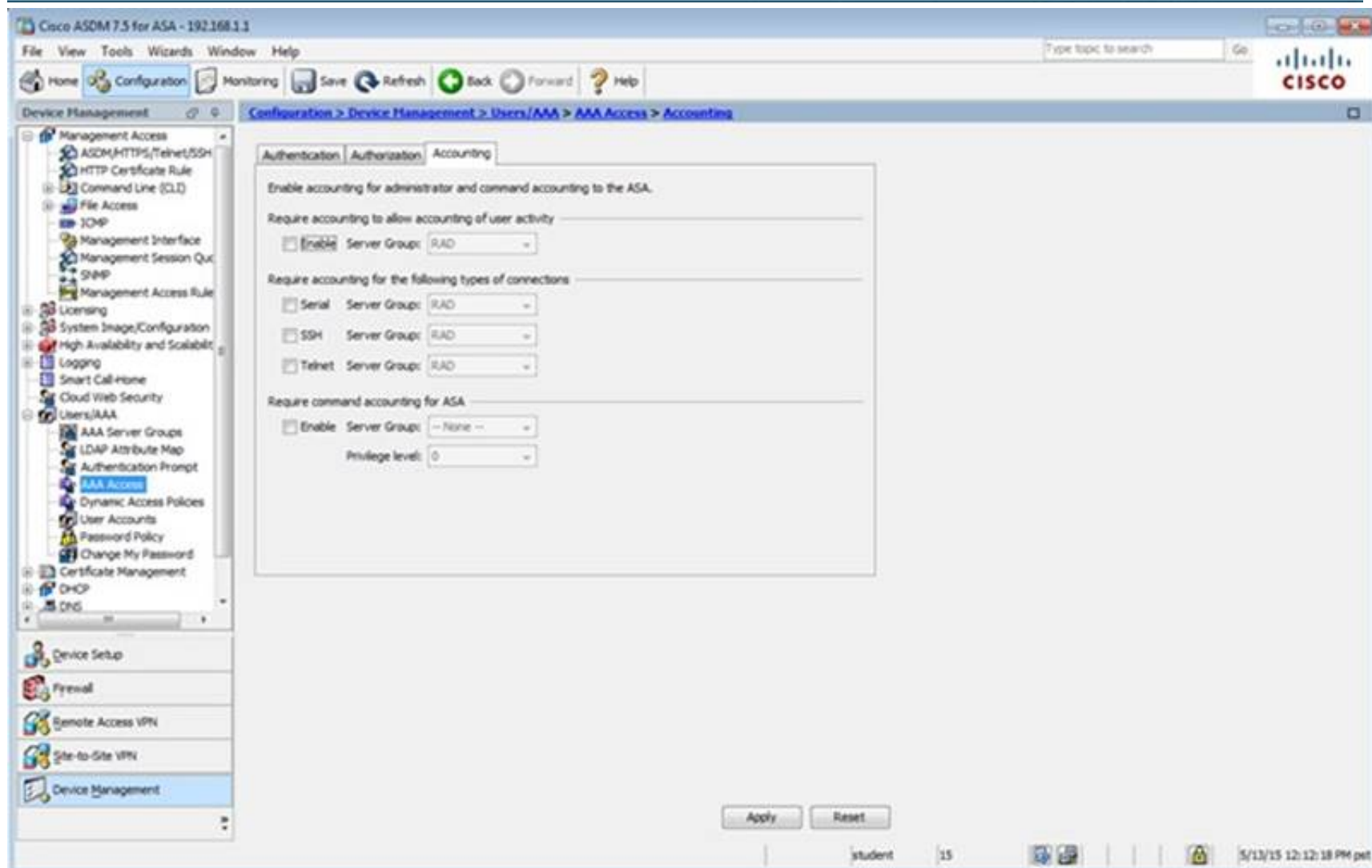
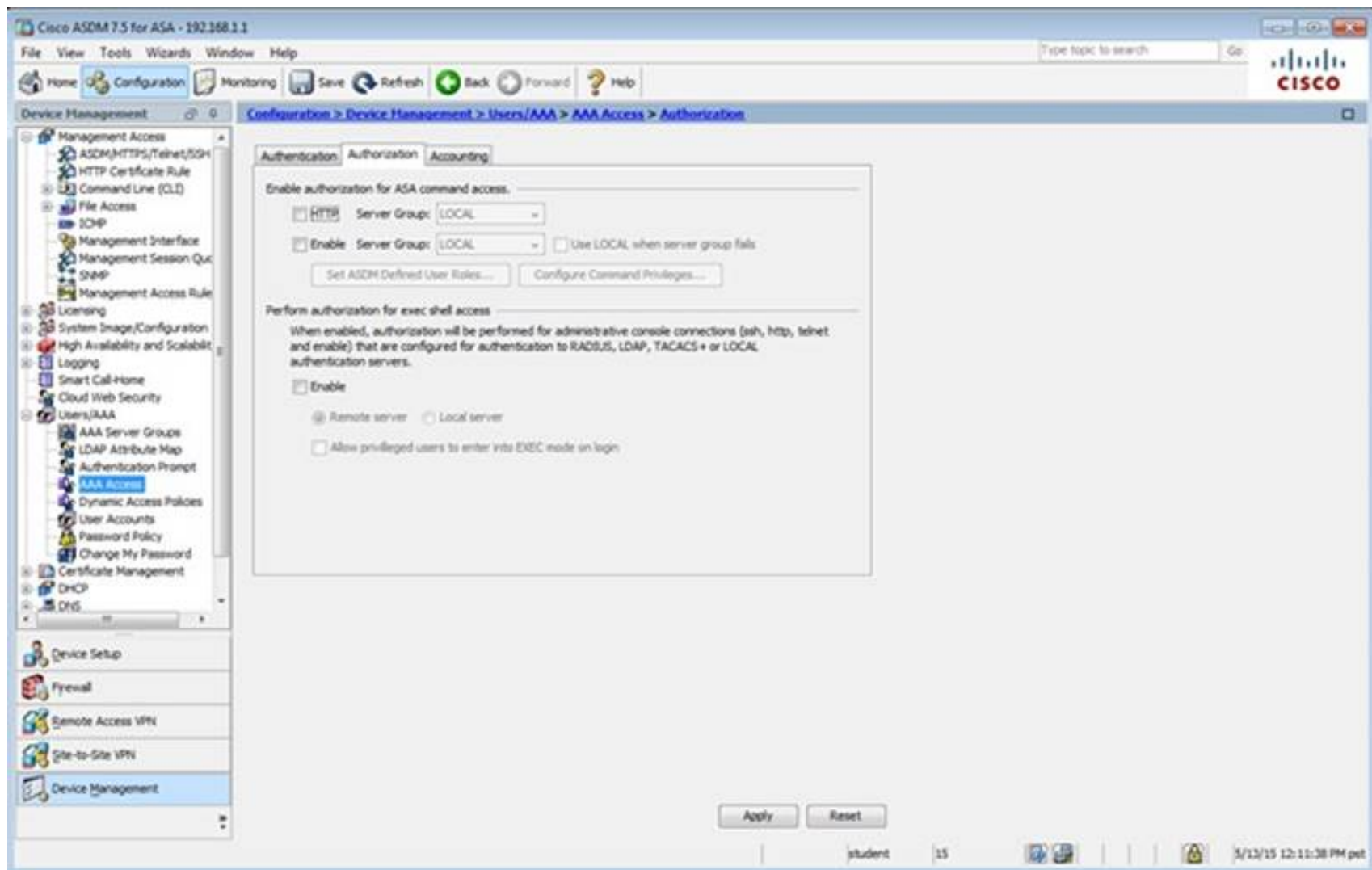
Management Access Interface: --None--

Buttons: Apply, Reset

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







The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Users/AAA' expanded. The main pane shows the 'AAA Server Groups' configuration page. The 'AAA Server Groups' table lists the following entries:

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

Below the table, the 'Servers in the Selected Group' section shows a single entry:

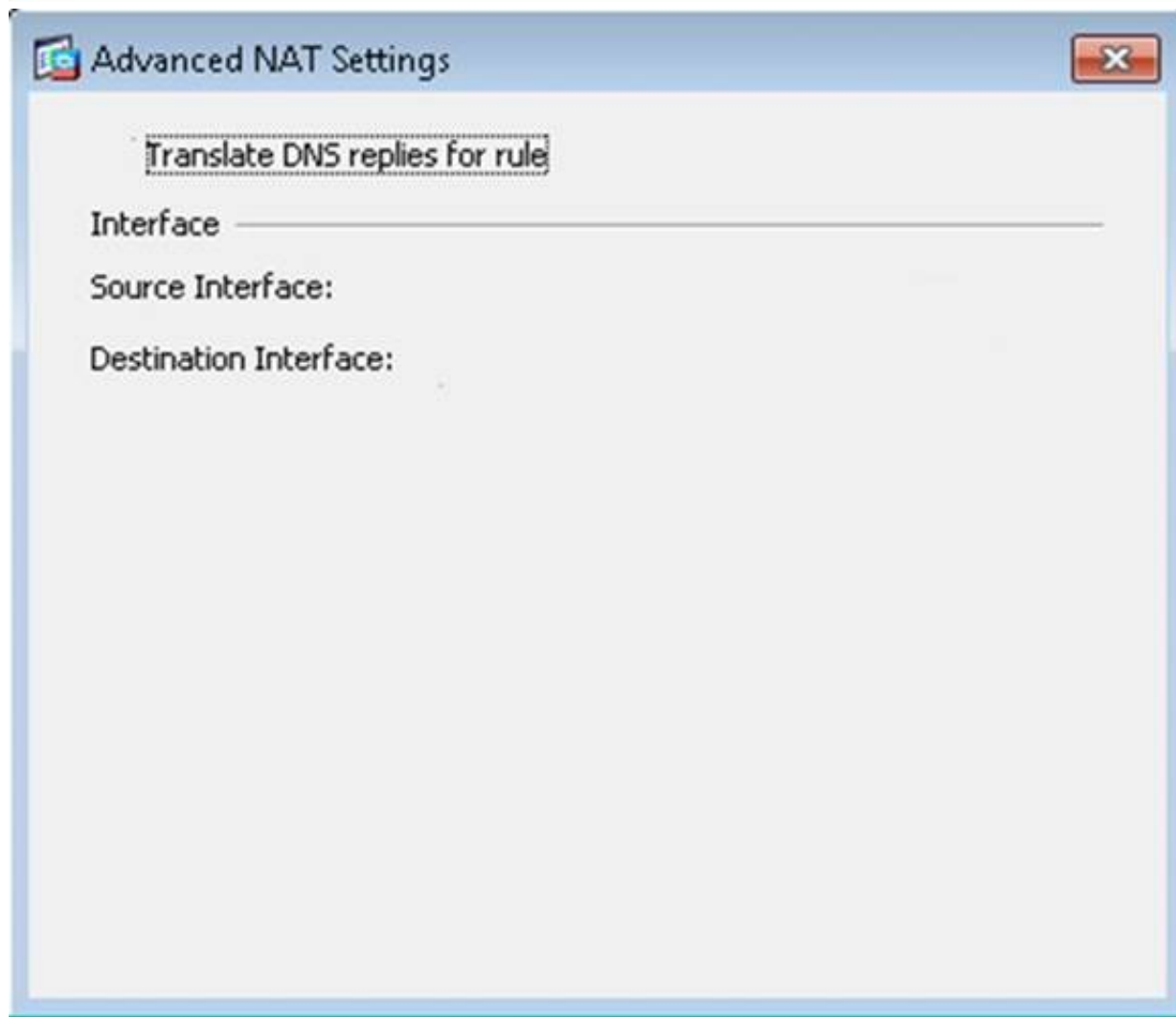
Server Name or IP Address	Interface	Timeout
192.168.1.200	inside	20

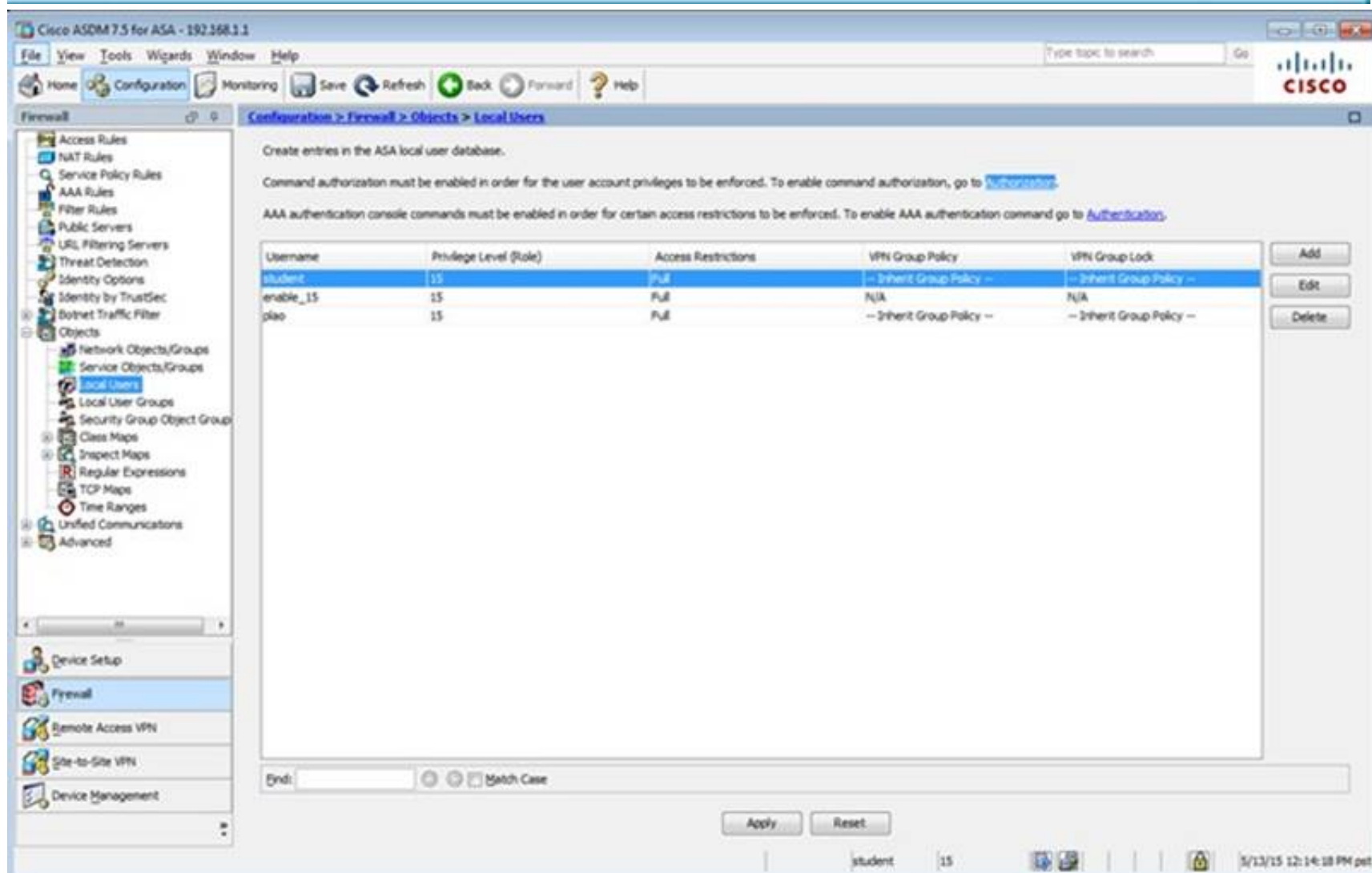
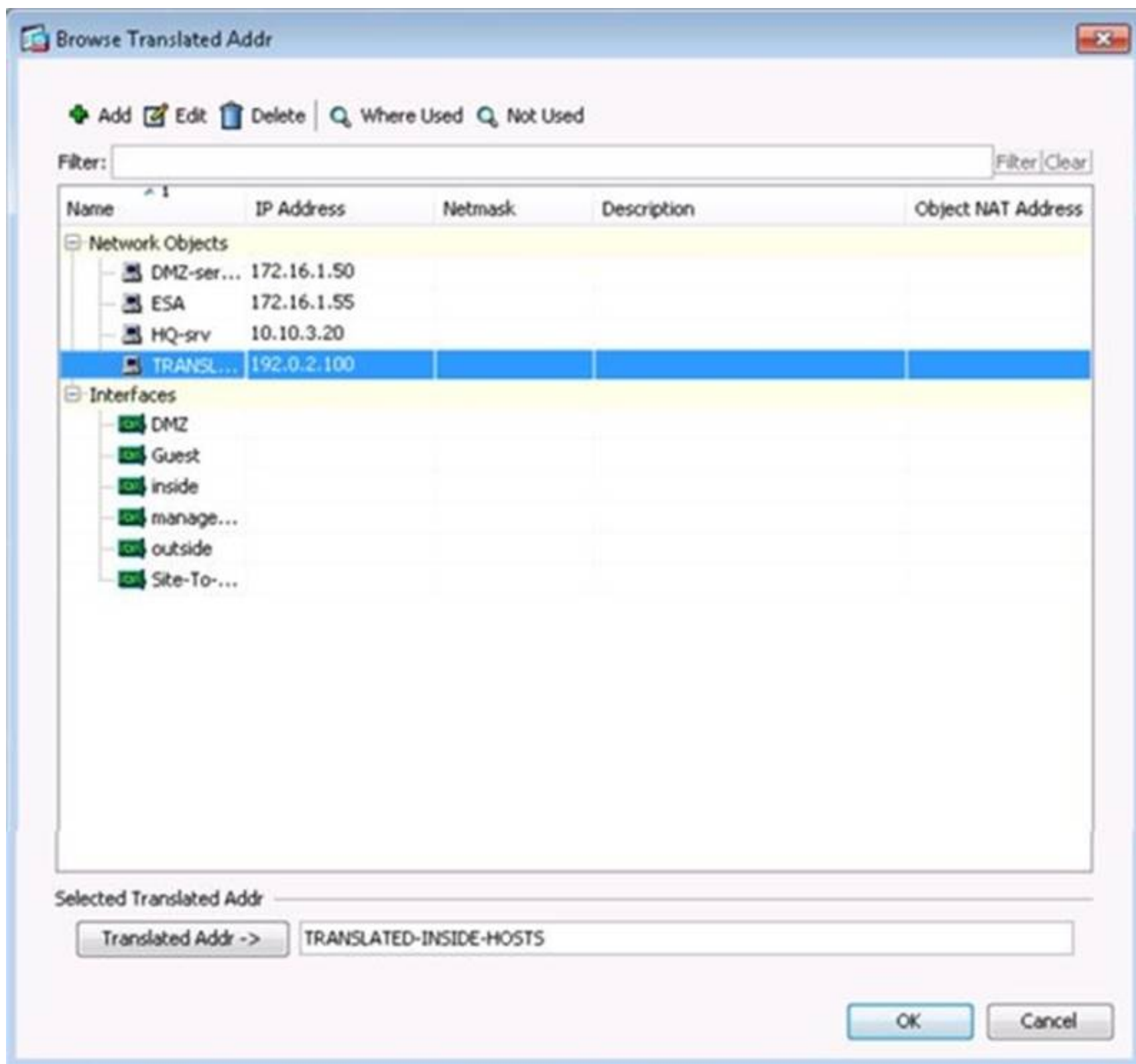
The bottom of the window shows the 'Apply' and 'Reset' buttons, and the status bar indicates the user is 'student' with a session time of 15 minutes.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Firewall' expanded. The main pane shows the 'NAT Rules' configuration page. The 'NAT Rules' table lists the following entry:

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

The bottom of the window shows the status bar with the user 'student' and a session time of 15 minutes.





The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar contains a tree view with categories like Access Rules, NAT Rules, Service Policy Rules, Filter Rules, Public Servers, URL Filtering Servers, Threat Detection, Identity Options, Identity by TrustSec, Botnet Traffic Filter, Objects, Network Objects/Groups, Service Objects/Groups, Local Users, Local User Groups, Security Group Object Group, Class Maps, Inspect Maps, Regular Expressions, TCP Maps, Time Ranges, Unified Communications, and Advanced. The main pane is titled 'Configuration > Firewall > Objects > Network Objects/Groups'. It features a table with columns: Name, IP Address, Netmask, and Description. The table lists several objects: 'any', 'any-host' (0.0.0.0/0.0.0.0), 'any4', 'any6', 'facebook' (www.facebook.com), and 'My_ASA_Demo_Obj' (1.10.8.20). The bottom status bar shows 'student', '15', and the date '5/13/15 12:30:08 PM pet'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar is the same as the previous screenshot. The main pane is titled 'Configuration > Firewall > Service Policy Rules'. It displays a table with columns: Name, #, Enabled, Match, Source, Src Security Group, Destination, Dest Security Group, Service, Time, Rule Actions, and Description. The table lists three policies: 'Interface: dmz; Policy: asdm_policy', 'Interface: inside; Policy: asasm_policy', and 'Global; Policy: global_policy'. Each policy has a 'class-default' entry with 'Match' and 'any' in the Match and Source columns. The Rule Actions column for the global policy shows 'default inspect...', 'Inspect DNS Map preset...', and 'Inspect SMTP'. The bottom status bar shows 'student', '15', and the date '5/13/15 12:15:48 PM pet'.

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

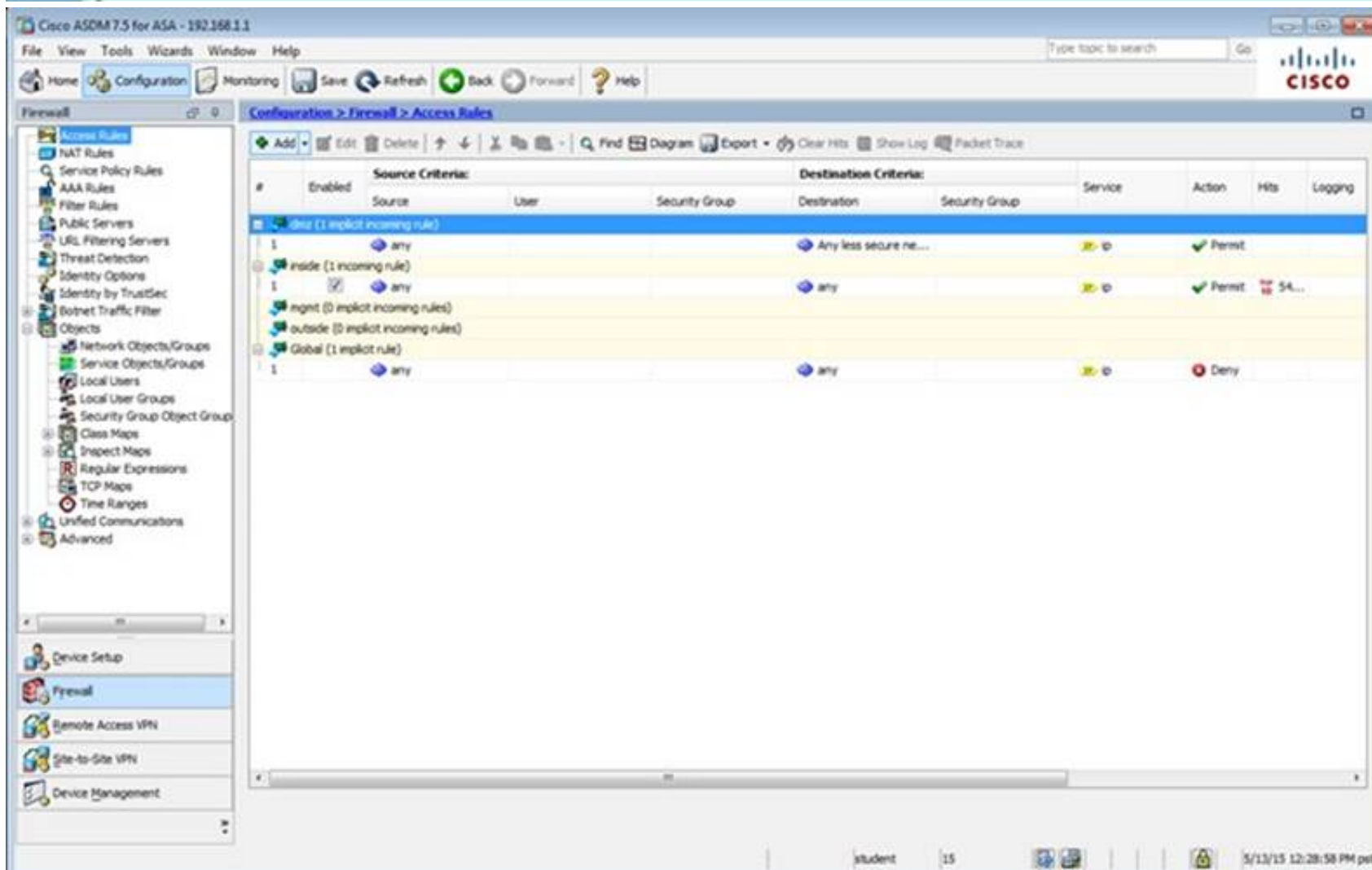
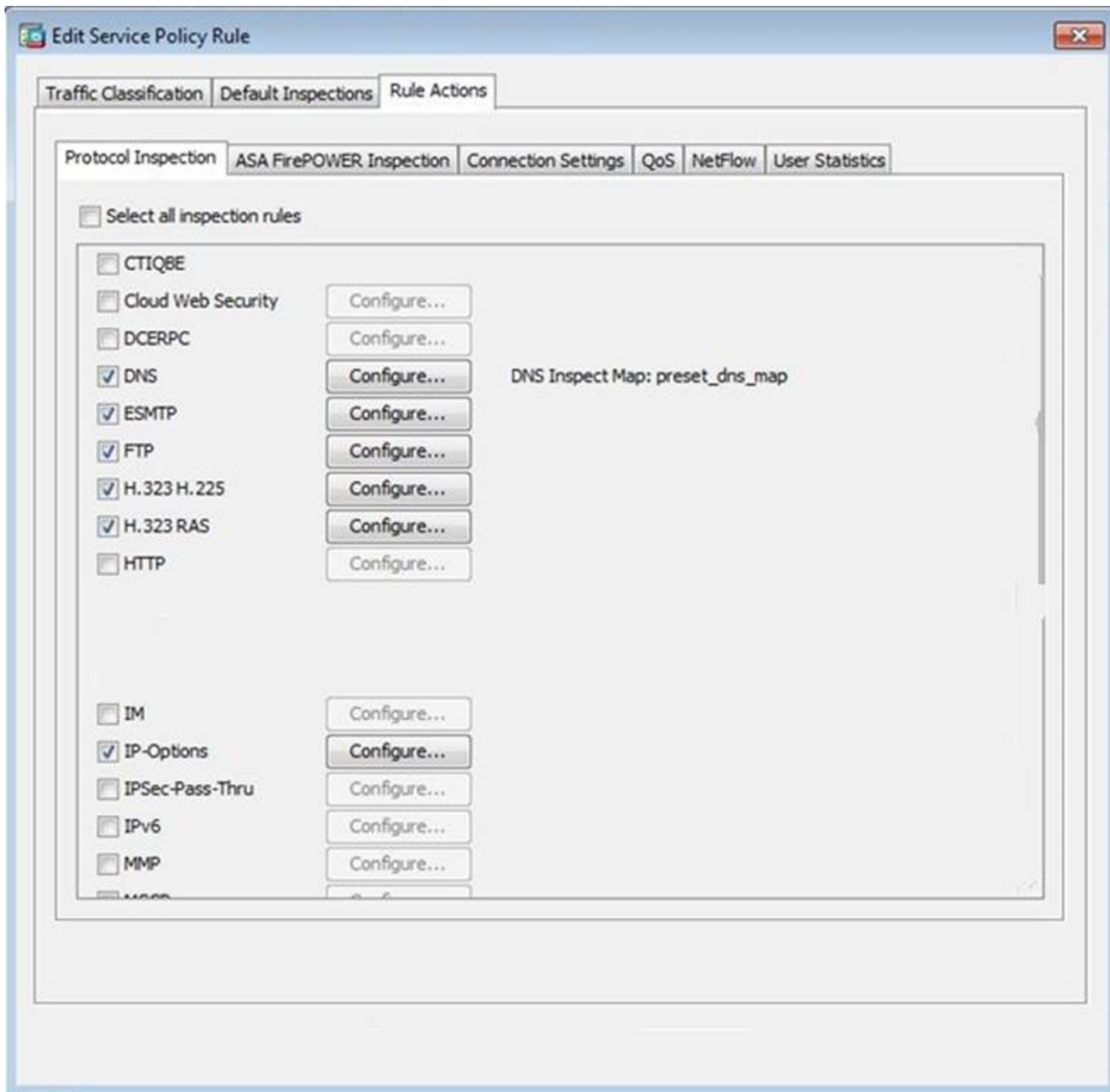
☐ TCP or UDP Destination Port


☐ 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:

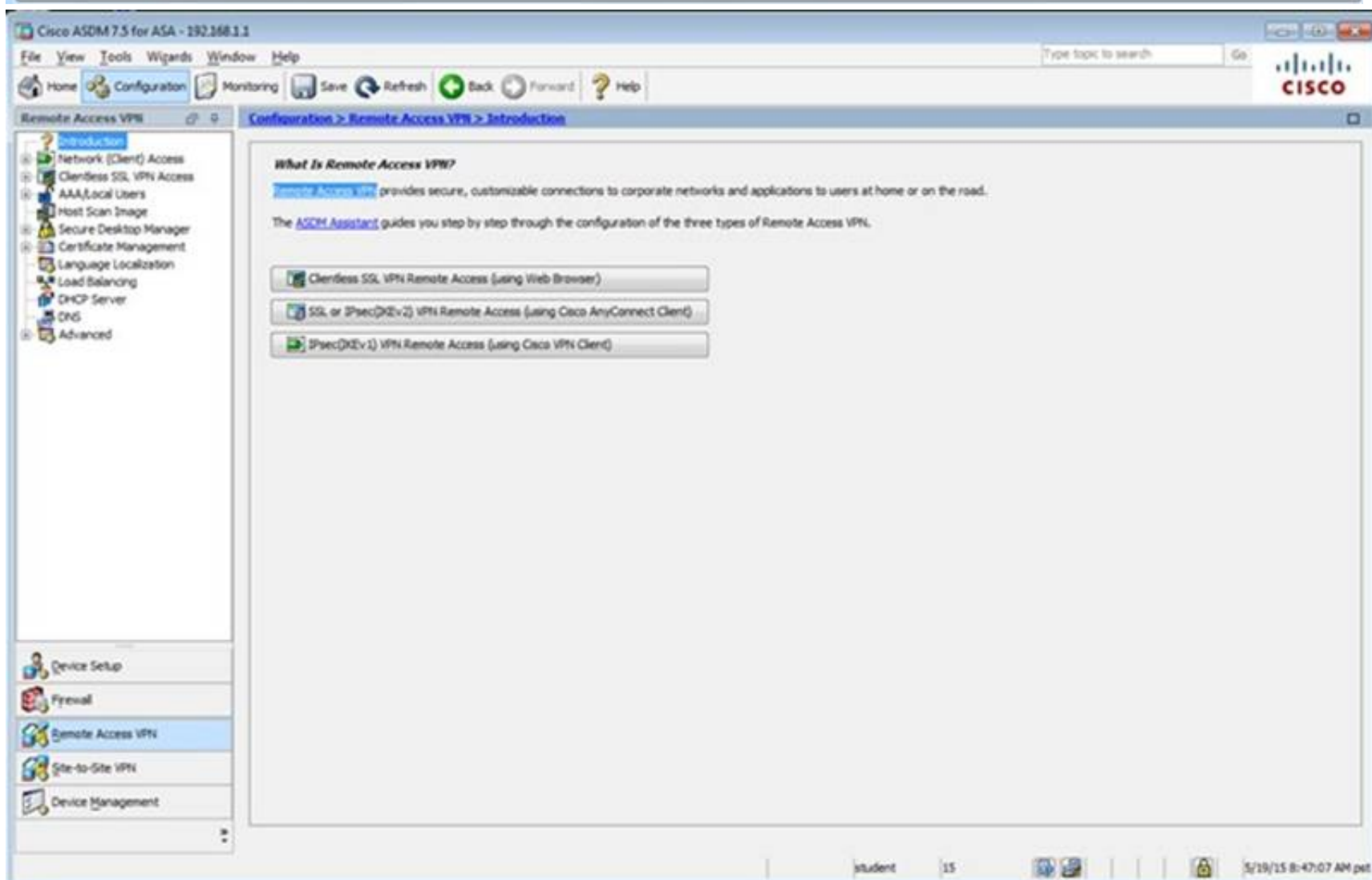
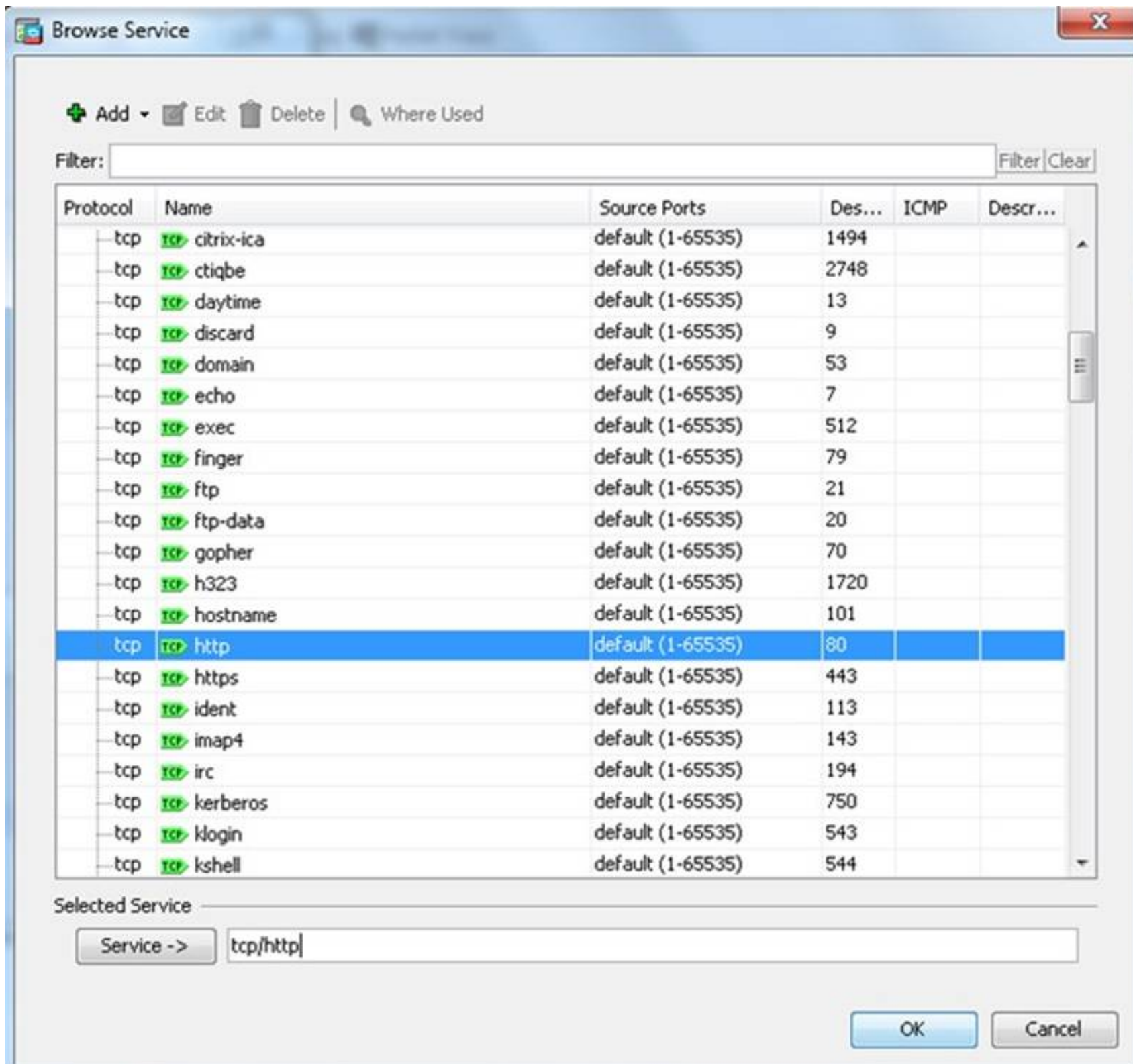
Description:

☒ Enable Logging

Logging Level: Default

More Options

OK Cancel Help



The screenshot shows the Cisco ASDM 7.5 interface for configuration. The left sidebar displays a tree view with categories like Remote Access VPN, Network (Client) Access, and Clientless SSL VPN Access. The main pane is titled 'Configuration > Remote Access VPN > Introduction'. It contains a section 'What Is Remote Access VPN?' explaining that it provides secure, customizable connections. Below this, there are three buttons: 'Clientless SSL VPN Remote Access (using Web Browser)', 'SSL or IPsec (IKEv2) VPN Remote Access (using Cisco AnyConnect Client)', and 'IPsec (IKEv1) VPN Remote Access (using Cisco VPN Client)'. The bottom status bar shows the user 'student' and the time '5/19/15 8:36:17 AM pst'.

The screenshot shows the 'Configuration > Remote Access VPN > Clientless SSL VPN Access > Connection Profiles' page. It includes sections for 'Access Interfaces' with a table to enable interfaces, 'Login Page Setting' with checkboxes for user selection and password entry, and 'Connection Profiles' with a table listing profiles. The 'Connection Profiles' table has columns for Name, Enabled, Aliases, Authentication Method, and Group Policy. The bottom status bar shows the user 'student' and the time '5/19/15 8:38:47 AM pst'.

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

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

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 choose 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**

Edit Clientless SSL VPN Connection Profile: clientless

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

Interface-Specific Authentication Server Groups

+ Add Edit Delete

Interface	Server Group	Fallback to LOCAL
-----------	--------------	-------------------

Username Mapping from Certificate

☐ Pre-fill Username from Certificate

☐ Hide username from end user

☒ Specify the certificate fields to be used as the username

Primary Field:

Secondary Field:

☐ Use the entire DN as the username

☐ Use script to select username

+ Add Edit Delete

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

Secondary Authentication Server Group

Server Group: **-- None --** **Manage...**

☐ Use LOCAL if Server Group fails

☐ Use primary username (Hide secondary username on login page)

Attributes Server: ☒ Primary ☐ Secondary

Session Username Server: ☒ Primary ☐ Secondary

Interface-Specific Secondary Authentication Server Groups

Add **Edit** **Delete**

Interface	Server Group	Fallback to LOCAL	Use primary username

Username Mapping from Certificate

☐ Pre-fill username from certificate

☐ Hide username from end user

☐ Fallback when a certificate is unavailable

Password: ☒ Prompt ☐ Use primary ☐ Use

☒ Specify the certificate fields to be used as the username

Primary Field: **CN (Common Name)**

Secondary Field: **OU (Organization Unit)**

☐ Use the entire DN as the username

☐ Use script to select username

-- None -- **Add** **Edit** **Delete**

Find: **Next** **Previous**

OK **Cancel** **Help**

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 > Clientless SSL VPN Access > Portal > Bookmarks

Configure Bookmark Lists that the security appliance displays on the SSL VPN portal page.
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.

Add **Edit** **Delete** **Import** **Export** **Assign**

Bookmarks	Group Policies/DAPs/LOCAL Users Using the Bookmarks
Template	
Grade GRV	Sales

Find: **Match Case**

Apply **Reset**

student 15 5/19/15 8:41:57 AM pat

Edit Bookmark List

Bookmark List Name: Inside-SRV

Bookmark Title	URL
Inside Server	http://192.168.1.2

Add
Edit
Delete
Move Up
Move Down

Find:

☐ Match Case

OK Cancel Help

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 > Clientless SSL VPN Access > Portal > Smart Tunnel

For Smart Tunnel Application List, Auto Sign-on Server List, and Networks, you can enforce them to group policy or user policy by clicking on the Assign button above the respective table.

Method to Log Off Smart Tunnel Session

- ☒ Logoff the smart-tunnel when its parent process, such as a browser, terminates
- ☐ Click on smart-tunnel logoff icon in the system tray

Smart Tunnel Application List

Add Edit Delete Assign End: ☐ Match Case

List Name	Application ID	Process Name	OS	Hash	Group Policies/User Policies Assigned to
-----------	----------------	--------------	----	------	--

Smart Tunnel Auto Sign-on Server List

Add Edit Delete Assign End: ☐ Match Case

Server List Name	Server	Group Policies/User Policies Assigned to
------------------	--------	--

Smart Tunnel Networks

Add Edit Delete Assign End: ☐ Match Case

Network	Group Policies/User Policies Assigned to
---------	--

Apply Reset

student 15 5/29/15 8:43:07 AM pet

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 > Clientless SSL VPN Access > Portal > Port Forwarding

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.

Add Edit Delete Assign

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

Find: Match Case

Apply Reset

student 15 5/19/15 8:43:47 AM pet

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 > Clientless SSL VPN 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](#).

Add Edit Delete Assign

Name	Type	Tunneling Protocol	Connection Profiles/Users Assigned To
sales	Internal	ssl-clientless	clientless
OffGrpPolicy (System Default)	Internal	Rev 1;rev 2;ssl-clientless/2ip-sec	DefaultRAGroup;Default 2;Group;DefaultADMPGroup;Def...

Find: Match Case

Apply Reset

student 15 5/19/15 8:49:27 AM pet

Edit Internal Group Policy: Sales

Name: Sales

Banner: ☒ Inherit

More Options

Tunneling Protocols: ☐ Inherit ☒ Clientless SSL VPN ☐ SSL VPN Client ☐ IPsec IKEv1 ☐ IPsec IKEv2 ☐ LZTP/IPsec

Web ACL: ☒ Inherit Manage...

Access Hours: ☒ Inherit Manage...

Simultaneous Logins: ☒ Inherit

Restrict access to VLAN: ☒ Inherit

Connection Profile (Tunnel Group) Lock: ☒ Inherit

Maximum Connect Time: ☒ Inherit ☐ Unlimited minutes

Idle Timeout: ☒ Inherit ☐ Use Global Default minutes

Timeout Alerts

Session Alert Interval: ☒ Inherit ☐ Default minutes

Idle Alert Interval: ☒ Inherit ☐ Default minutes

Configure alert text messages and visual cues in Customization under Clientless SSL VPN Access-Portal-Customization-Edit-Portal Page-Timeout Alerts.

Find: ☐ Next ☐ Previous

Cisco ASDM 7.2 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

Remote Access VPN

Clientless SSL VPN Access

Configuration > Remote Access VPN > Clientless SSL VPN 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	Sales
DefaultGrpPolicy (System Default)	Internal	ikev1;ikev2;ssl-clientless;l2tp-ipsec	DefaultGrpPolicy

Find: ☐ Match Case

student 15 10/15/14 9:15:43 AM pst

Edit Internal Group Policy: Sales

General
Ports
More Options
Customization
Login Setting
Single Signon
VDI Access
Session Settings

Bookmark List: ☐ Inherit ☐ Inside-SRV

URL Entry: ☒ Inherit ☐ Enable ☐ Disable

File Access Control

File Server Entry: ☒ Inherit ☐ Enable ☐ Disable

File Server Browsing: ☒ Inherit ☐ Enable ☐ Disable

Hidden Share Access: ☒ Inherit ☐ Enable ☐ Disable

Port Forwarding Control

Port Forwarding List: ☒ Inherit

☐ Auto Applet Download

Applet Name: ☒ Inherit

Smart Tunnel

Smart Tunnel Policy: ☒ Inherit Network:

Tunnel Option:

Smart Tunnel Application: ☒ Inherit

☐ Smart Tunnel all Applications (This feature only works with Windows platforms)

☐ Auto Start

Auto Sign-on Server: ☒ Inherit

Windows Domain Name (optional):

Auto sign-on works only with Internet Explorer on Windows client or in Firefox on any platform.

ActiveX Relay

ActiveX Relay: ☒ Inherit ☐ Enable ☐ Disable

[More Options](#)

Find: ☐ Next ☐ Previous

Edit Internal Group Policy: DftGrpPolicy

Advanced
Servers
Advanced

Name:

Banner:

SCEP forwarding URL:

Address Pools:

IPv6 Address Pools:

[More Options](#)

Tunneling Protocols: ☒ Clientless SSL VPN ☐ SSL VPN Client ☒ IPsec IKEv1 ☒ IPsec IKEv2 ☒ L2TP/IPsec

Filter:

Access Hours:

Simultaneous Logins:

Restrict access to VLAN:

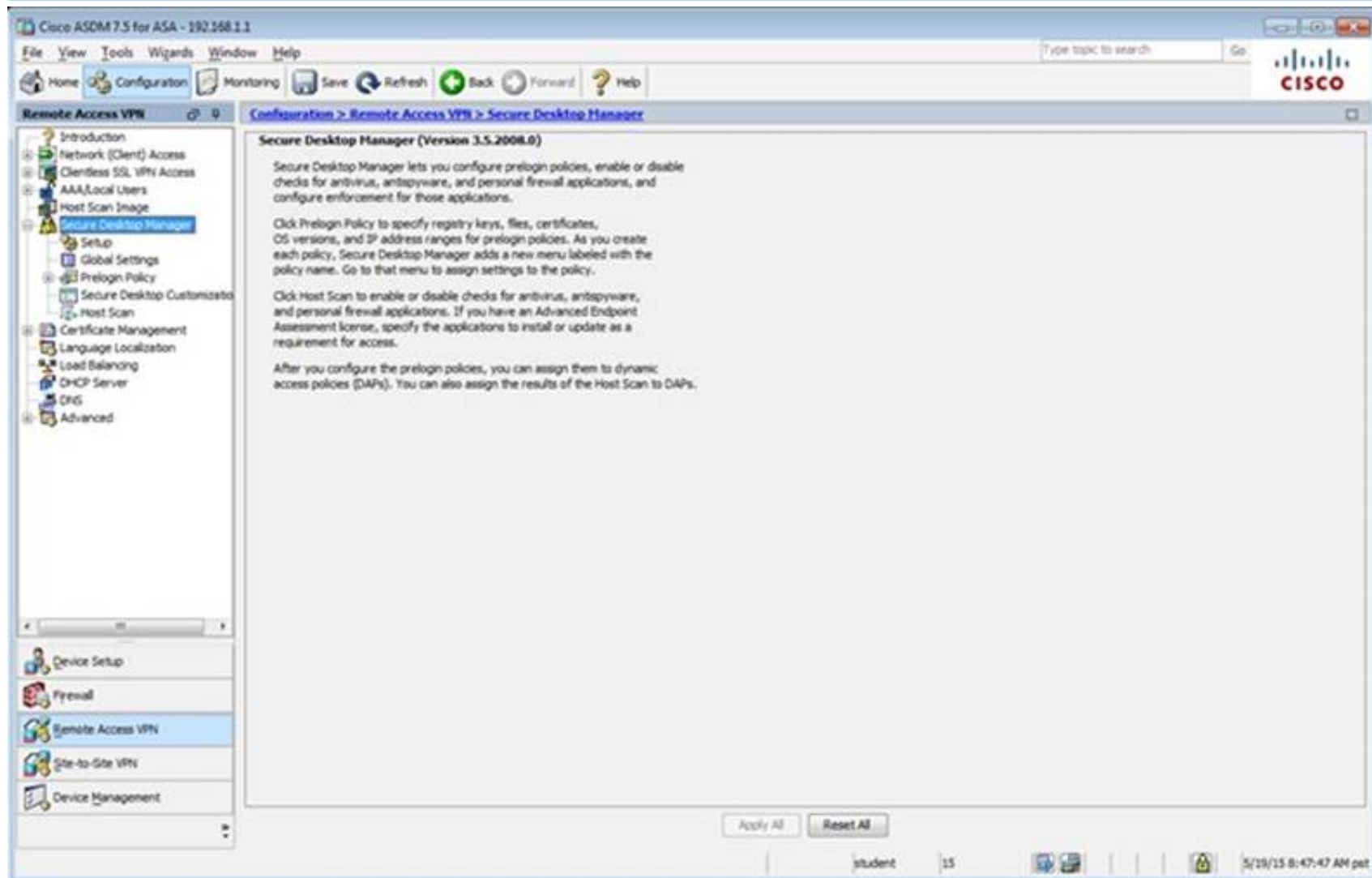
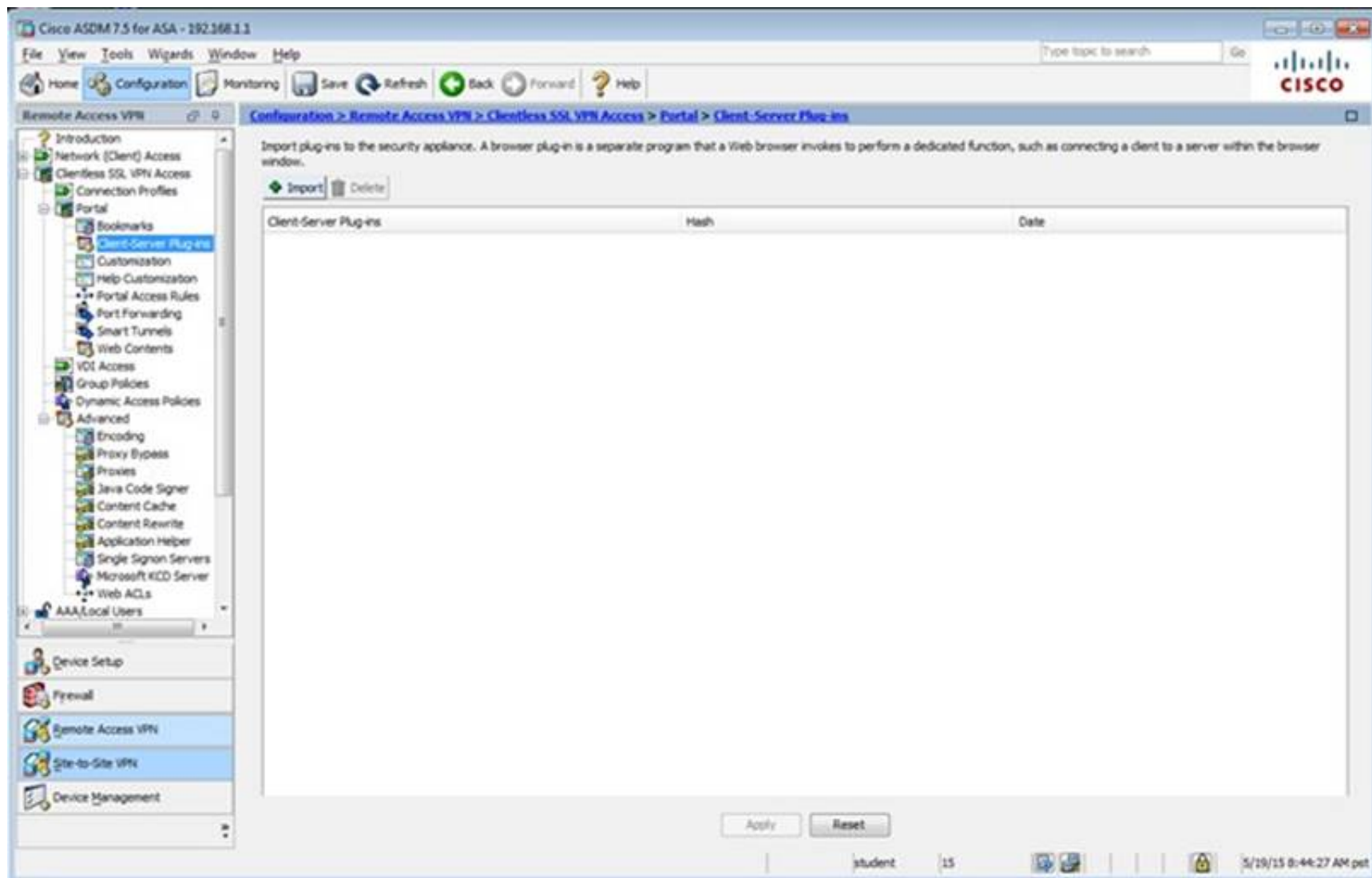
Connection Profile (Tunnel Group) Lock:

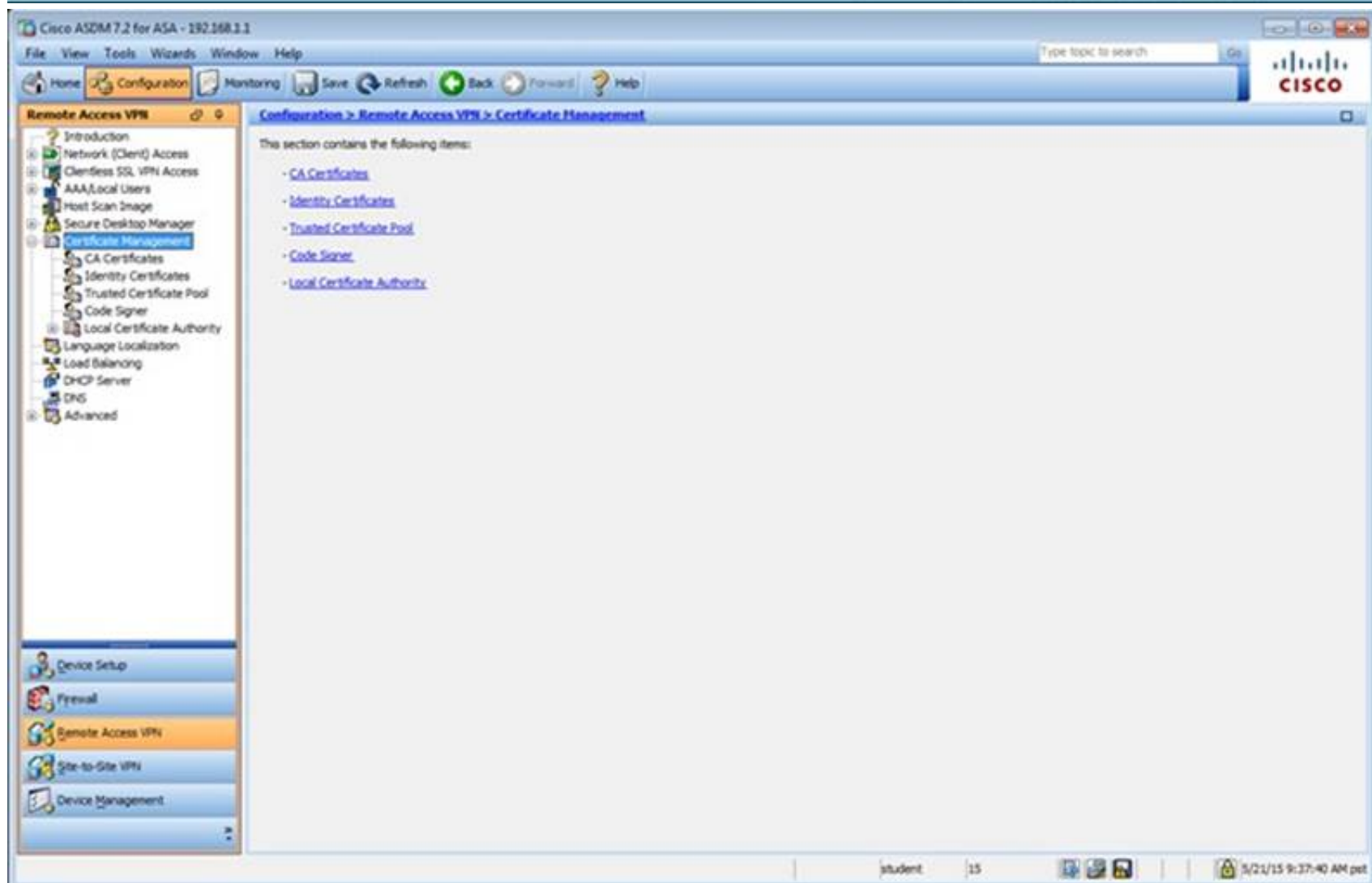
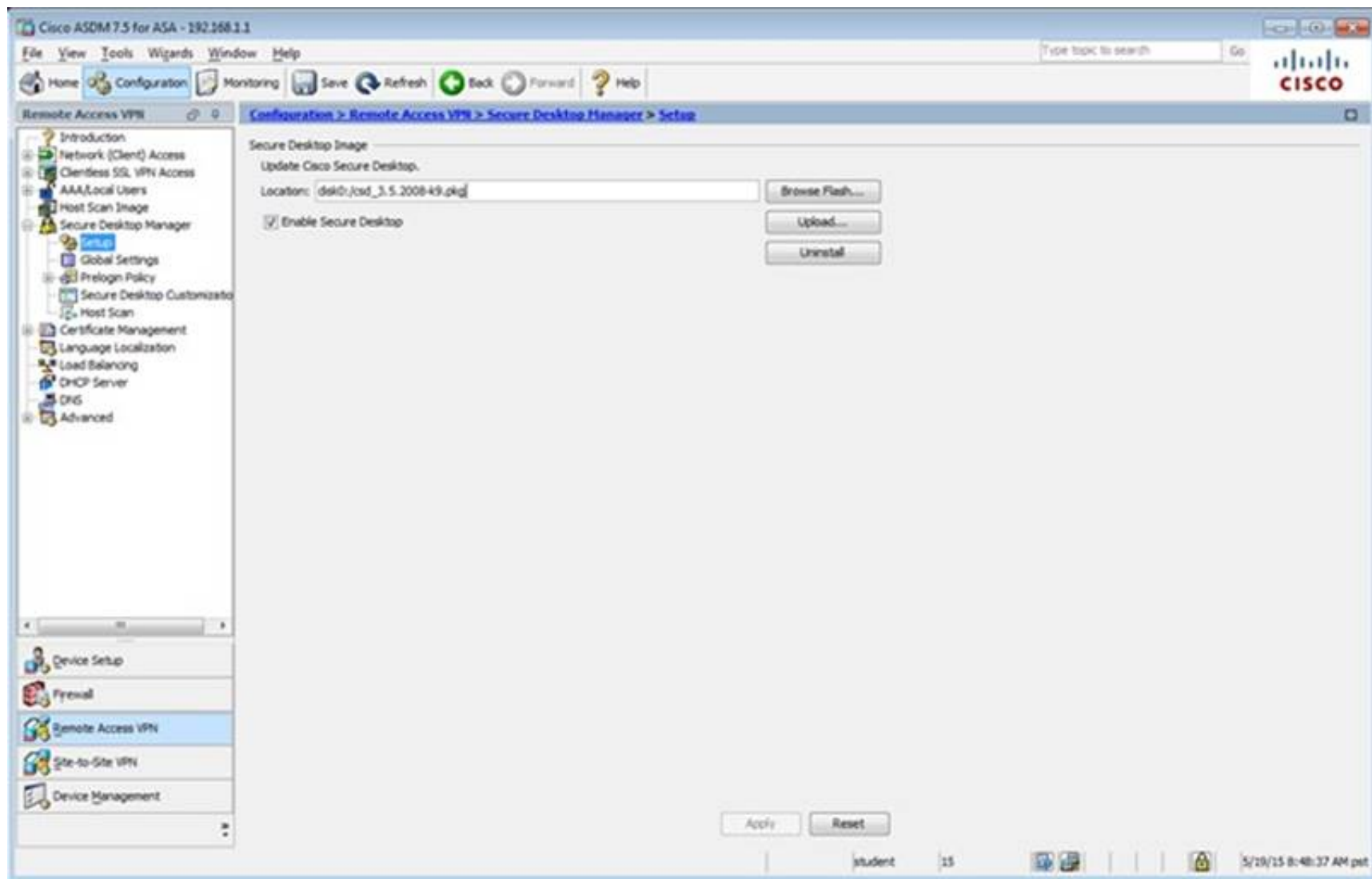
Maximum Connect Time: ☒ Unlimited minutes

Idle Timeout: ☐ None minutes

On smart card removal: ☒ Disconnect ☐ Keep the connection

Find: ☐ Next ☐ Previous





The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar shows the navigation tree with 'Remote Access VPN' selected. The main pane displays the 'Configuration > Remote Access VPN > Certificate Management > Identity Certificates' page. A table lists the following certificate:

Issued To	Issued By	Expiry Date	Associated Trustpoints	Usage	Public Key Type
hostname=IP17-ASA.sec...	hostname=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). At the bottom, there is a section for 'ASDM Identity Certificate Wizard' with a 'Launch ASDM Identity Certificate Wizard' button.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar shows the navigation tree with 'Remote Access VPN' selected. The main pane displays the 'Configuration > Remote Access VPN > Advanced' page. This section contains the following items:

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

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the navigation tree with 'Remote Access VPN' selected. The main pane is titled 'Configuration > Remote Access VPN > Advanced > SSL Settings'. The configuration area includes the following sections:

- 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 modulus
 - 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 AES 128-SHA DHE-RSA-AES 128-SHA AES 256-SHA ...
TLSV1	Medium	DES-CBC3-SHA AES 128-SHA DHE-RSA-AES 128-SHA AES 256-SHA ...
TLSV1.1	Medium	DES-CBC3-SHA AES 128-SHA DHE-RSA-AES 128-SHA AES 256-SHA ...
TLSV1.2	Medium	DES-CBC3-SHA AES 128-SHA DHE-RSA-AES 128-SHA AES 256-SHA ...
DTLSV1	Medium	DES-CBC3-SHA AES 128-SHA DHE-RSA-AES 128-SHA AES 256-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.

Buttons at the bottom include 'Apply' and 'Reset'. The status bar at the bottom shows 'student', '15', and the date '5/29/15 8:54:07 AM pet'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the navigation tree with 'Remote Access VPN' selected. The main pane is titled 'Configuration > Remote Access VPN > Advanced > Maximum VPN Sessions'. The configuration area includes the following sections:

- Configure the maximum number of VPN sessions allowed at any given time.**
 - Maximum AnyConnect Sessions: 2
 - Maximum Other VPN Sessions: 250

Buttons at the bottom include 'Apply' and 'Reset'. The status bar at the bottom shows 'student', '15', and the date '5/29/15 8:54:47 AM pet'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Remote Access VPN' selected. The main pane shows the 'Configuration > Remote Access VPN > Network (Client) Access' page. The page content includes:

- 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 (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.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Remote Access VPN' selected. The main pane shows the 'Configuration > Remote Access VPN > Network (Client) Access' page. The page content includes:

- 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 (IKEv2) protocols, Cisco VPN Client supports only IPsec (IKEv1) protocol.
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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](#).
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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.

Edit Internal Group Policy: DftGrpPolicy

Name:

Banner:

SCCP forwarding URL:

Address Pools:

IPv6 Address Pools:

More Options

Tunneling Protocols: ☒ Clientless SSL VPN ☐ SSL VPN Client ☒ IPsec IKEv1 ☒ IPsec IKEv2 ☒ L2TP/IPsec

Filter:

NAC Policy:

Access Hours:

Simultaneous Logins:

Restrict access to VLAN:

Connection Profile (Tunnel Group) Lock:

Maximum Connect Time: ☒ Unlimited minutes

Idle Timeout: ☐ None minutes

On smart card removal: ☒ Disconnect ☐ Keep the connection

Find:

Cisco ASDM 7.5 for ASA - 192.168.1.1

File View Tools Wizards Window Help

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Configuration > Remote Access VPN > Network (Client) Access > IPsec(IKEv1) Connection Profiles

Access Interfaces

Enable interfaces for IPsec access.

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

☒ Bypass interface access lists for inbound VPN sessions

Access lists from group policy and user policy always apply to the traffic.

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](#).

Name	IPsec Enabled	L2TP/IPsec Enabled	Authentication Server Group	Group Policy
DefaultRAGroup	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	RAD	DftGrpPolicy
DefaultWEBVpnGroup	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	RAD	DftGrpPolicy
Clientless	<input type="checkbox"/>	<input type="checkbox"/>	LOCAL	Sales

Find:

student 15 5/28/15 8:56:47 AM pet

Cisco ASDM 7.5 for ASA - 192.168.1.1

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Remote Access VPN

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

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](#).

[Add](#) [Edit](#) [Delete](#) End: Match Case

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

☐ Let group URLs take precedence if group URL and certificate map match different connection profiles. Otherwise, the connection profile that matches the certificate map will be used.

Apply Reset

student 15 5/19/15 8:58:17 AM pst

Cisco ASDM 7.5 for ASA - 192.168.1.1

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Remote Access VPN

Configuration > Remote Access VPN > AAA/Local Users

This section contains the following items:

- [AAA Server Groups](#)
- [LDAP Attribute Map](#)
- [MDM Proxy](#)
- [Local Users](#)

student 15 5/19/15 8:58:57 AM pst

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar shows the navigation tree with 'Local Users' selected under 'AAA/Local Users'. The main pane displays the 'Local Users' configuration page. It includes instructions on creating entries and enabling command authorization. A table lists existing users:

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
plap	15	Full	-- Inherit Group Policy --	-- Inherit Group Policy --

Buttons for 'Add', 'Edit', and 'Delete' are on the right. At the bottom, there are 'Apply' and 'Reset' buttons. The status bar shows 'student' with privilege level '15' and a timestamp of '5/19/15 8:59:27 AM pet'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar shows the navigation tree with 'AAA Server Groups' selected under 'AAA/Local Users'. The main pane displays the 'AAA Server Groups' configuration page. It includes a table for existing 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

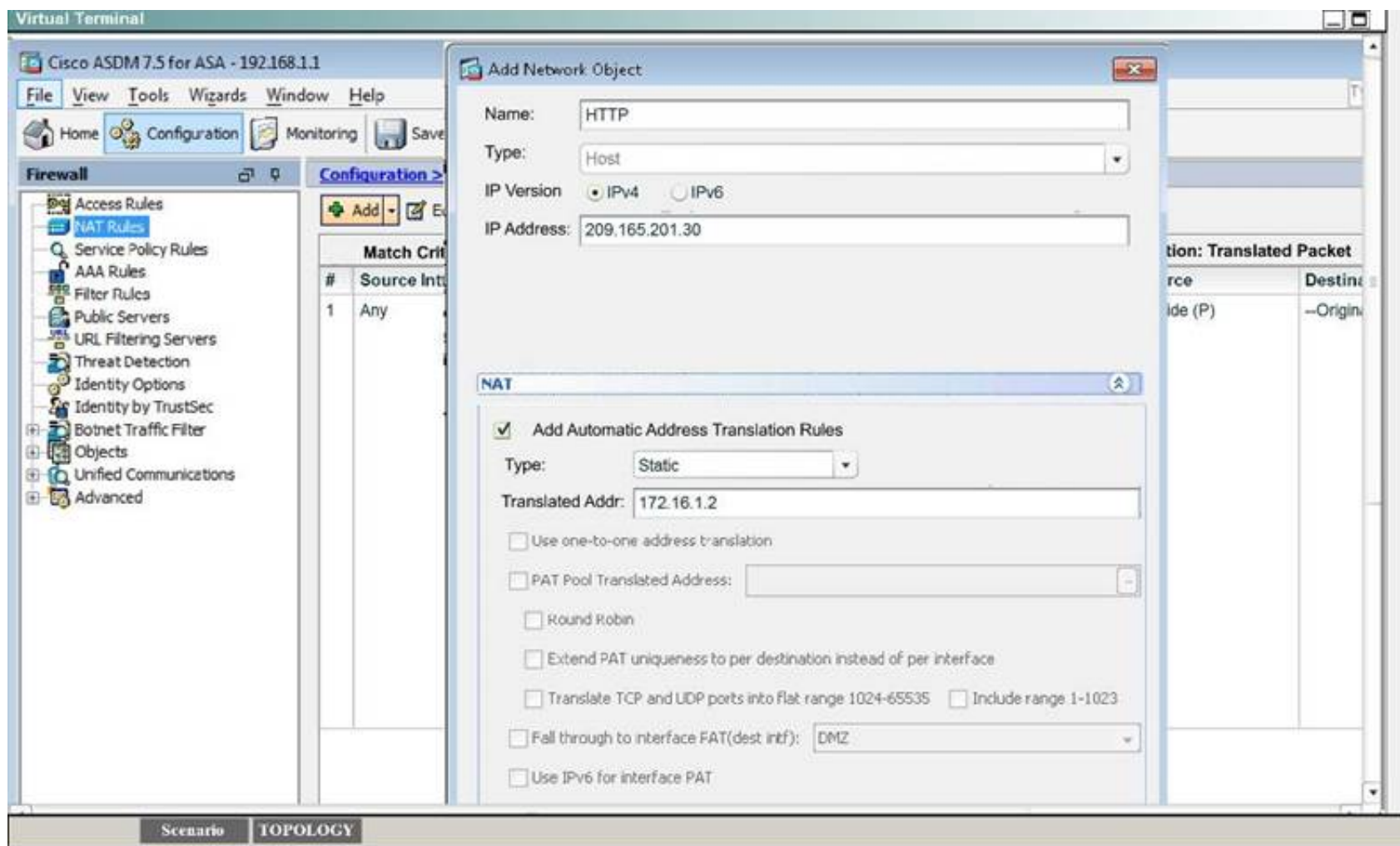
Buttons for 'Add', 'Edit', and 'Delete' are on the right. Below the table, there is a section for 'Servers in the Selected Group' with a table for adding servers:

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

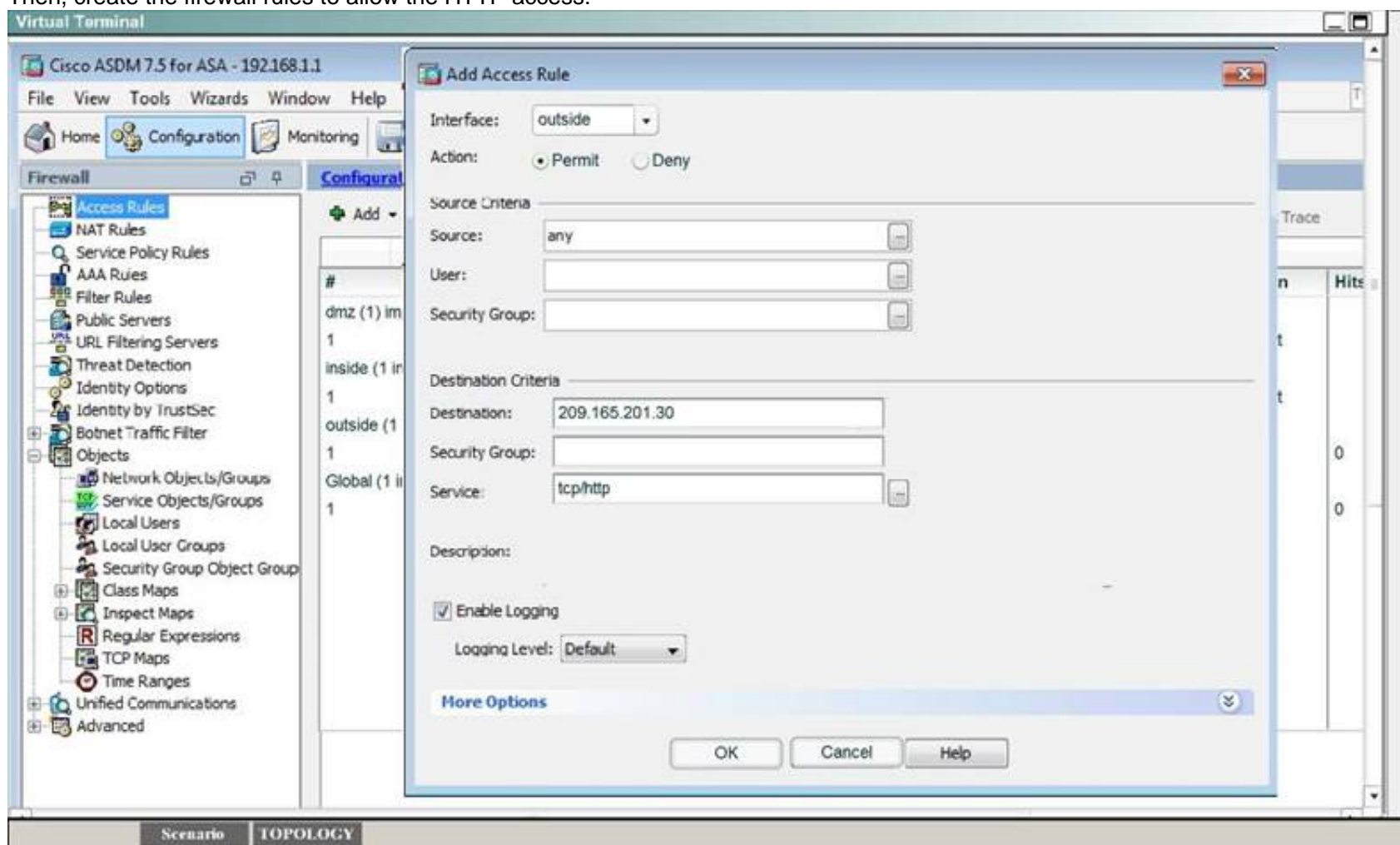
Buttons for 'Add', 'Edit', 'Delete', 'Move Up', 'Move Down', and 'Test' are on the right. At the bottom, there are 'Apply' and 'Reset' buttons. The status bar shows 'student' with privilege level '15' and a timestamp of '5/19/15 8:59:57 AM pet'.

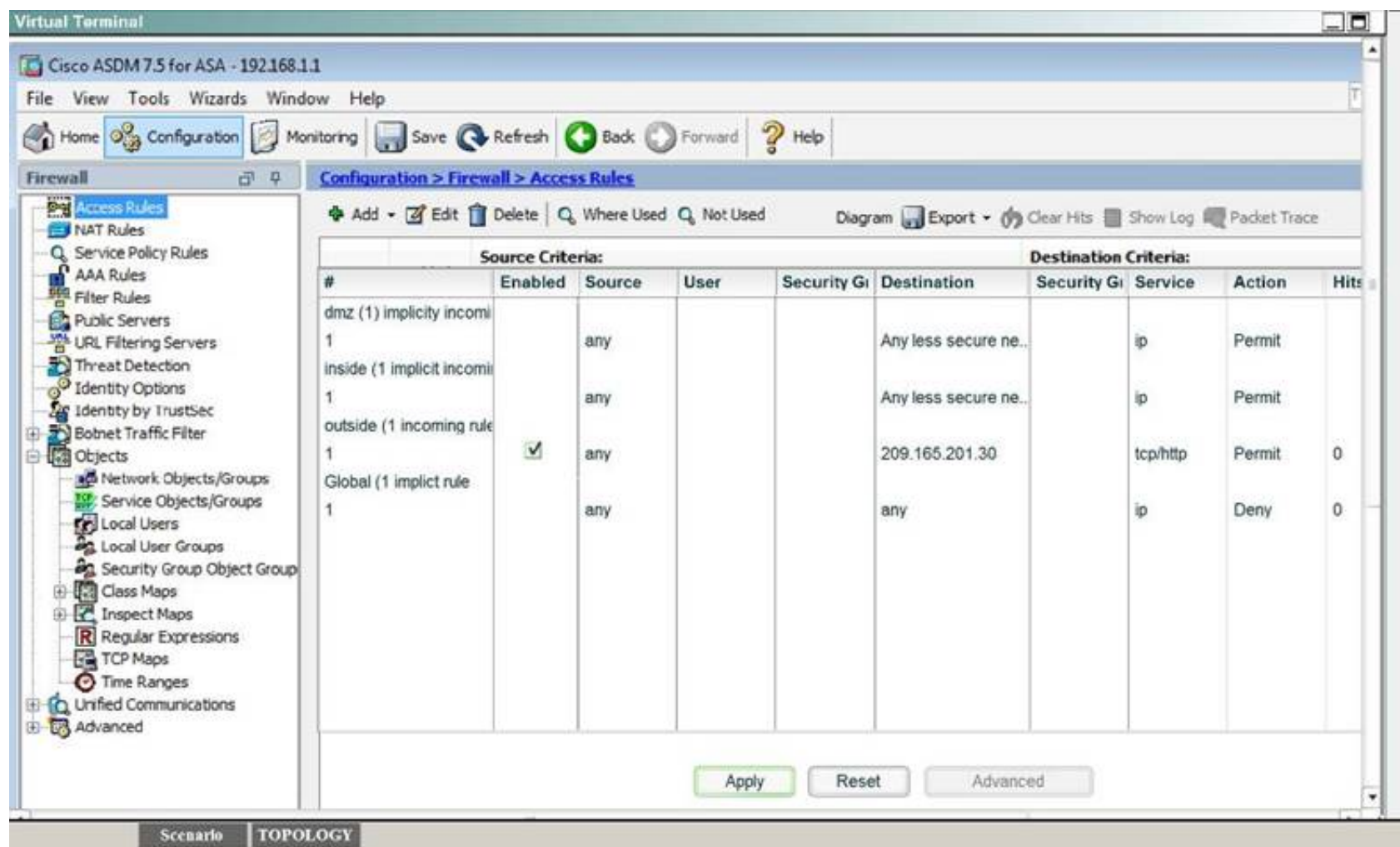
Answer:

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.



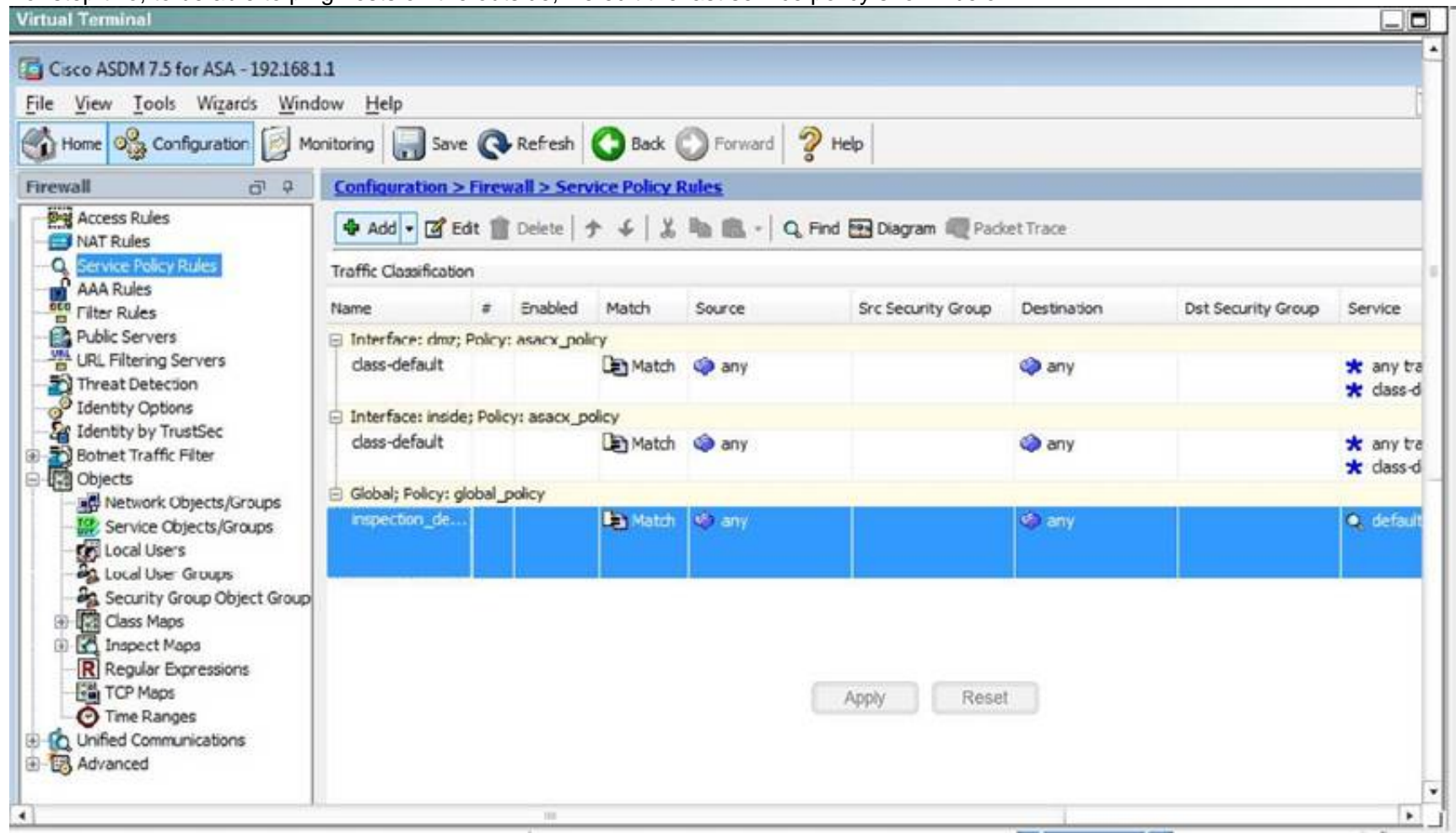
Then, create the firewall rules to allow the HTTP access:



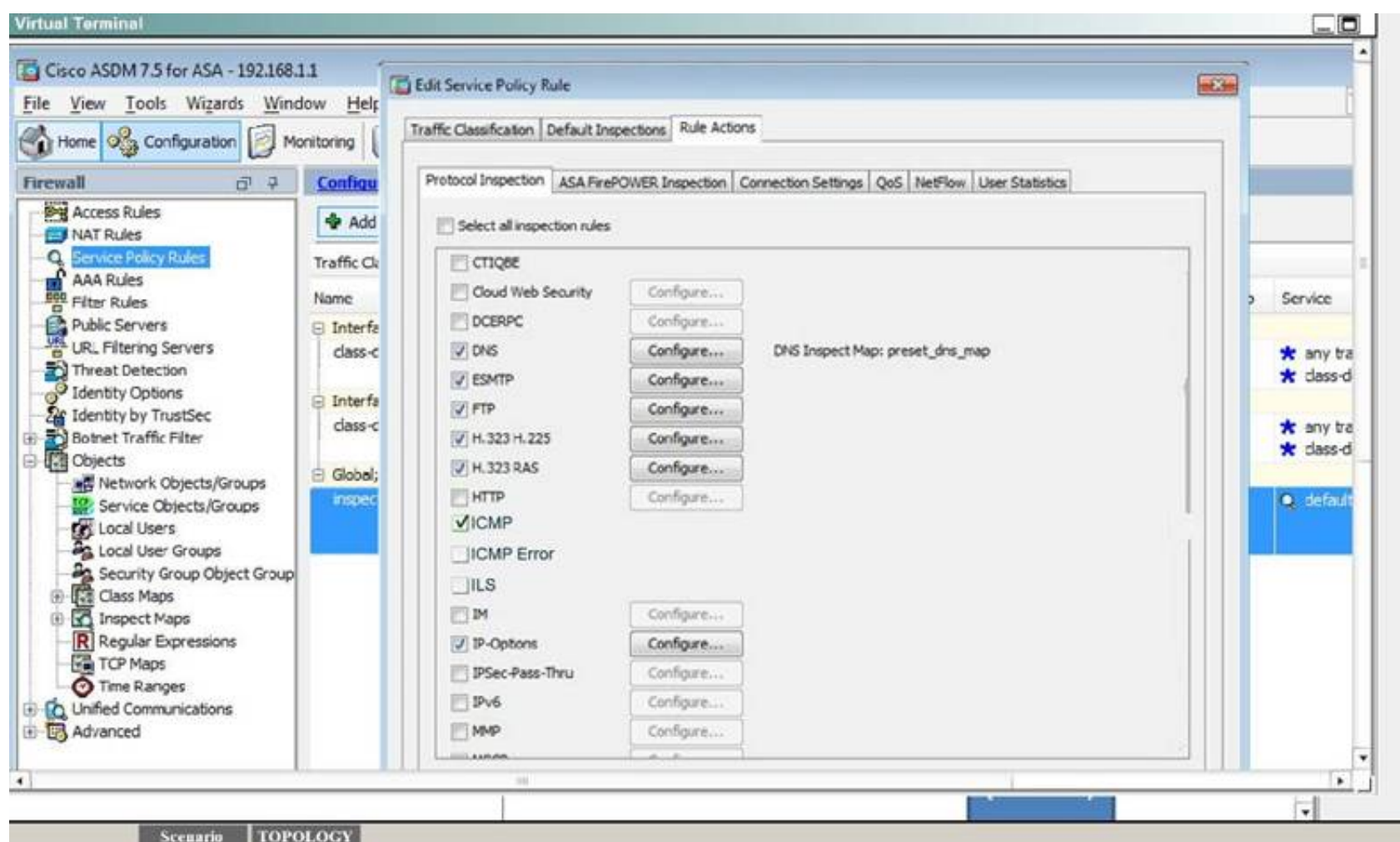


You can verify using the outside PC to HTTP into 209.165.201.30.

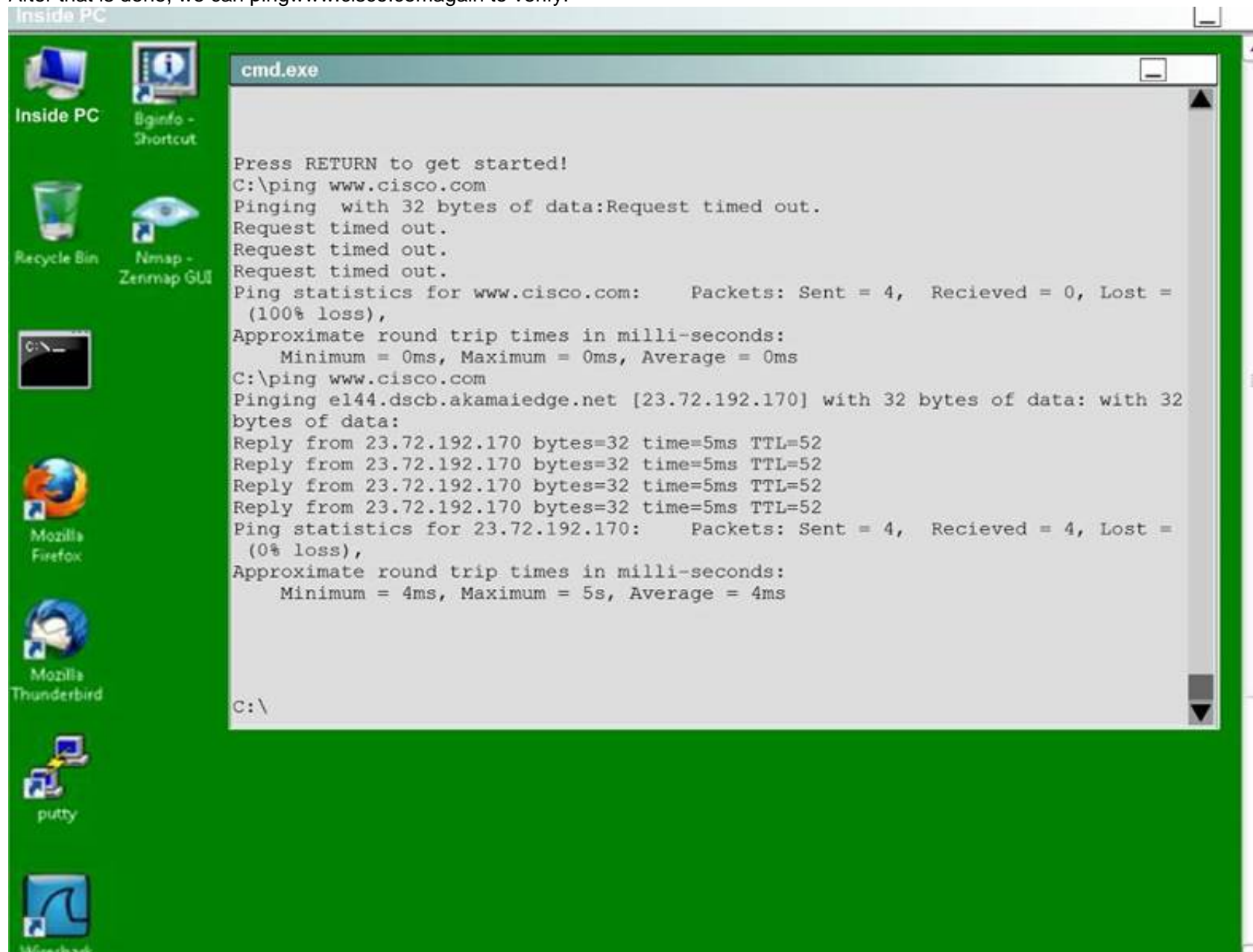
For step two, to be able to ping hosts on the outside, we edit the last service policy shown below:



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 10

How does a zone-based firewall implementation handle traffic between interfaces in the same zone?

- A. Traffic between two interfaces in the same zone is allowed by default.
- B. Traffic between interfaces in the same zone is blocked unless you configure the same-security permit command.
- C. Traffic between interfaces in the same zone is always blocked.
- D. Traffic between interfaces in the same zone is blocked unless you apply a service policy to the zone pair.

Answer: A

Explanation: For interfaces that are members of the same zone, all traffic is permitted by default. Source: Cisco Official Certification Guide, Zones and Why We Need Pairs of Them, p.380

NEW QUESTION 15

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 16

Refer to the exhibit.

```
R1> show clock detail
.22:22:35.123 UTC Tue Feb 26 2013
Time source is NTP
```

Which statement about the device time is true?

- A. The time is authoritative, but the NTP process has lost contact with its servers.
- B. The time is authoritative because the clock is in sync.
- C. The clock is out of sync.
- D. NTP is configured incorrectly.
- E. The time is not authoritative.

Answer: A

Explanation: Remember: The [.] at the beginning of the time tells us the NTP process has last contact with its servers. We know the time is authoritative because there would be a [*] at the beginning if not.

NEW QUESTION 18

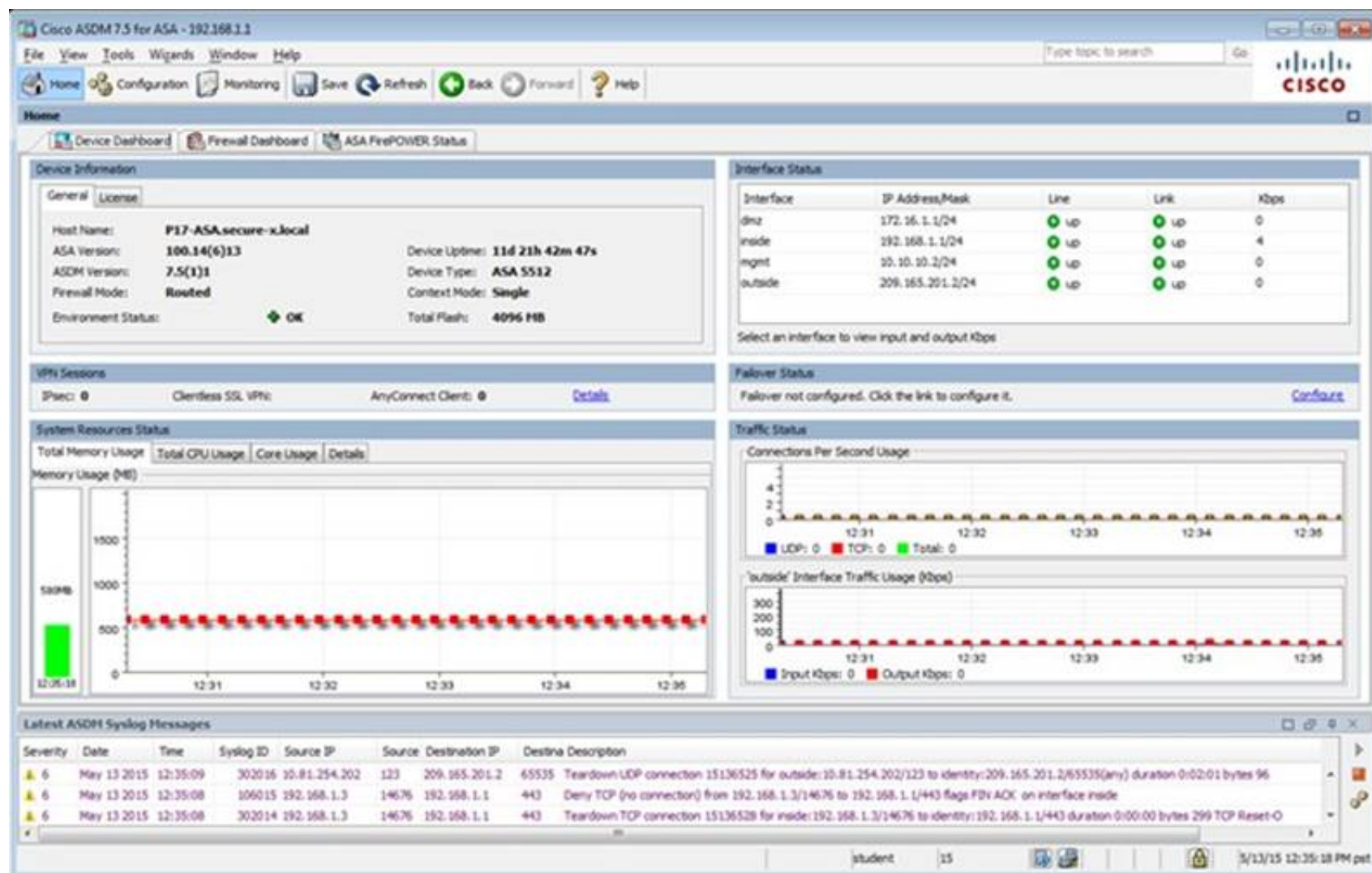
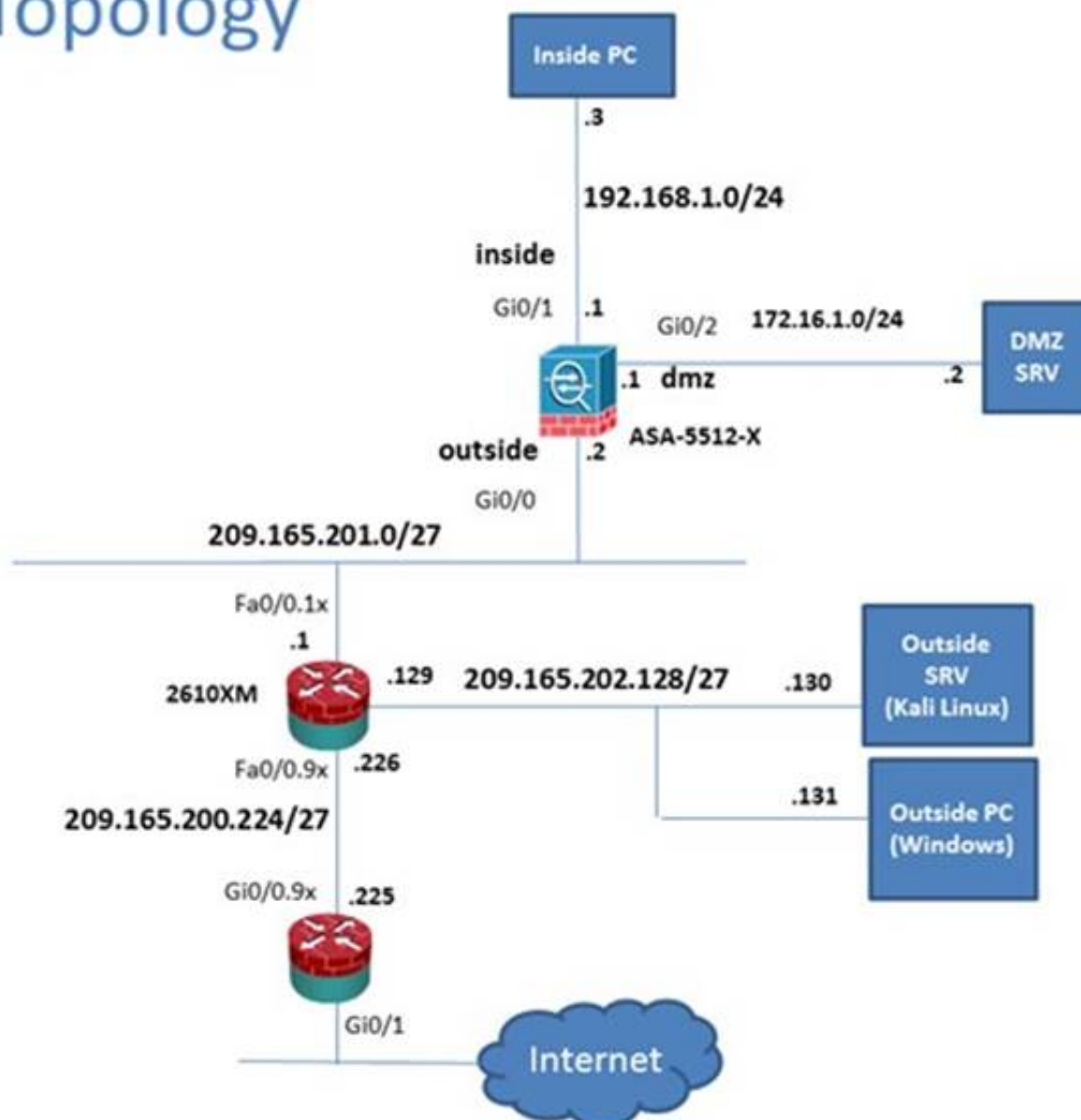
Scenario

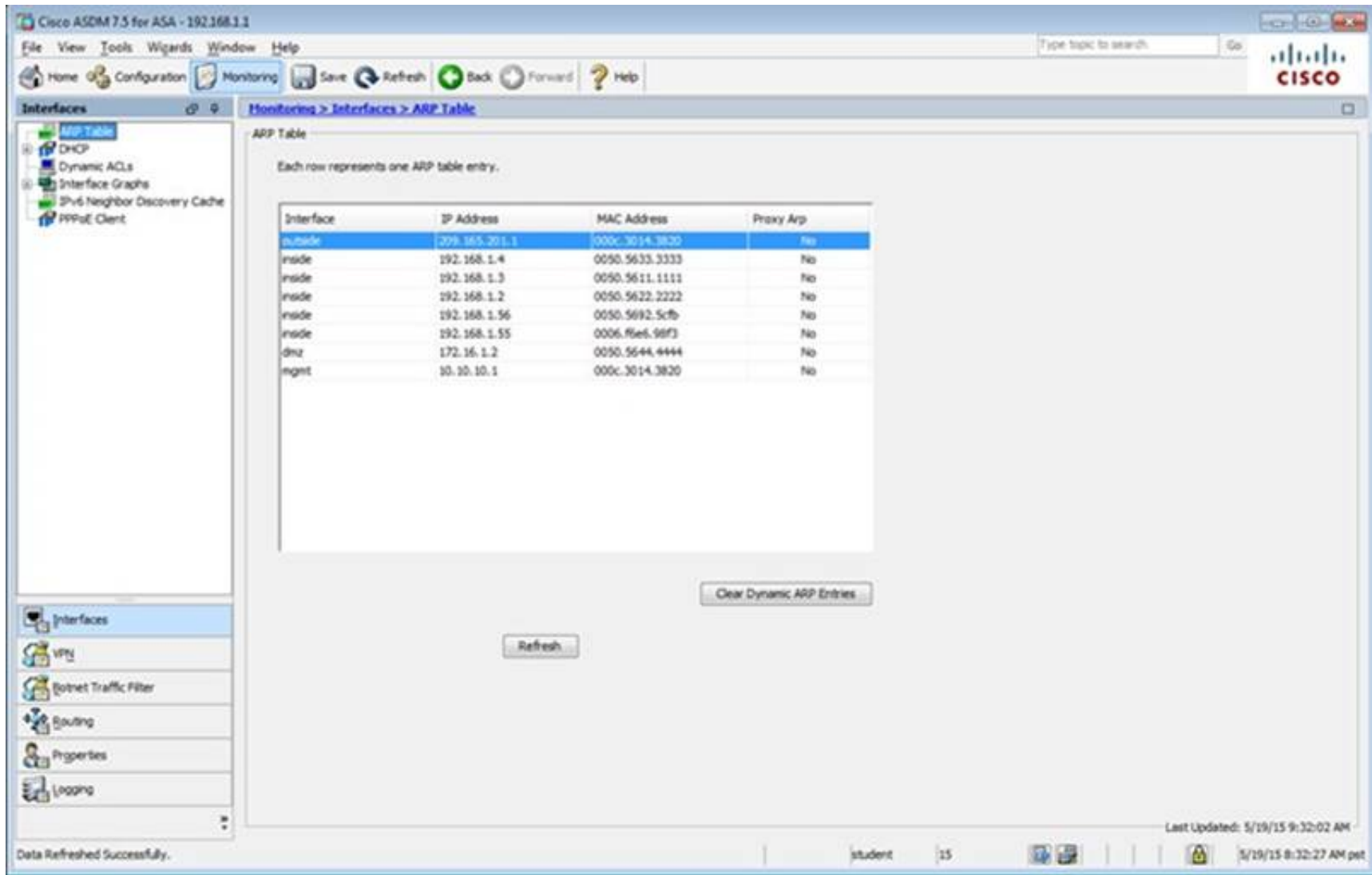
In this simulation, you have access to ASDM only. Review the various ASA configurations using ASDM then answer the five multiple choice questions about the ASA SSLVPN configurations.

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





Cisco ASDM 7.5 for ASA - 192.168.1.1

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Interfaces

Monitoring > Interfaces > ARP Table

ARP Table

Each row represents one ARP table entry.

Interface	IP Address	MAC Address	Proxy Arp
outside	209.165.202.1	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

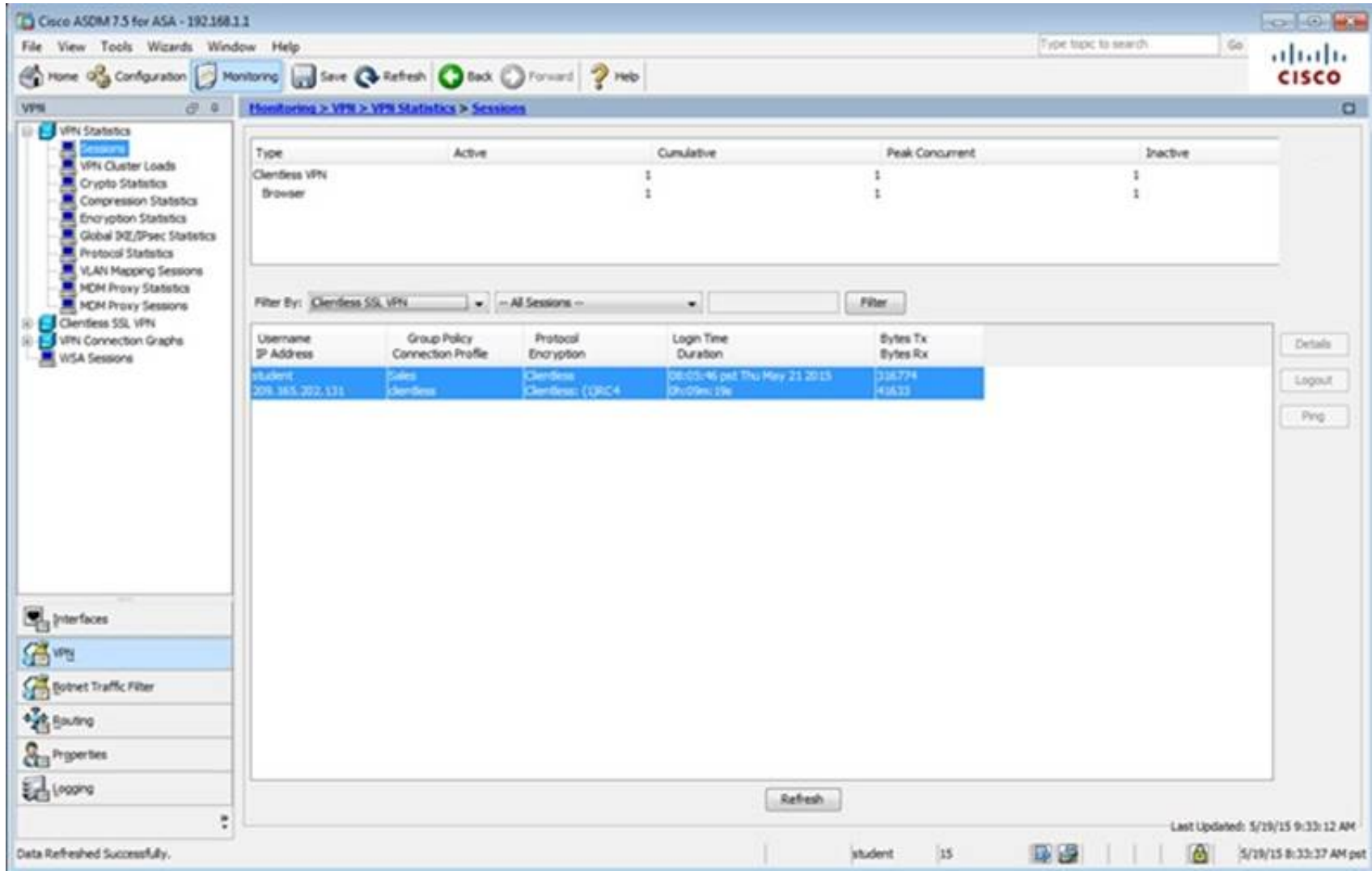
Clear Dynamic ARP Entries

Refresh

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

Data Refreshed Successfully.

student 15 5/19/15 8:32:27 AM pet



Cisco ASDM 7.5 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

VPN

Monitoring > VPN > VPN Statistics > Sessions

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

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

Username IP Address	Group Policy Connection Profile	Protocol Encryption	Login Time Duration	Bytes Tx Bytes Rx
student 209.165.202.131	Null Clientless	Clientless Clientless (IPsec)	08:05:46 pet Thu May 21 2015 0h09m.19s	318774 41633

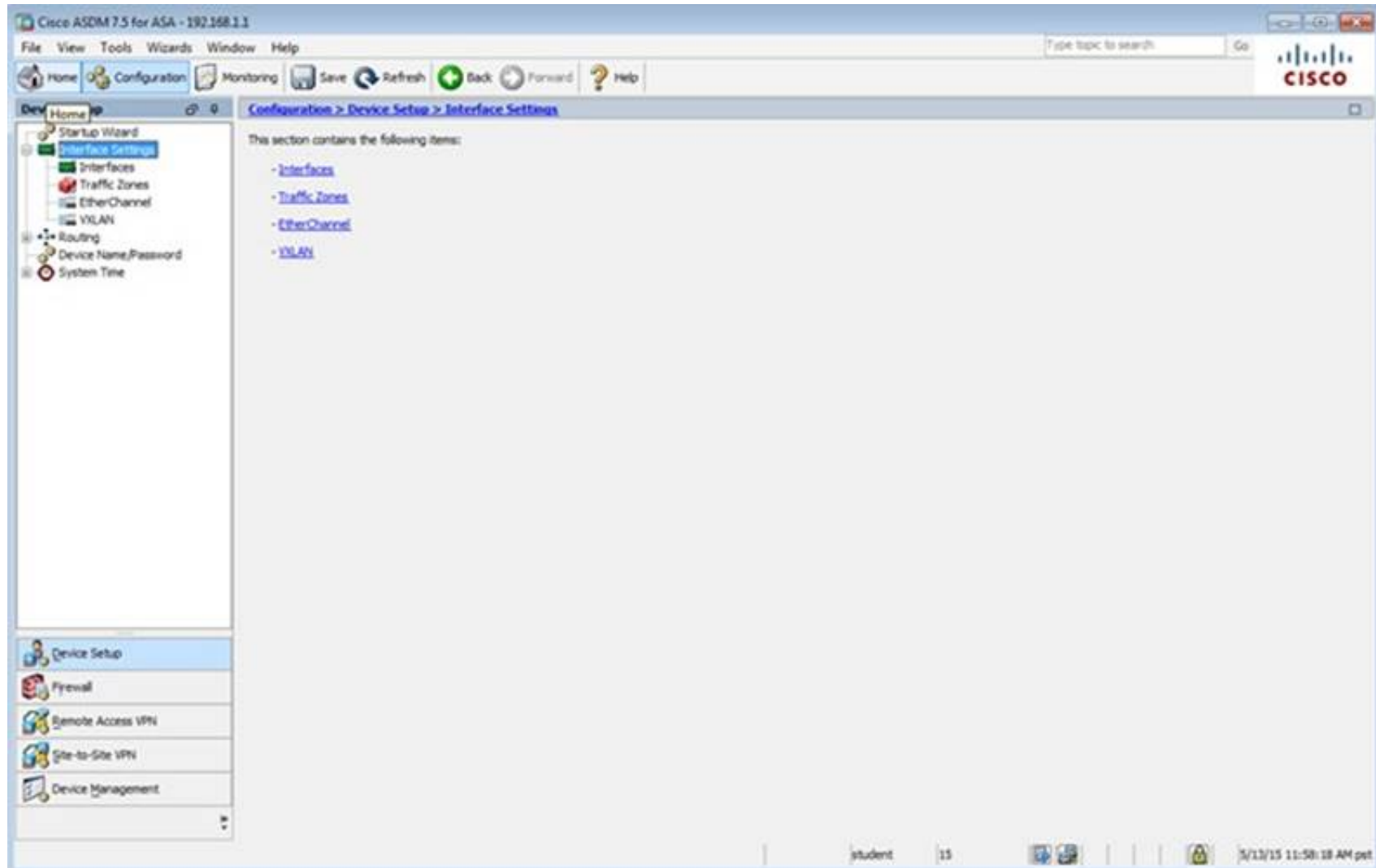
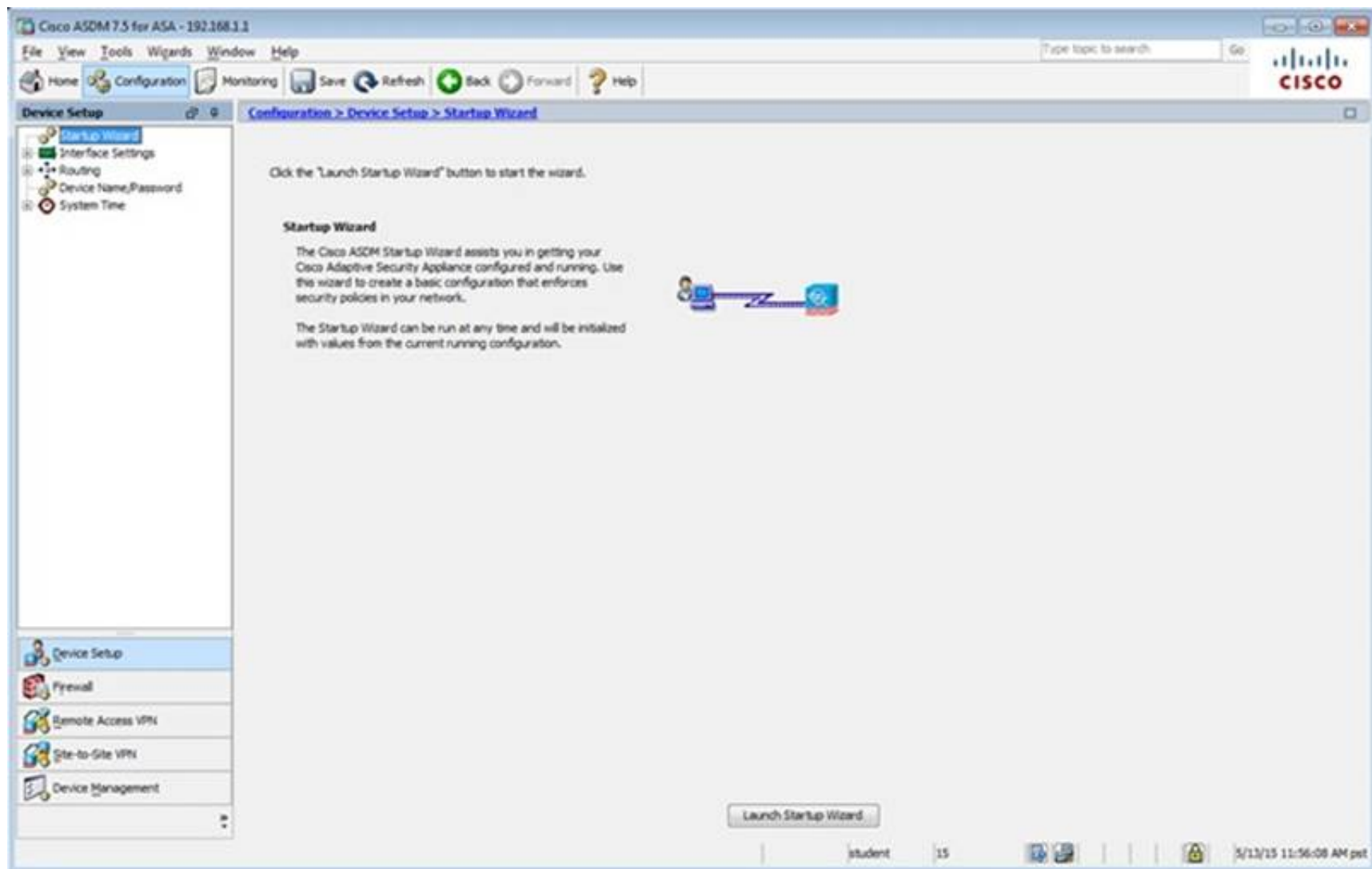
Details Logout Ping

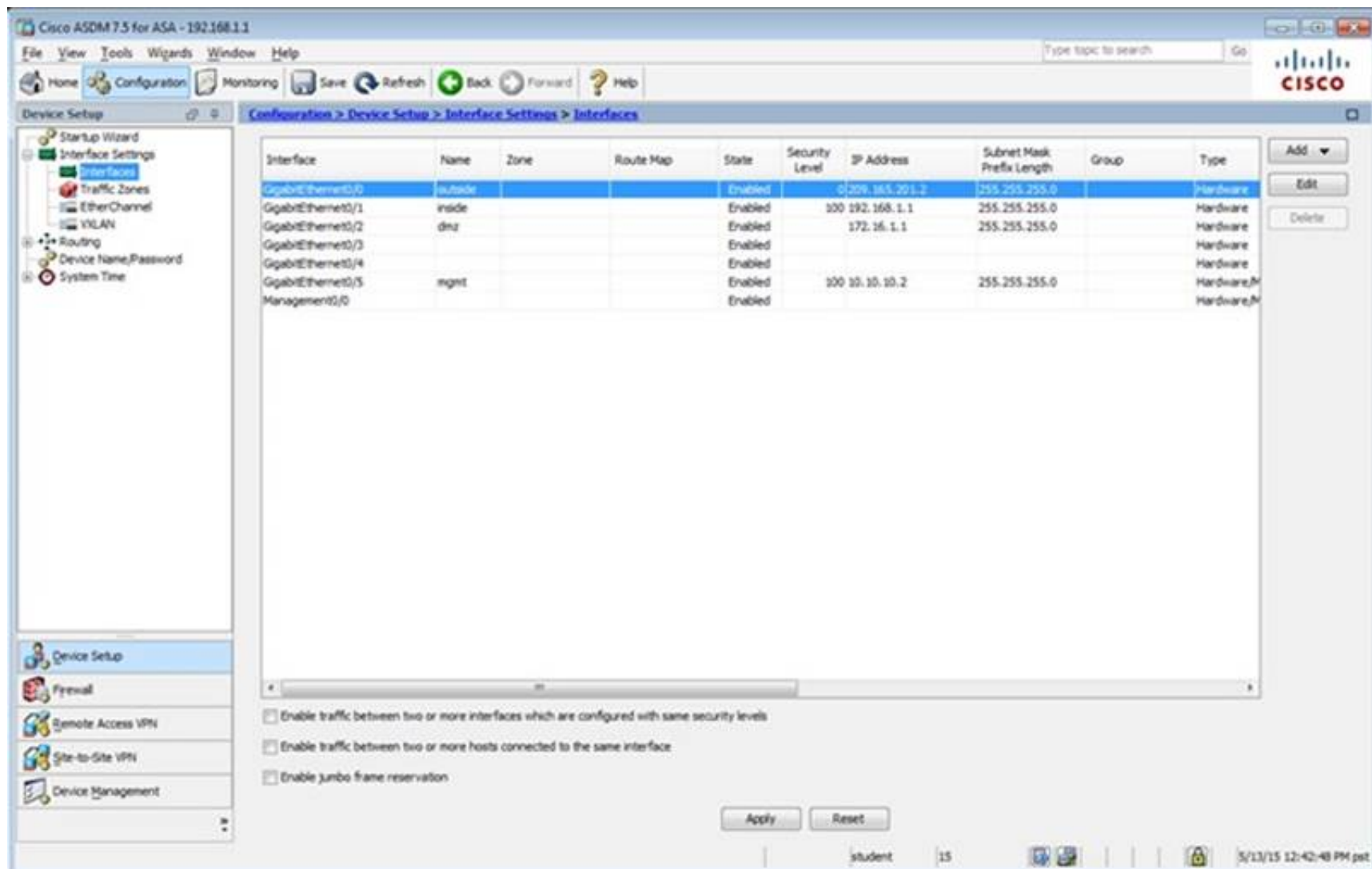
Refresh

Last Updated: 5/19/15 9:33:12 AM

Data Refreshed Successfully.

student 15 5/19/15 8:33:37 AM pet





Cisco ASDM 7.5 for ASA - 192.168.1.1

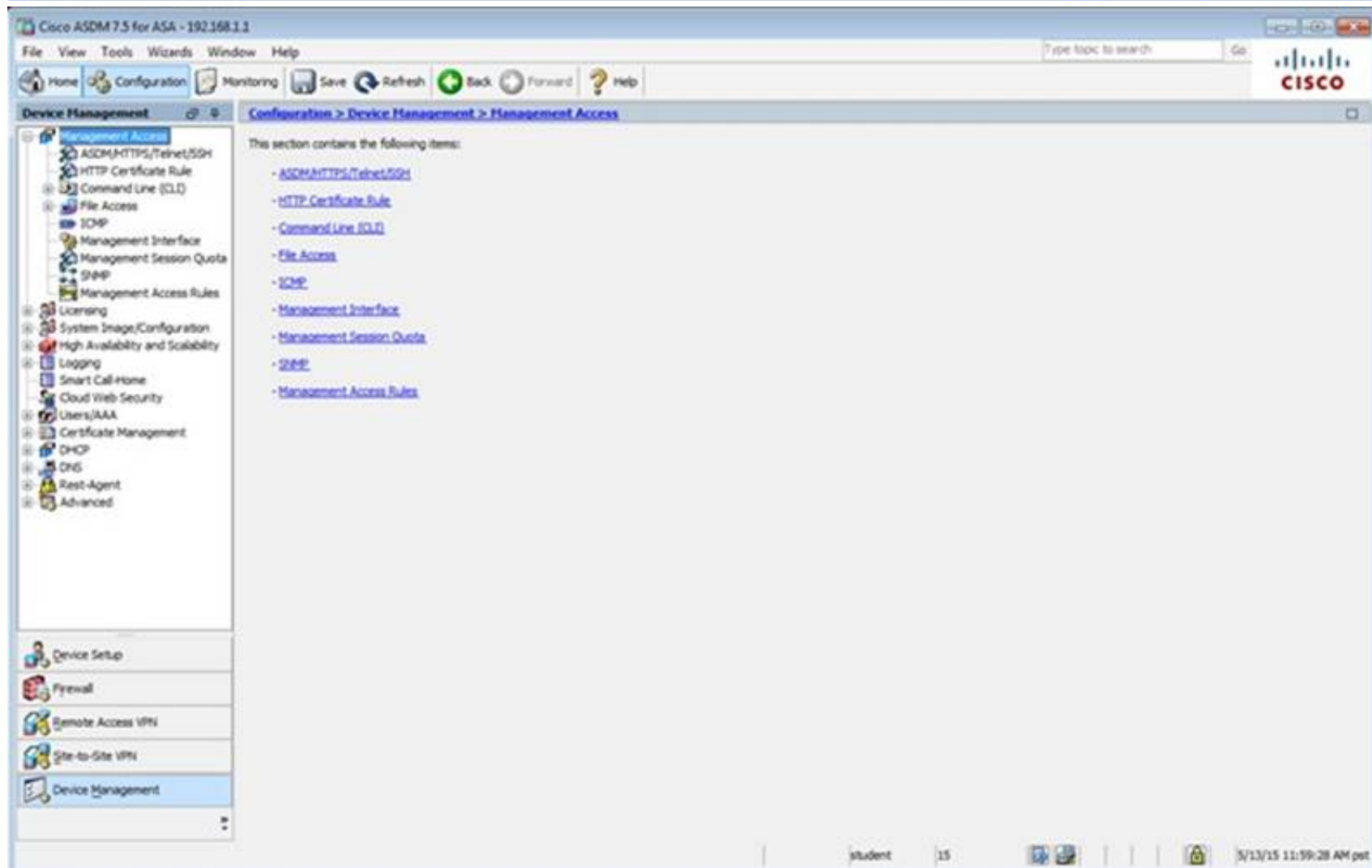
Configuration > Device Setup > Interface Settings > Interfaces

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

☐ 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

Apply Reset

student 15 5/13/15 12:42:48 PM pst



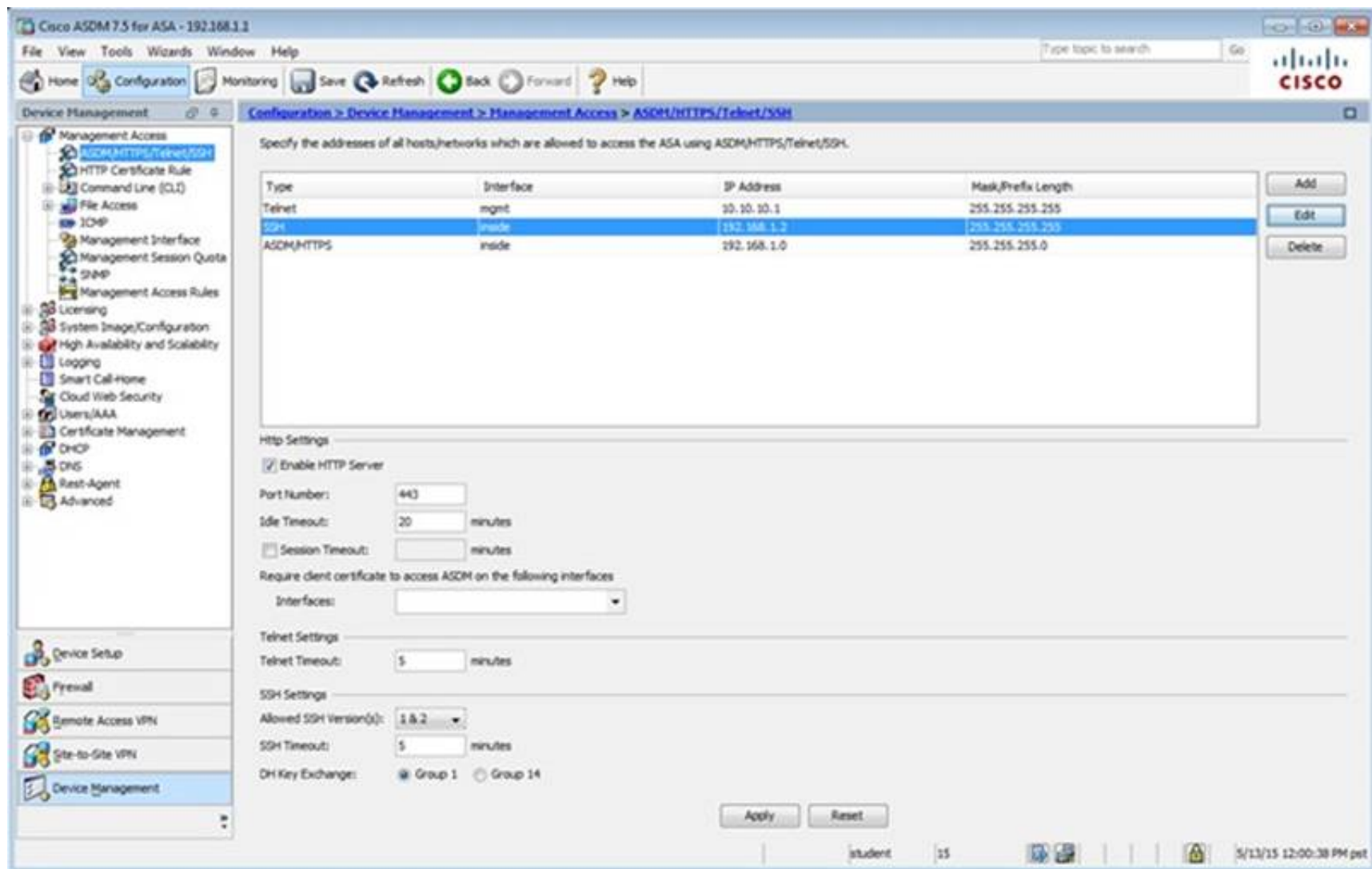
Cisco ASDM 7.5 for ASA - 192.168.1.1

Configuration > Device Management > Management Access

This section contains the following items:

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

student 15 5/13/15 11:59:28 AM pst



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	192.168.1.2	255.255.255.255
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:

Telnet Settings

Telnet Timeout: 5 minutes

SSH Settings

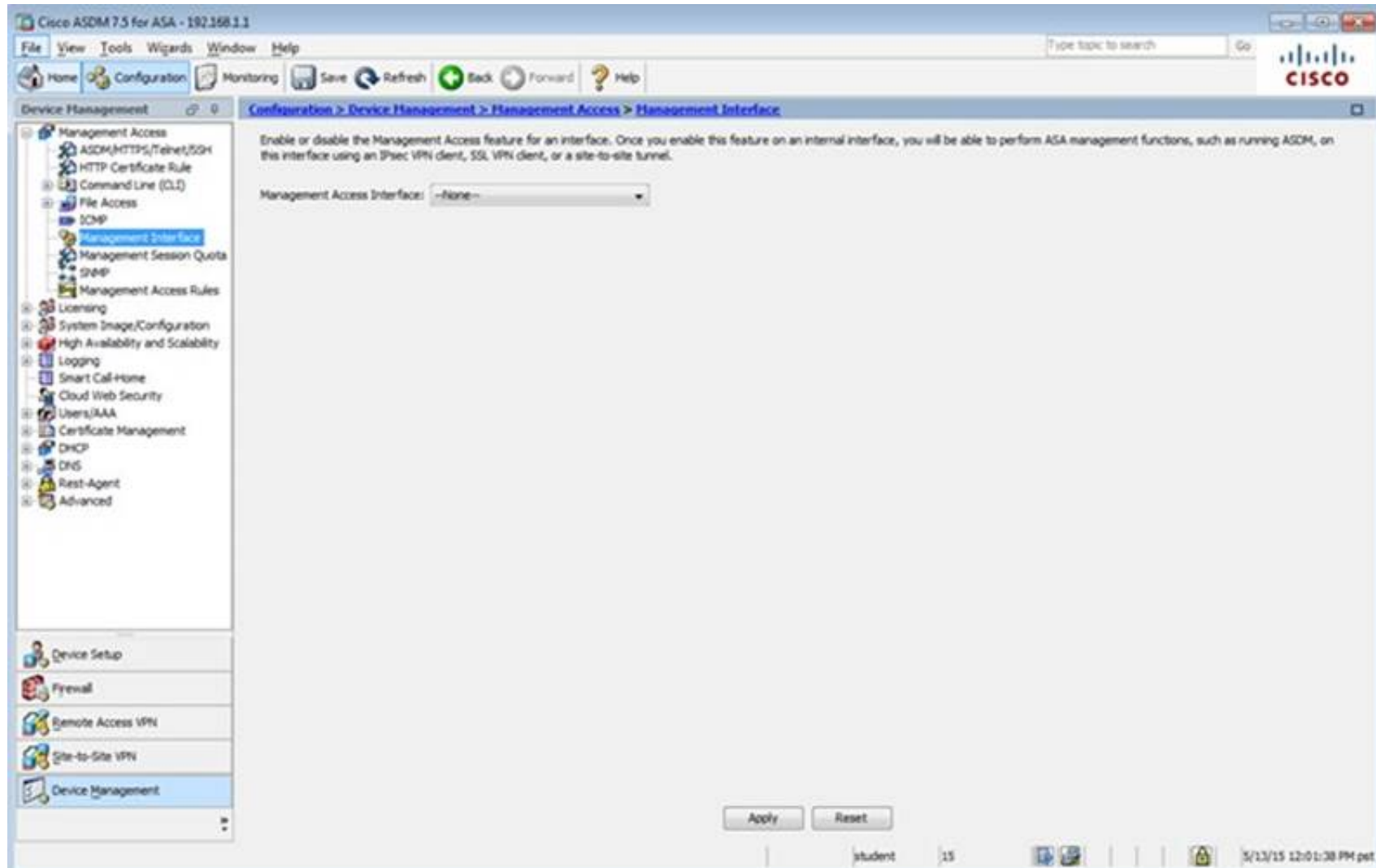
Allowed SSH Version(s): 1 & 2

SSH Timeout: 5 minutes

DH Key Exchange: ☒ Group 1 ☐ Group 14

Apply Reset

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

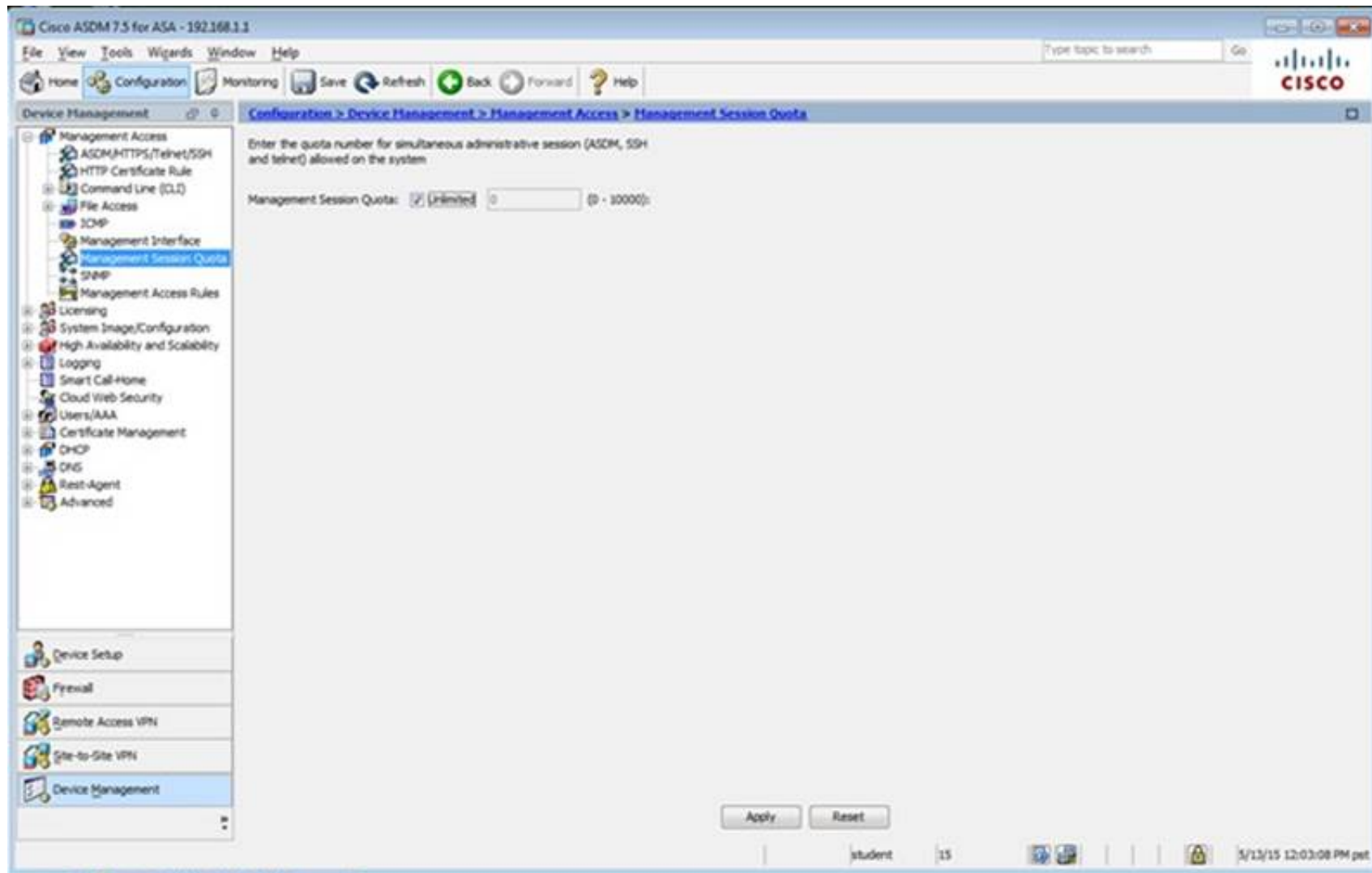


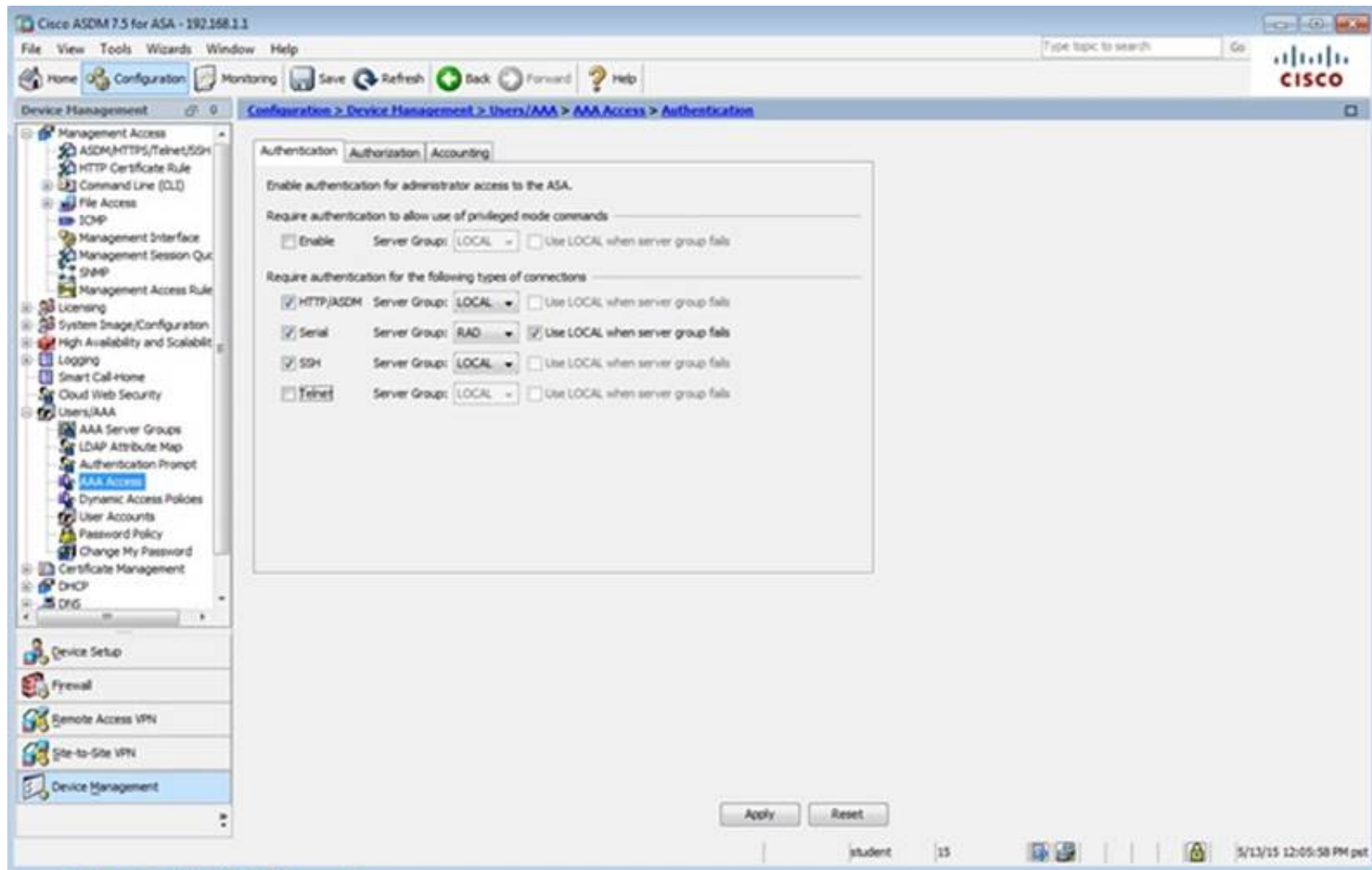
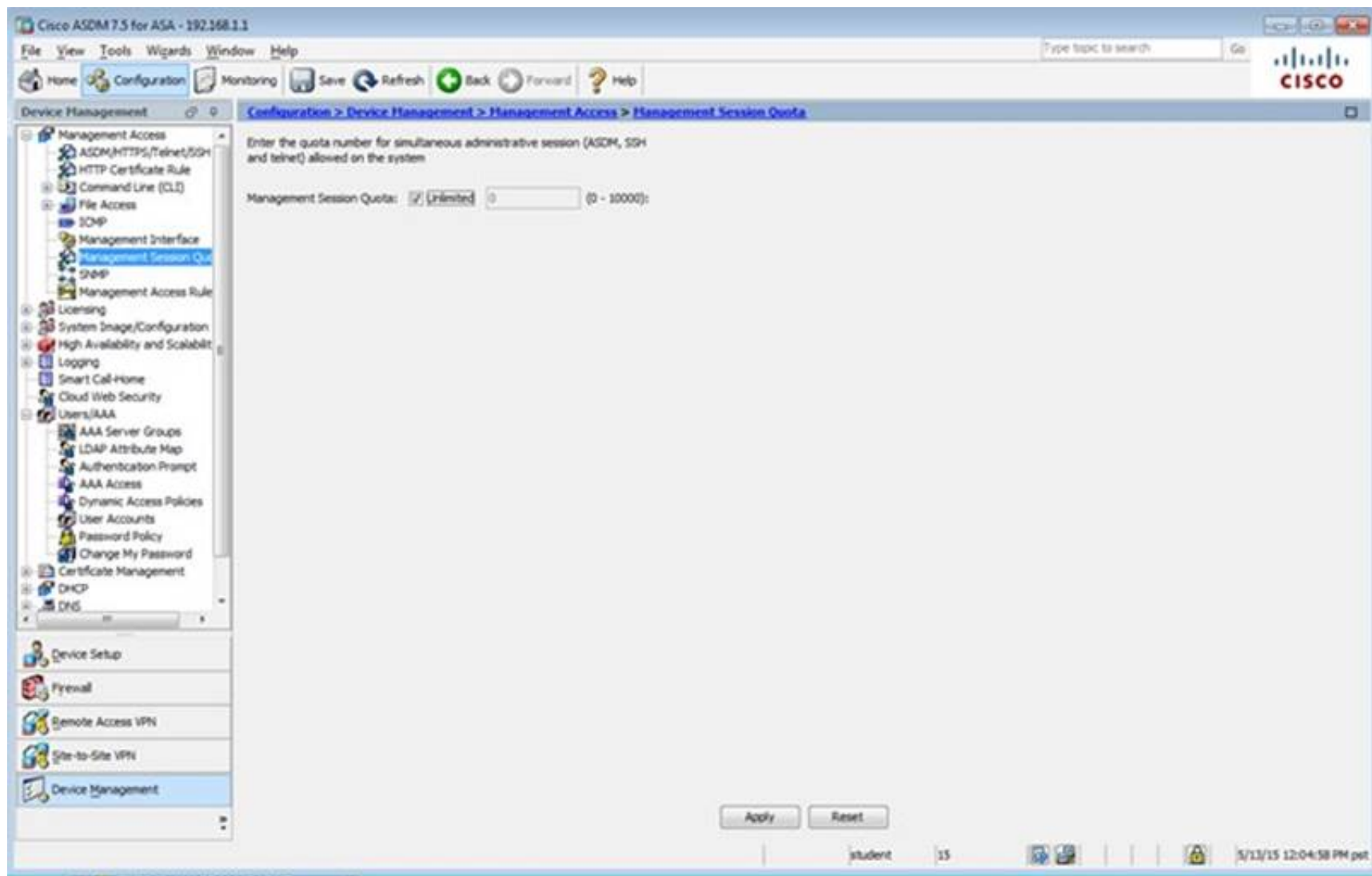
Enable or disable the Management Access feature for an interface. Once you enable this feature on an internal interface, you will be able to perform ASA management functions, such as running ASDM, on this interface using an IPsec VPN client, SSL VPN client, or a site-to-site tunnel.

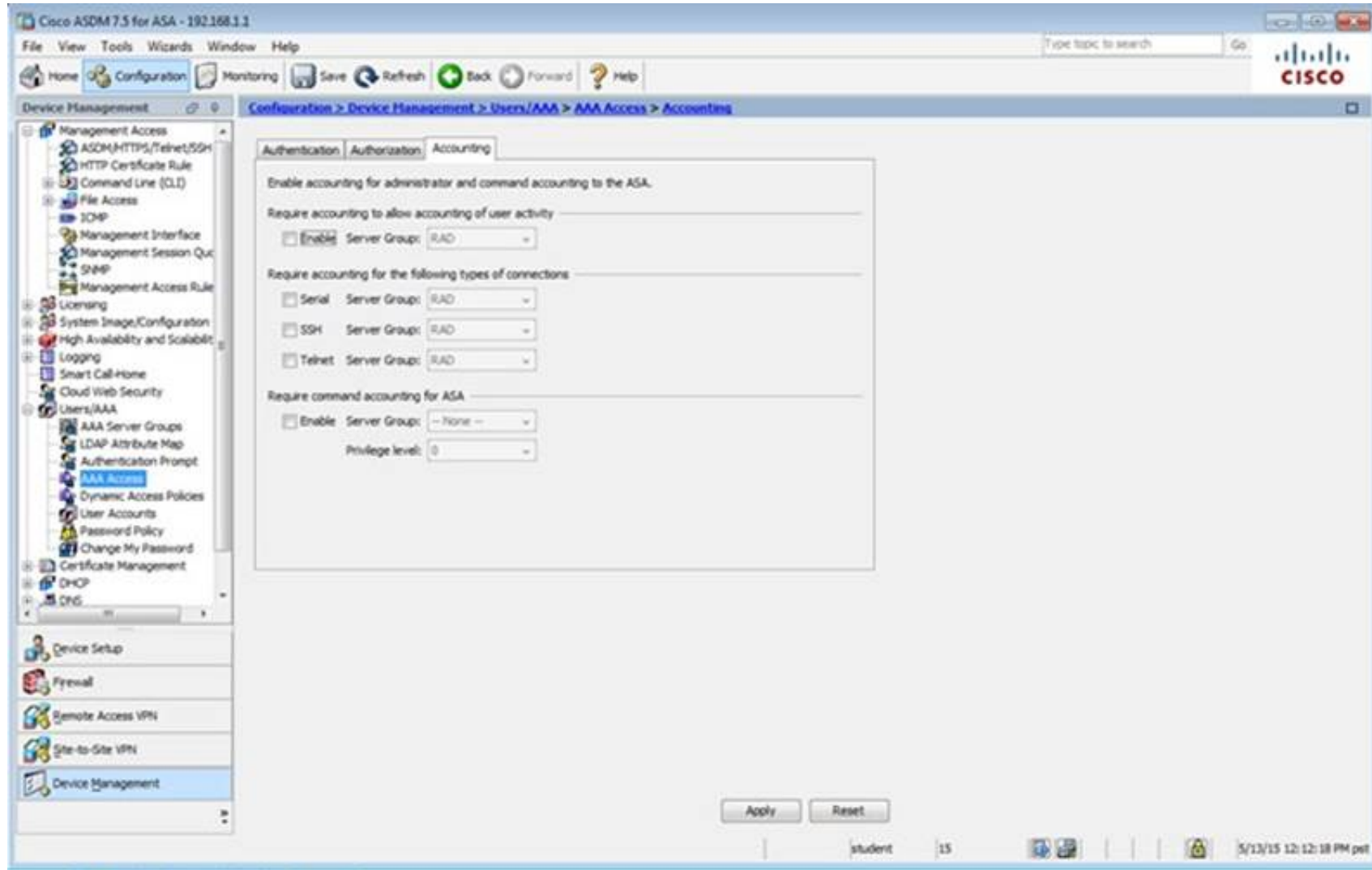
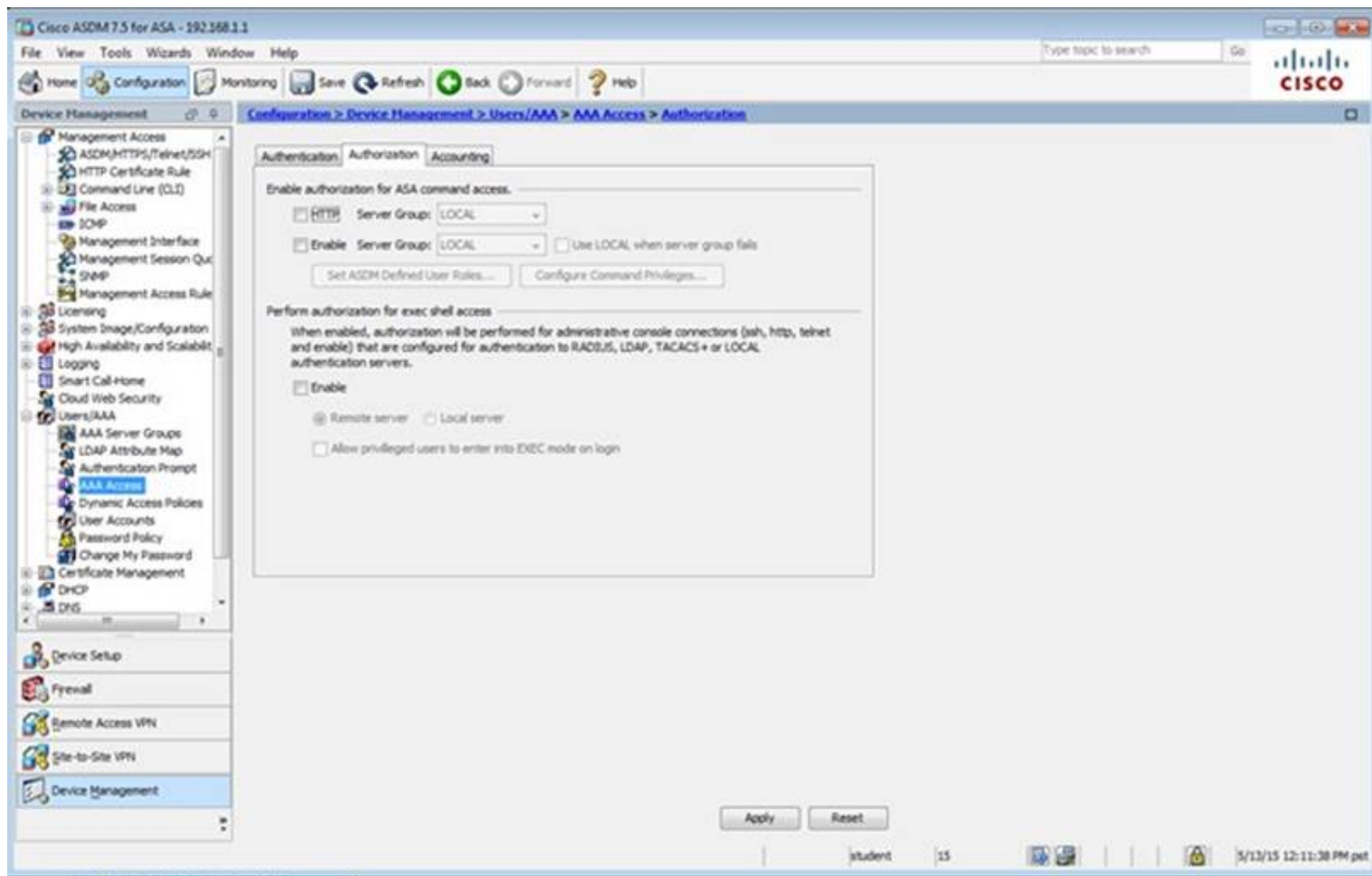
Management Access Interface: --None--

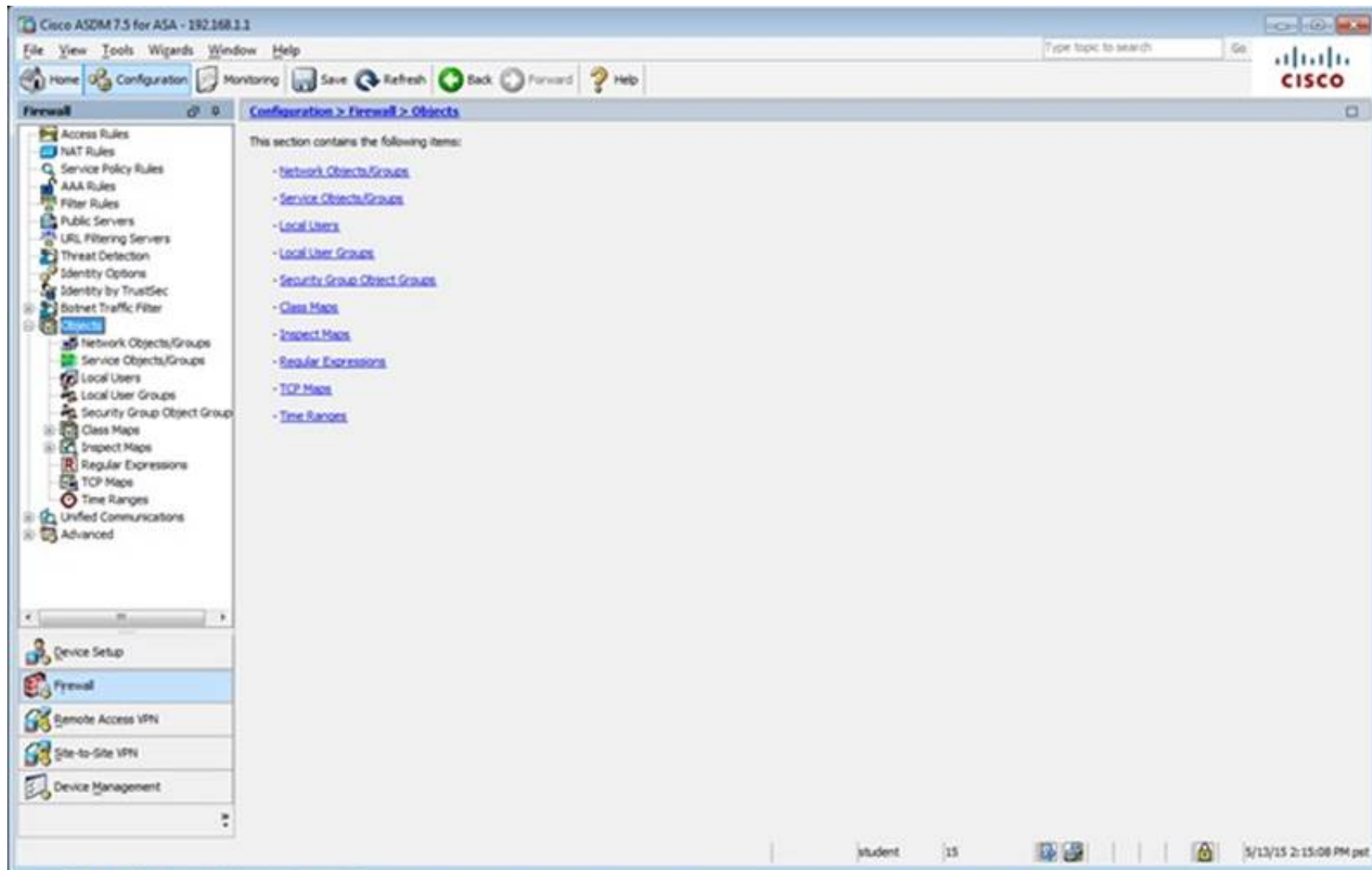
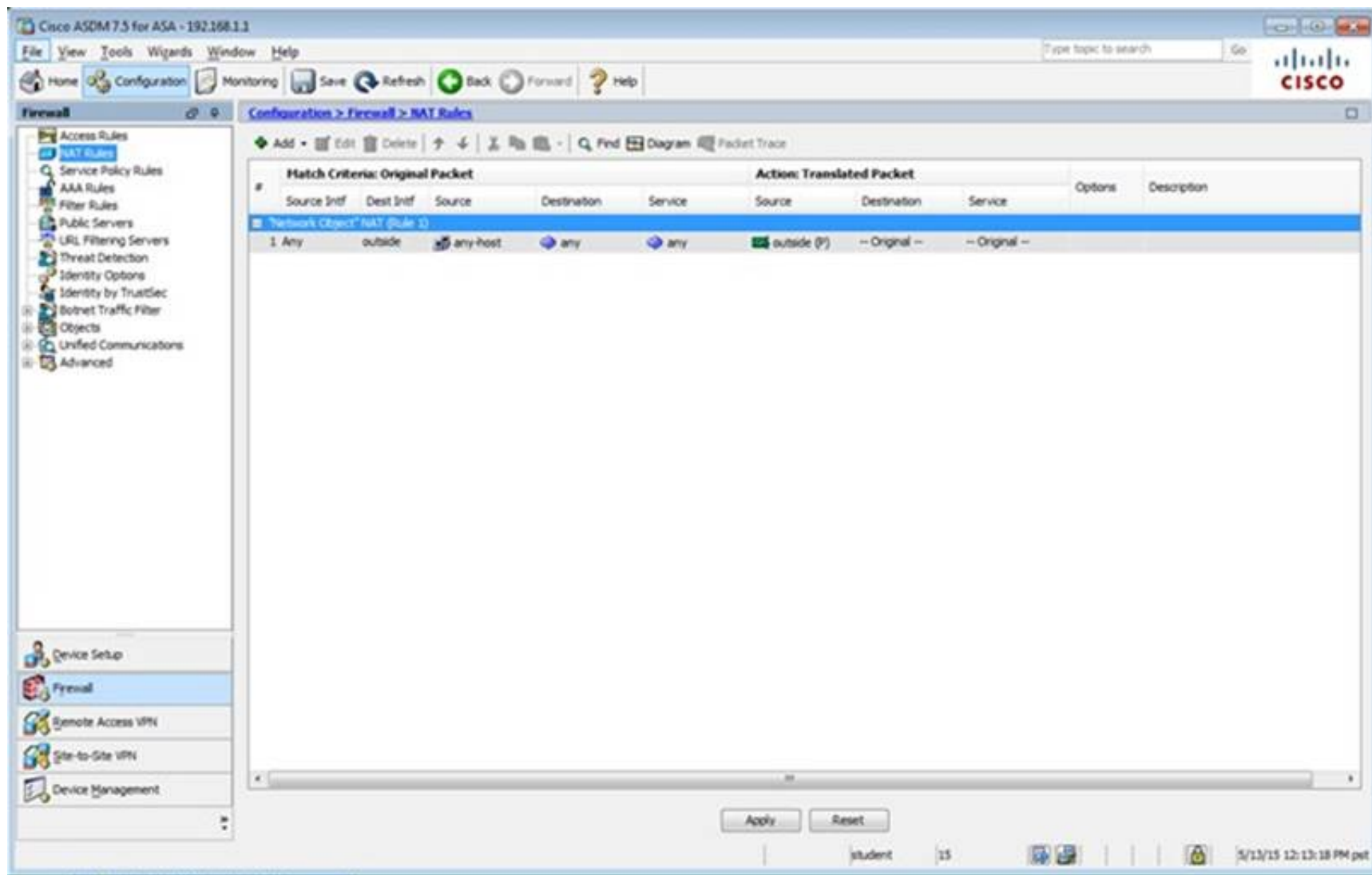
Apply Reset

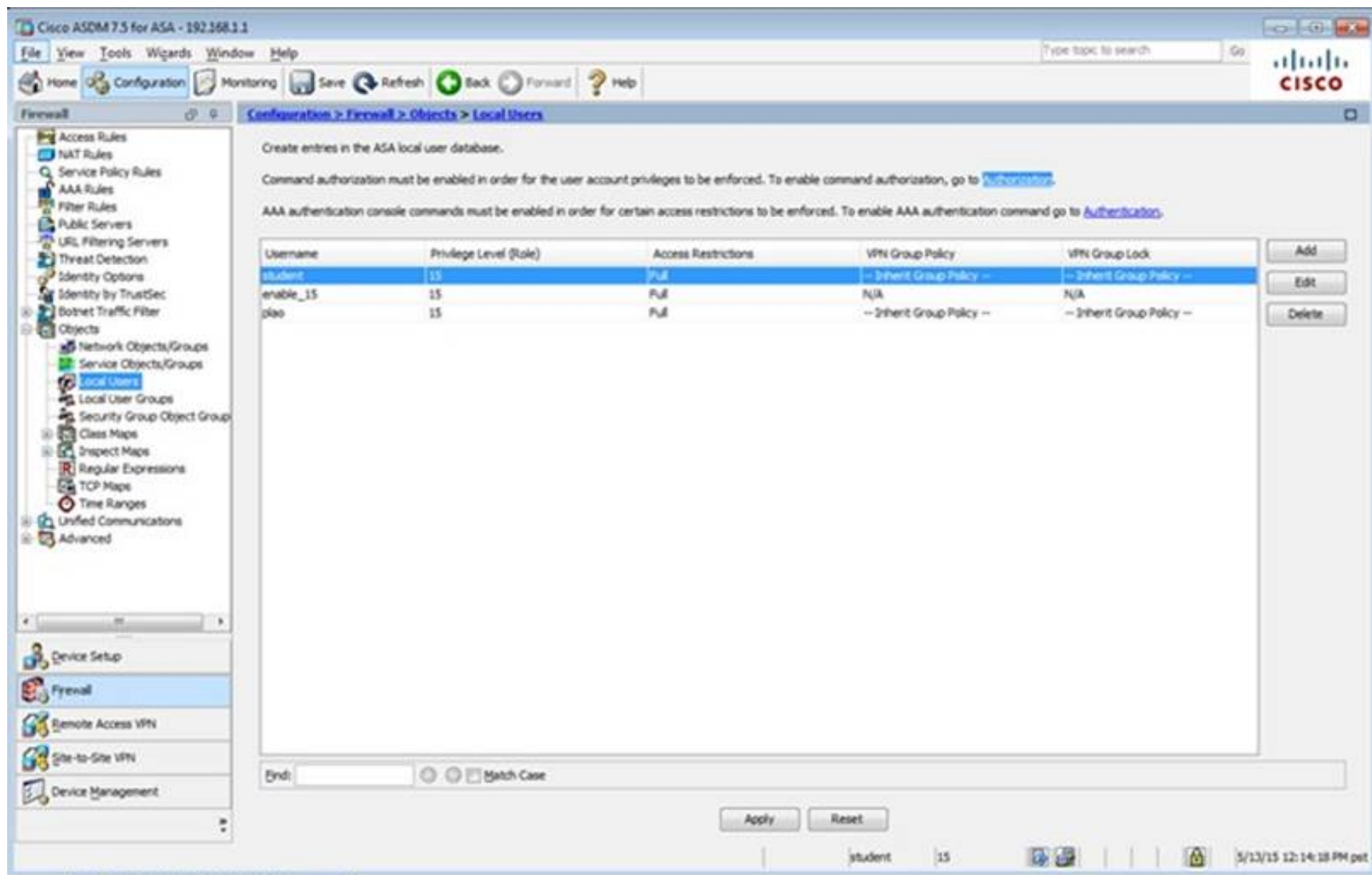
student 15 5/13/15 12:01:38 PM pet











Cisco ASDM 7.5 for ASA - 192.168.1.1

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 [Configuration > System > Command Authorization](#).

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

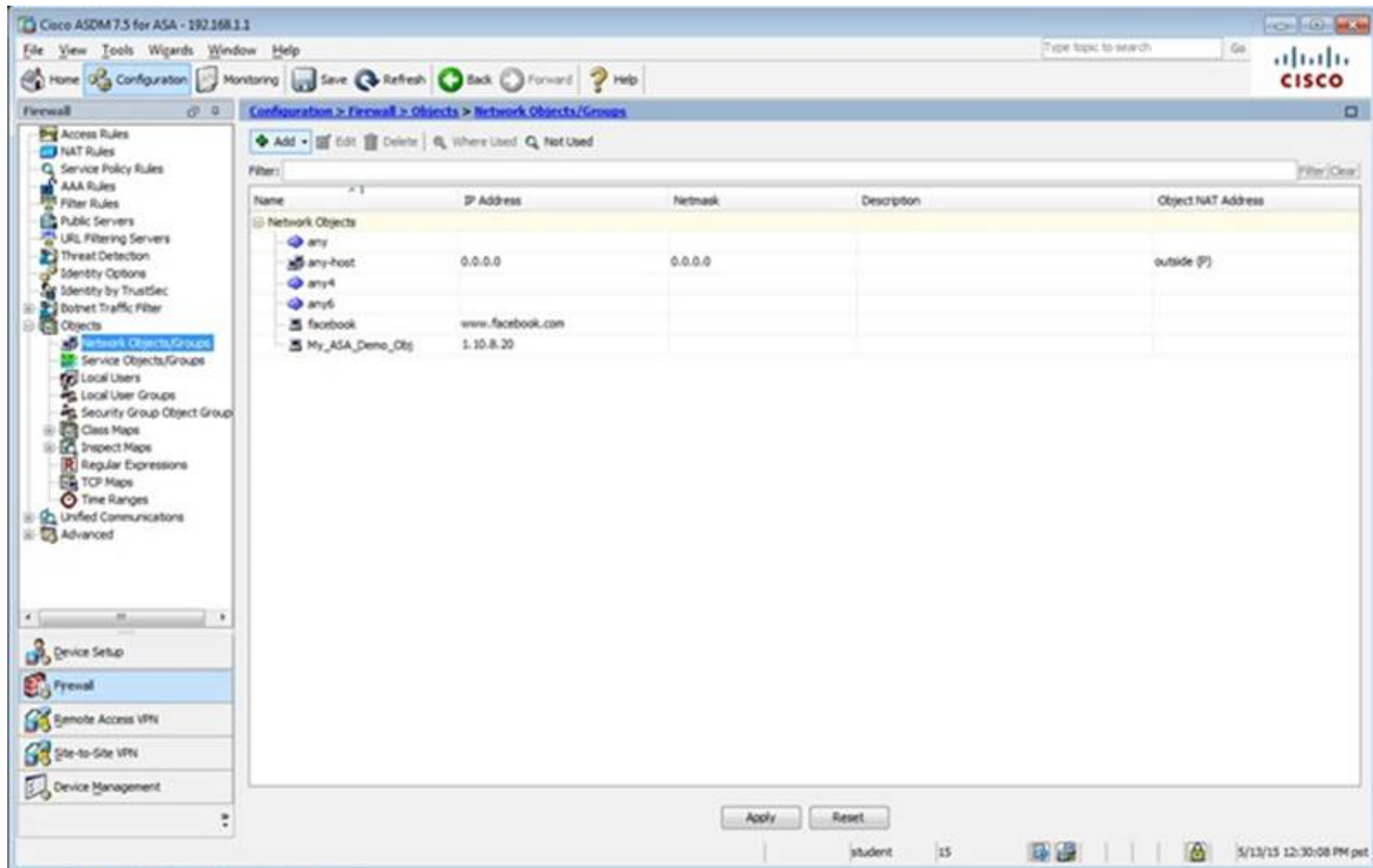
Username	Privilege Level (Role)	Access Restrictions	VPN Group Policy	VPN Group Lock
student	15	Full	-- Inherit Group Policy --	-- Inherit Group Policy --
enable_15	15	Full	N/A	N/A
plao	15	Full	-- Inherit Group Policy --	-- Inherit Group Policy --

Buttons: Add, Edit, Delete

Search: End: [] Match Case

Buttons: Apply, Reset

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



Cisco ASDM 7.5 for ASA - 192.168.1.1

Configuration > Firewall > Objects > Network Objects/Groups

Buttons: Add, Edit, Delete, Where Used, Not Used

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			

Buttons: Apply, Reset

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

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Service Policy Rules' selected. The main pane shows the 'Configuration > Firewall > Service Policy Rules' page. The table below represents the data shown in the 'Traffic Classification' section.

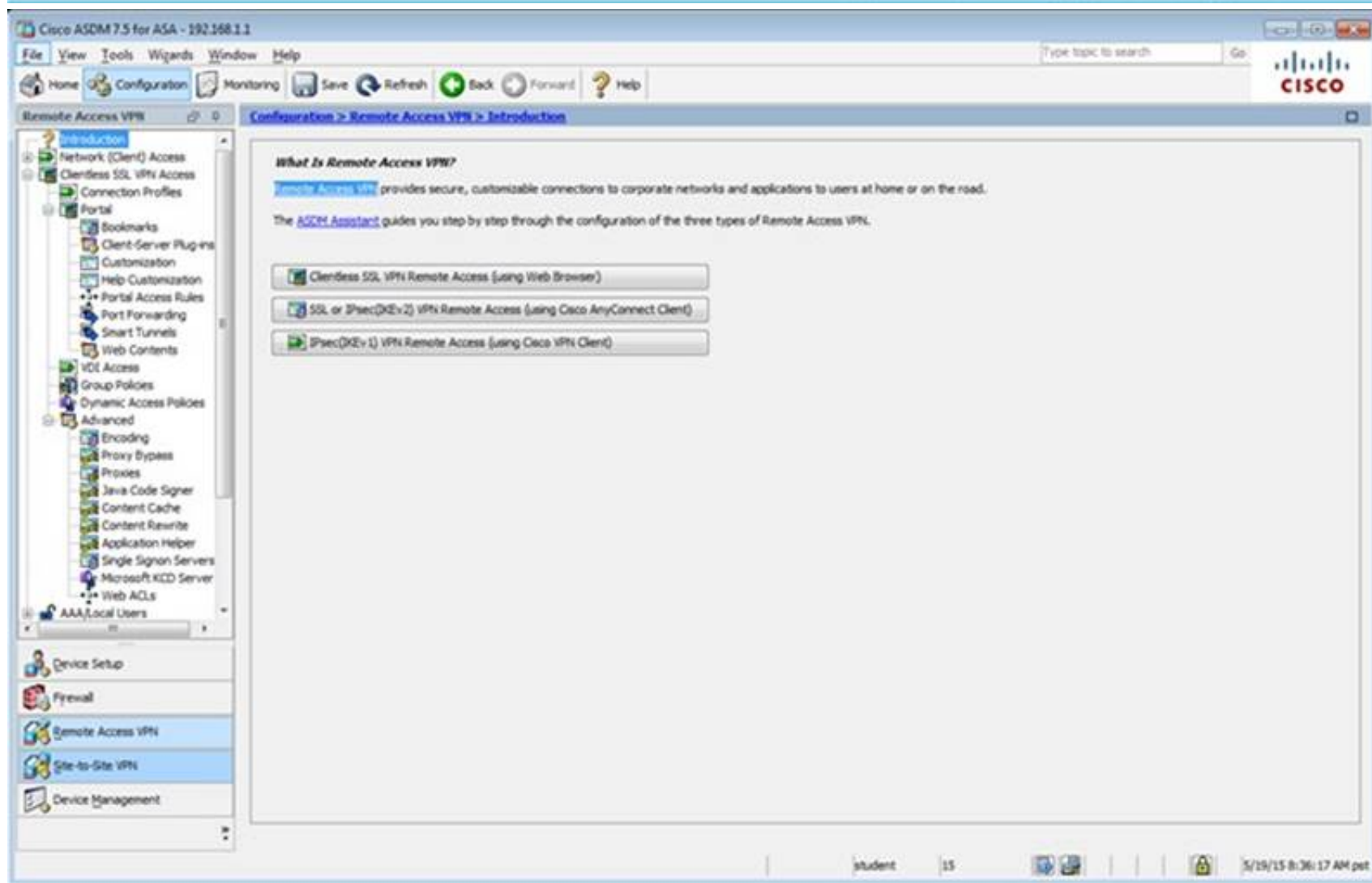
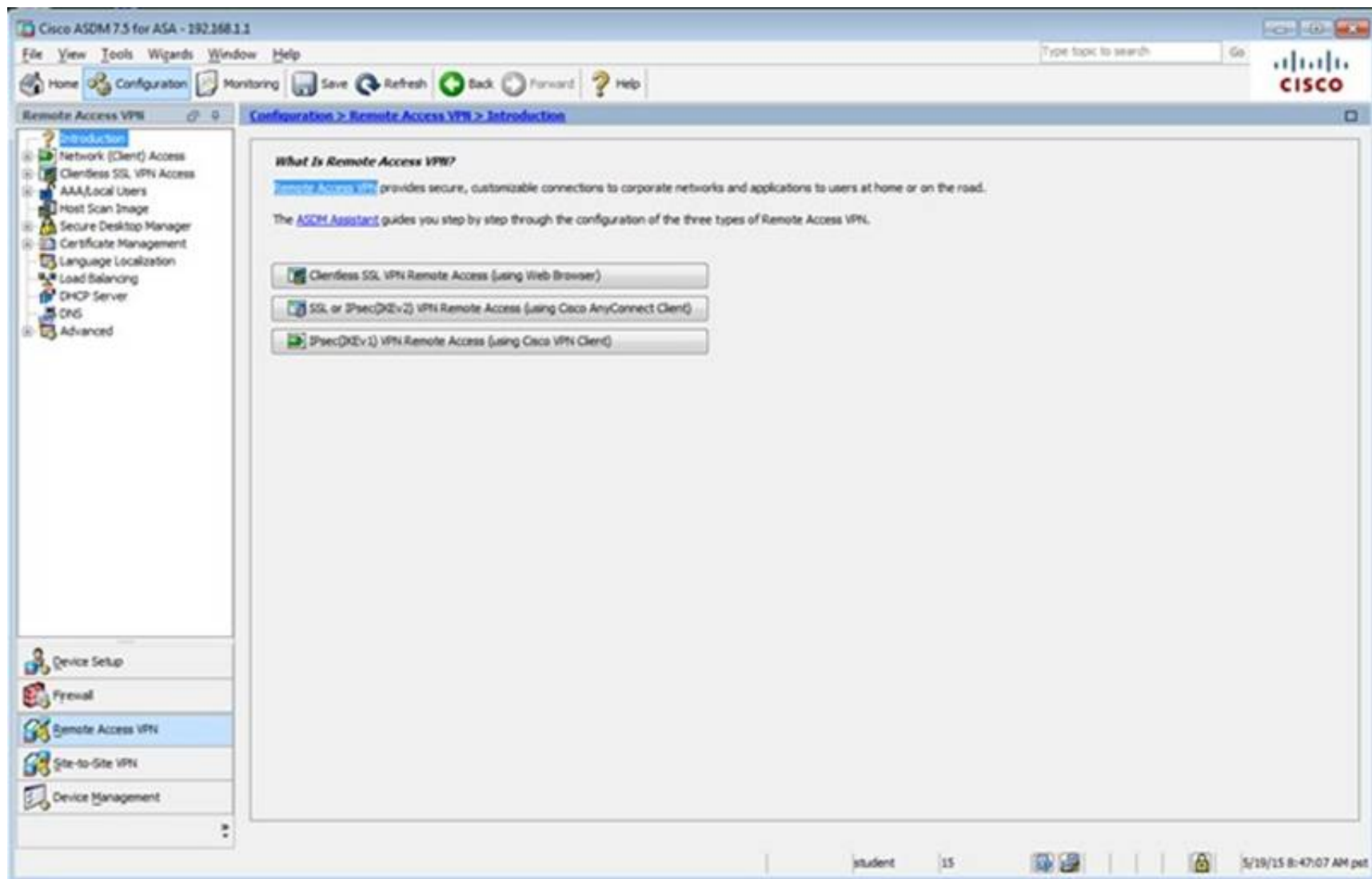
Name	#	Enabled	Match	Source	Src Security Group	Destination	Dest Security Group	Service	Time	Rule Actions	Description
Interface: dmz; Policy: asaif_policy											
class-default			Match	any		any		any traffic		class-default	
Interface: inside; Policy: asaif_policy											
class-default			Match	any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

Buttons at the bottom: Apply, Reset. Status bar: student, 15, 5/13/15 12:15:48 PM pet.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Access Rules' selected. The main pane shows the 'Configuration > Firewall > Access Rules' page. The table below represents the data shown in the 'Access Rules' section.

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

Buttons at the bottom: Apply, Reset, Advanced... Status bar: student, 15, 5/13/15 12:28:58 PM pet.



The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar shows the navigation tree with 'Remote Access VPN' selected. The main pane displays the 'Connection Profiles' configuration page under 'Configuration > Remote Access VPN > Clientless SSL VPN Access > Connection Profiles'.

Access Interfaces
Enable interfaces for clientless SSL VPN access.

Interface	Allow Access
outside	<input checked="" type="checkbox"/>
dmz	<input type="checkbox"/>
inside	<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.
☐ Allow user to enter internal password 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, Find, Match Case

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

Bottom status bar: student 15 3/19/15 8:38:47 AM pet

The screenshot shows the 'Edit Clientless SSL VPN Connection Profile: clientless' dialog box. The 'Basic' tab is selected.

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

Buttons: 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 choose 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**

Edit Clientless SSL VPN Connection Profile: clientless

Basic
Advanced
General
Authentication
Secondary Authentication
Authorization
Accounting
NetBIOS Servers
Clientless SSL VPN

Interface-Specific Authentication Server Groups

+ Add Edit Delete

Interface	Server Group	Fallback to LOCAL
-----------	--------------	-------------------

Username Mapping from Certificate

☐ Pre-fill Username from Certificate

☐ Hide username from end user

☒ Specify the certificate fields to be used as the username

Primary Field: CN (Common Name)

Secondary Field: OU (Organization Unit)

☐ Use the entire DN as the username

☐ Use script to select username

-- None -- + Add Edit Delete

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

Secondary Authentication Server Group

Server Group: **-- None --** **Manage...**

☐ Use LOCAL if Server Group fails

☐ Use primary username (Hide secondary username on login page)

Attributes Server: ☒ Primary ☐ Secondary

Session Username Server: ☒ Primary ☐ Secondary

Interface-Specific Secondary Authentication Server Groups

Add **Edit** **Delete**

Interface	Server Group	Fallback to LOCAL	Use primary username

Username Mapping from Certificate

☐ Pre-fill username from certificate

☐ Hide username from end user

☐ Fallback when a certificate is unavailable

Password: ☒ Prompt ☐ Use primary ☐ Use

☒ Specify the certificate fields to be used as the username

Primary Field: **CN (Common Name)**

Secondary Field: **OU (Organization Unit)**

☐ Use the entire DN as the username

☐ Use script to select username

-- None -- **Add** **Edit** **Delete**

Find: **Next** **Previous**

OK **Cancel** **Help**

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 > Clientless SSL VPN Access > Portal > Bookmarks

Configure Bookmark Lists that the security appliance displays on the SSL VPN portal page.
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.

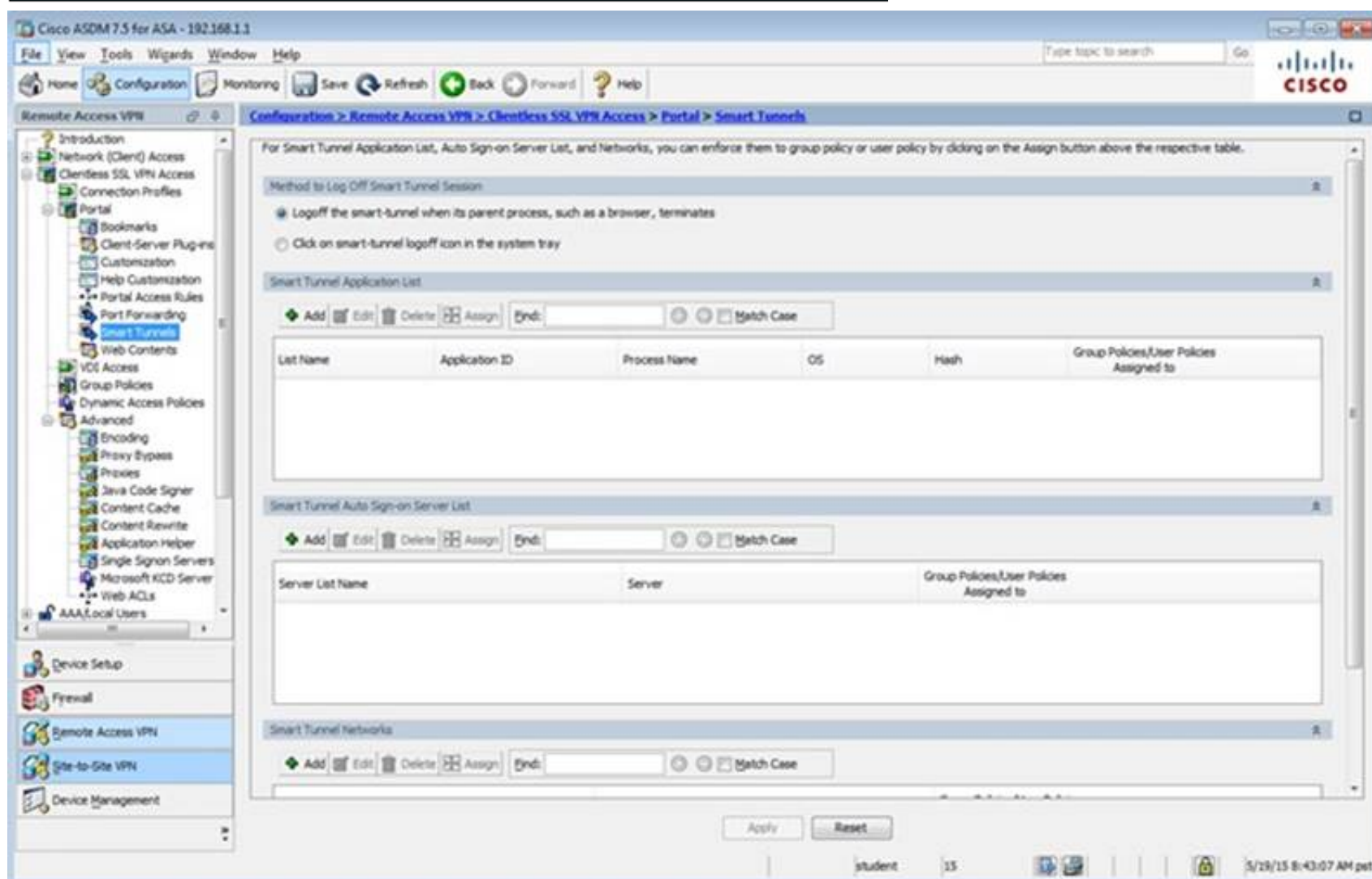
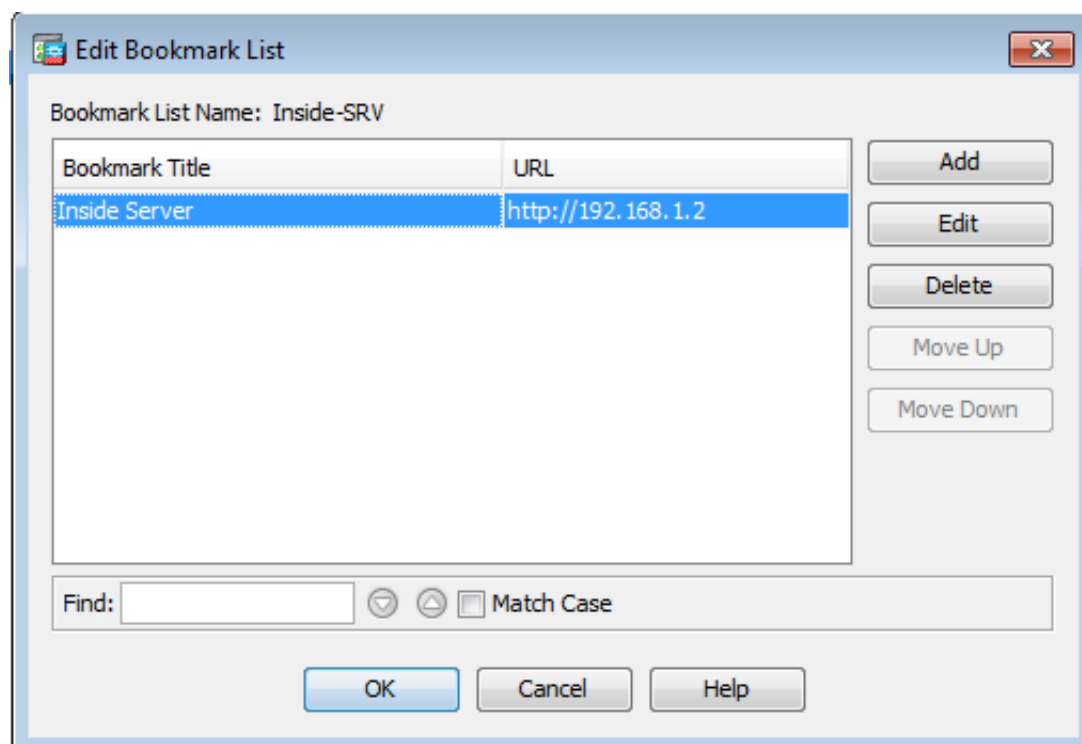
Add **Edit** **Delete** **Import** **Export** **Assign**

Bookmarks	Group Policies/DAPs/LOCAL Users Using the Bookmarks
Template	
Ready-001	Ready-001

Find: ☐ Match Case

Apply **Reset**

student 15 5/19/15 8:41:57 AM pst



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 > Clientless SSL VPN Access > Portal > Port Forwarding

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.

Add Edit Delete Assign

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

Find: Match Case

Apply Reset

student 15 5/29/15 8:43:47 AM pet

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 > Clientless SSL VPN 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](#).

Add Edit Delete Assign

Name	Type	Tunneling Protocol	Connection Profiles/Users Assigned To
sales	Internal	ssl-clientless	clientless
DefaultGroupPolicy (System Default)	Internal	Rev 1;rev 2;ssl-clientless/2ip-espsec	DefaultRAGroup;Default 2;Group;DefaultADMPGroup;Def...

Find: Match Case

Apply Reset

student 15 5/29/15 8:49:27 AM pet

Edit Internal Group Policy: Sales

Name: Sales

Banner: ☒ Inherit

More Options

Tunneling Protocols: ☐ Inherit ☒ Clientless SSL VPN ☐ SSL VPN Client ☐ IPsec IKEv1 ☐ IPsec IKEv2 ☐ L2TP/IPsec

Web ACL: ☒ Inherit Manage...

Access Hours: ☒ Inherit Manage...

Simultaneous Logins: ☒ Inherit

Restrict access to VLAN: ☒ Inherit

Connection Profile (Tunnel Group) Lock: ☒ Inherit

Maximum Connect Time: ☒ Inherit ☐ Unlimited minutes

Idle Timeout: ☒ Inherit ☐ Use Global Default minutes

Timeout Alerts

Session Alert Interval: ☒ Inherit ☐ Default minutes

Idle Alert Interval: ☒ Inherit ☐ Default minutes

Configure alert text messages and visual cues in Customization under Clientless SSL VPN Access-Portal-Customization-Edit-Portal Page-Timeout Alerts.

Find: ☐ Next ☐ Previous

Cisco ASDM 7.2 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

Remote Access VPN

Clientless SSL VPN 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	Sales
DefaultGrpPolicy (System Default)	Internal	ikev1;ikev2;ssl-clientless;l2tp-ipsec	DefaultGrpPolicy

Find: ☐ Match Case

student 15 10/15/14 9:15:43 AM pst

Edit Internal Group Policy: Sales

General
Portals
 More Options
 Customization
 Login Setting
 Single Signon
 VDI Access
 Session Settings

Bookmark List: ☐ Inherit **Manage...**

URL Entry: ☒ Inherit ☐ Enable ☐ Disable

File Access Control

File Server Entry: ☒ Inherit ☐ Enable ☐ Disable

File Server Browsing: ☒ Inherit ☐ Enable ☐ Disable

Hidden Share Access: ☒ Inherit ☐ Enable ☐ Disable

Port Forwarding Control

Port Forwarding List: ☒ Inherit **Manage...**

☐ Auto Applet Download

Applet Name: ☒ Inherit

Smart Tunnel

Smart Tunnel Policy: ☒ Inherit **Manage...**

Tunnel Option: **Manage...**

Smart Tunnel Application: ☒ Inherit **Manage...**

☐ Smart Tunnel all Applications (This feature only works with Windows platforms)

☐ Auto Start

Auto Sign-on Server: ☒ Inherit **Manage...**

Windows Domain Name (optional):

Auto sign-on works only with Internet Explorer on Windows client or in Firefox on any platform.

ActiveX Relay

ActiveX Relay: ☒ Inherit ☐ Enable ☐ Disable

More Options

Find: ☐ Next ☐ Previous

OK Cancel Help

Edit Internal Group Policy: DfltGrpPolicy

Advanced

Name:

Banner:

SCEP forwarding URL:

Address Pools: **Select...**

IPv6 Address Pools: **Select...**

More Options

Tunneling Protocols: ☒ Clientless SSL VPN ☐ SSL VPN Client ☒ IPsec IKEv1 ☒ IPsec IKEv2 ☒ L2TP/IPsec

Filter: **Manage...**

Access Hours: **Manage...**

Simultaneous Logins:

Restrict access to VLAN:

Connection Profile (Tunnel Group) Lock:

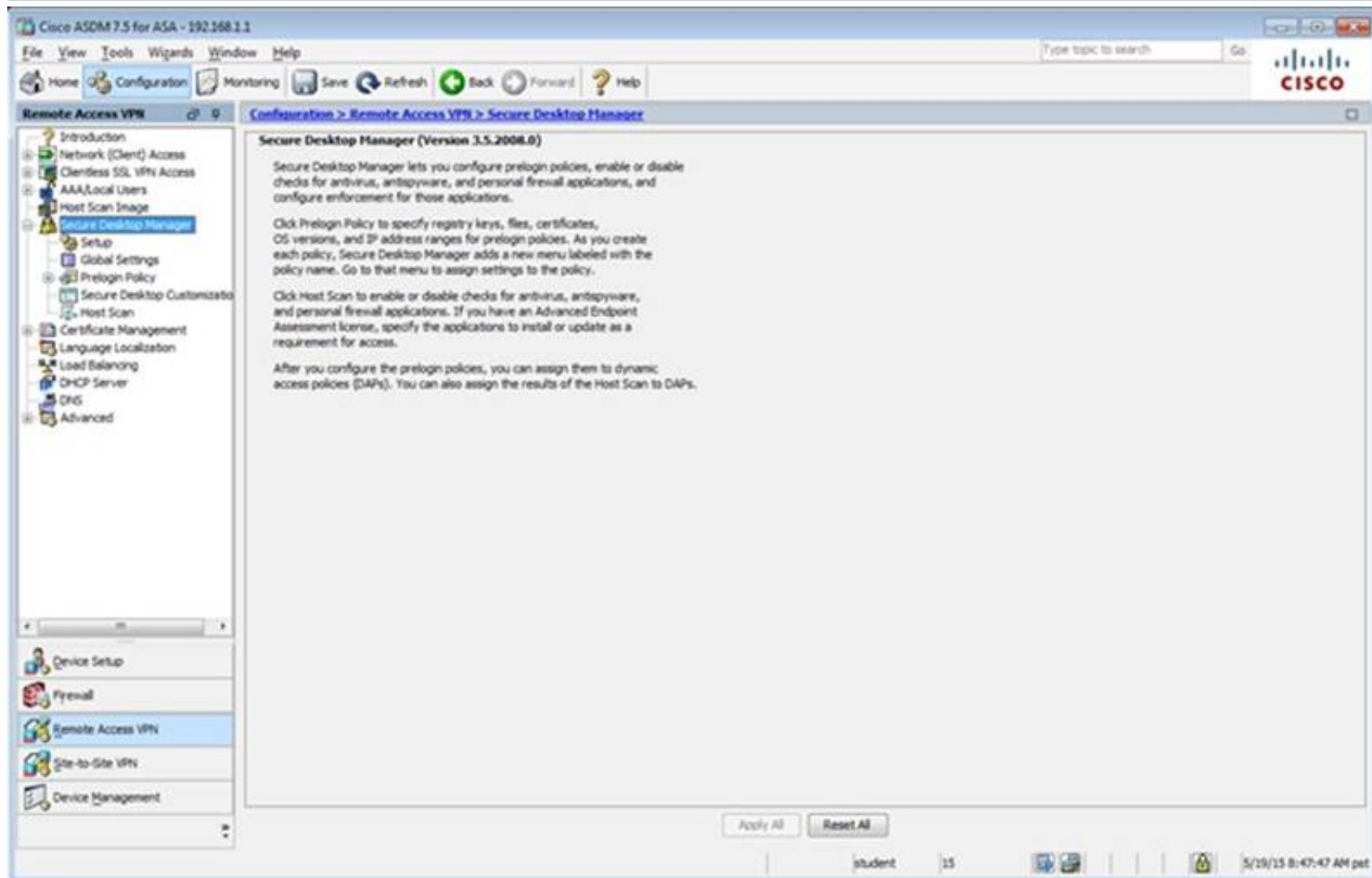
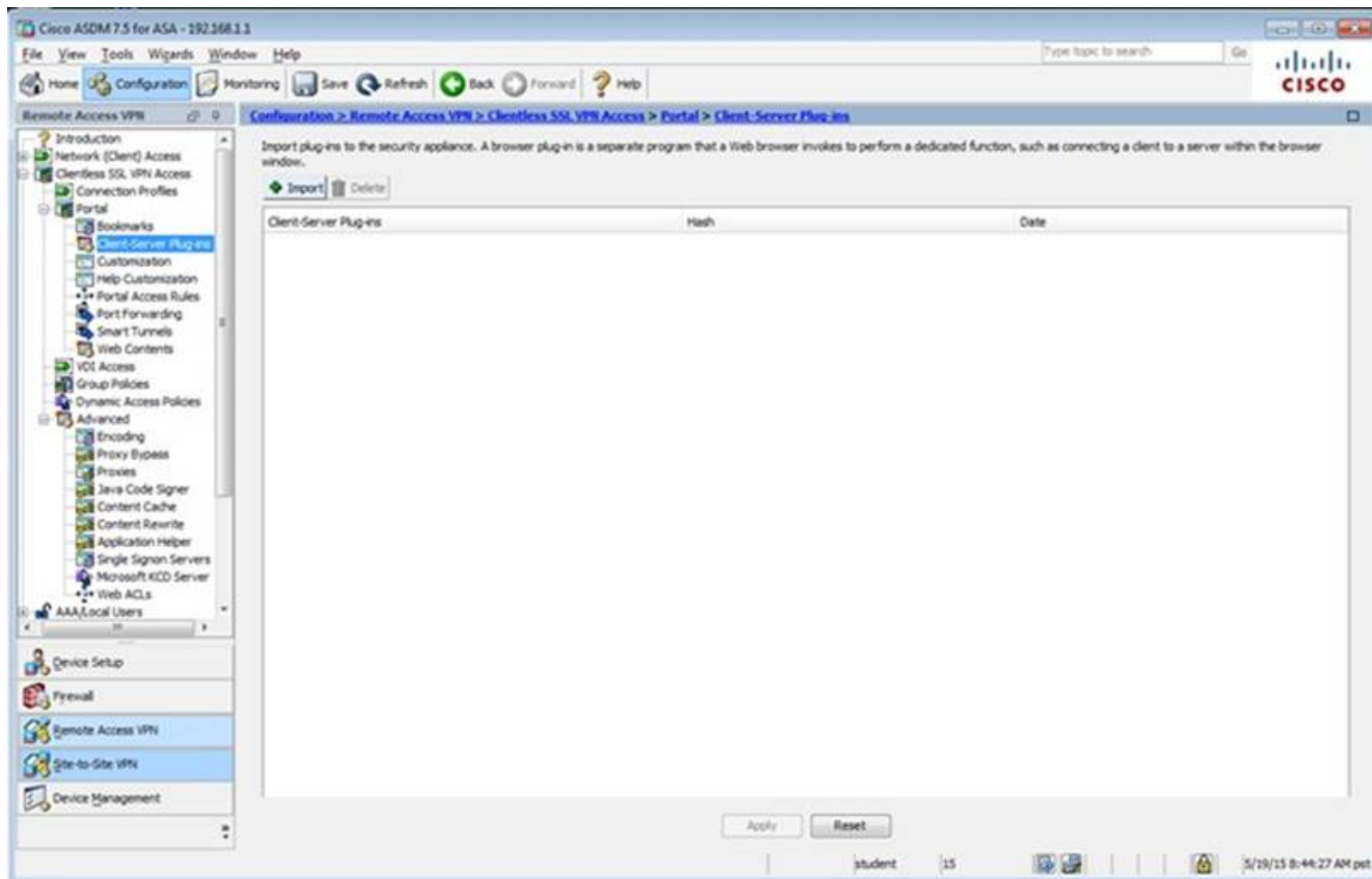
Maximum Connect Time: ☒ Unlimited minutes

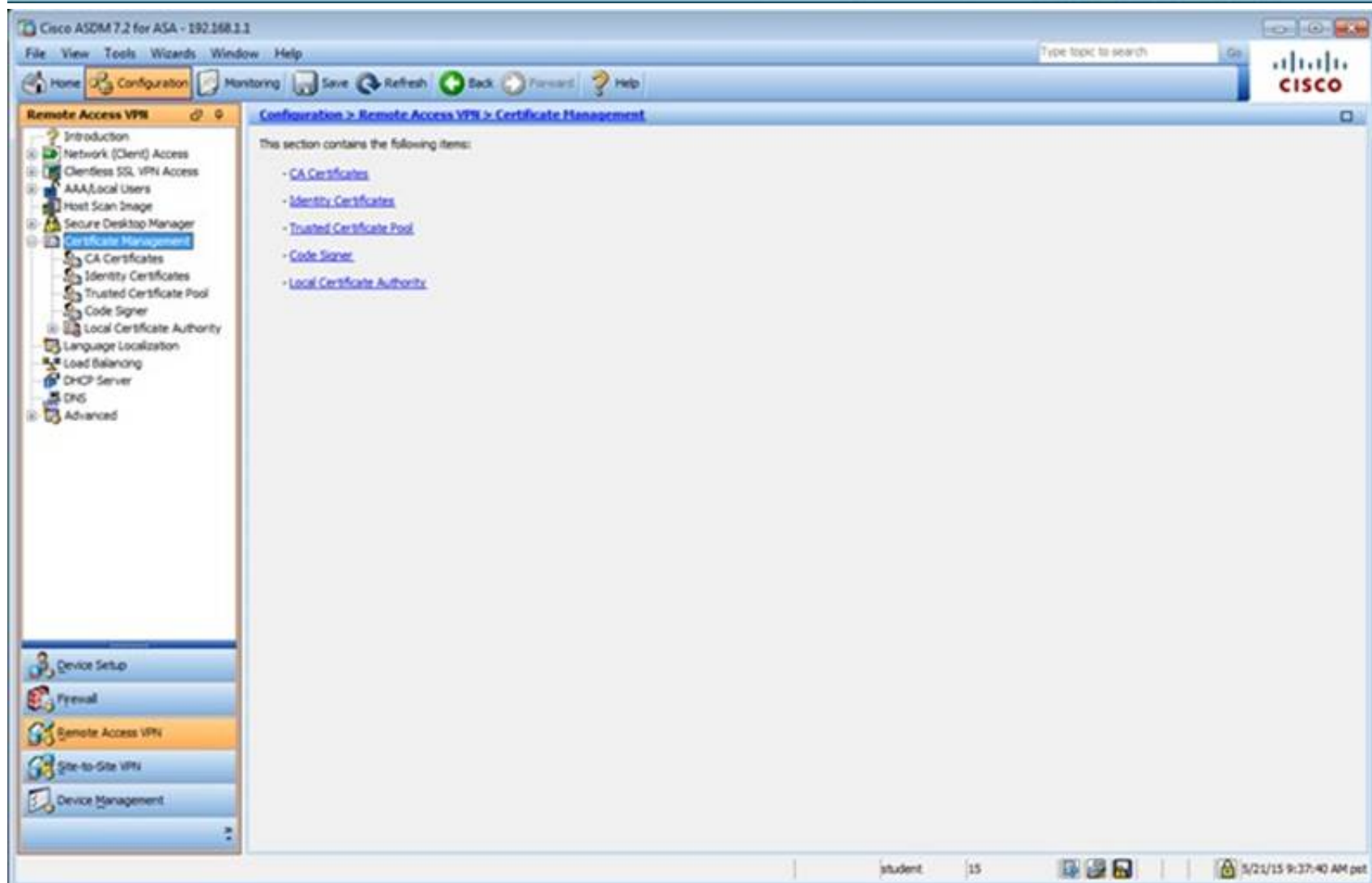
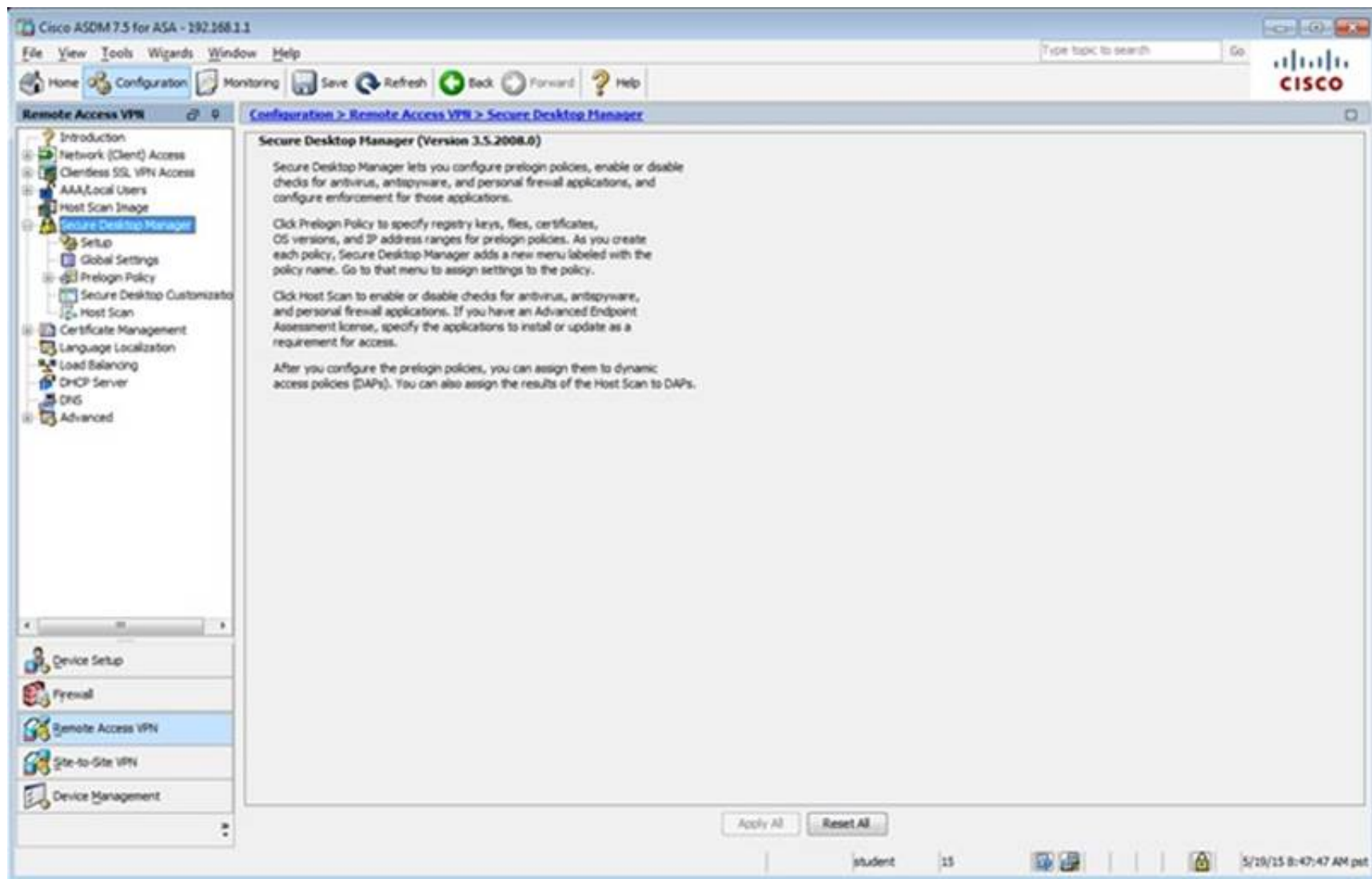
Idle Timeout: ☐ None minutes

On smart card removal: ☒ Disconnect ☐ Keep the connection

Find: ☐ Next ☐ Previous

OK Cancel Help





The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Remote Access VPN' selected. The main pane shows the 'Configuration > Remote Access VPN > Certificate Management > Identity Certificates' page. A table lists the following certificate:

Issued To	Issued By	Expiry Date	Associated Trustpoints	Usage	Public Key Type
hostname=IP17-ASA.sec...	hostname=IP17-ASA.sec...	11:10:33 pet Dec 20 2024	ASDM_TrustPoint1	General Purpose	PKA (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). At the bottom, there is a section for 'ASDM Identity Certificate Wizard' with a 'Launch ASDM Identity Certificate Wizard' button.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Remote Access VPN' selected. The main pane shows the 'Configuration > Remote Access VPN > Advanced' page. 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](#)
- [E-mail Proxy](#)

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Remote Access VPN' selected. The main pane shows the 'Configuration > Remote Access VPN > Advanced > SSL Settings' page. The page title is 'Configure SSL parameters. These parameters affect both ASDM and SSL VPN access.' The configuration includes dropdowns for '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 - 2024-bit modulus), and 'ECDH group to be used with SSL:' (Group19 - 256-bit EC). Below these is an 'Encryption' table with columns for Cipher Version, Cipher Security Level, and Cipher Algorithms/Custom String. The table lists Default, TLSV1, TLSV1.1, TLSV1.2, and DTLSV1. At the bottom, there is a 'Server Name Indication (SNI)' section with a 'Domain' field containing 'dmz' and a 'Certificate' dropdown showing 'ASDM_TrustPoint1.h...'. There are 'Add', 'Edit', and 'Delete' buttons for the SNI entries. At the very bottom, there is a 'Certificates' section with a note: '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.'

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Remote Access VPN' selected. The main pane shows the 'Configuration > Remote Access VPN > Advanced > Maximum VPN Sessions' page. The page title is 'Configure the maximum number of VPN sessions allowed at any given time.' The configuration includes two input fields: 'Maximum AnyConnect Sessions:' (set to 2) and 'Maximum Other VPN Sessions:' (set to 250). At the bottom, there are 'Apply' and 'Reset' buttons. The status bar at the bottom right shows the date and time: 5/19/15 8:54:47 AM pet.

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 > 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 "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

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.

student 15 5/28/15 8:55:47 AM pet

Cisco ASDM 7.2 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 > 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](#).

Add Edit Delete Assign

Name	Type	Tunneling Protocol	Connection Profiles/Users Assigned To
Sales	Internal	ssl-clientless	clientless
DefaultGroupPolicy (System Default)	Internal	ikev1,ikev2,ssl-clientless,ipsec	DefaultRAGroup,Default,3,Group,DefaultVPNGroup

Find: Match Case

Apply Reset

student 15 5/21/15 10:17:10 AM pet

Edit Internal Group Policy: DftGrpPolicy

Name:

Banner:

SCDP forwarding URL:

Address Pools:

IPv6 Address Pools:

More Options

Tunneling Protocols: ☒ Clientless SSL VPN ☐ SSL VPN Client ☒ IPsec IKEv1 ☒ IPsec IKEv2 ☒ L2TP/IPsec

Filter:

NAC Policy:

Access Hours:

Simultaneous Logins:

Restrict access to VLANs:

Connection Profile (Tunnel Group) Lock:

Maximum Connect Time: ☒ Unlimited minutes

Idle Timeout: ☐ None minutes

On smart card removal: ☒ Disconnect ☐ Keep the connection

Find:

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 > Network (Client) Access > IPsec(IKEv1) Connection Profiles

Access Interfaces

Enable interfaces for IPsec access.

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

☒ Bypass interface access lists for inbound VPN sessions

Access lists from group policy and user policy always apply to the traffic.

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](#).

Name	IPsec Enabled	L2TP/IPsec Enabled	Authentication Server Group	Group Policy
DefaultRAGroup	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	RAD	DftGrpPolicy
DefaultWEBVpnGroup	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	RAD	DftGrpPolicy
Default	<input type="checkbox"/>	<input type="checkbox"/>	LOCAL	Sales

Find:

student 15 5/28/15 8:56:47 AM pet

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 > Network (Client) Access > AnyConnect Connection Profiles

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](#).

[Add](#) [Edit](#) [Delete](#) End: Match Case

Name	SSL Enabled	IPsec Enabled	Aliases	Authentication Method	Group Policy
DefaultRAGroup	<input type="checkbox"/>	<input checked="" type="checkbox"/>		AAA(RAC)	DefaultPolicy
DefaultWEBVPNGroup	<input type="checkbox"/>	<input checked="" type="checkbox"/>		AAA(RAC)	DefaultPolicy
Clientless	<input type="checkbox"/>	<input type="checkbox"/>	test	AAA(LOCAL)	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.

Apply Reset

student 15 5/19/15 8:58:17 AM pet

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 > AAA/Local Users

This section contains the following items:

- [AAA Server Groups](#)
- [LDAP Attribute Map](#)
- [MDM Proxy](#)
- [Local Users](#)

student 15 5/19/15 8:58:57 AM pet

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar shows the navigation tree with 'Local Users' selected under 'AAA/Local Users'. The main pane displays the 'Local Users' configuration page. It includes instructions on creating entries and enabling command authorization. A table lists existing users:

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
plap	15	Full	-- Inherit Group Policy --	-- Inherit Group Policy --

Buttons for 'Add', 'Edit', and 'Delete' are on the right. At the bottom, there are 'Apply' and 'Reset' buttons. The status bar at the bottom shows 'student 15' and the date/time '5/19/15 8:59:27 AM pet'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar shows the navigation tree with 'AAA Server Groups' selected under 'AAA/Local Users'. The main pane displays the 'AAA Server Groups' configuration page. It includes a table for existing server groups:

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

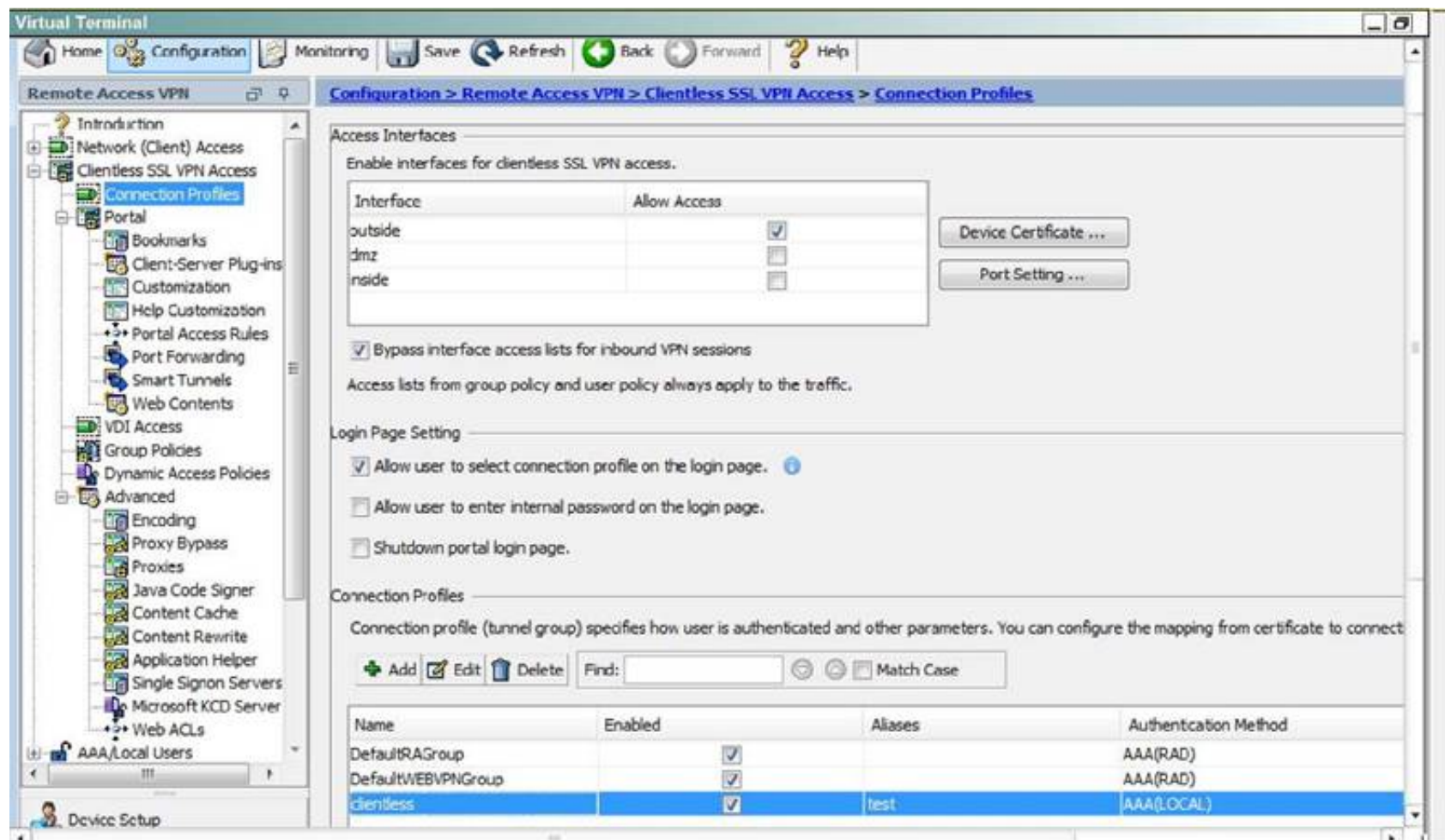
Buttons for 'Add', 'Edit', and 'Delete' are on the right. Below the table, there is a section for 'Servers in the Selected Group' with a table for adding servers. At the bottom, there are 'Apply' and 'Reset' buttons. The status bar at the bottom shows 'student 15' and the date/time '5/19/15 8:59:57 AM 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 19

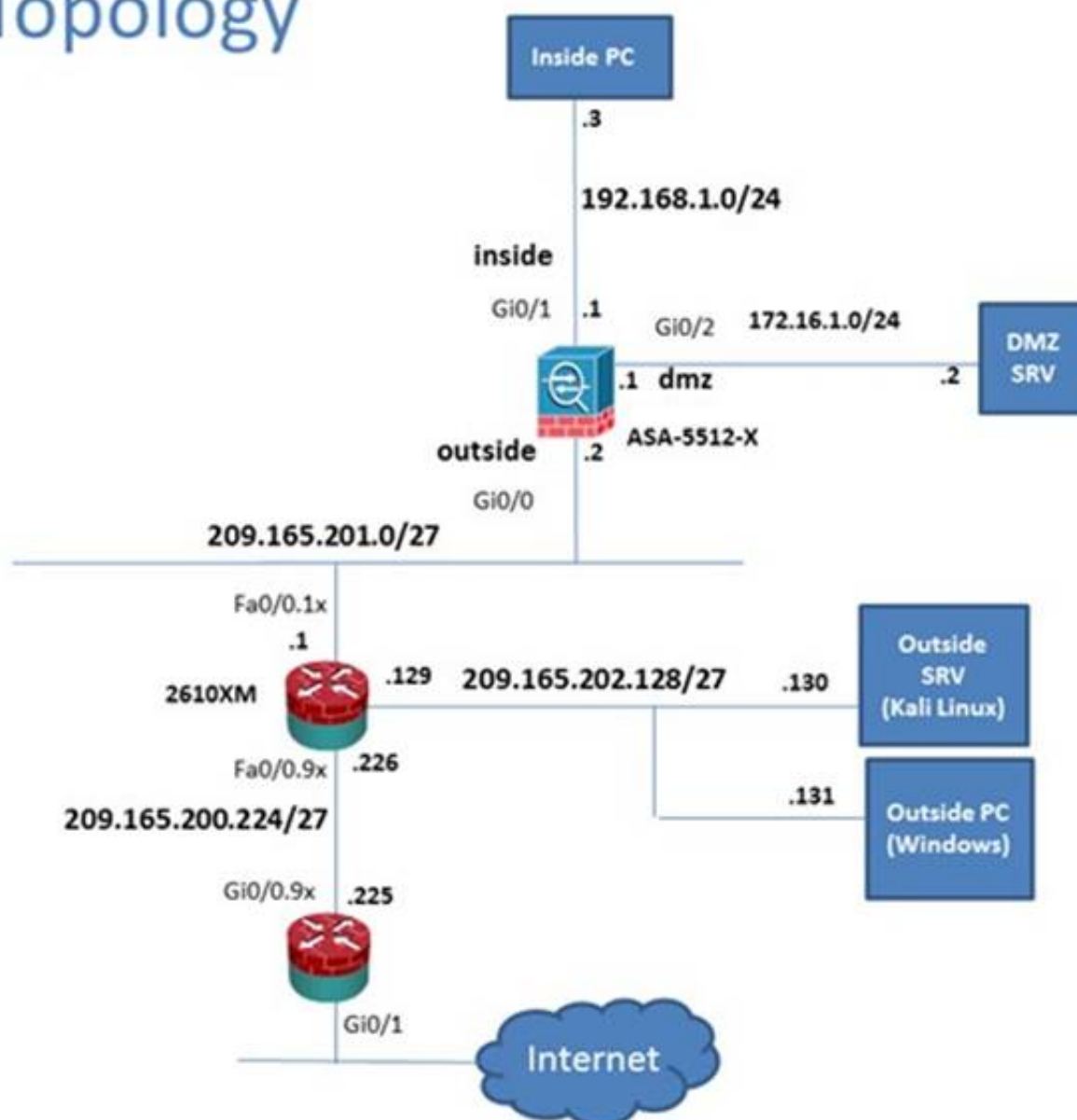
Scenario

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



Cisco ASDM 7.5 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

Home

Device Dashboard Firewall Dashboard ASA FirePOWER Status

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

Select an interface to view input and output Kbps

VPN Sessions

IPsec: 0 Clientless SSL VPN: AnyConnect Clients: 0 [Details](#)

System Resources Status

Total Memory Usage Total CPU Usage Core Usage Details

Memory Usage (MB)

12:05:18

12:31 12:32 12:33 12:34 12:35

1500 1000 500 0

12:31 12:32 12:33 12:34 12:35

Connections Per Second Usage

12:31 12:32 12:33 12:34 12:35

UDP: 0 TCP: 0 Total: 0

'outside' Interface Traffic Usage (Kbps)

12:31 12:32 12:33 12:34 12:35

Input Kbps: 0 Output Kbps: 0

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 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

student 15 5/13/15 12:35:18 PM pet

Cisco ASDM 7.5 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

Monitoring > Interfaces > ARP Table

Interfaces

- ARP Table
- DHCP
- Dynamic ACLs
- Interface Graphs
- IPv6 Neighbor Discovery Cache
- PPPoE Client

Interfaces

- VPN
- Botnet Traffic Filter
- Routing
- Properties
- Logging

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

Clear Dynamic ARP Entries

Refresh

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

Data Refreshed Successfully.

student 15 5/19/15 8:32:27 AM pet

VPN Statistics > Sessions

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

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

Username	IP Address	Group Policy	Connection Profile	Protocol	Encryption	Login Time	Duration	Bytes Tx	Bytes Rx
student	209.18.1.202.131	Sales	Clientless	Clientless	Clientless (CBC4)	06:03:46 pm Thu May 21 2015	0h:09m:19s	1167794	41633

Refresh

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

Data Refreshed Successfully.

Configuration > Device Setup > Startup Wizard

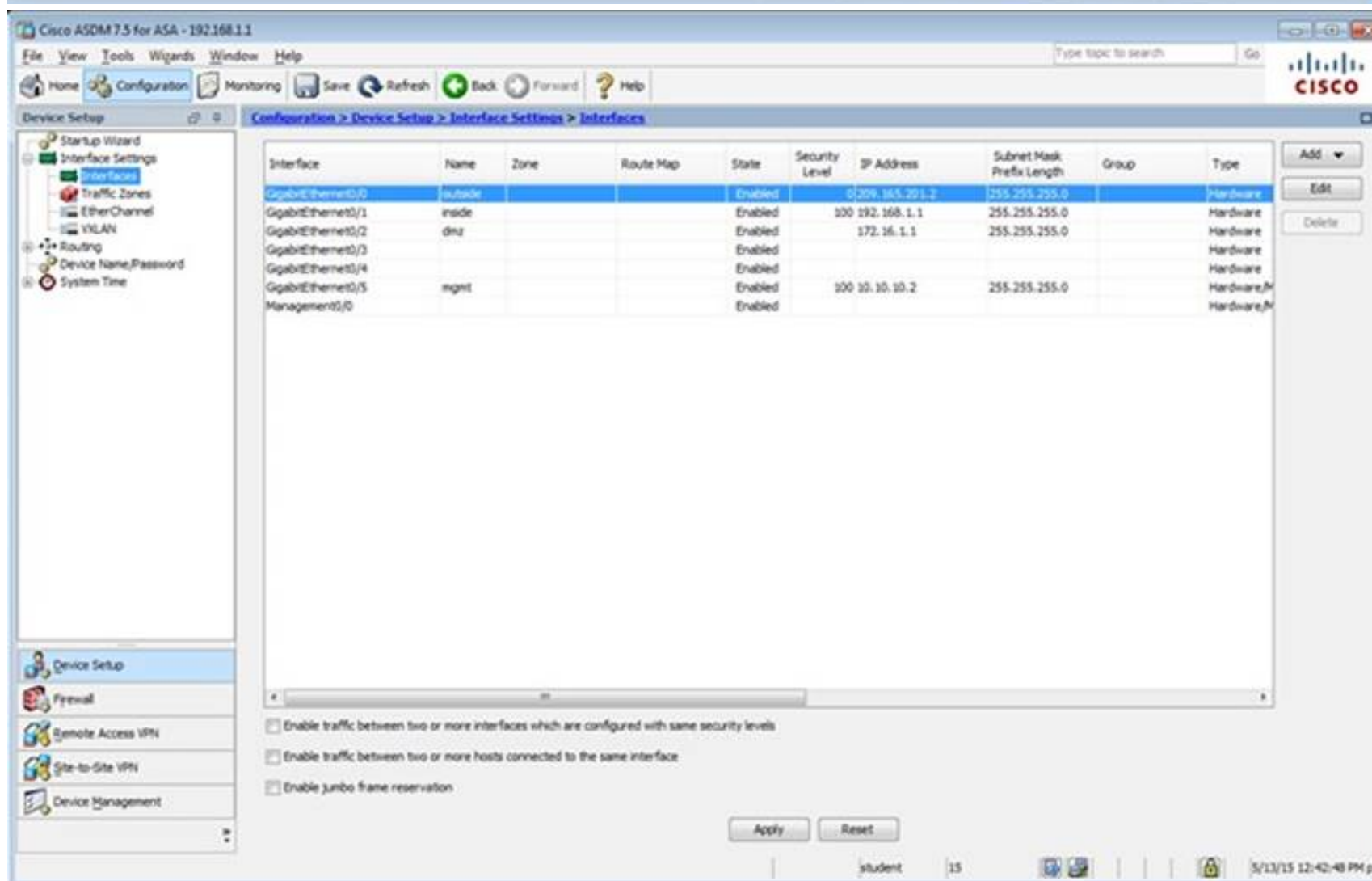
Click the "Launch Startup Wizard" button to start the wizard.

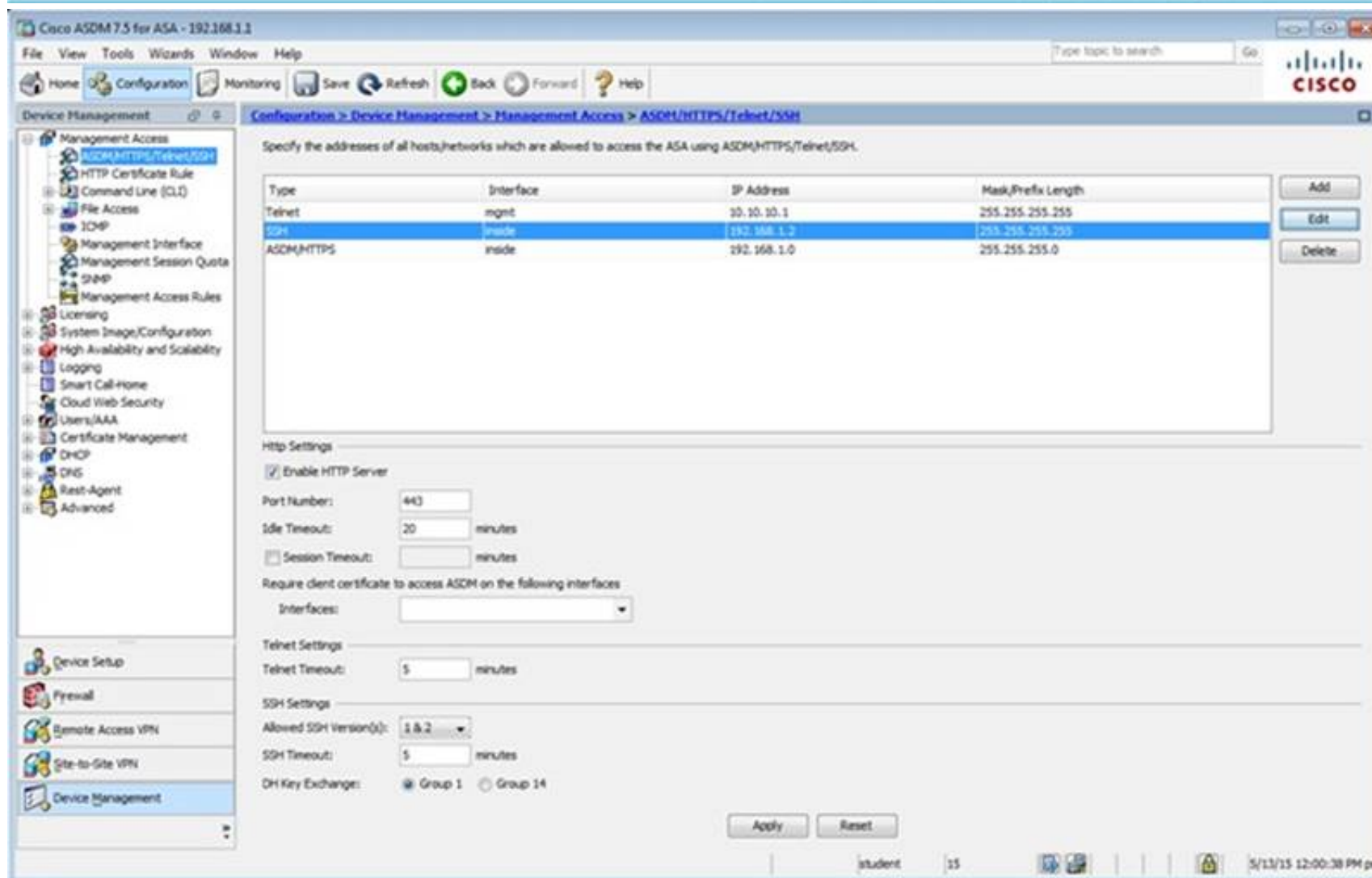
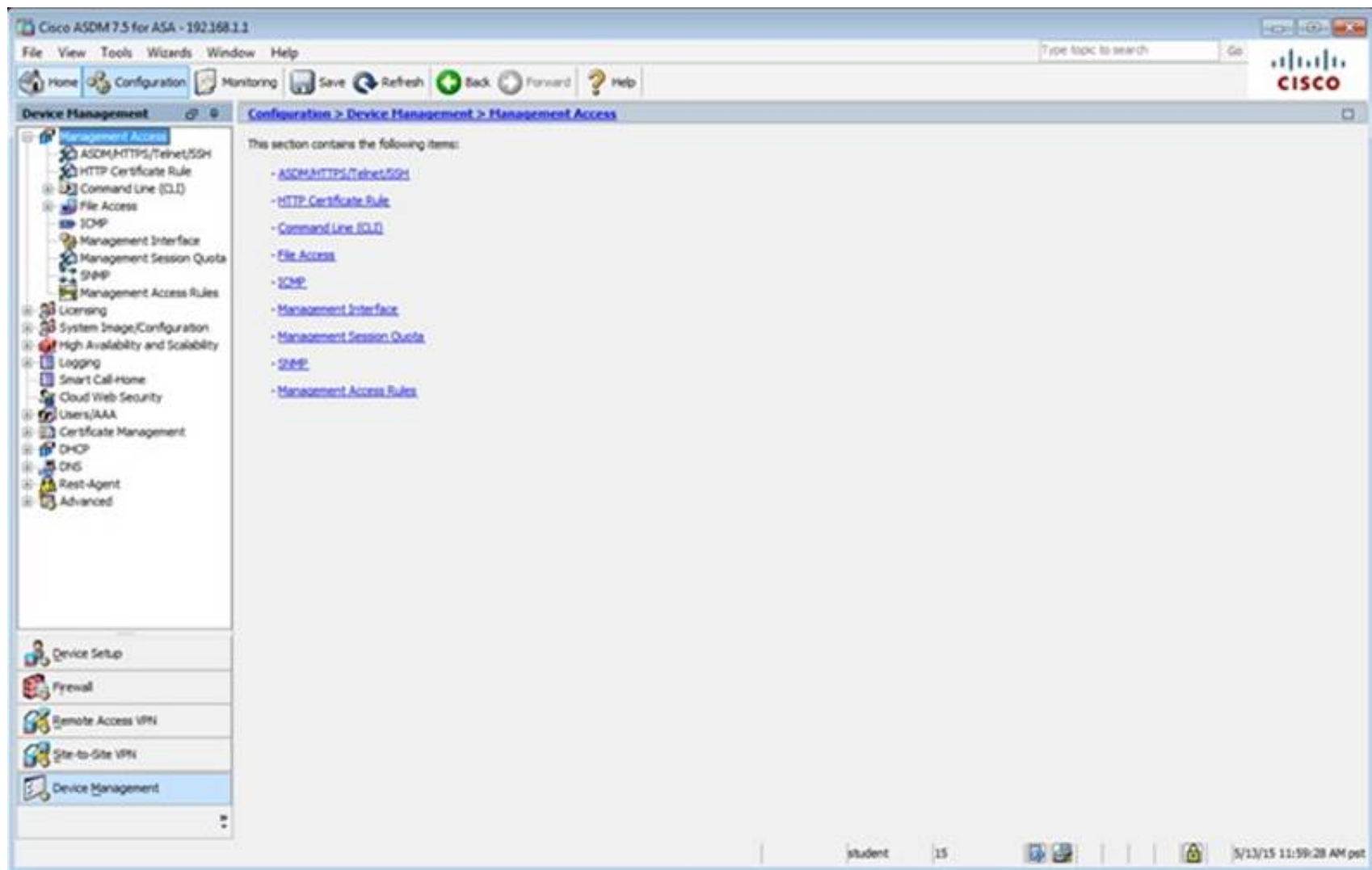
Startup Wizard

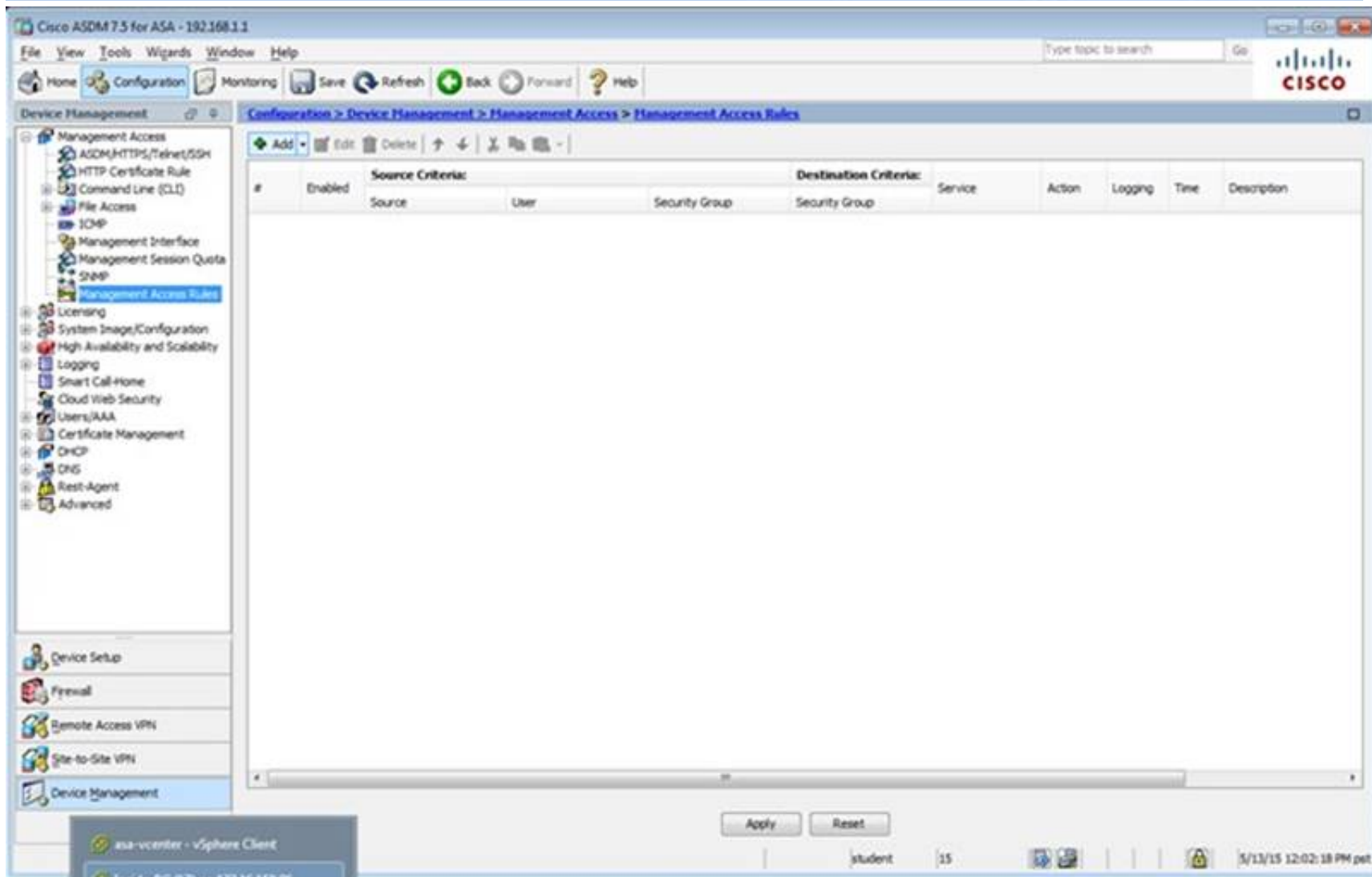
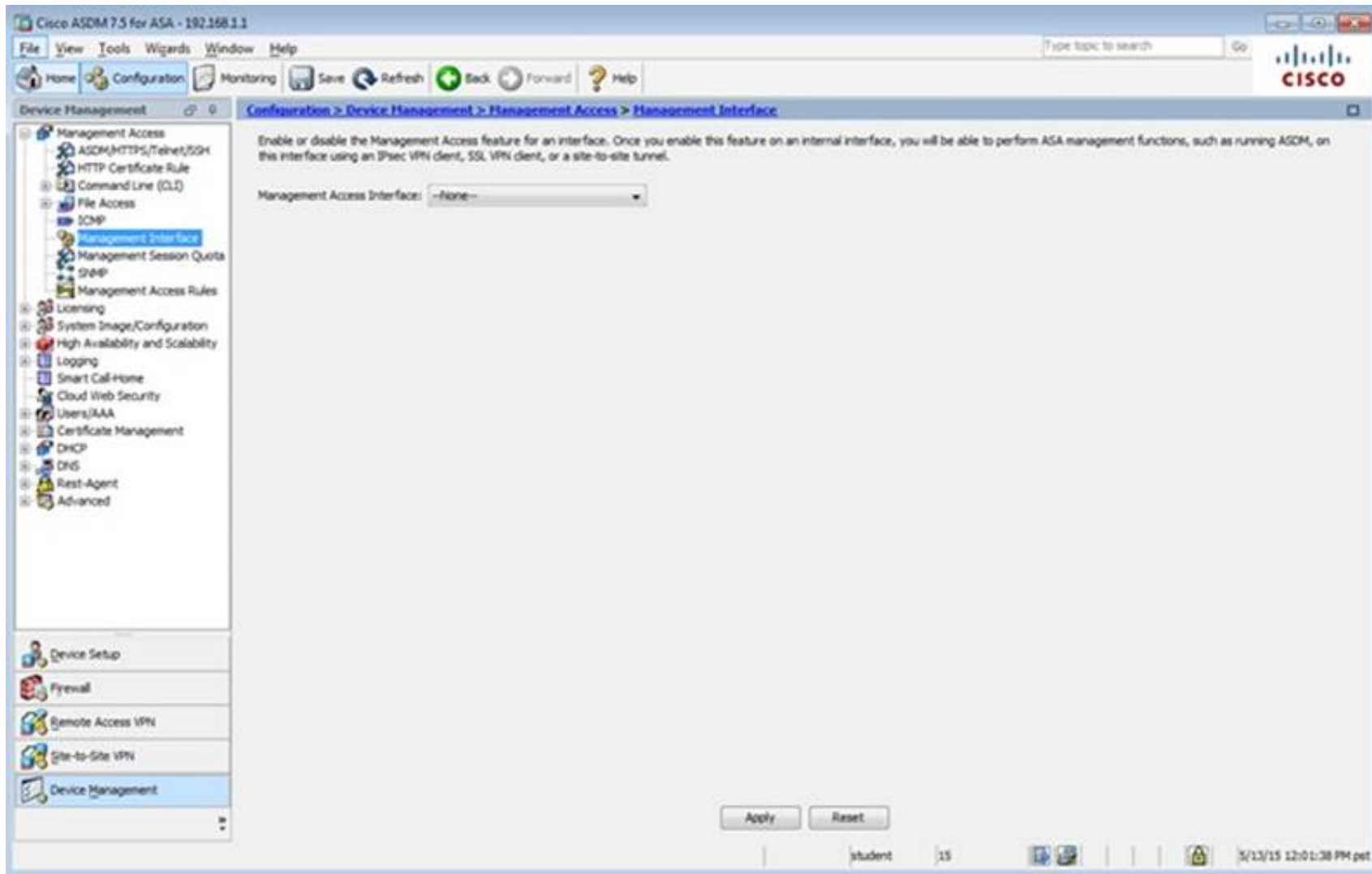
The Cisco ASDM Startup Wizard assists you in getting your Cisco Adaptive Security Appliance configured and running. Use this wizard to create a basic configuration that enforces security policies in your network.

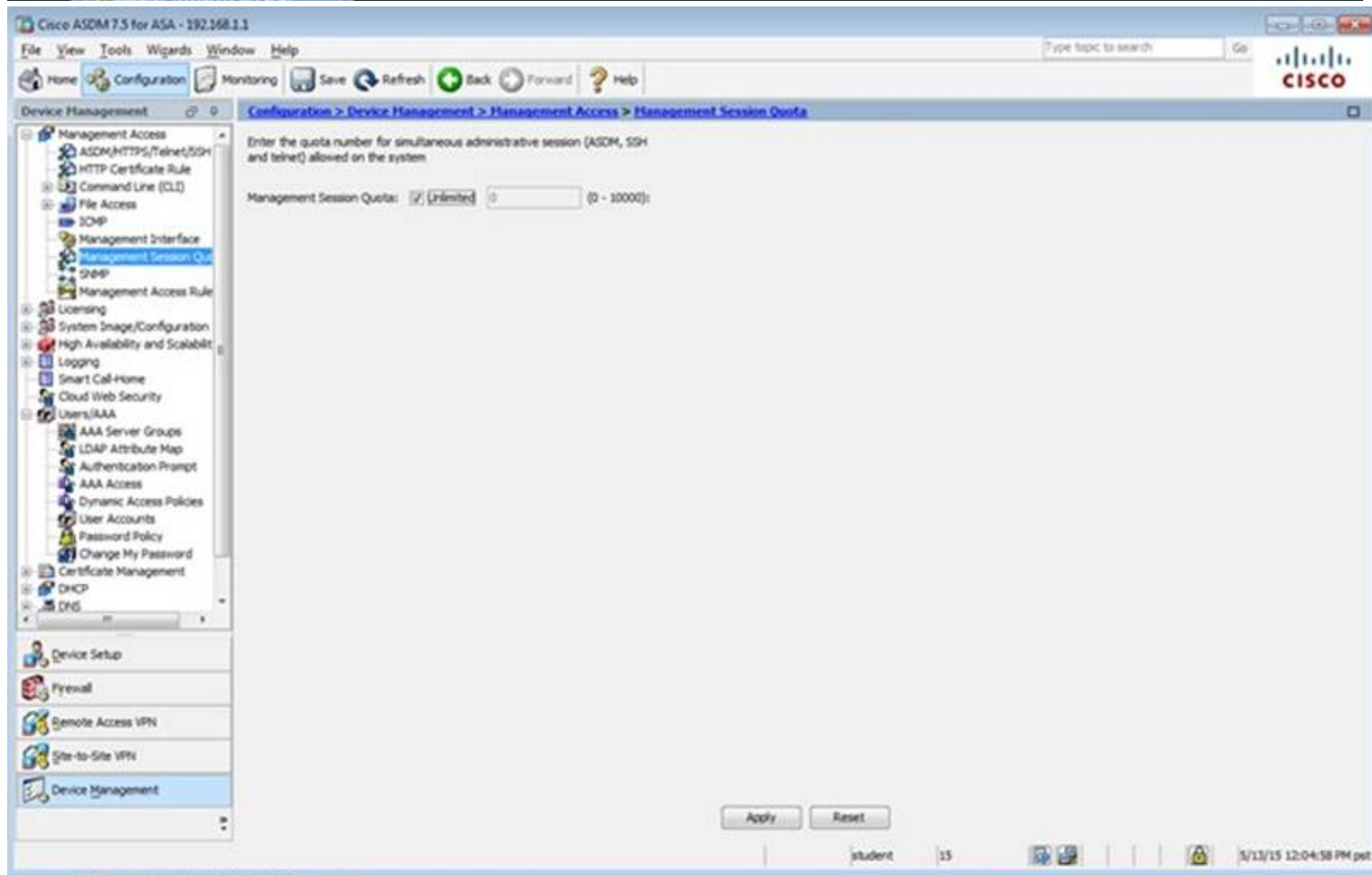
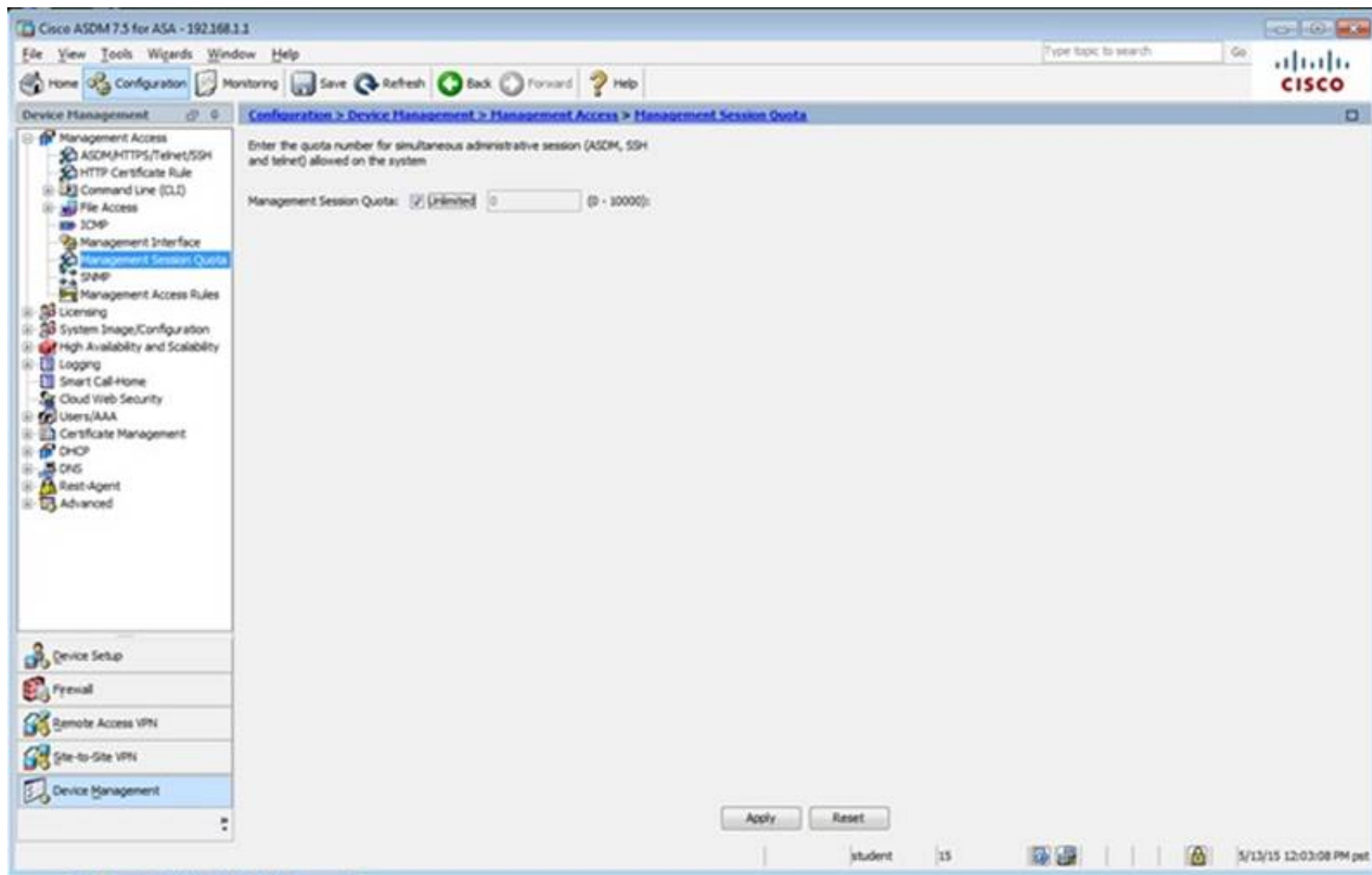
The Startup Wizard can be run at any time and will be initialized with values from the current running configuration.

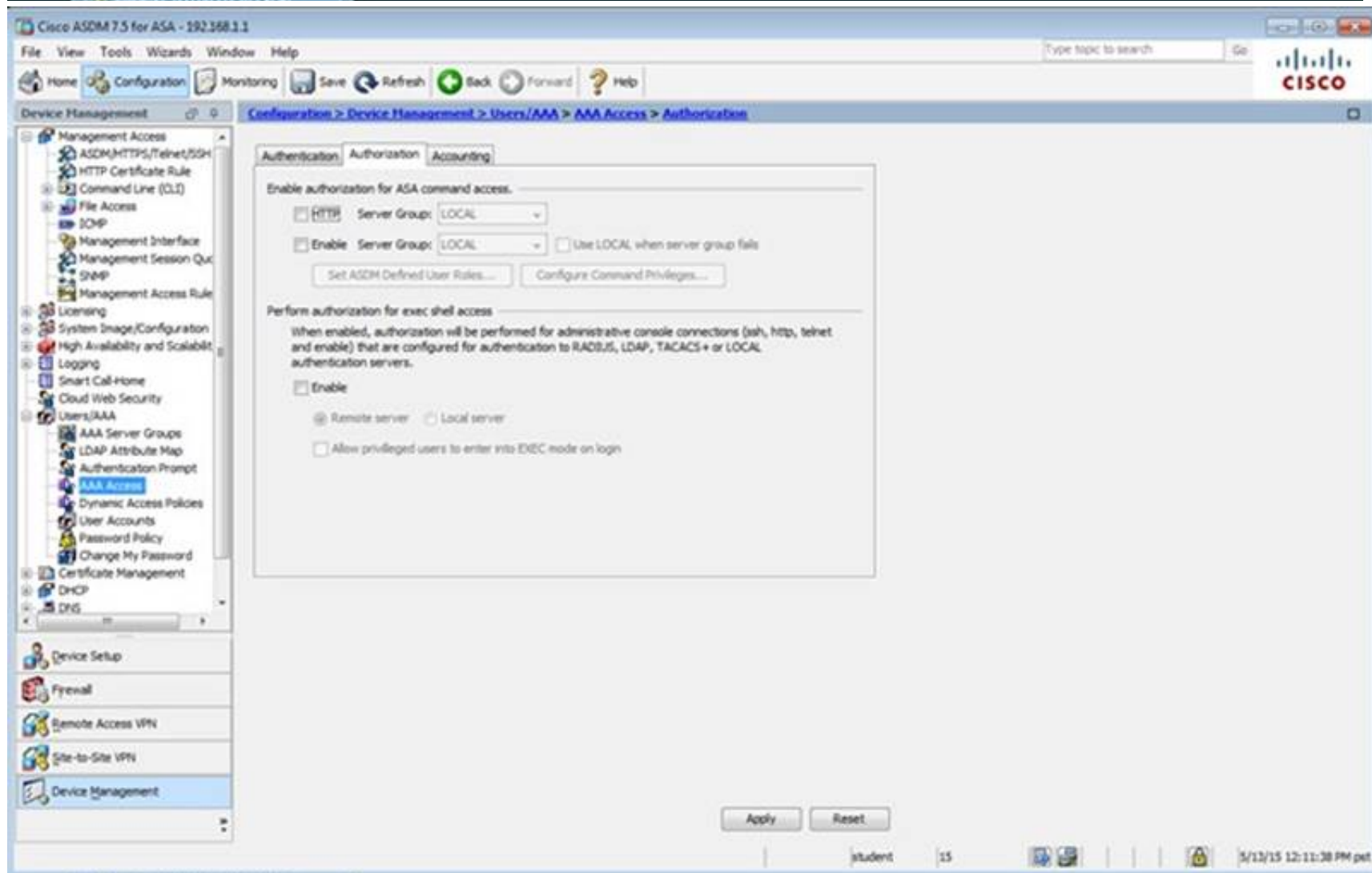
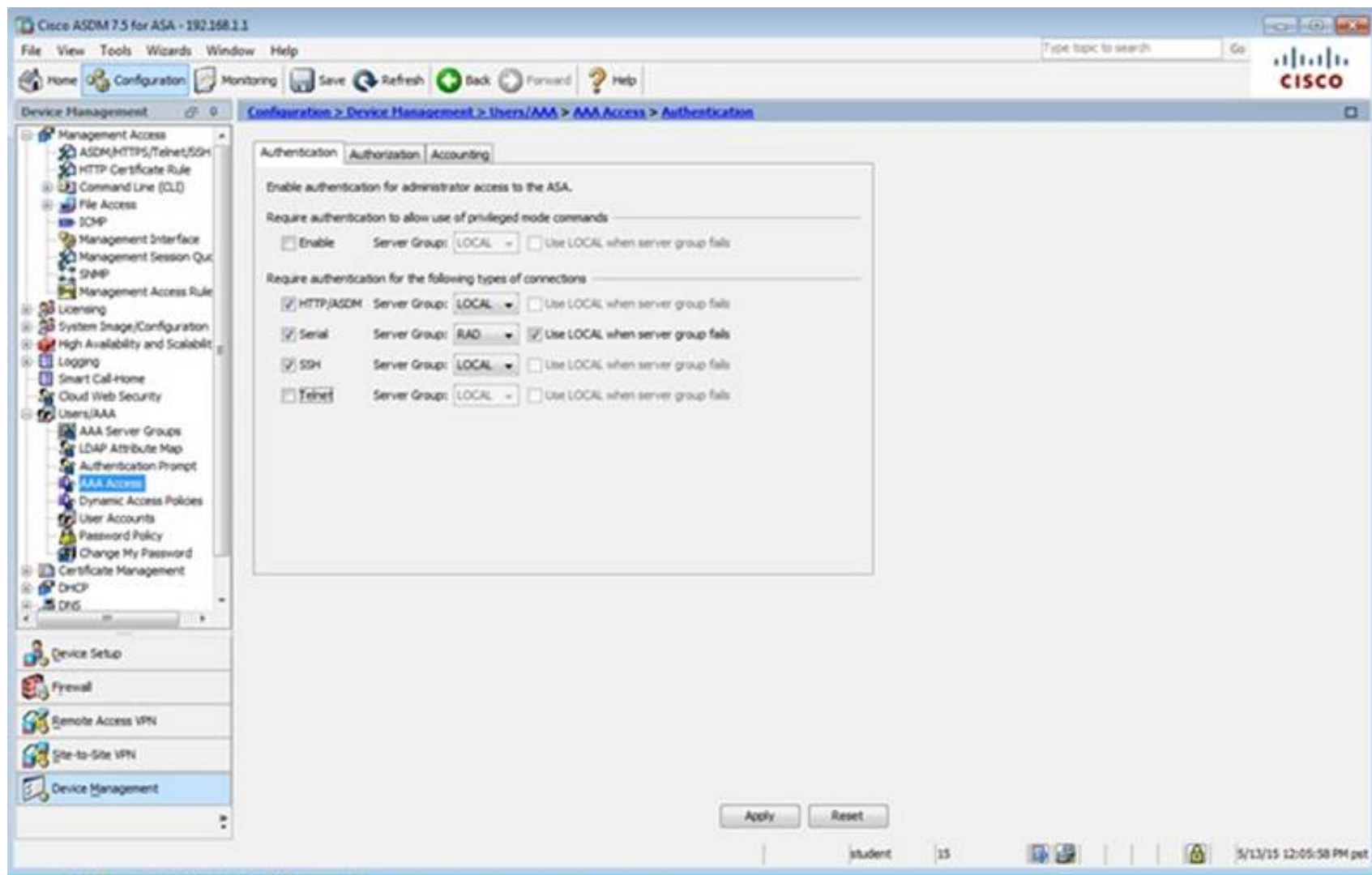
Launch Startup Wizard

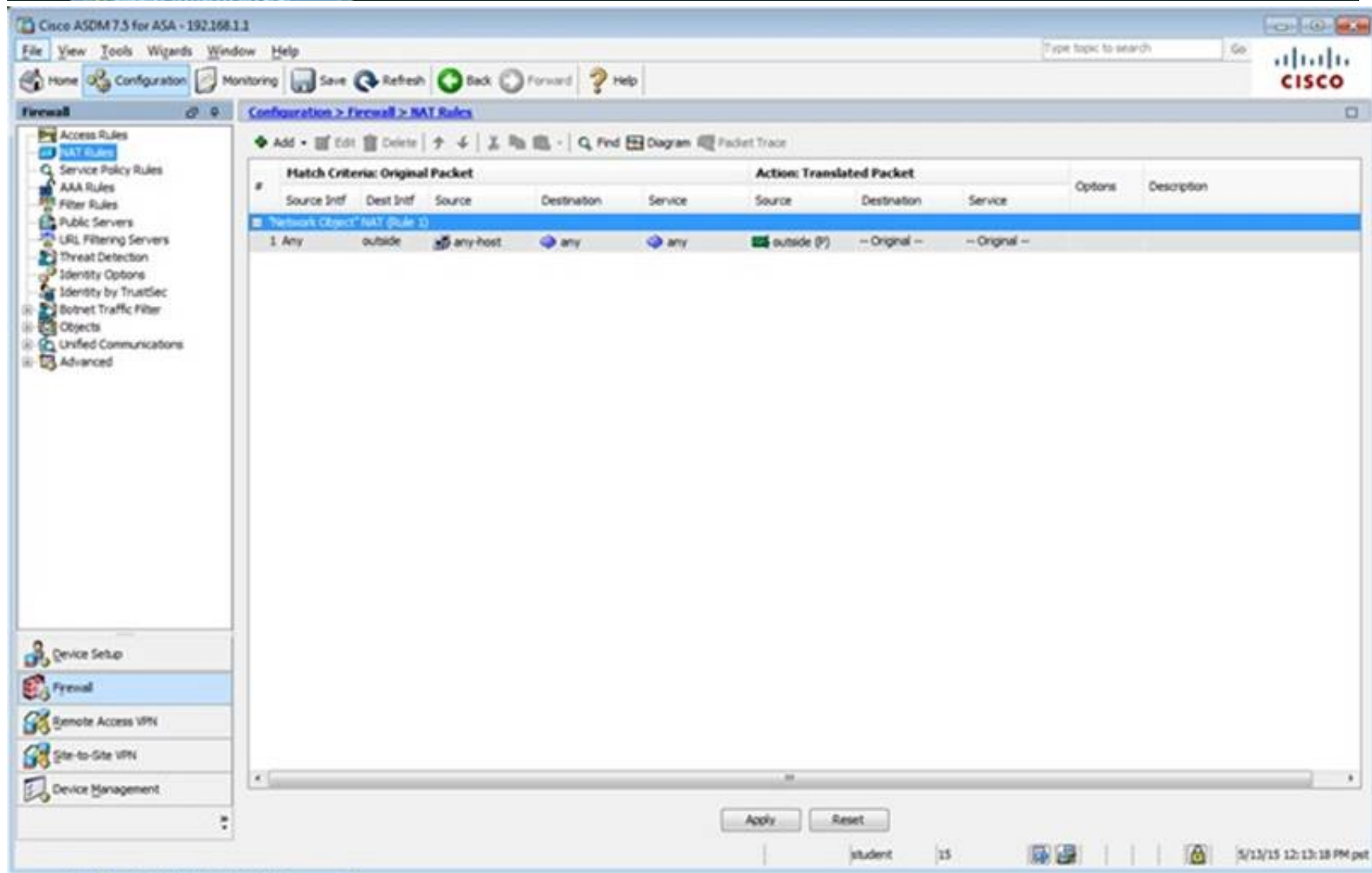
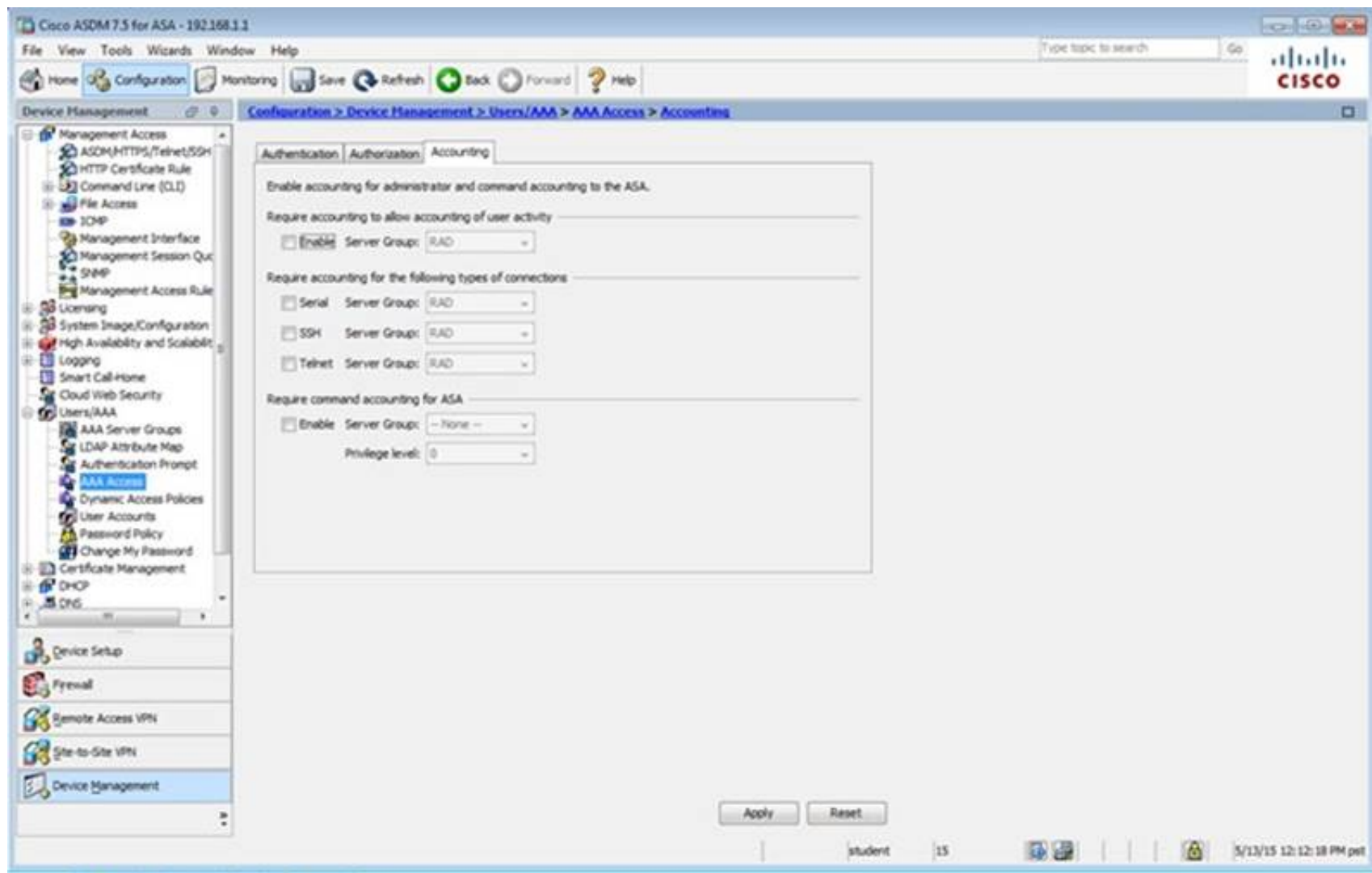


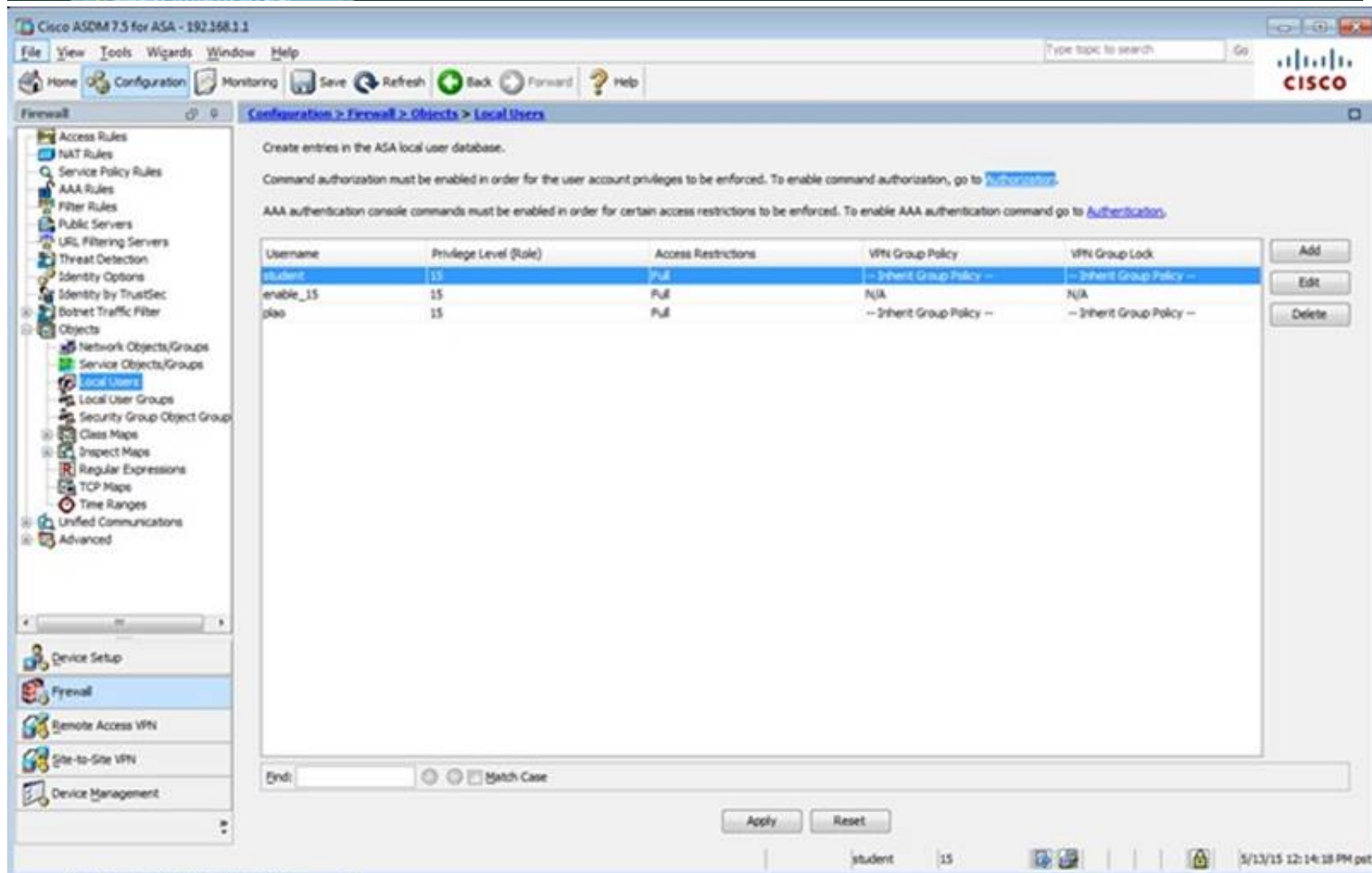
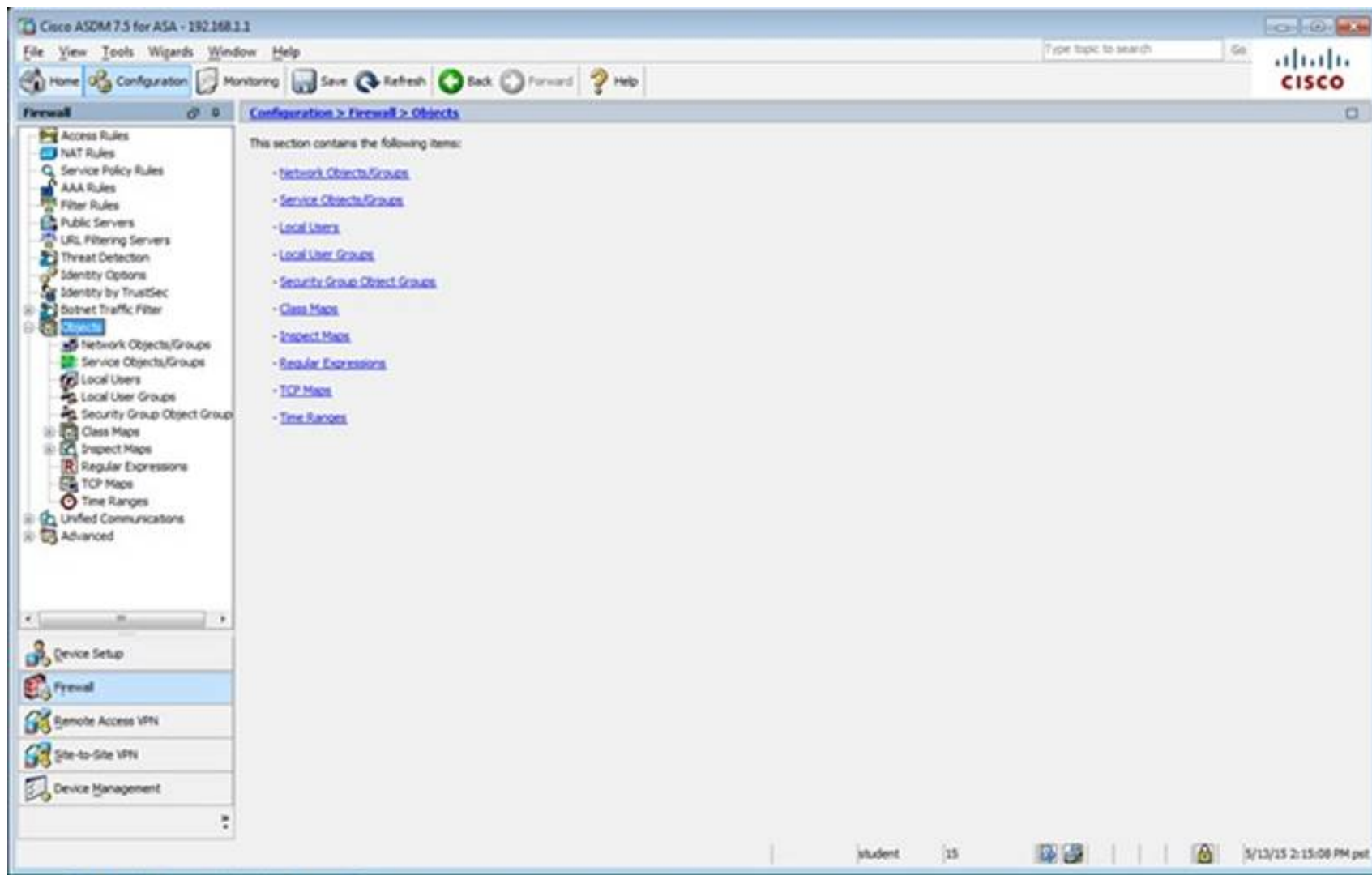












The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar contains a tree view with categories like Firewall, Objects, Service Objects/Groups, Local Users, Local User Groups, Security Group Object Group, Class Maps, Inspect Maps, Regular Expressions, TCP Maps, Time Ranges, Unified Communications, and Advanced. The main pane is titled 'Configuration > Firewall > Objects > Network Objects/Groups'. It features a table with columns: Name, IP Address, Network, Description, and Object NAT Address. The table lists several objects: 'any', 'any-host' (0.0.0.0), 'any4', 'any6', 'facebook' (www.facebook.com), and 'My_ASA_Demo_Obj' (1.10.8.20). The 'any-host' object has an Object NAT Address of 'outside (p)'. At the bottom, there are 'Apply' and 'Reset' buttons. The status bar at the bottom right shows 'student' and '15'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar is the same as the previous screenshot. The main pane is titled 'Configuration > Firewall > Service Policy Rules'. It features a table with columns: Name, #, Enabled, Match, Source, Src Security Group, Destination, Dest Security Group, Service, Time, Rule Actions, and Description. The table lists three policy rules: 'Interface: dmz; Policy: asash_policy', 'Interface: inside; Policy: asash_policy', and 'Global; Policy: global_policy'. Each rule has a 'Match' icon and a 'Source' of 'any'. The 'Service' column shows 'any traffic' and 'class-default'. The 'Rule Actions' column shows 'default-inspec...' and 'Inspect DNS Map preset...'. At the bottom, there are 'Apply' and 'Reset' buttons. The status bar at the bottom right shows 'student' and '15'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Firewall' selected. The main pane shows the 'Access Rules' configuration page. The table below represents the data shown in the interface:

#	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 incoming rule)			any		Permit 54...
1	<input checked="" type="checkbox"/>	any			any		Permit
1	<input checked="" type="checkbox"/>	any			any		Permit
1	<input checked="" type="checkbox"/>	any			any		Deny

Buttons at the bottom: Apply, Reset, Advanced...

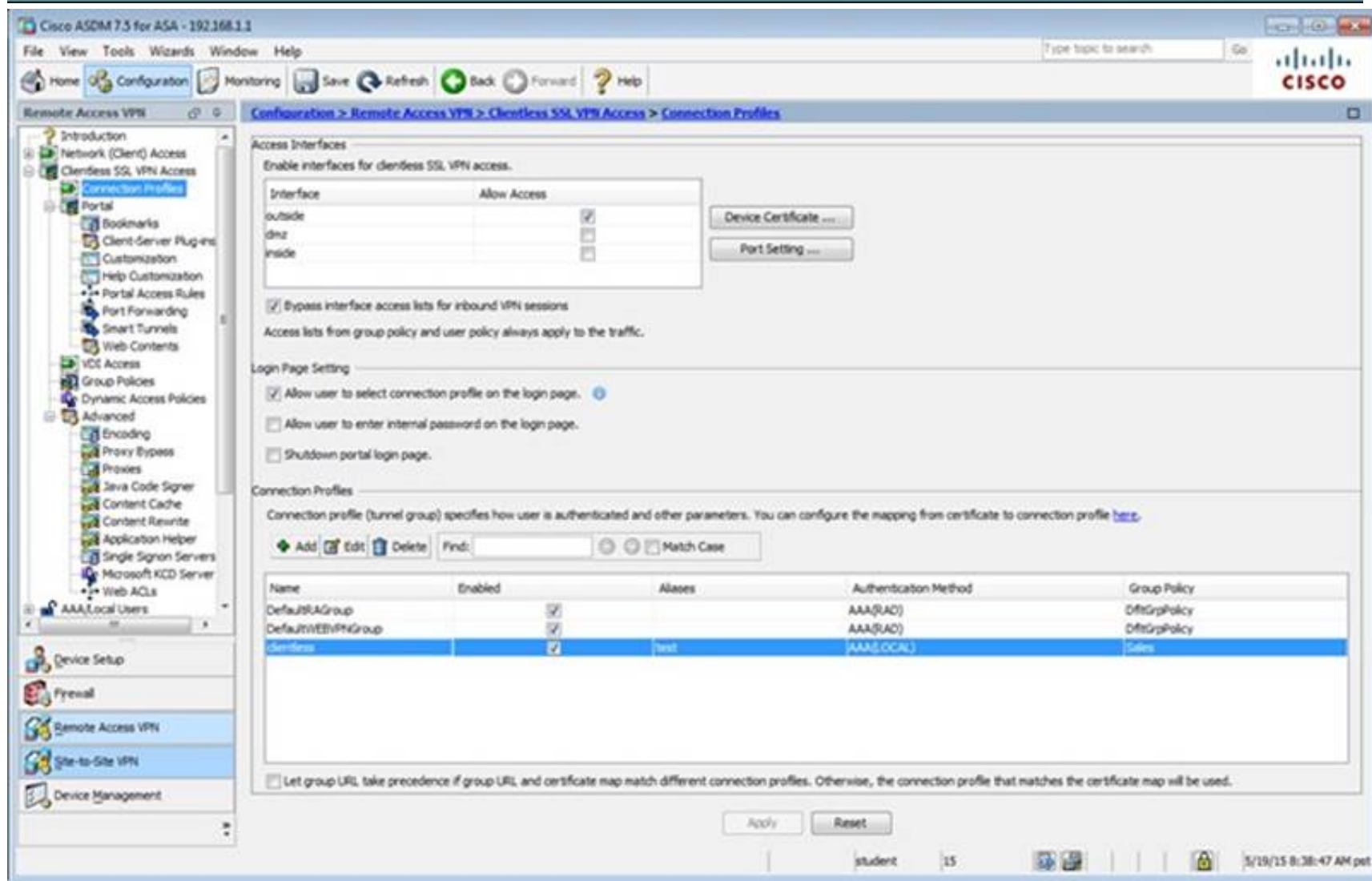
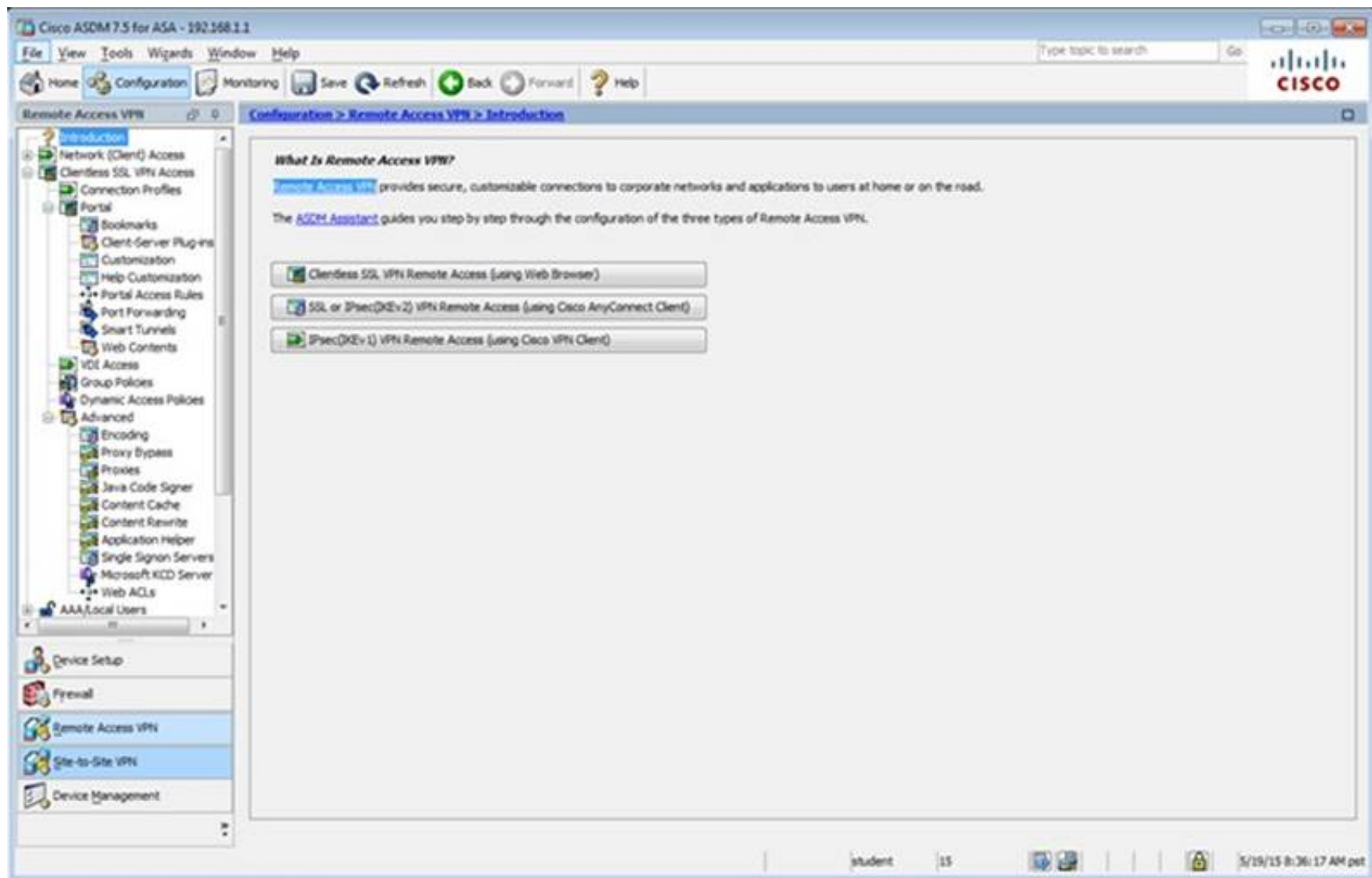
The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Remote Access VPN' selected. The main pane shows the 'Introduction' page for Remote Access VPN.

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.

-
-
-



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**

Edit Clientless SSL VPN Connection Profile: clientless

Basic
Advanced
General
Authentication
Secondary Authentication
Authorization
Accounting
NetBIOS Servers
Clientless SSL VPN

Interface-Specific Authentication Server Groups

+ Add Edit Delete

Interface	Server Group	Fallback to LOCAL
-----------	--------------	-------------------

Username Mapping from Certificate

☐ Pre-fill Username from Certificate

☐ Hide username from end user

☒ Specify the certificate fields to be used as the username

Primary Field: CN (Common Name)

Secondary Field: OU (Organization Unit)

☐ Use the entire DN as the username

☐ Use script to select username

-- None -- + Add Edit Delete

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

Secondary Authentication Server Group

Server Group: -- None -- Manage...

☐ Use LOCAL if Server Group fails

☐ Use primary username (Hide secondary username on login page)

Attributes Server: ☒ Primary ☐ Secondary

Session Username Server: ☒ Primary ☐ Secondary

Interface-Specific Secondary Authentication Server Groups

+ Add ✎ Edit ✖ Delete

Interface	Server Group	Fallback to LOCAL	Use primary username

Username Mapping from Certificate

☐ Pre-fill username from certificate

☐ Hide username from end user

☐ Fallback when a certificate is unavailable

Password: ☒ Prompt ☐ Use primary ☐ Use

☒ Specify the certificate fields to be used as the username

Primary Field: CN (Common Name)

Secondary Field: OU (Organization Unit)

☐ Use the entire DN as the username

☐ Use script to select username

-- None -- + Add ✎ Edit ✖ Delete

Find: Next Previous

OK Cancel Help

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 > Clientless SSL VPN Access > Portal > Bookmarks

Configure Bookmark Lists that the security appliance displays on the SSL VPN portal page.
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.

+ Add ✎ Edit ✖ Delete + Import ✎ Export ✎ Assign

Bookmarks	Group Policies/DAPs/LOCAL Users Using the Bookmarks
Template	
Ready-001	Ready-001

Find: Match Case

Apply Reset

student 15 5/19/15 8:41:57 AM pst

Edit Bookmark List

Bookmark List Name: Inside-SRV

Bookmark Title	URL
Inside Server	http://192.168.1.2

Find:

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 > Clientless SSL VPN Access > Portal > Smart Tunnels

For Smart Tunnel Application List, Auto Sign-on Server List, and Networks, you can enforce them to group policy or user policy by clicking on the Assign button above the respective table.

Method to Log Off Smart Tunnel Session

☒ Logoff the smart-tunnel when its parent process, such as a browser, terminates

☐ Click on smart-tunnel logoff icon in the system tray

Smart Tunnel Application List

List Name	Application ID	Process Name	OS	Hash	Group Policies/User Policies Assigned to
-----------	----------------	--------------	----	------	--

Smart Tunnel Auto Sign-on Server List

Server List Name	Server	Group Policies/User Policies Assigned to
------------------	--------	--

Smart Tunnel Networks

student 15 5/28/15 8:43:07 AM pst

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Remote Access VPN' selected. The main pane is titled 'Configuration > Remote Access VPN > Clientless SSL VPN Access > Portal > Port Forwarding'. It contains a description: '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 description is a table with 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, there are 'Find', 'Match Case', 'Apply', and 'Reset' buttons. The status bar at the bottom right shows 'student', '15', and the date '5/29/15 8:43:47 AM pet'.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Remote Access VPN' selected. The main pane is titled 'Configuration > Remote Access VPN > Clientless SSL VPN Access > Group Policies'. It contains a description: '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 description is a table with columns: Name, Type, Tunneling Protocol, and Connection Profiles/Users Assigned To. The table contains two entries: 'Sales' (Internal, ssl-clientless, /Sales) and 'OffGrpPolicy (System Default)' (Internal, Rev 1/rev 2:ssl-clientless/2ip-espsec, DefaultRAGroup/Default 2/Group/DefaultADMG/Def...). At the bottom, there are 'Find', 'Match Case', 'Apply', and 'Reset' buttons. The status bar at the bottom right shows 'student', '15', and the date '5/29/15 8:49:27 AM pet'.

Edit Internal Group Policy: Sales

Name: Sales

Banner: ☒ Inherit

More Options

Tunneling Protocols: ☐ Inherit ☒ Clientless SSL VPN ☐ SSL VPN Client ☐ IPsec IKEv1 ☐ IPsec IKEv2 ☐ LZTP/IPsec

Web ACL: ☒ Inherit Manage...

Access Hours: ☒ Inherit Manage...

Simultaneous Logins: ☒ Inherit

Restrict access to VLAN: ☒ Inherit

Connection Profile (Tunnel Group) Lock: ☒ Inherit

Maximum Connect Time: ☒ Inherit ☐ Unlimited minutes

Idle Timeout: ☒ Inherit ☐ Use Global Default minutes

Timeout Alerts

Session Alert Interval: ☒ Inherit ☐ Default minutes

Idle Alert Interval: ☒ Inherit ☐ Default minutes

Configure alert text messages and visual cues in Customization under Clientless SSL VPN Access-Portal-Customization-Edit-Portal Page-Timeout Alerts.

Find: ☐ Next ☐ Previous

Cisco ASDM 7.2 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

Remote Access VPN

Clientless SSL VPN 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	Sales
DefaultGrpPolicy (System Default)	Internal	ikev1;ikev2;ssl-clientless;l2tp-ipsec	DefaultGrpPolicy

Find: ☐ Match Case

student 15 10/15/14 9:15:43 AM pst

Edit Internal Group Policy: Sales

General
Portals
 More Options
 Customization
 Login Setting
 Single Signon
 VDI Access
 Session Settings

Bookmark List: ☐ Inherit ☐ Inside-SRV

URL Entry: ☒ Inherit ☐ Enable ☐ Disable

File Access Control

File Server Entry: ☒ Inherit ☐ Enable ☐ Disable

File Server Browsing: ☒ Inherit ☐ Enable ☐ Disable

Hidden Share Access: ☒ Inherit ☐ Enable ☐ Disable

Port Forwarding Control

Port Forwarding List: ☒ Inherit

☐ Auto Applet Download

Applet Name: ☒ Inherit

Smart Tunnel

Smart Tunnel Policy: ☒ Inherit

Network:

Tunnel Option:

Smart Tunnel Application: ☒ Inherit

☐ Smart Tunnel all Applications (This feature only works with Windows platforms)

☐ Auto Start

Auto Sign-on Server: ☒ Inherit

Windows Domain Name (optional):

Auto sign-on works only with Internet Explorer on Windows client or in Firefox on any platform.

ActiveX Relay

ActiveX Relay: ☒ Inherit ☐ Enable ☐ Disable

[More Options](#)

Find: ☐ Next ☐ Previous

Edit Internal Group Policy: DfGrpPolicy

Advanced

Name:

Banner:

SCEP forwarding URL:

Address Pools:

IPv6 Address Pools:

[More Options](#)

Tunneling Protocols: ☒ Clientless SSL VPN ☐ SSL VPN Client ☒ IPsec IKEv1 ☒ IPsec IKEv2 ☒ L2TP/IPsec

Filter:

Access Hours:

Simultaneous Logins:

Restrict access to VLAN:

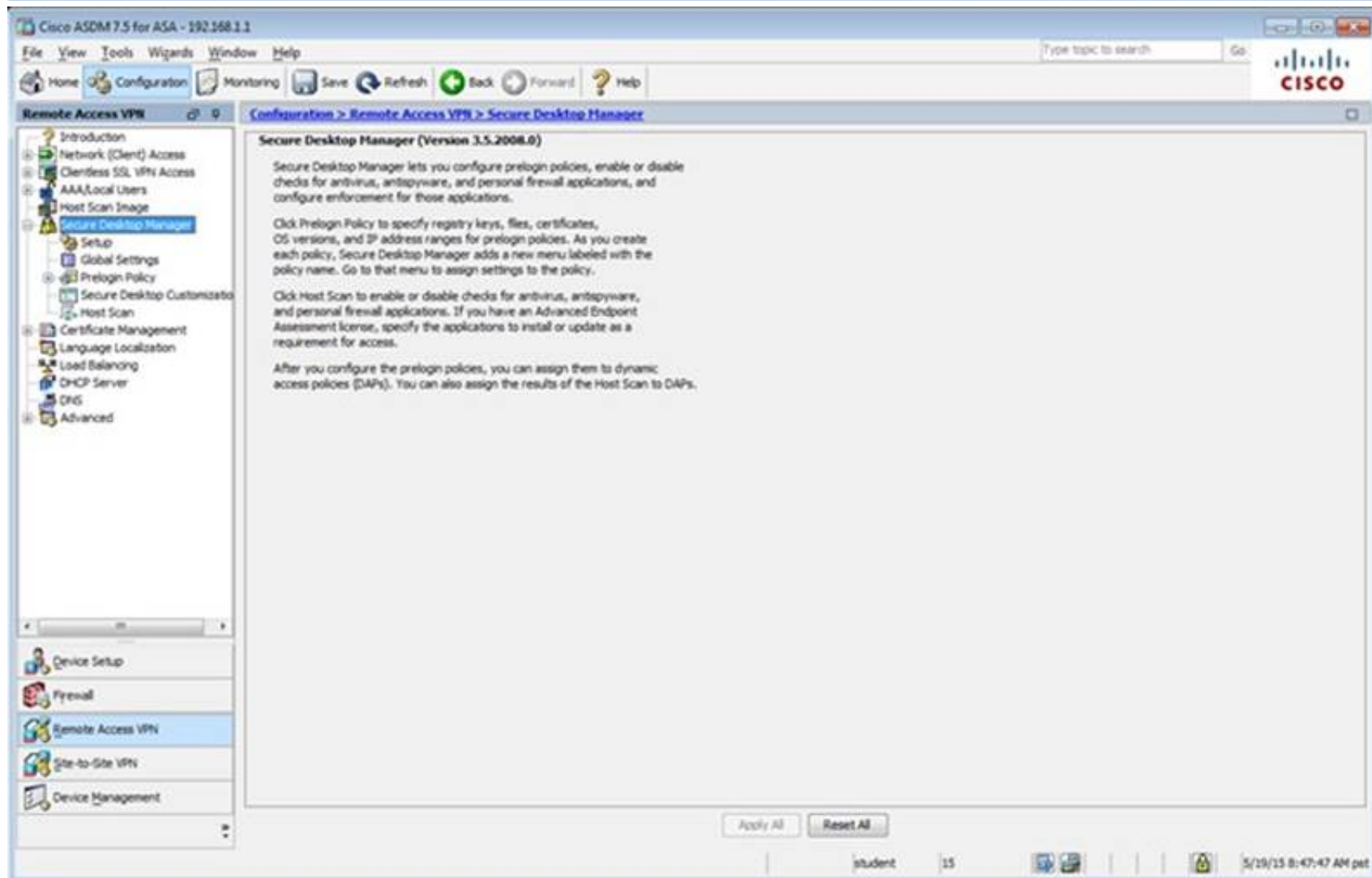
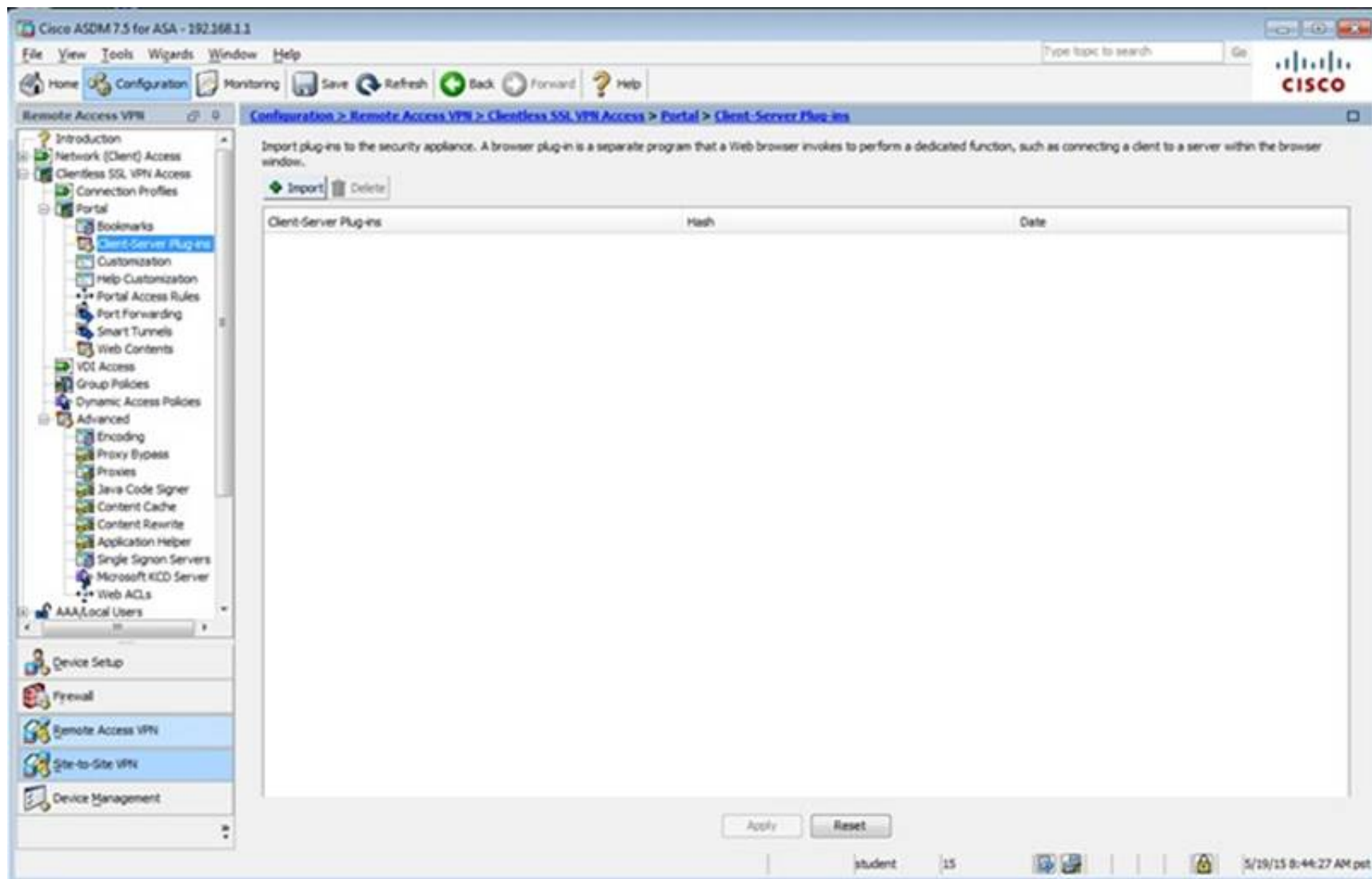
Connection Profile (Tunnel Group) Lock:

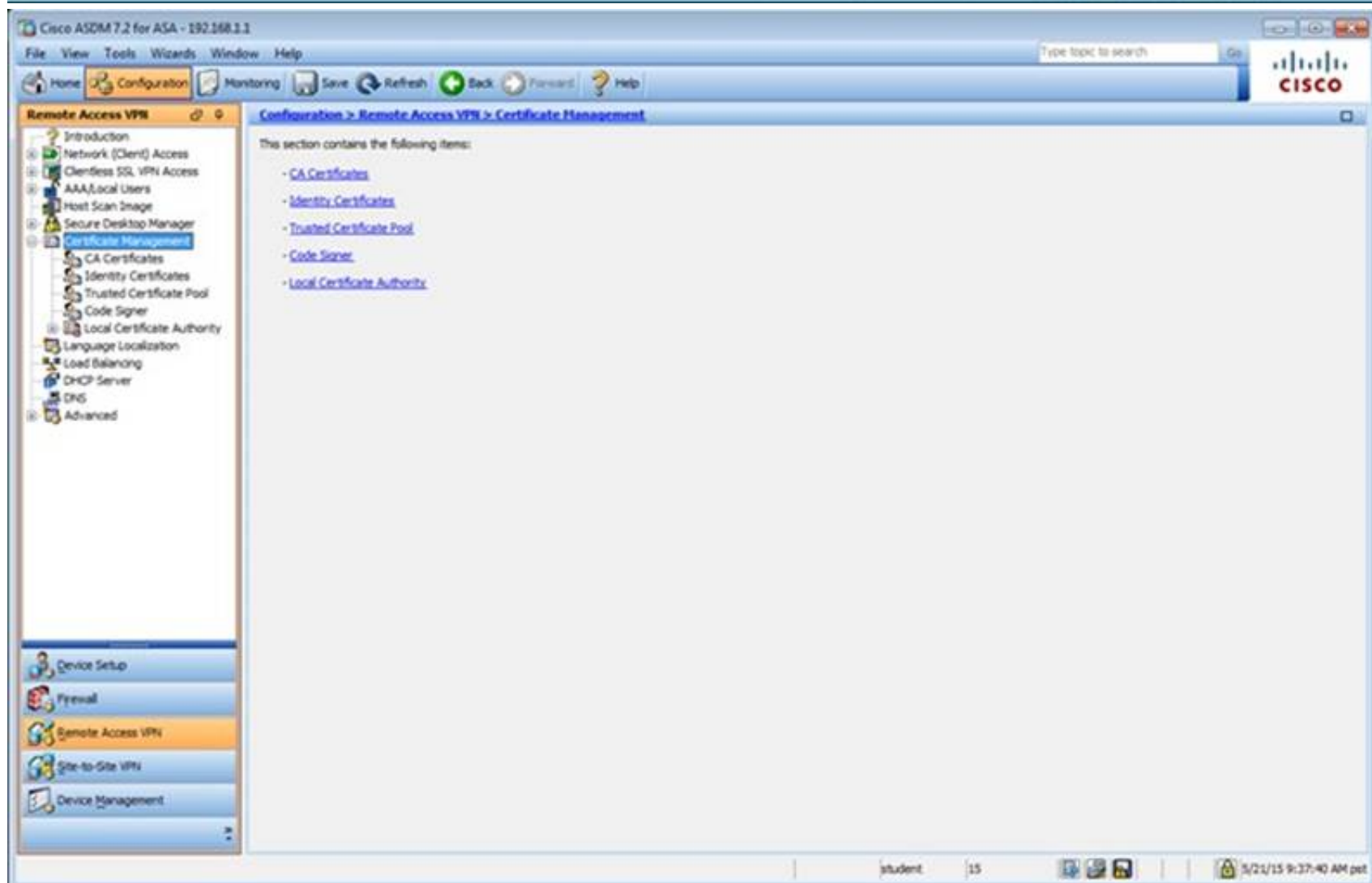
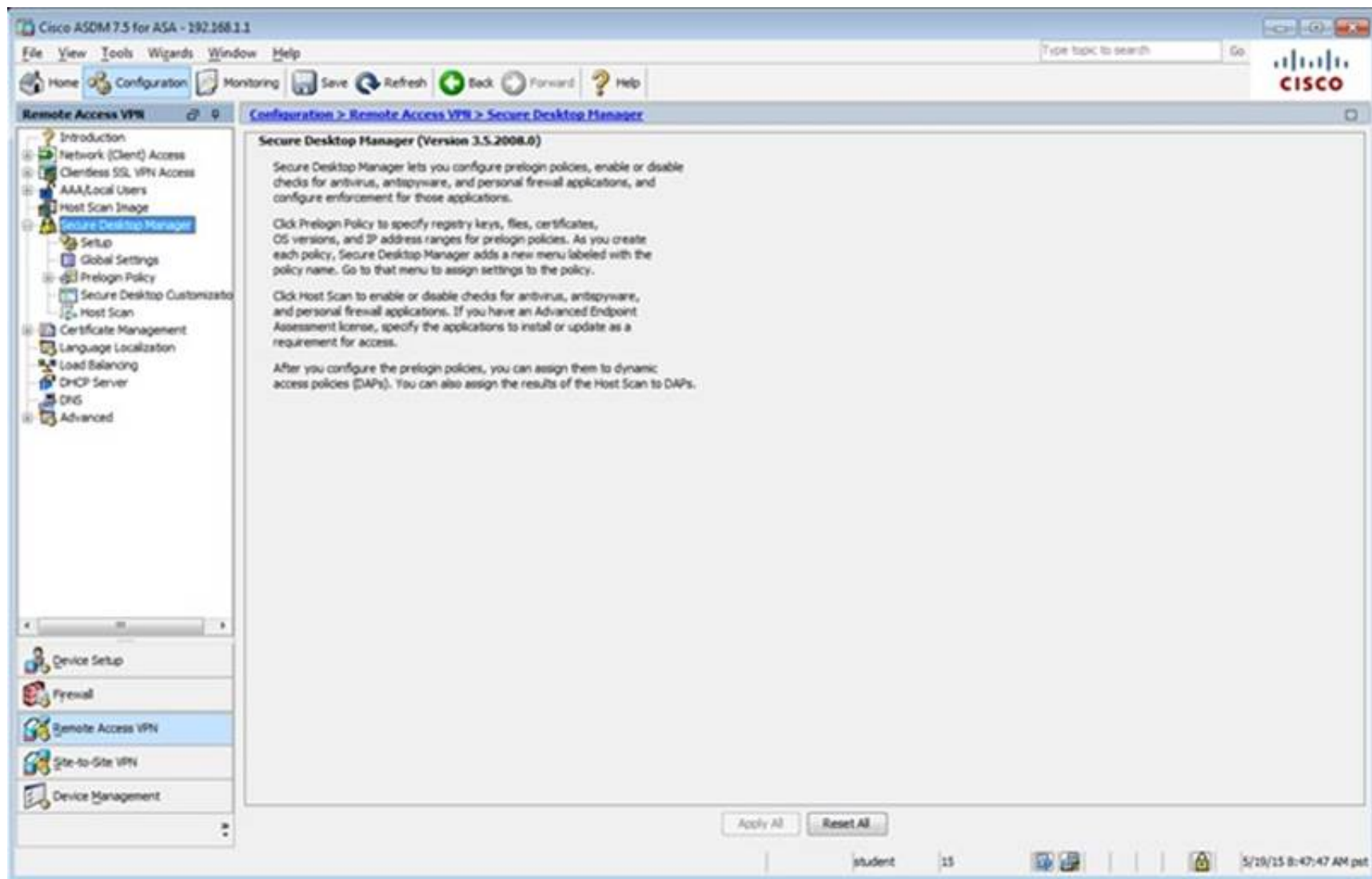
Maximum Connect Time: ☒ Unlimited minutes

Idle Timeout: ☐ None minutes

On smart card removal: ☒ Disconnect ☐ Keep the connection

Find: ☐ Next ☐ Previous





The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar shows the navigation tree with 'Remote Access VPN' selected. The main pane is titled 'Configuration > Remote Access VPN > Certificate Management > Identity Certificates'. It displays a table of identity certificates:

Issued To	Issued By	Expiry Date	Associated Trustpoints	Usage	Public Key Type
testname@P12-ASA.sec...	testname@P12-ASA.sec...	11:10:33 pm Dec 20 2024	ASDM_TrustPoint1	General Purpose	PKA (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). At the bottom, there is a section for 'ASDM Identity Certificate Wizard' with a 'Launch ASDM Identity Certificate Wizard' button.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar shows the navigation tree with 'Remote Access VPN' selected. The main pane is titled 'Configuration > Remote Access VPN > Advanced'. It lists the following items:

- Connection Gateway
- SSL Settings
- Certificate to AnyConnect and Clientless SSL VPN Connection Profile Maps
- HTTP Redirect
- Maximum VPN Sessions
- Crypto Engine
- E-mail Proxy

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Remote Access VPN' selected. The main pane is titled 'Configuration > Remote Access VPN > Advanced > SSL Settings'. The page contains the following sections:

- 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 - 2024-bit modulus
 - 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 AES 128-SHA DHE-RSA-AES 128-SHA AES256-SHA ...
TLSV1	Medium	DES-CBC3-SHA AES 128-SHA DHE-RSA-AES 128-SHA AES256-SHA ...
TLSV1.1	Medium	DES-CBC3-SHA AES 128-SHA DHE-RSA-AES 128-SHA AES256-SHA ...
TLSV1.2	Medium	DES-CBC3-SHA AES 128-SHA DHE-RSA-AES 128-SHA AES256-SHA ...
DTLSV1	Medium	DES-CBC3-SHA AES 128-SHA DHE-RSA-AES 128-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.

Buttons at the bottom: Apply, Reset. Status bar: student, 15, 5/19/15 8:54:07 AM pst.

The screenshot shows the Cisco ASDM 7.5 for ASA - 192.168.1.1 interface. The left sidebar displays the configuration tree with 'Remote Access VPN' selected. The main pane is titled 'Configuration > Remote Access VPN > Advanced > Maximum VPN Sessions'. The page contains the following sections:

- Configure the maximum number of VPN sessions allowed at any given time.**
 - Maximum AnyConnect Sessions: 2
 - Maximum Other VPN Sessions: 250

Buttons at the bottom: Apply, Reset. Status bar: student, 15, 5/19/15 8:54:47 AM pst.

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 > 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 "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

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.

student 15 5/28/15 8:55:47 AM pet

Cisco ASDM 7.2 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 > 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](#).

Add Edit Delete Assign

Name	Type	Tunneling Protocol	Connection Profiles/Users Assigned To
Sales	Internal	ssl-clientless	clientless
DefaultGroupPolicy (System Default)	Internal	ikev1,ikev2,ssl-clientless,ipsec	DefaultRAGroup,Default,3,Group,DefaultVPNGroup

Find: Match Case

Apply Reset

student 15 5/21/15 10:17:10 AM pet

Edit Internal Group Policy: DftGrpPolicy

Name:

Banner:

SCCP forwarding URL:

Address Pools:

IPv6 Address Pools:

More Options

Tunneling Protocols: ☒ Clientless SSL VPN ☐ SSL VPN Client ☒ IPsec IKEv1 ☒ IPsec IKEv2 ☒ L2TP/IPsec

Filter:

NAC Policy:

Access Hours:

Simultaneous Logins:

Restrict access to VLANs:

Connection Profile (Tunnel Group) Lock:

Maximum Connect Time: ☒ Unlimited minutes

Idle Timeout: ☐ None minutes

On smart card removal: ☒ Disconnect ☐ Keep the connection

Find:

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 > Network (Client) Access > IPsec(IKEv1) Connection Profiles

Access Interfaces

Enable interfaces for IPsec access.

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

☒ Bypass interface access lists for inbound VPN sessions

Access lists from group policy and user policy always apply to the traffic.

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](#).

Name	IPsec Enabled	L2TP/IPsec Enabled	Authentication Server Group	Group Policy
DefaultRAGroup	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	RAD	DftGrpPolicy
DefaultWEBVpnGroup	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	RAD	DftGrpPolicy
Default	<input type="checkbox"/>	<input type="checkbox"/>	LOCAL	Sales

Find:

student 15 5/28/15 8:56:47 AM pet

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 > Network (Client) Access > AnyConnect Connection Profiles

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](#).

[Add](#) [Edit](#) [Delete](#) End: Match Case

Name	SSL Enabled	IPsec Enabled	Aliases	Authentication Method	Group Policy
DefaultRAGroup	<input type="checkbox"/>	<input checked="" type="checkbox"/>		AAA(RAC)	DefaultPolicy
DefaultWEBVPNGroup	<input type="checkbox"/>	<input checked="" type="checkbox"/>		AAA(RAC)	DefaultPolicy
Clientless	<input type="checkbox"/>	<input type="checkbox"/>	test	AAA(LOCAL)	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.

Apply Reset

student 15 5/19/15 8:58:17 AM pet

Cisco ASDM 7.5 for ASA - 192.168.1.1

File View Tools Wizards Window Help

Home Configuration Monitoring Save Refresh Back Forward Help

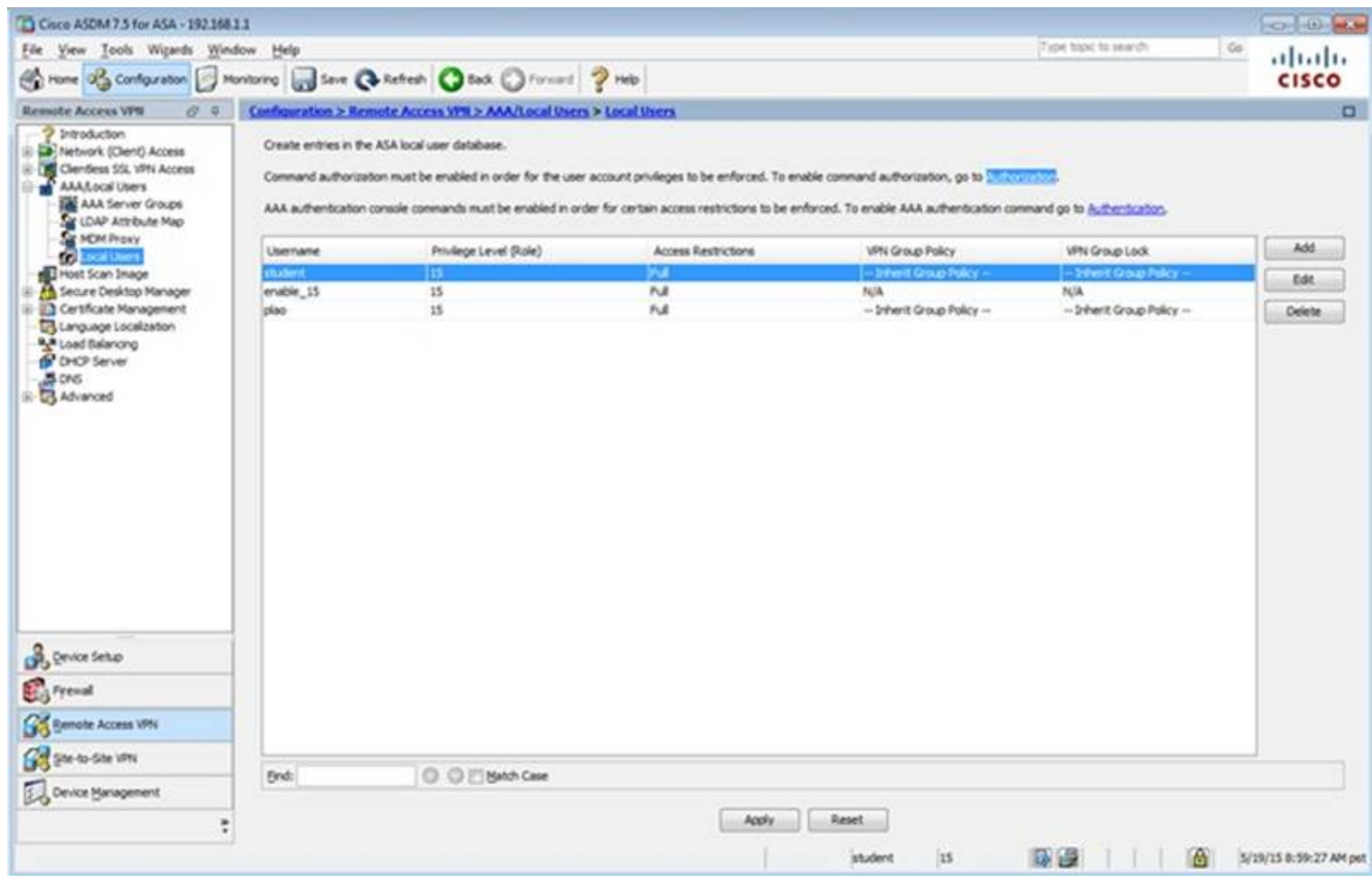
Remote Access VPN

Configuration > Remote Access VPN > AAA/Local Users

This section contains the following items:

- [AAA Server Groups](#)
- [LDAP Attribute Map](#)
- [MDM Proxy](#)
- [Local Users](#)

student 15 5/19/15 8:58:57 AM pet



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](#).

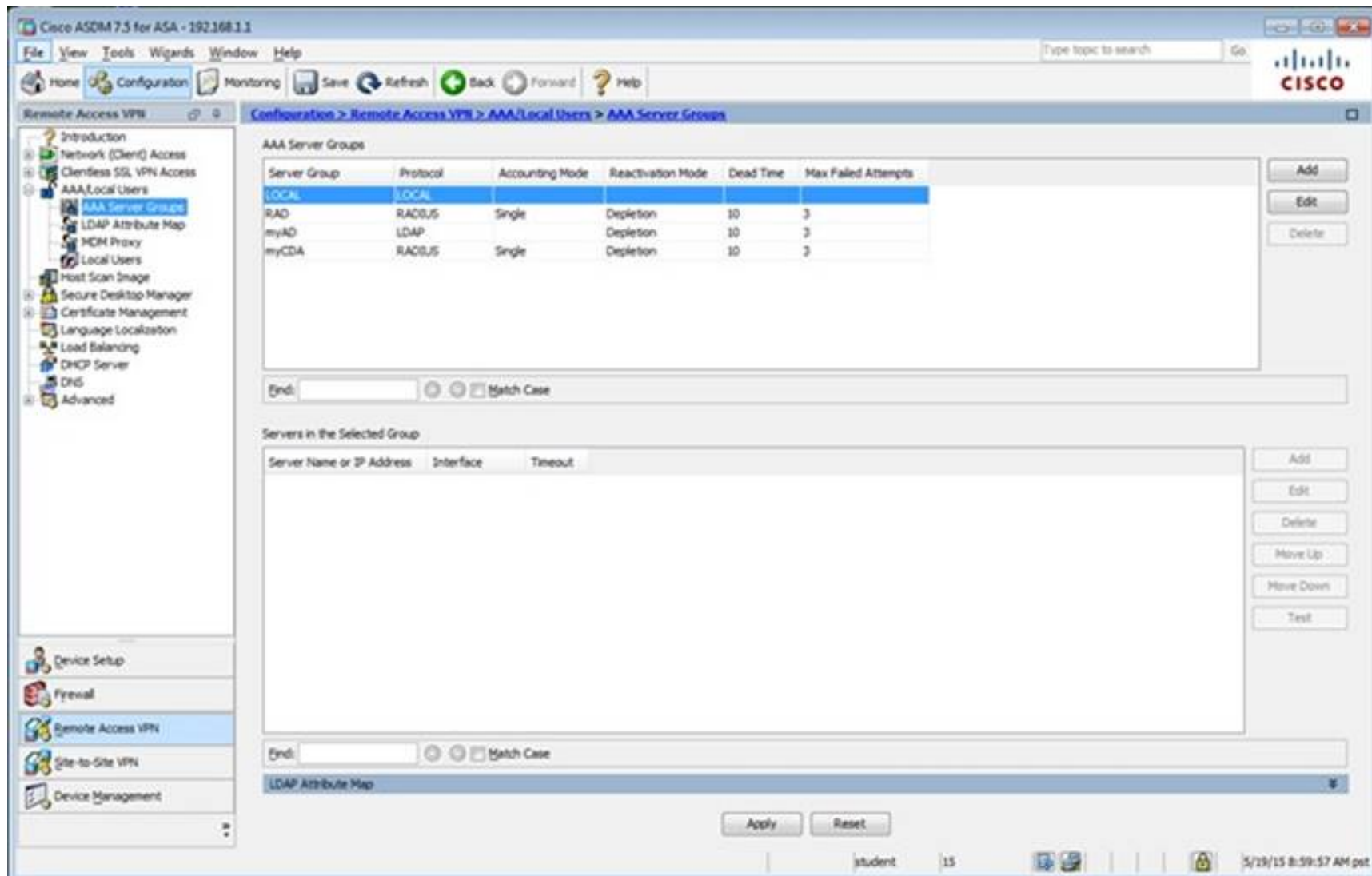
AAA authentication console commands must be enabled in order for certain access restrictions to be enforced. To enable AAA authentication command go to [Authentication](#).

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
plap	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	Single	Depletion	10	3
RAD	RADIUS	Single	Depletion	10	3
myAD	LDAP	Single	Depletion	10	3
myCDA	RADIUS	Single	Depletion	10	3

End: Match Case

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

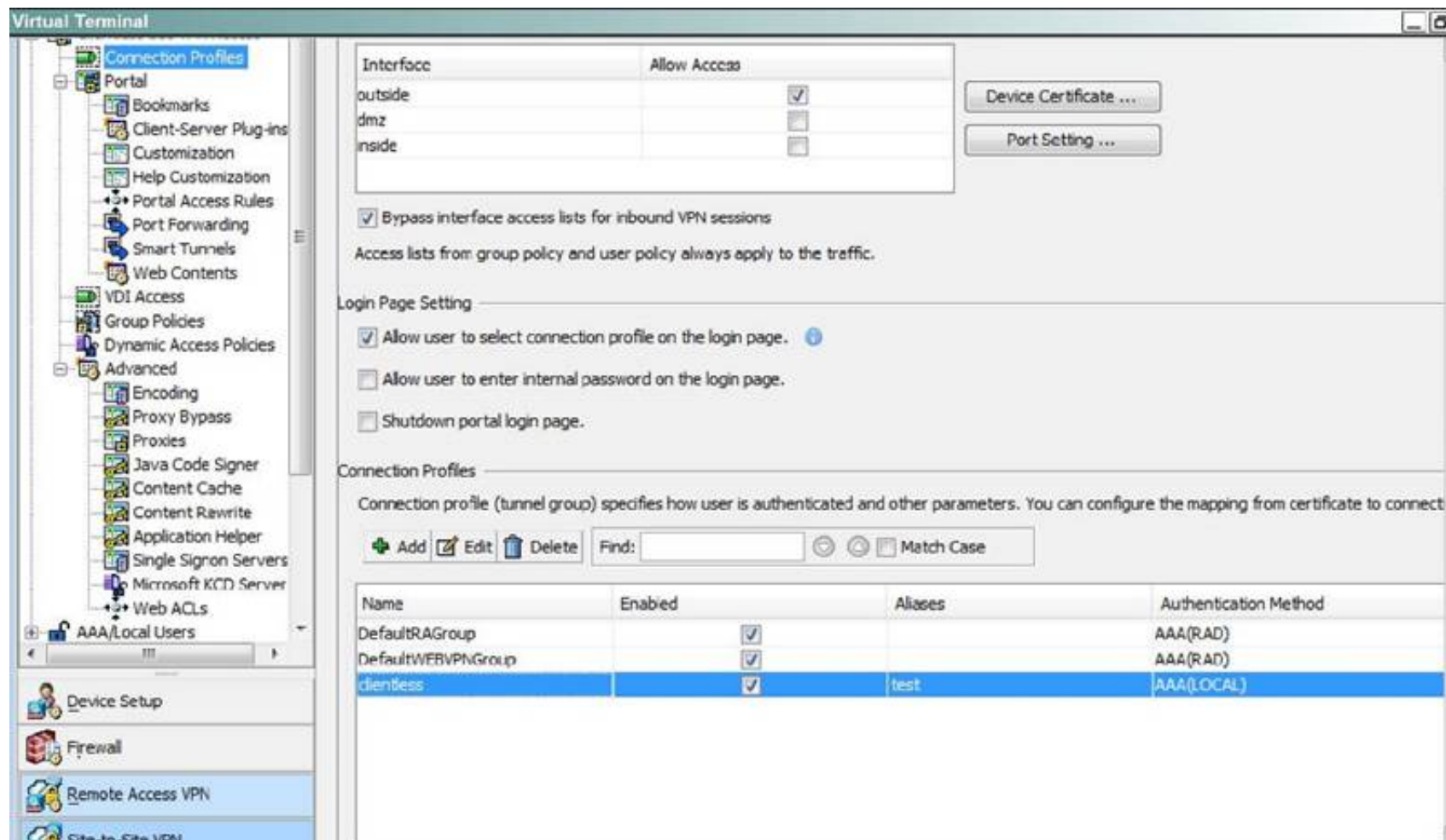
Which two statements regarding the ASA VPN configurations are correct? (Choose two)

- A. The ASA has a certificate issued by an external Certificate Authority associated to the ASDM_TrustPoint1.
- B. The DefaultWEBVPNGroup Connection Profile is using the AAA with RADIUS server method.
- C. The Inside-SRV bookmark references the <https://192.168.1.2URL>
- D. Only Clientless SSL VPN access is allowed with the Sales group policy
- E. AnyConnect, IPsec IKEv1, and IPsec IKEv2 VPN access is enabled on the outside interface
- F. The Inside-SRV bookmark has not been applied to the Sales group policy

Answer: BC

Explanation:

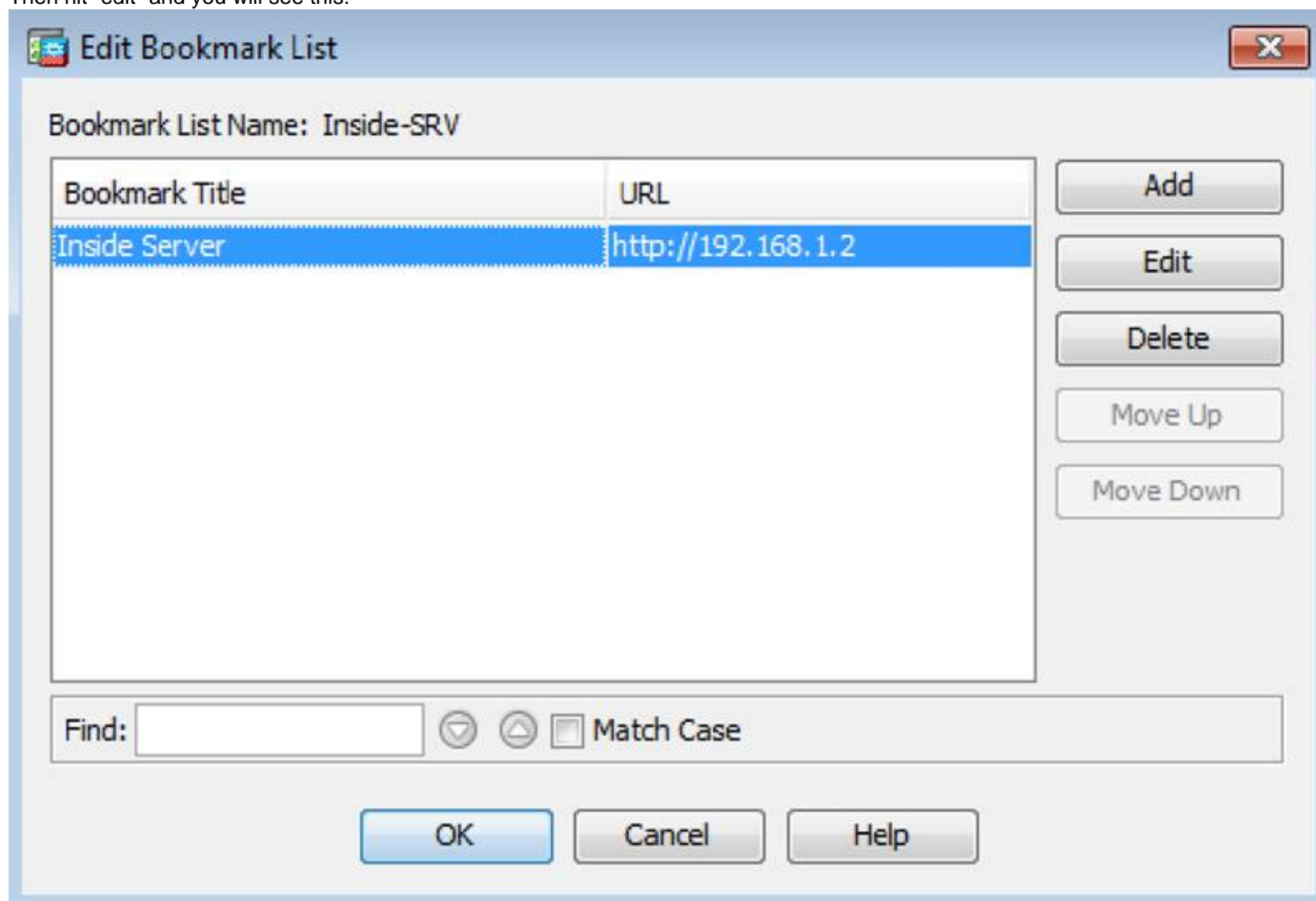
For B:



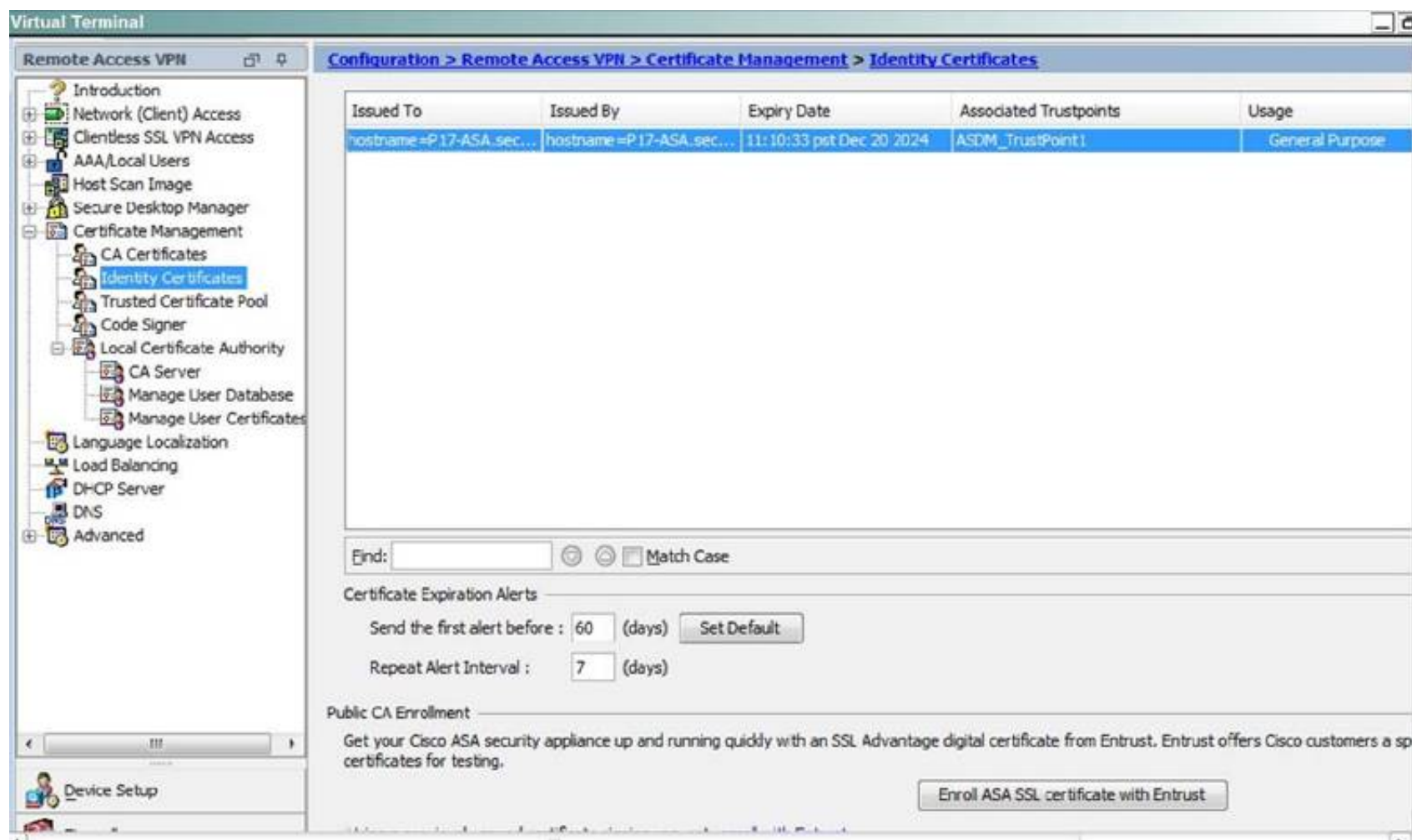
For C, Navigate to the Bookmarks tab:



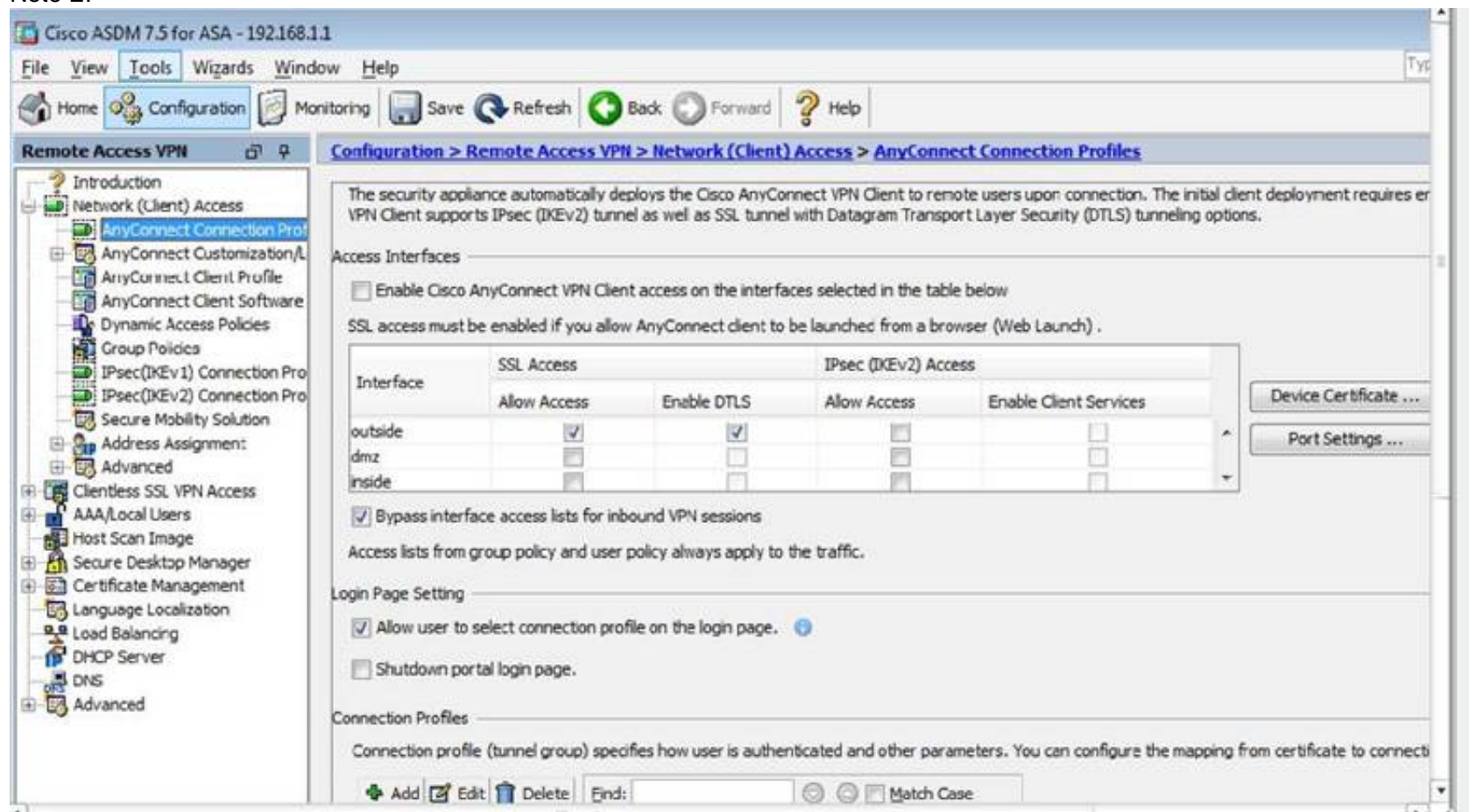
Then hit "edit" and you will see this:



Not A, as this is listed under the Identity Certificates, not the CA certificates:



Note E:



NEW QUESTION 22

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 27

Which statement correctly describes the function of a private VLAN?

- A. A private VLAN partitions the Layer 2 broadcast domain of a VLAN into subdomains
- B. A private VLAN partitions the Layer 3 broadcast domain of a VLAN into subdomains
- C. A private VLAN enables the creation of multiple VLANs using one broadcast domain

D. A private VLAN combines the Layer 2 broadcast domains of many VLANs into one major broadcast domain

Answer: A

Explanation: Private VLAN divides a VLAN (Primary) into sub-VLANs (Secondary) while keeping existing IP subnet and layer 3 configuration. A regular VLAN is a single broadcast domain, while private VLAN partitions one broadcast domain into multiple smaller broadcast subdomains.

Source: https://en.wikipedia.org/wiki/Private_VLAN

NEW QUESTION 29

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 32

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 33

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 35

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 37

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 40

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

NEW QUESTION 45

Which three ESP fields can be encrypted during transmission? (Choose three.)

- A. Security Parameter Index
- B. Sequence Number
- C. MAC Address
- D. Padding
- E. Pad Length
- F. Next Header

Answer: DEF

Explanation: The packet begins with two 4-byte fields (Security Parameters Index (SPI) and Sequence Number). Following these fields is the Payload Data, which has substructure that depends on the choice of encryption algorithm and mode, and on the use of TFC padding, which is examined in more detail later. Following the Payload Data are Padding and Pad Length fields, and the Next Header field. The optional Integrity Check Value (ICV) field completes the packet.
Source: <https://tools.ietf.org/html/rfc4303#page-14>

NEW QUESTION 48

Which actions can a promiscuous IPS take to mitigate an attack? (Choose three.)

- A. Modifying packets
- B. Requesting connection blocking
- C. Denying packets
- D. Resetting the TCP connection
- E. Requesting host blocking
- F. Denying frames

Answer: BDE

Explanation: Promiscuous Mode Event Actions

+ Request block host: This event action will send an ARC request to block the host for a specified time frame, preventing any further communication. This is a severe action that is most appropriate when there is minimal chance of a false alarm or spoofing.

+ Request block connection: This action will send an ARC response to block the specific connection. This action is appropriate when there is potential for false alarms or spoofing. + Reset TCP connection: This action is TCP specific, and in instances where the attack requires several TCP packets, this can be a successful action.

Source:

<http://www.cisco.com/c/en/us/about/security-center/ips-mitigation.html#7>

NEW QUESTION 52

If the native VLAN on a trunk is different on each end of the link, what is a potential consequence?

- A. The interface on both switches may shut down
- B. STP loops may occur
- C. The switch with the higher native VLAN may shut down
- D. The interface with the lower native VLAN may shut down

Answer: B

Explanation: Smart Tunnel is an advanced feature of Clientless SSL VPN that provides seamless and highly secure remote access for native client-server applications.

Clientless SSL VPN with Smart Tunnel is the preferred solution for allowing access from non-corporate assets as it does not require the administrative rights. Port forwarding is the legacy technology for supporting TCP based applications over a Clientless SSL VPN connection. Unlike port forwarding, Smart Tunnel simplifies the user experience by not requiring the user connection of the local application to the local port.

Source:

<http://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise/design-zone-security/tunnel.pdf>

NEW QUESTION 56

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

NEW QUESTION 60

Which type of IPS can identify worms that are propagating in a network?

- A. Policy-based IPS
- B. Anomaly-based IPS
- C. Reputation-based IPS
- D. Signature-based IPS

Answer: B

Explanation: An example of anomaly-based IPS/IDS is creating a baseline of how many TCP sender requests are generated on average each minute that do not get a response. This is an example of a half-opened session. If a system creates a baseline of this (and for this discussion, let's pretend the baseline is an average of 30 half-opened sessions per minute), and then notices the half-opened sessions have increased to more than 100 per minute, and then acts based on that and generates an alert or begins to deny packets, this is an example of anomaly-based IPS/IDS. The Cisco IPS/IDS appliances have this ability (called anomaly detection), and it is used to identify worms that may be propagating through the network.

Source: Cisco Official Certification Guide, Anomaly-Based IPS/IDS, p.464

NEW QUESTION 65

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 69

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 vty's 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#settinguppaniosrouterasssh>

NEW QUESTION 72

Which command verifies phase 1 of an IPsec VPN on a Cisco router?

- A. show crypto map
- B. show crypto ipsec sa
- C. show crypto isakmp sa
- D. show crypto engine connection active

Answer: C

Explanation: A show crypto isakmp sa command shows the ISAKMP SA to be in MM_NO_STATE. This also means that main mode has failed.

Dstsrc state conn-id slot

10.1.1.2 10.1.1.1 MM_NO_STATE 1 0

Verify that the phase 1 policy is on both peers, and ensure that all the attributes match.

Source:

http://www.cisco.com/c/en/us/support/docs/security-vpn/ipsec-negotiation-ike-protocols/5409-ipsec-debug-00.html#isakmp_sa

NEW QUESTION 73

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 78

What type of attack was the Stuxnet virus?

- A. cyber warfare
- B. hacktivism
- C. botnet
- D. social engineering

Answer: A

Explanation: Stuxnet is a computer worm that targets industrial control systems that are used to monitor and control large scale industrial facilities like power plants, dams, waste processing systems and similar operations. It allows the attackers to take control of these systems without the operators knowing. This is the first attack we've seen that allows hackers to manipulate real-world equipment, which makes it very dangerous.

Source: <https://us.norton.com/stuxnet>

NEW QUESTION 83

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 87

Which Cisco feature can help mitigate spoofing attacks by verifying symmetry of the traffic path?

- A. Unidirectional Link Detection
- B. Unicast Reverse Path Forwarding
- C. TrustSec
- D. IP Source Guard

Answer: B

Explanation: Unicast Reverse Path Forwarding (uRPF) can mitigate spoofed IP packets. When this feature is enabled on an interface, as packets enter that interface the router spends an extra moment considering the source address of the packet. It then considers its own routing table, and if the routing table does not agree that the interface that just received this packet is also the best egress interface to use for forwarding to the source address of the packet, it then denies the packet.

This is a good way to limit IP spoofing.

Source: Cisco Official Certification Guide, Table 10-4 Protecting the Data Plane, p.270

NEW QUESTION 88

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 89

Which type of address translation should be used when a Cisco ASA is in transparent mode?

- A. Static NAT
- B. Dynamic NAT
- C. Overload
- D. Dynamic PAT

Answer: A

Explanation: + Because the transparent firewall does not have any interface IP addresses, you cannot use interface PAT.

Source:
http://www.cisco.com/c/en/us/td/docs/security/asa/asa80/configuration/guide/conf_gd/cfgnat.html#wp1102744%0A

NEW QUESTION 93

An attacker installs a rogue switch that sends superior BPDUs on your network. What is a possible result of this activity?

- A. The switch could offer fake DHCP addresses.
- B. The switch could become the root bridge.
- C. The switch could be allowed to join the VTP domain.
- D. The switch could become a transparent bridge.

Answer: B

Explanation: Control plane: This includes protocols and traffic that the network devices use on their own without direct interaction from an administrator. An example is a routing protocol.

Source: Cisco Official Certification Guide, The Network Foundation Protection Framework, p.264

NEW QUESTION 94

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

NEW QUESTION 98

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 99

If a router configuration includes the line `aaa authentication login default group tacacs+ enable`, which events will occur when the TACACS+ server returns an error? (Choose two.)

- A. The user will be prompted to authenticate using the enable password
- B. Authentication attempts to the router will be denied
- C. Authentication will use the router's local database
- D. Authentication attempts will be sent to the TACACS+ server

Answer: AB

NEW QUESTION 100

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

NEW QUESTION 103

Which statement about application blocking is true?

- A. It blocks access to specific programs.
- B. It blocks access to files with specific extensions.
- C. It blocks access to specific network addresses.
- D. It blocks access to specific network services.

Answer: A

Explanation: How do you block unknown applications on Cisco Web Security Appliance If Application Visibility Controls (AVC) are enabled (Under GUI > Security Services > Web Reputation and Anti- Malware), then we can block access based on application types like Proxies, File Sharing, Internet utilities.

We can do this under Web Security Manager > Access Policies > 'Applications' column <for the required access policy>.

Source:

<http://www.cisco.com/c/en/us/support/docs/security/web-security-appliance/118486-technote-wsa-00.html>

NEW QUESTION 105

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

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 109

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 113

Which statement about Cisco ACS authentication and authorization is true?

- A. ACS servers can be clustered to provide scalability.
- B. ACS can query multiple Active Directory domains.
- C. ACS uses TACACS to proxy other authentication servers.
- D. ACS can use only one authorization profile to allow or deny requests.

Answer: A

Explanation: ACS can join one AD domain. If your Active Directory structure has multi-domain forest or is divided into multiple forests, ensure that trust relationships exist between the domain to which ACS is connected and the other domains that have user and machine information to which you need access. So B is not correct.

Source:

[http://www.cisco.com/c/en/us/td/docs/net_mgmt/cisco_secure_access_control_system/5-8/ACS-](http://www.cisco.com/c/en/us/td/docs/net_mgmt/cisco_secure_access_control_system/5-8/ACS-ADIntegration/guide/Active_Directory_Integration_in_ACS_5-8.pdf)

[ADIntegration/guide/Active_Directory_Integration_in_ACS_5-8.pdf](http://www.cisco.com/c/en/us/td/docs/net_mgmt/cisco_secure_access_control_system/5-8/ACS-ADIntegration/guide/Active_Directory_Integration_in_ACS_5-8.pdf) + You can define multiple authorization profiles as a network access policy result. In this way, you maintain a smaller number of authorization profiles, because you can use the authorization profiles in combination as rule results, rather than maintaining all the combinations themselves in individual profiles. So D. is not correct + ACS 5.1 can function both as a RADIUS and RADIUS proxy server. When it acts as a proxy server, ACS receives authentication and accounting requests from the NAS and forwards the requests to the external RADIUS server. So C. is nor correct.

Source:

http://www.cisco.com/c/en/us/td/docs/net_mgmt/cisco_secure_access_control_system/5-1/user/guide/acsuserguide/policy_mod.html

NEW QUESTION 115

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

NEW QUESTION 117

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

NEW QUESTION 122

Which protocol provides security to Secure Copy?

- A. IPsec
- B. SSH
- C. HTTPS
- D. ESP

Answer: B

Explanation: The SCP is a network protocol, based on the BSD RCP protocol,[3] which supports file transfers between hosts on a network. SCP uses Secure Shell (SSH) for data transfer and uses the same mechanisms for authentication, thereby ensuring the authenticity and confidentiality of the data in transit.

Source: https://en.wikipedia.org/wiki/Secure_copy

NEW QUESTION 125

Which command will configure a Cisco ASA firewall to authenticate users when they enter the enable syntax using the local database with no fallback method?

- A. aaa authentication enable console LOCAL SERVER_GROUP
- B. aaa authentication enable console SERVER_GROUP LOCAL
- C. aaa authentication enable console local
- D. aaa authentication enable console LOCAL

Answer: D

Explanation: The local database must be referenced in all capital letters when AAA is in use. If lower case letters are used, the ASA will look for an AAA server group called "local".

NEW QUESTION 127

By which kind of threat is the victim tricked into entering username and password information at a disguised website?

- A. Spoofing
- B. Malware
- C. Spam
- D. Phishing

Answer: D

Explanation: Phishing presents a link that looks like a valid trusted resource to a user. When the user clicks it, the user is prompted to disclose confidential information such as usernames/passwords.

Source: Cisco Official Certification Guide, Table 1-5 Attack Methods, p.13

NEW QUESTION 132

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

NEW QUESTION 135

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

NEW QUESTION 140

Which accounting notices are used to send a failed authentication attempt record to a AAA server? (Choose two.)

- A. start-stop
- B. stop-record
- C. stop-only
- D. stop

Answer: AC

Explanation: aaa accounting { auth-proxy | system | network | exec | connection | commands level | dot1x } { default | list- name | guarantee-first } [vrf vrf-name] { start-stop | stop-only | none } [broadcast] { radius | group

group-name } + stop-only: Sends a stop accounting record for all cases including authentication failures

regardless of whether the aaa accounting send stop-record authentication failure command is configured. + stop-record: Generates stop records for a specified event.

For minimal accounting, include the stop-only keyword to send a "stop" accounting record for all cases including authentication failures. For more accounting, you can include the start-stop keyword, so that RADIUS or TACACS+ sends a "start" accounting notice at the beginning of the requested process and a "stop" accounting notice at the end of the process.

Source:

<http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/security/a1/sec-a1-cr-book/sec-cr-a1.html>

NEW QUESTION 143

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
+ ECC Digital Signature Algorithm
+ SHA-256, SHA-384, and SHA-512
Source: Cisco Official Certification Guide, Next-Generation Encryption Protocols, p.97

NEW QUESTION 147

Which options are filtering options used to display SDEE message types? (Choose two.)

- A. stop
- B. none
- C. error
- D. all

Answer: CD

Explanation: SDEE Messages

- + All -- SDEE error, status, and alert messages are shown.
- + Error -- Only SDEE error messages are shown.
- + Status -- Only SDEE status messages are shown.
- + Alerts -- Only SDEE alert messages are shown.

Source:

http://www.cisco.com/c/en/us/td/docs/routers/access/cisco_router_and_security_device_manager/24/software/user/guide/IPS.html#wp1083698

NEW QUESTION 151

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 153

Which wildcard mask is associated with a subnet mask of /27?

- A. 0.0.0.31
- B. 0.0.0.27
- C. 0.0.0.224
- D. 0.0.0.255

Answer: A

Explanation: Slash Netmask Wildcard Mask

/27 255.255.255.224 0.0.0.31

Further reading

Source: https://en.wikipedia.org/wiki/Wildcard_mask

NEW QUESTION 156

Which alert protocol is used with Cisco IPS Manager Express to support up to 10 sensors?

- A. SDEE
- B. Syslog
- C. SNMP
- D. CSM

Answer: A

Explanation: IPS produces various types of events including intrusion alerts and status events. IPS communicates events to clients such as management applications using the proprietary RDEP2. We have also developed an IPS- industry leading protocol, SDEE, which is a product-independent standard for communicating security device events. SDEE is an enhancement to the current version of RDEP2 that adds extensibility features that are needed for communicating events generated by various types of security devices.

Source:

http://www.cisco.com/c/en/us/td/docs/security/ips/6-1/configuration/guide/ime/imeguide/ime_system_architecture.html

NEW QUESTION 157

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

NEW QUESTION 162

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

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

Answer: ABC

NEW QUESTION 163

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

NEW QUESTION 167

Which of the following are features of IPsec transport mode? (Choose three.)

- A. IPsec transport mode is used between end stations
- B. IPsec transport mode is used between gateways
- C. IPsec transport mode supports multicast
- D. IPsec transport mode supports unicast
- E. IPsec transport mode encrypts only the payload
- F. IPsec transport mode encrypts the entire packet

Answer: ADE

Explanation: + IPSec Transport mode is used for end-to-end communications, for example, for communication between a client and a server or between a workstation and a gateway (if the gateway is being treated as a host). A good example would be an encrypted Telnet or Remote Desktop session from a workstation to a server. + IPsec supports two encryption modes: Transport mode and Tunnel mode. Transport mode encrypts only the data portion (payload) of each packet and leaves the packet header untouched. Transport mode is applicable to either gateway or host implementations, and provides protection for upper layer protocols as well as selected IP header fields.

Source:

<http://www.firewall.cx/networking-topics/protocols/870-ipsec-modes.html>

http://www.cisco.com/c/en/us/td/docs/net_mgmt/vpn_solutions_center/2-0/ip_security/provisioning/guide/IPsecPG1.html

Generic Routing Encapsulation (GRE) is often deployed with IPsec for several reasons, including the following:

- + IPsec Direct Encapsulation supports unicast IP only. If network layer protocols other than IP are to be supported, an IP encapsulation method must be chosen so that those protocols can be transported in IP packets.
- + IPmc is not supported with IPsec Direct Encapsulation. IPsec was created to be a security protocol between two and only two devices, so a service such as multicast is problematic. An IPsec peer encrypts a packet so that only one other IPsec peer can successfully perform the de-encryption. IPmc is not compatible with this mode of operation.

Source: https://www.cisco.com/application/pdf/en/us/guest/netsol/ns171/c649/ccmigration_09186a008074f26a.pdf

NEW QUESTION 168

Which statements about smart tunnels on a Cisco firewall are true? (Choose two.)

- A. Smart tunnels can be used by clients that do not have administrator privileges
- B. Smart tunnels support all operating systems
- C. Smart tunnels offer better performance than port forwarding
- D. Smart tunnels require the client to have the application installed locally

Answer: AC

NEW QUESTION 169

What is the FirePOWER impact flag used for?

- A. A value that indicates the potential severity of an attack.
- B. A value that the administrator assigns to each signature.
- C. A value that sets the priority of a signature.
- D. A value that measures the application awareness.

Answer: A

Explanation: Impact Flag: Choose the impact level assigned to the intrusion event .

Because no operating system information is available for hosts added to the network map from NetFlow data, the system cannot assign Vulnerable (impact level 1: red) impact levels for intrusion events involving those hosts. In such cases, use the host input feature to manually set the operating system identity for the hosts.

Source:

http://www.cisco.com/c/en/us/td/docs/security/firepower/60/configuration/guide/fpmc-config-guide-v60/Correlation_Policies.html

Impact

The impact level in this field indicates the correlation between intrusion data, network discovery data, and vulnerability information.

Impact Flag See Impact. Source:

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

NEW QUESTION 171

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

Explanation: This is the output of the #show crypto isakmp sa command. This command shows the Internet Security Association Management Protocol (ISAKMP) security associations (SAs) built between peers - IPsec Phase1.

The "established" clue comes from the state parameter QM_IDLE - this is what we want to see.

More on this

<http://www.cisco.com/c/en/us/support/docs/security-vpn/ipsec-negotiation-ike-protocols/5409-ipsec-debug-00.html>

NEW QUESTION 176

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 177

Which option describes information that must be considered when you apply an access list to a physical interface?

- A. Protocol used for filtering

- B. Direction of the access class
- C. Direction of the access group
- D. Direction of the access list

Answer: C

Explanation: Applying an Access List to an Interface

#interface type number

#ip

access-group {access-list-number | access-list-name} { in | out} Source: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_data_acl/configuration/xr-3s/sec-data-acl-xr-3s-book/sec-create-ip-apply.html

NEW QUESTION 178

What is the default timeout interval during which a router waits for responses from a TACACS server before declaring a timeout failure?

- A. 5 seconds
- B. 10 seconds
- C. 15 seconds
- D. 20 seconds

Answer: A

Explanation: To set the interval for which the server waits for a server host to reply, use the tacacs-server timeout command in global configuration mode. To restore the default, use the no form of this command.

If the command is not configured, the timeout interval is 5. Source: http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/command

NEW QUESTION 183

Which three statements about host-based IPS are true? (Choose three.)

- A. It can view encrypted files.
- B. It can have more restrictive policies than network-based IPS.
- C. It can generate alerts based on behavior at the desktop level.
- D. It can be deployed at the perimeter.
- E. It uses signature-based policies.
- F. It works with deployed firewalls.

Answer: ABC

Explanation: If the network traffic stream is encrypted, HIPS has access to the traffic in unencrypted form.

HIPS can combine the best features of antivirus, behavioral analysis, signature filters, network firewalls, and application firewalls in one package.

Host-based IPS operates by detecting attacks that occur on a host on which it is installed. HIPS works by intercepting operating system and application calls, securing the operating system and application configurations, validating incoming service requests, and analyzing local log files for after-the-fact suspicious activity.

Source:

<http://www.ciscopress.com/articles/article.asp?p=1336425&seqNum=3>

NEW QUESTION 185

What command can you use to verify the binding table status?

- A. show ip dhcp snooping database
- B. show ip dhcp snooping binding
- C. show ip dhcp snooping statistics
- D. show ip dhcp pool
- E. show ip dhcp source binding
- F. show ip dhcp snooping

Answer: A

Explanation: A device's burned-in address is its MAC address. So by changing it to something else may trick hosts on the network into sending packets to it.

NEW QUESTION 186

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 190

Which feature filters CoPP packets?

- A. access control lists
- B. class maps
- C. policy maps
- D. route maps

Answer: A

NEW QUESTION 192

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 195

What are two ways to prevent eavesdropping when you perform device management test? (Choose two.)

- A. Use an SSH connection.
- B. Use SNMPv3.
- C. Use out-of-band management.
- D. Use SNMPv2.
- E. Use in-band management.

Answer: AB

Explanation: Both SSH and SNMPv3 provide security of the packets through encryption

NEW QUESTION 198

Which technology can be used to rate data fidelity and to provide an authenticated hash for data?

- A. file reputation
- B. file analysis
- C. signature updates
- D. network blocking

Answer: A

NEW QUESTION 200

What do you use when you have a network object or group and want to use an IP address?

- A. Static NAT
- B. Dynamic NAT
- C. identity NAT
- D. Static PAT

Answer: B

Explanation: Adding Network Objects for Mapped Addresses

For dynamic NAT, you must use an object or group for the mapped addresses. Other NAT types have the option of using inline addresses, or you can create an

object or group according to this section.

* Dynamic NAT:

+ You cannot use an inline address; you must configure a network object or group. + The object or group cannot contain a subnet; the object must define a range; the group can include hosts and ranges.

+ If a mapped network object contains both ranges and host IP addresses, then the ranges are used for dynamic NAT, and then the host IP addresses are used as a PAT fallback.

* Dynamic PAT (Hide):

+ Instead of using an object, you can optionally configure an inline host address or specify the interface address.

+ If you use an object, the object or group cannot contain a subnet; the object must define a host, or for a PAT pool, a range; the group (for a PAT pool) can include hosts and ranges.

* Static NAT or Static NAT with port translation:

+ Instead of using an object, you can configure an inline address or specify the interface address (for static NAT-with-port-translation).

+ If you use an object, the object or group can contain a host, range, or subnet.

* Identity NAT

+ Instead of using an object, you can configure an inline address. + If you use an object, the object must match the real addresses you want to translate.

Source:

http://www.cisco.com/c/en/us/td/docs/security/asa/asa90/configuration/guide/asa_90_cli_config/nat_objects.html#61711

NEW QUESTION 204

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 205

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 206

A proxy firewall protects against which type of attack?

- A. cross-site scripting attack
- B. worm traffic
- C. port scanning
- D. DDoS attacks

Answer: A

Explanation: Cross-site scripting (XSS) is a type of computer security vulnerability typically found in web applications. XSS enables attackers to inject client-side scripts into web pages viewed by other users. A cross-site scripting vulnerability may be used by attackers to bypass access controls such as the same-origin policy. Cross-site scripting carried out on websites accounted for roughly 84% of all security vulnerabilities documented by Symantec as of 2007.

Source: https://en.wikipedia.org/wiki/Cross-site_scripting

A proxy firewall is a network security system that protects network resources by filtering messages at the application layer. A proxy firewall may also be called an application firewall or gateway firewall. Proxy firewalls are considered to be the most secure type of firewall because they prevent direct network contact with other systems.

Source:

<http://searchsecurity.techtarget.com/definition/proxy-firewall>

NEW QUESTION 211

Which command initializes a lawful intercept view?

- A. username cisco1 view lawful-intercept password cisco
- B. parser view cisco li-view
- C. Cli-view cisco user cisco1 password cisco
- D. parser view li-view inclusive

Answer: C

Explanation: Like a CLI view, a lawful intercept view restricts access to specified commands and configuration information.

Specifically, a lawful intercept view allows a user to secure access to lawful intercept commands that are held within the TAP-MIB, which is a special set of simple network management protocol (SNMP) commands that store information about calls and users.

#li-view li-password user username password password

Source:

http://www.cisco.com/en/US/docs/ios/12_3t/12_3t7/feature/guide/gtclivws.html

Before you initialize a lawful intercept view, ensure that the privilege level is set to 15 via the privilege command.

SUMMARY STEPS

1. enable view
2. configure terminal
3. li-view li-password user username password password
4. username lawful-intercept [name] [privilege privilege-level] view view-name] password password
5. parser view view-name
6. secret 5 encrypted-password
7. name new-name

NEW QUESTION 216

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

NEW QUESTION 217

You have been tasked with blocking user access to websites that violate company policy, but the sites use dynamic IP addresses. What is the best practice for URL filtering to solve the problem?

- A. Enable URL filtering and use URL categorization to block the websites that violate company policy.
- B. Enable URL filtering and create a blacklist to block the websites that violate company policy.
- C. Enable URL filtering and create a whitelist to block the websites that violate company policy.
- D. Enable URL filtering and use URL categorization to allow only the websites that company policy allows users to access.
- E. Enable URL filtering and create a whitelist to allow only the websites that company policy allows users to access.

Answer: A

Explanation: Each website defined in the URL filtering database is assigned one of approximately 60 different URL categories. There are two ways to make use of URL categorization on the firewall:

Block or allow traffic based on URL category --You can create a URL Filtering profile that specifies an action for each URL category and attach the profile to a policy. Traffic that matches the policy would then be subject to the URL filtering settings in the profile. For example, to block all gaming websites you would set the block action for the URL category games in the URL profile and attach it to the security policy rule(s) that allow web access.

See Configure URL Filtering for more information.

Match traffic based on URL category for policy enforcement --If you want a specific policy rule to apply only

to web traffic to sites in a specific category, you would add the category as match criteria when you create the policy rule. For example, you could use the URL category streaming-media in a QoS policy to apply bandwidth controls to all websites that are categorized as streaming media. See URL Category as Policy Match Criteria for more information.

By grouping websites into categories, it makes it easy to define actions based on certain types of websites. Source:

<https://www.paloaltonetworks.com/documentation/70/pan-os/pan-os/url-filtering/url-categories>

NEW QUESTION 218

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 219

Which firewall configuration must you perform to allow traffic to flow in both directions between two zones?

- A. You must configure two zone pairs, one for each direction.
- B. You can configure a single zone pair that allows bidirectional traffic flows for any zone.
- C. You can configure a single zone pair that allows bidirectional traffic flows for any zone except the self zone.

D. You can configure a single zone pair that allows bidirectional traffic flows only if the source zone is the less secure zone.

Answer: A

Explanation: If you want to allow traffic between two zones, such as between the inside zone (using interfaces facing the inside network) and the outside zone (interfaces facing the Internet or less trusted networks), you must create a policy for traffic between the two zones, and that is where a zone pair comes into play. A zone pair, which is just a configuration on the router, is created identifying traffic sourced from a device in one zone and destined for a device in the second zone. The administrator then associates a set of rules (the policy) for this unidirectional zone pair, such as to inspect the traffic, and then applies that policy to the zone pair.

Source: Cisco Official Certification Guide, Zones and Why We Need Pairs of Them, p.380

NEW QUESTION 223

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 227

What security feature allows a private IP address to access the Internet by translating it to a public address?

- A. NAT
- B. hairpinning
- C. Trusted Network Detection
- D. Certification Authority

Answer: A

Explanation: Now the router itself does not have a problem with IP connectivity to the Internet because the router has a globally reachable IP address (34.0.0.3) in this example. The users are not so fortunate, however, because they are using private IP address space, and that kind of address is not allowed directly on the Internet by the service providers. So, if the users want to access a server on the Internet, they forward their packets to the default gateway, which in this case is R1, and if configured to do so, R1 modifies the IP headers in those packets and swaps out the original source IP addresses with either its own global address or a global address from a pool of global addresses (which R1 is responsible for managing, meaning that if a packet was destined to one of those addresses, the routing to those addresses on the Internet would forward the packets back to R1). These are global addresses assigned by the service provider for R1's use.

Source: Cisco Official Certification Guide, NAT Is About Hiding or Changing the Truth About Source Addresses,

NEW QUESTION 231

Which three statements are characteristics of DHCP Spoofing? (choose three)

- A. Arp Poisoning
- B. Modify Traffic in transit
- C. Used to perform man-in-the-middle attack
- D. Physically modify the network gateway
- E. Protect the identity of the attacker by masking the DHCP address
- F. can access most network devices

Answer: ABC

NEW QUESTION 232

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 236

Which statement about extended access lists is true?

- A. Extended access lists perform filtering that is based on source and destination and are most effective when applied to the destination
- B. Extended access lists perform filtering that is based on source and destination and are most effective when applied to the source
- C. Extended access lists perform filtering that is based on destination and are most effective when applied to the source
- D. Extended access lists perform filtering that is based on source and are most effective when applied to the destination

Answer: B

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/TCPPort/UDPPort.
- 3) Best Practice is put restriction near form Destination Host/Subnet. (Interface-Outbound)

NEW QUESTION 237

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

NEW QUESTION 240

In which two situations should you use in band management? (Choose two.)

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

Answer: AB

NEW QUESTION 242

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 246

What is the best way to confirm that AAA authentication is working properly?

- A. Use the test aaa command.
- B. Ping the NAS to confirm connectivity.
- C. Use the Cisco-recommended configuration for AAA authentication.
- D. Log into and out of the router, and then check the NAS authentication log.

Answer: A

Explanation: #test aaa group tacacs+ admin cisco123 legacy - A llow verification of the authentication function working between the AAA client (the router) and the ACS server (the AAA server).

Source: Cisco Official Certification Guide, Table 3-6 Command Reference, p.68

NEW QUESTION 247

Refer to the exhibit.

```
crypto ipsec transform-set myset esp-md5-hmac esp-aes-256
```

What is the effect of the given command?

- A. It merges authentication and encryption methods to protect traffic that matches an ACL.
- B. It configures the network to use a different transform set between peers.
- C. It configures encryption for MD5 HMAC.
- D. It configures authentication as AES 256.

Answer: A

Explanation: A transform set is an acceptable combination of security protocols, algorithms and other settings to apply to IP Security protected traffic. During the IPSec security association negotiation, the peers agree to use a particular transform set when protecting a particular data flow.

Source:

http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/command/Explanation:/Reference/srfipsec.html#wp1017694 To define a transform set -- an acceptable combination of security protocols and algorithms -- use the crypto ipsec transform-set global configuration command.

ESP Encryption Transform

+ esp-aes 256: ESP with the 256-bit AES encryption algorithm. ESP Authentication Transform

+ esp-md5-hmac: ESP with the MD5 (HMAC variant) authentication algorithm. (No longer recommended) Source: <http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/security/a1/sec-a1-cr-book/sec-cr-c3.html#wp2590984165>

NEW QUESTION 252

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

NEW QUESTION 254

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 257

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/

[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 260

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 261

Which countermeasures can mitigate ARP spoofing attacks? (Choose two.)

- A. Port security
- B. DHCP snooping
- C. IP source guard
- D. Dynamic ARP inspection

Answer: BD

Explanation: + ARP spoofing attacks and ARP cache poisoning can occur because ARP allows a gratuitous reply from a host even if an ARP request was not received.

+ DAI is a security feature that validates ARP packets in a network. DAI intercepts, logs, and discards ARP packets with invalid IP-to-MAC address bindings. This capability protects the network from some man-in-the-middle attacks.

+ DAI determines the validity of an ARP packet based on valid IP-to-MAC address bindings stored in a trusted database, the DHCP snooping binding database.

Source: Cisco Official Certification Guide, Dynamic ARP Inspection, p.254

NEW QUESTION 262

Which three statements about Cisco host-based IPS solutions are true? (Choose three.)

- A. It can view encrypted files.
- B. It can have more restrictive policies than network-based IPS.
- C. It can generate alerts based on behavior at the desktop level.
- D. It can be deployed at the perimeter.
- E. It uses signature-based policies.
- F. It works with deployed firewalls.

Answer: ABC

NEW QUESTION 265

Your security team has discovered a malicious program that has been harvesting the CEO's email messages and the company's user database for the last 6 months. What type of attack did your team discover?

- A. advanced persistent threat
- B. targeted malware
- C. drive-by spyware
- D. social activism

Answer: AB

Explanation: An Advanced Persistent Threat (APT) is a prolonged, aimed attack on a specific target with the intention to compromise their system and gain information from or about that target.

The target can be a person, an organization or a business. Source:

<https://blog.malwarebytes.com/cybercrime/malware/2016/07/explained-advanced-persistent-threat-apt/> One new malware threat has emerged as a definite concern, namely, targeted malware. Instead of blanketing the Internet with a worm, targeted attacks concentrate on a single high-value target.

Source:

http://crissp.poly.edu/wissp08/panel_malware.htm

NEW QUESTION 266

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 269

Refer to the exhibit.

```
209.114.111.1 configured, ipv4, sane, valid, stratum 2
ref ID 132.163.4.103 , time D7AD124D.9D6FC576 (03:17:33.614 UTC Sun Aug 31 2014)
our mode client, peer mode server, our poll intvl 64, peer poll intvl 64
root delay 46.34 msec, root disp 23.52, reach 1, sync dist 268.59
delay 63.27 msec, offset 7.9817 msec, dispersion 187.56, jitter 2.07 msec
precision 2**23, version 4

204.2.134.164 configured, ipv4, sane, valid, stratum 2
ref ID 241.199.164.101, time D7AD1419.9EBS272B (03:25:13.619 UTC Sun Aug 31 2014)
our mode client, peer mode server, our poll intvl 64, peer poll intvl 256
root delay 30.83 msec, root disp 4.88, reach 1, sync dist 223.80
delay 28.69 msec, offset 6.4331 msec, dispersion 187.55, jitter 1.39 msec
precision 2**20, version 4

192.168.10.7 configured, ipv4, our_master, sane, valid, stratum 3
ref ID 108.61.73.243 , time D7AD0D8F.AE79A23A (02:57:19.681 UTC Sun Aug 31 2014)
our mode client, peer mode server, our poll intvl 64, peer poll intvl 64
root delay 86.45 msec, root disp 87.82, reach 377, sync dist 134.25
delay 0.89 msec, offset 19.5087 msec, dispersion 1.69, jitter 0.84 msec
precision 2**32, version 4
```

With which NTP server has the router synchronized?

- A. 192.168.10.7
- B. 108.61.73.243
- C. 209.114.111.1
- D. 132.163.4.103
- E. 204.2.134.164
- F. 241.199.164.101

Answer: A

Explanation: The output presented is generated by the show ntp association detail command. Attributes:
+ configured: This NTP clock source has been configured to be a server. This value can also be dynamic, where the peer/server was dynamically discovered.
+ our_master: The local client is synchronized to this peer
+ valid: The peer/server time is valid. The local client accepts this time if this peer becomes the master.
Source:
<http://www.cisco.com/c/en/us/support/docs/ip/network-time-protocol-ntp/116161-trouble-ntp-00.html>

NEW QUESTION 273

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 274

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 275

Which feature of the Cisco Email Security Appliance can mitigate the impact of snowshoe spam and sophisticated phishing attacks?

- A. contextual analysis
- B. holistic understanding of threats
- C. graymail management and filtering
- D. signature-based IPS

Answer: A

Explanation: Snowshoe spamming is a strategy in which spam is propagated over several domains and IP addresses to weaken reputation metrics and avoid filters. The increasing number of IP addresses makes recognizing and capturing spam difficult, which means that a certain amount of spam reaches their destination email inboxes.

Specialized spam trapping organizations are often hard pressed to identify and trap snowshoe spamming via conventional spam filters.

The strategy of snowshoe spamming is similar to actual snowshoes that distribute the weight of an individual over a wide area to avoid sinking into the snow.

Likewise, snowshoe spamming delivers its weight over a wide area to remain clear of filters.

Source: <https://www.techopedia.com/definition/1713/snowshoe-spamming> Snowshoe spam, as mentioned above, is a growing concern as spammers distribute spam attack origination across a broad range of IP addresses in order to evade IP reputation checks. The newest AsyncOS 9 for ESA enables enhanced anti-spam scanning through contextual analysis and enhanced automation, as well as automatic classification, to provide a stronger defense against snowshoe campaigns and phishing attacks.

Source:
<http://blogs.cisco.com/security/cisco-email-security-stays-ahead-of-current-threats-by-adding-stronger-snowshoe-spam-defense-amp-enhancements-and-more>

NEW QUESTION 276

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 277

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 282

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 286

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

NEW QUESTION 291

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