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Cisco 210-260

Implementing Cisco Network Security

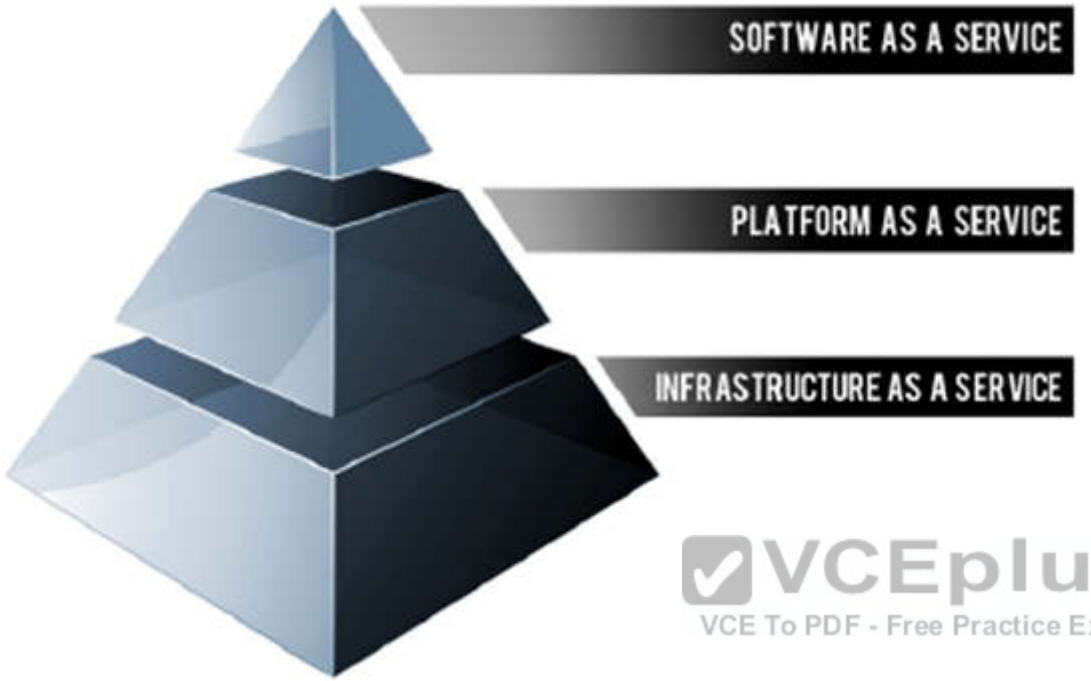
Exam A

QUESTION 1
Which two services define cloud networks? (Choose two.)

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

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The diagram below depicts the Cloud Computing stack – it shows three distinct categories within Cloud Computing: Software as a Service, Platform as a Service and Infrastructure as a Service.



A simplified way of differentiating these flavors of Cloud Computing is as follows;

- SaaS applications are designed for end-users, delivered over the web
- PaaS is the set of tools and services designed to make coding and deploying those applications quick and efficient
- IaaS is the hardware and software that powers it all – servers, storage, networks, operating systems

Reference: https://support.rackspace.com/white-paper/understanding-the-cloud-computing-stack-saas-paas-iaas/

QUESTION 2
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

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Out-of-band refers to an interface that allows only management protocol traffic to be forwarded or processed. An out-of-band management interface is defined by the network operator to specifically receive network management traffic. The advantage isthat forwarding (or customer) traffic cannot interfere with the management of the router, which significantly reduces the possibility of denial-of-service attacks.
Out-of-band interfaces forward traffic only between out-of-band interfaces or terminate management packets that are destined to the router. In addition, the out-of-band interfaces can participate in dynamic routing protocols. The service provider connects to the router's out-of-band interfaces and builds an independent overlay management network, with all the routing and policy tools that the router can provide.
Reference: http://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k_r4-0/security/configuration/guide/b_sc40asr9kbook/b_sc40asr9kbook_chapter_0101.pdf

QUESTION 3
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.

Correct Answer: ABC
Section: (none)
Explanation

Explanation/Reference:
Explanation:
TACACS+ uses Transmission Control Protocol (TCP) port 49 to communicate between the TACACS+ client and the TACACS+ server. An example is a Cisco switch authenticating and authorizing administrative access to the switch's IOS CLI. The switch is the TACACS+ client, and Cisco Secure ACS is the server.

TACACS+ communication between the client and server uses different message types depending on the function. In other words, different messages may be used for authentication than are used for authorization and accounting. Another very interesting point to know is that TACACS+ communication will encrypt the entire packet.
Reference: http://www.networkworld.com/article/2838882/radius-versus-tacacs.html

QUESTION 4
According to Cisco best practices, which three protocols should the default ACL allow on an access port to enable wired BYOD devices to supply valid credentials and connect to the network? (Choose three.)

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

Correct Answer: ABC
Section: (none)
Explanation

Explanation/Reference:
Explanation:
ACL-DEFAULT allows DHCP, DNS, ICMP, and TFTP traffic and denies everything else.
Reference: http://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Borderless_Networks/Unified_Access/BYOD_Design_Guide/BYOD_Wired.html

QUESTION 5
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

Correct Answer: AF
Section: (none)
Explanation

Explanation/Reference:
Answer: A, F
Explanation:
The following table shows the relative security level provided by the recommended and NGE algorithms. The security level is the relative strength of an algorithm. An algorithm with a security level of *x* bits is stronger than one of *y* bits if *x* > *y*. If an algorithm has a security level of *x* bits, the relative effort it would take to "beat"

the algorithm is of the same magnitude of breaking a secure *x*-bit symmetric key algorithm (without reduction or other attacks). The 128-bit security level is for sensitive information and the 192-bit level is for information of higher importance.

Algorithm	Security Level
AES-128 DH, DSA, RSA-3072 SHA-256 ECDH, ECDSA-256	128 bits
AES-192 SHA-384 ECDH, ECDSA-384	192 bits
AES-256 SHA-512 ECDH, ECDSA-521	256 bits

Reference: http://www.cisco.com/c/en/us/about/security-center/next-generation-cryptography.html

QUESTION 6
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

Correct Answer: DEF
Section: (none)

Explanation

Explanation/Reference:
Explanation:
The remaining four parts of the ESP are all encrypted during transmission across the network. Those parts are as follows:
- The *Payload Data* is the actual data that is carried by the packet.
- The *Padding*, from 0 to 255 bytes of data, allows certain types of encryption algorithms to require the data to be a multiple of a certain number of bytes. The padding also ensures that the text of a message terminates ona four-byte boundary (an architectural requirement within IP).
- The *Pad Length* field specifies how much of the payload is padding rather than data.
- The *Next Header* field, like a standard *IP Next Header* field, identifies the type of data carried and the protocol.

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

QUESTION 7
What are two default Cisco IOS privilege levels? (Choose two.)

A. 0
B. 1
C. 5
D. 7
E. 10
F. 15

Correct Answer: BF
Section: (none)
Explanation

Explanation/Reference:
Explanation:
By default, the Cisco IOS software command-line interface (CLI) has two levels of access to commands: user EXEC mode (level 1) and privileged EXEC mode (level 15). However, you can configure additional levels of access to commands, called privilege levels, to meet the needs of your users while protecting the system from unauthorized access. Up to 16 privilege levels can be configured, from level 0, which is the most restricted level, to level 15, which is the least restricted level.
Reference: http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/configuration/guide/fsecur_c/scfpass.html#wp1001016

QUESTION 8
Which two authentication types does OSPF support? (Choose two.)

A. plaintext
B. MD5
C. HMAC

D. AES 256
E. SHA-1
F. DES

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
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.

Authentication does not need to be set. However, if it is set, all peer routers on the same segment must have the same password and authentication method. The examples in this document demonstrate configurations for both plain text and MD5 authentication.
Reference: http://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/13697-25.html

QUESTION 9
Which two features do CoPP and CPPr use 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

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:

QUESTION 10
Which two statements about stateless firewalls are true? (Choose two.)

A. They compare the 5-tuple of each incoming packet against configurable rules.

B. They cannot track connections.
C. They are designed to work most efficiently with stateless protocols such as HTTP or HTTPS.
D. Cisco IOS cannot implement them because the platform is stateful by nature.
E. The Cisco ASA is implicitly stateless because it blocks all traffic by default.

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:
However, since iptables and Netfilter were introduced and connection tracking in particular, this option was gotten rid of. The reason for this is that connection tracking can not work properly without defragmenting packets, and hence defragmenting has been incorporated into conntrack and is carried out automatically. It can not be turned off, except by turning off connection tracking. Defragmentation is always carried out if connection tracking is turned on.
Reference: http://www.iptables.info/en/connection-state.html

QUESTION 11
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.

Correct Answer: ABC
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Cisco Host based IPS can generate alerts based on behavior at desktop level. They can also be more restrictive in policies than network based IPS. And you can view encrypted files using Host-based IPS solution.
Reference: http://www.ciscopress.com/articles/article.asp?p=1336425&seqNum=3

QUESTION 12
What three actions are limitations when running IPS in promiscuous mode? (Choose three.)

A. deny attacker
B. deny packet
C. modify packet
D. request block connection
E. request block host
F. reset TCP connection

Correct Answer: ABC
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The following actions require the device to be deployed in Inline mode and are in affect for a user- configurable default time of 3600 seconds (60 minutes).
Deny attacker inline: This action is the most severe and effectively blocks all communication from the attacking host that passes through the IPS for a specified period of time. Because this event action is severe, administrators are advised to use this only when the probability of false alarms or spoofing is minimal.
Deny attacker service pair inline: This action prevents communication between the attacker IP address and the protected network on the port in which the event was detected. However, the attacker would be able to communicate on another port that has hosts on the protected network. This event action works well for worms that attack many hosts on the same service port. If an attack occurred on the same host but on another port, this communication would be allowed. This event action is appropriate when the likelihood of a false alarm or spoofing is minimal.
Deny attacker victim pair inline: This action prevents the attacker from communicating with the victim on any port. However, the attacker could communicate with other hosts, making this action better suited for exploits that target a specific host. This event action is appropriate when the likelihood of a false alarm or spoofing is minimal.
Deny connection inline: This action prevents further communication for the specific TCP flow. This action is appropriate when there is the potential for a false alarm or spoofing and when an administrator wants to prevent the action but not deny further communication.
Deny packet inline: This action prevents the specific offending packet from reaching its intended destination. Other communication between the attacker and victim or victim network may still exist. This action is appropriate when there is the potential for a false alarm or spoofing. Note that for this action, the default time has no effect.
Modify packet inline: This action enables the IPS device to modify the offending part of the packet. However, it forwards the modified packet to the destination. This action is appropriate for packet normalization and other anomalies, such as TCP segmentation and IP fragmentation re-ordering.
Reference: http://www.cisco.com/c/en/us/about/security-center/ips-mitigation.html

QUESTION 13
When an IPS detects an attack, which action can the IPS take to prevent the attack from spreading?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
This action prevents the attacker from communicating with the victim on any port. However, the attacker could communicate with other hosts, making this action better suited for exploits that target a specific host. This event action is appropriate when the likelihood of a false alarm or spoofing is minimal.
Reference: http://www.cisco.com/c/en/us/about/security-center/ips-mitigation.html

QUESTION 14
What is an advantage of implementing a Trusted Platform Module for disk encryption?

A. It provides hardware authentication.
B. It allows the hard disk to be transferred to another device without requiring re-encryption.dis
C. It supports a more complex encryption algorithm than other disk-encryption technologies.
D. It can protect against single points of failure.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
A Trusted Platform Module (TPM) is a specialized chip on an endpoint device that stores RSA encryption keys specific to the host system for hardware authentication.

Each TPM chip contains an RSA key pair called the Endorsement Key (EK). The pair is maintained inside the chip and cannot be accessed by software. The Storage Root Key (SRK) is created when a user or administrator takes ownership of the system. This key pair is generated by the TPM based on the Endorsement Key and an owner-specified password.
Reference: http://whatis.techtarget.com/definition/trusted-platform-module-TPM

QUESTION 15
What is the purpose of the Integrity component of the CIA triad?

A. to ensure that only authorized parties can modify data
B. to determine whether data is relevant
C. to create a process for accessing data
D. to ensure that only authorized parties can view data

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The I in CIA stands for Integrity — specifically, data integrity. The key to this component of the CIA Triad is protecting data from modification or deletion by unauthorized parties, and ensuring that when authorized people make changes that shouldn't have been made the damage can be undone.
Reference: http://www.techrepublic.com/blog/it-security/the-cia-triad/

QUESTION 16
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Addressing compliance is an integral part of security context. It implement rules to prevent vulnerability.
Reference: http://www.cisco.com/security/

QUESTION 17
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Extranet or external network provides secure connectivity to other company networks from your own company's network.
Reference: http://searchenterprisewan.techtarget.com/definition/extranet

QUESTION 18
Which tool can an attacker use to attempt a DDoS attack?

A. botnet
B. Trojan horse
C. virus
D. adware

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Attackers build networks of infected computers, known as 'botnets', by spreading malicious software through emails, websites and social media. Once infected, these machines can be controlled remotely, without their owners' knowledge, and used like an army to launch an attack against any target. Some botnets are millions of machines strong.
Reference: http://www.digitalattackmap.com/understanding-ddos/

QUESTION 19
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
OWASP seeks to educate developers, designers, architects and business owners about the risks associated with the most common Web application security

vulnerabilities. OWASP, which supports both open source and commercial security products, has become known as a forum in which information technology professionals can network and build expertise. The organization publishes a popular Top Ten list that explains the most dangerous Web application security flaws and provides recommendations for dealing with those flaws.
Reference: http://searchsoftwarequality.techtarget.com/definition/OWASP

QUESTION 20
What type of attack was the Stuxnet virus?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Stuxnet virus is part of cyber warfare unleashed by governments to hinder their opponents computer systems and steal vital information.
Reference: https://en.wikipedia.org/wiki/Stuxnet

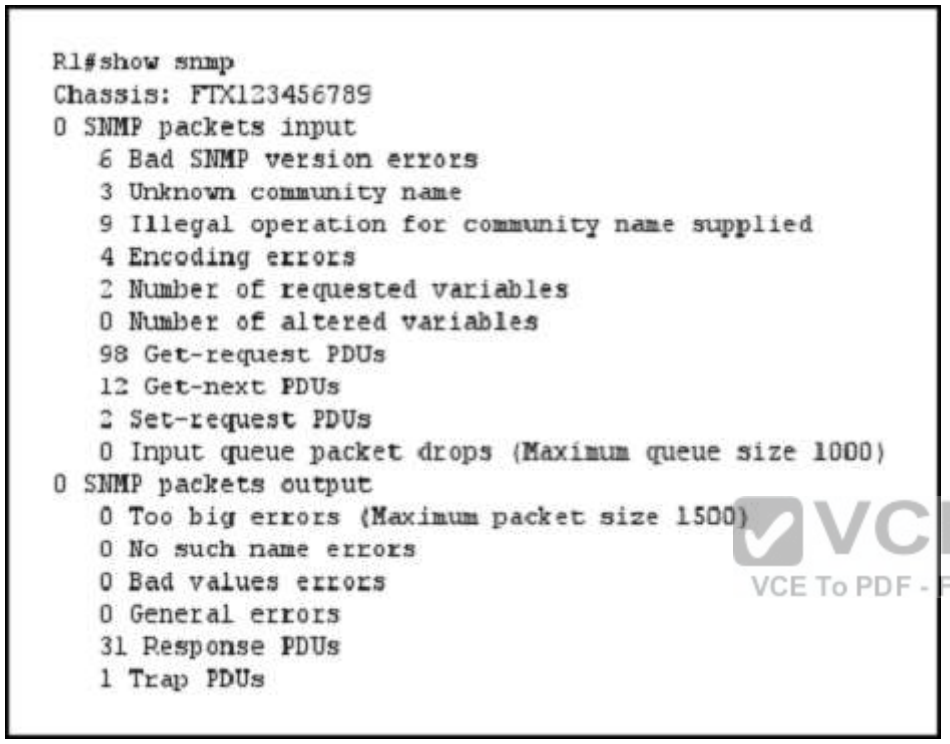
QUESTION 21
What type of algorithm uses the same key to encrypt and decrypt data?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Symmetric encryption (or pre-shared key encryption) uses a single key to both encrypt and decrypt data. Both the sender and the receiver need the same key to communicate.
Reference: https://www.digicert.com/ssl-cryptography.htm

QUESTION 22
Refer to the exhibit.



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


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

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The read-only string attempted a write operation nine times as seen in the exhibit. It says, 9 illegal operations to community name supplied which means the read-only string attempted 9 write operations.
Reference: http://www.cisco.com/c/en/us/support/docs/ip/access-lists/13608-21.html

QUESTION 23
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The read-only string attempted a write operation nine times as seen in the exhibit. It says, 9 illegal operations to community name supplied which means the read-only string attempted 9 write operations.
Reference: http://www.cisco.com/c/en/us/support/docs/ip/access-lists/13608-21.html

QUESTION 24
How does the Cisco ASA use Active Directory to authorize VPN users?

A. It queries the Active Directory server for a specific attribute for the specified user.
B. It sends the username and password to retrieve an ACCEPT or REJECT message from the Active Directory server.

C. It downloads and stores the Active Directory database to query for future authorization requests.
D. It redirects requests to the Active Directory server defined for the VPN group.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
When user LDAP authentication for VPN access has succeeded, the ASA queries the LDAP server, which returns LDAP, attributes. These attributes generally include authorization data that applies to the VPN session. Thus, using LDAP accomplishes authentication and authorization in a single step.
Reference: http://www.cisco.com/c/en/us/td/docs/security/asa/asa82/configuration/guide/config/access_aaa.html

QUESTION 25
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The ACS console server provides the scalability, reliability and security a company requires to control and manage servers and other networked devices.
Reference: http://www.uk.insight.com/content/dam/insight/EMEA/uk/shop/emerson/advanced-console-server.pdf (page 2)

QUESTION 26
Refer to the exhibit.

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Incorrect credentials supplied will result in failure to advance beyond webauth method. The authentication needs correct credentials as seen in the exhibit.

QUESTION 27
Which EAP method uses Protected Access Credentials?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

Explanation:
EAP-FAST is an EAP method that enables secure communication between a client and an authentication server by using Transport Layer Security (TLS) to establish a mutually authenticated tunnel. Within the tunnel, data in the form of type, length, and value (TLV) objects are used to send further authentication-related data between the client and the authentication server.

EAP-FAST supports the TLS extension as defined in RFC 4507 to support the fast re-establishment of the secure tunnel without having to maintain per-session state on the server. EAP-FAST-based mechanisms are defined to provision the credentials for the TLS extension. These credentials are called Protected Access Credentials (PACs).

Reference: http://www.cisco.com/c/en/us/td/docs/wireless/wlan_adapter/cb21ag/user/vista/1-0/configuration/guide/cb21ag10vistaconfigguide/eap_types.html

QUESTION 28
What is one requirement for locking a wired or wireless device from ISE?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
To lock a wired or wireless device from ISE, you need to install ISE agent on that device first. The agent will assist in locking the device promptly.

QUESTION 29
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

Explanation:
This feature is useful for VPN traffic that enters an interface, but is then routed out of that same interface. For example, if you have a hub-and-spoke VPN network where the security appliance is the hub and the remote VPN networks are spokes, in order for one spoke to communicate with another spoke traffic must go to the security appliance and then out again to the other spoke.

Enter the same-security-traffic command in order to allow traffic to enter and exit the same interface.
ciscoasa(config)#same-security-traffic permit intra-interface

Reference: http://www.cisco.com/c/en/us/support/docs/security/asa-5500-x-series-next-generation-firewalls/100918-asa-sslvpn-00.html

QUESTION 30
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
When split tunneling is enabled, Internet traffic goes directly from your computer to the Internet and back without involving the VPN at all. Split tunneling also allows you to access other systems on your local network which is impossible if all traffic has go to the corporate network first, although this can be mitigated in some configurations.

Reference: http://www.tripwire.com/state-of-security/security-data-protection/36th-article-vpn-split-tunneling/

QUESTION 31
Refer to the exhibit.

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

What is the effect of the given command sequence?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
To create an IKE policy, enter the **crypto ikev1** | **ikev2 policy** command from global configuration mode. The prompt displays IKE policy configuration mode. For example:

hostname(config)# **crypto ikev1 policy 1**
hostname(config-ikev1-policy)#
After creating the policy, you can specify the settings for the policy.

Reference: http://www.cisco.com/c/en/us/td/docs/security/asa/asa84/configuration/guide/asa_84_cli_config/vpn_ike.html

QUESTION 32
Refer to the exhibit.

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

What is the effect of the given command sequence?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Crypto map entry "mymap 30" references the dynamic crypto map set "mydynamicmap," which can be used to process inbound security association negotiation requests that do not match "mymap" entries 10 or 20. In this case, if the peer specifies a transform set that matches one of the transform sets specified in "mydynamicmap," for a flow "permitted" by the access list 103, IPSec will accept the request and set up security associations with the remote peer without previously knowing about the remote peer. If accepted, the resulting security associations (and temporary crypto map entry) are established according to the settings specified by the remote peer.

Reference: http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/command/reference/srfipsec.html

QUESTION 33
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.

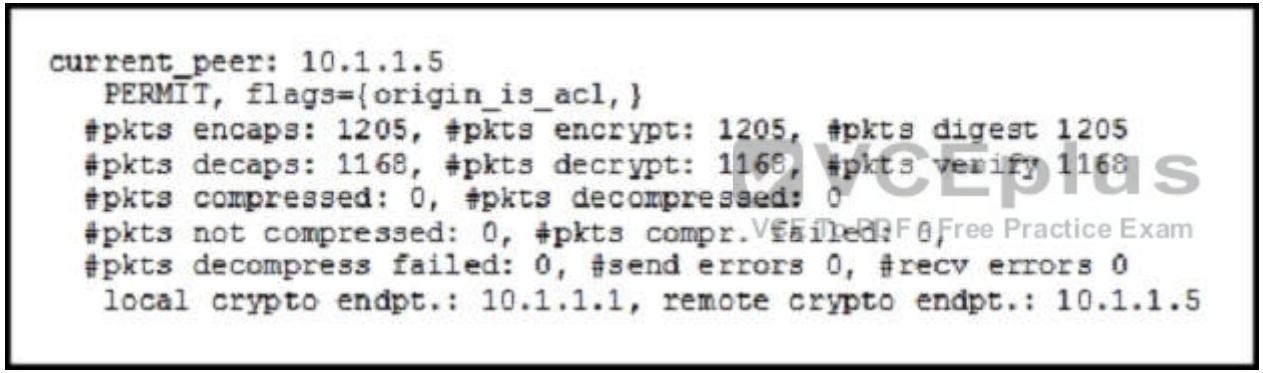
Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Phase 1 of IPsec is used to establish a secure channel between the two peers that will be used for further data transmission. The ASAs will exchange secret keys, they authenticate each other and will negotiate about the IKE security policies. This is what happens in phase 1:

- Authenticate and protect the identities of the IPsec peers.
- Negotiate a matching IKE policy between IPsec peers to protect the IKE exchange.
- Perform an authenticated Diffie-Hellman exchange to have matching shared secret keys.
- Setup a secure tunnel for IKE phase 2.

Reference: https://networklessons.com/security/cisco-asa-site-site-ikev1-ipsec-vpn/

QUESTION 34
Refer to the exhibit.



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.

Correct Answer: A
Section: (none)
Explanation

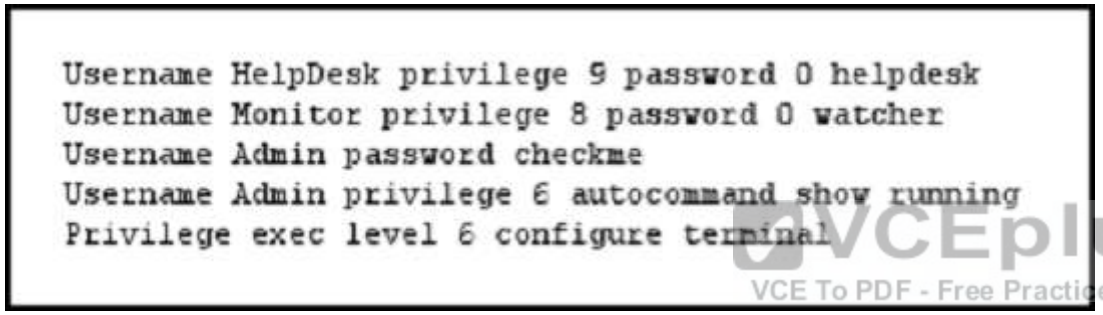
Explanation/Reference:

Explanation:
Once the secure tunnel from phase 1 has been established, we will start phase 2. In this phase the two firewalls will negotiate about the IPsec security parameters that will be used to protect the traffic within the tunnel. In short, this is what happens in phase 2:

- Negotiate IPsec security parameters through the secure tunnel from phase 1.
- Establish IPsec security associations.
- Periodically renegotiates IPsec security associations for security.

Reference: https://networklessons.com/security/cisco-asa-site-site-ikev1-ipsec-vpn/

QUESTION 35
Refer to the exhibit.



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

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

The autocommand causes the specified command to be issued automatically after the user logs in. When the command is complete, the session is terminated. Because the command can be any length and contain embedded spaces, commands using the autocommand keyword must be the last option on the line.

Reference: http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/command/reference/fsecur_r/srfpass.html#wp1030793

QUESTION 36
After reloading a router, you issue the dir command to verify the installation and observe that the image file appears to be missing. For what reason could the image file fail to appear in the dir output?

A. The secure boot-image command is configured.
B. The secure boot-comfit command is configured.
C. The confreg 0x24 command is configured.
D. The reload command was issued from ROMMON.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Secured files will not appear on the output of a dir command issued from an executive shell because the IFS prevents secure files in a directory from being listed. ROM monitor (ROMMON) mode does not have any such restriction and can be used to list and boot secured files.
Reference: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_usr_cfg/configuration/15-mt/sec-usr-cfg-15-mt-book/sec-resil-config.html

QUESTION 37
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.

Correct Answer: B
Section: (none)

Explanation

Explanation/Reference:
Explanation:
Send-lifetime infinite command 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

QUESTION 38
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Under normal network operating conditions, the vast majority of packets handled by network devices are data plane packets. These packets are handled in the fast path. Network devices are optimized to handle these fast path packets efficiently. Typically, considerably fewer control and management plane packets are required to create and operate IP networks. Thus, the punt path and route processor are significantly less capable of handling the kinds of packets rates experienced in the fast path since they are never directly involved in the forwarding of data plane packets
Reference: http://www.cisco.com/c/en/us/about/security-center/copp-best-practices.html

QUESTION 39
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.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

Explanation:
The BPDU guard feature is designed to allow network designers to keep the active network topology predictable. BPDU guard is used to protect the switched network from the problems that may be caused by the receipt of BPDUs on ports that should not be receiving them. The receipt of unexpected BPDUs may be accidental or may be part of an unauthorized attempt to add a switch to the network. BPDU guard is best deployed toward user-facing ports to prevent rogue switch network extensions by an attacker.

QUESTION 40
In what type of attack does an attacker virtually change a device's burned-in address in an attempt to circumvent access lists and mask the device's true identity?

A. gratuitous ARP
B. ARP poisoning
C. IP spoofing
D. MAC spoofing

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
If your original MAC address is revealed, an hacker can use it to impersonate you! On many networks (wired or wireless) access is restricted based on MAC address to avoid access to unauthorized devices on the network. So, when you go offline, someone can use your machine's MAC address and access the network as 'you'.
Reference: http://blog.technitium.com/2011/06/why-you-need-to-change-mac-address.html

QUESTION 41
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
To retain the bindings across reloads, you must use the DHCP snooping database agent. Without this agent, the bindings established by DHCP snooping are lost upon reload, and connectivity is lost as well.

The database agent stores the bindings in a file at a configured location. Upon reload, the switch reads the file to build the database for the bindings. The switch keeps the file current by writing to the file as the database changes.
Reference: http://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst6500/ios/12-2SX/configuration/guide/book/snoodhcp.html#wp1090624

QUESTION 42
If a switch receives a superior BPDU and goes directly into a blocked state, what mechanism must be in use?

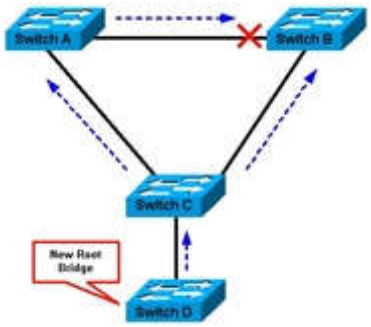
A. root guard
B. EtherChannel guard
C. loop guard
D. BPDU guard

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The root guard feature protects the network against such issues.
The configuration of root guard is on a per-port basis. Root guard does not allow the port to become an STP root port, so the port is always STP-designated. If a better BPDU arrives on this port, root guard does not take the BPDU into account and elect a new STP root. Instead, root guard puts the port into the root-inconsistent STP state. You must enable root guard on all ports where the root bridge should not appear. In a way, you can configure a perimeter around the part of the network where the STP root is able to be located.
In the following figure, enable root guard on the Switch C port that connects to Switch D.
Switch C in figure below blocks the port that connects to Switch D, after the switch receives a superior BPDU. Root guard puts the port in the root-inconsistent STP state. No traffic passes through the port in this state. After device D ceases to send superior BPDUs, the port is unblocked again. Via STP, the port goes from the listening state to the learning state, and eventually transitions to the forwarding state. Recovery is automatic; no human intervention is necessary.

This message appears after root guard blocks a port:

%SPANTREE-2-ROOTGUARDBLOCK: Port 1/1 tried to become non-designated in VLAN 77.
Moved to root-inconsistent state



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

QUESTION 43
Which statement about a PVLAN isolated port configured on a switch is true?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
A promiscuous port can communicate with all interfaces, including the isolated and community ports within a PVLAN.
Reference: http://www.cisco.com/c/en/us/tech/lan-switching/private-vlans-pvlans-promiscuous-isolated-community/index.html

QUESTION 44
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.

Correct Answer: C

Section: (none)
Explanation

Explanation/Reference:
Explanation:
The key feature of a double tagging attack is exploiting the native VLAN. Since VLAN 1 is the default VLAN for access ports and the default native VLAN on trunks, it's an easy target. The first countermeasure is to remove access ports from the default VLAN 1 since the attacker's port must match that of the switch's native VLAN.
Reference: https://www.nlogic.co/understanding-vlan-hopping-attacks/

QUESTION 45
What is a reason for an organization to deploy a personal firewall?

A. To protect endpoints such as desktops from malicious activity.
B. To protect one virtual network segment from another.
C. To determine whether a host meets minimum security posture requirements.
D. To create a separate, non-persistent virtual environment that can be destroyed after a session.
E. To protect the network from DoS and syn-flood attacks.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The sole purpose of firewall is to protect endpoints (workstations, and other devices) from malicious activity and network connections with nefarious purposes.

Reference: http://searchmidmarketsecurity.techtarget.com/definition/personal-firewall

QUESTION 46
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.

Correct Answer: A
Section: (none)

Explanation

Explanation/Reference:
Explanation:
Drop or ignore any probing requests sent to certain service ports on your system. This can mask the presence of the computer from the attacker who is fooled into thinking that no machine is there.

Reference: https://www.polyu.edu.hk/~ags/itsnews0604/security.html

QUESTION 47
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation: stateful firewalls, a type of firewall that attempts to track the state of network connections when filtering packets. The stateful firewall's capabilities are somewhat of a cross between the functions of a packet filter and the additional application-level protocol intelligence of a proxy.

Reference: http://www.informit.com/articles/article.aspx?p=373120

QUESTION 48
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation: stateful inspection support for multicast traffic is not supported between any zones, including the self zone. Use Control Plane Policing for the protection of the control plane against multicast traffic.
Reference: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_data_zbf/configuration/15-mt/sec-data-zbf-15-mt-book/sec-zone-pol-fw.html

QUESTION 49
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation: By default, the traffic between interfaces in the same zone is not subject to any policy and passes freely. Firewall zones are used for security features.
Reference: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_data_zbf/configuration/15-mt/sec-data-zbf-15-mt-book/sec-zone-pol-fw.html

QUESTION 50
Which two statements about Telnet access to the ASA are true? (Choose two).

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

Correct Answer: AE
Section: (none)

Explanation

Explanation/Reference:
Explanation: If SSH is not enabled, the Java applet uses Telnet. But as soon as the SSH service is enabled on the switch, the Java applet will stop using Telnet and use SSH instead.
Reference: https://www.alliedtelesis.com/sites/default/files/alliedwareplus-best-practice-guide_reva.pdf

QUESTION 51
Which statement about communication over failover interfaces is true?

A. All information that is sent over the failover and stateful failover interfaces is sent as clear text by default.
B. All information that is sent over the failover interface is sent as clear text, but the stateful failover link is encrypted by default.
C. All information that is sent over the failover and stateful failover interfaces is encrypted by default.
D. User names, passwords, and preshared keys are encrypted by default when they are sent over the failover and stateful failover interfaces, but other information is sent as clear text.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
All information sent over the failover and Stateful Failover links is sent in clear text unless you secure the communication with a failover key. If the security appliance is used to terminate VPN tunnels, this information includes any usernames, passwords and preshared keys used for establishing the tunnels. Transmitting this sensitive data in clear text could pose a significant security risk. We recommend securing the failover communication with a failover key if you are using the security appliance to terminate VPN tunnels.
Reference: http://www.cisco.com/c/en/us/td/docs/security/asa/asa80/configuration/guide/conf_gd/failover.html

QUESTION 52
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation: 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.
Reference: http://www.cisco.com/c/en/us/td/docs/security/asa/asa84/configuration/guide/asa_84_cli_config/mpf_service_policy.html

QUESTION 53
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation: You administer a large enterprise with different departmental groups, and each department wants to implement its own security policies.

Reference: http://www.ciscopress.com/articles/article.asp?p=426641

QUESTION 54
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.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation: Your IPS will generally be placed at an edge of the network, such as immediately inside an Internet firewall, or in front of a server farm. Position the IPS where it will see the bare minimum of traffic it needs to, in order to keep performance issues under tight control.
Reference: http://www.pcworld.com/article/144634/guide_network_intrusion_prevention_systems.html

QUESTION 55
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The impact level in this field indicates the correlation between intrusion data, network discovery data, and vulnerability information.
Reference: http://www.cisco.com/c/en/us/td/docs/security/firesight/541/firepower-module-user-guide/asa-firepower-module-user-guide-v541/ViewingEvents.html

QUESTION 56
Which FirePOWER preprocessor engine is used to prevent SYN attacks?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The detection_filter keyword and the thresholding and suppression features provide other ways to filter either the traffic itself or the events that the system generates. You can use rate-based attack prevention alone or in any combination with thresholding, suppression, or the detection_filter keyword to prevent SYN attacks.
Reference: 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#10682

QUESTION 57
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
When the system detects a connection, in most cases you can log it at its beginning or its end.

However, because blocked traffic is immediately denied without further inspection, in most cases you can log only beginning-of-connection events for blocked or blacklisted traffic; there is no unique end of connection to log. An exception occurs when you block encrypted traffic. When you enable connection logging in an SSL policy, the system logs end-of-connection rather than beginning-of-connection events. This is because the system cannot determine if a connection is encrypted using the first packet in the session, and thus cannot immediately block encrypted sessions.
Reference: http://www.cisco.com/c/en/us/td/docs/security/firesight/541/user-guide/FireSIGHT-System-UserGuide-v5401/AC-Connection-Logging.html#pgfId-1604681

QUESTION 58
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Transport and network layer preprocessors detect attacks that exploit IP fragmentation, checksum validation, and TCP and UDP session preprocessing. Before packets are sent to preprocessors, the packet decoder converts packet headers and payloads into a format that can be easily used by the preprocessors and the intrusion rules engine and detects various anomalous behaviors in packet headers. After packet decoding and before sending packets to other preprocessors, the inline normalization preprocessor normalizes traffic for inline deployments.
Reference: http://www.cisco.com/c/en/us/td/docs/security/firesight/541/firepower-module-user-guide/asa-firepower-module-user-guide-v541/NAP-Transport-Network-Layer.html

QUESTION 59
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.

Correct Answer: AE
Section: (none)
Explanation

Explanation/Reference:
Explanation:
To restrain servers to collect IP addresses of individual users, you have to configure a proxy server to hide users' local IP addresses and configure a firewall to use port address translation or PAT.

QUESTION 60
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
When a blacklist is too broad in scope, or incorrectly blocks traffic that you want to allow (for example, to vital resources), you can override a blacklist with a custom whitelist.
Reference: http://www.cisco.com/c/en/us/td/docs/security/firesight/541/user-guide/FireSIGHT-System-UserGuide-v5401/AC-Secint-Blacklisting.html

QUESTION 61
A specific URL has been identified as containing malware. What action can you take to block users from accidentally visiting the URL and becoming infected with malware.

A. Enable URL filtering on the perimeter router and add the URLs you want to block to the router's local URL list.
B. Enable URL filtering on the perimeter firewall and add the URLs you want to allow to the router's local URL list.
C. Enable URL filtering on the perimeter router and add the URLs you want to allow to the firewall's local URL list.
D. Create a blacklist that contains the URL you want to block and activate the blacklist on the perimeter router.
E. Create a whitelist that contains the URLs you want to allow and activate the whitelist on the perimeter router.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
URL filtering window displays the global settings for URL filtering on the router. You can maintain the local URL list and the URL filter server list in the Additional Tasks screens or in the Application Security windows. The Global settings for URL filtering can only be maintained from this Additional Tasks window. Use the Edit Global Settings button to change these values.
Reference: http://www.cisco.com/c/en/us/td/docs/routers/access/cisco_router_and_security_device_manager/24/software/user/guide/URLftr.html

QUESTION 62
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
You can automatically check for Anti-Virus signature updates from Cisco’s signature server every 24 hours or to manually check for Anti-Virus signature updates at any time by clicking Update. When a newer signature file is available on the server, the new signature file will be downloaded to your device.
Reference: https://www.cisco.com/assets/sol/sb/isa500_emulator/help/guide/af1321261.html

QUESTION 63
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.

Correct Answer: A
Section: (none)
Explanation

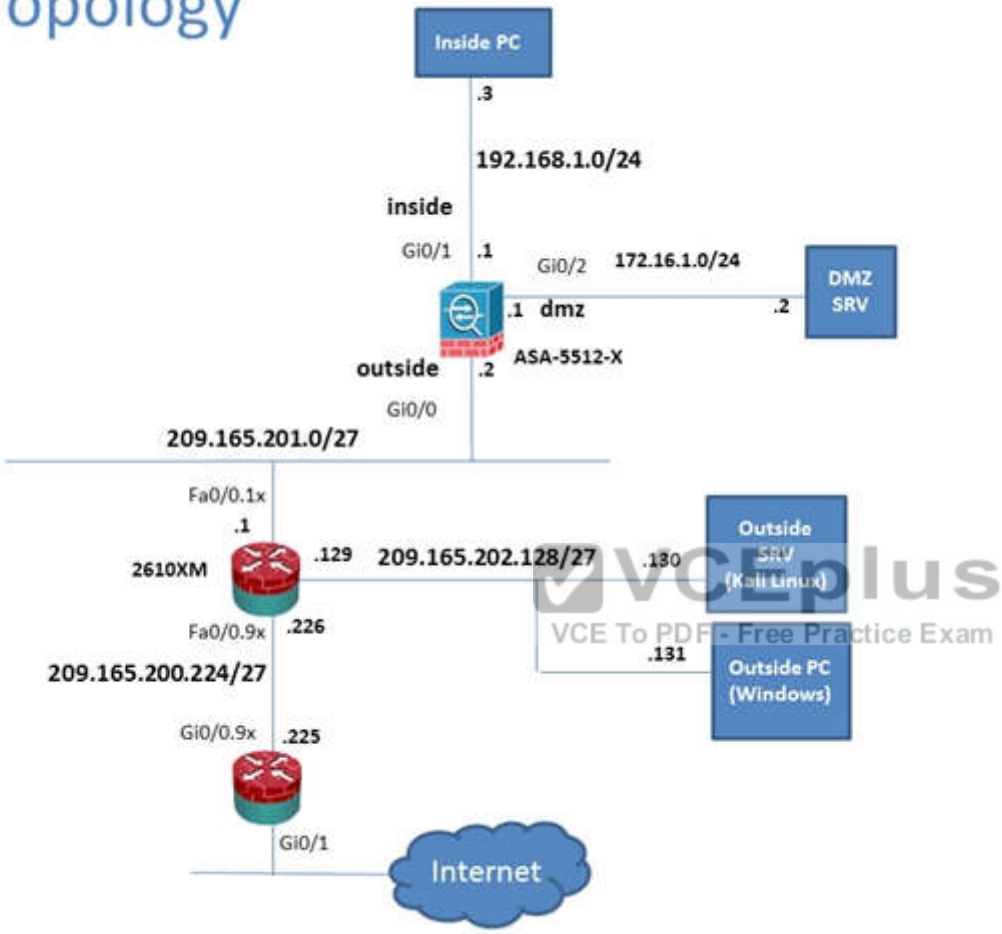
Explanation/Reference:
Explanation:
Application filters allow you to quickly create application conditions for access control rules. They simplify policy creation and administration, and grant you assurance that the system will control web traffic as expected. For example, you could create an access control rule that identifies and blocks all high risk, low business relevance applications. If a user attempts to use one of those applications, the session is blocked.
Reference: http://www.cisco.com/c/en/us/td/docs/security/firesight/541/firepower-module-user-guide/asa-firepower-module-user-guide-v541/AC-Rules-App-URL-Reputation.html#pgfId-1576835

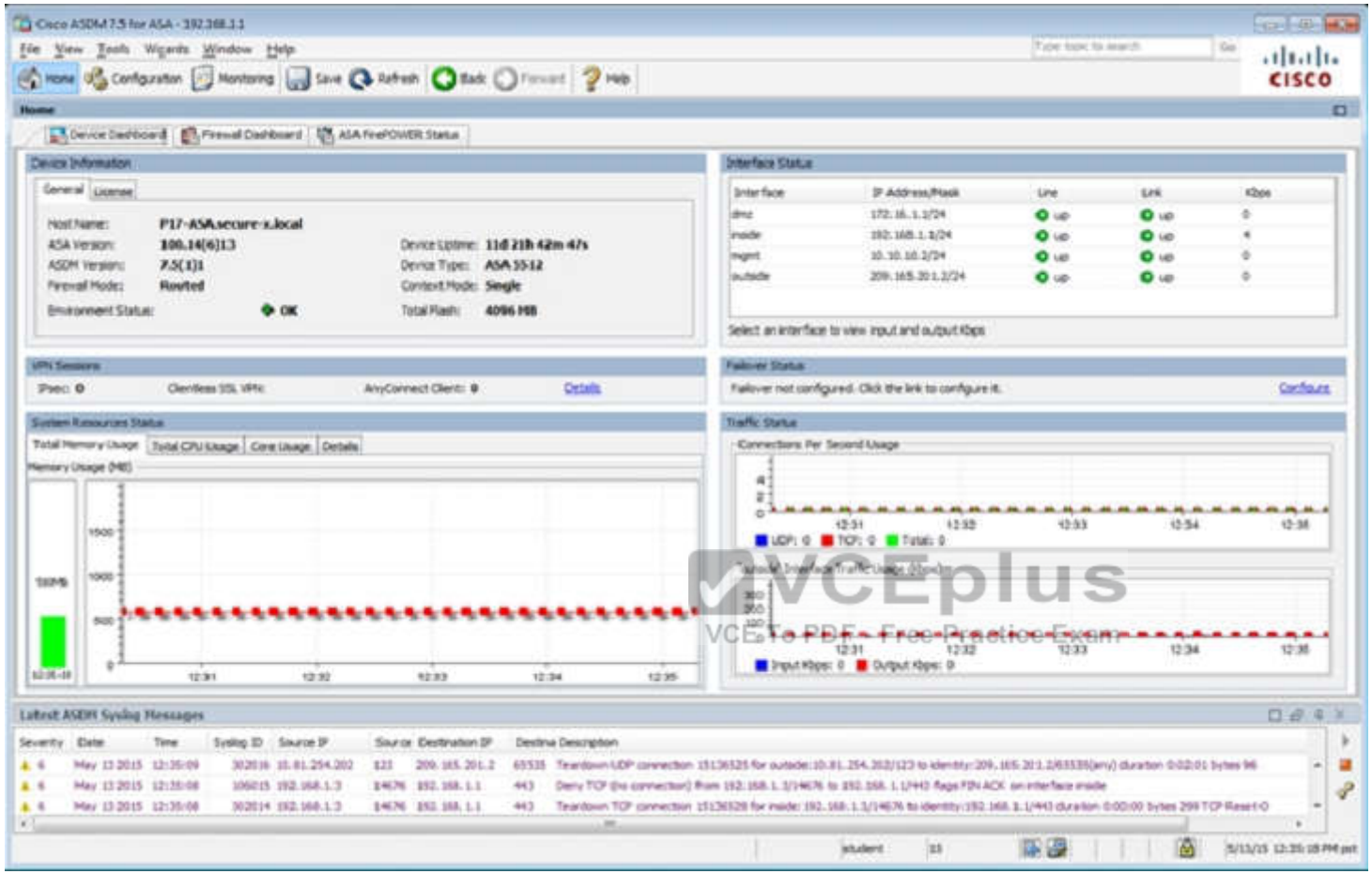
QUESTION 64
Scenario
In this simulation, you have access to ASDM only. Review the various ASA configurations using ASDM then answer the five multiple choice questions about the ASA SSLVPN configurations.

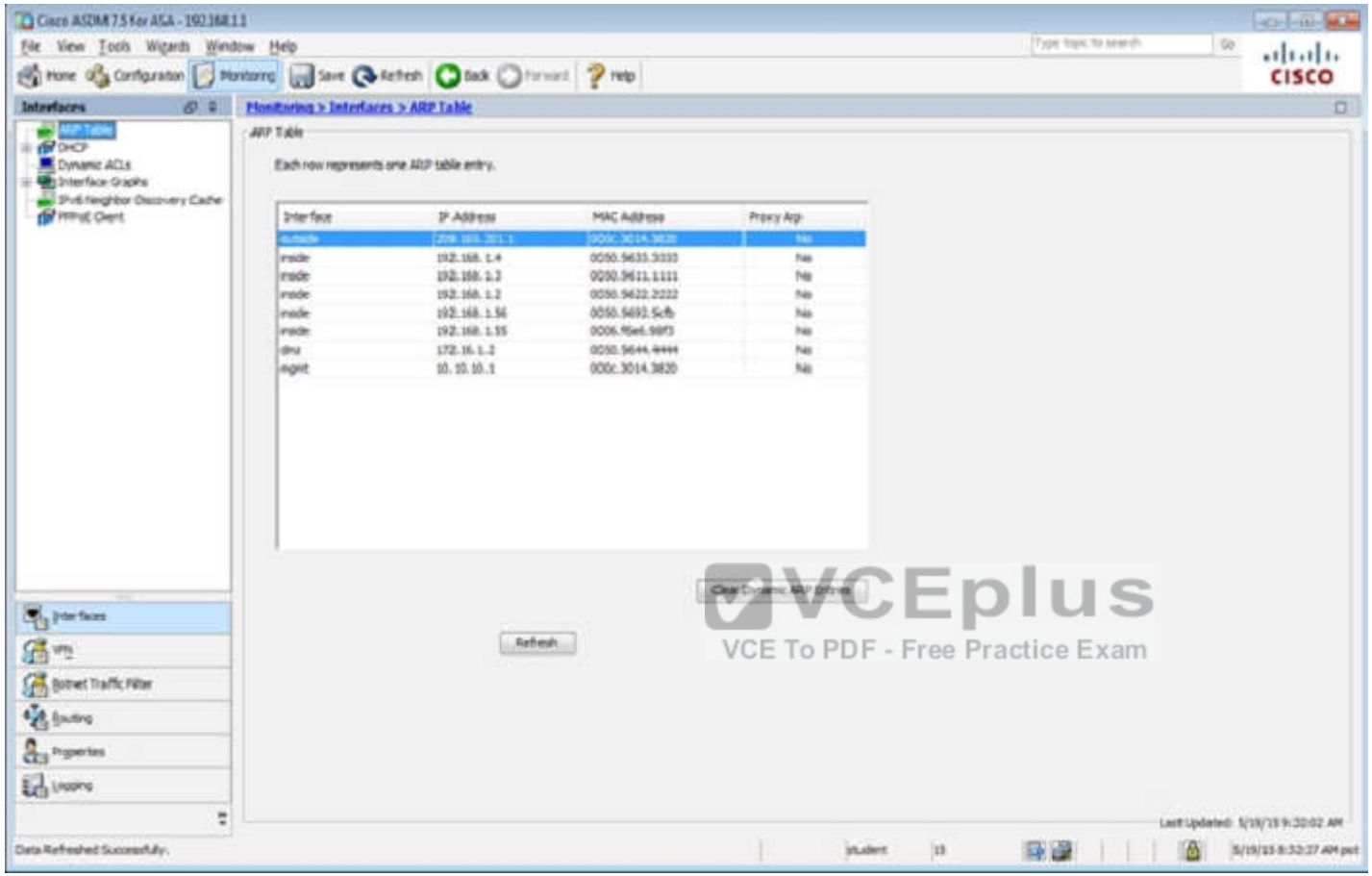
To access ASDM, click the ASA icon in the topology diagram.

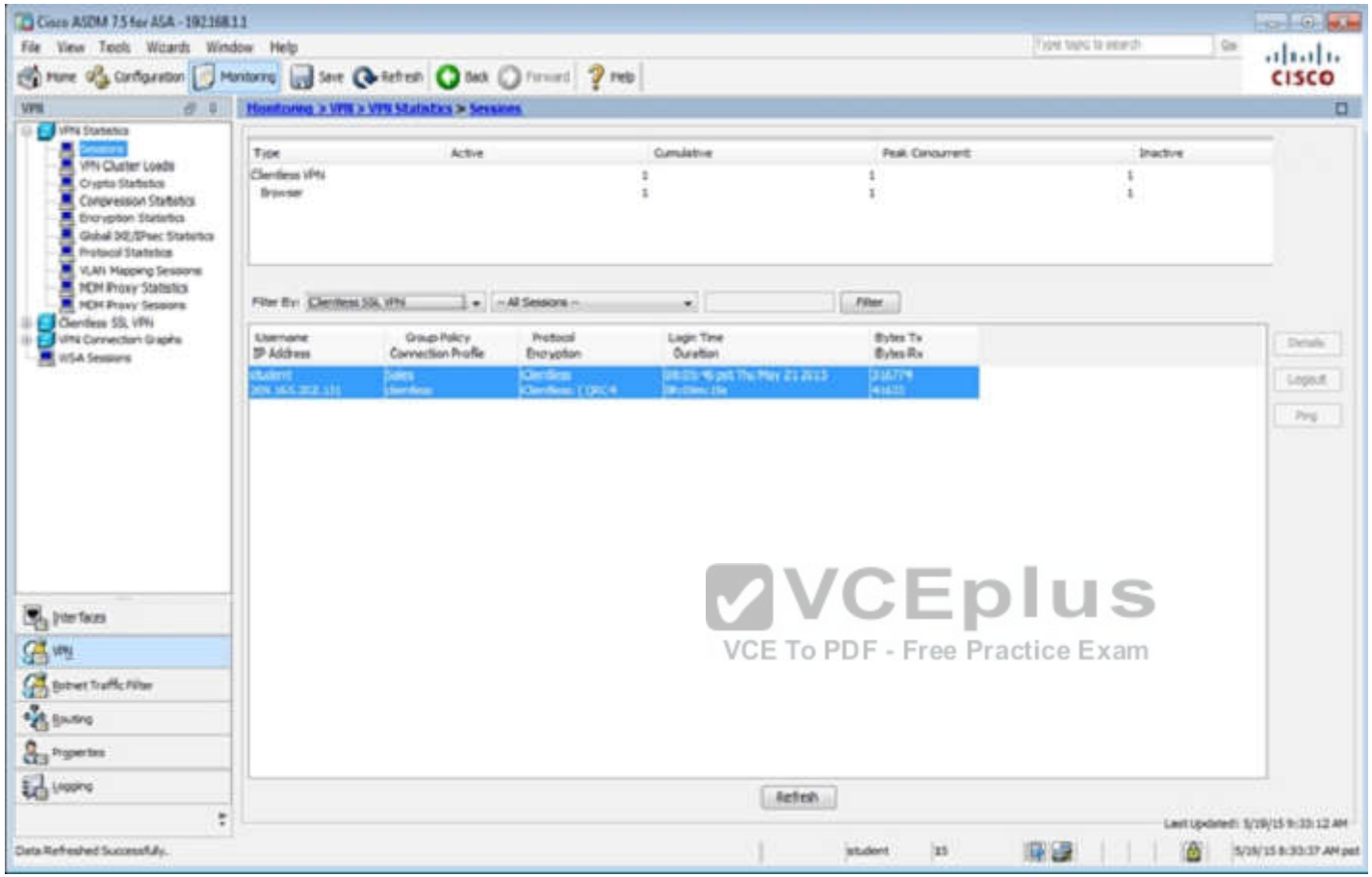
Note: Not all ASDM functionalities are enabled in this simulation.
To see all the menu options available on the left navigation pane, you may also need to un-expand the expanded menu first.

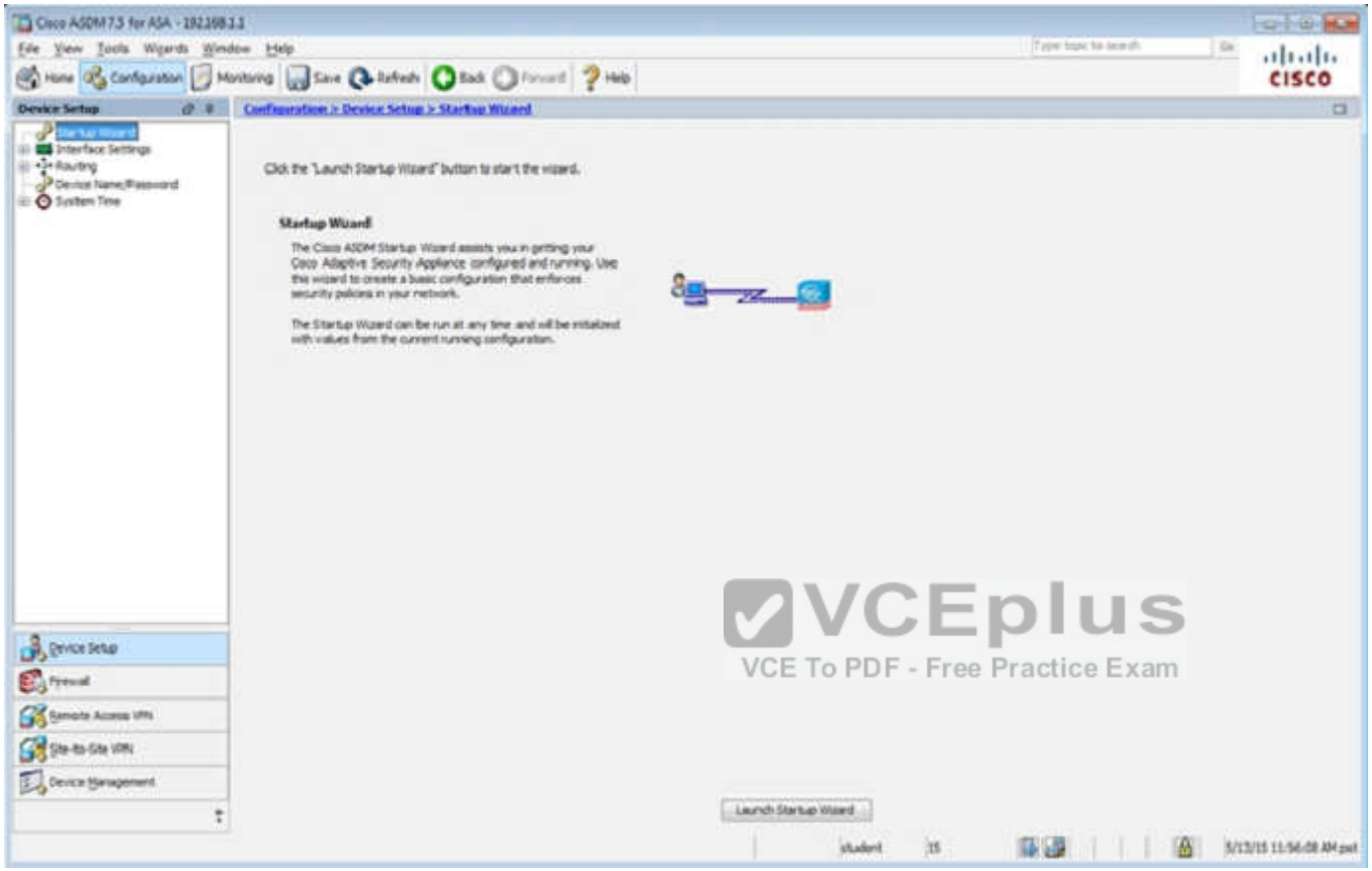
Lab Topology

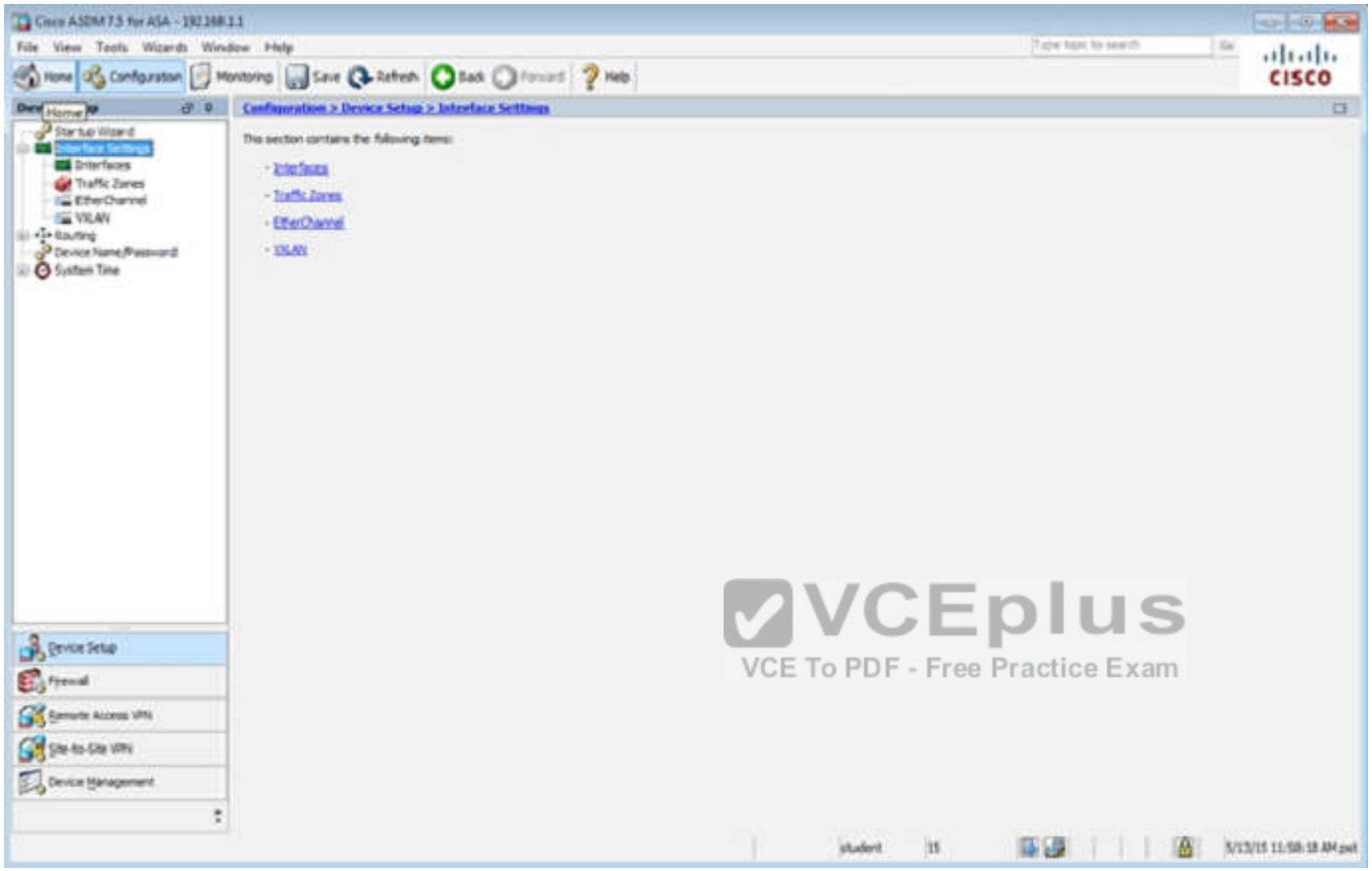


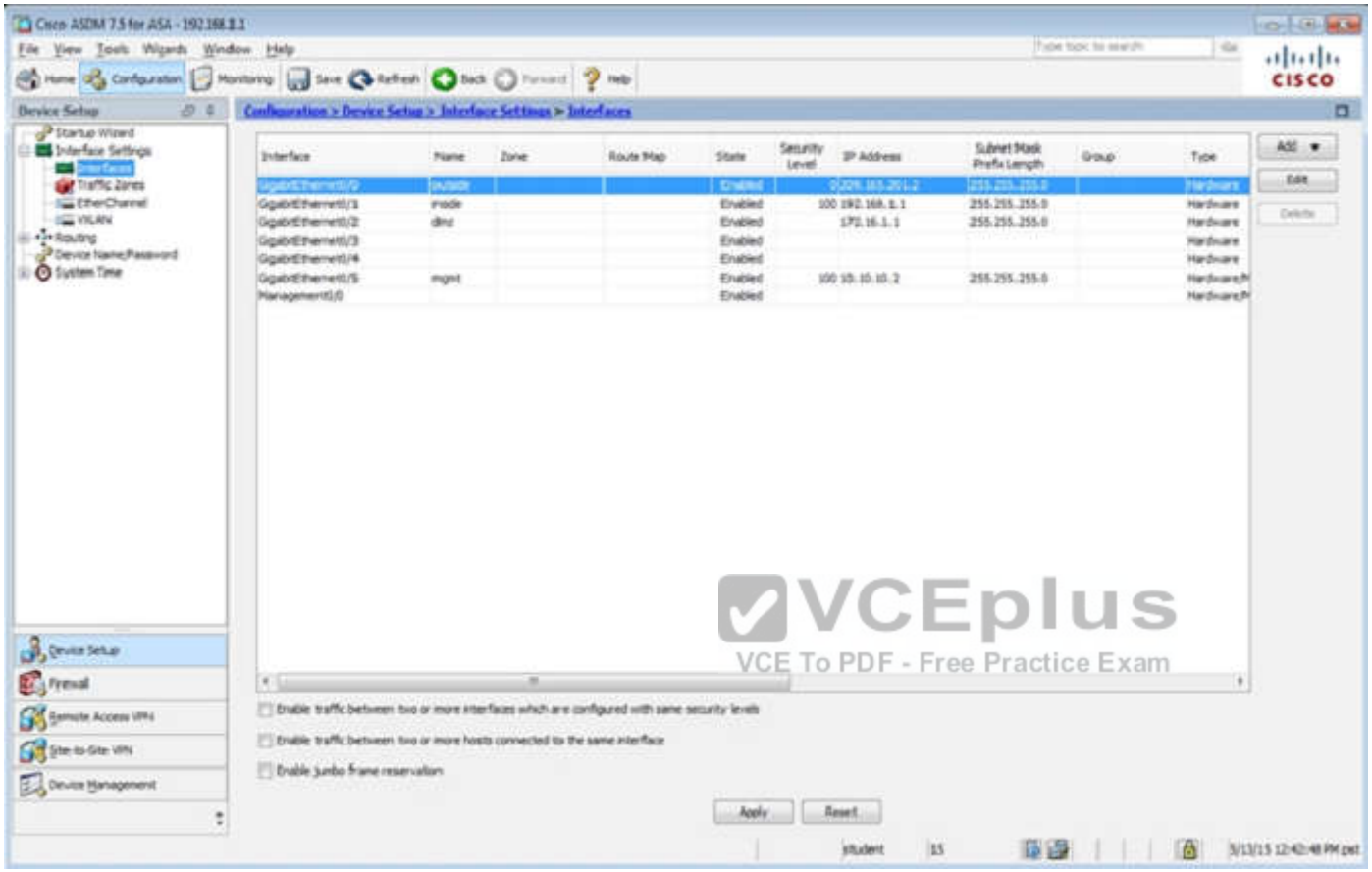


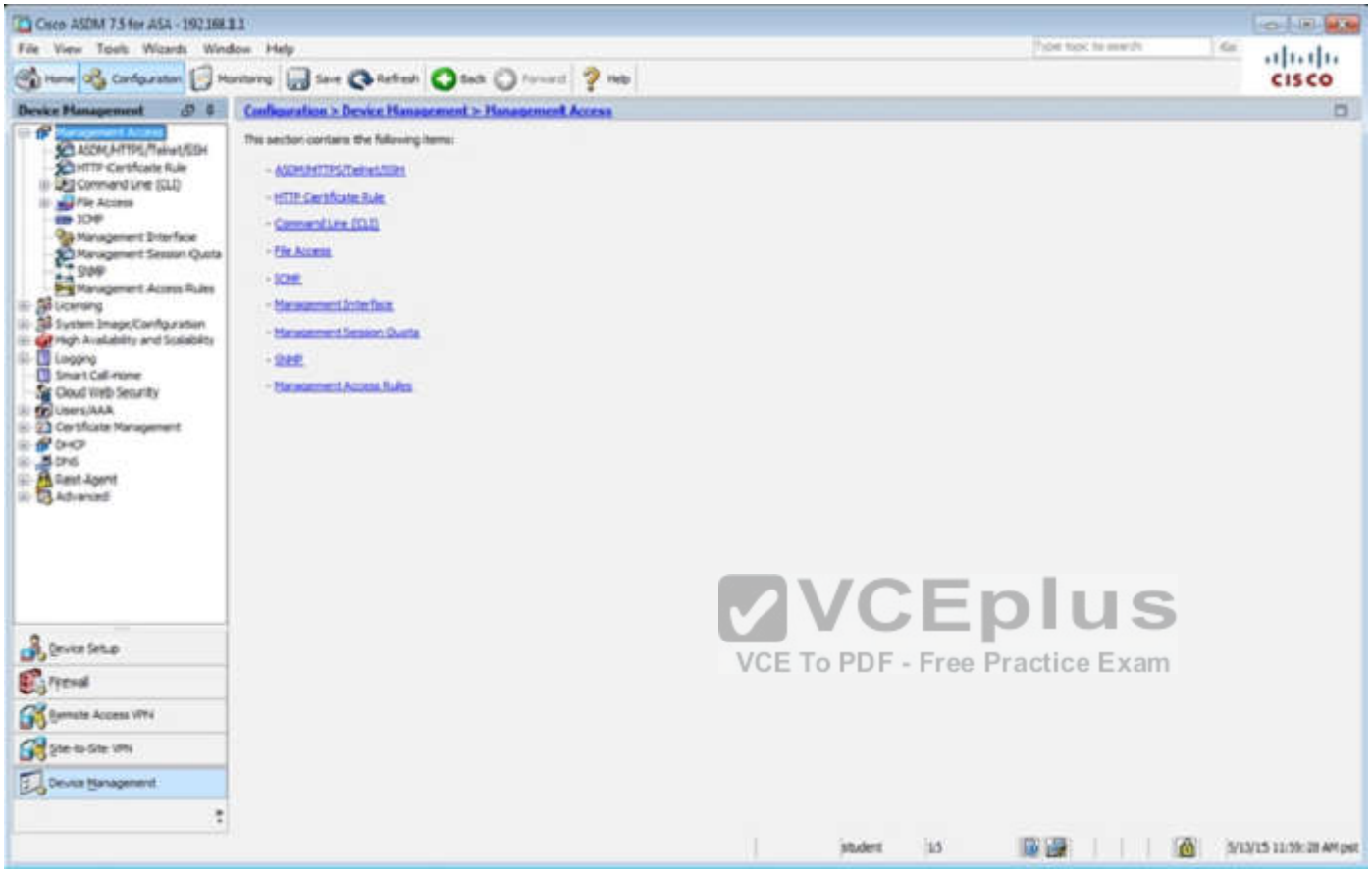


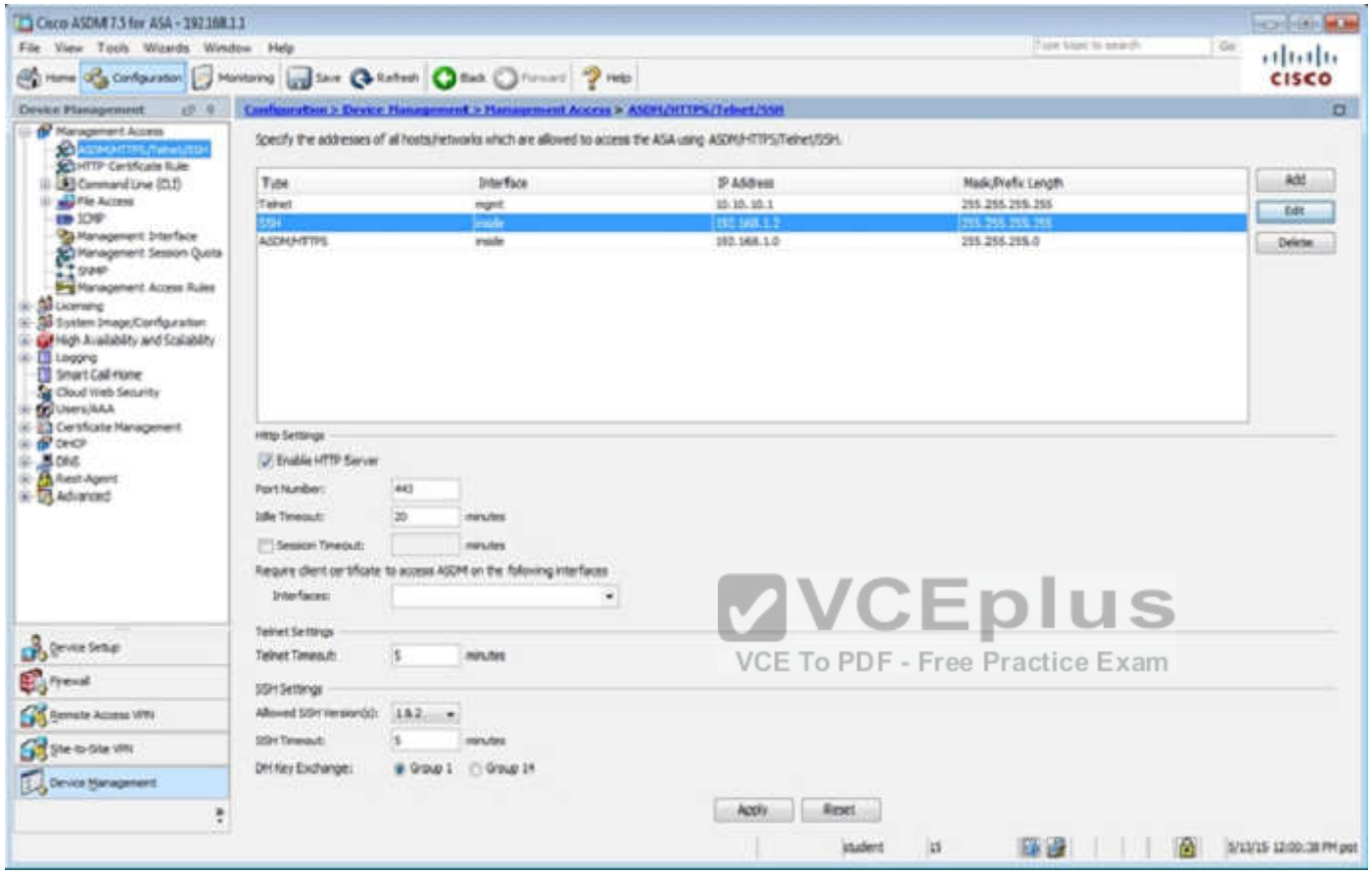


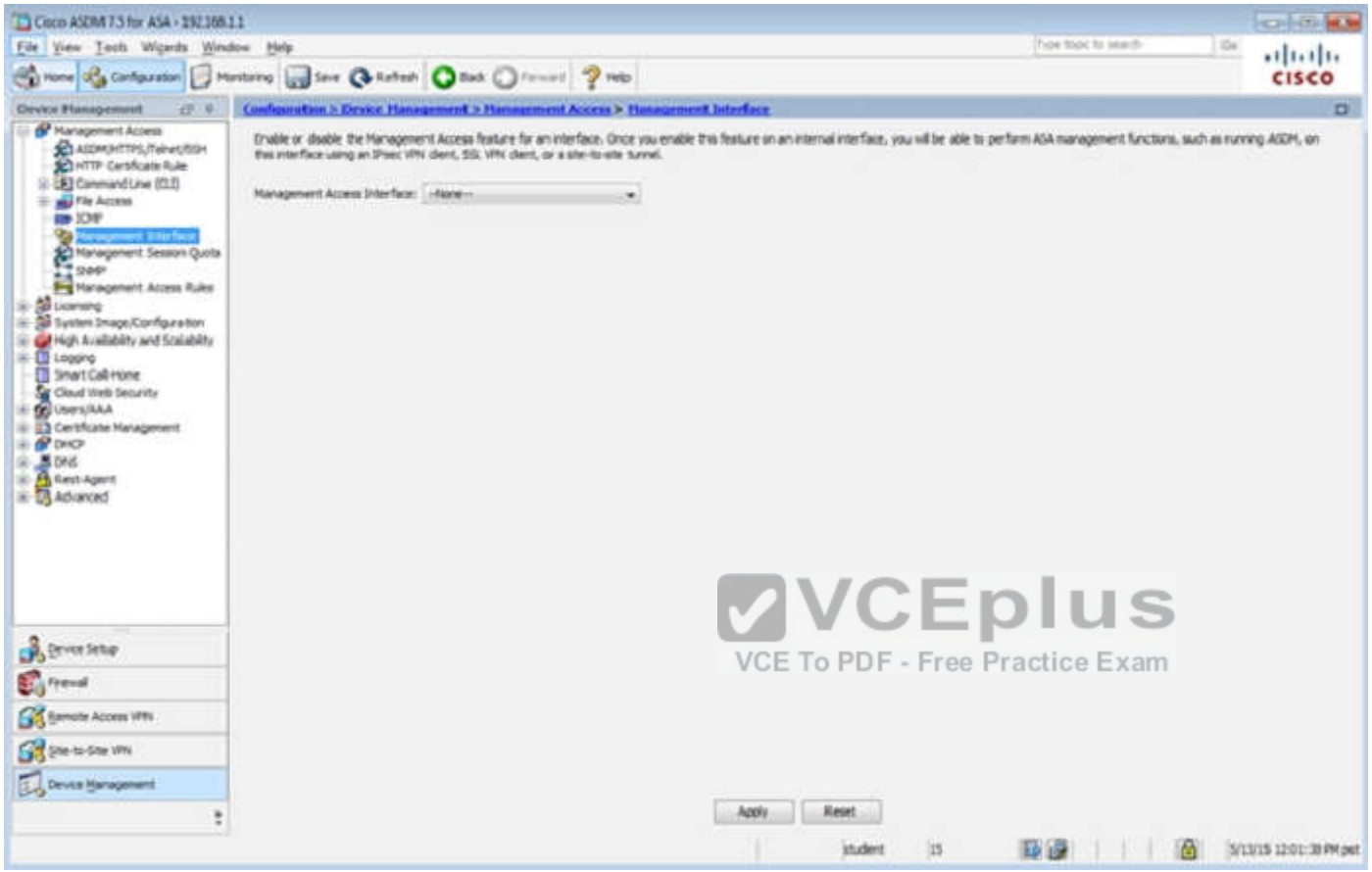


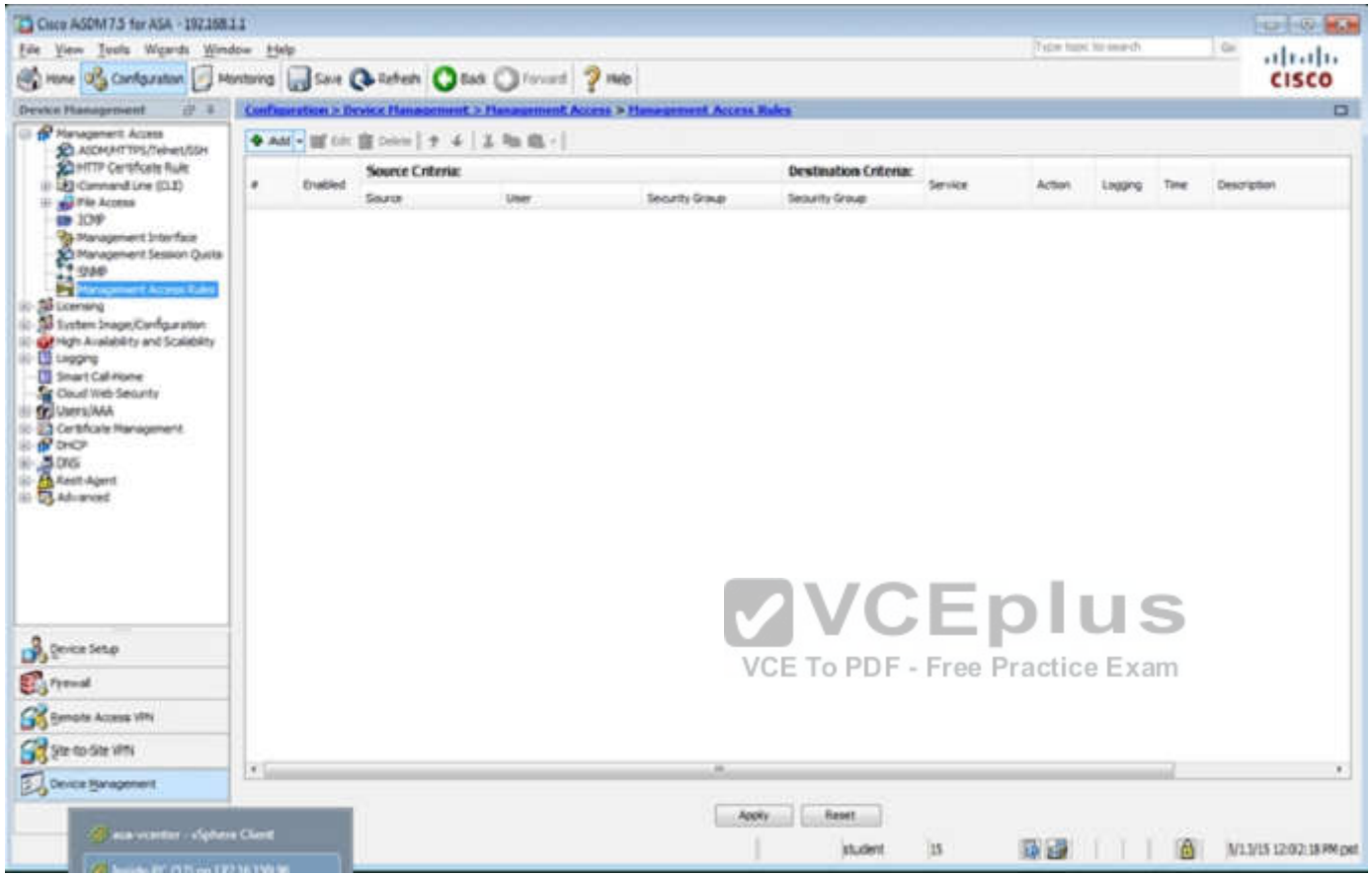


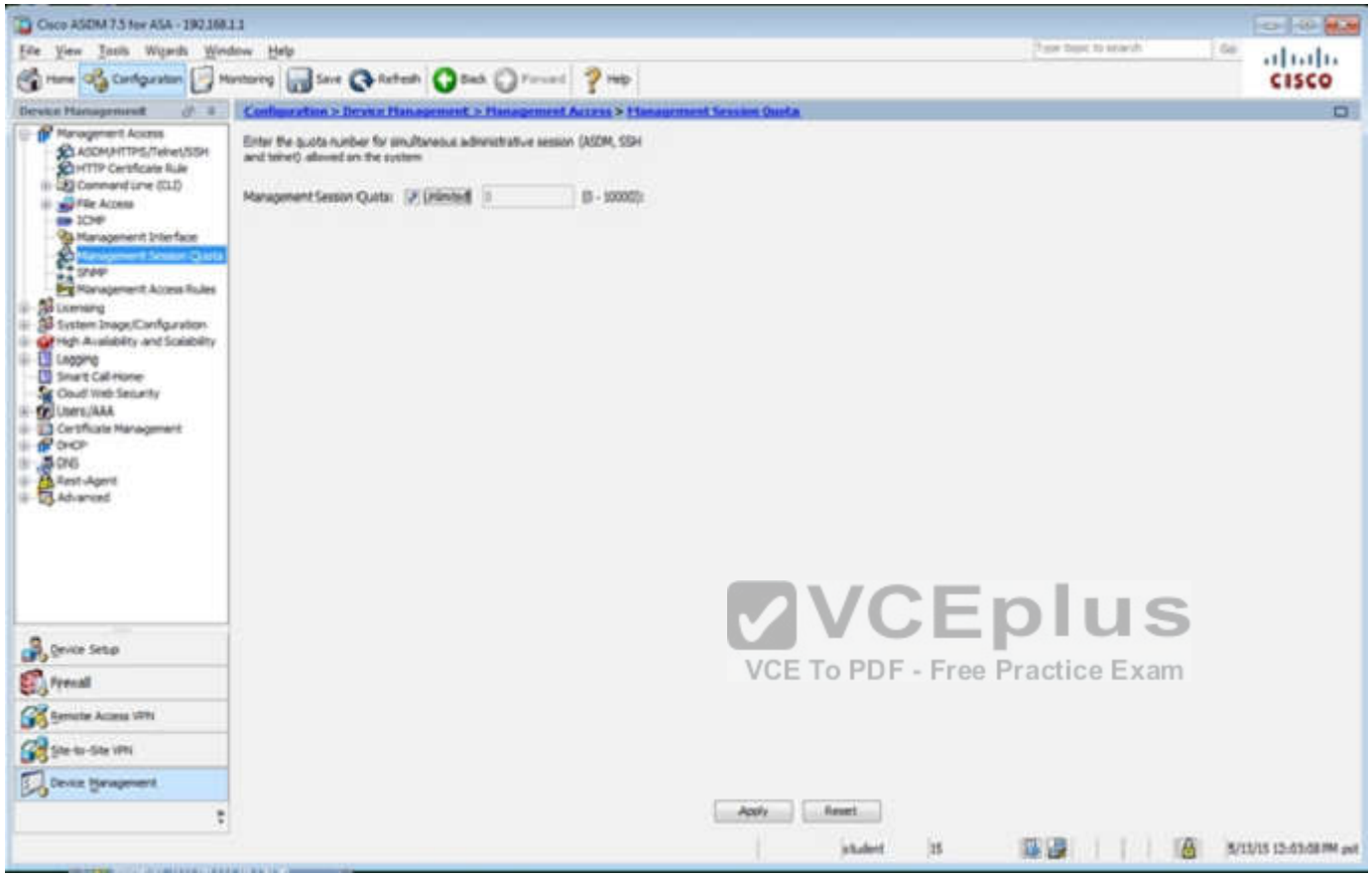


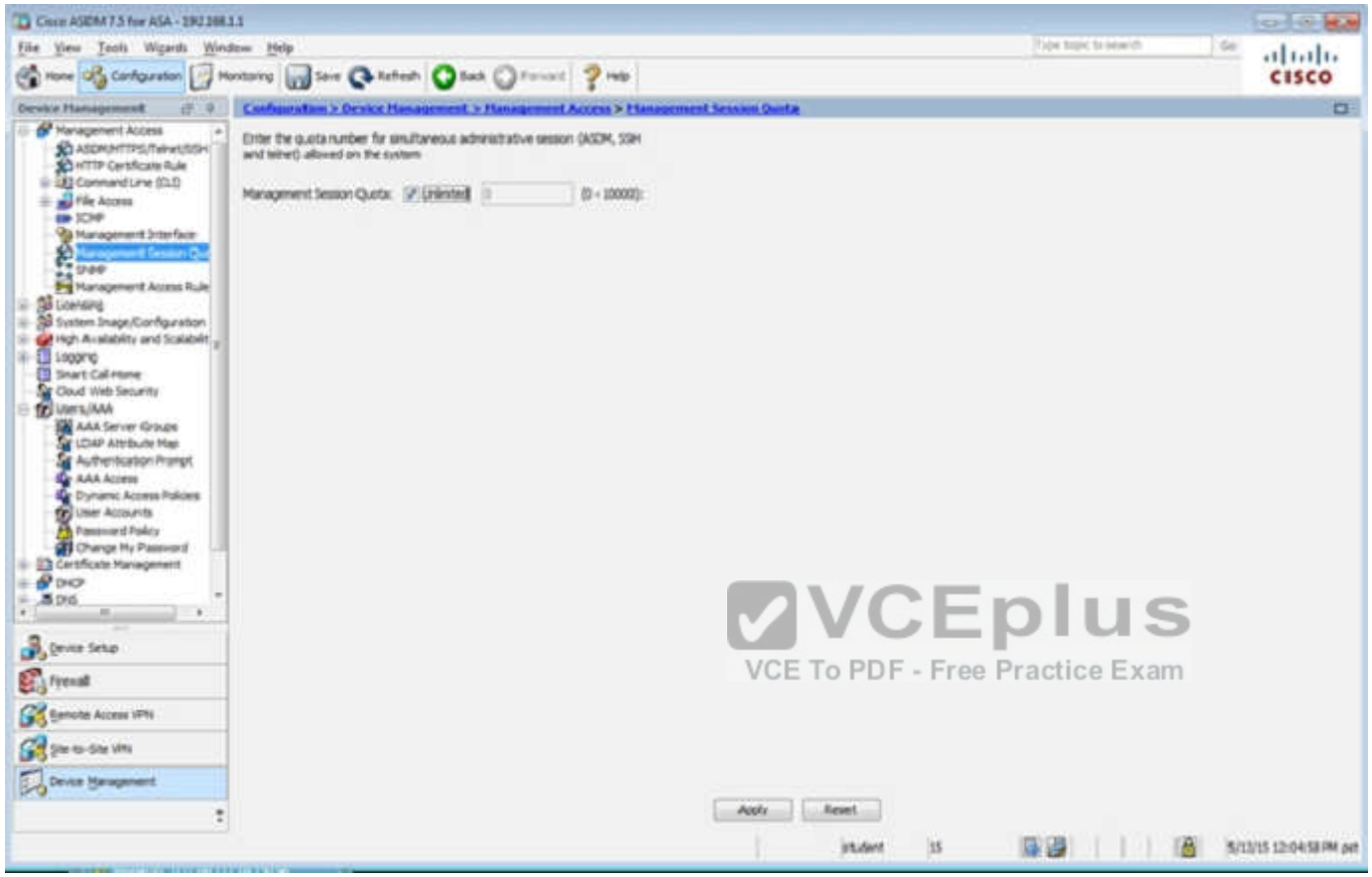


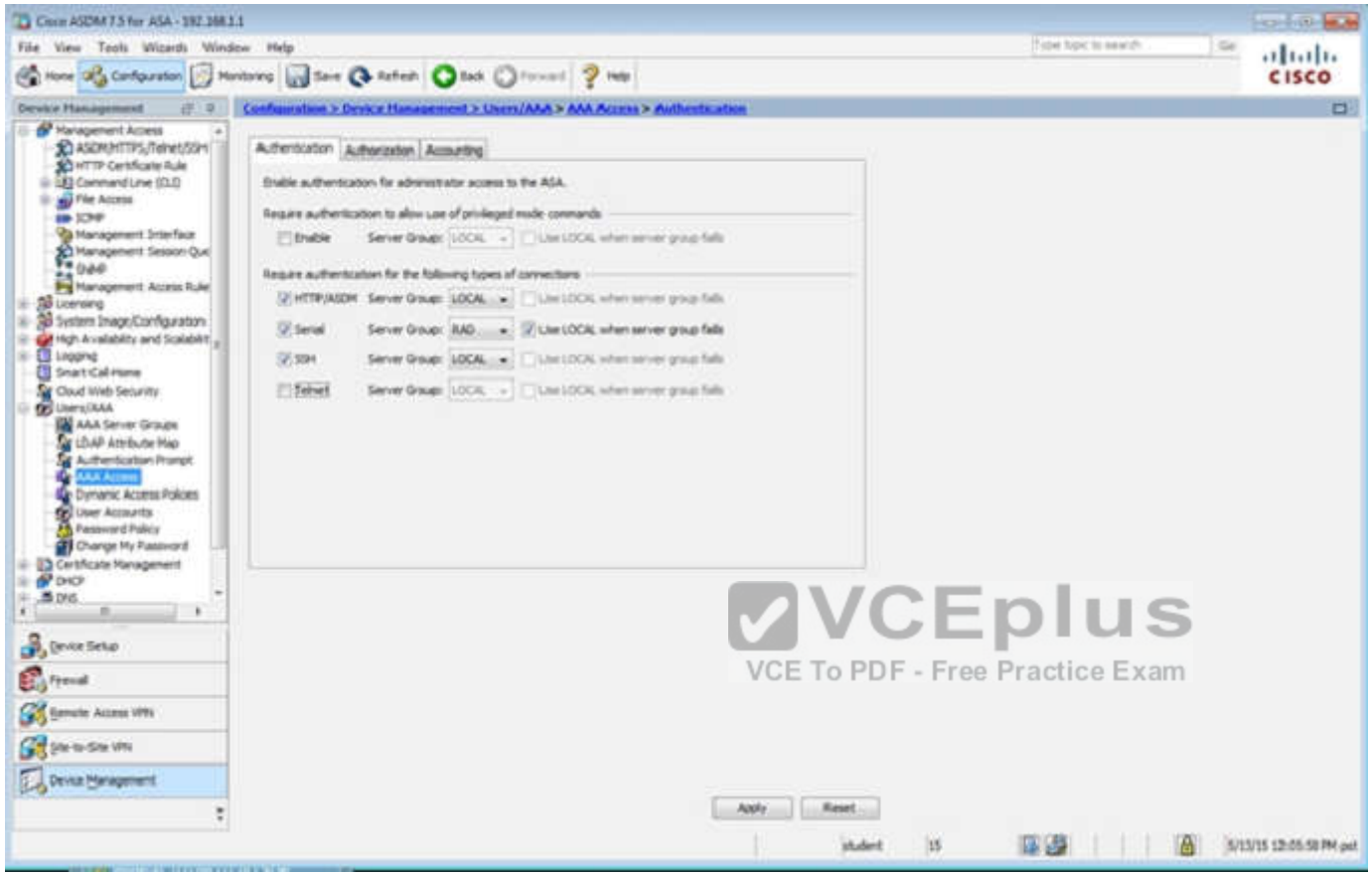


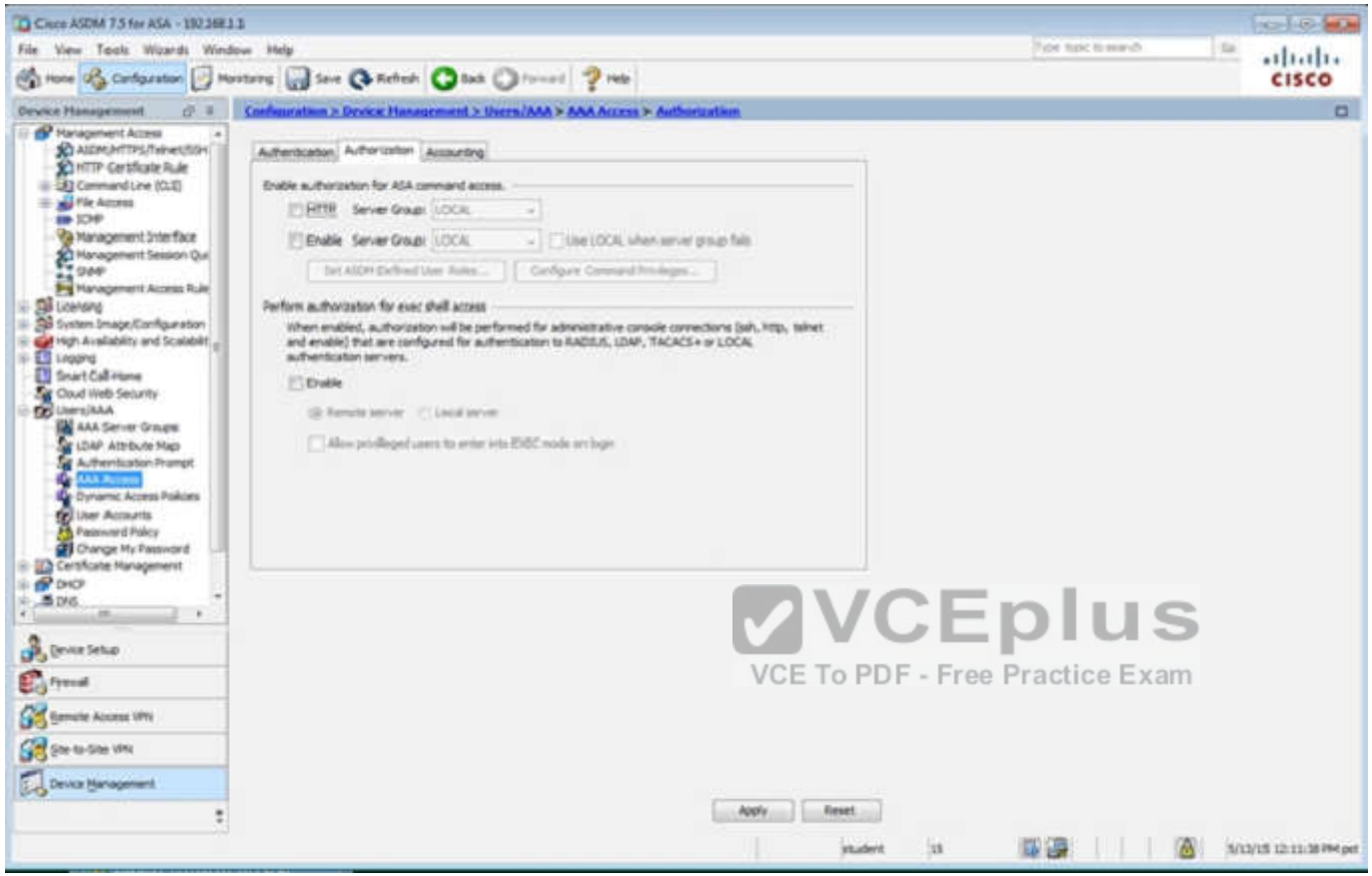


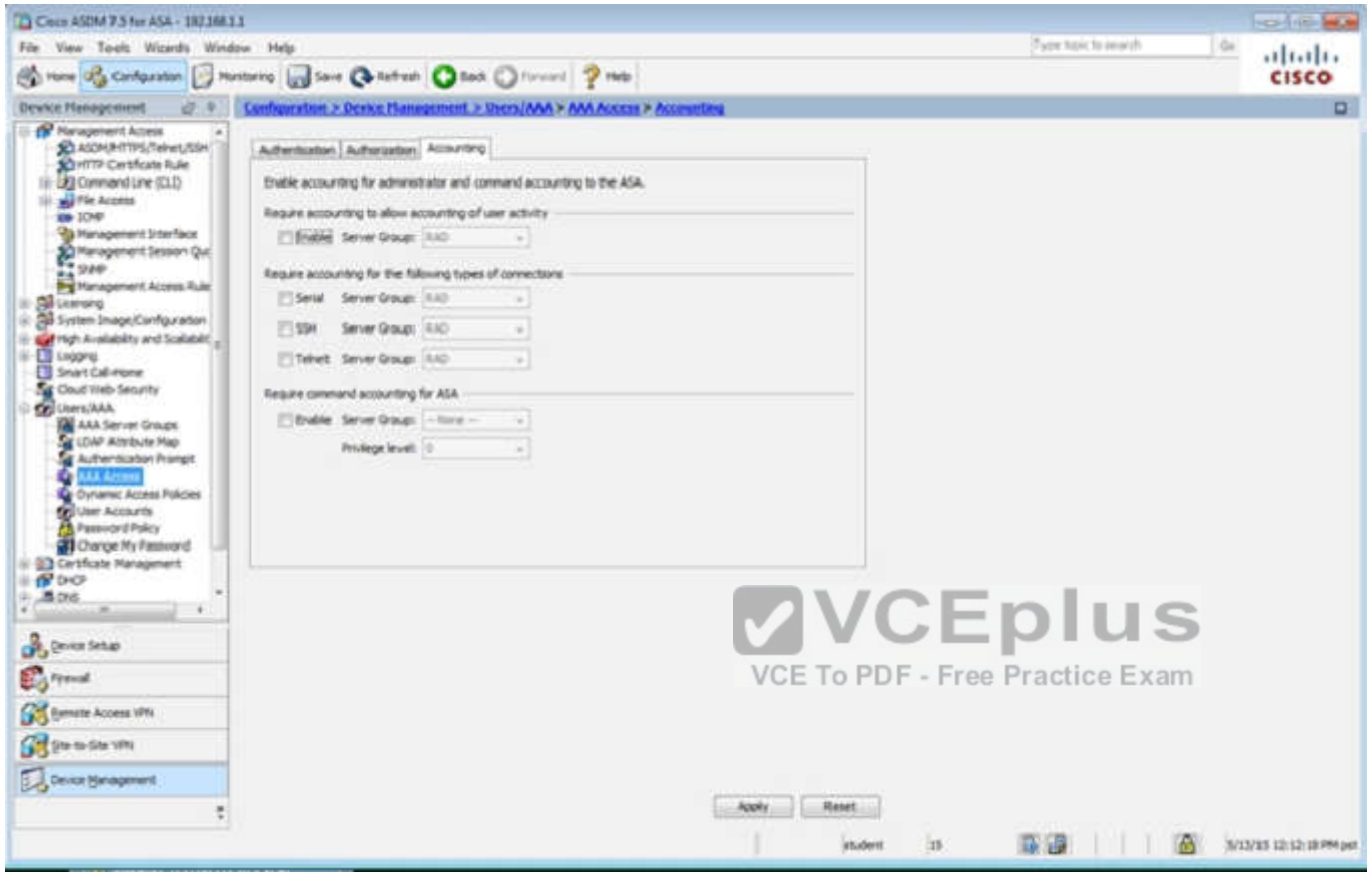


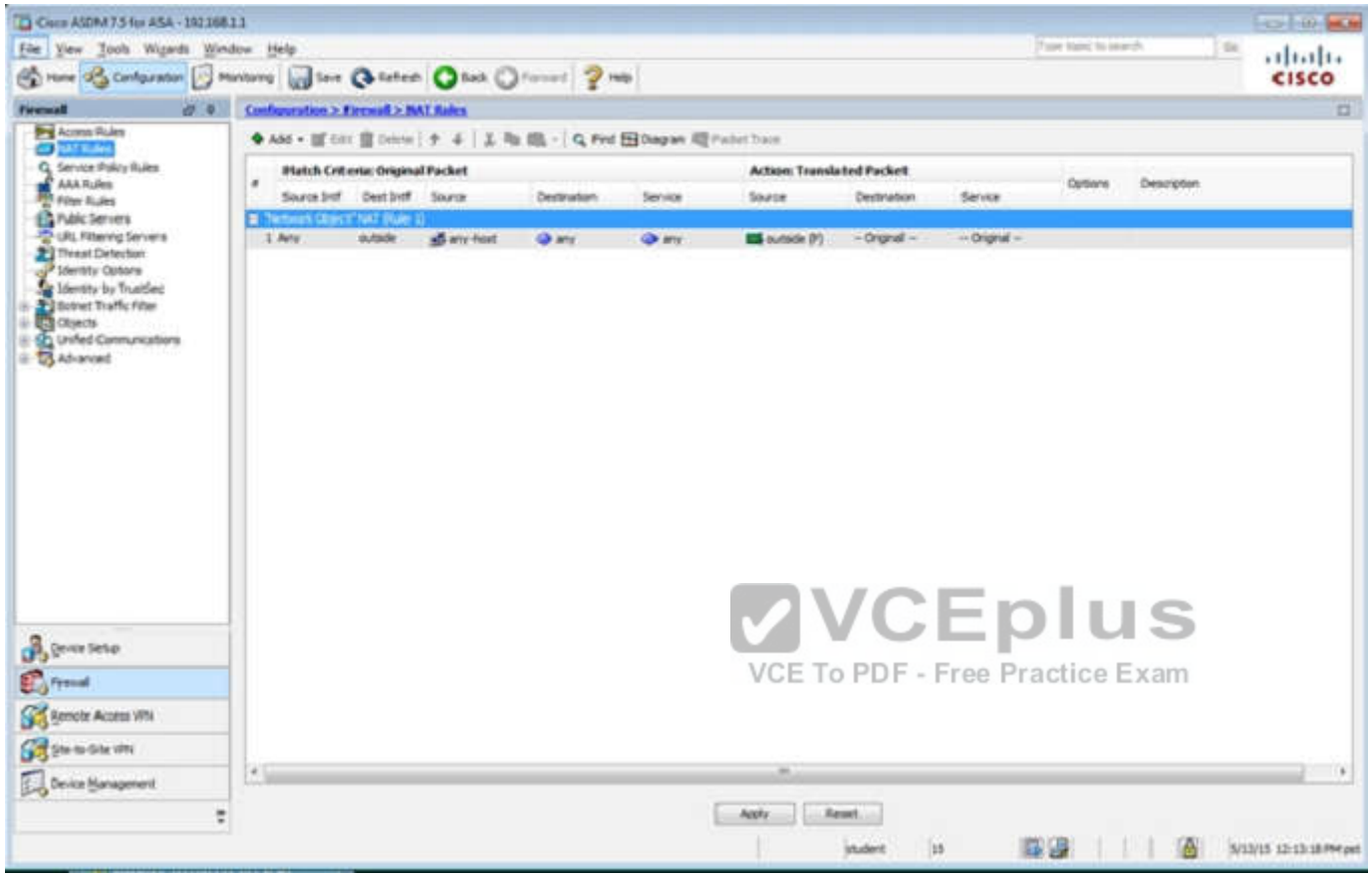


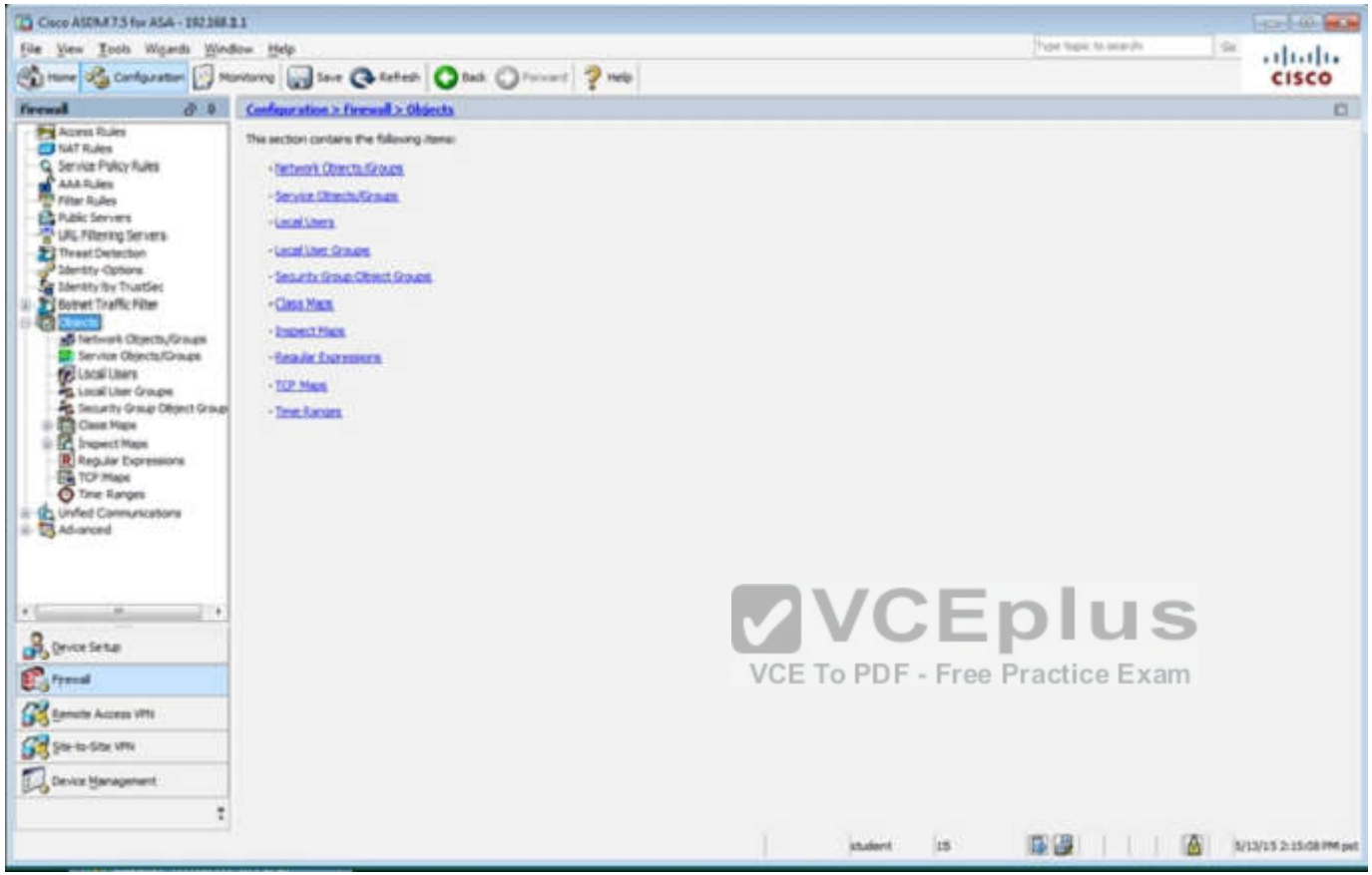


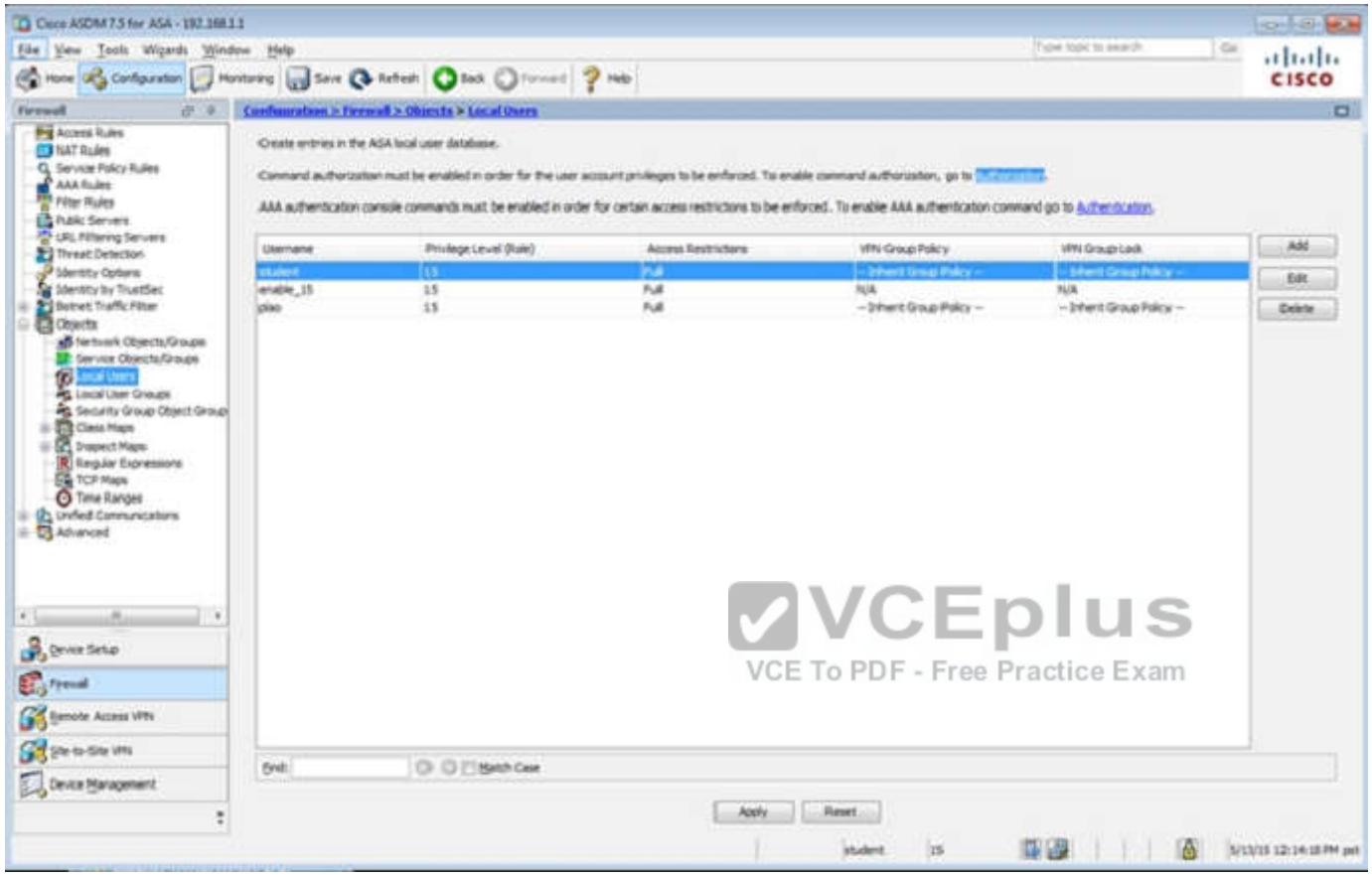


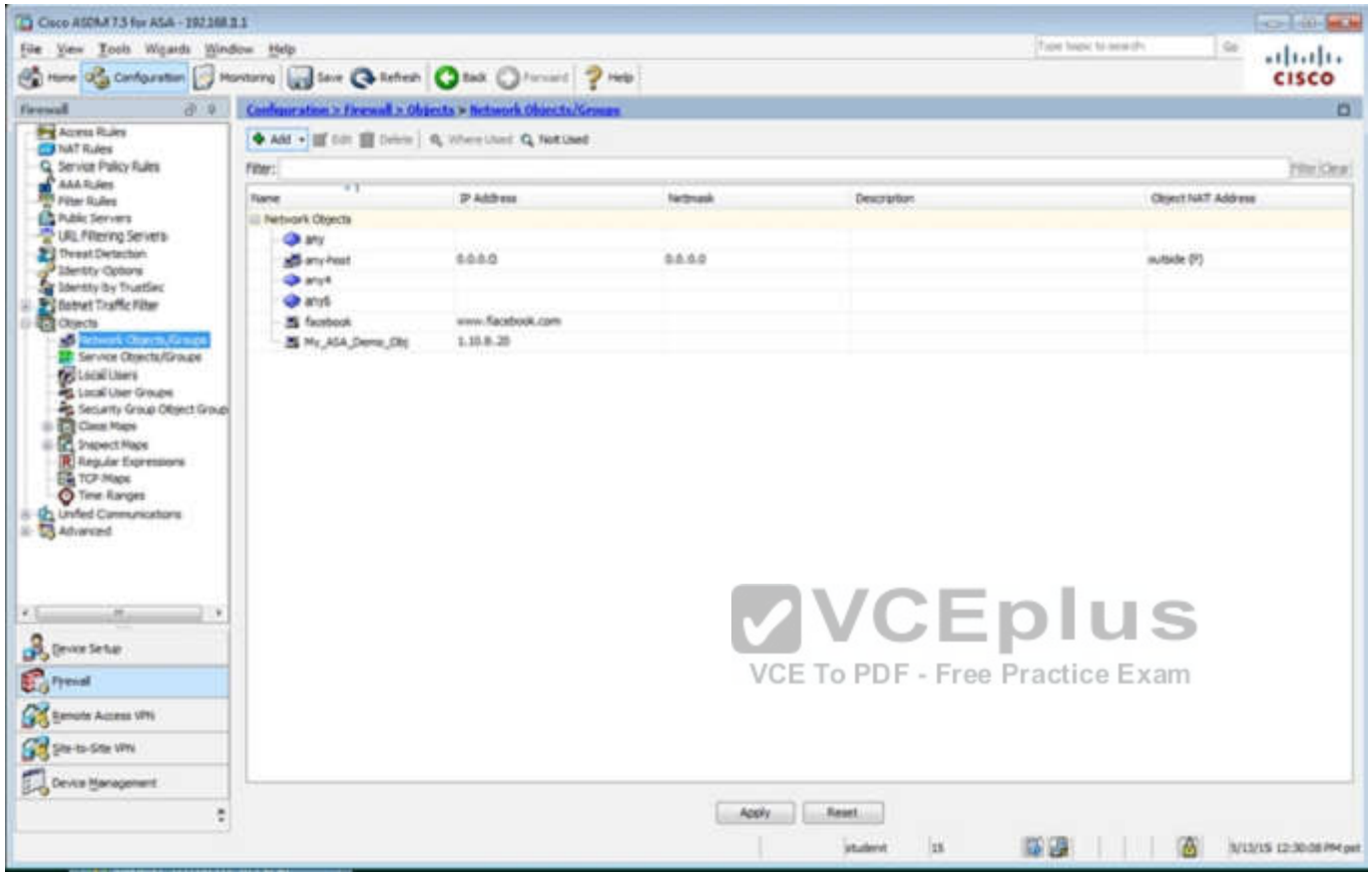


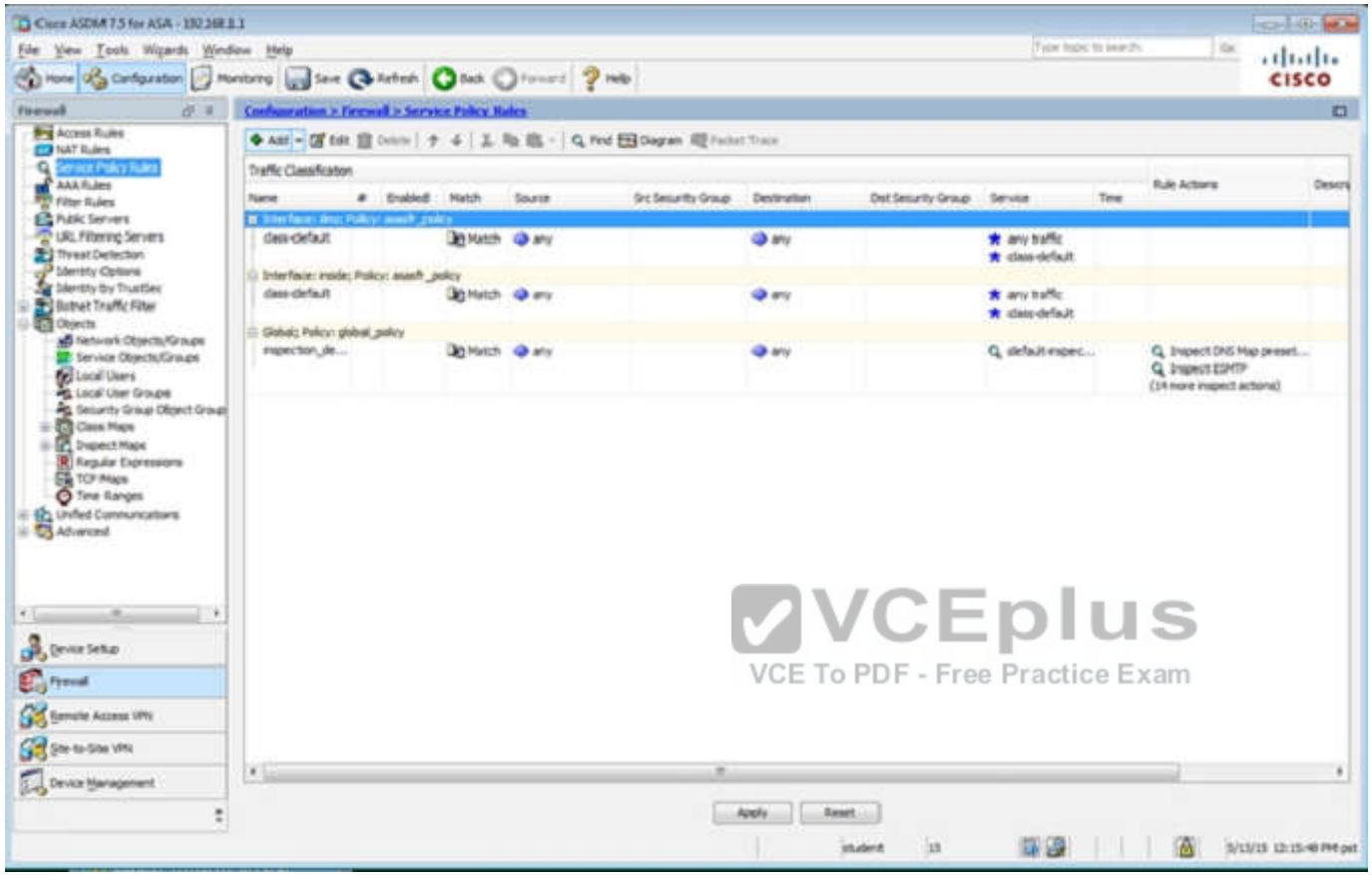


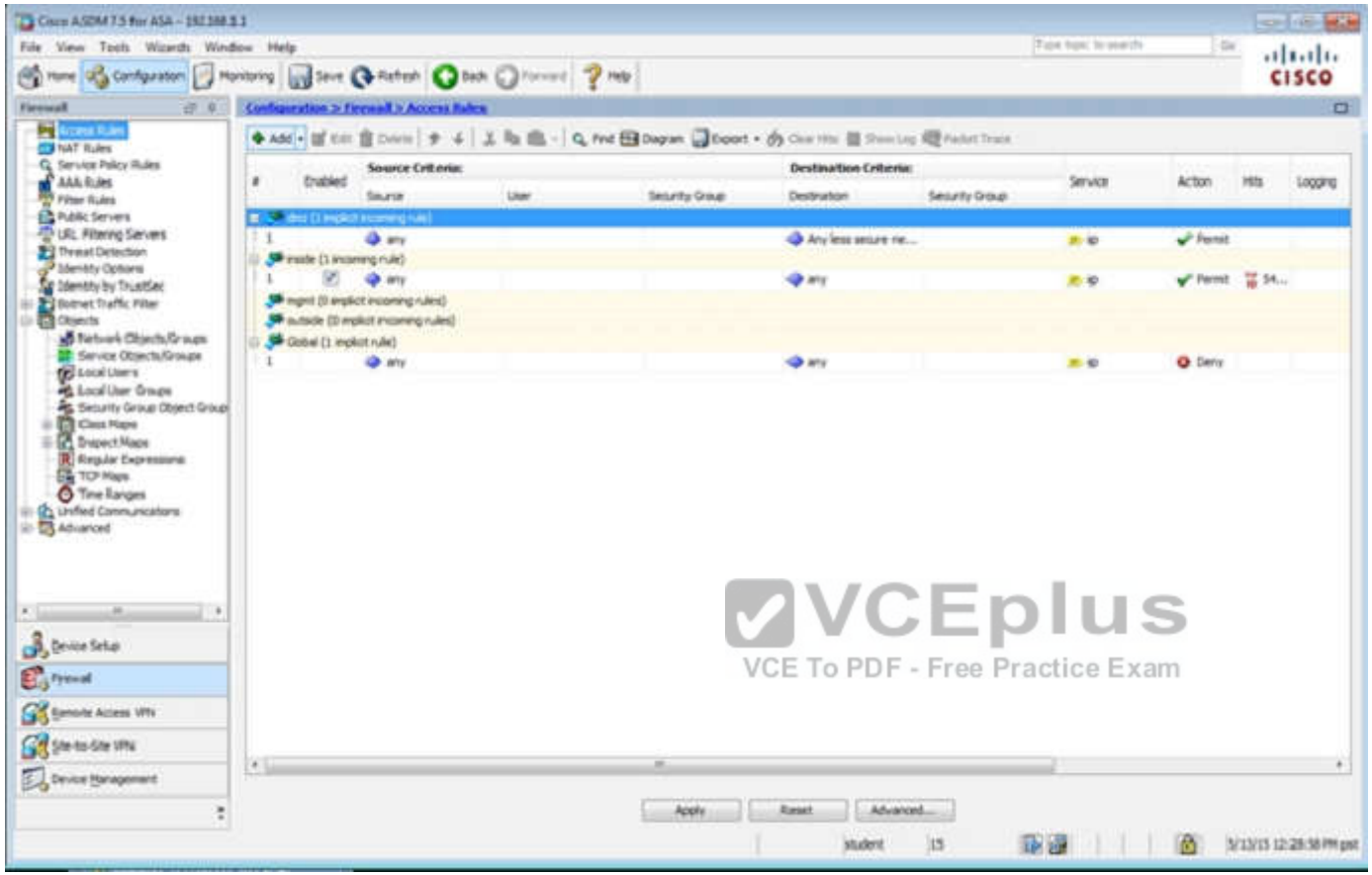


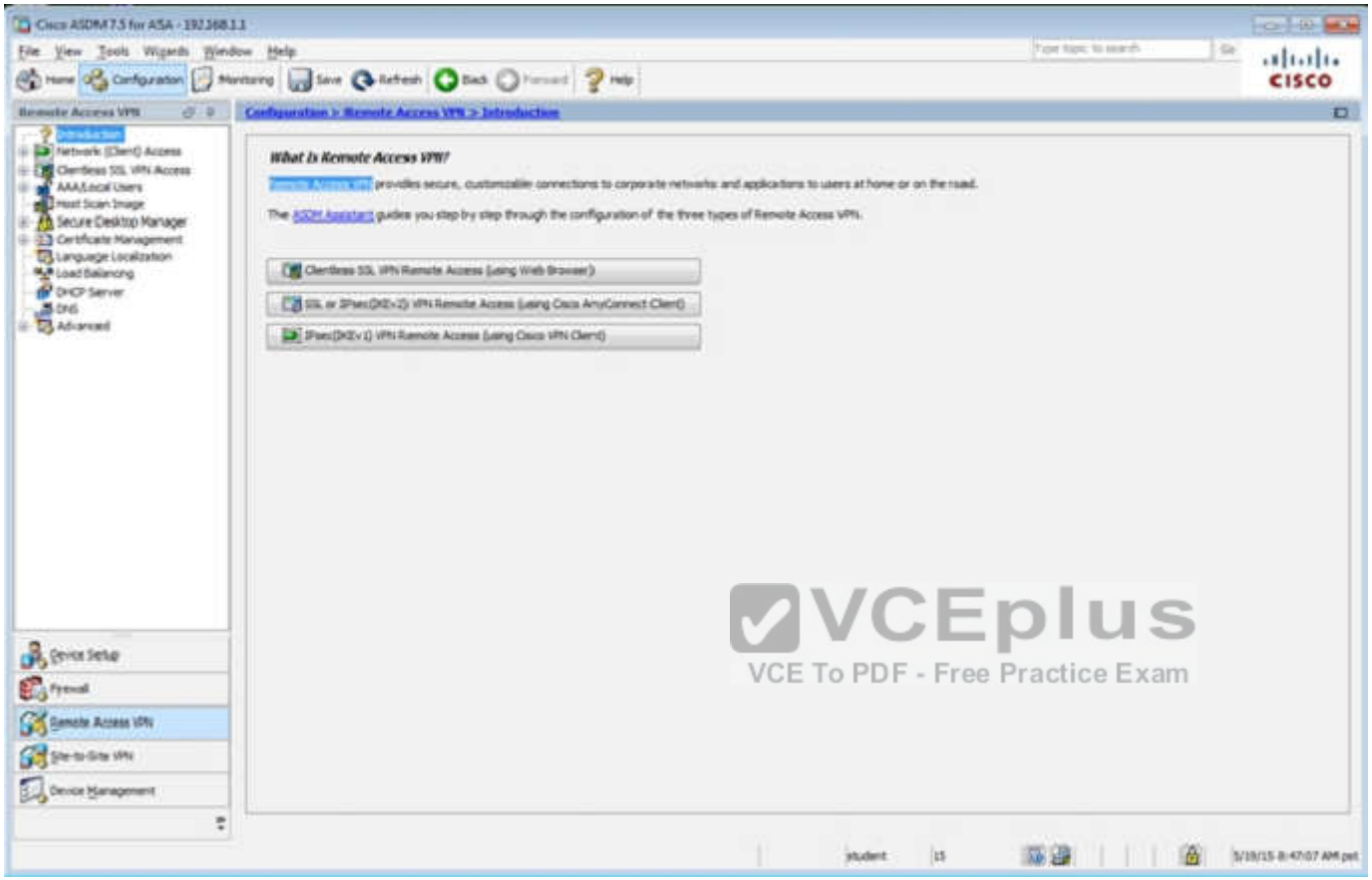


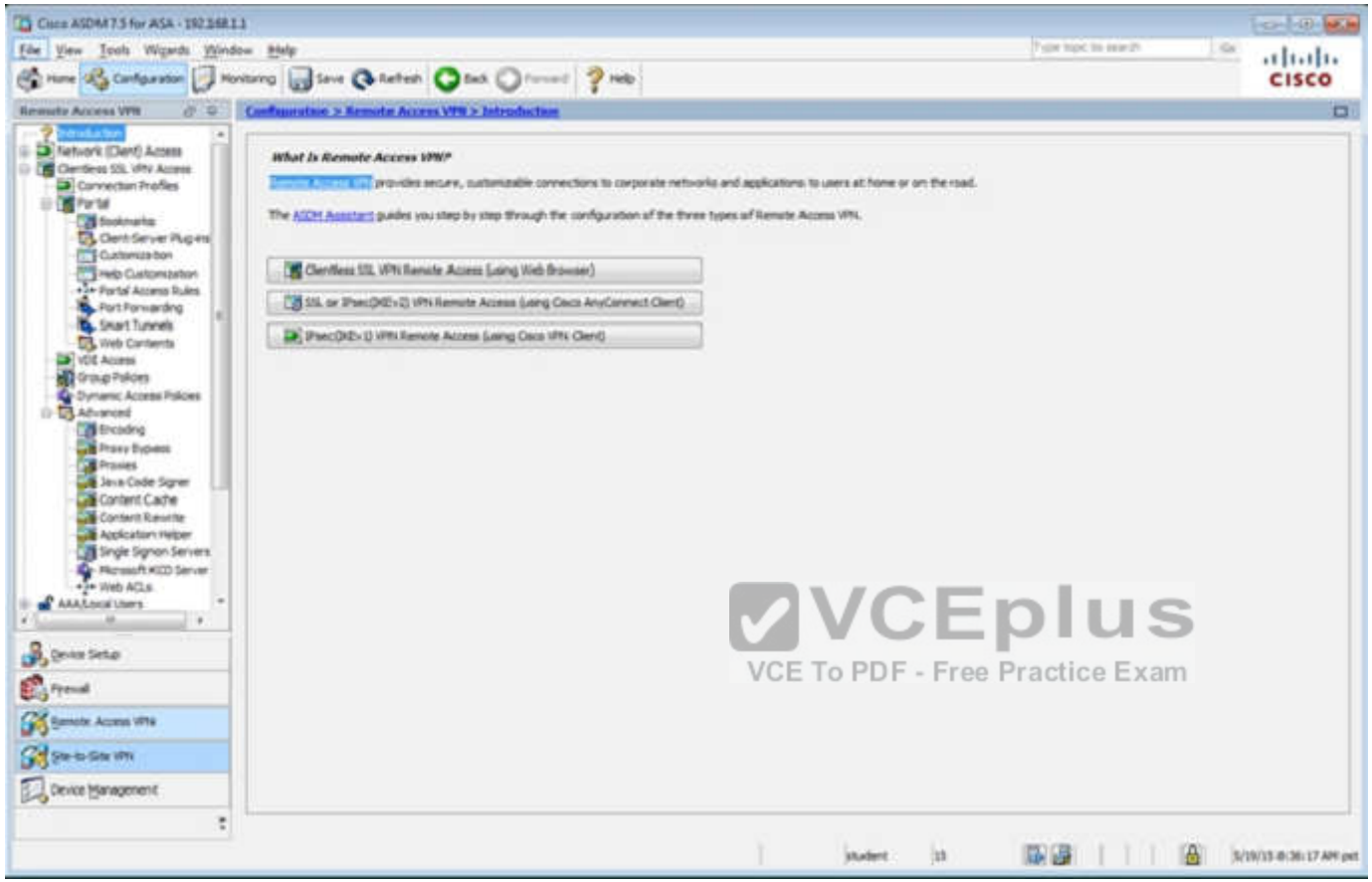


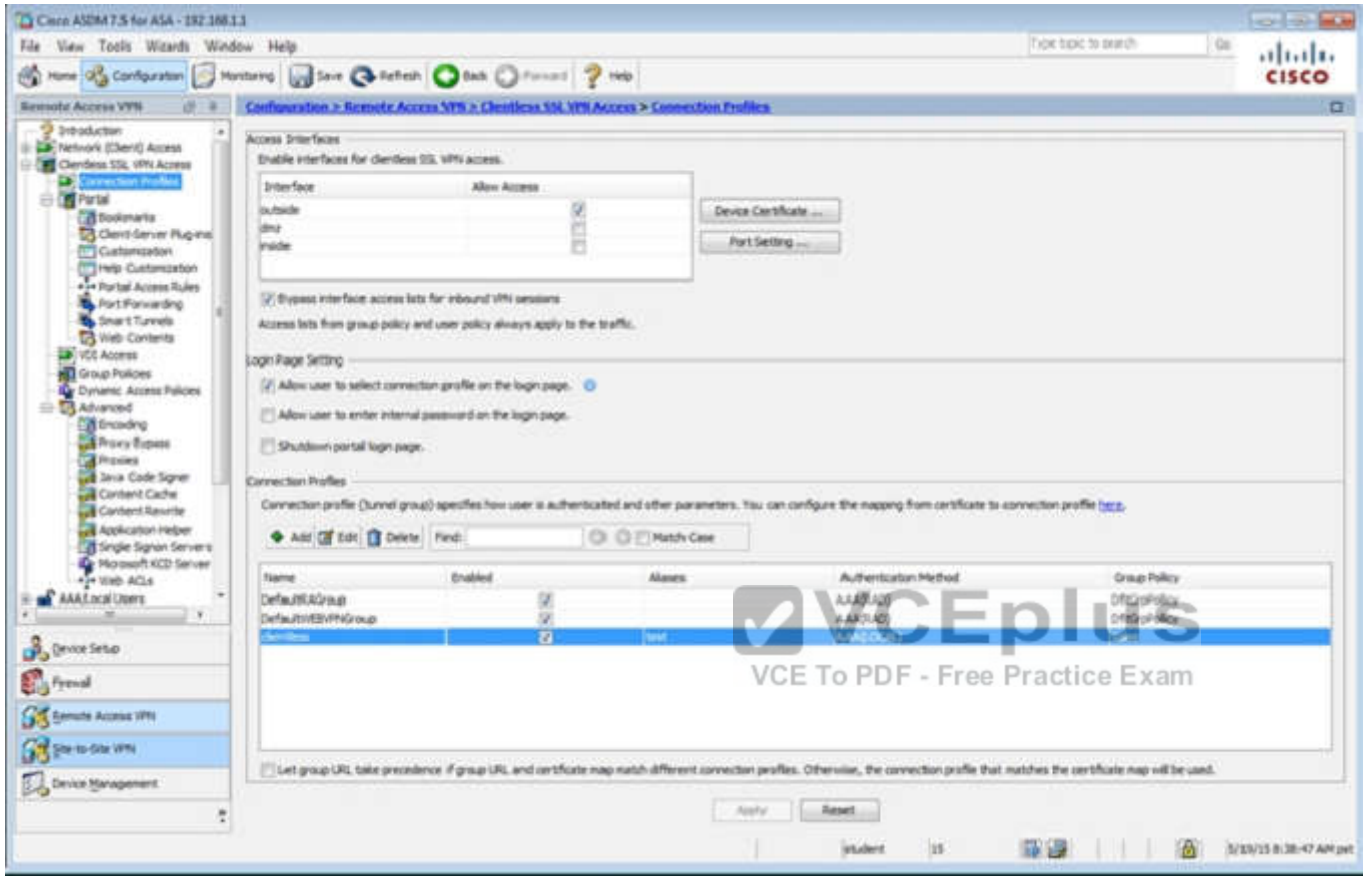


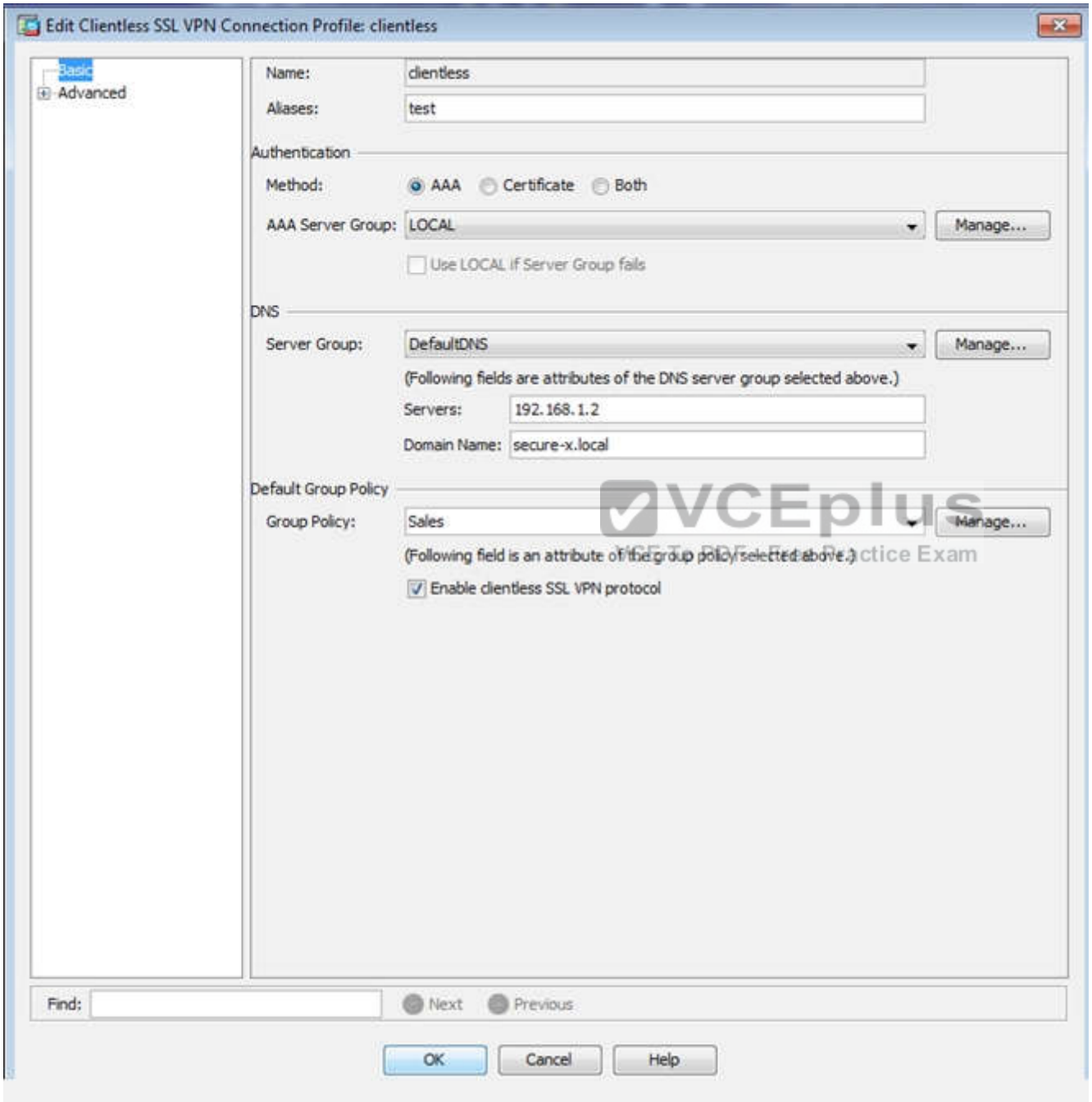












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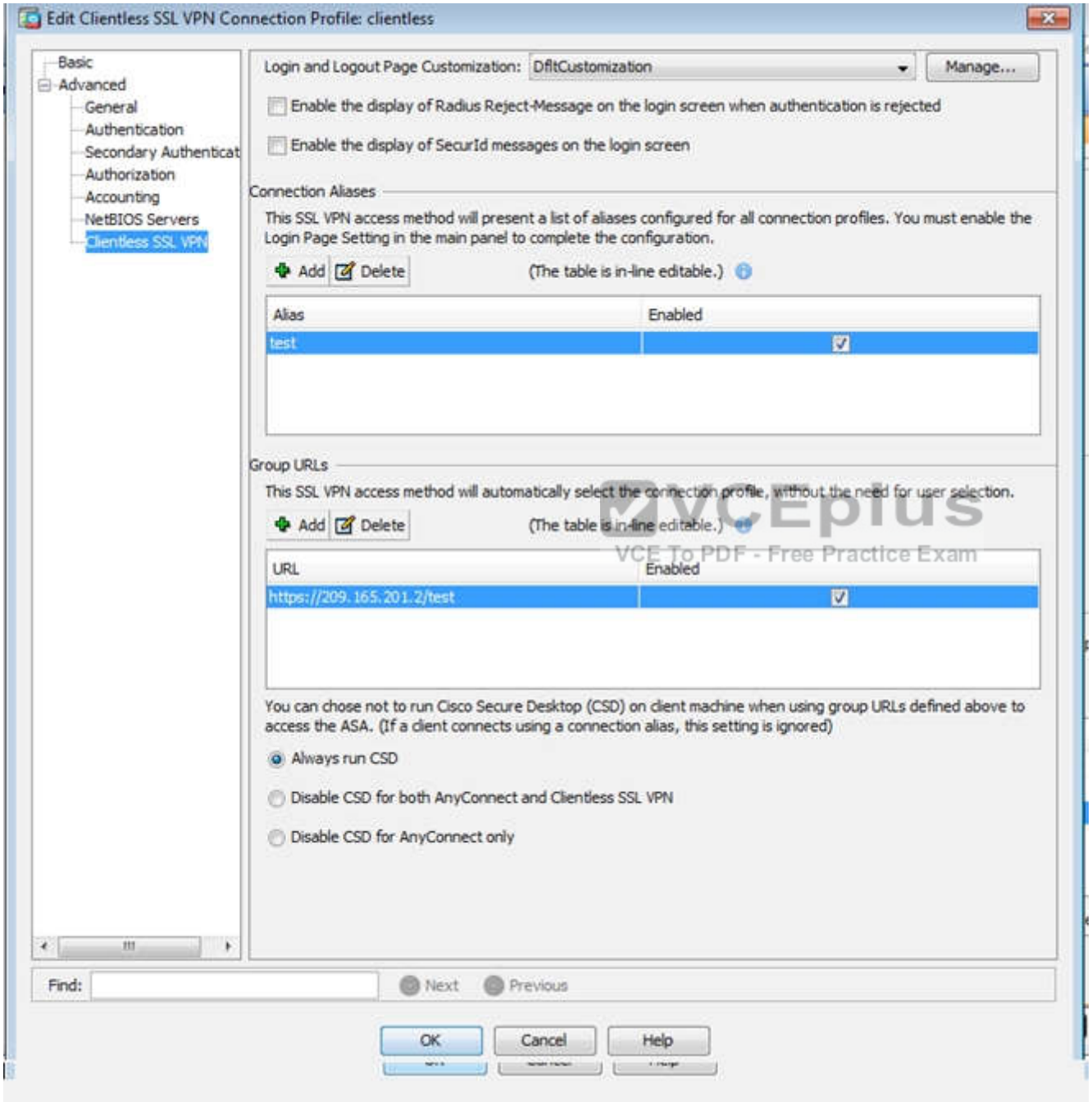

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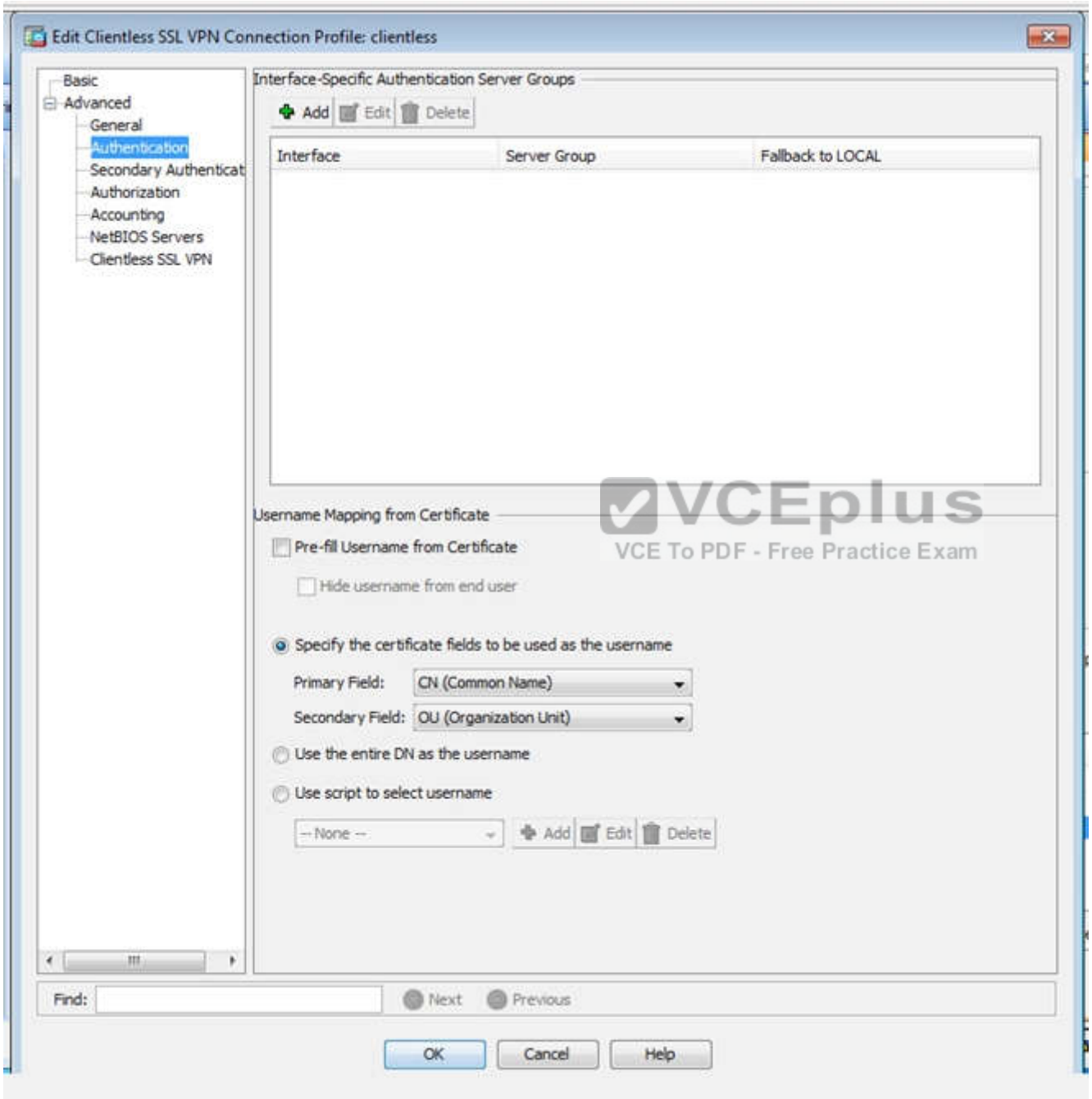

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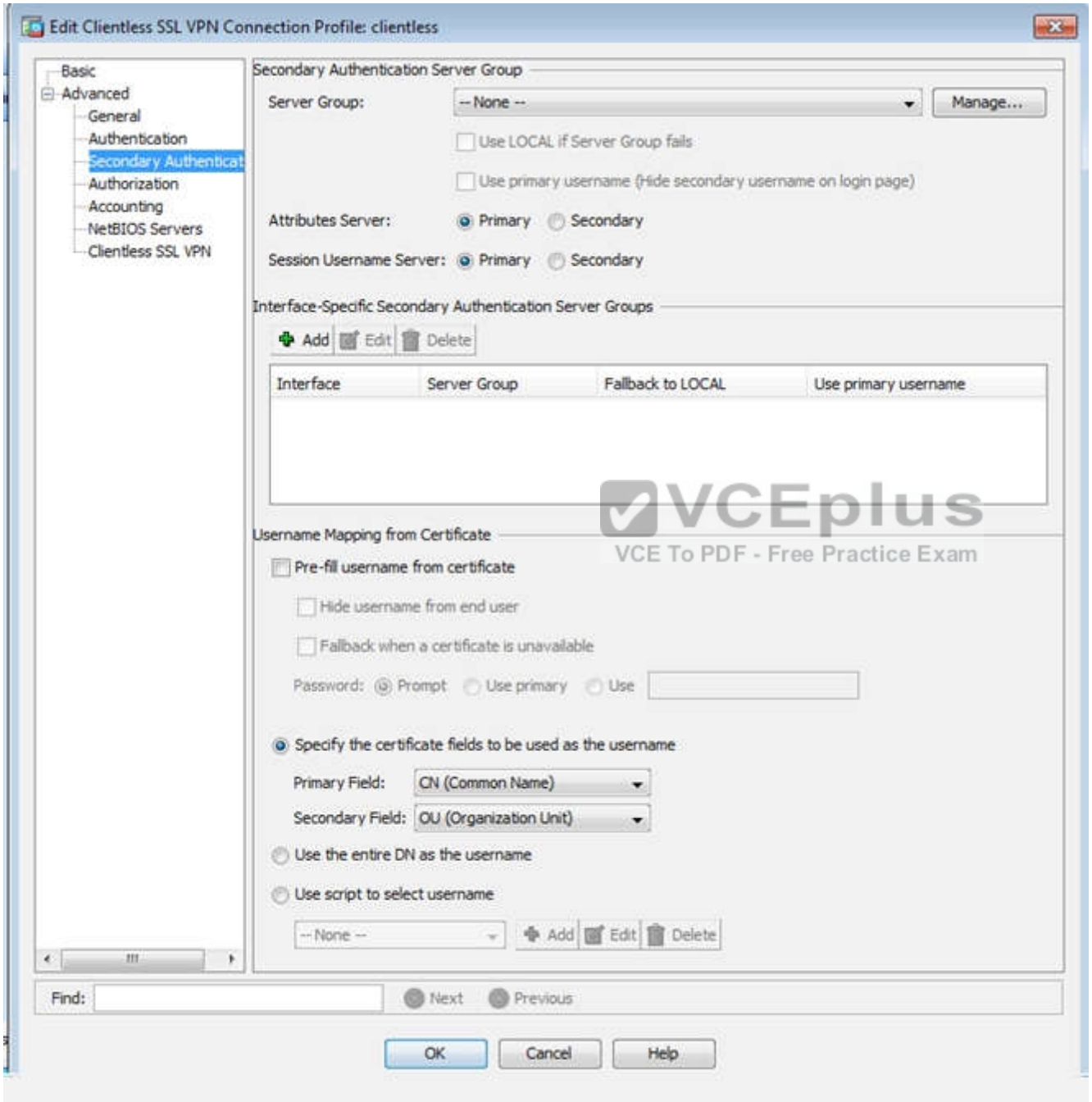
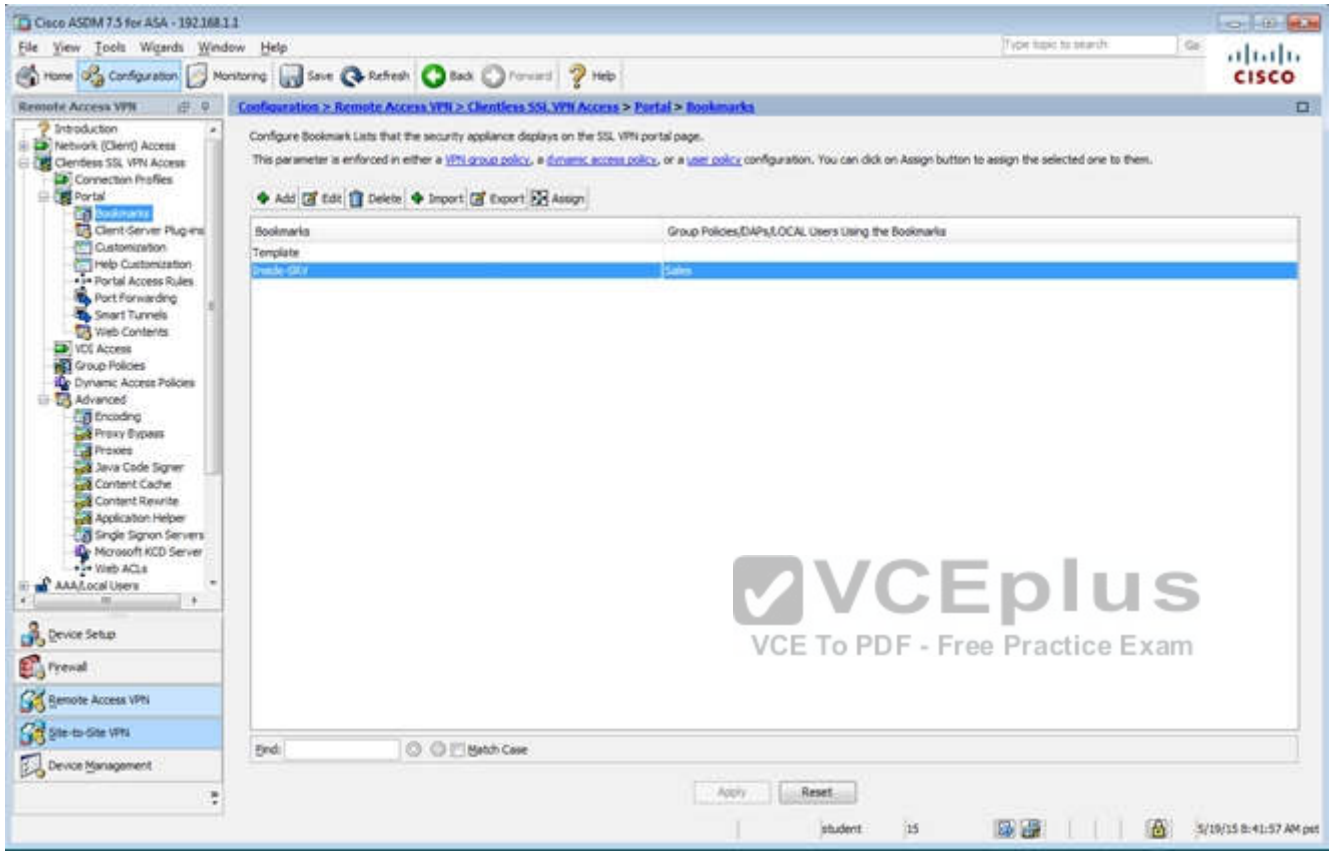
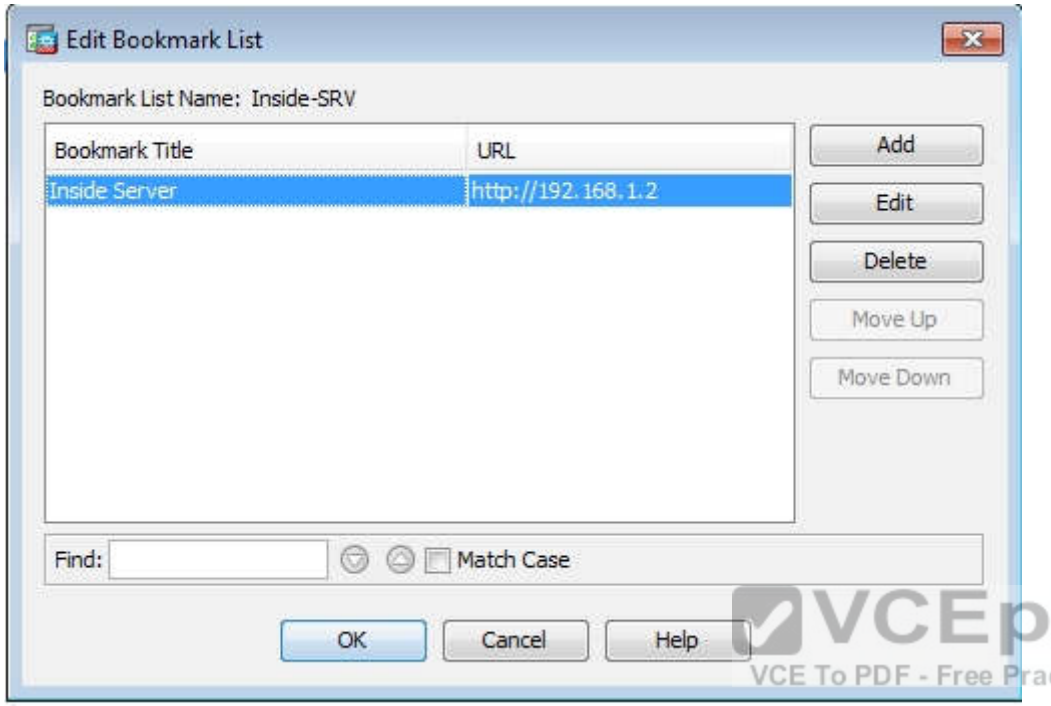
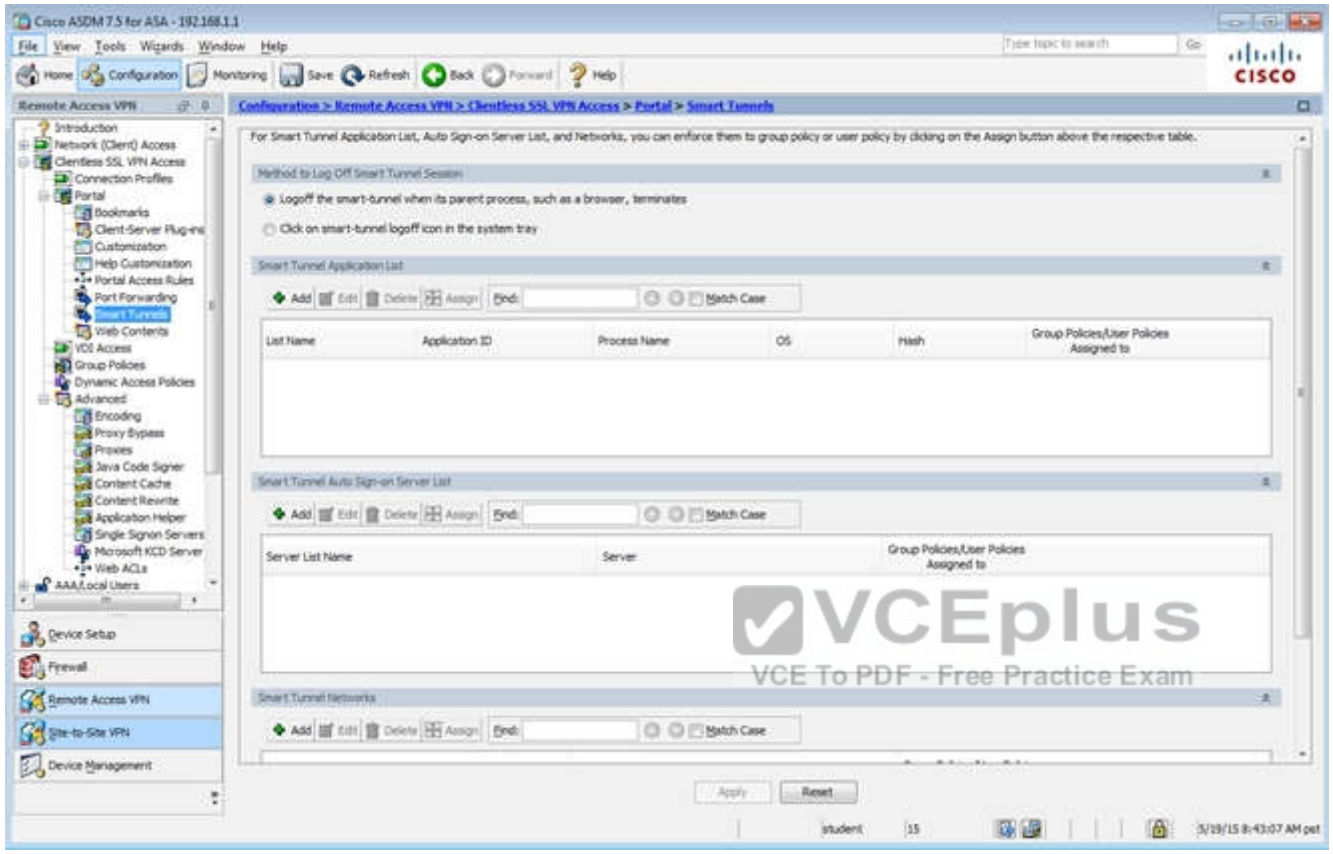
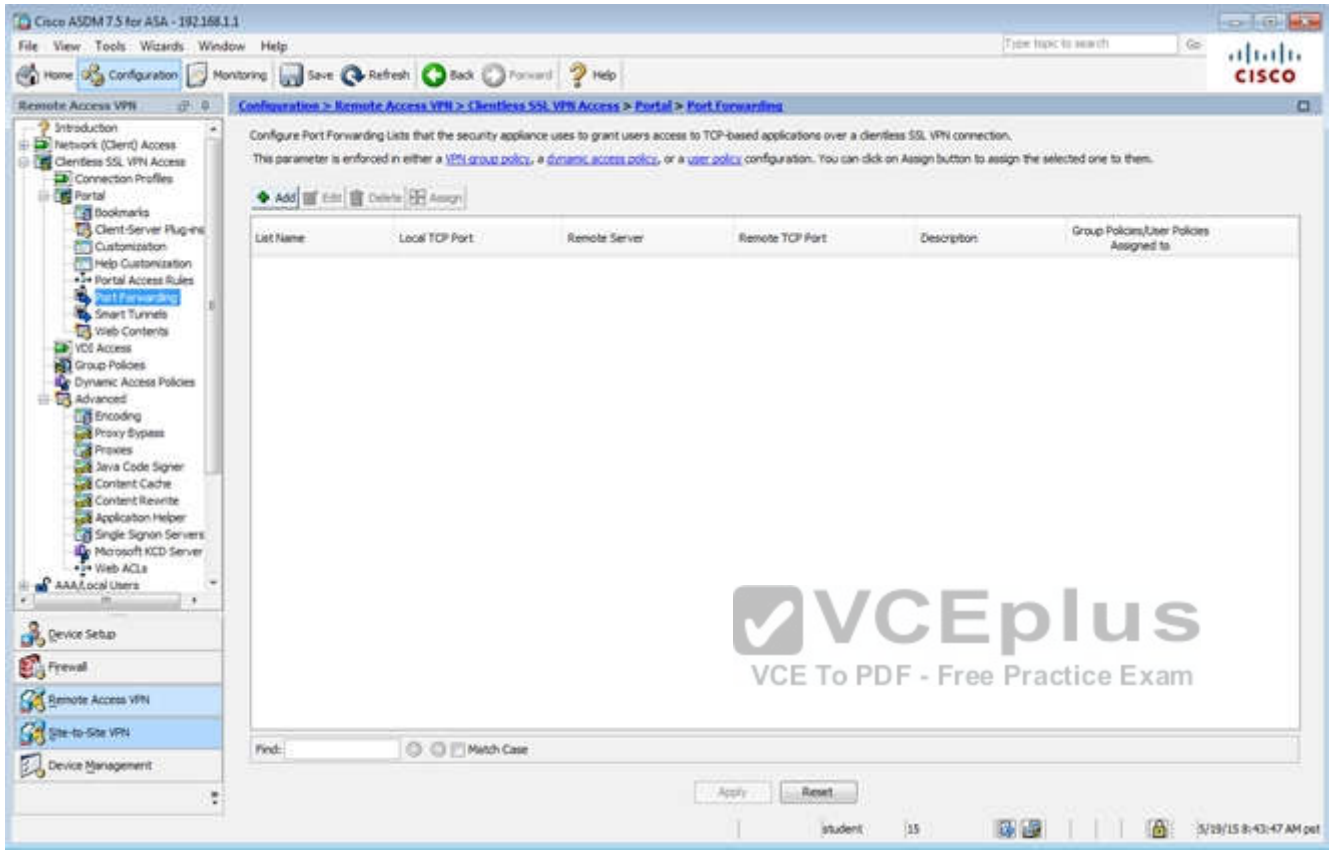
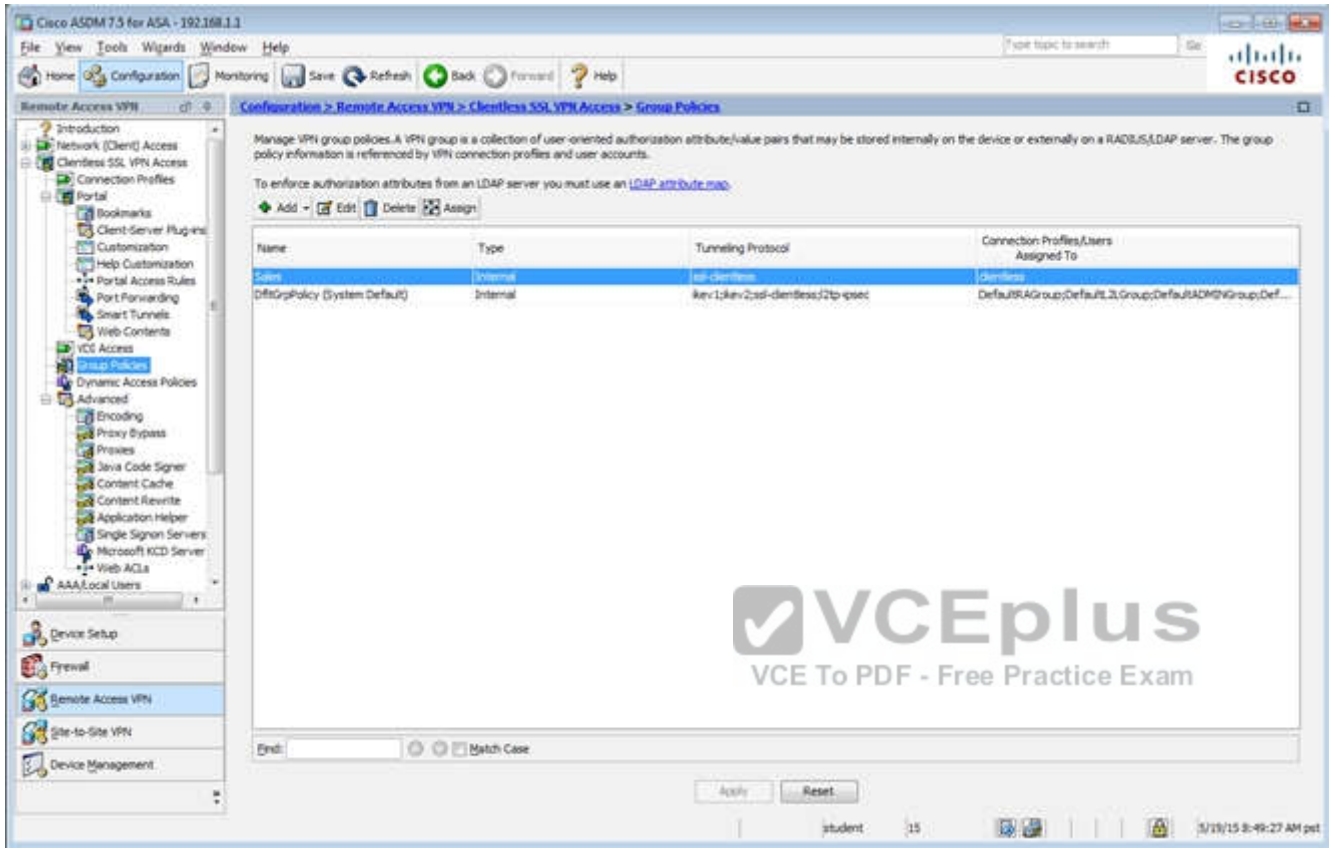


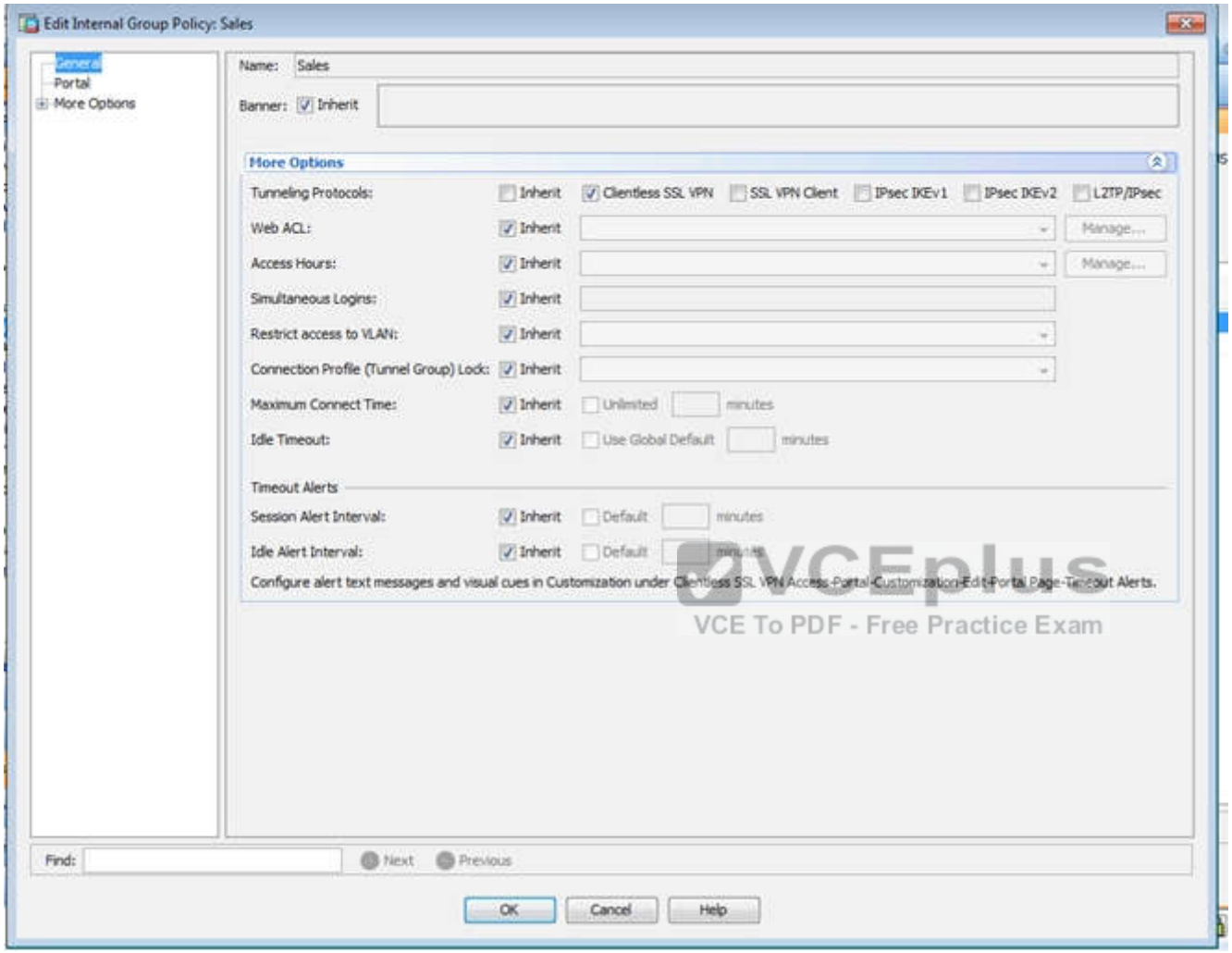


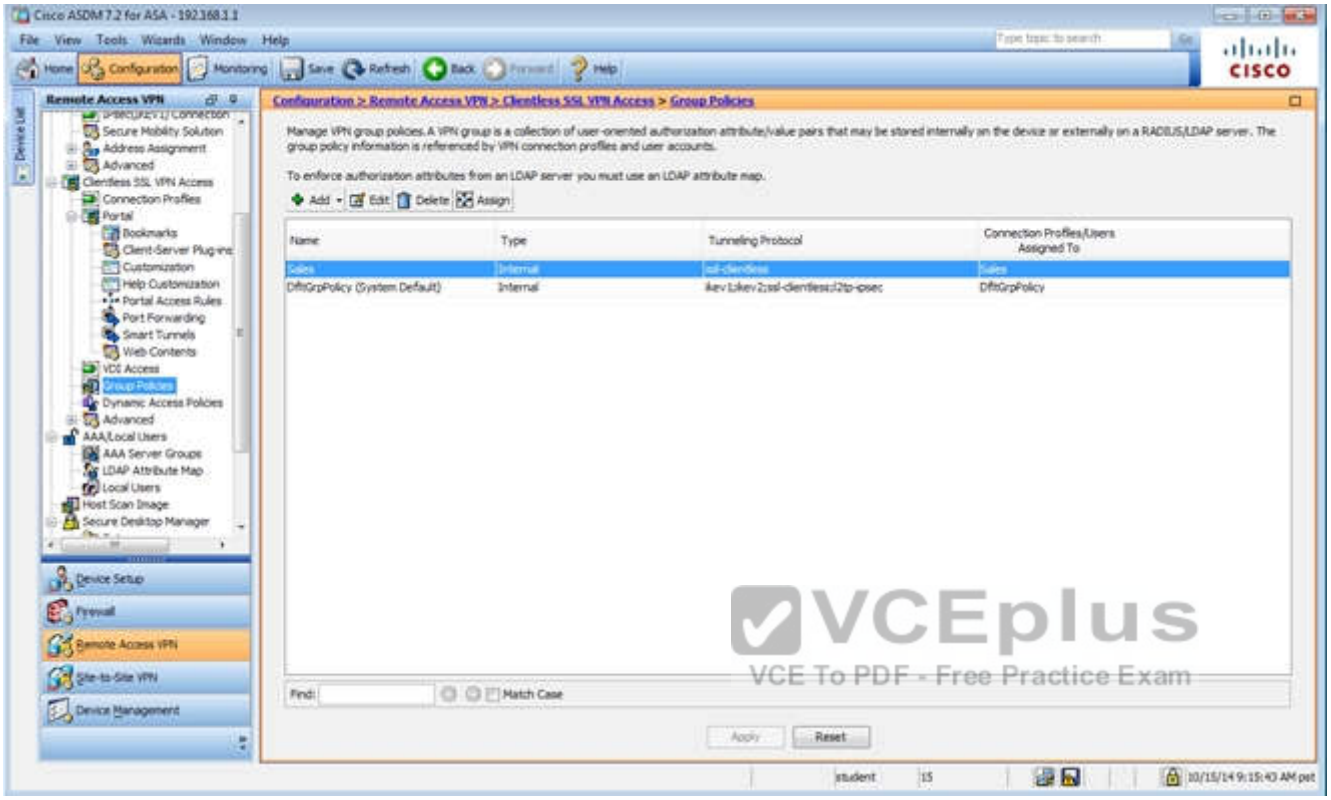


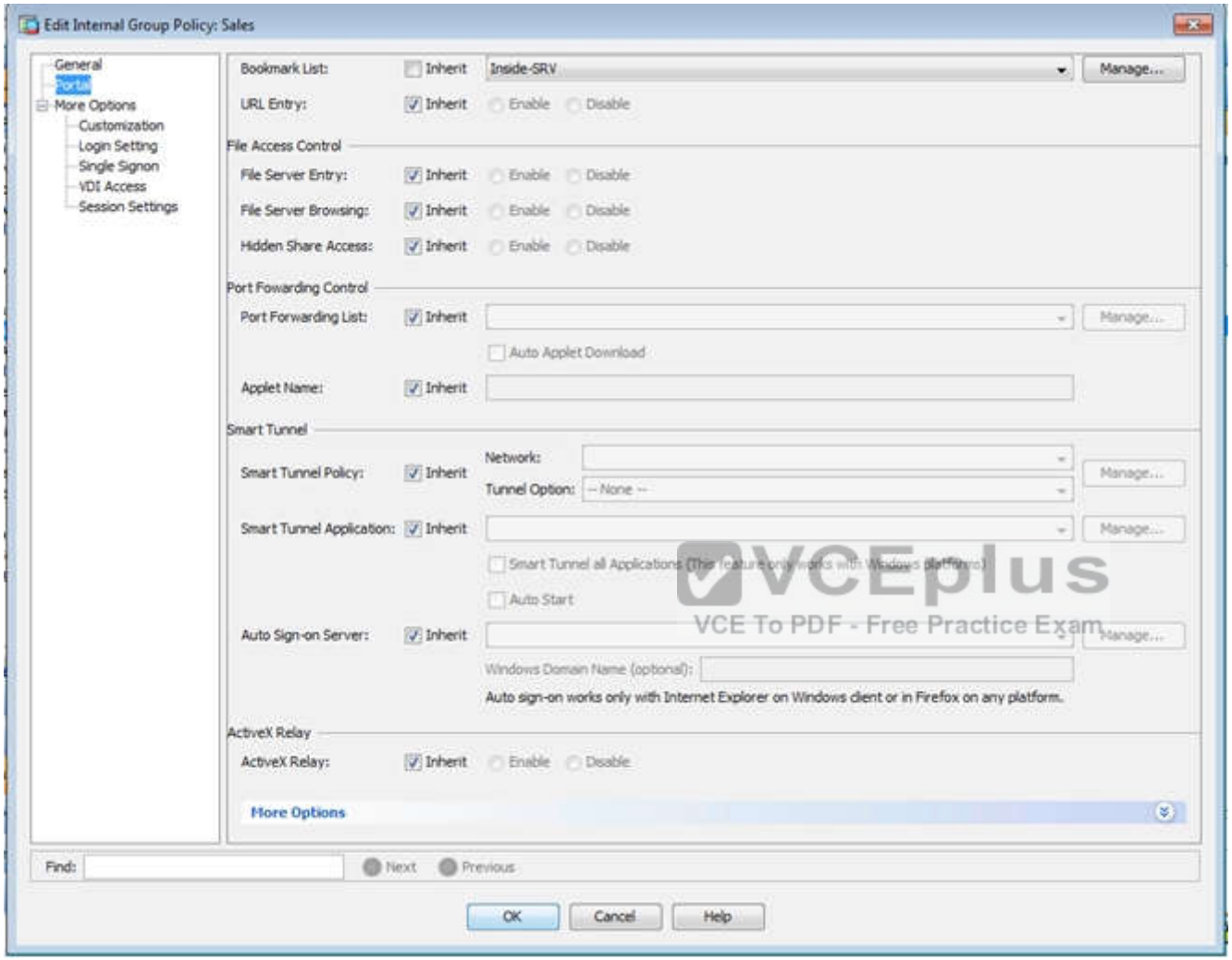


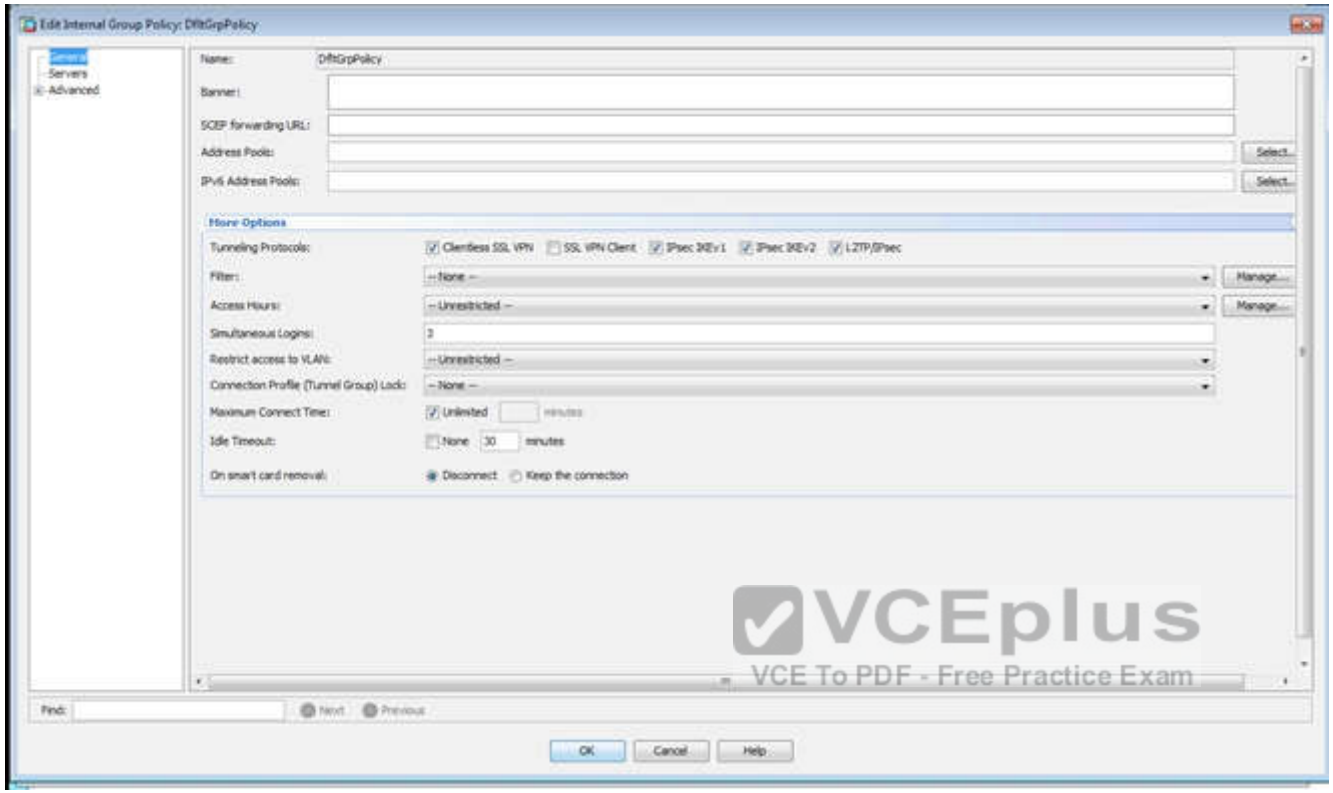


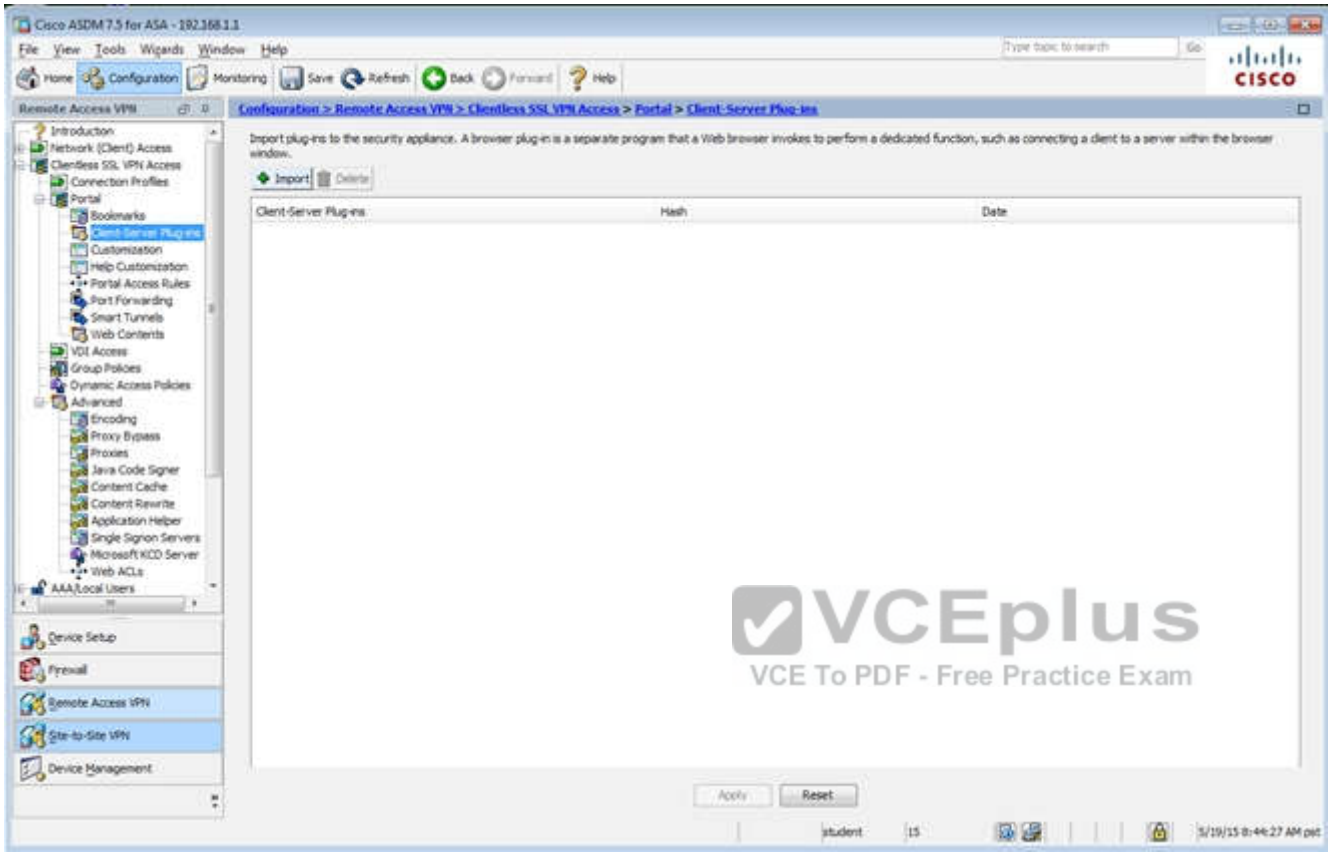


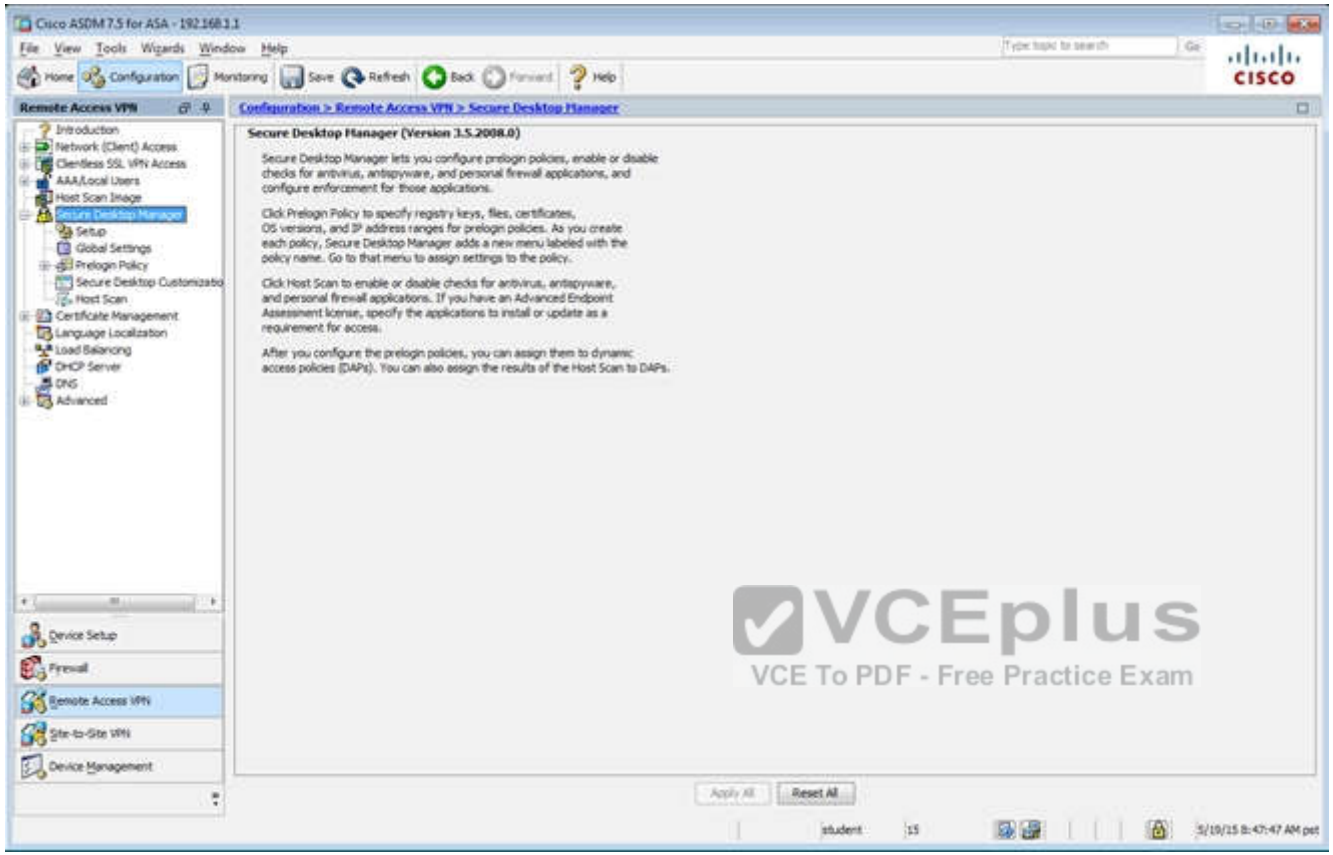


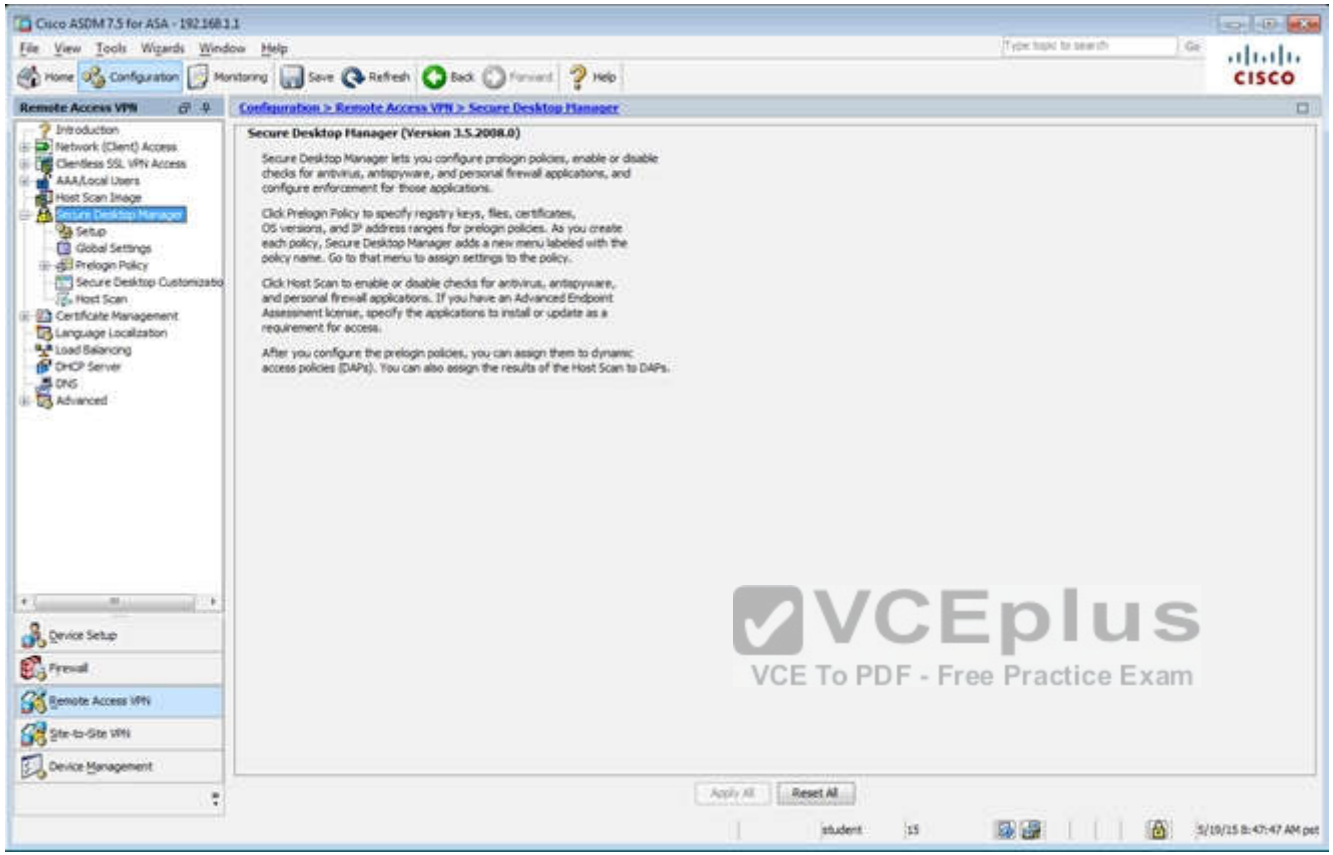


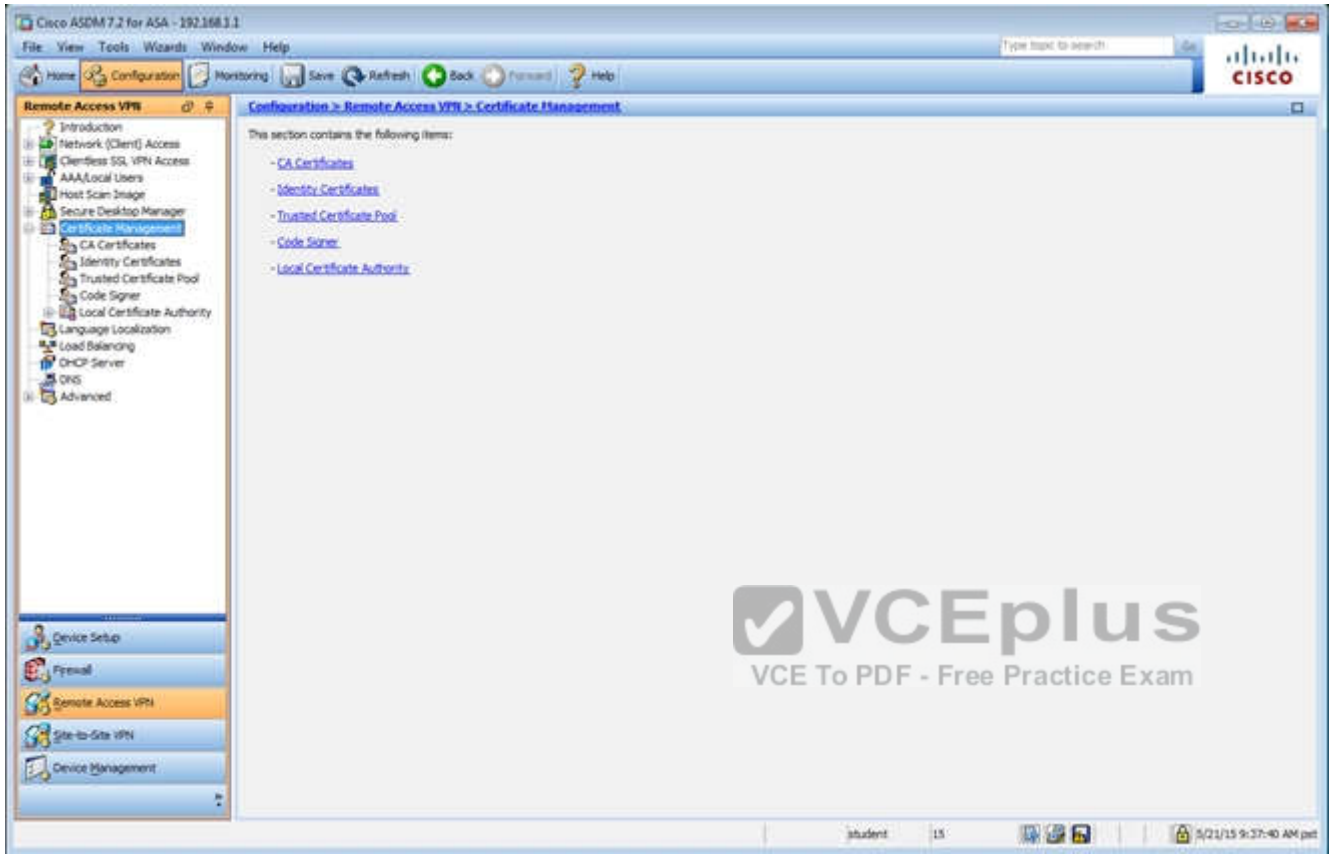


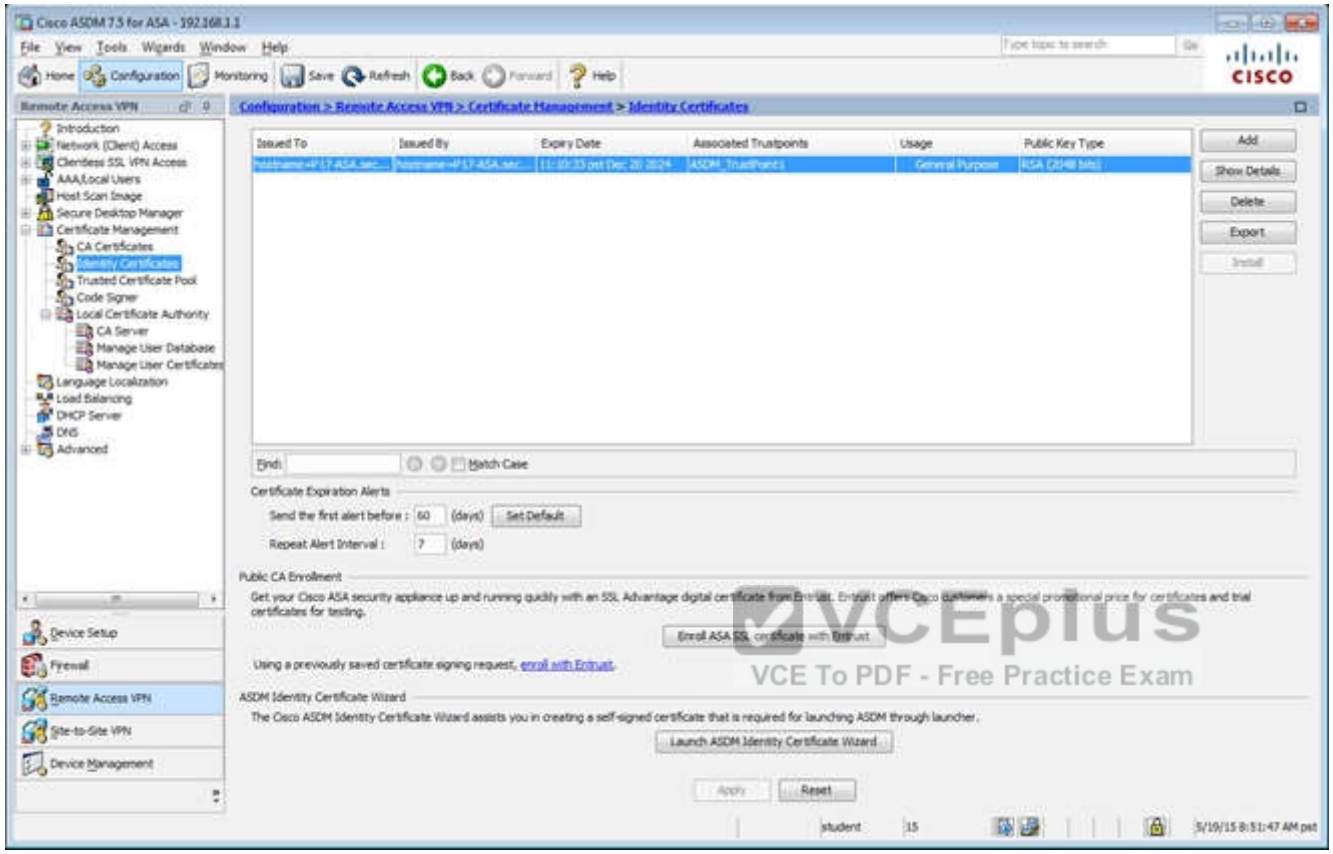


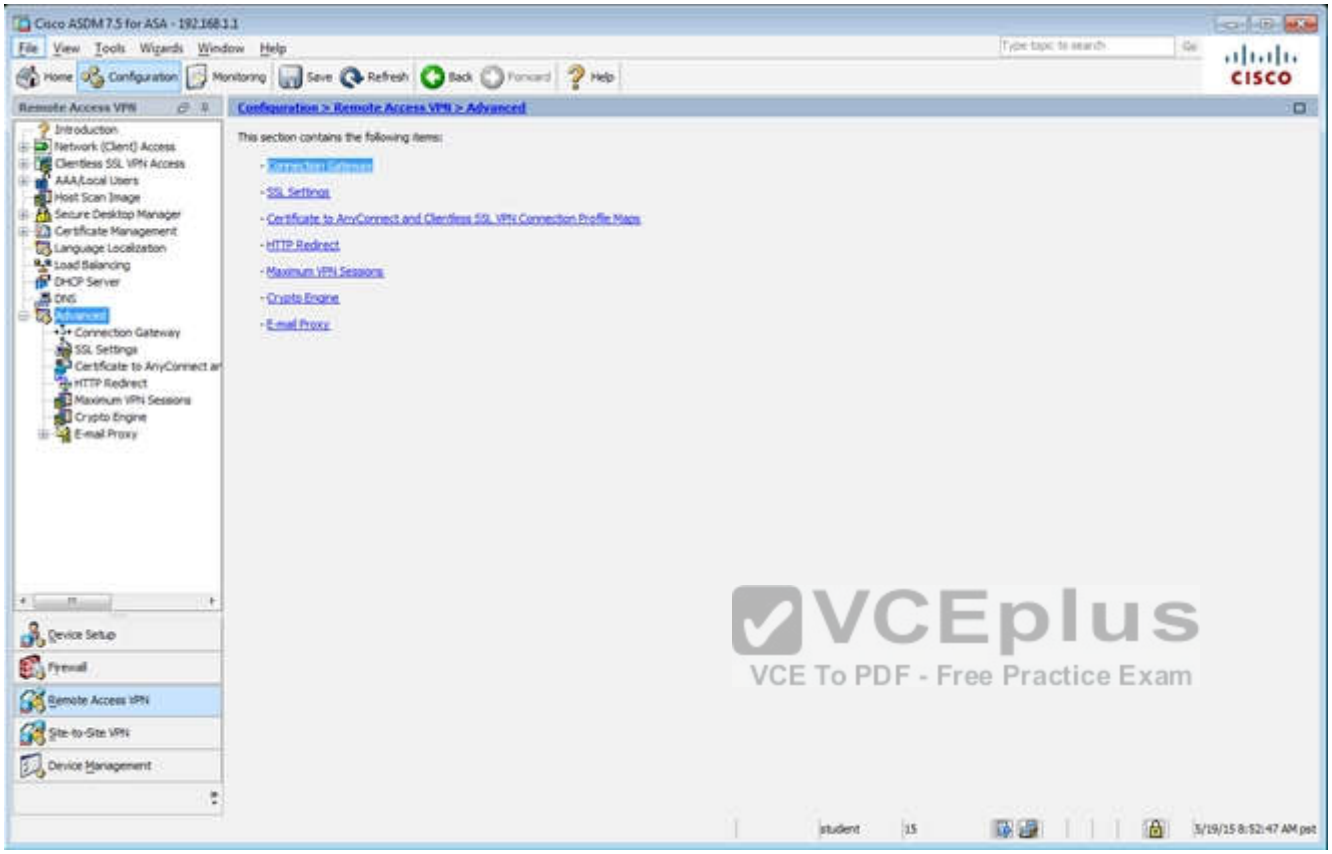


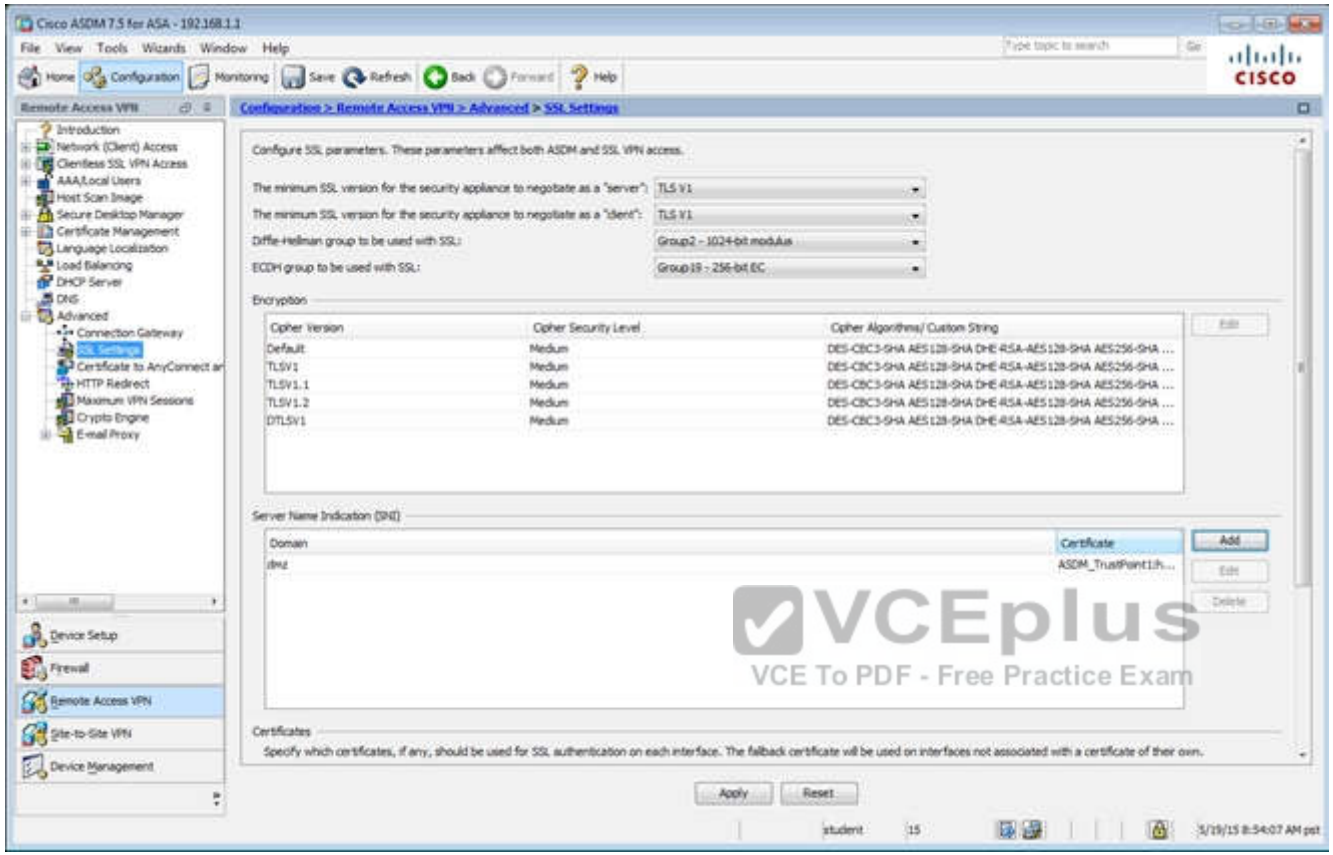


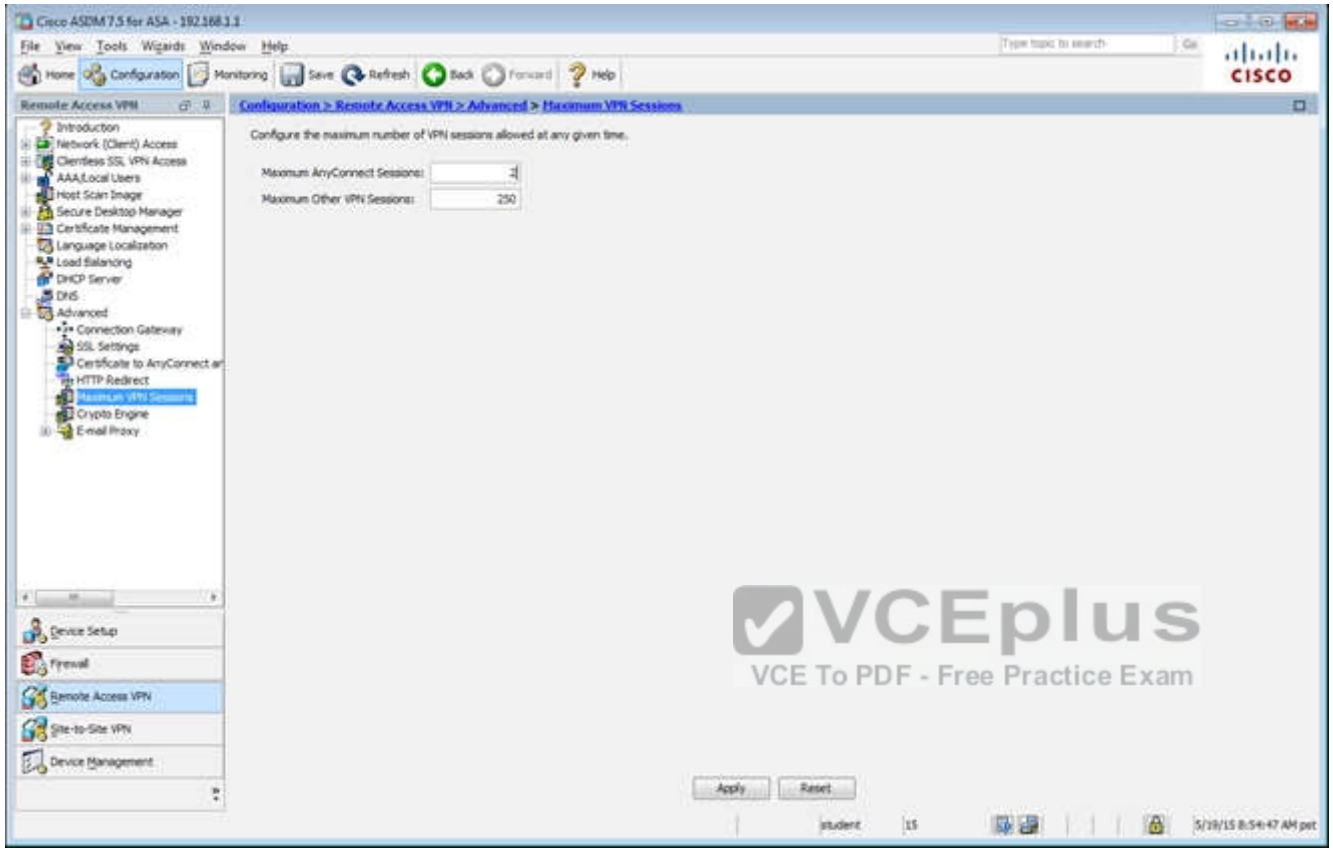


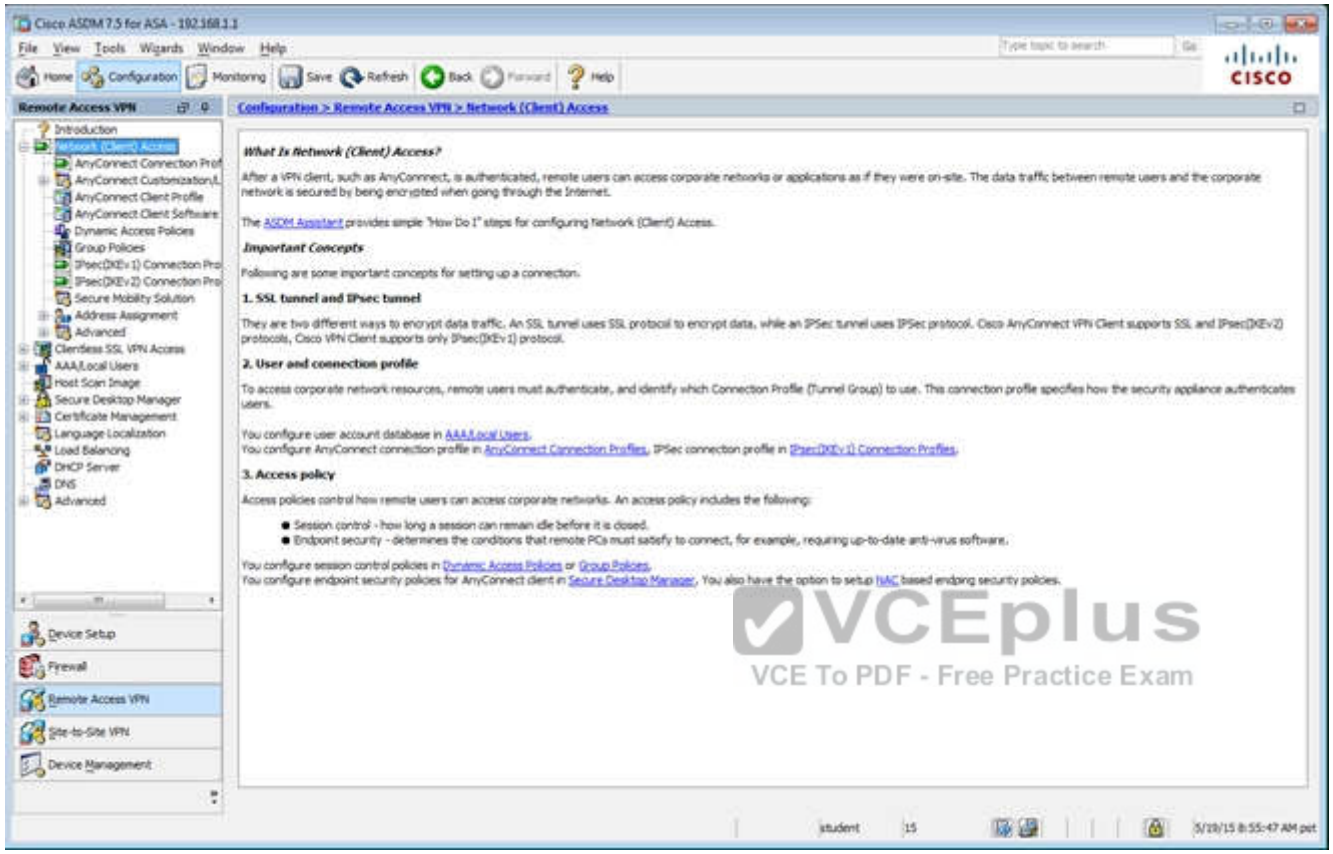


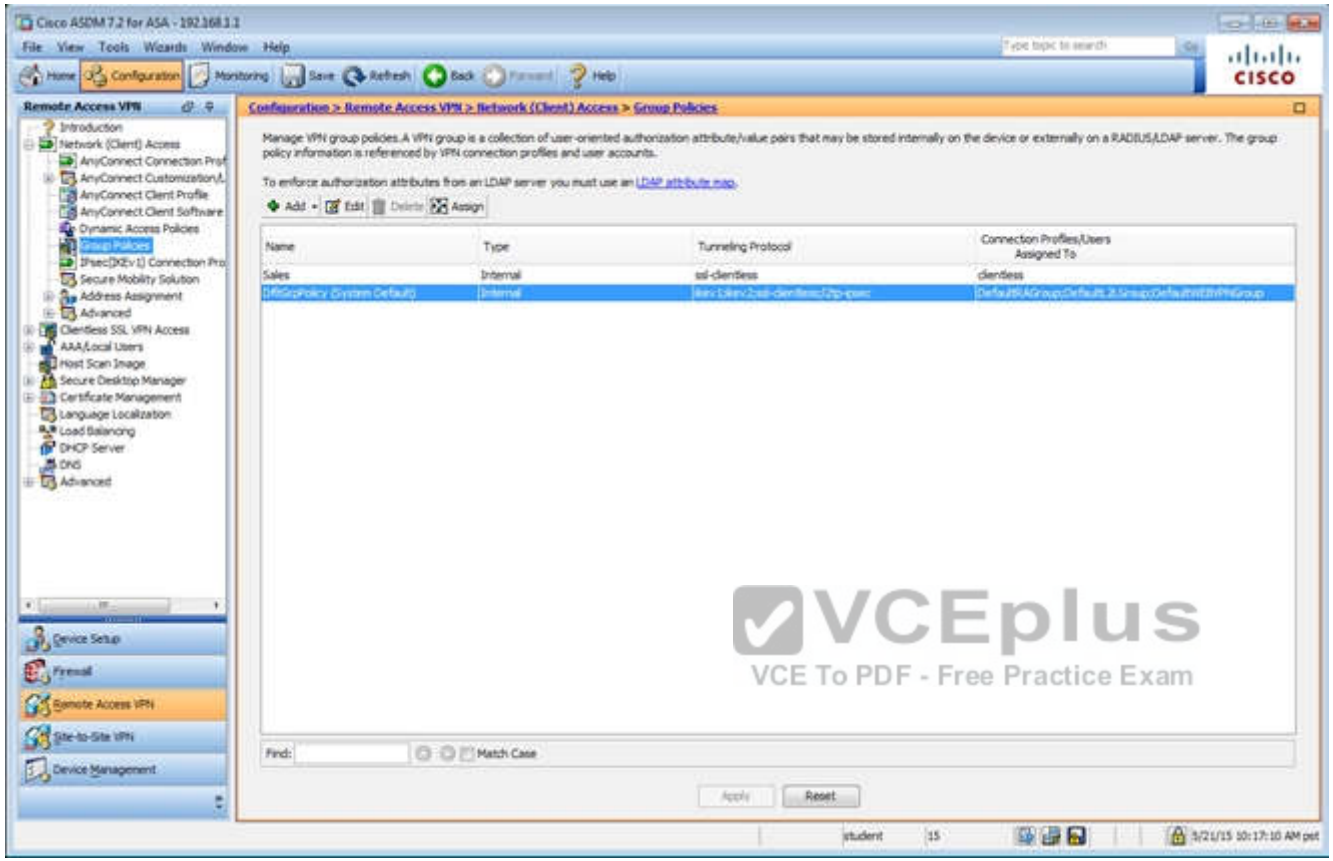


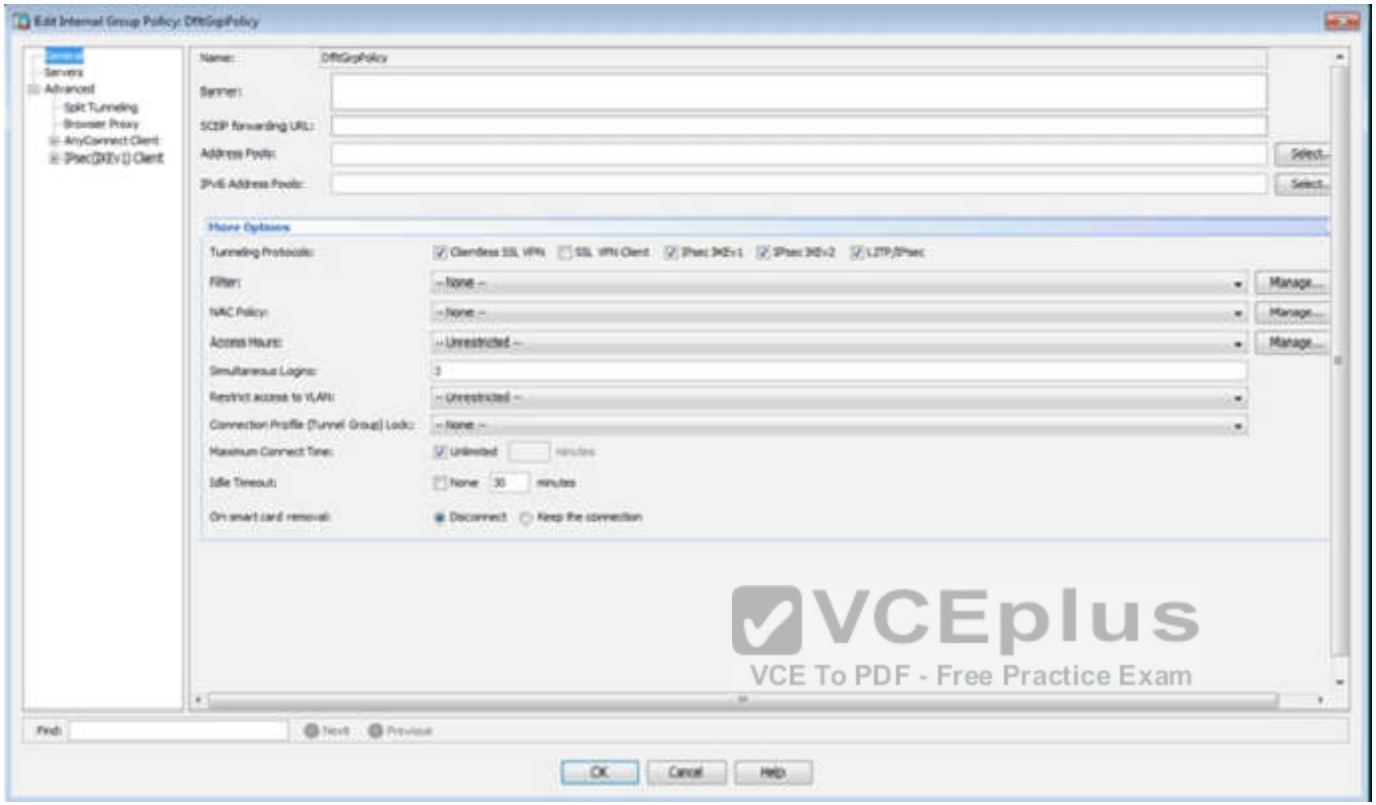


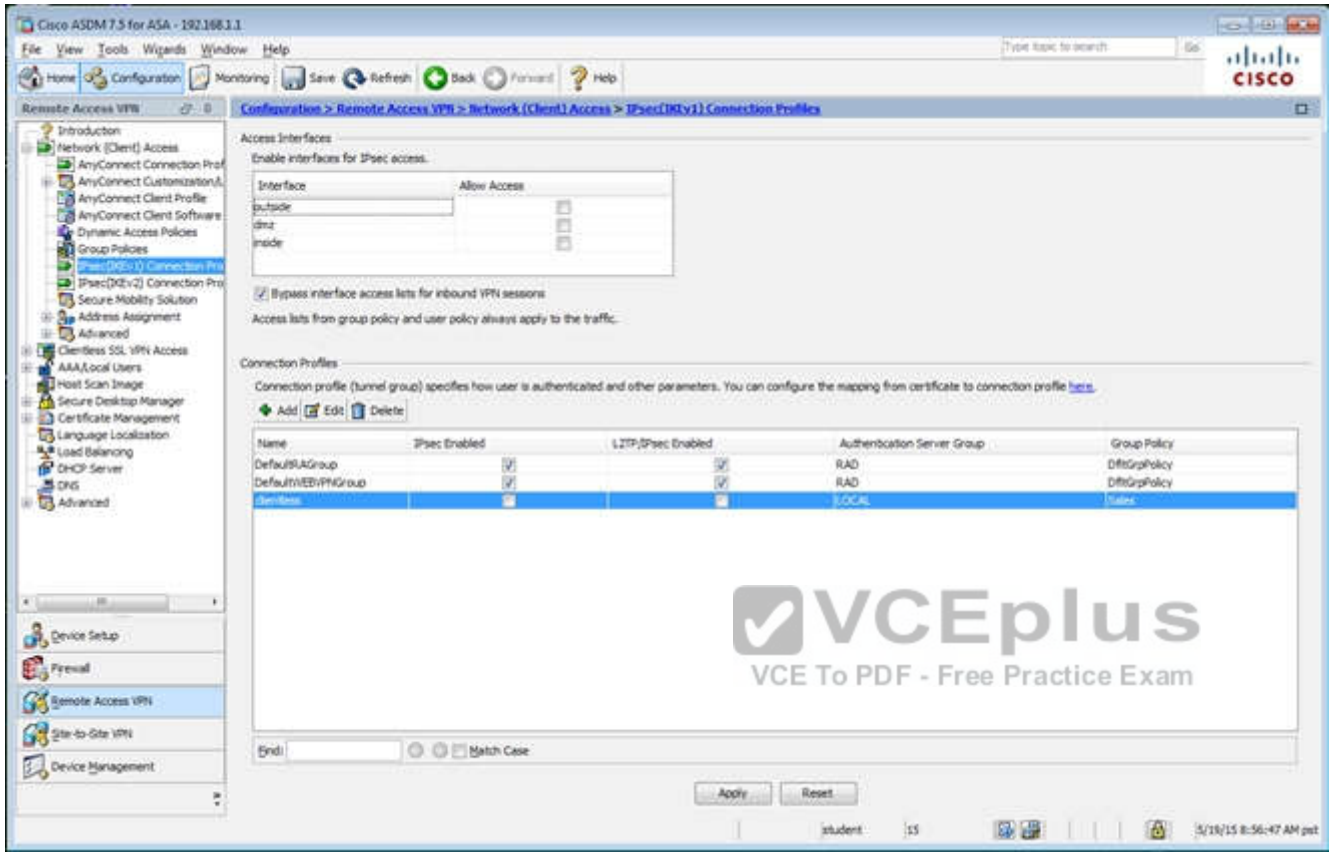


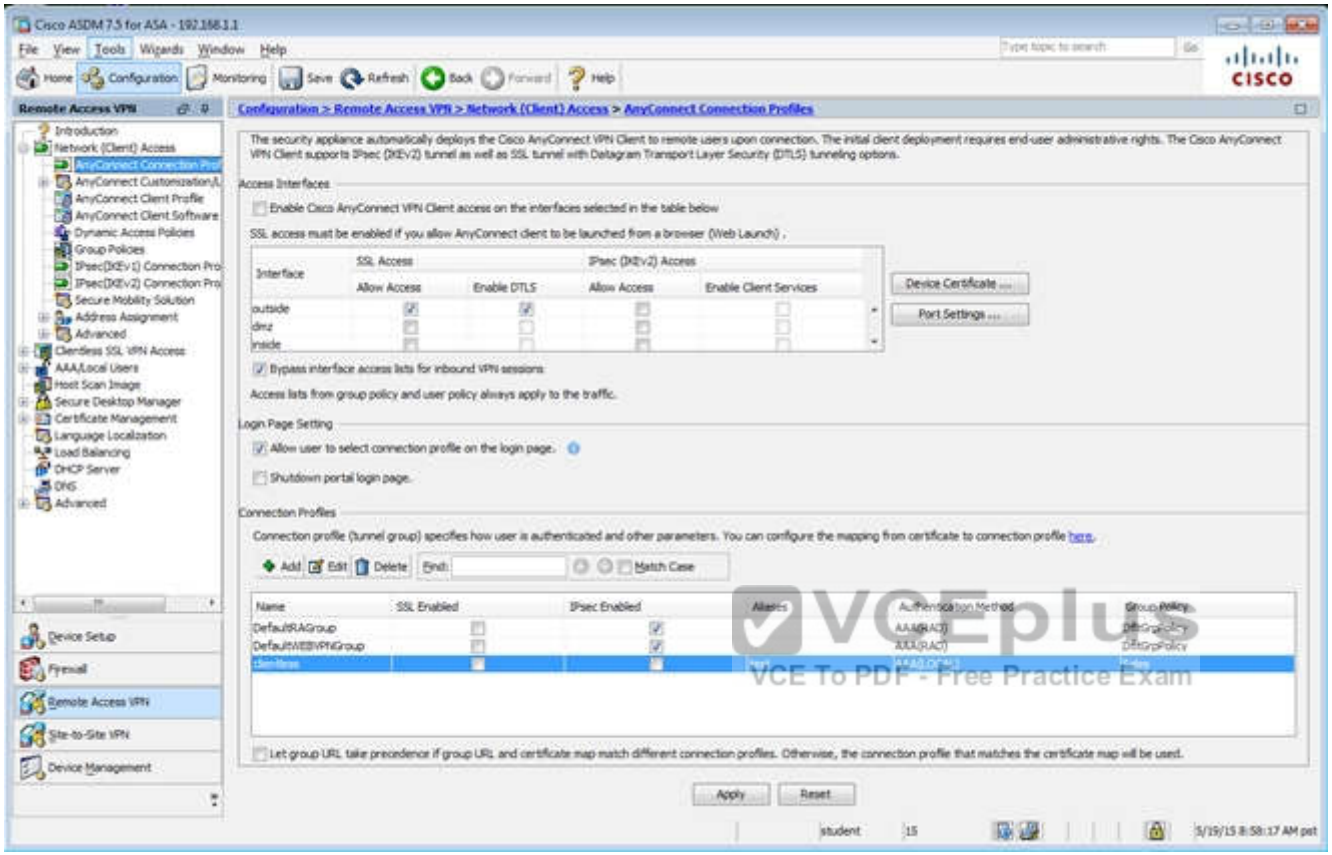


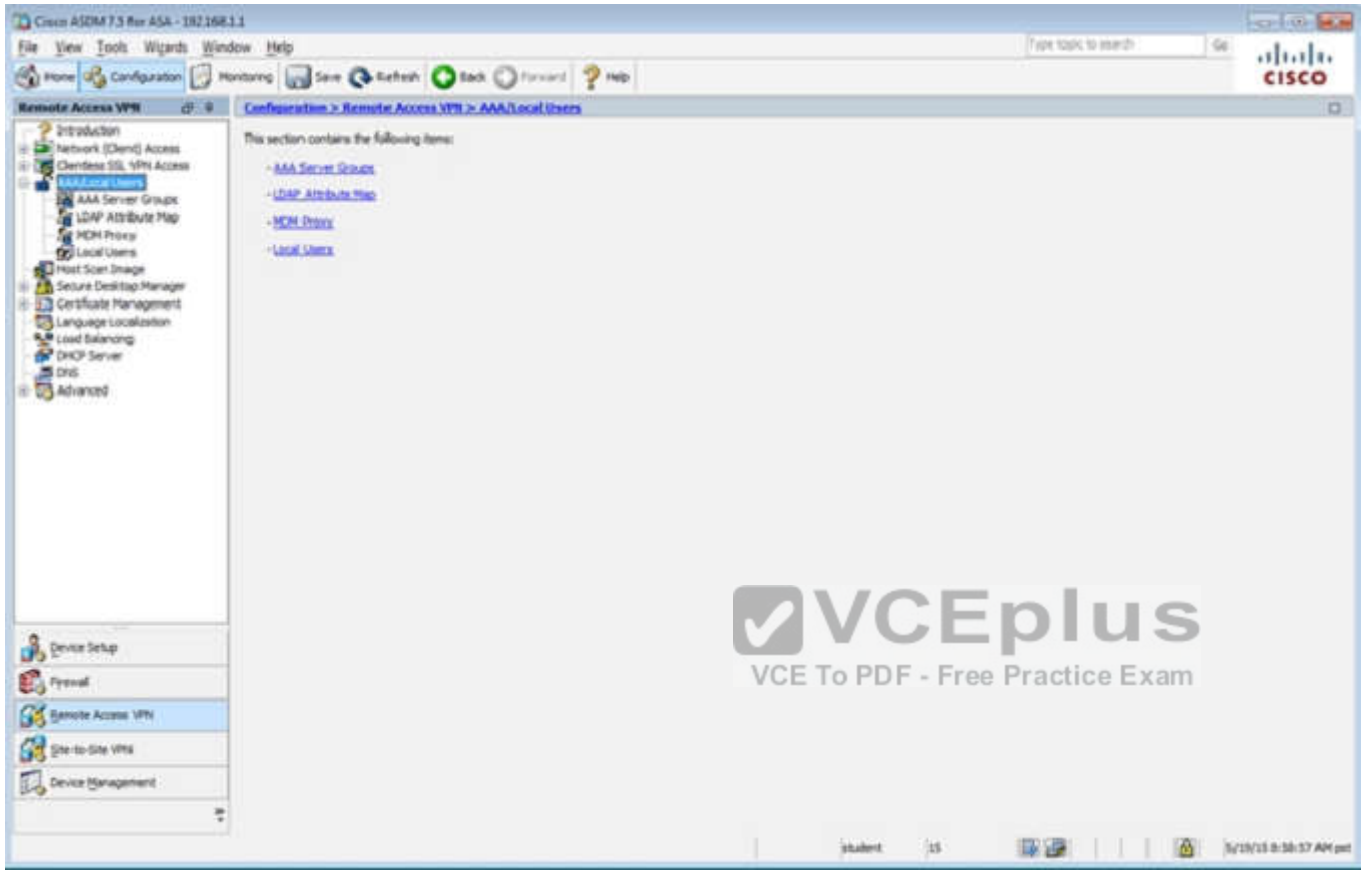


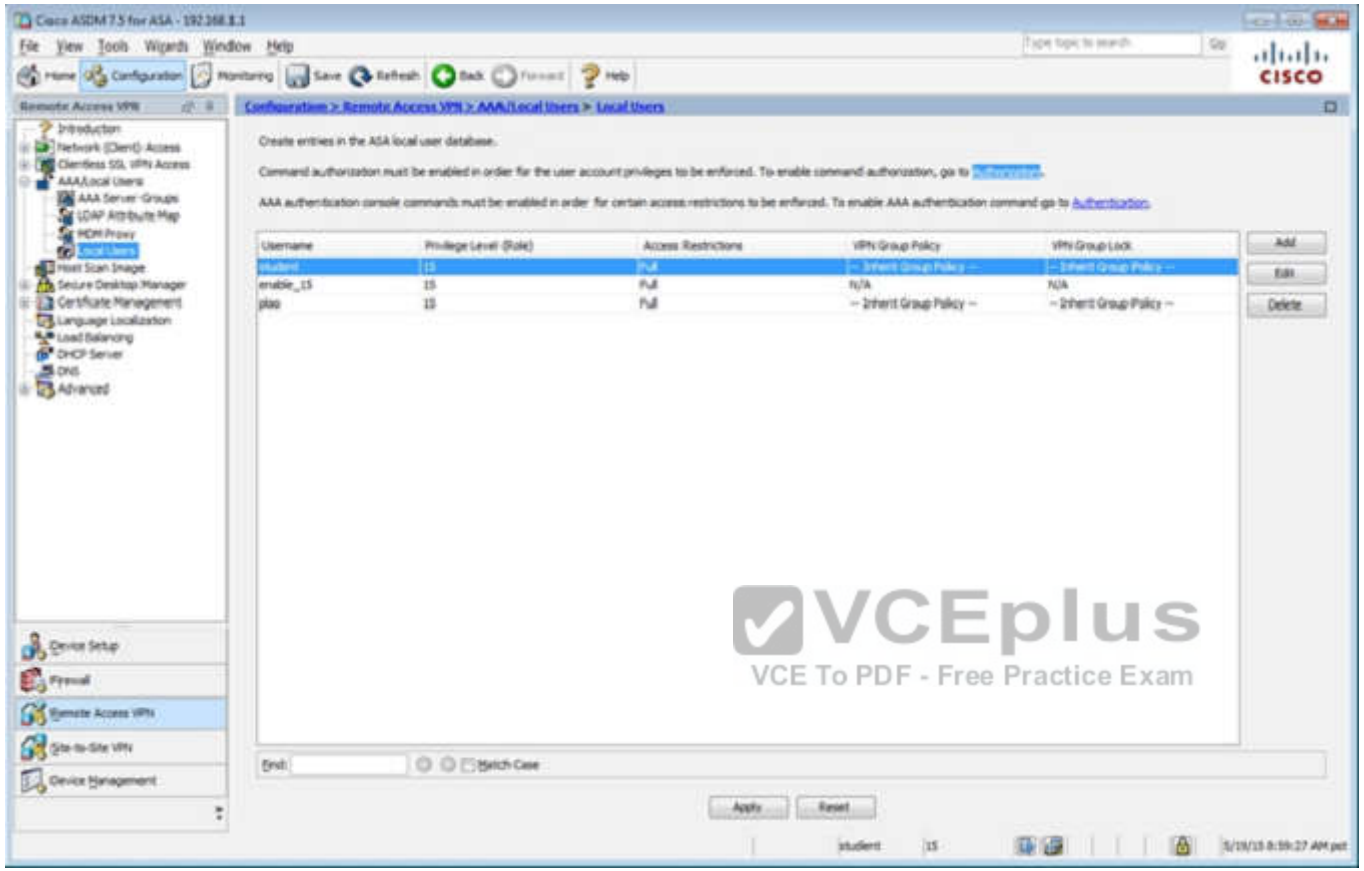


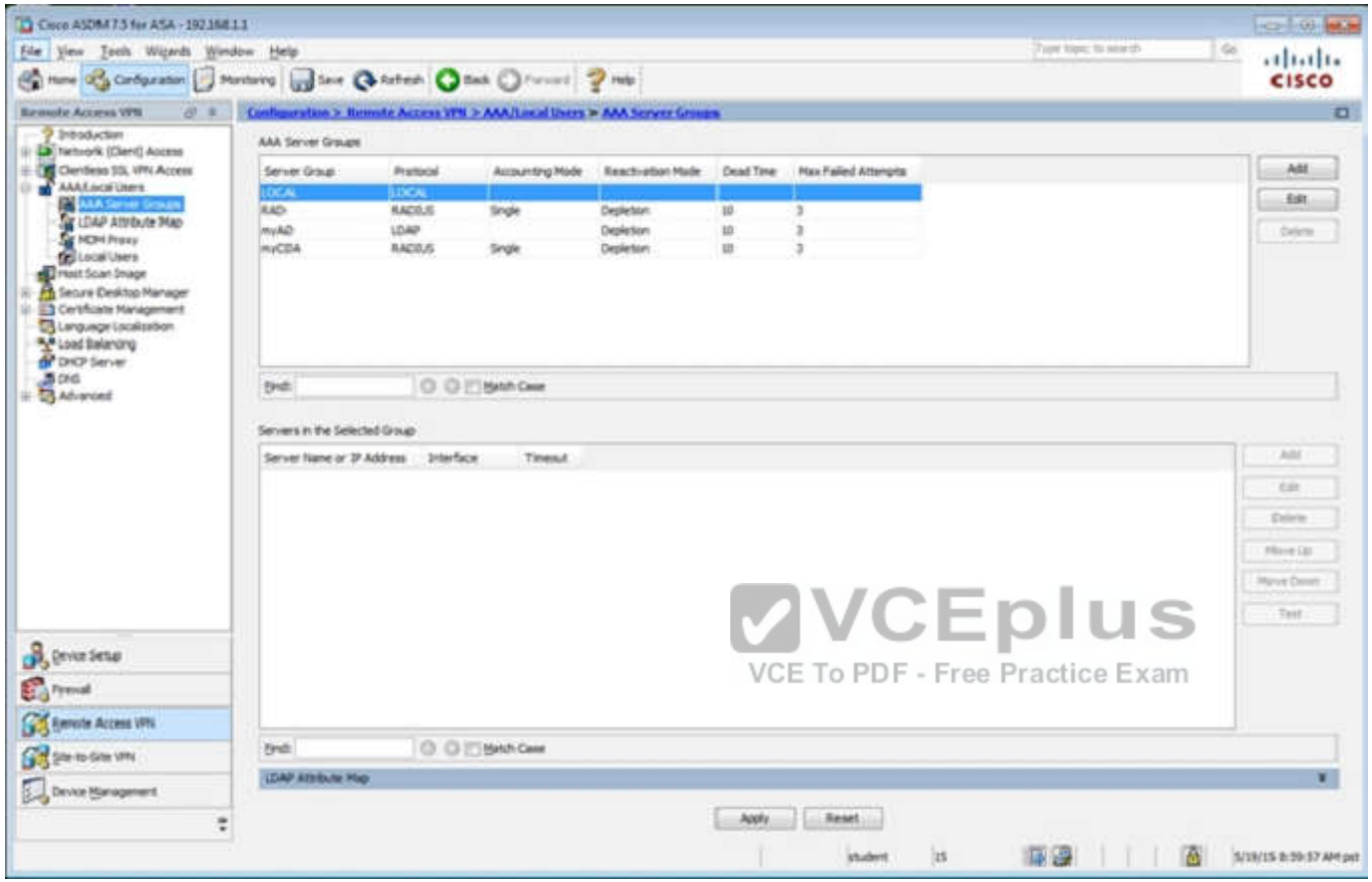












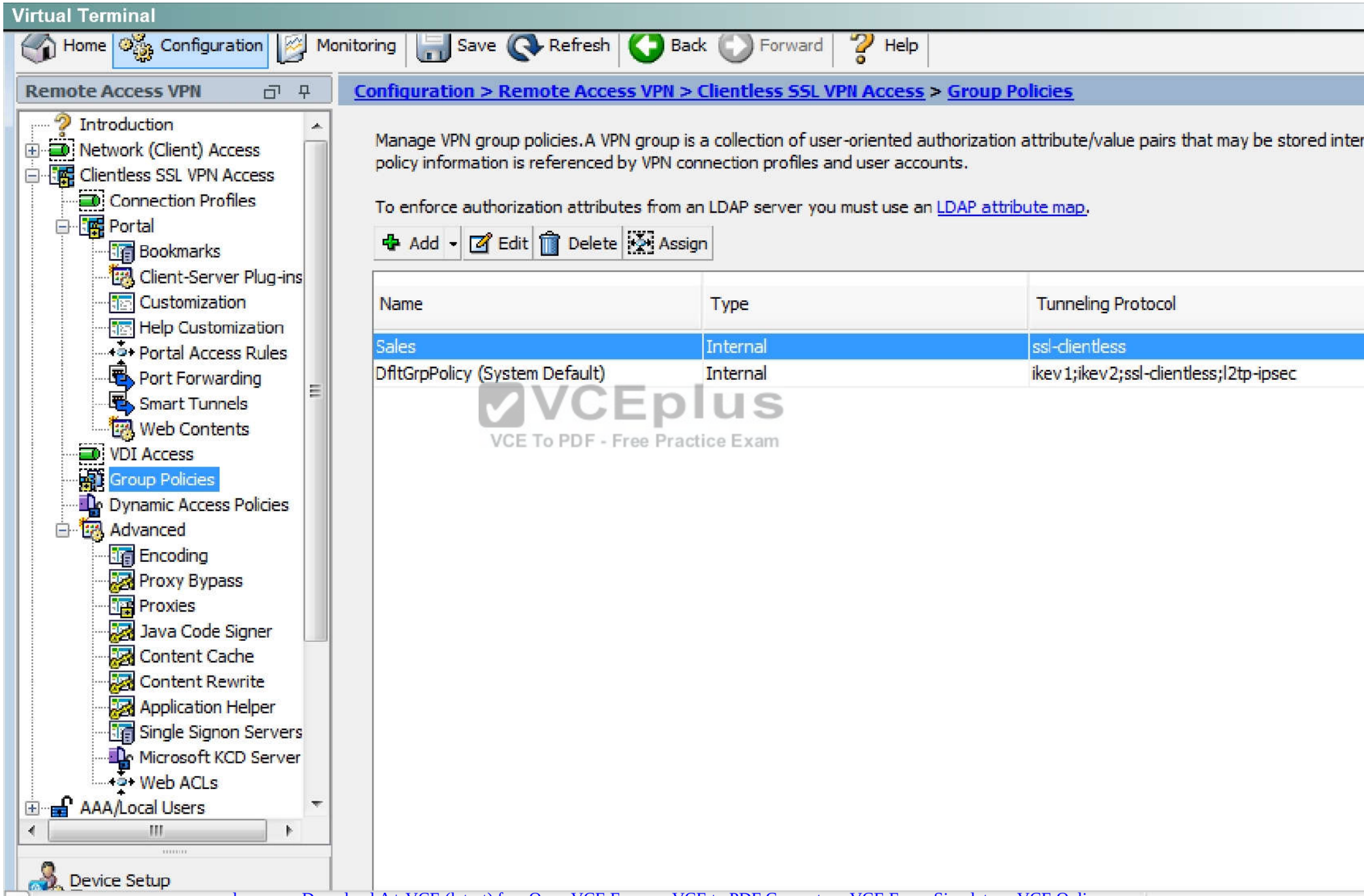
Which four tunneling protocols are enabled in the DfltGrpPolicy group policy? (Choose four)

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

Correct Answer: ADEF

Section: (none)
Explanation

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

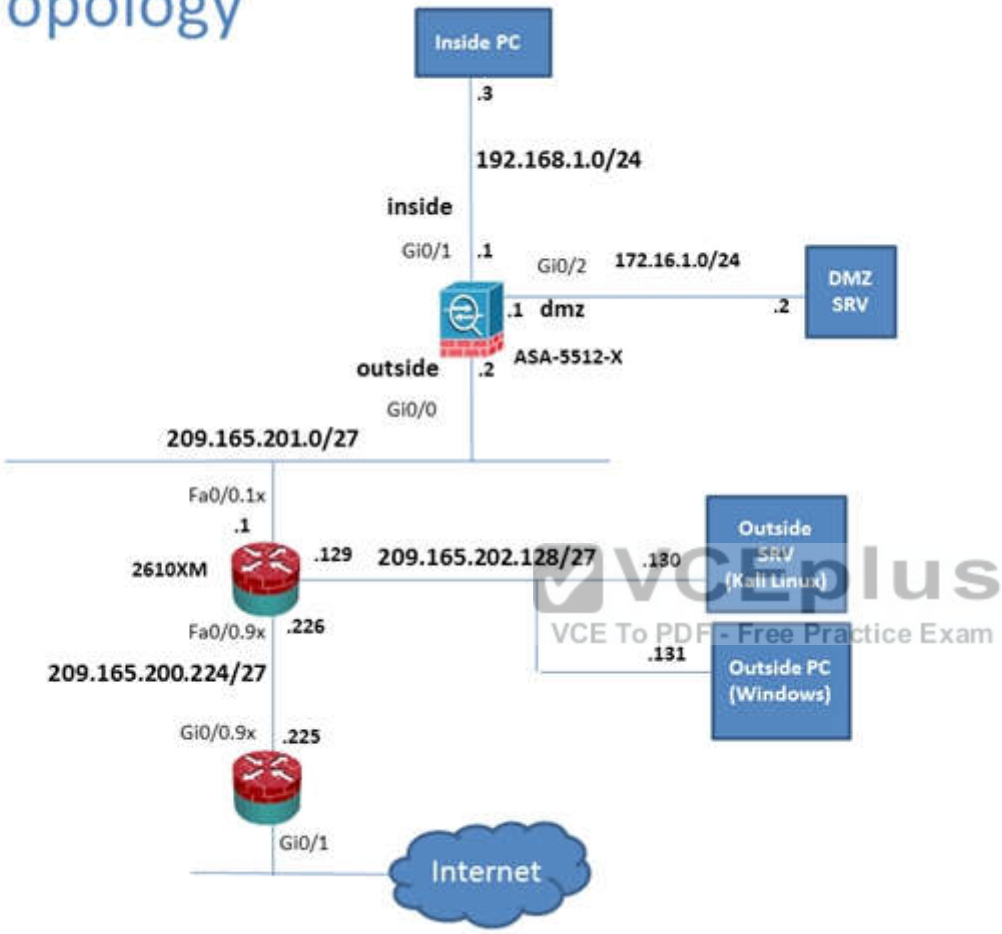


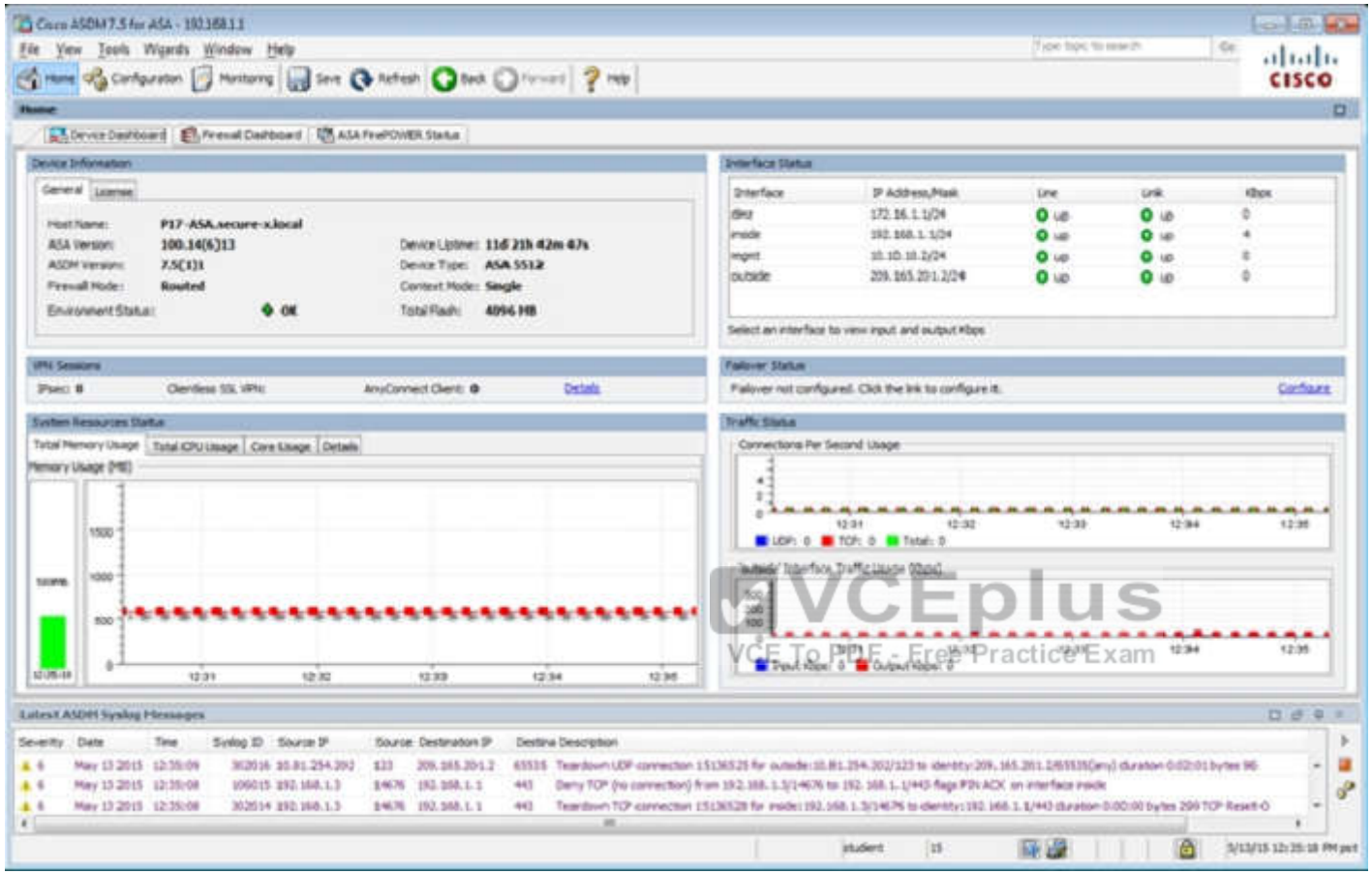
QUESTION 65
Scenario
In this simulation, you have access to ASDM only. Review the various ASA configurations using ASDM then answer the five multiple choice questions about the ASA SSLVPN configurations.

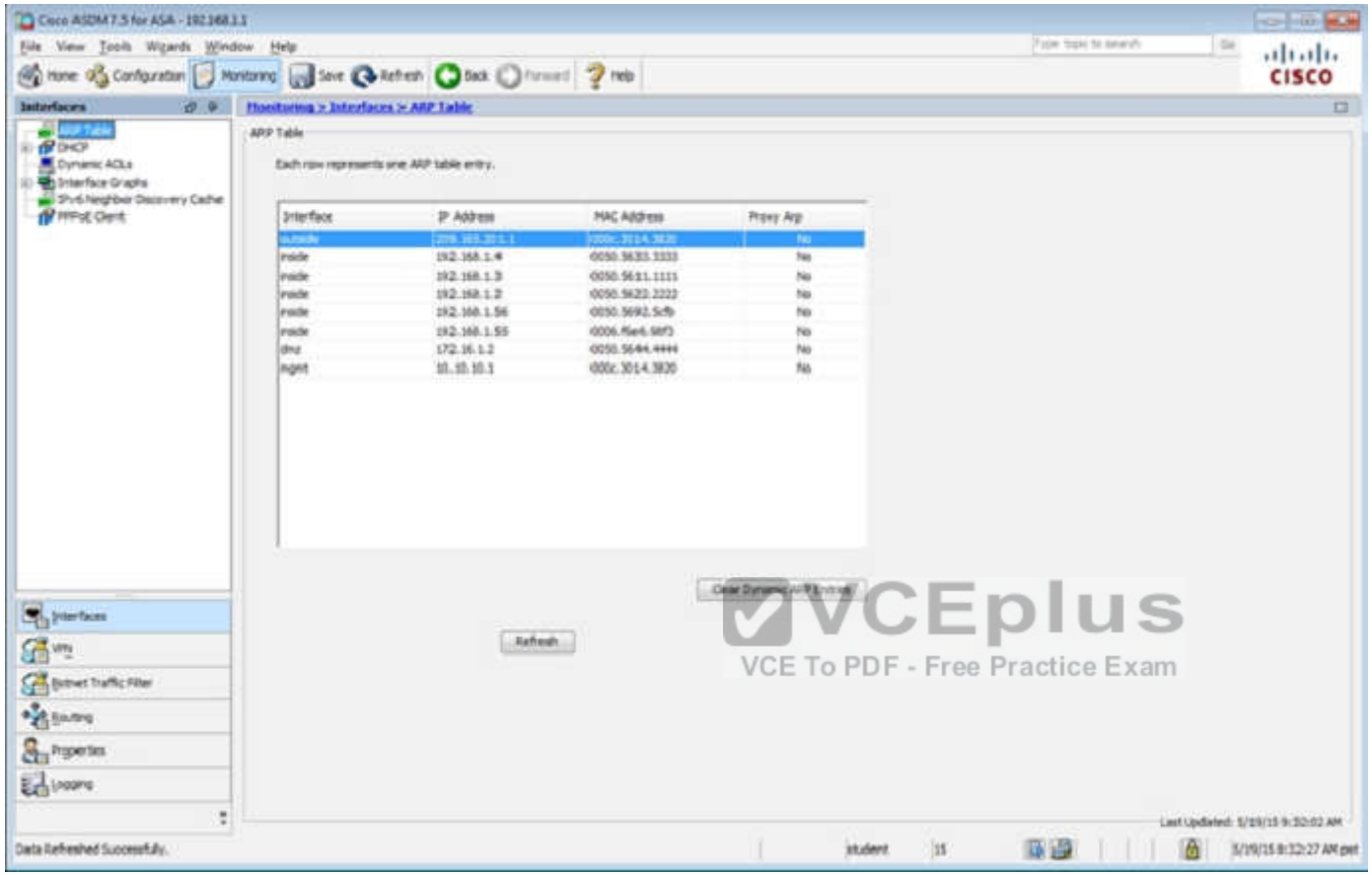
To access ASDM, click the ASA icon in the topology diagram.

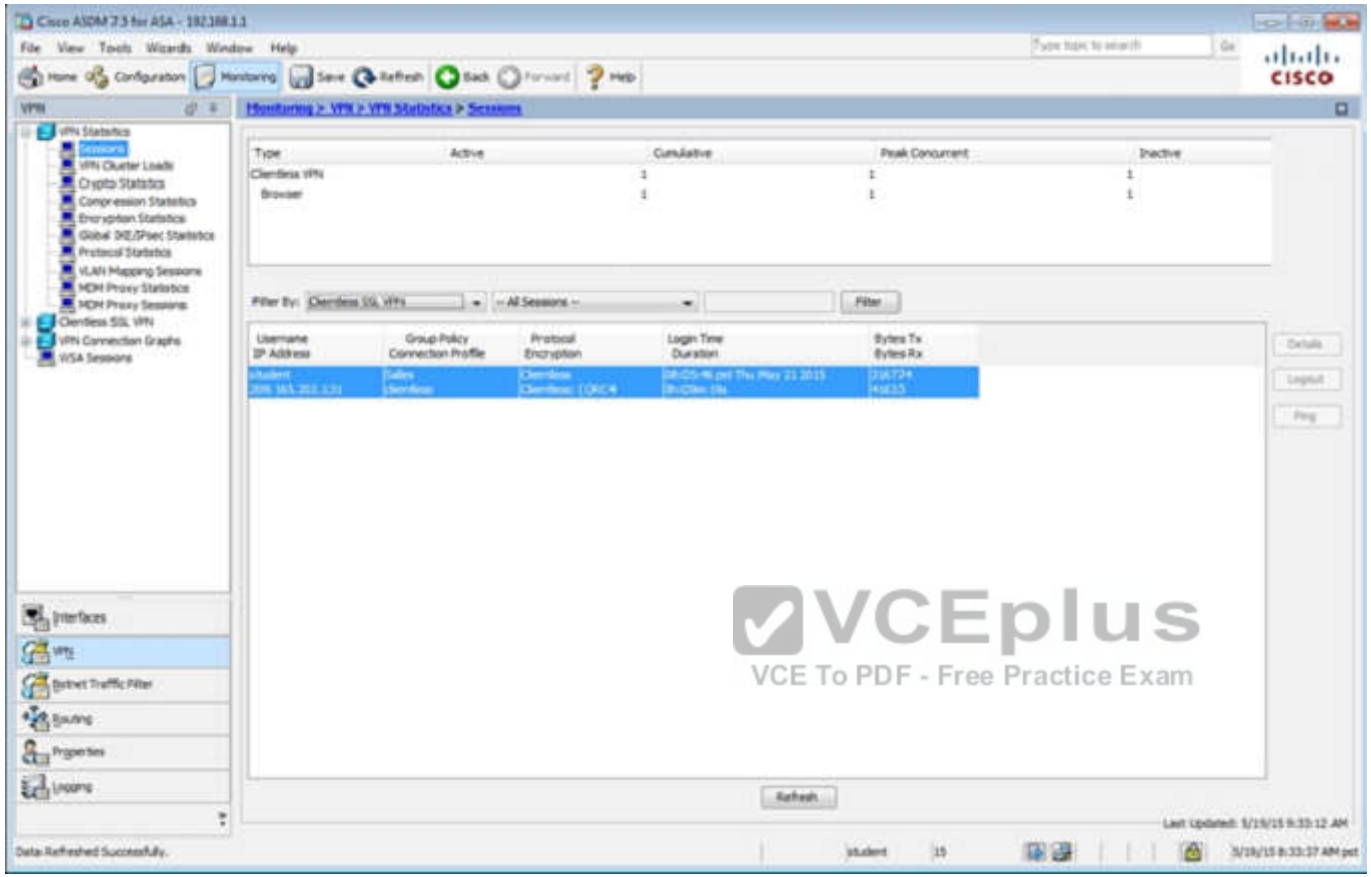
Note: Not all ASDM functionalities are enabled in this simulation.
To see all the menu options available on the left navigation pane, you may also need to un-expand the expanded menu first.

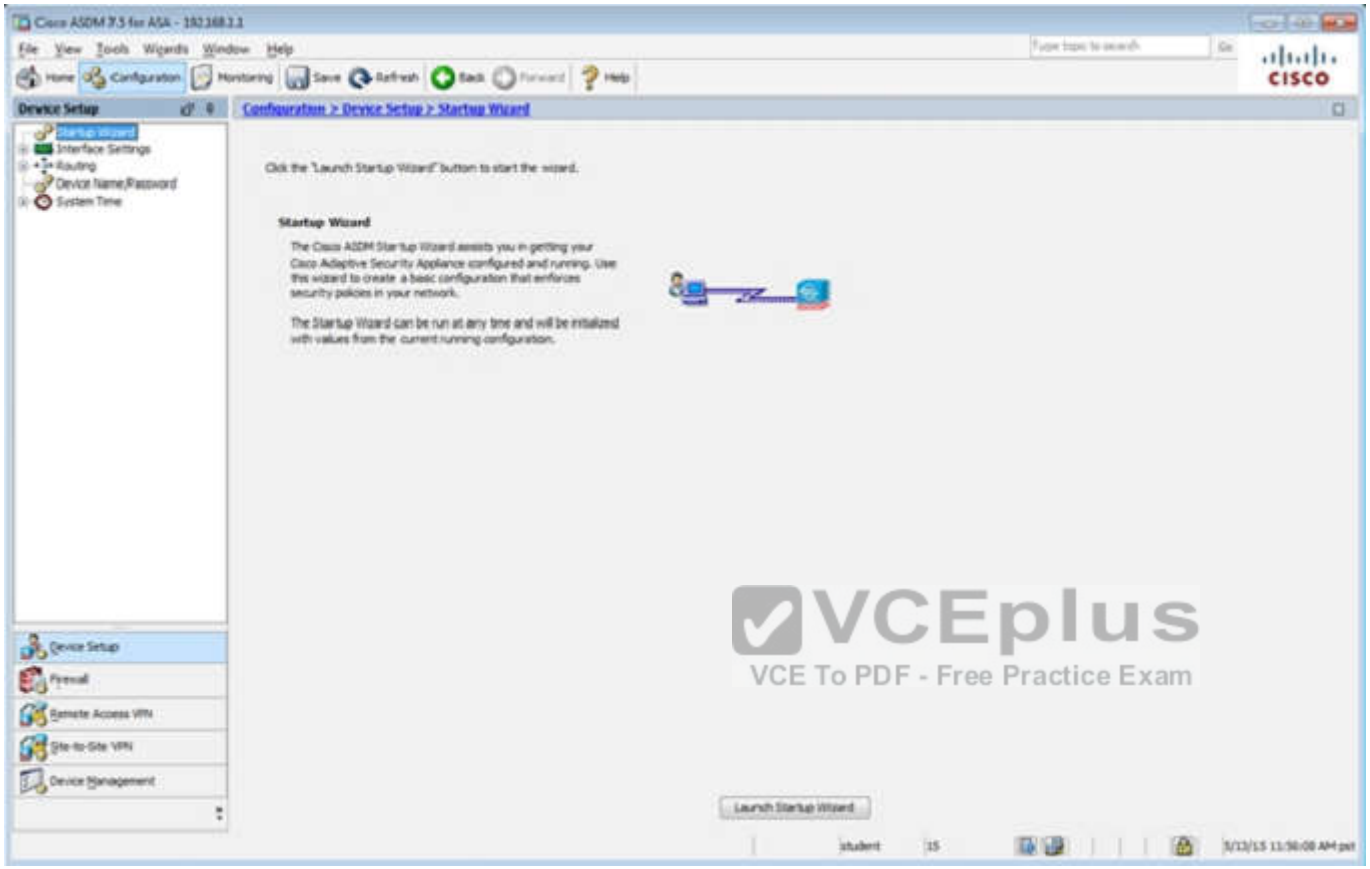
Lab Topology

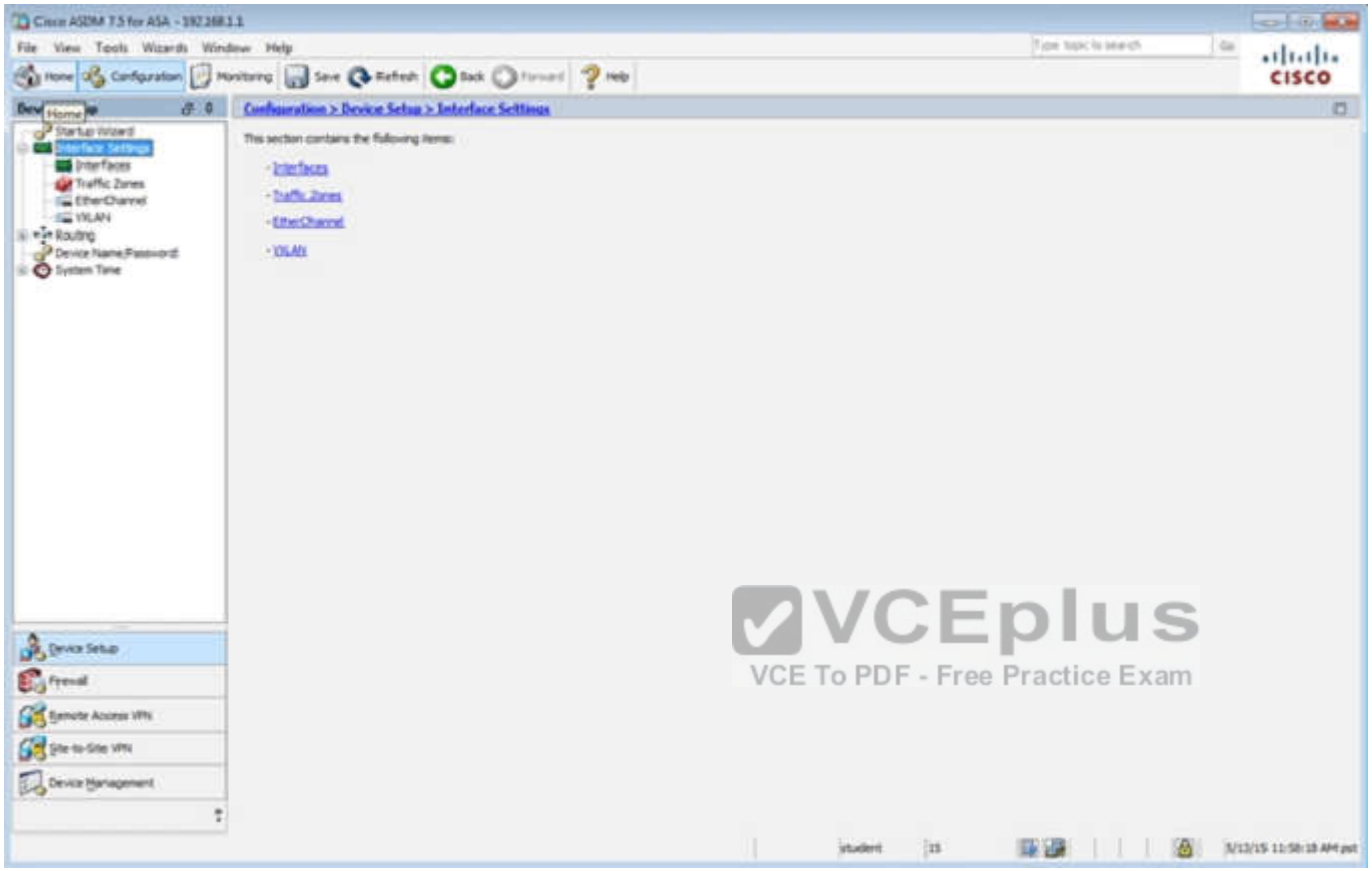


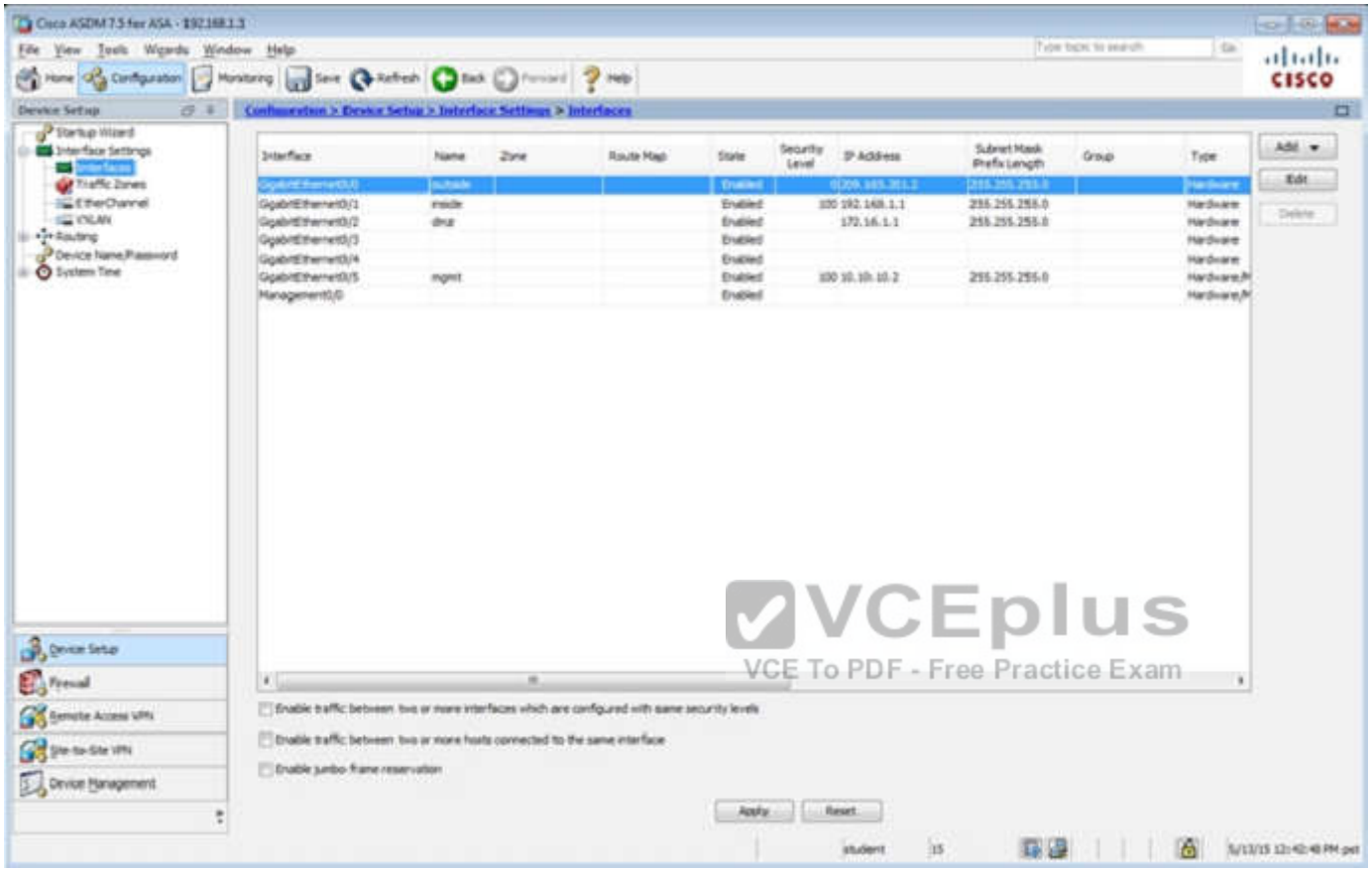


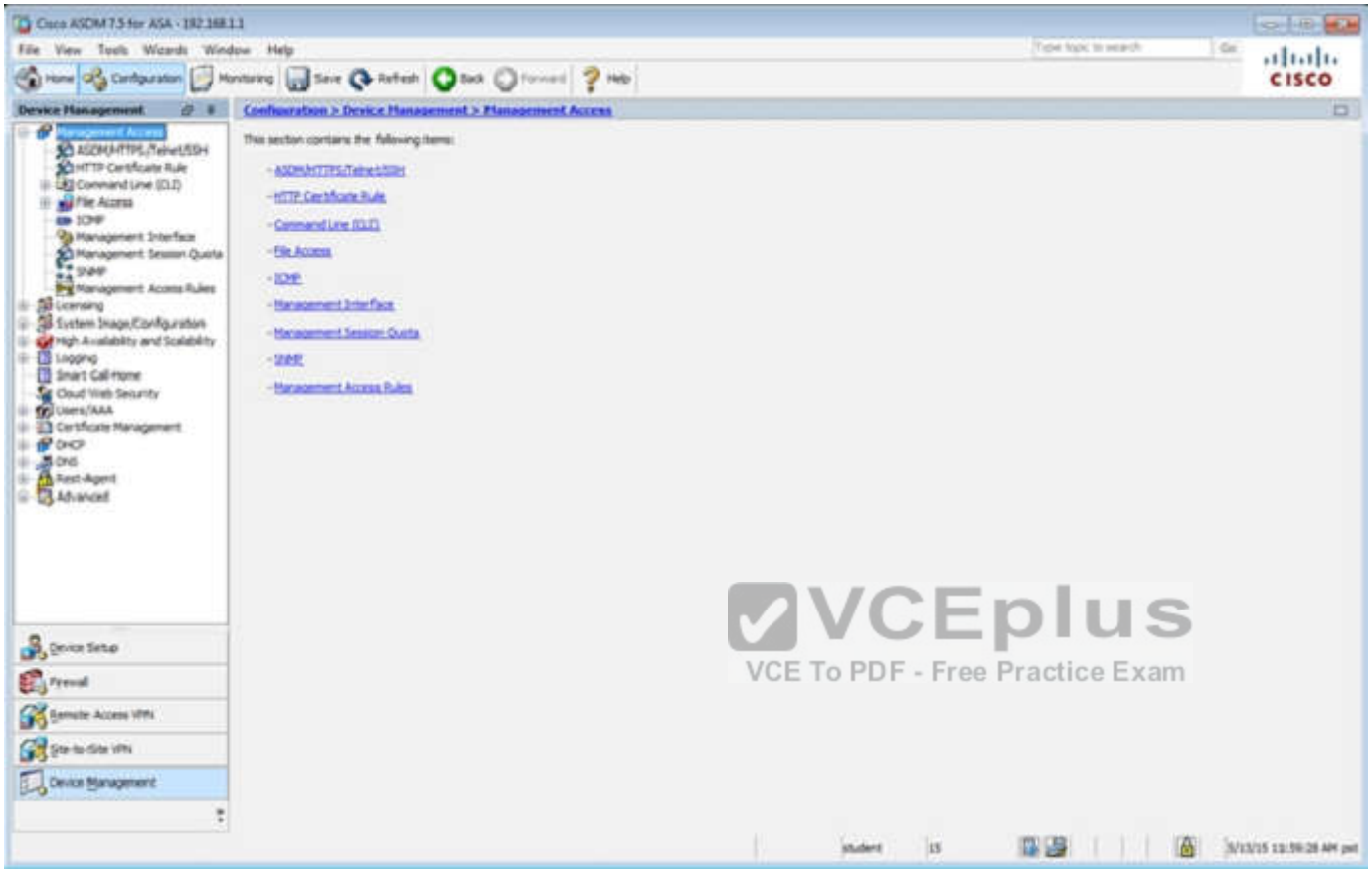


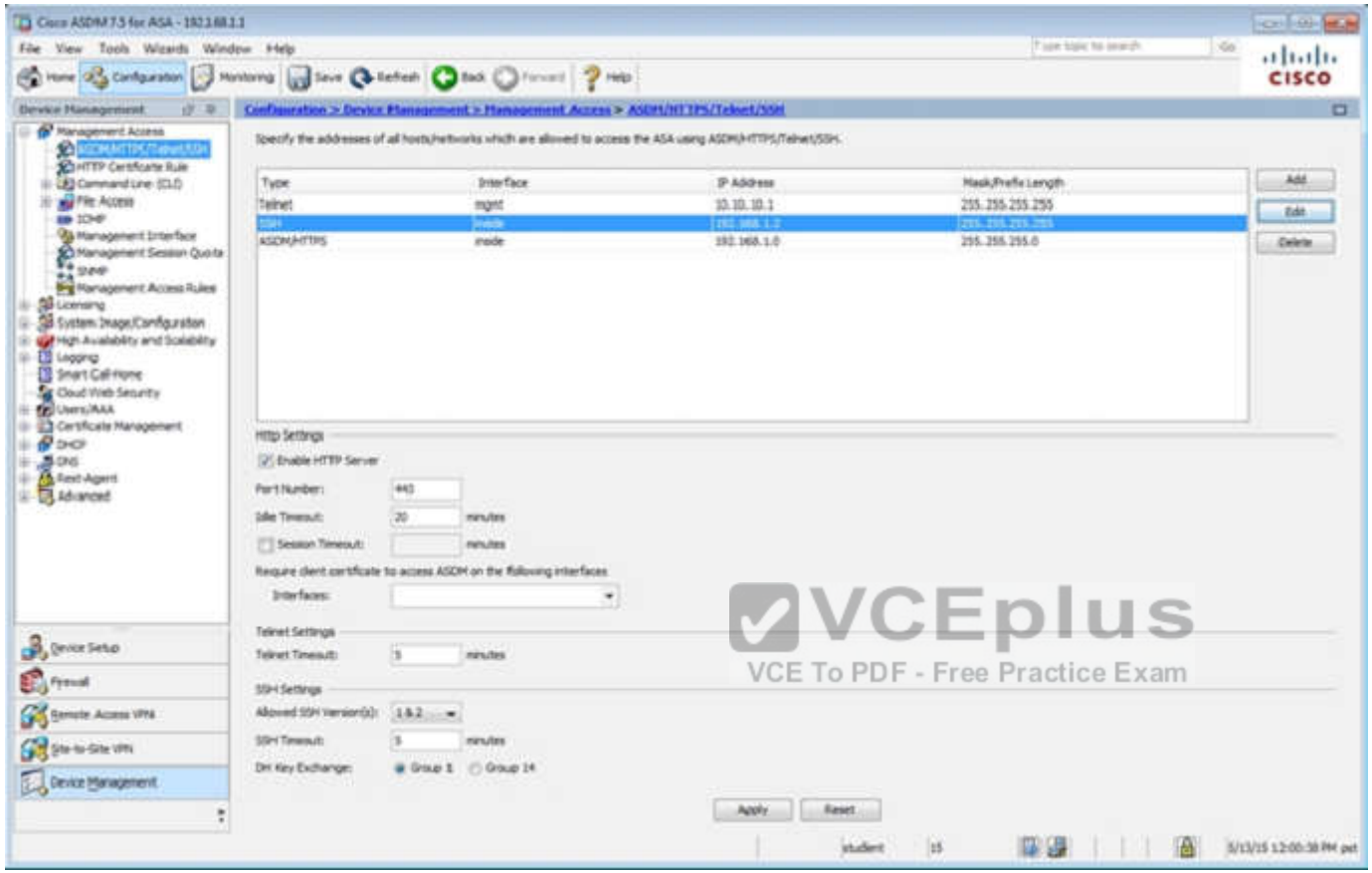


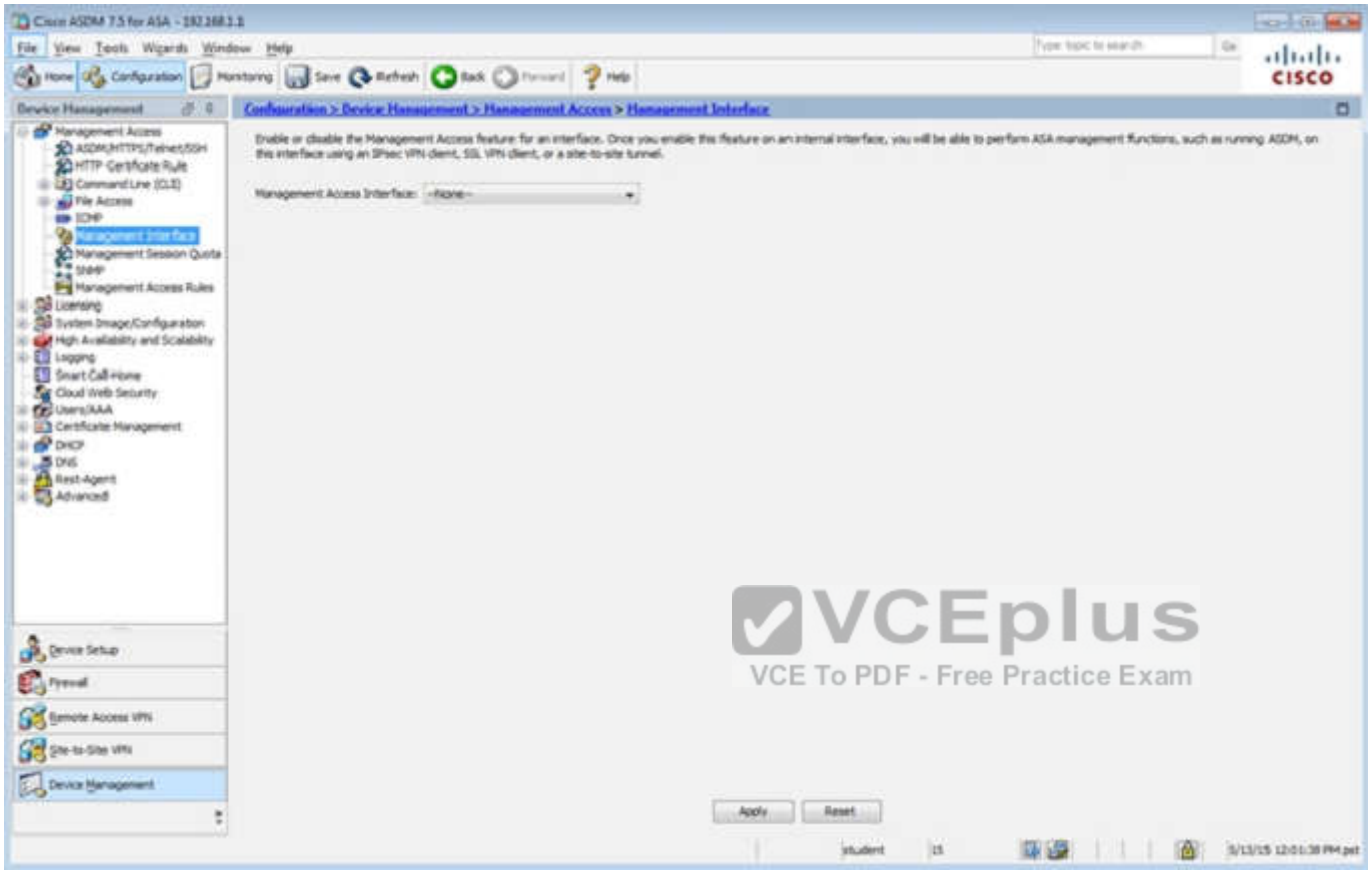


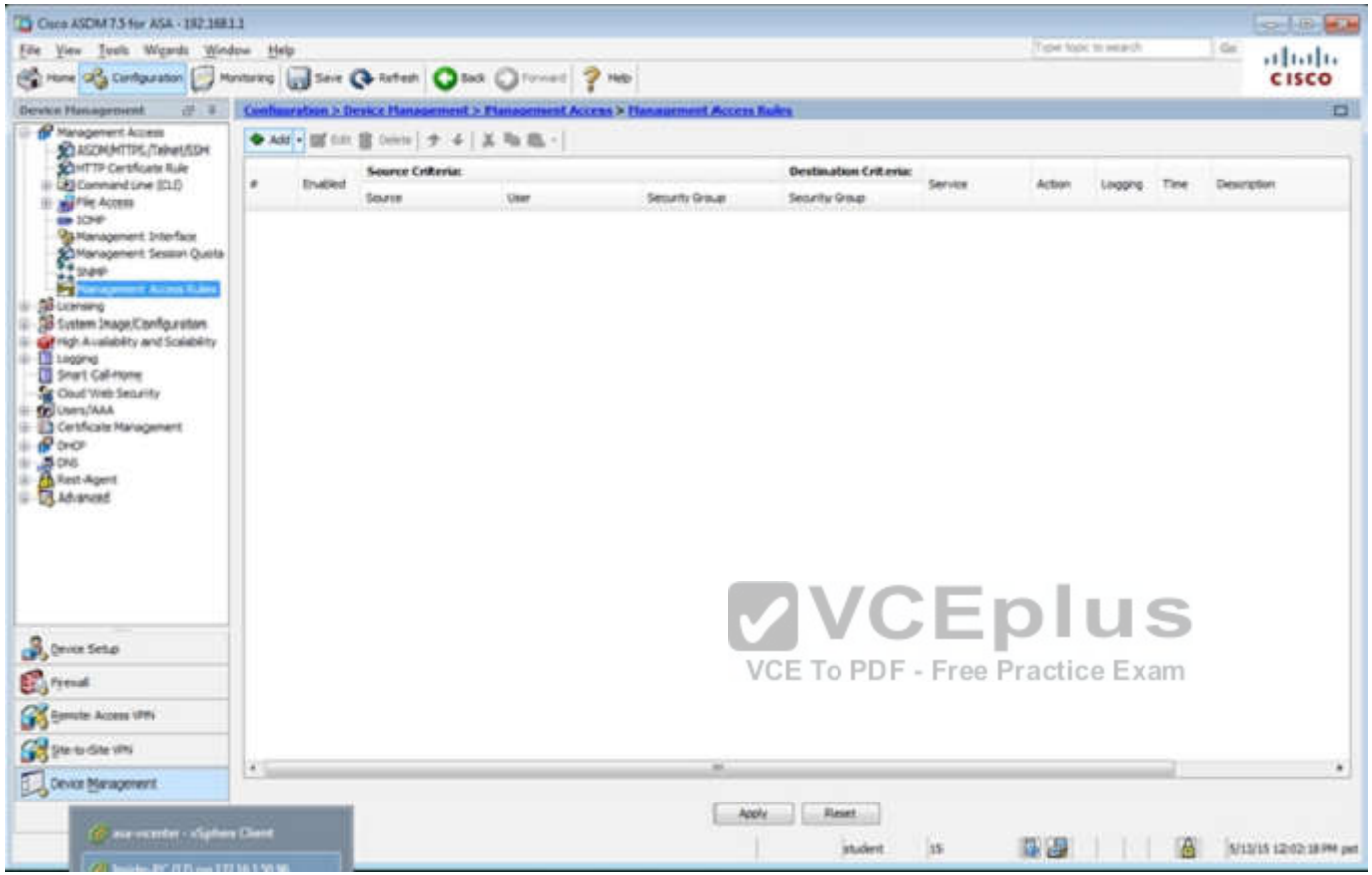


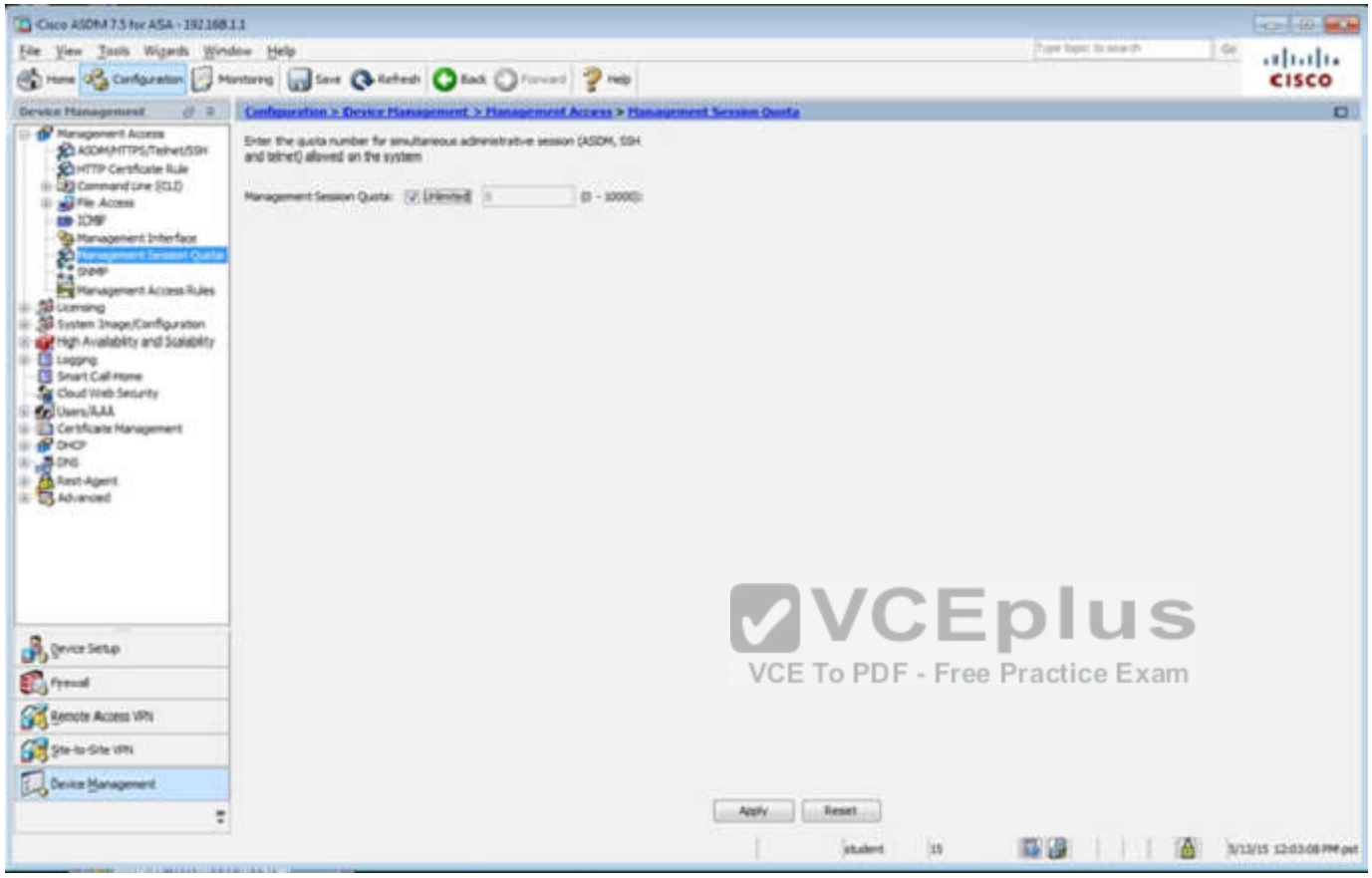


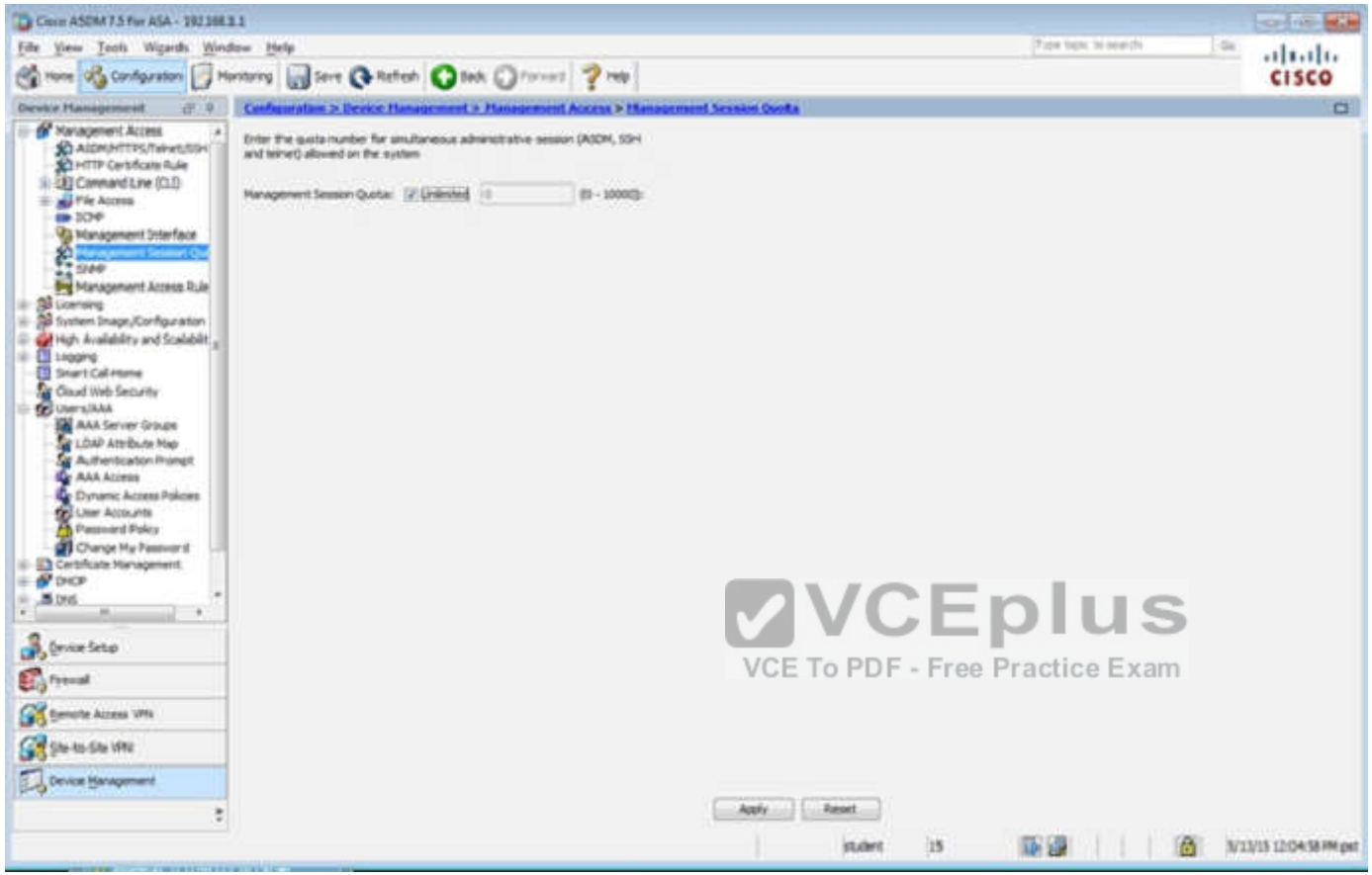


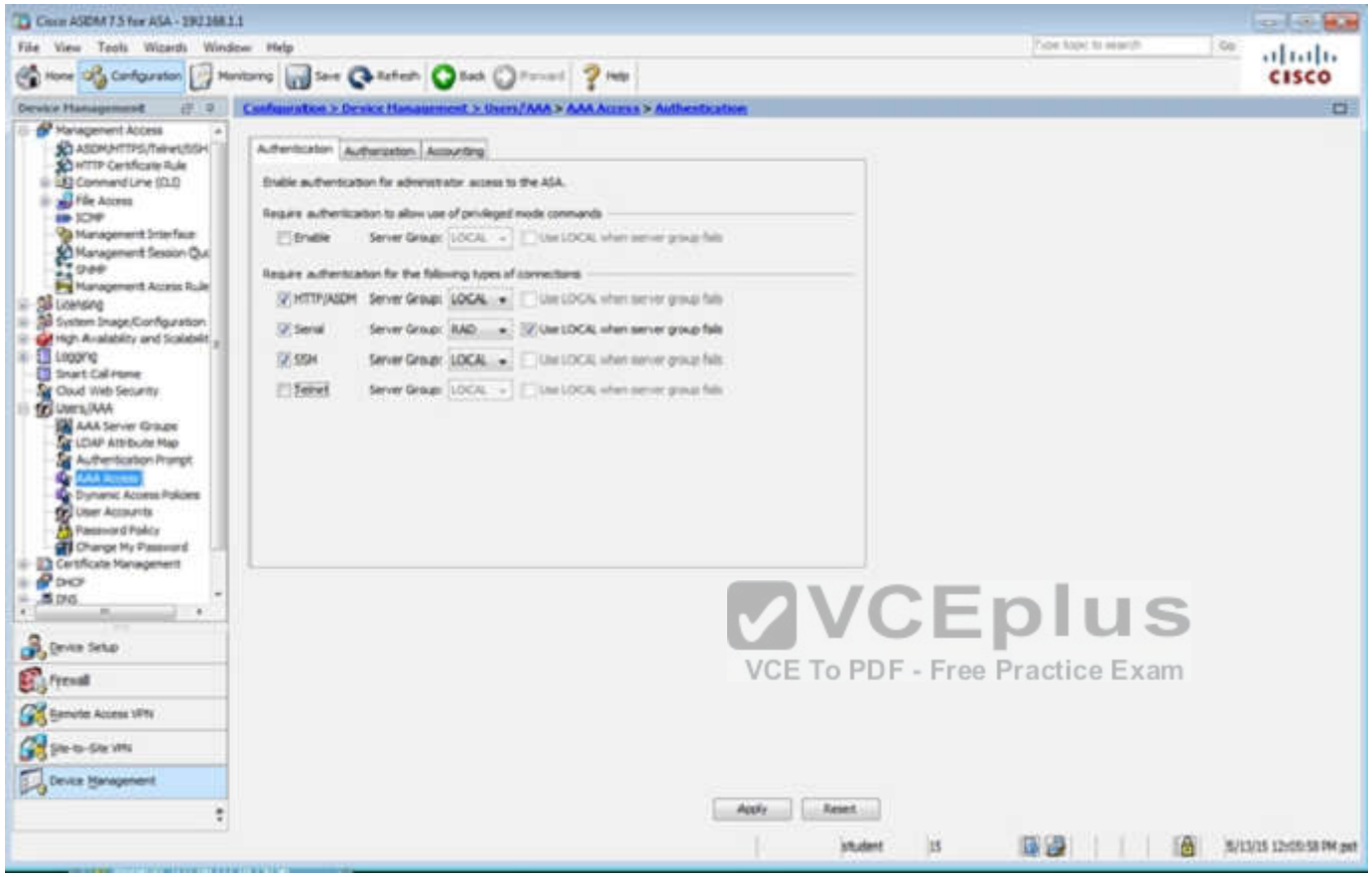


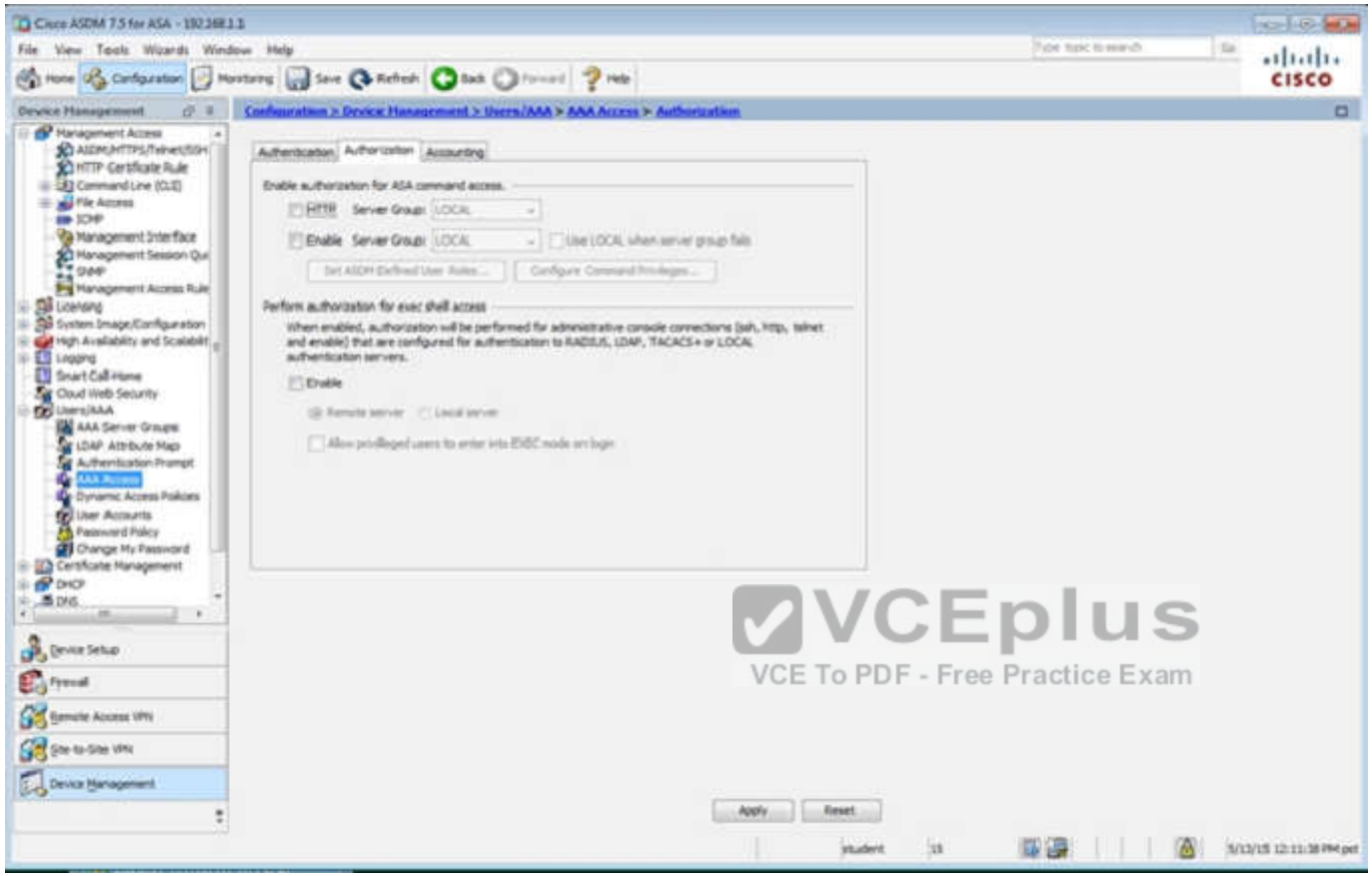


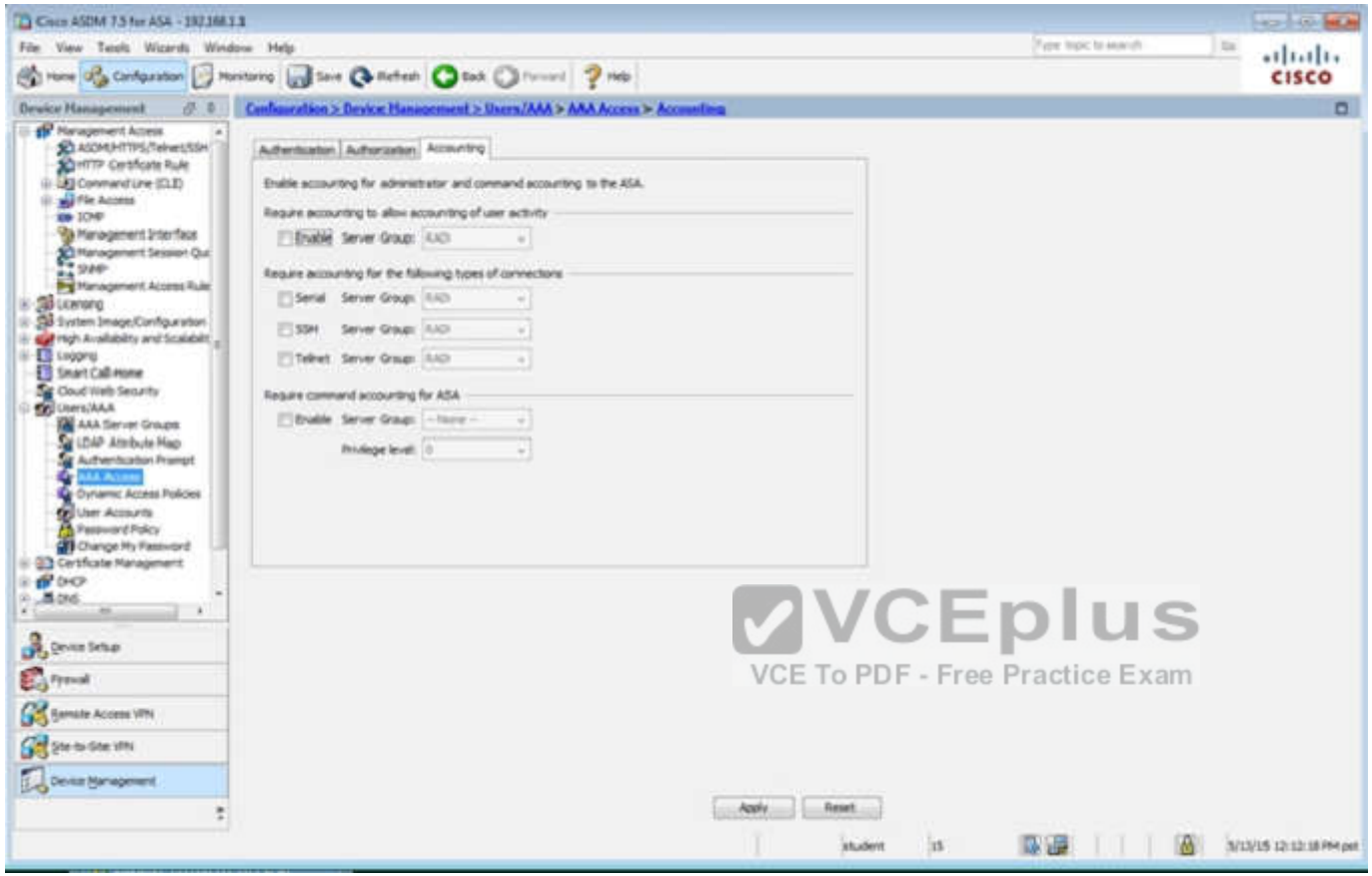


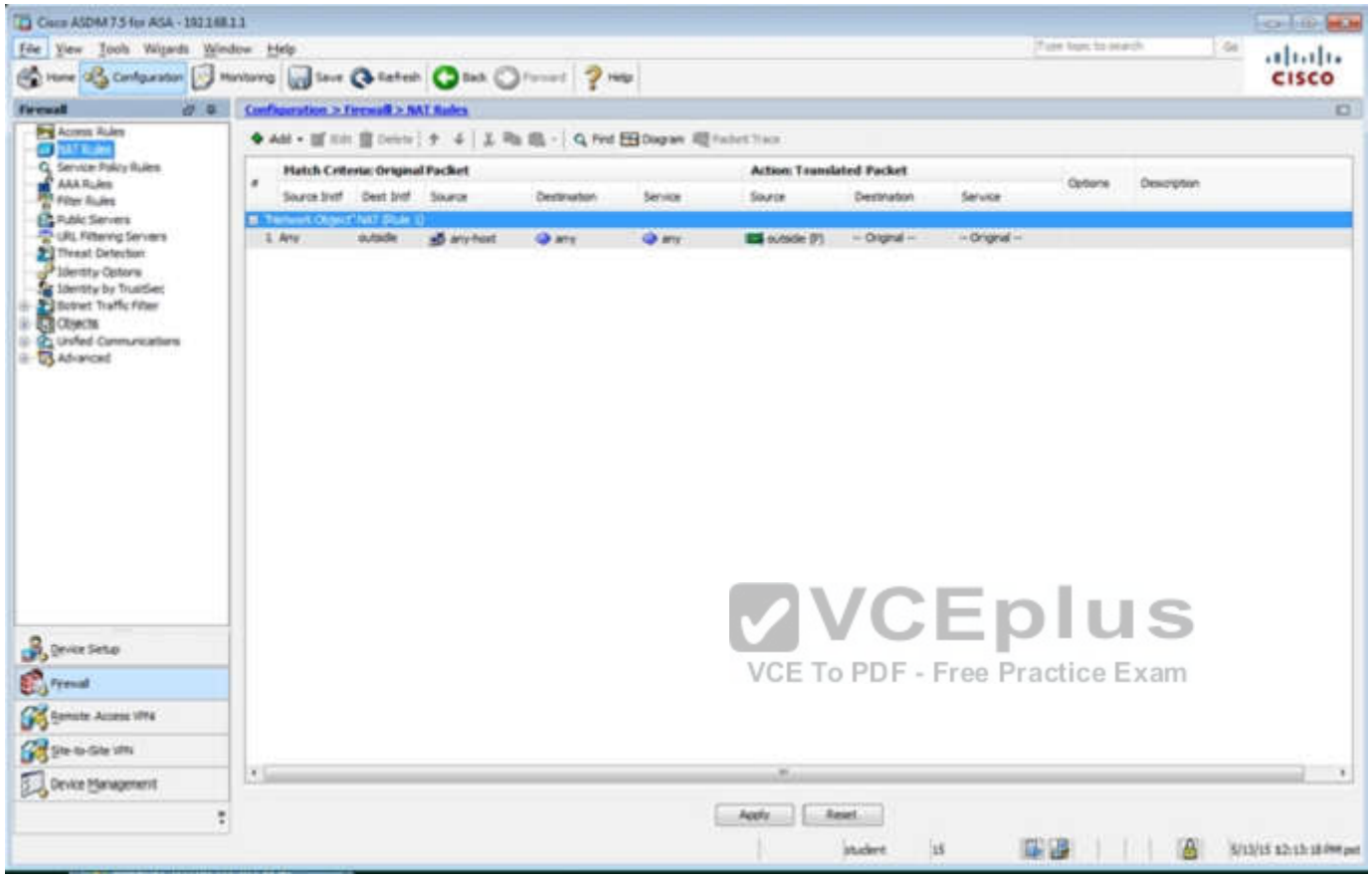


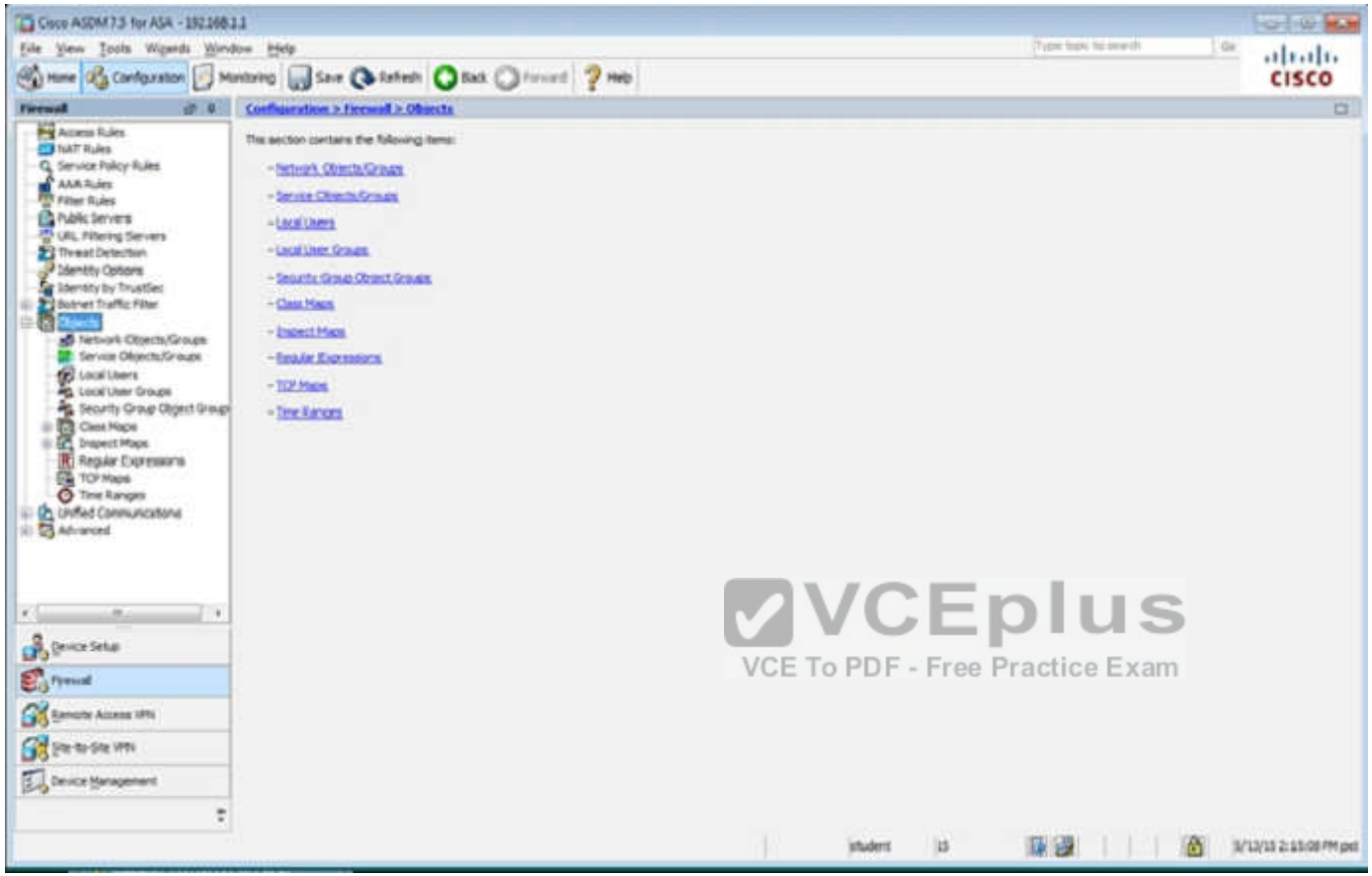


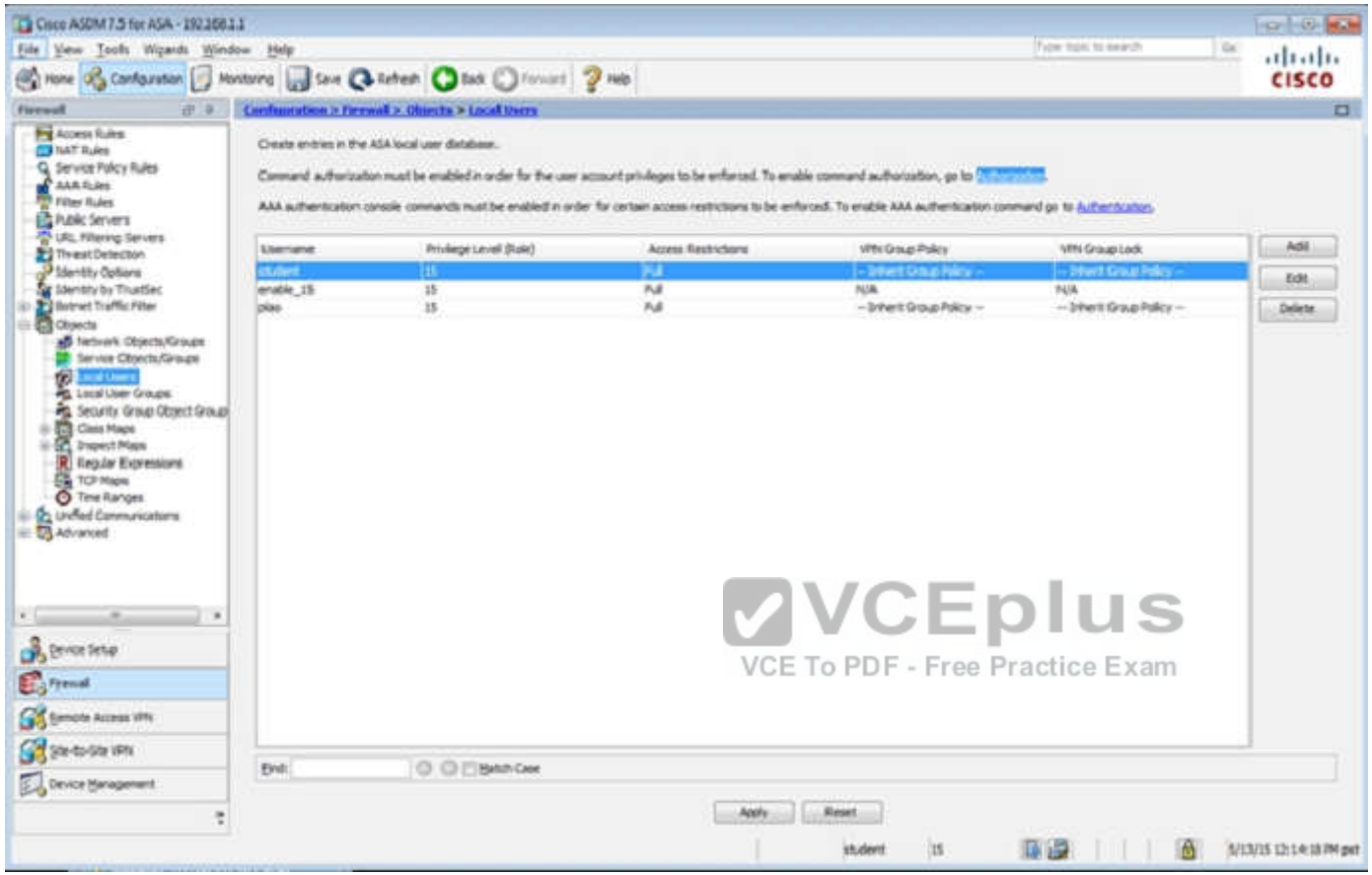


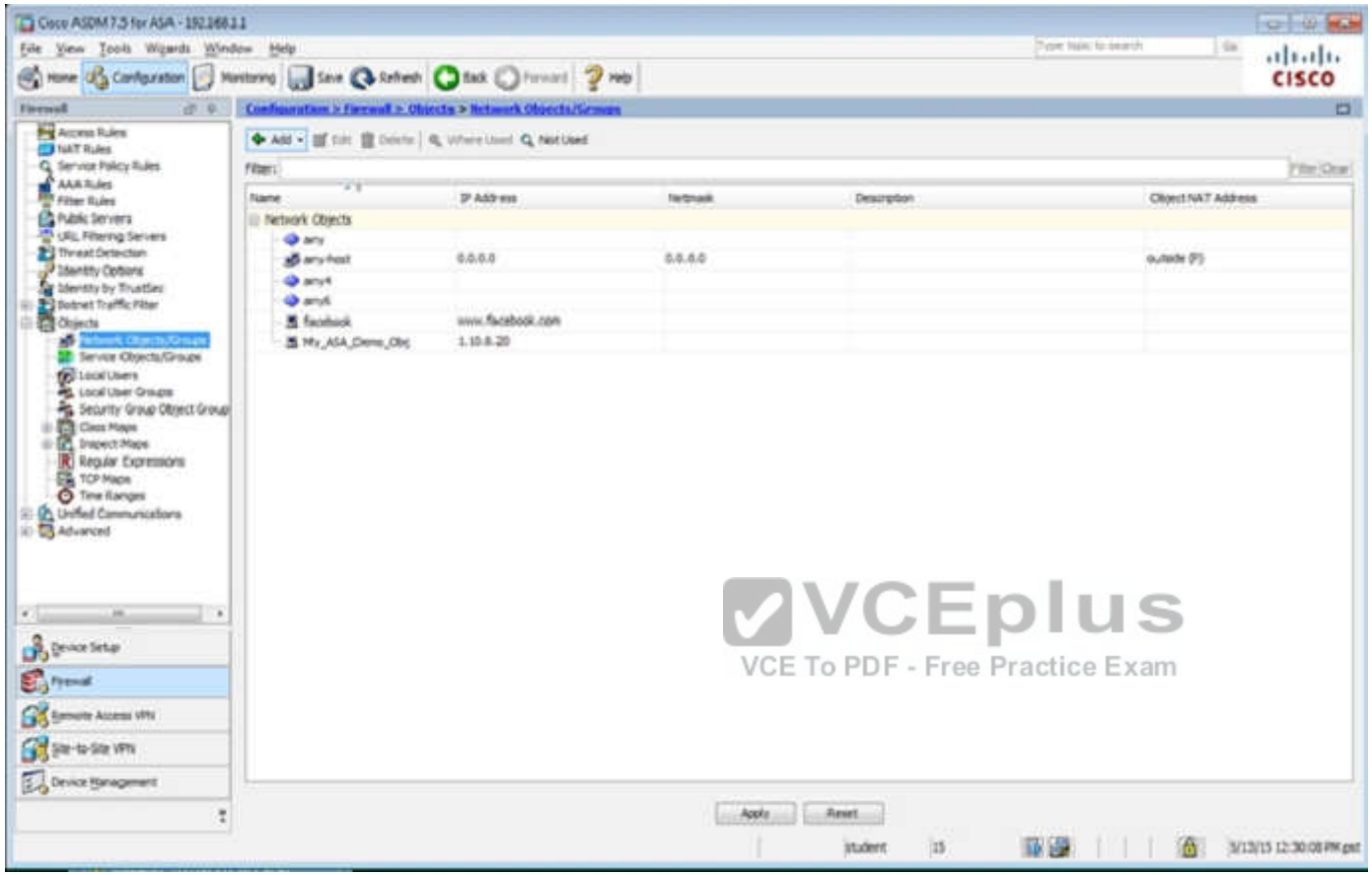


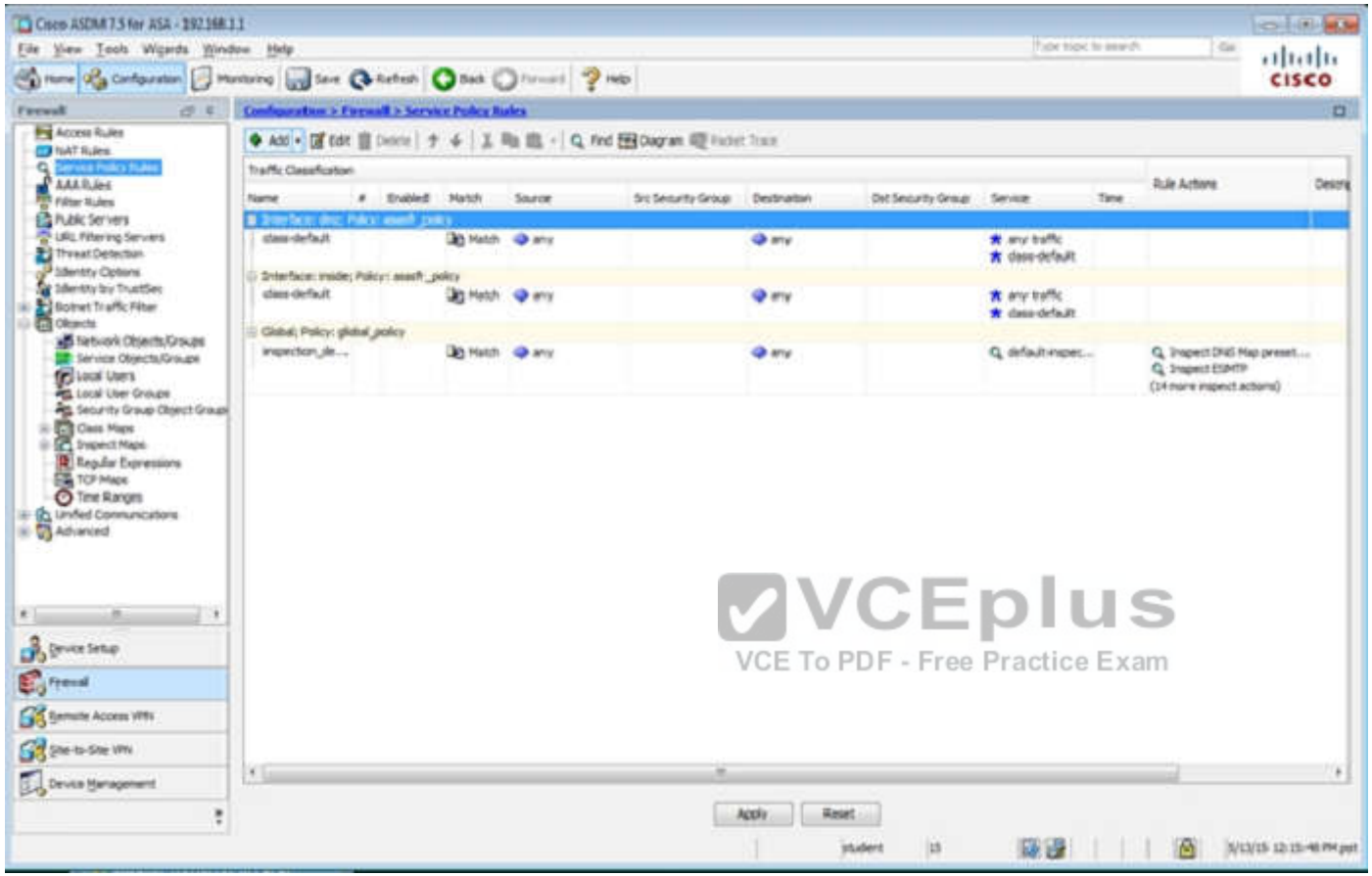


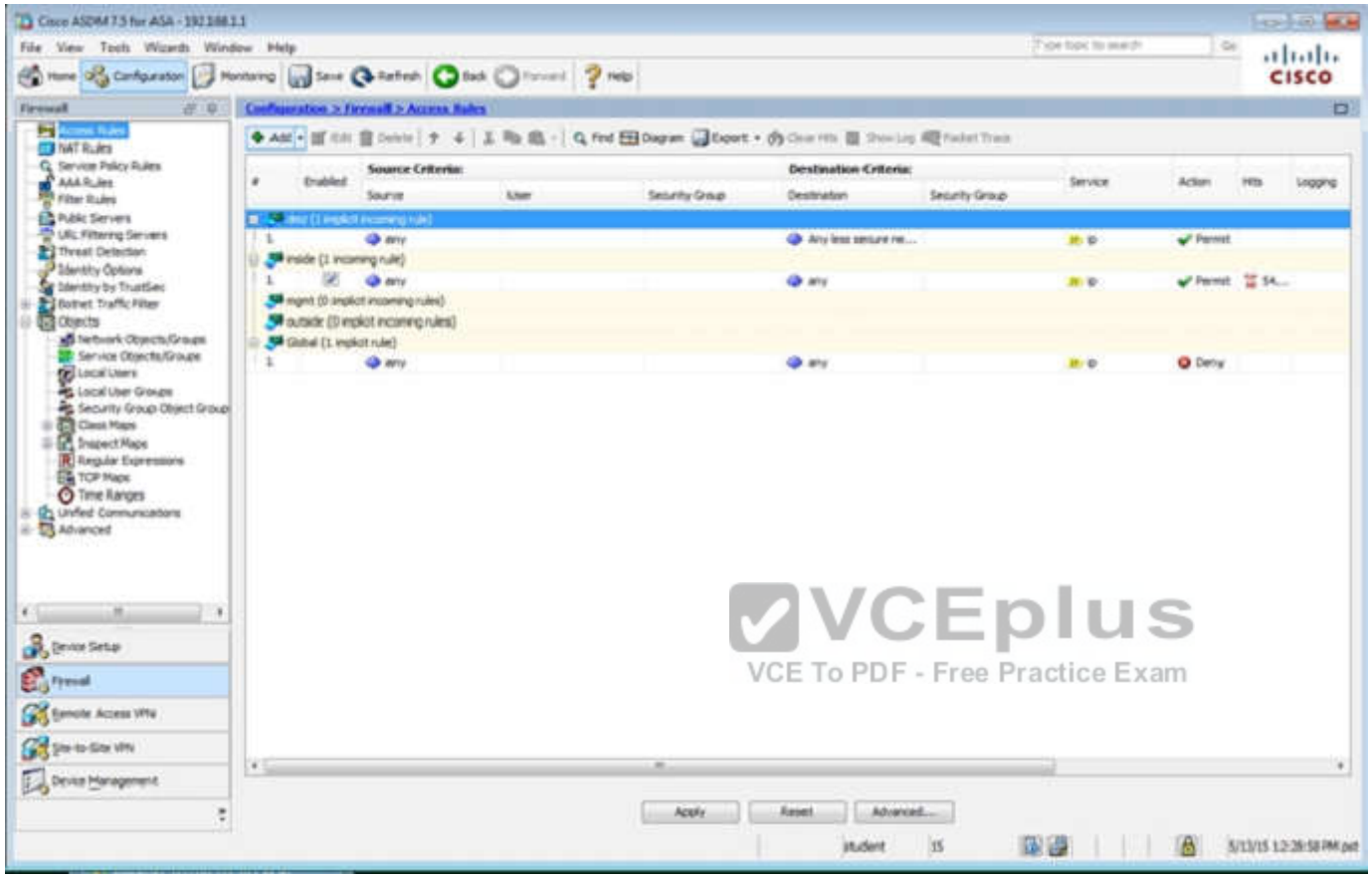


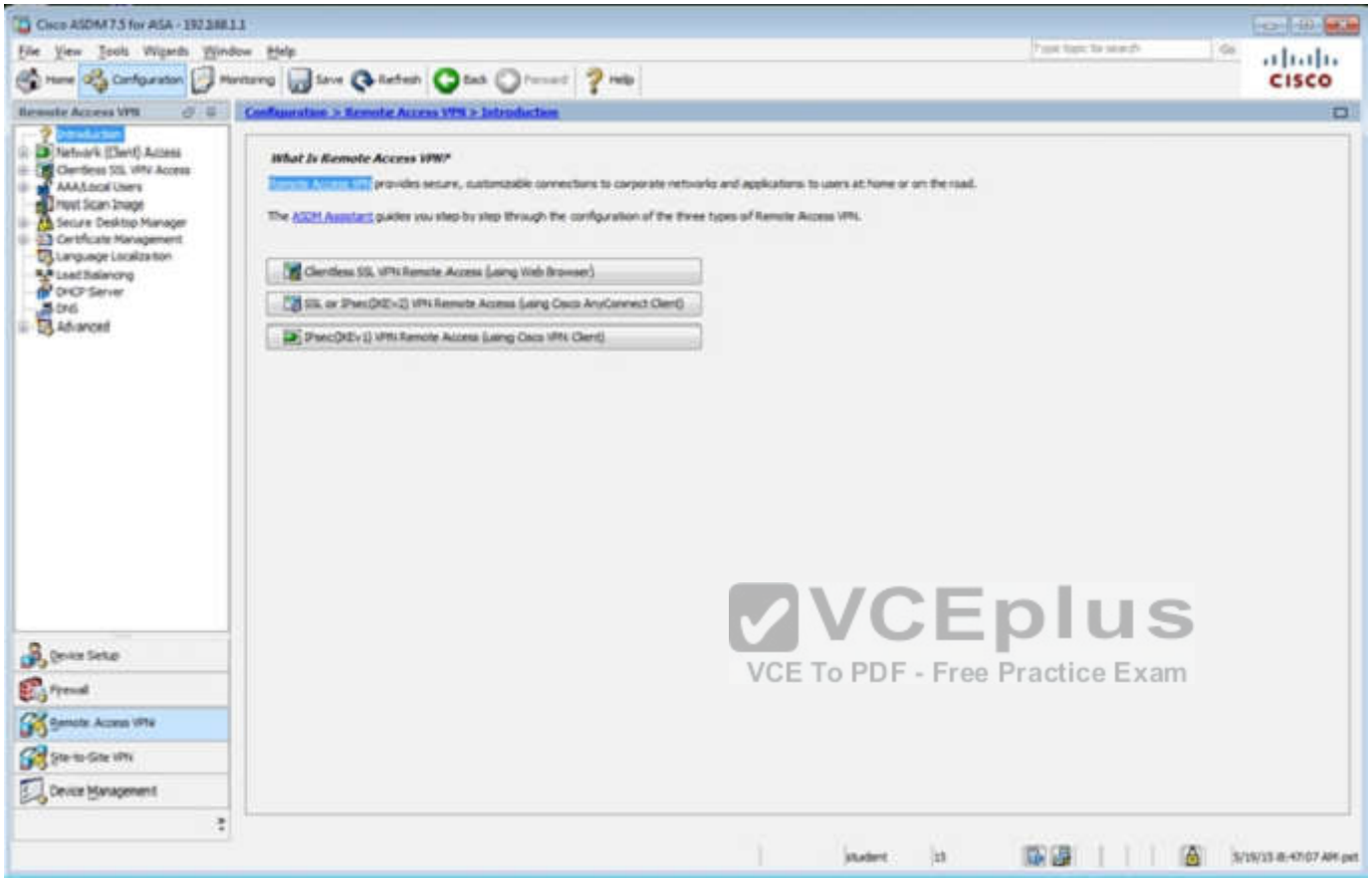


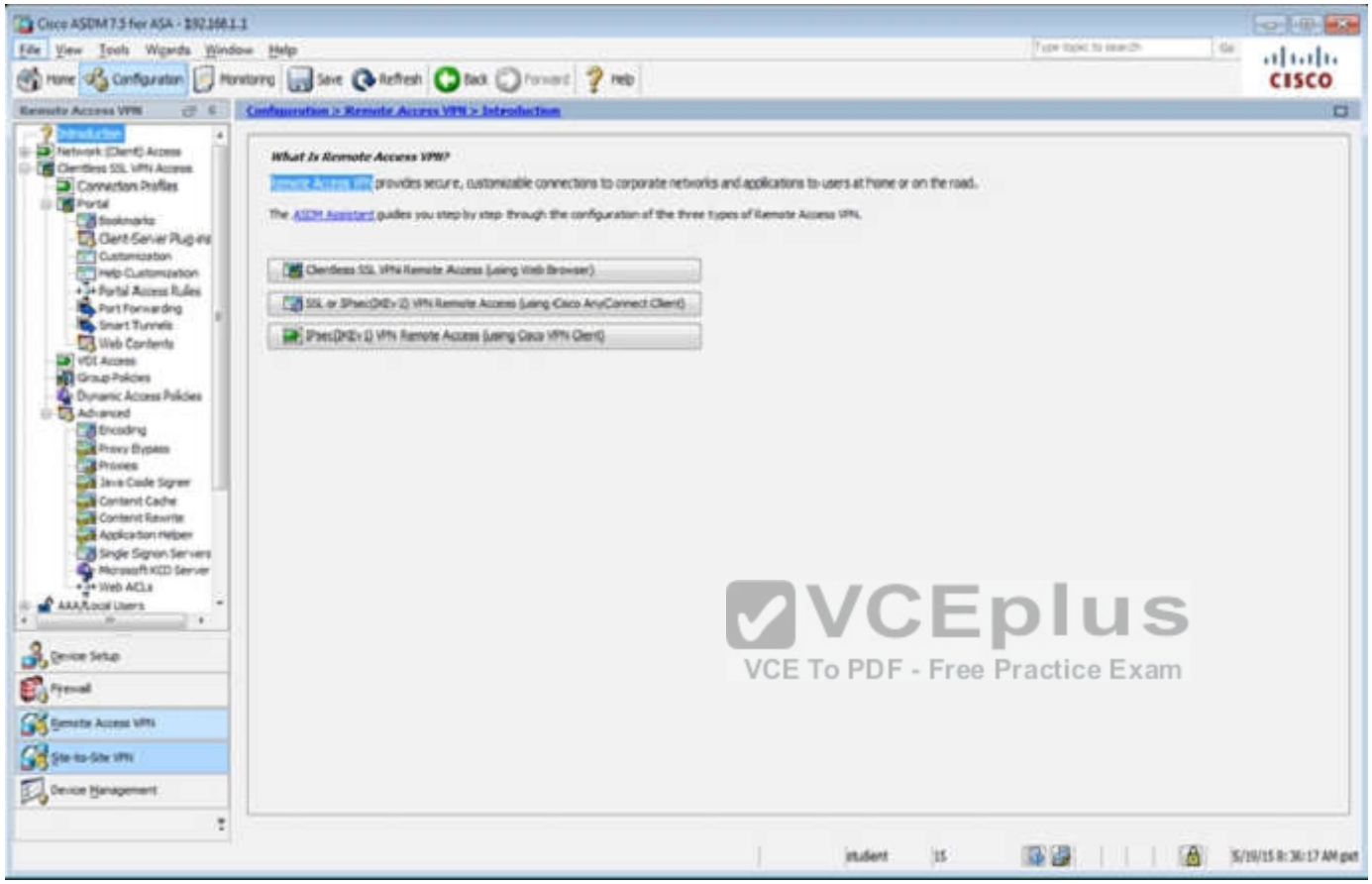


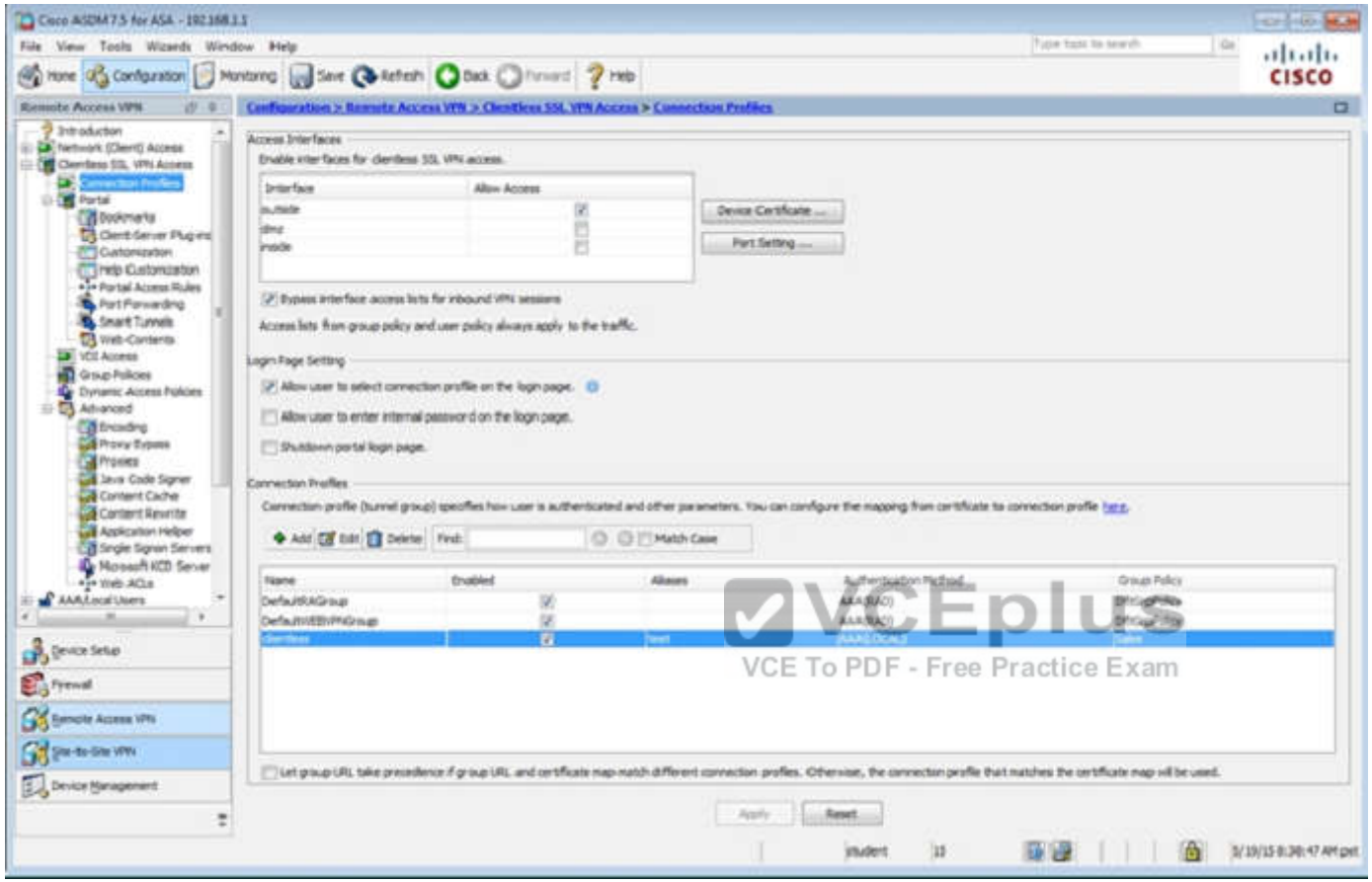


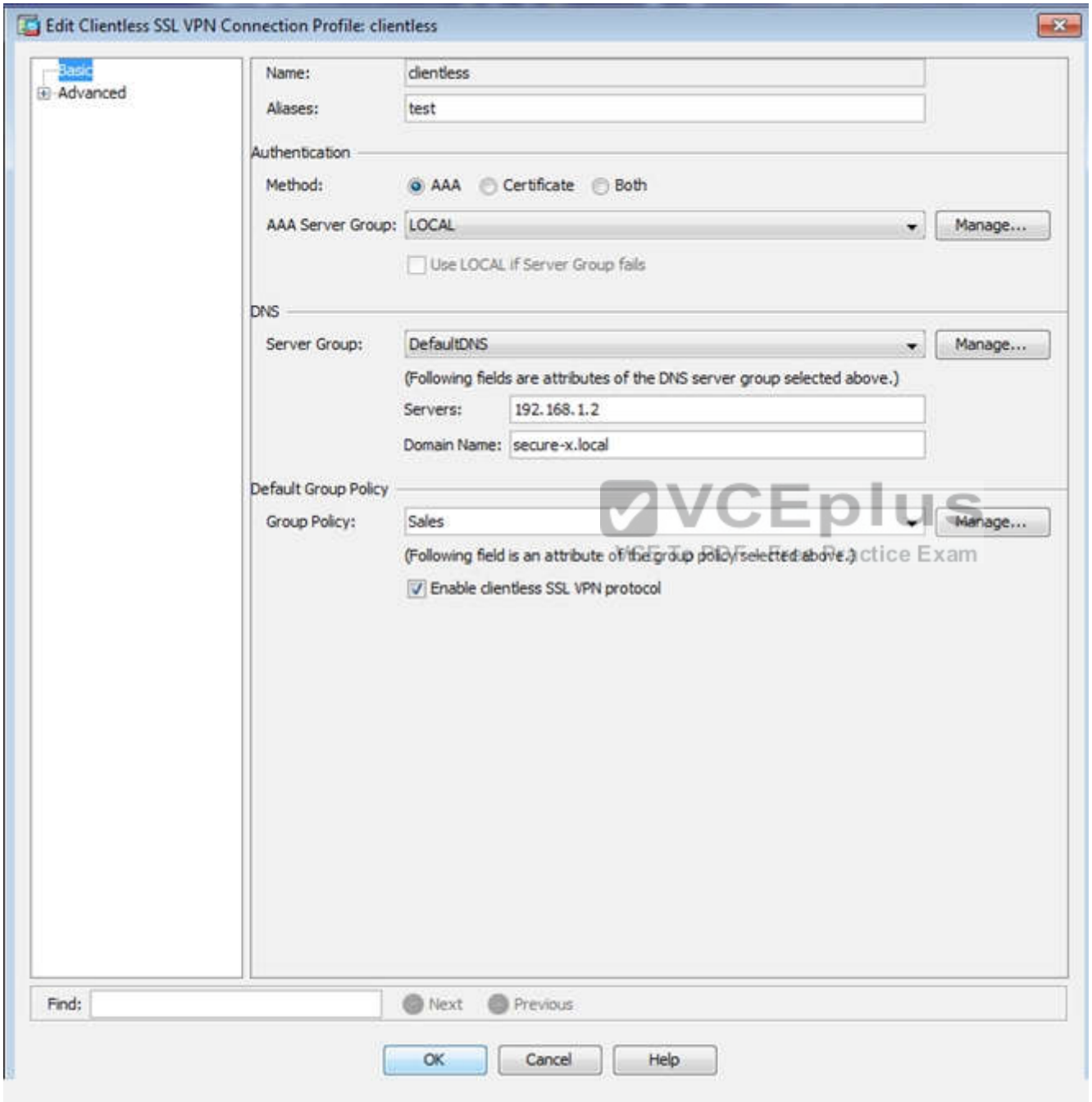












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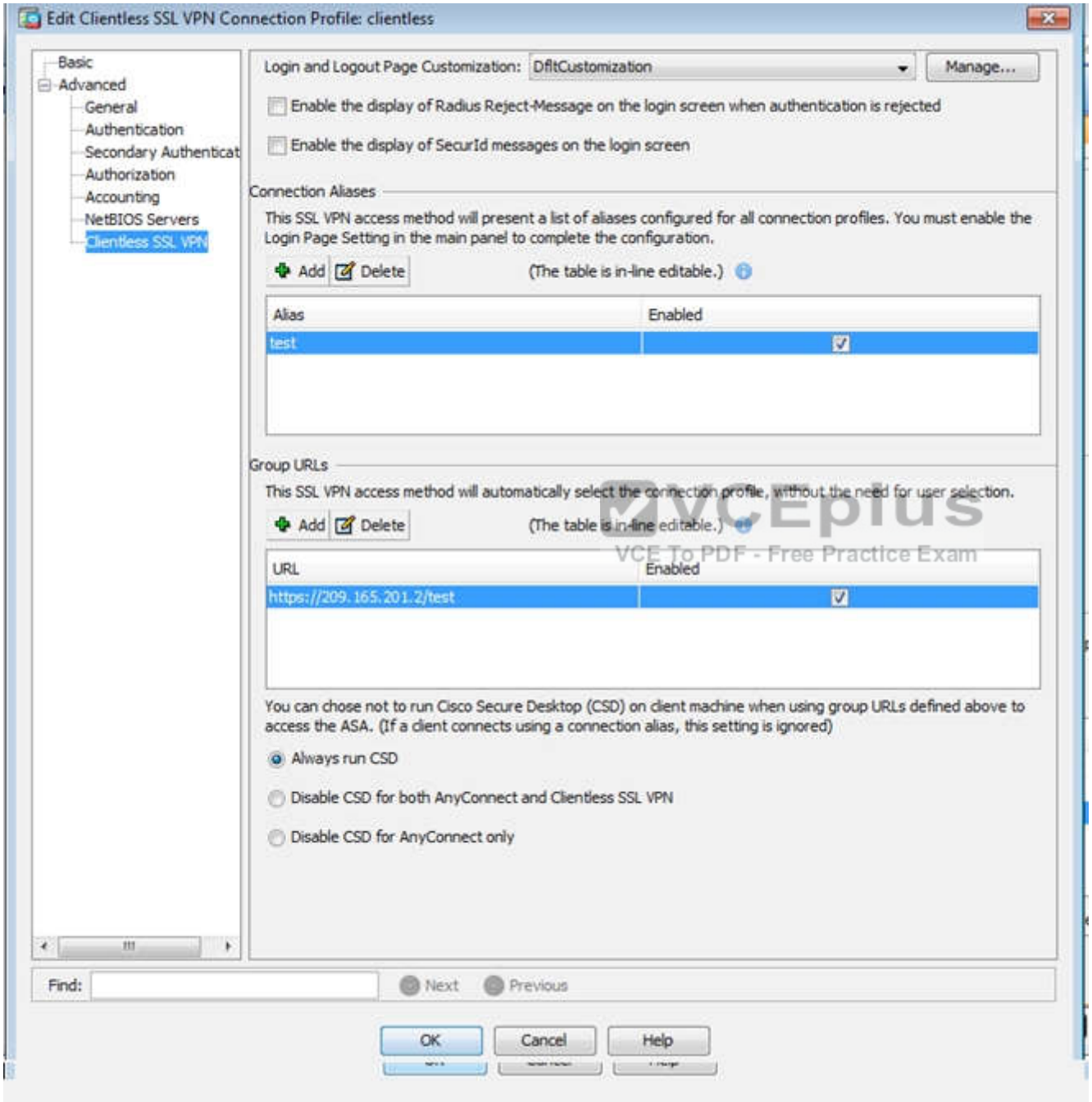

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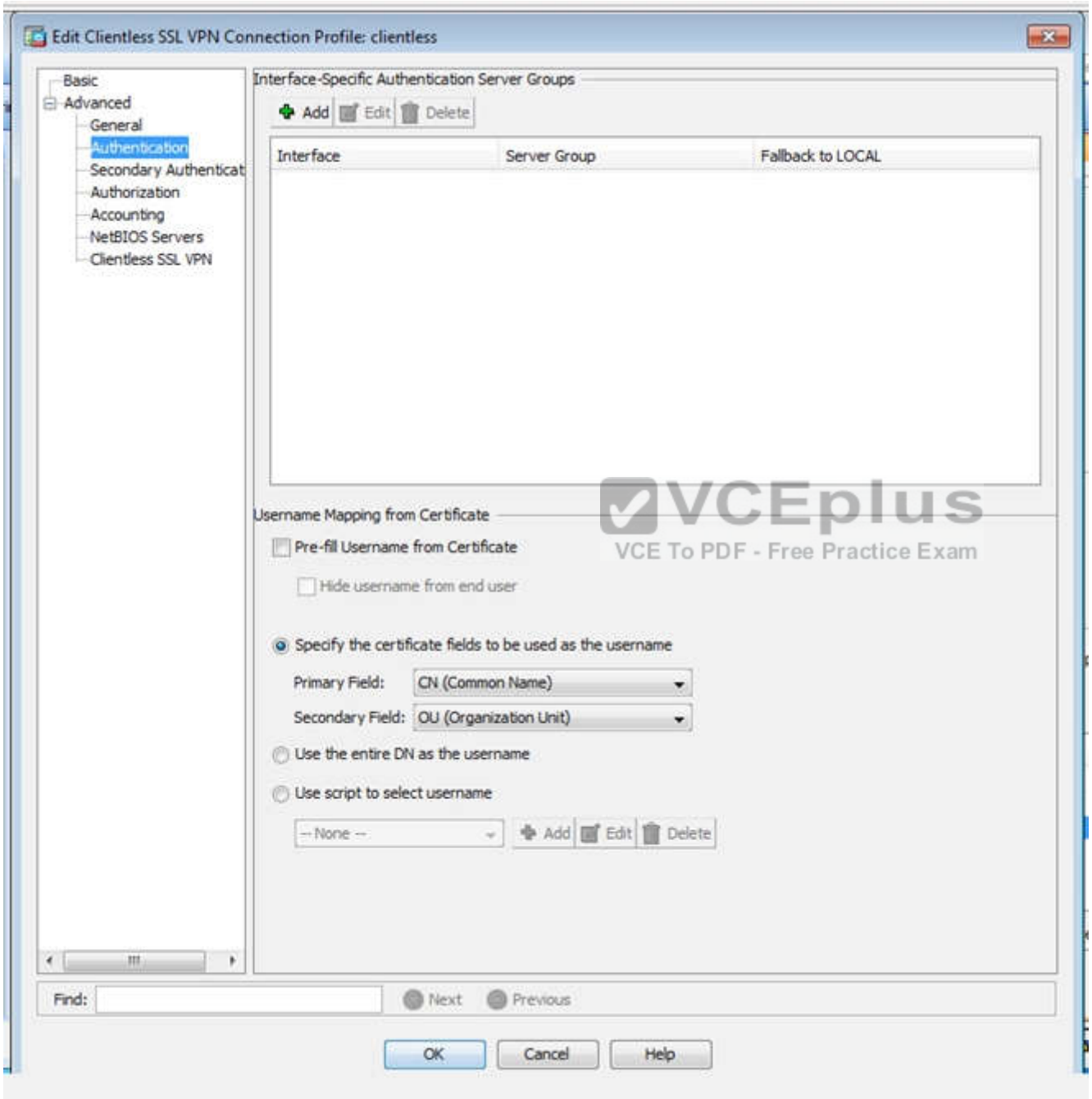

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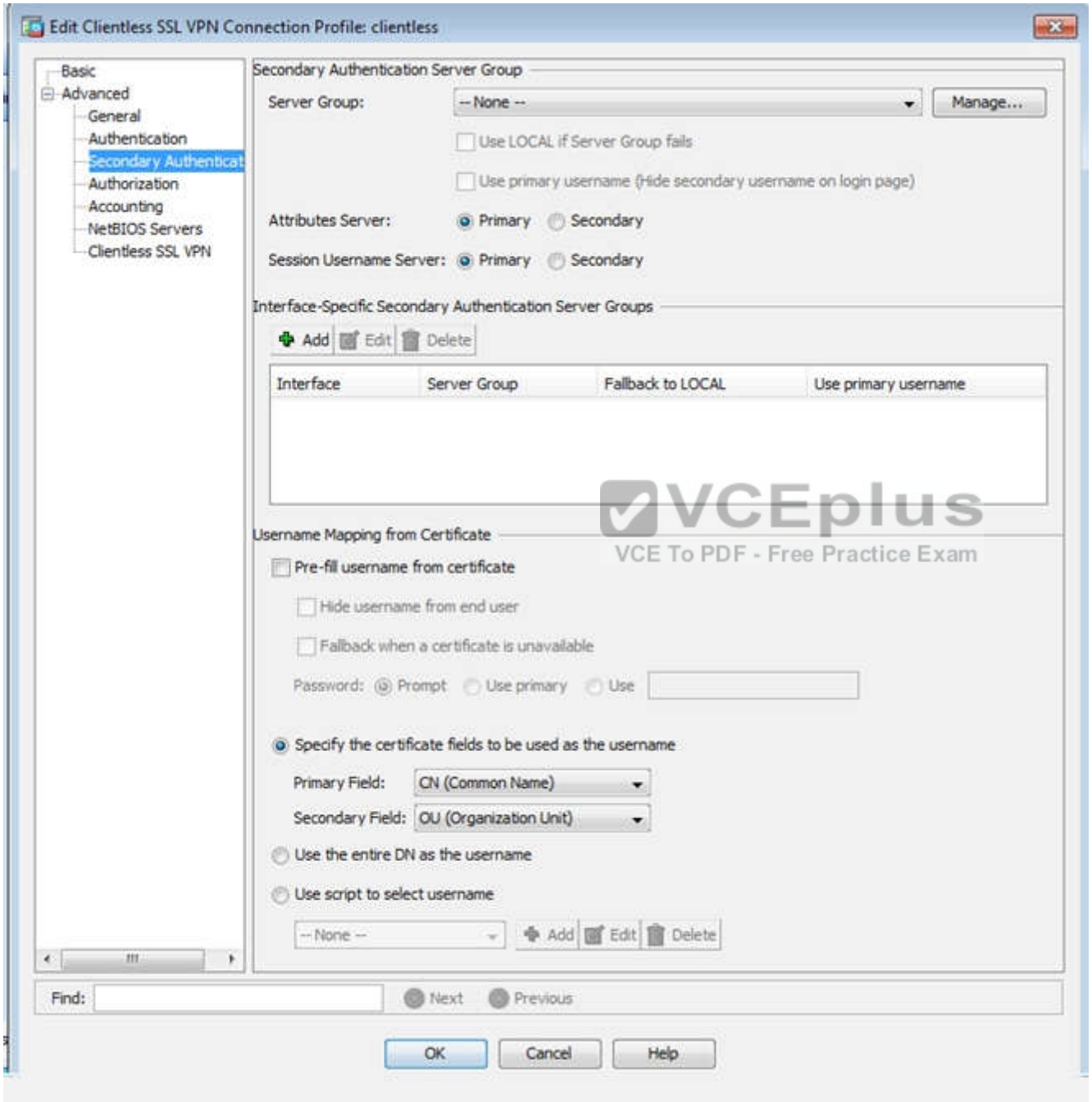
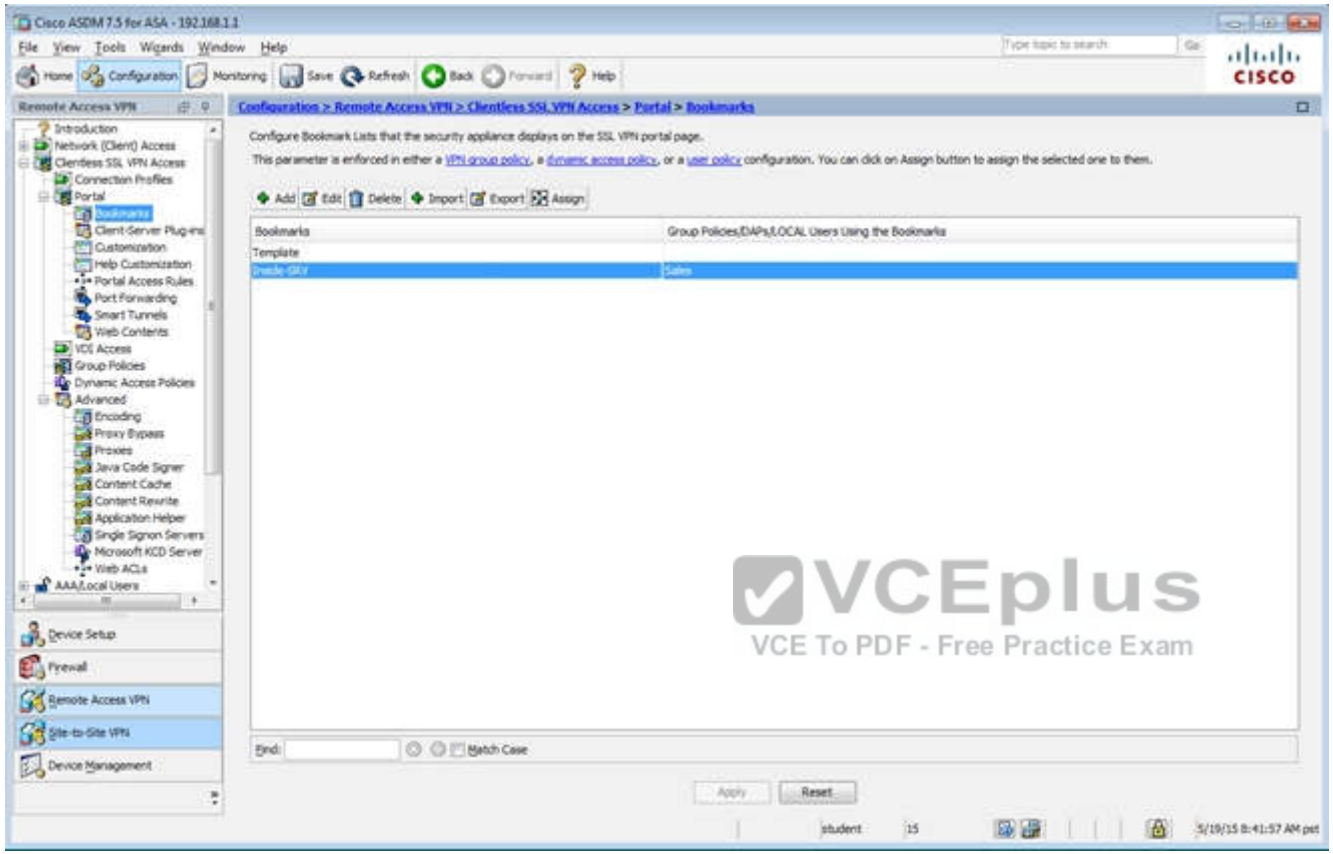
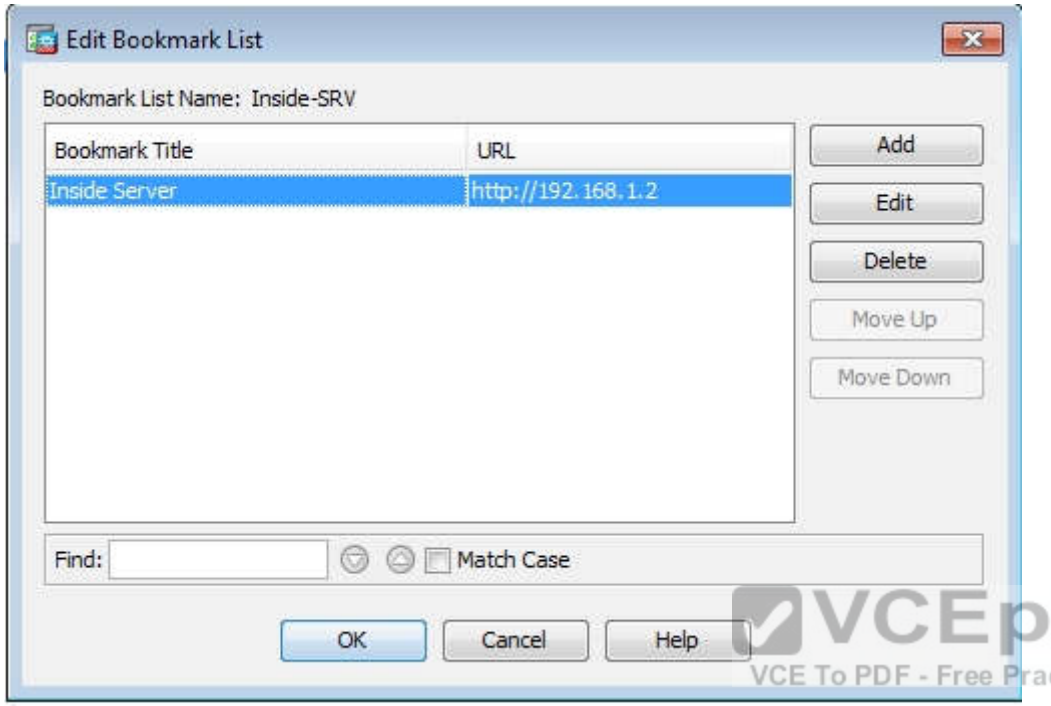
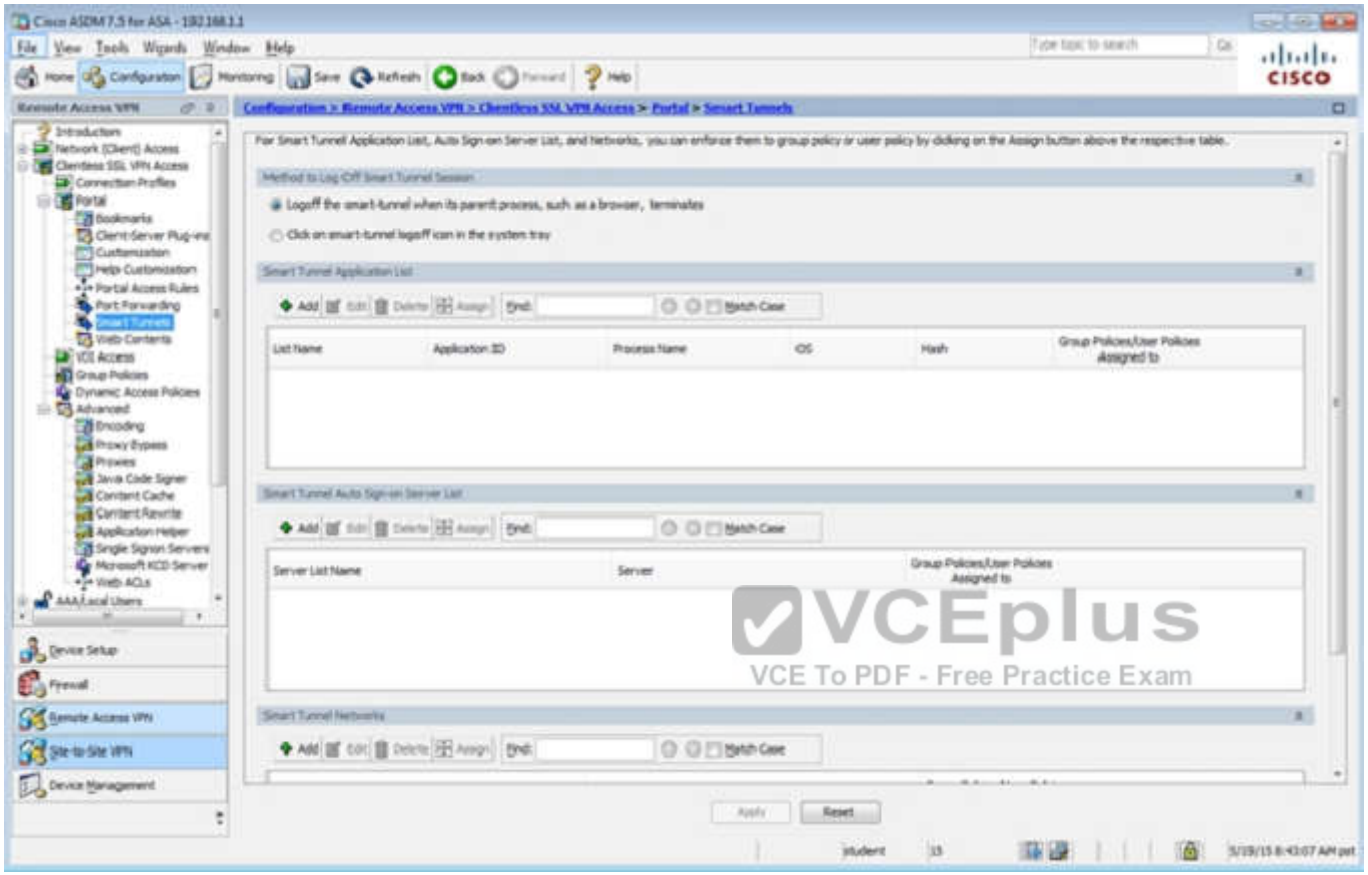
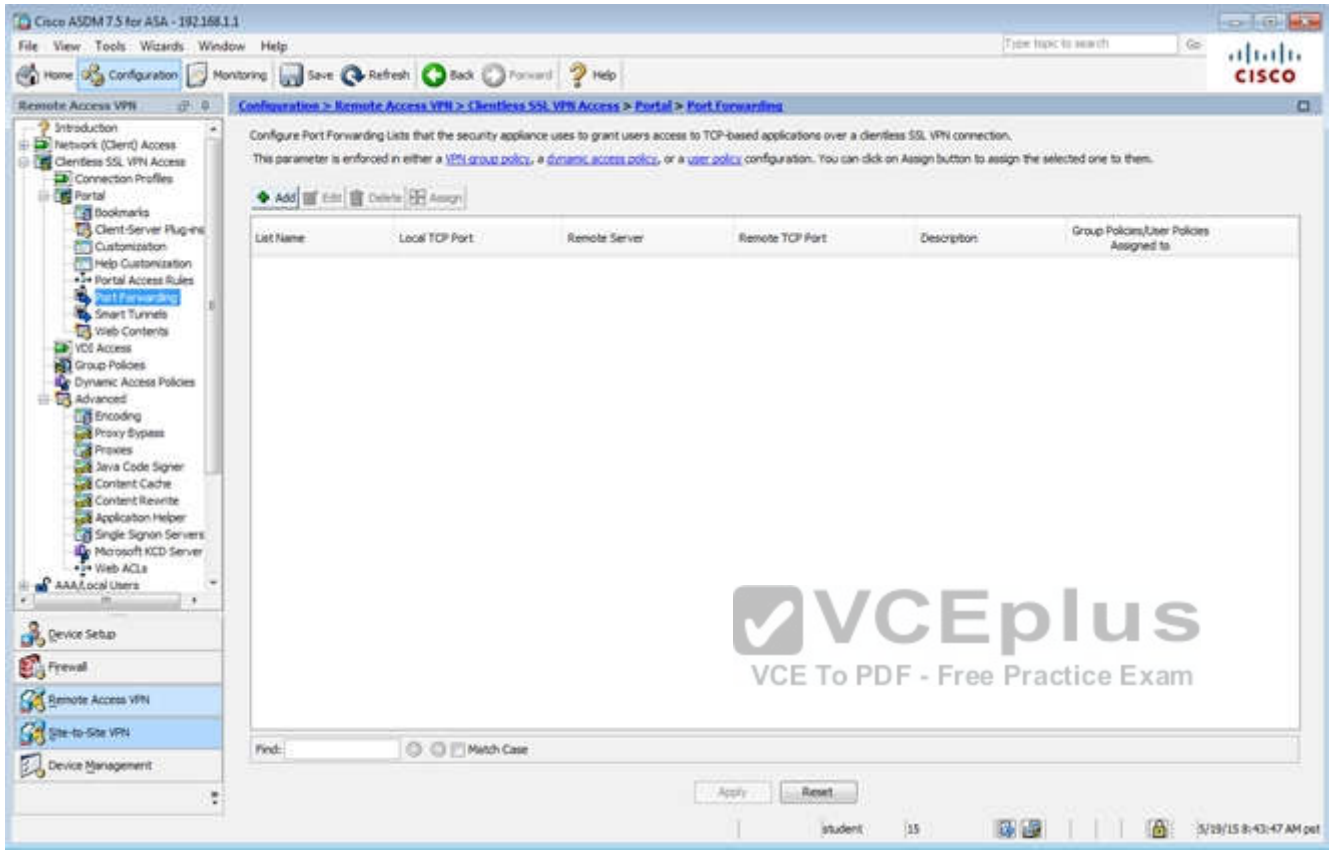
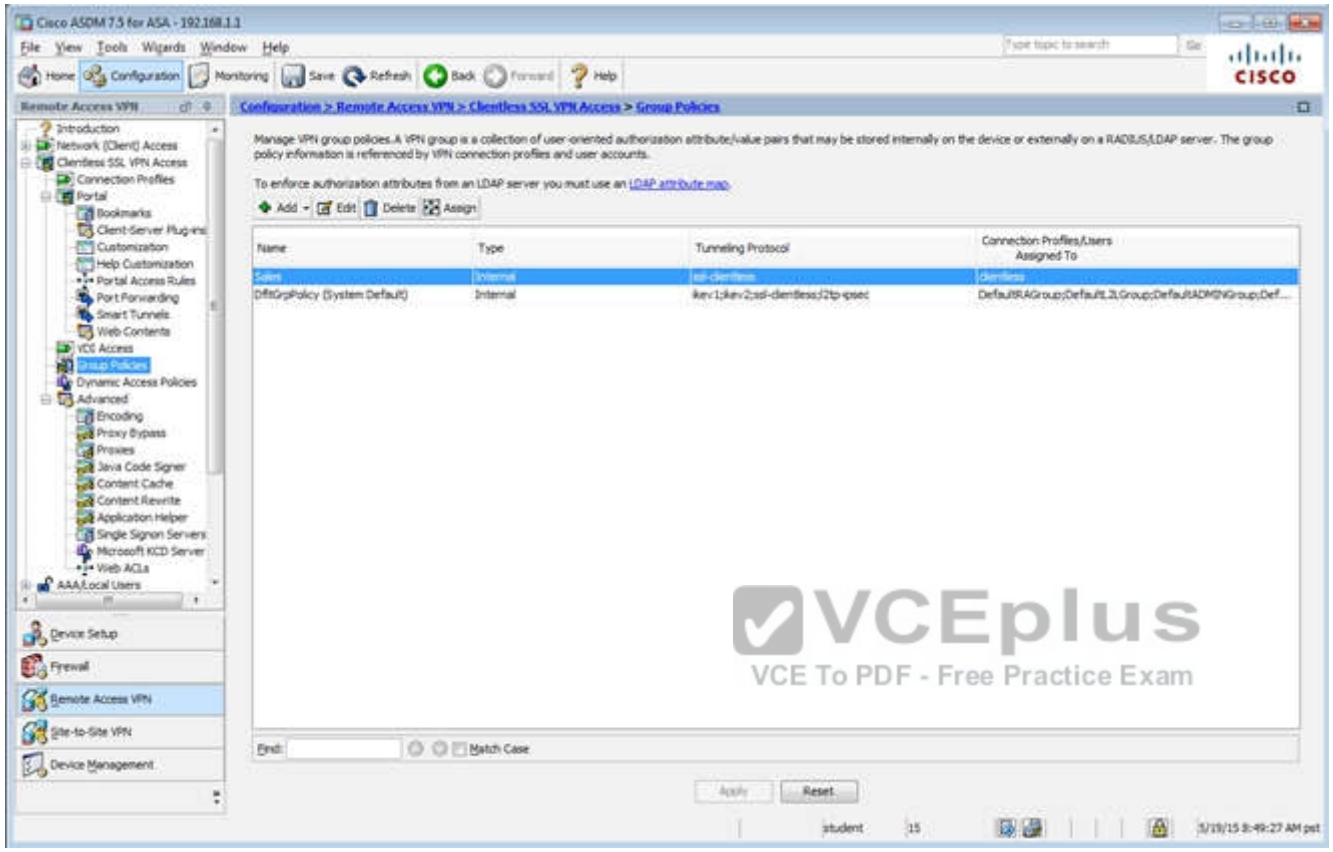


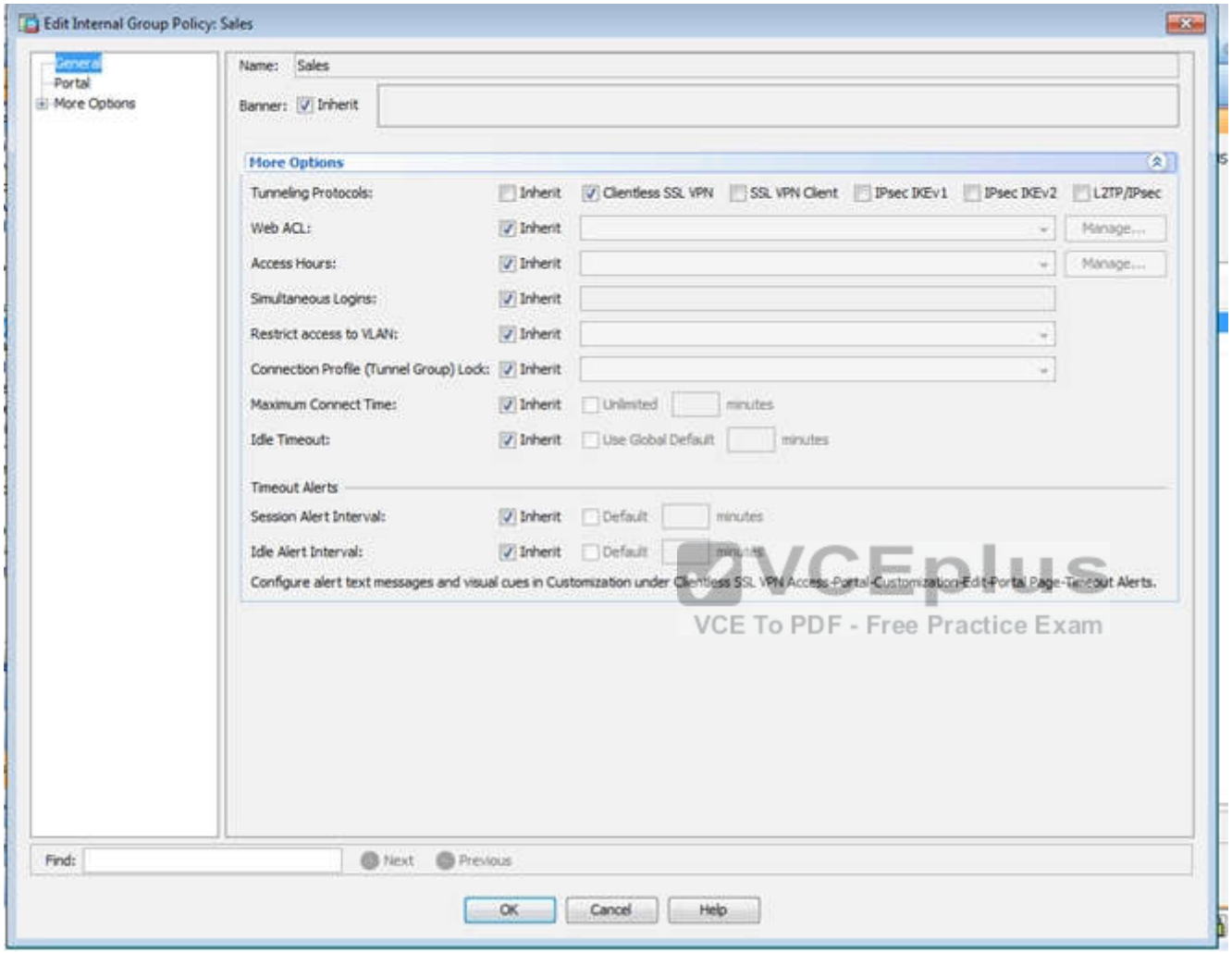


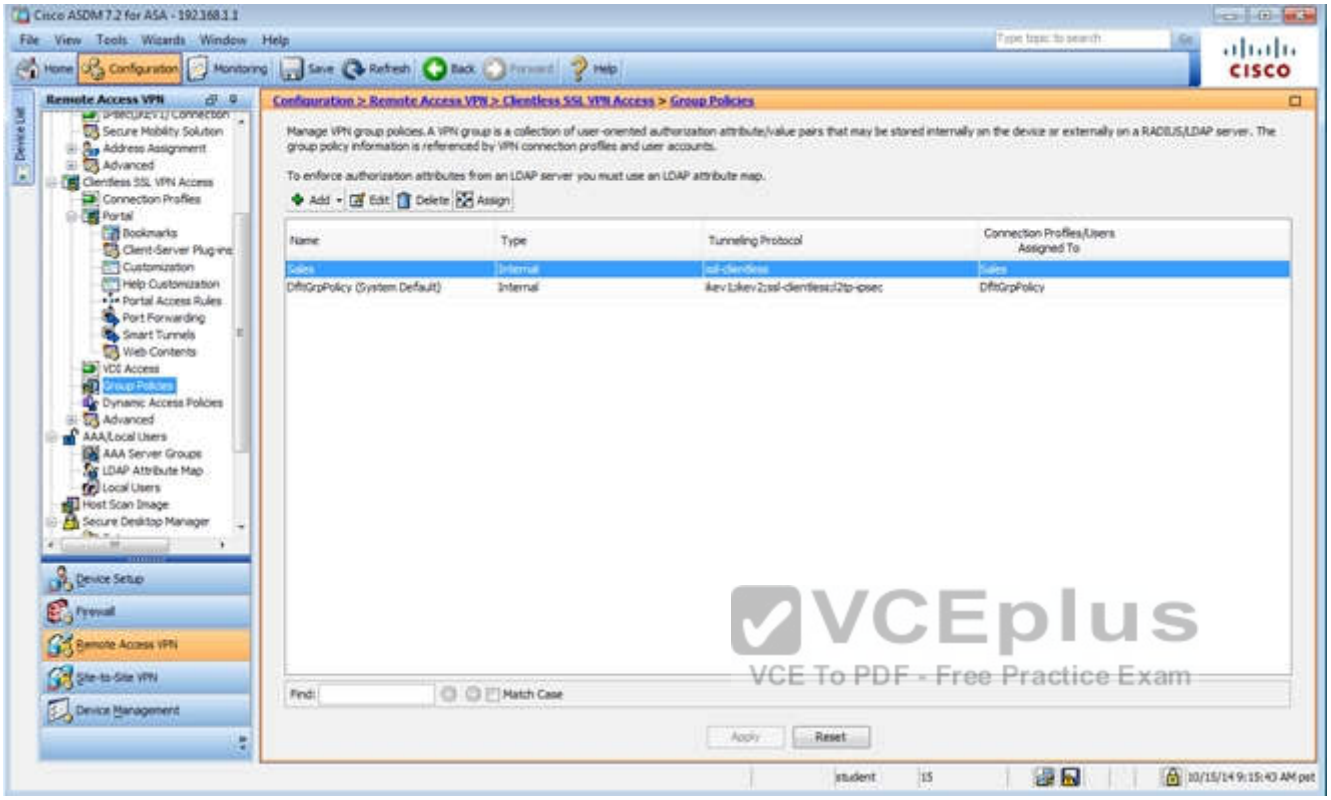


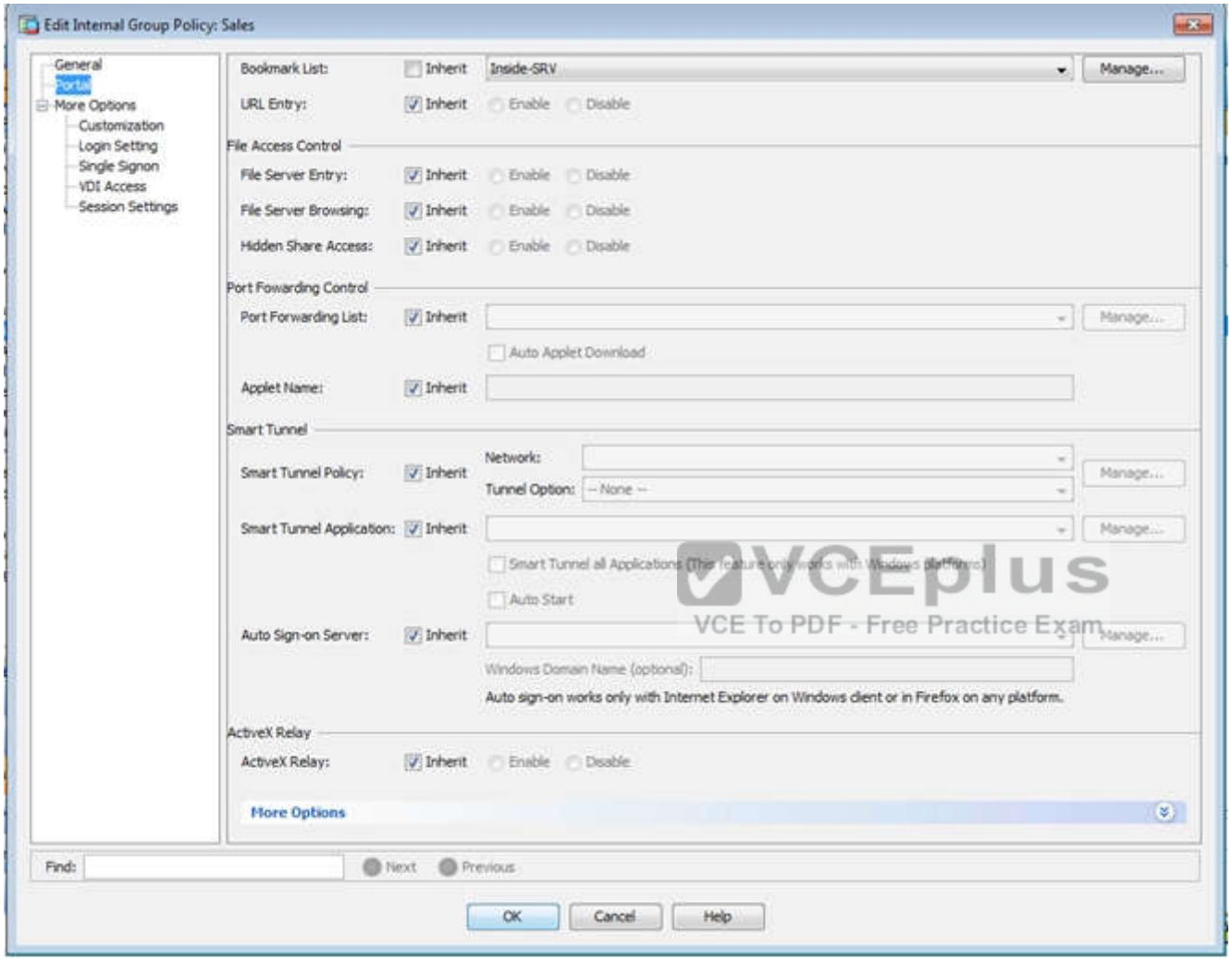


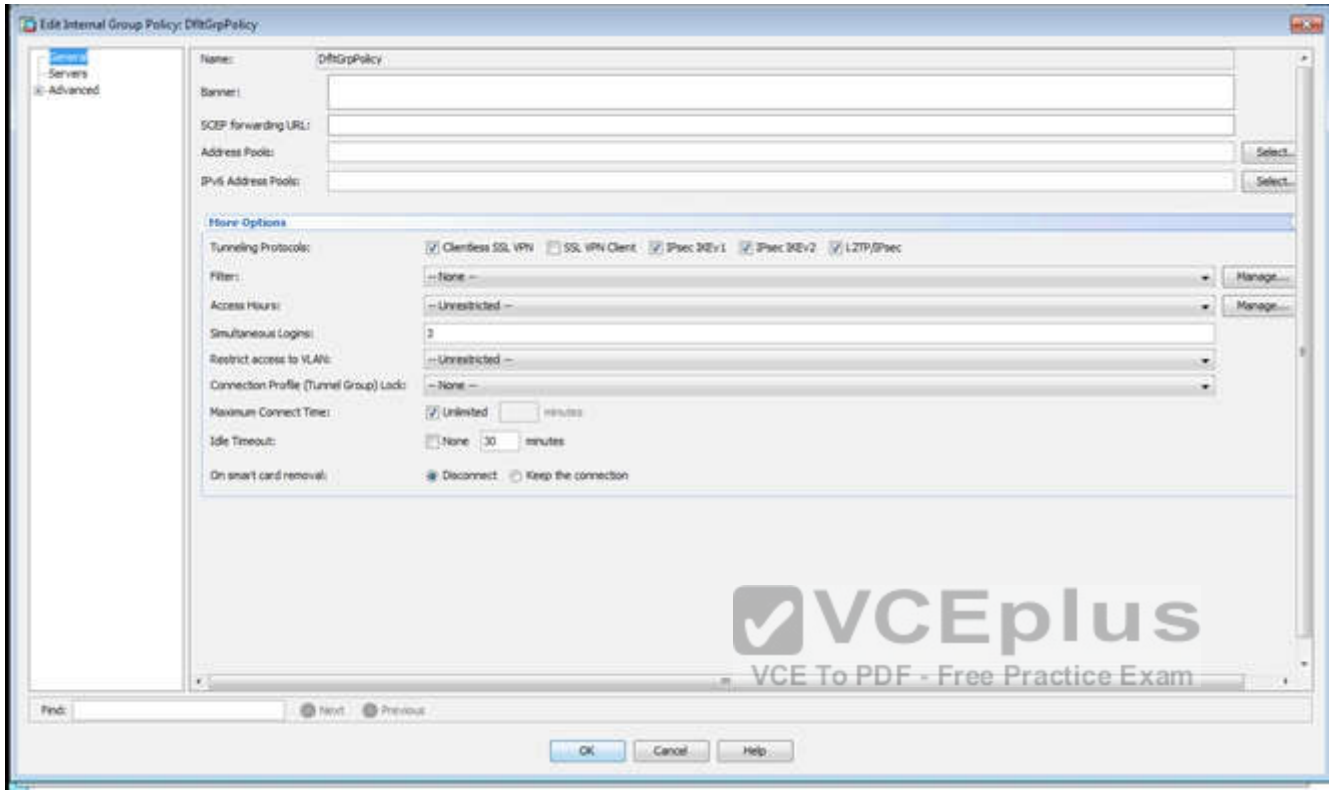


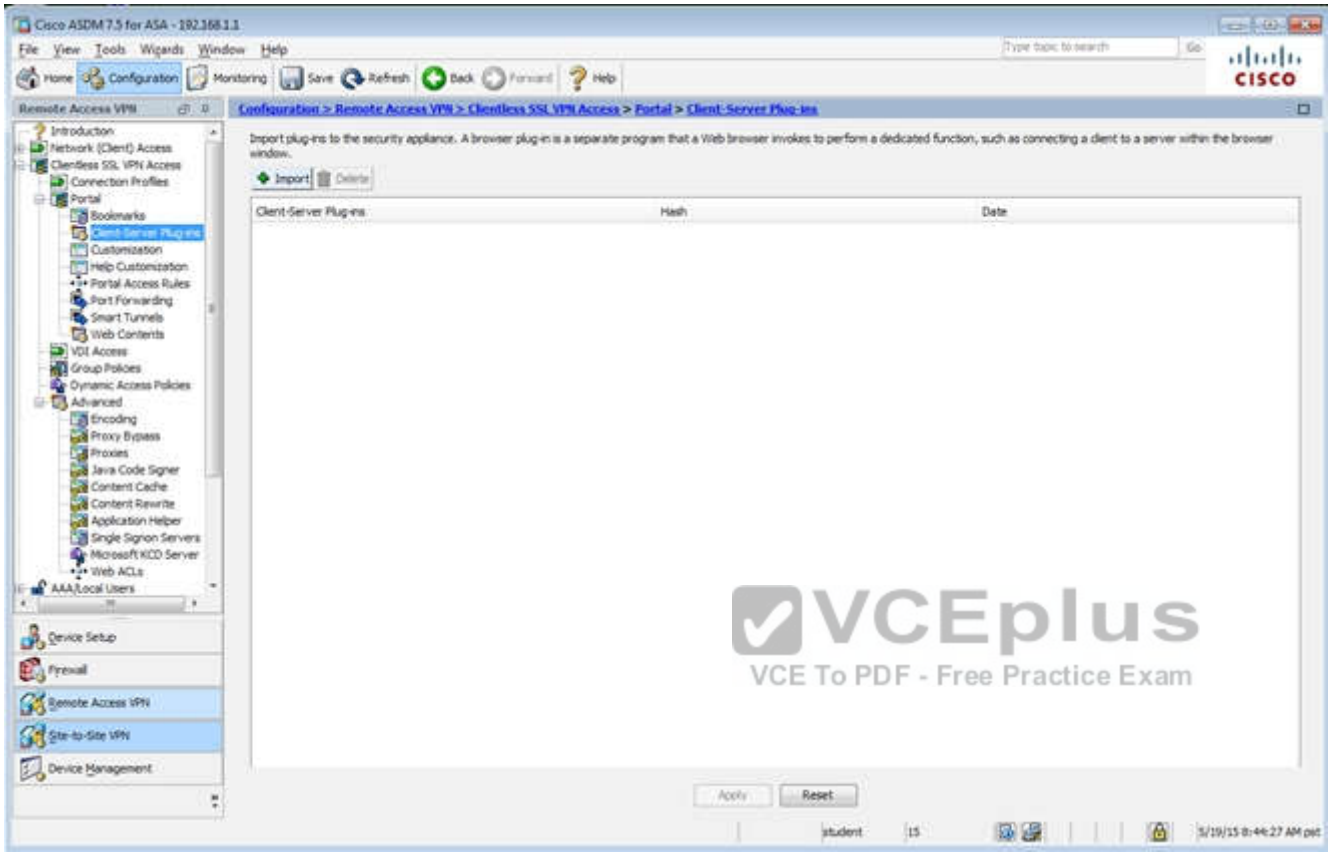


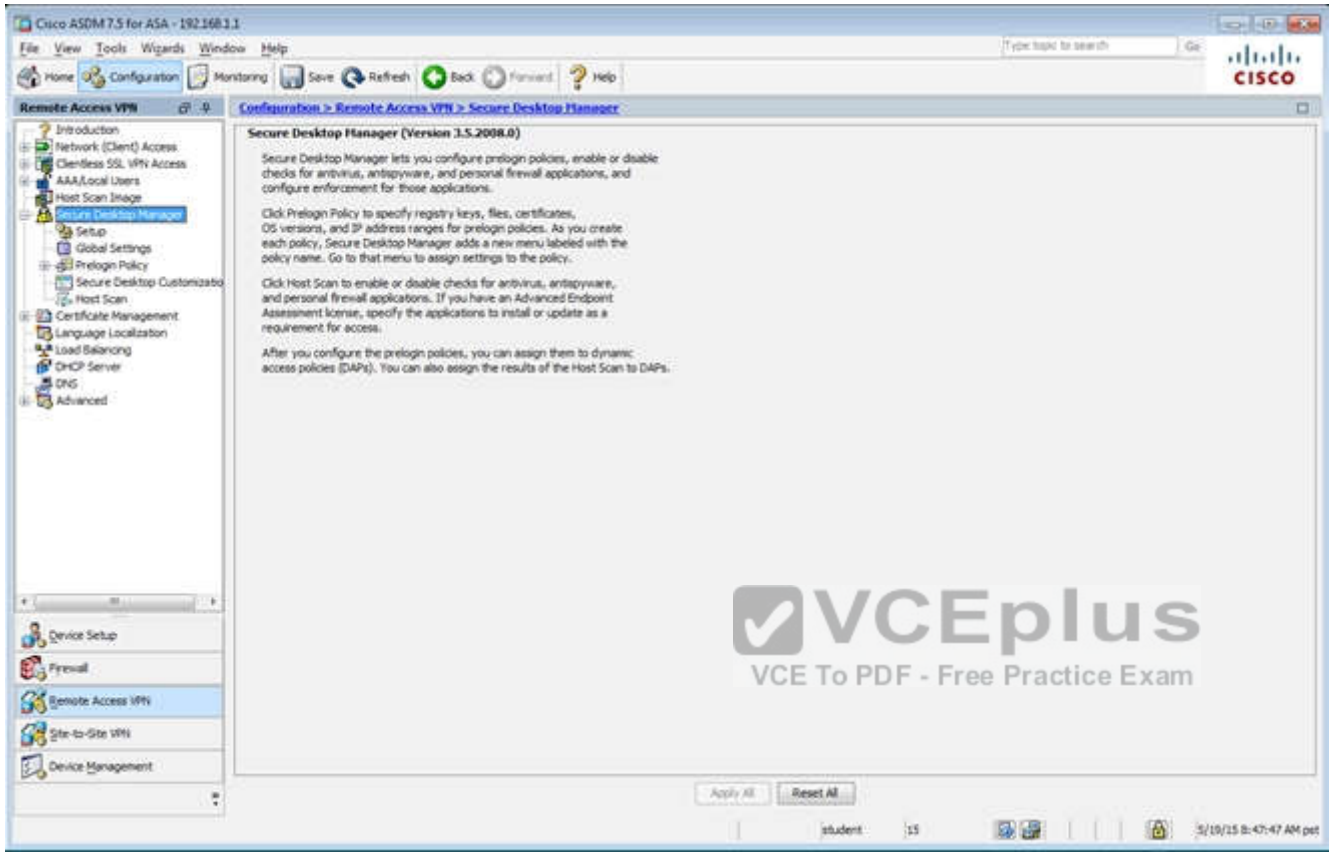


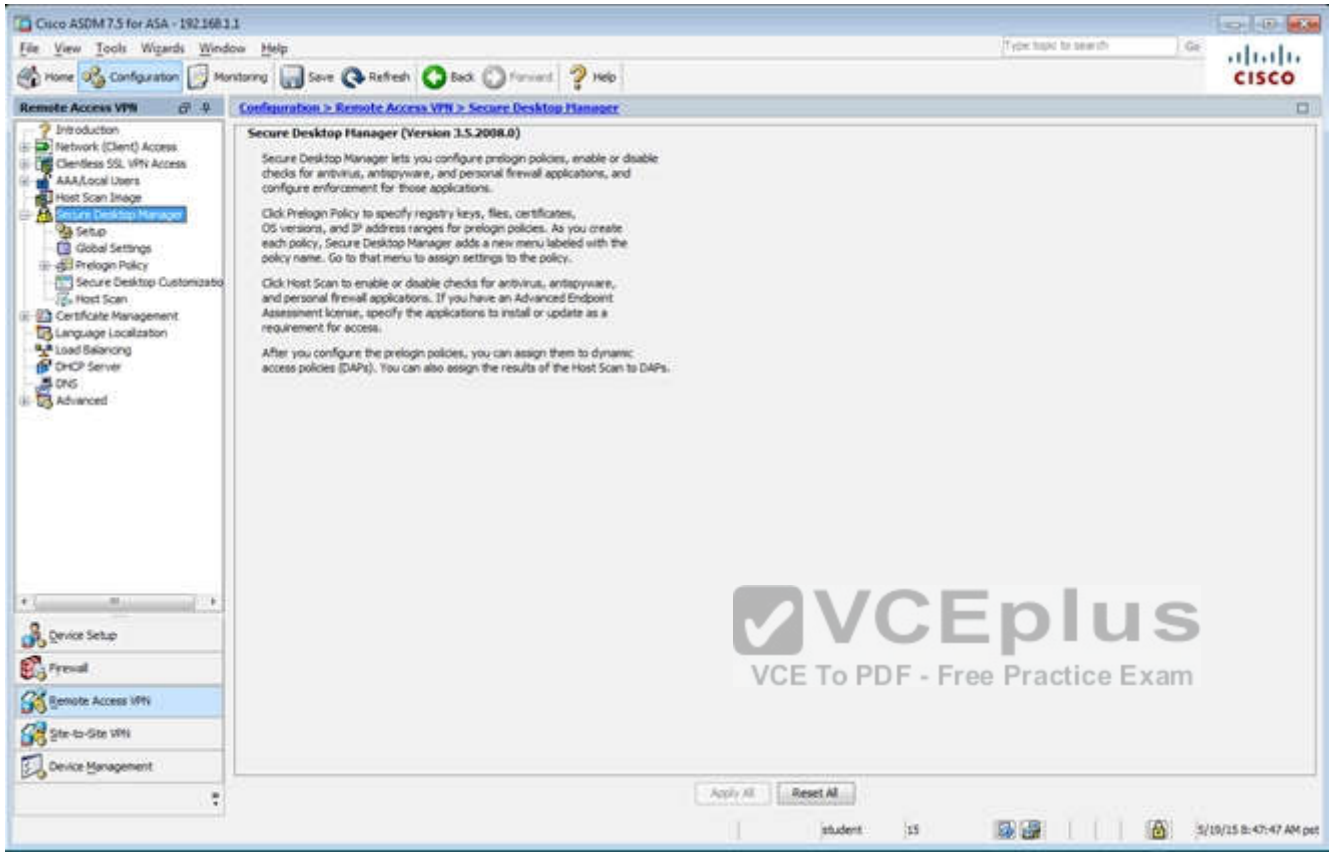


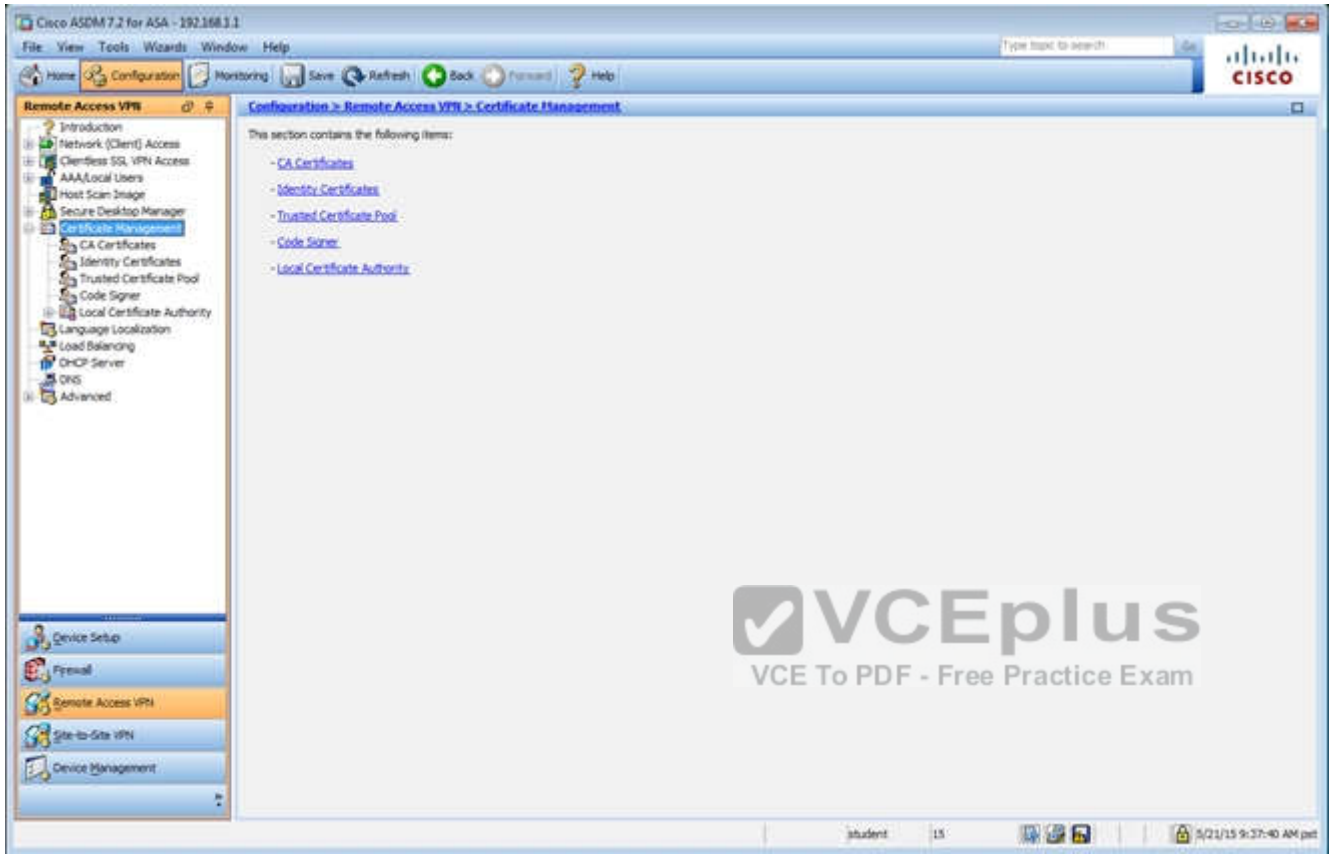


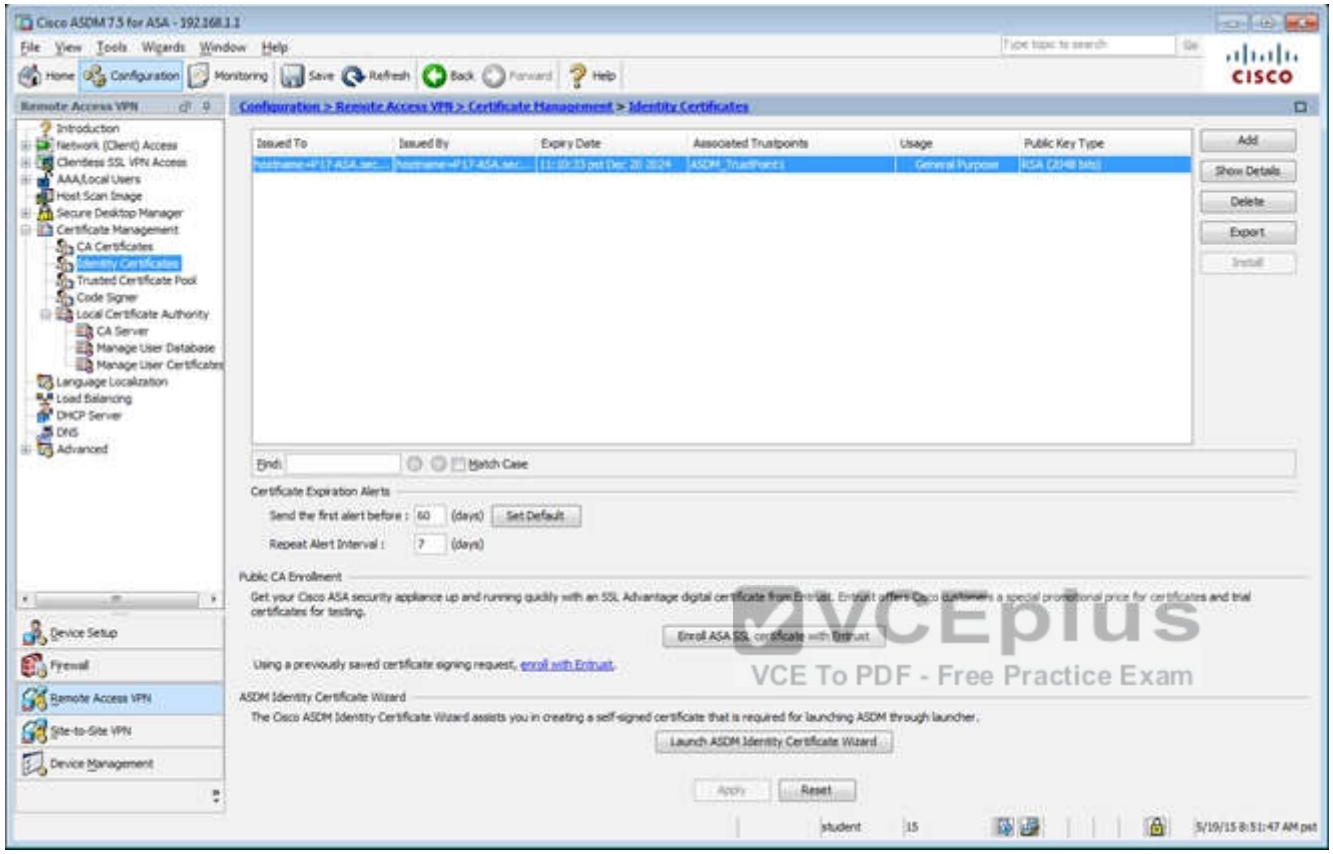


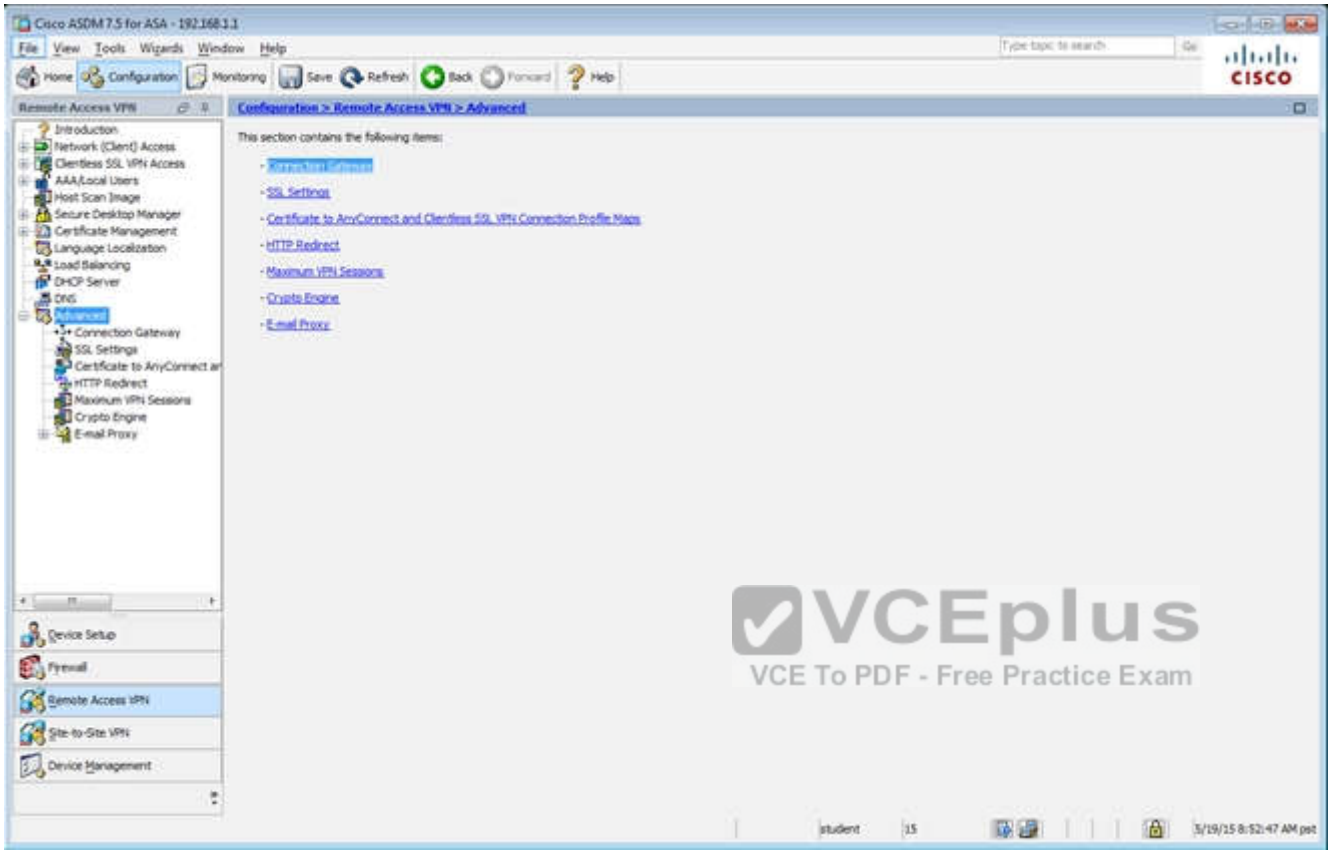


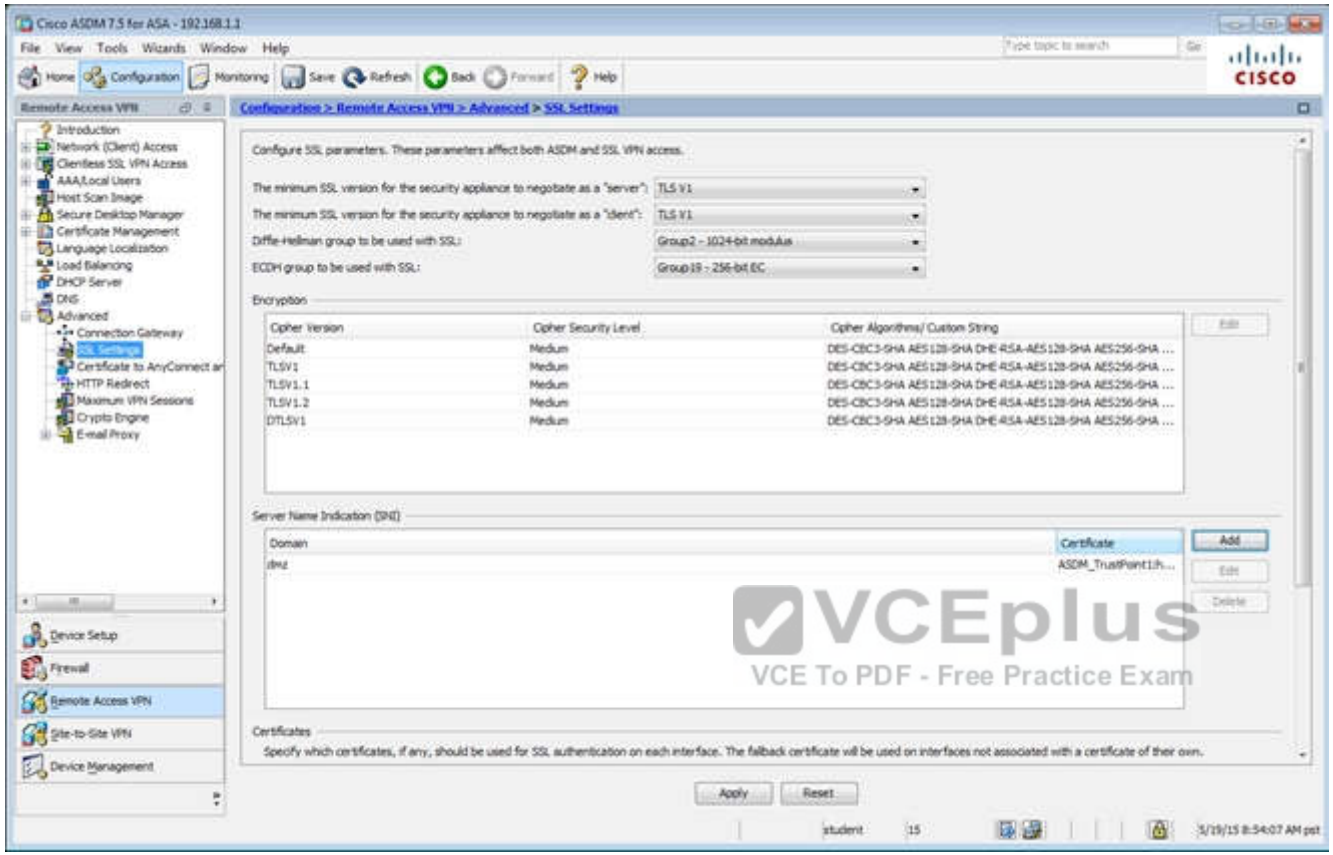


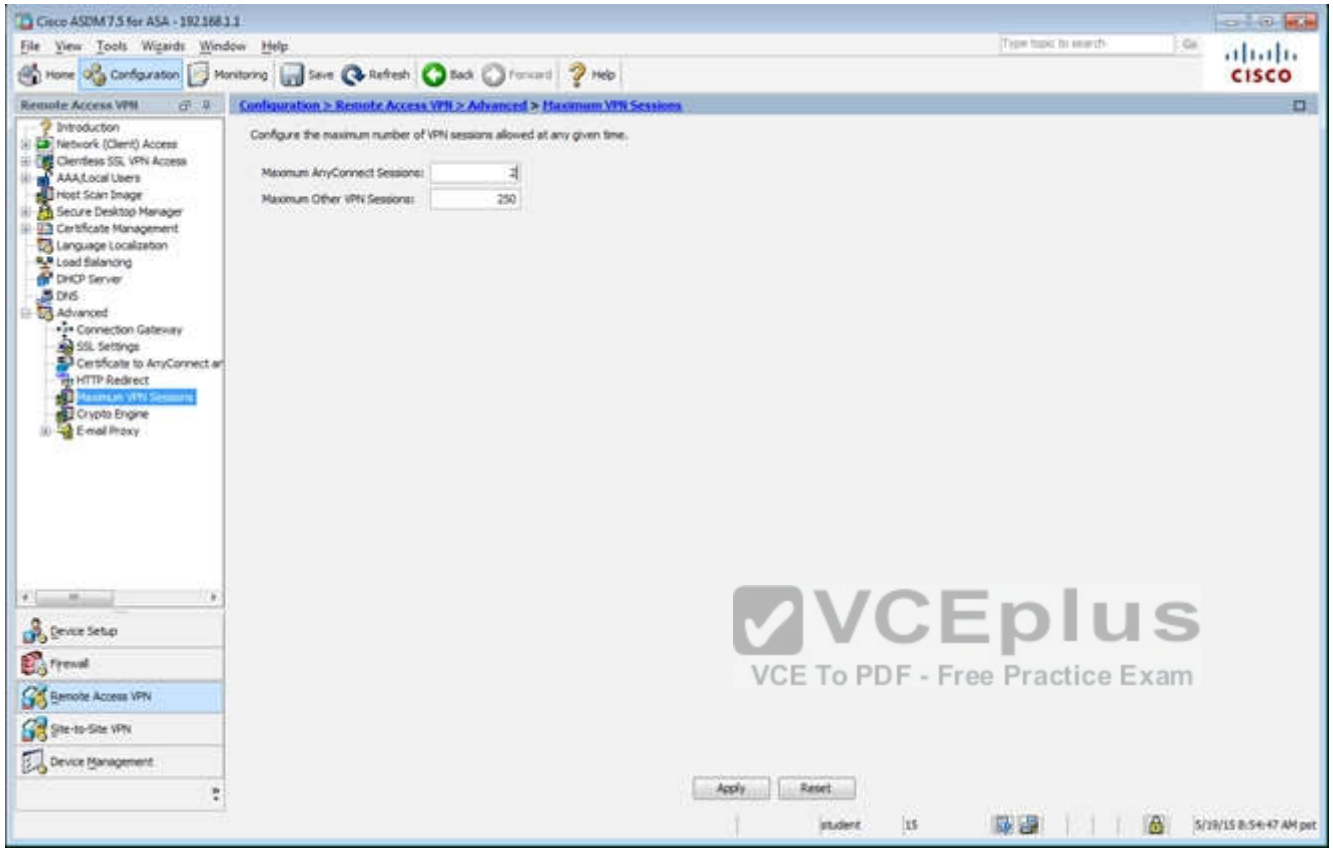


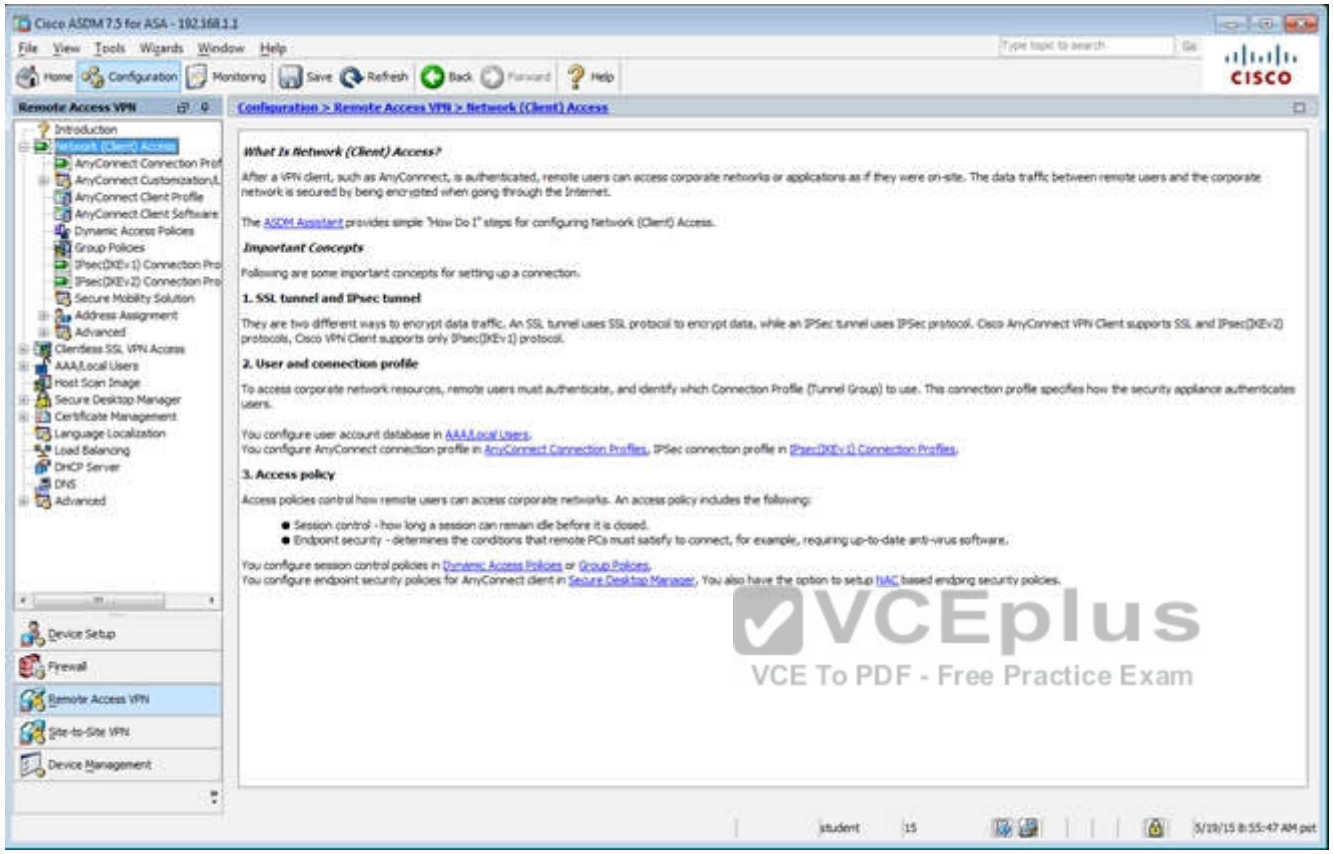


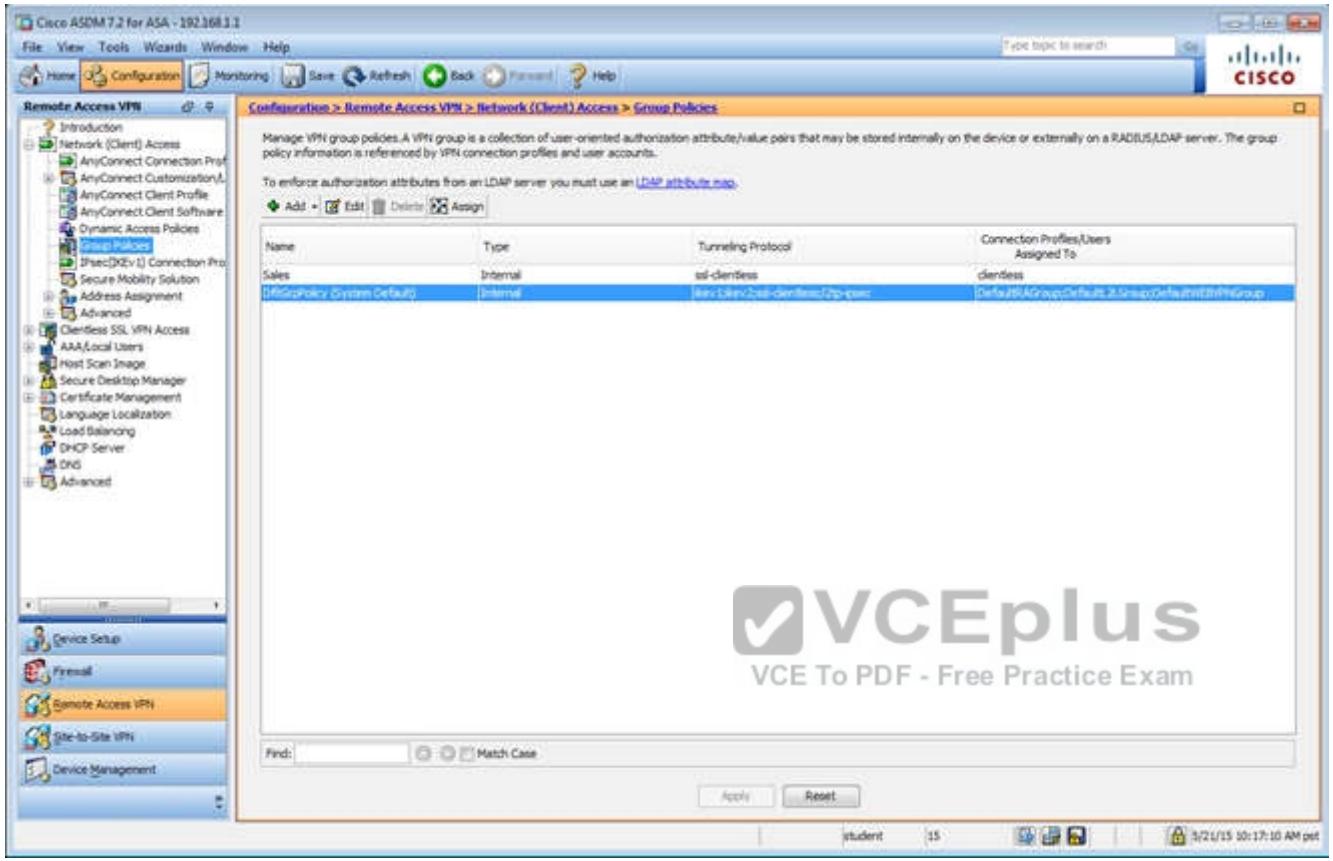


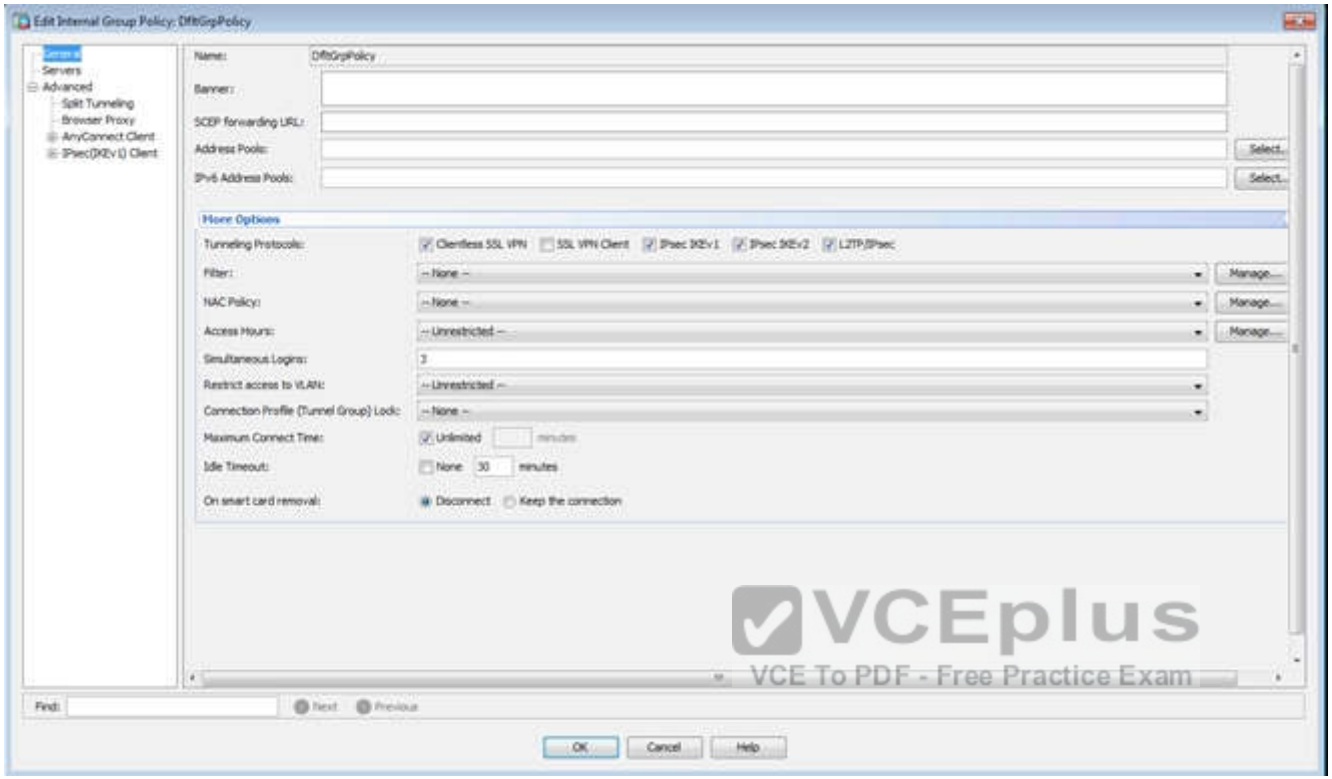


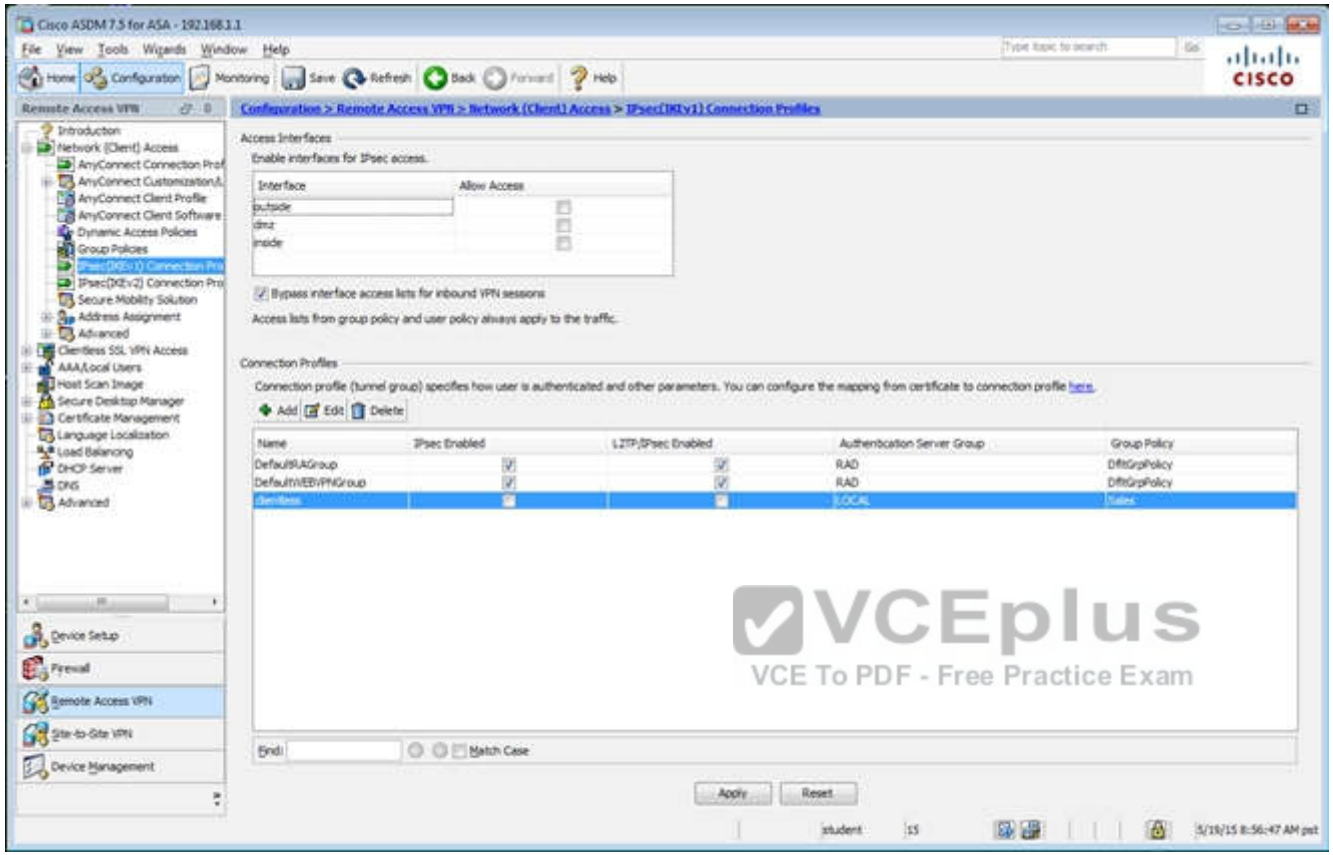


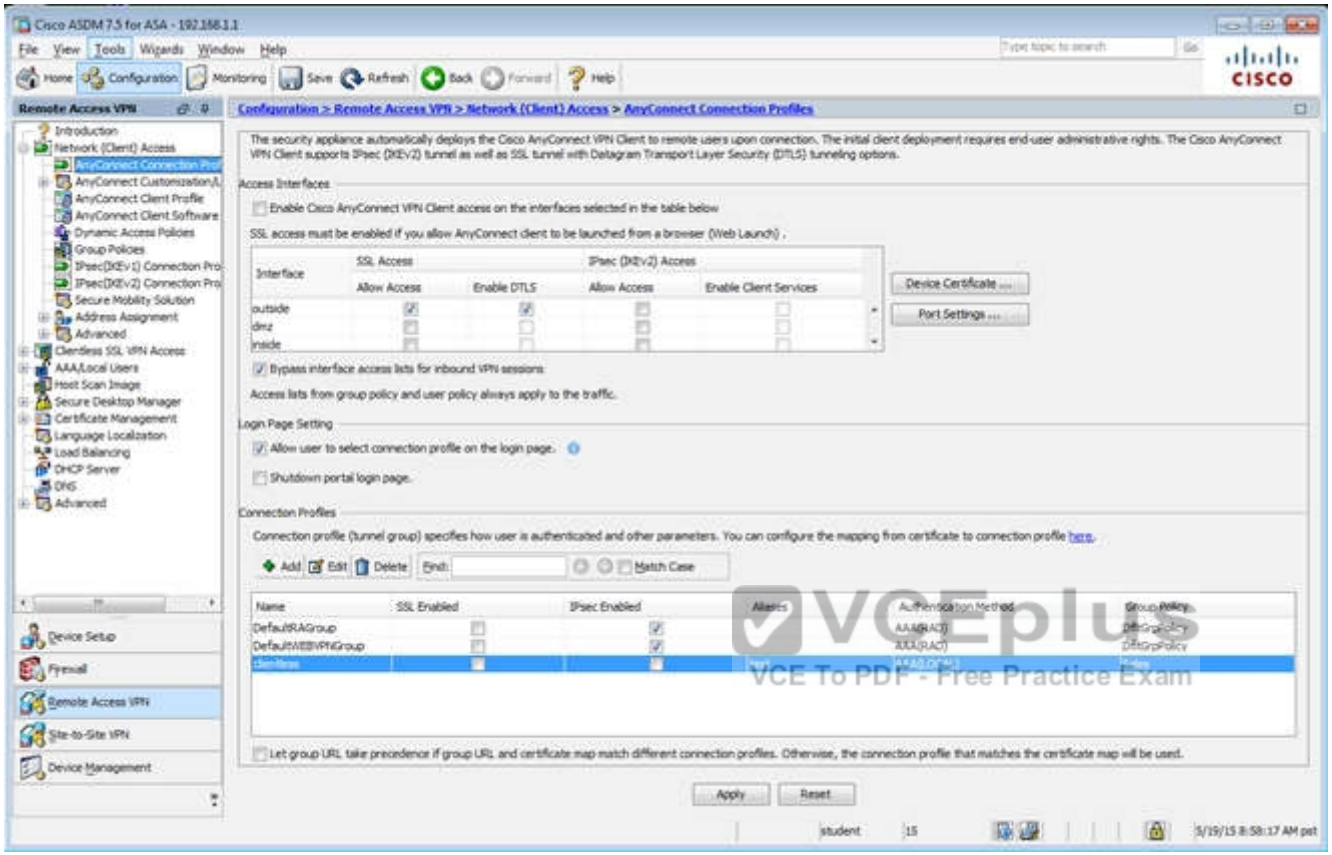


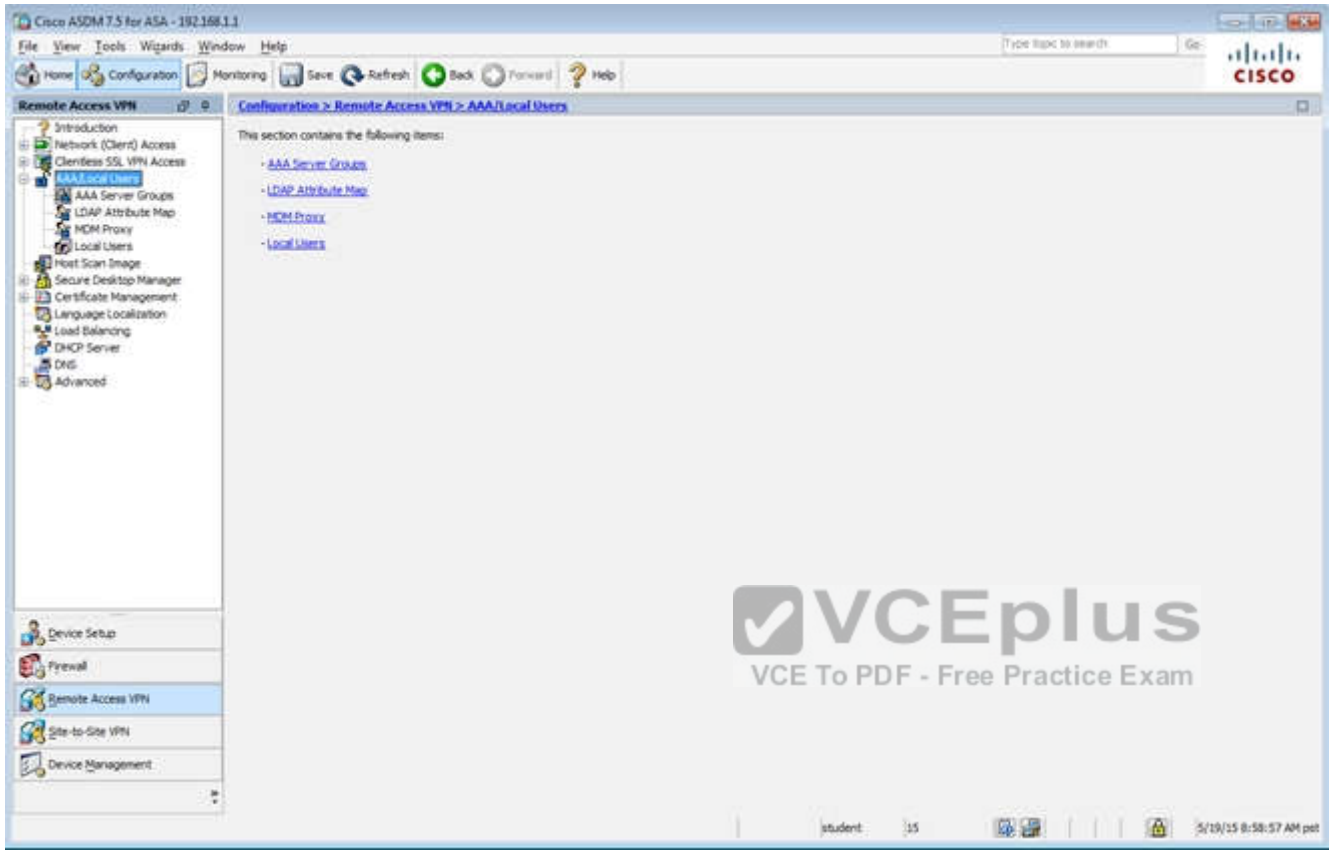


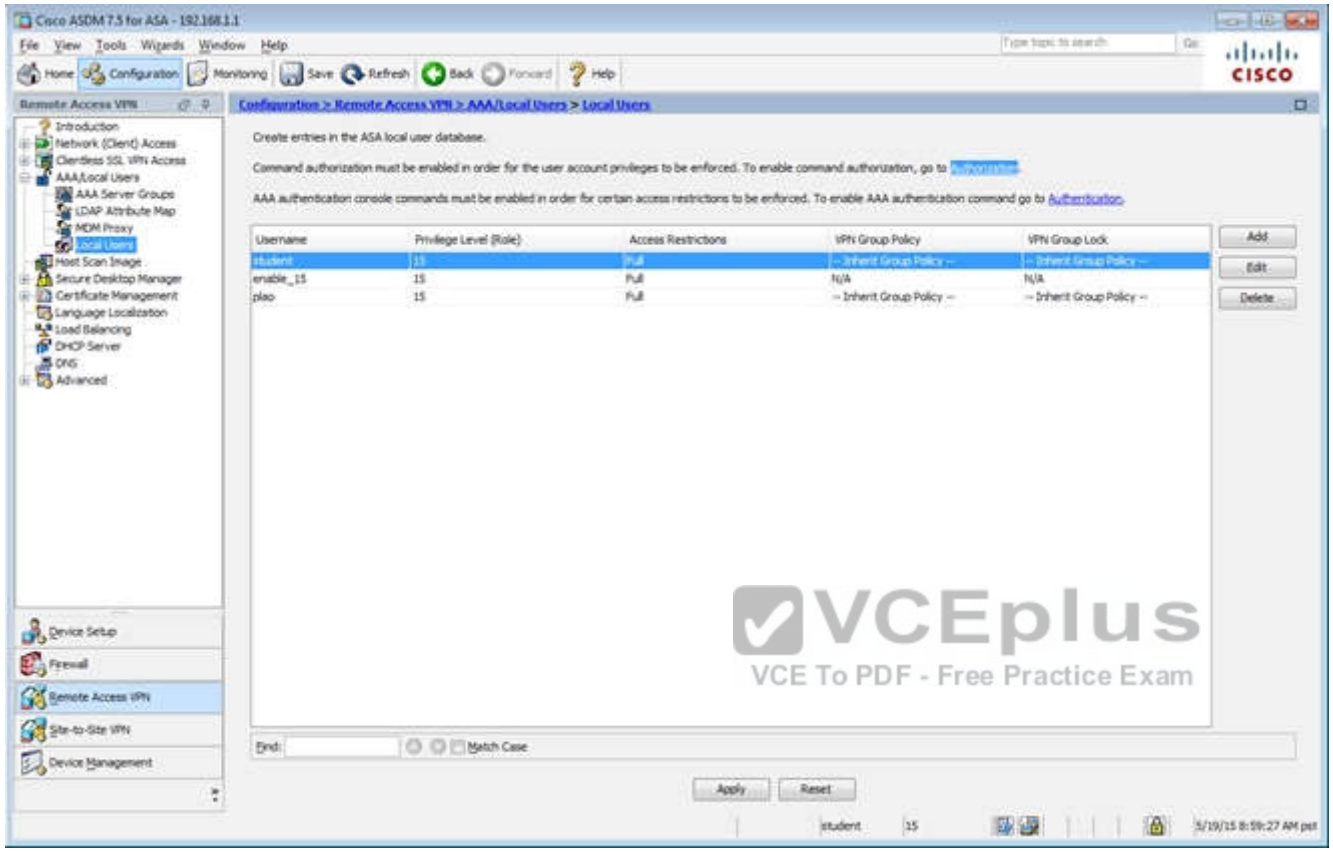


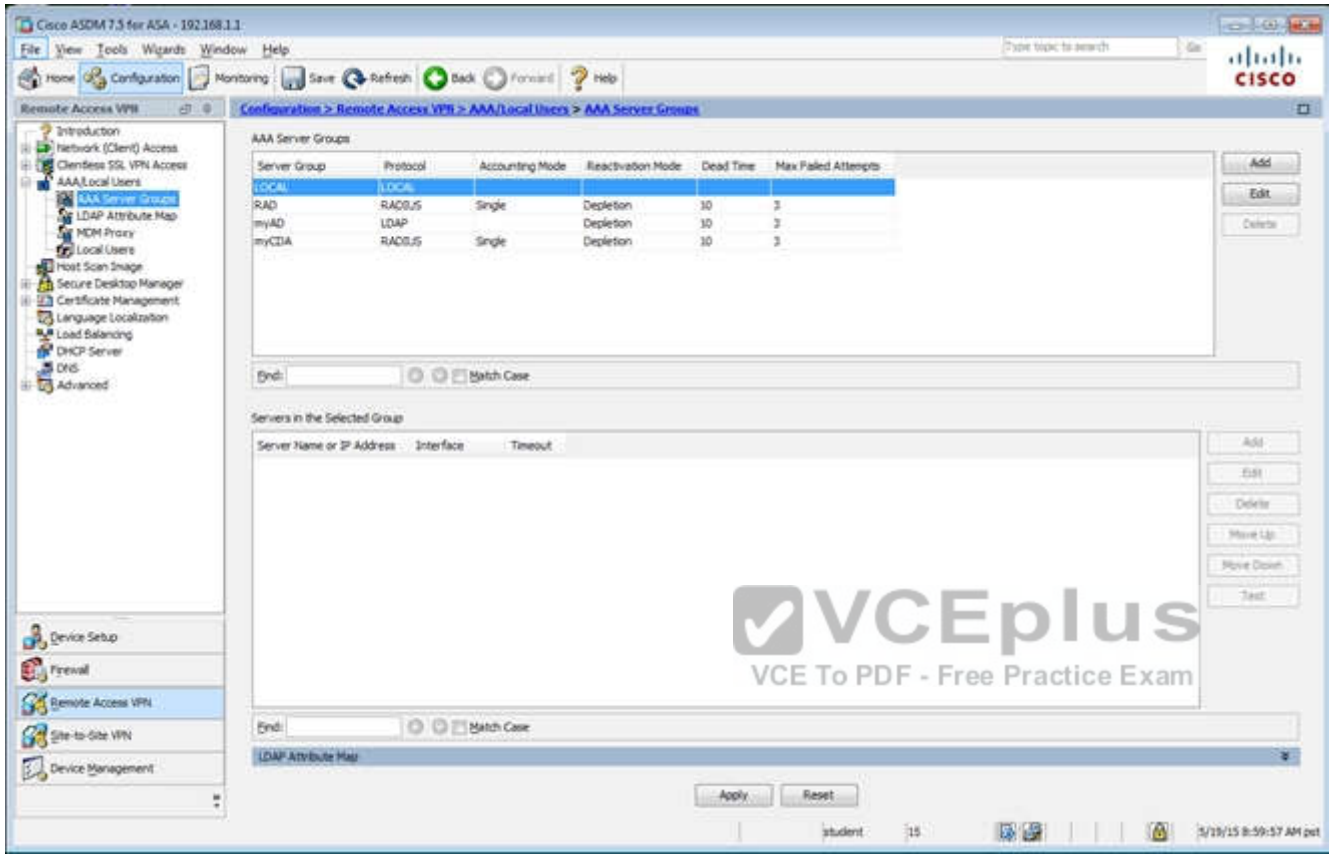










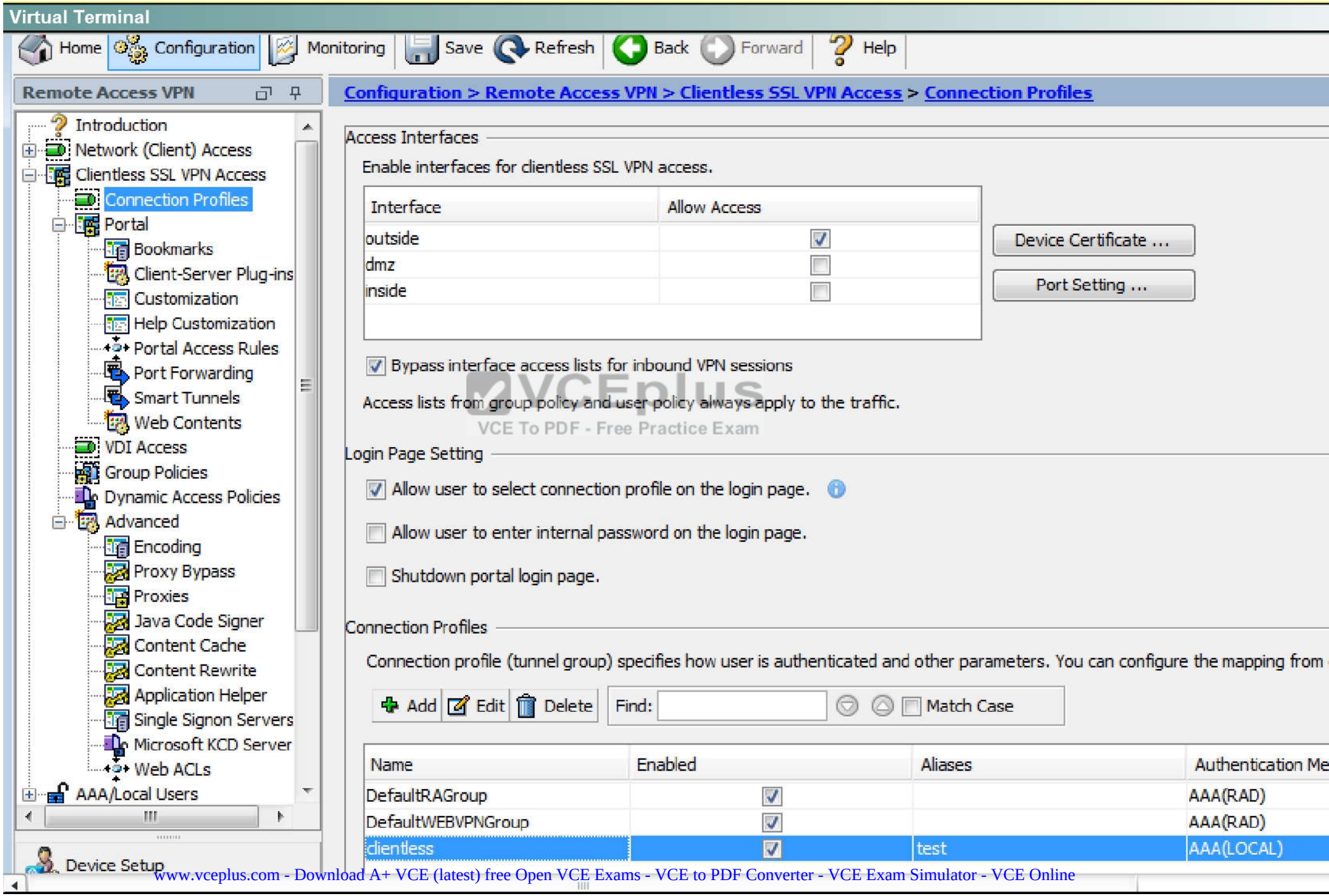


Which user authentication method is used when users login to the Clientless SSLVPN portal using https://209.165.201.2/test?

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

Correct Answer: A
Section: (none)
Explanation

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

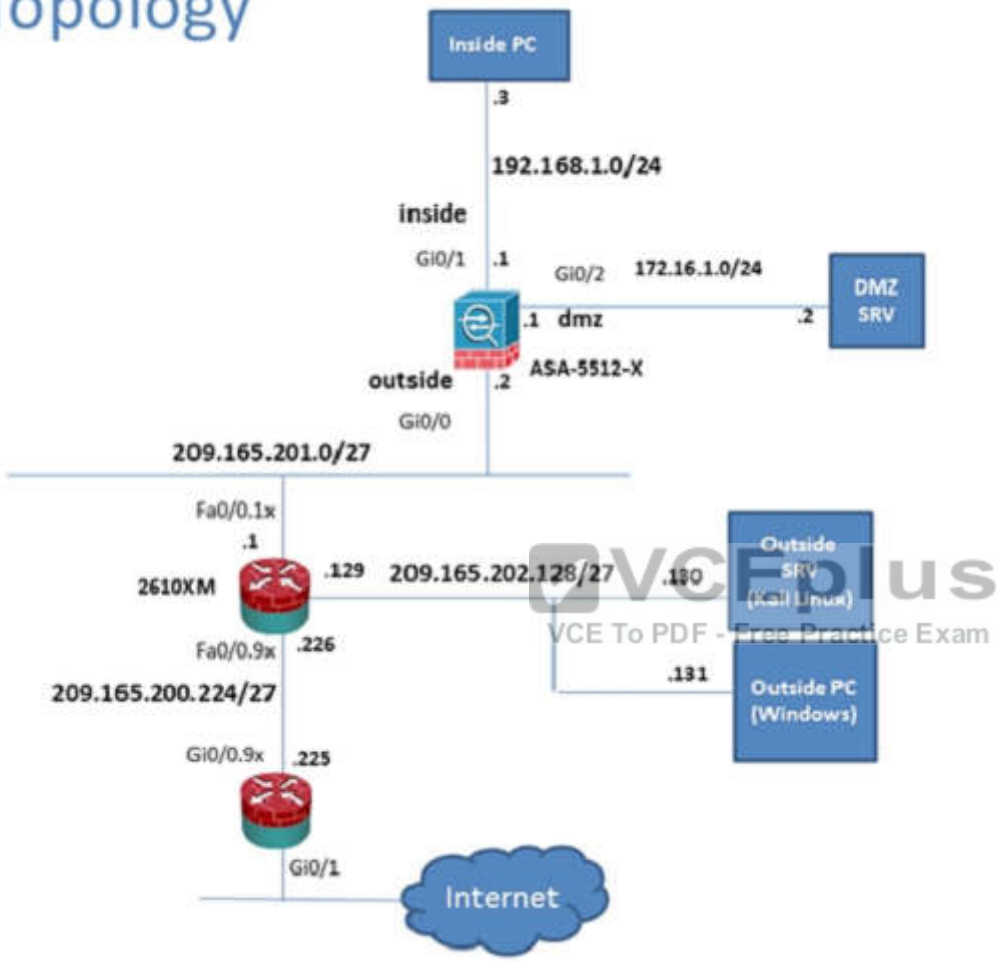


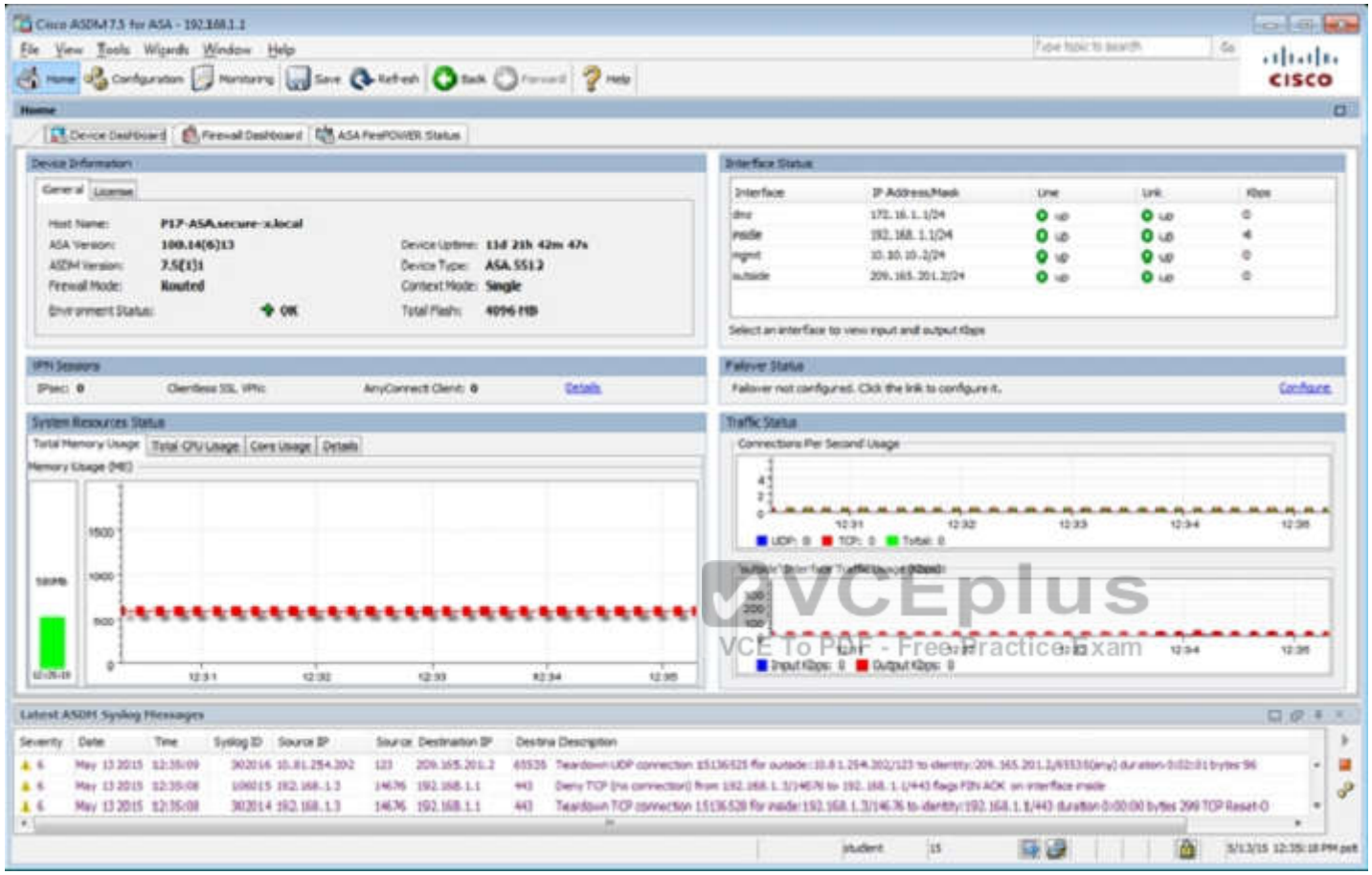
QUESTION 66
Scenario
In this simulation, you have access to ASDM only. Review the various ASA configurations using ASDM then answer the five multiple choice questions about the ASA SSLVPN configurations.

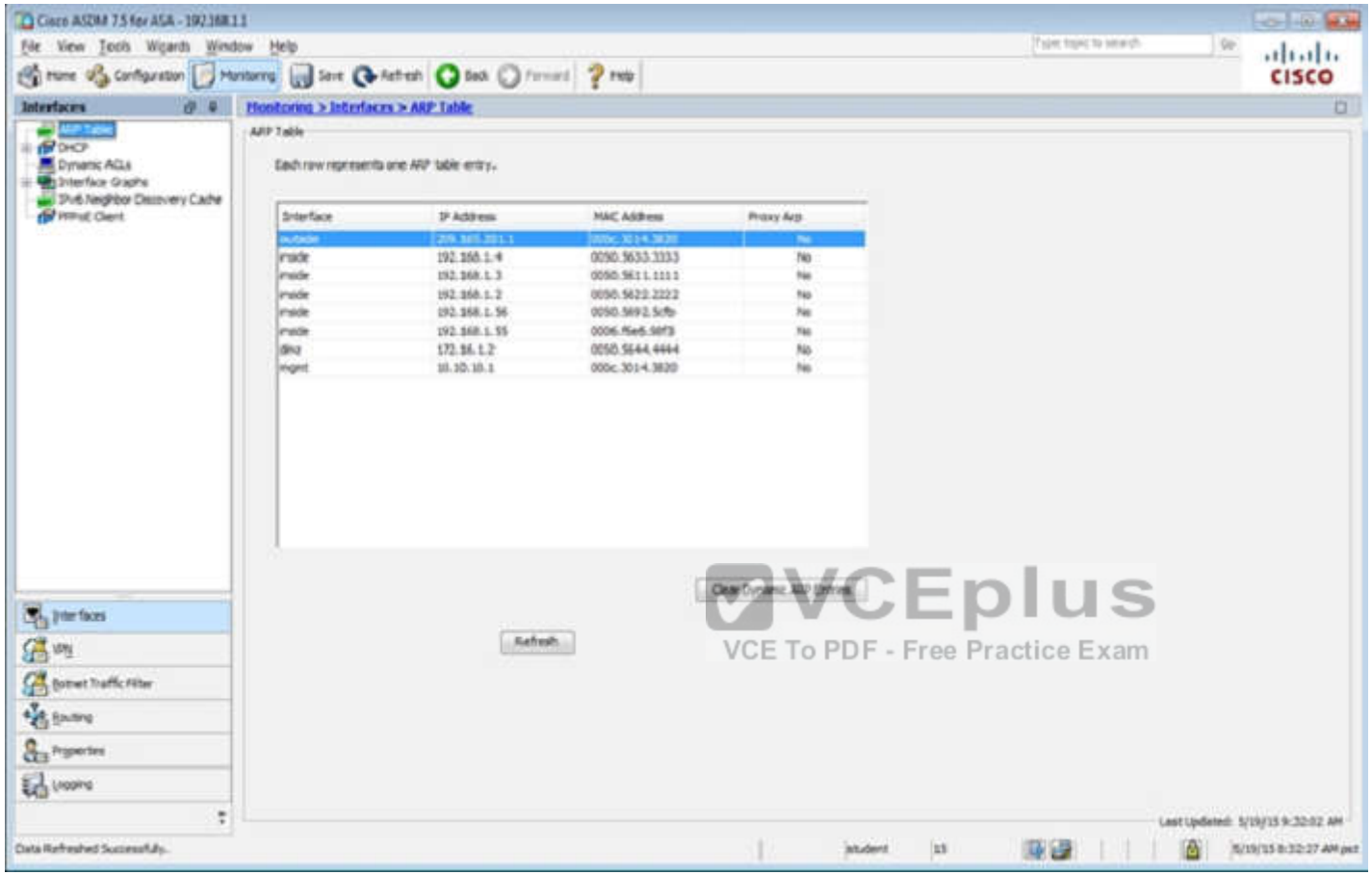
To access ASDM, click the ASA icon in the topology diagram.

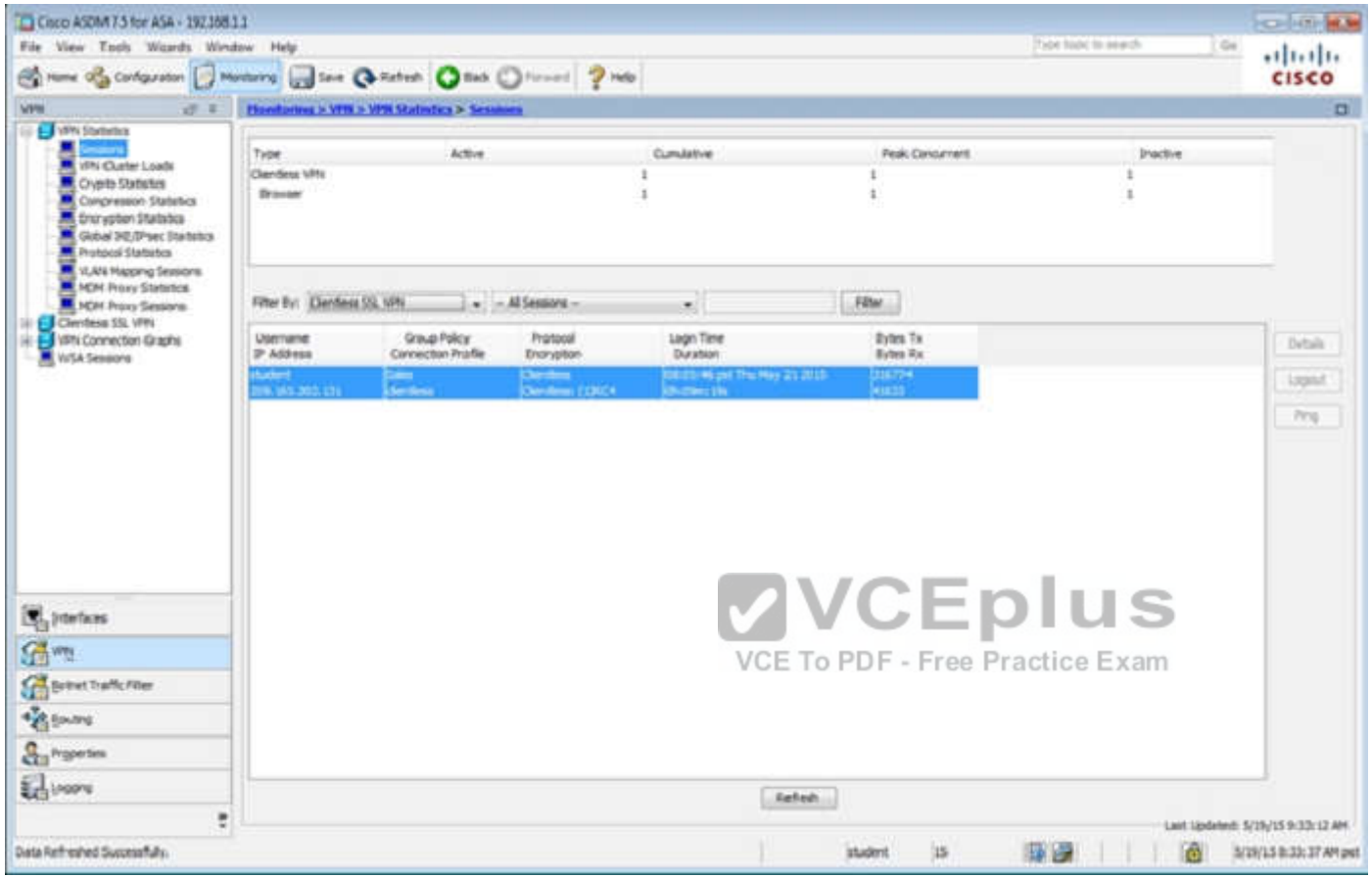
Note: Not all ASDM functionalities are enabled in this simulation.
To see all the menu options available on the left navigation pane, you may also need to un-expand the expanded menu first.

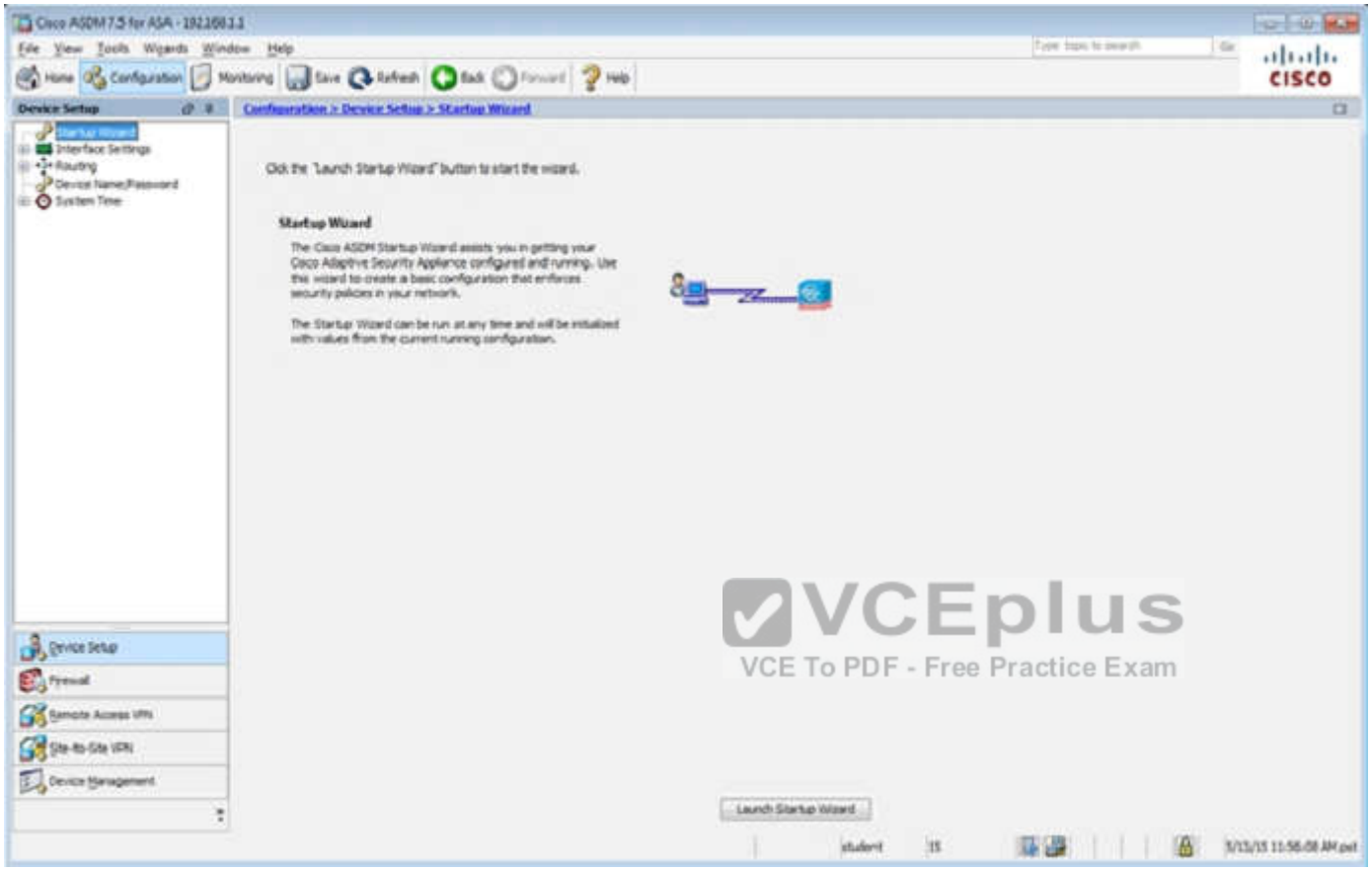
Lab Topology

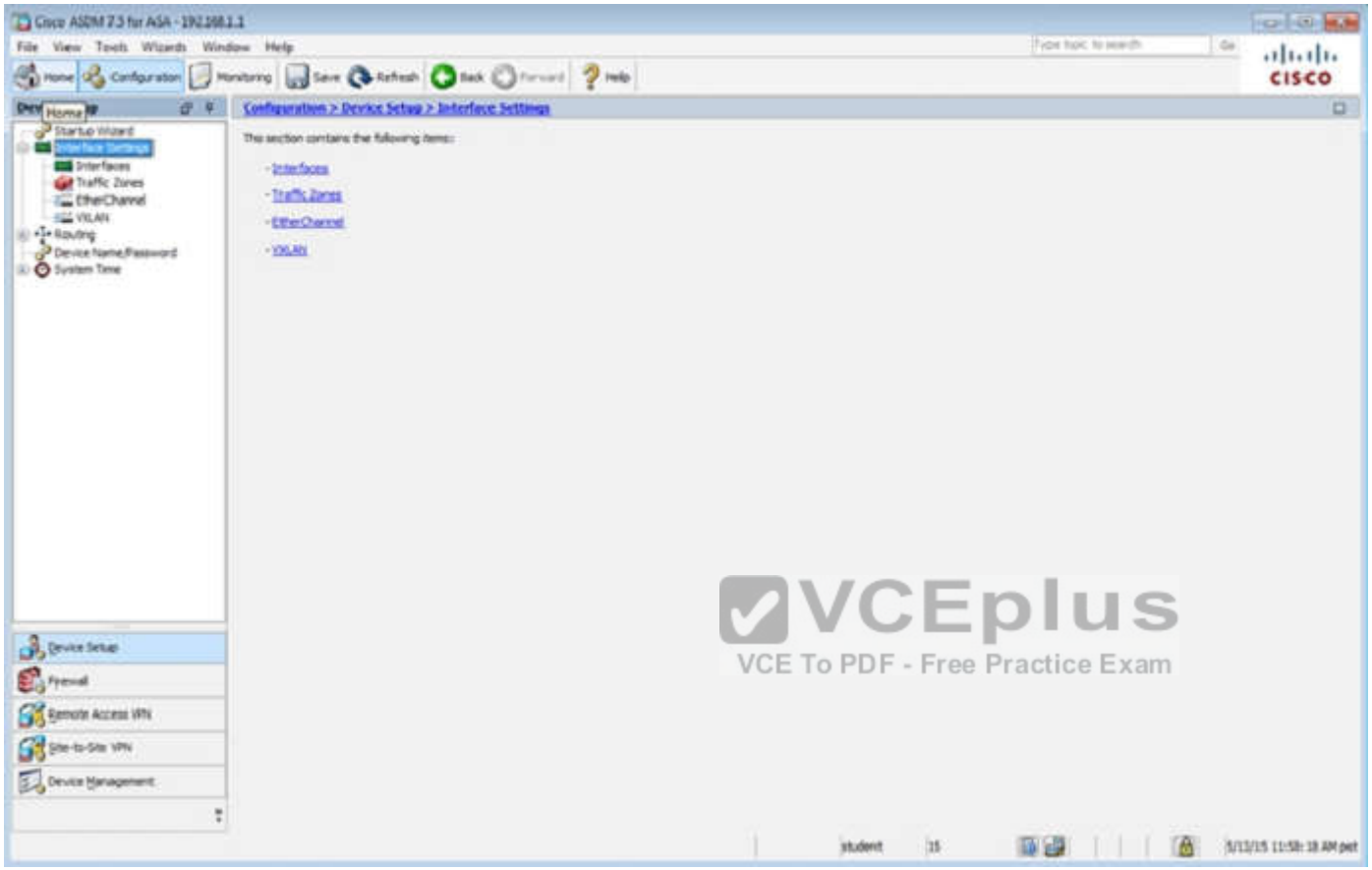


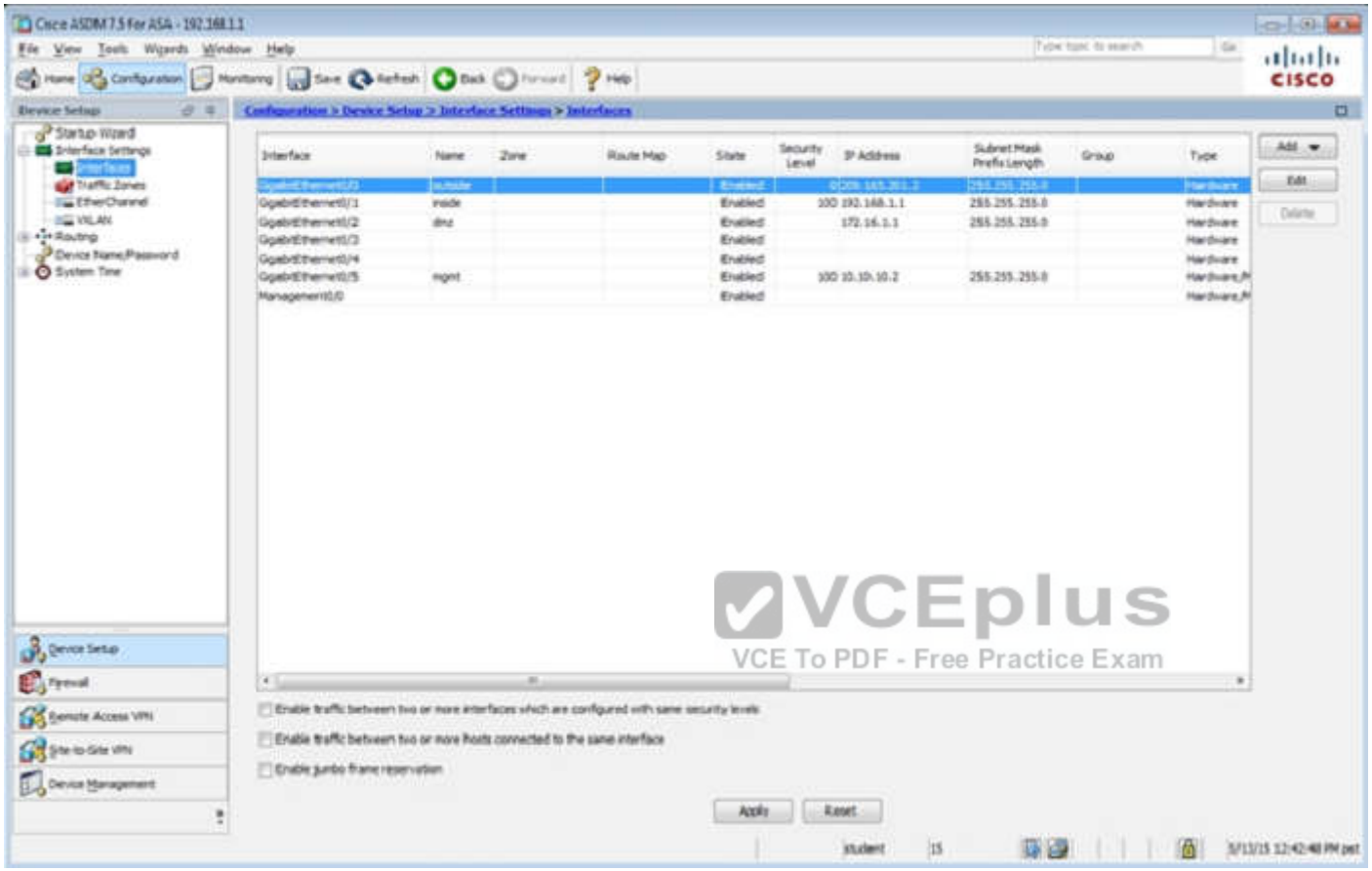


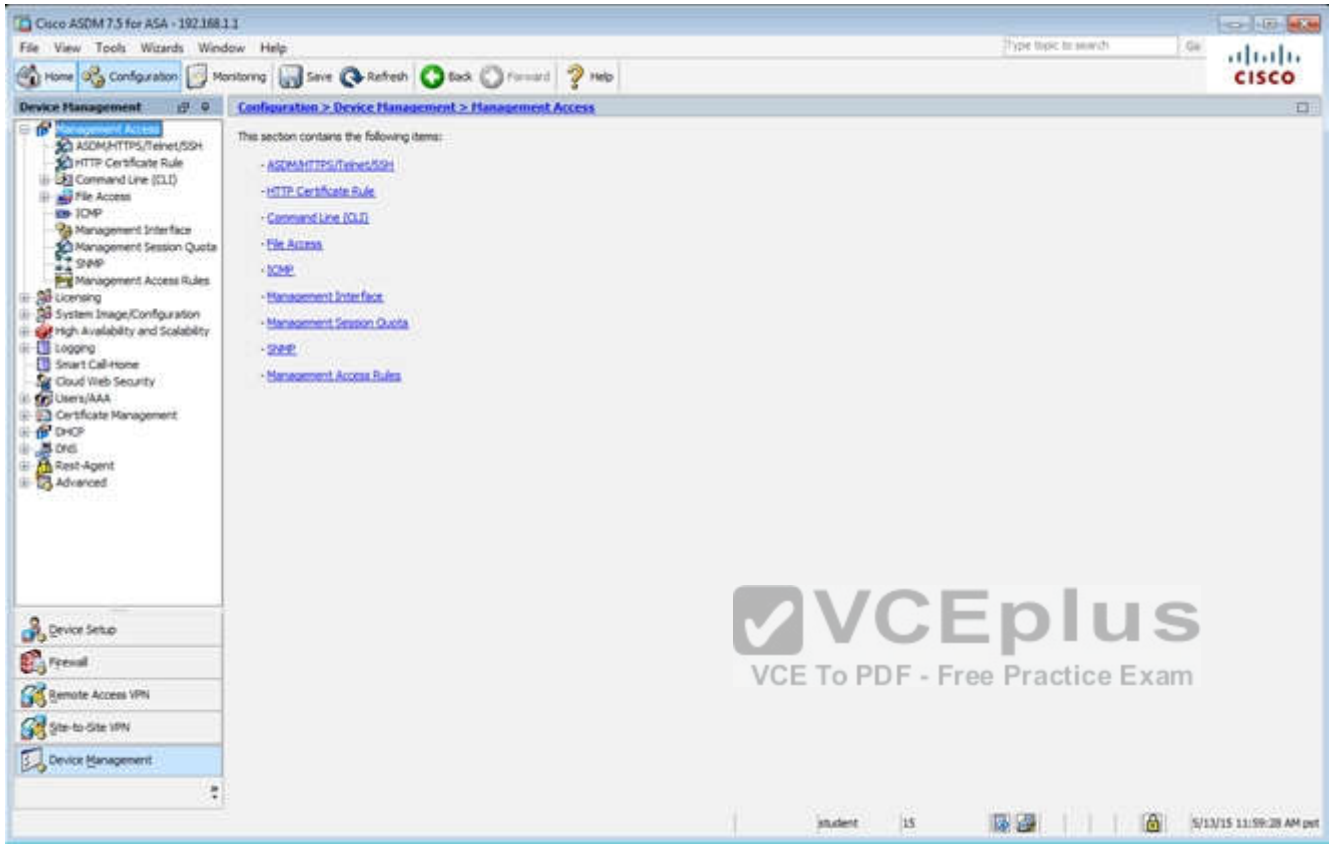


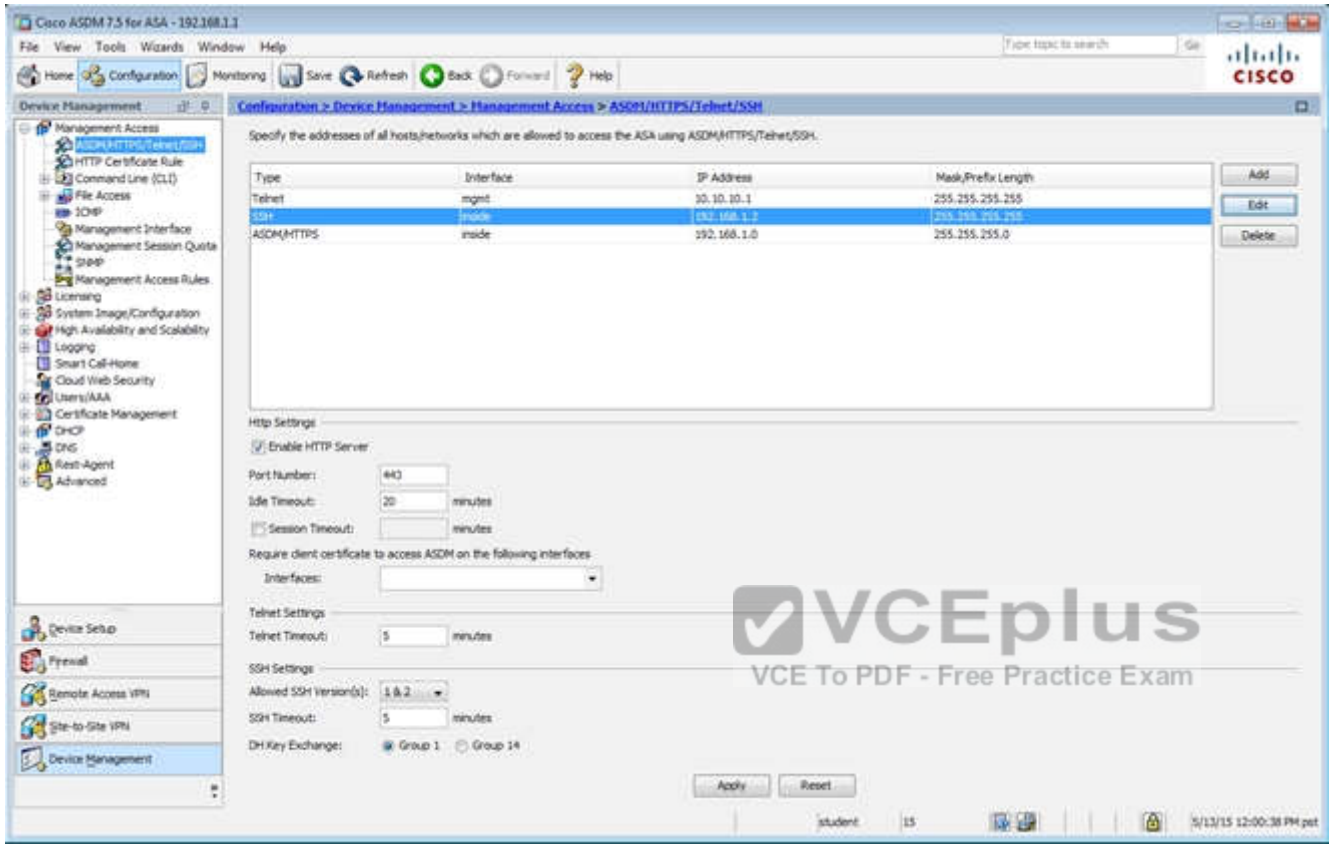


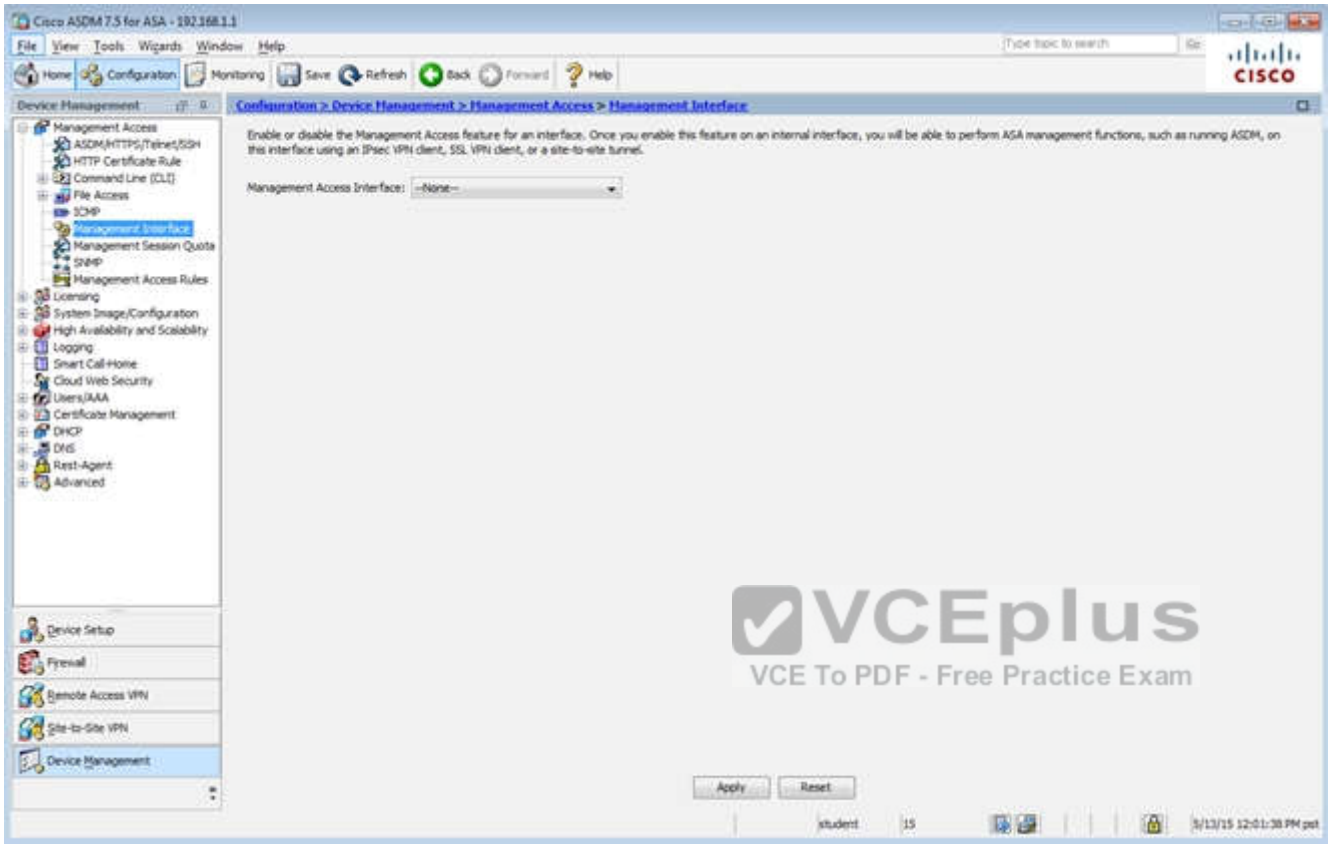


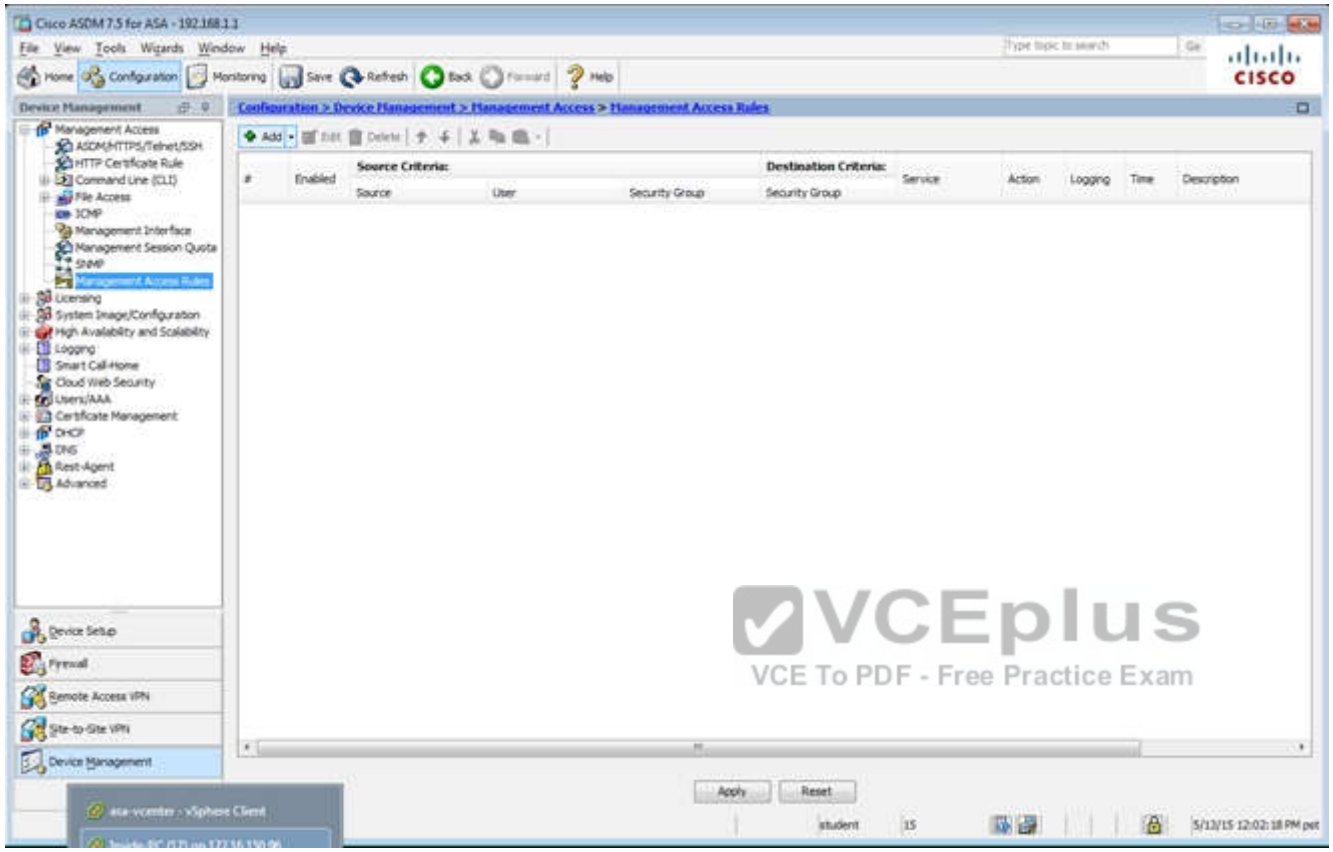


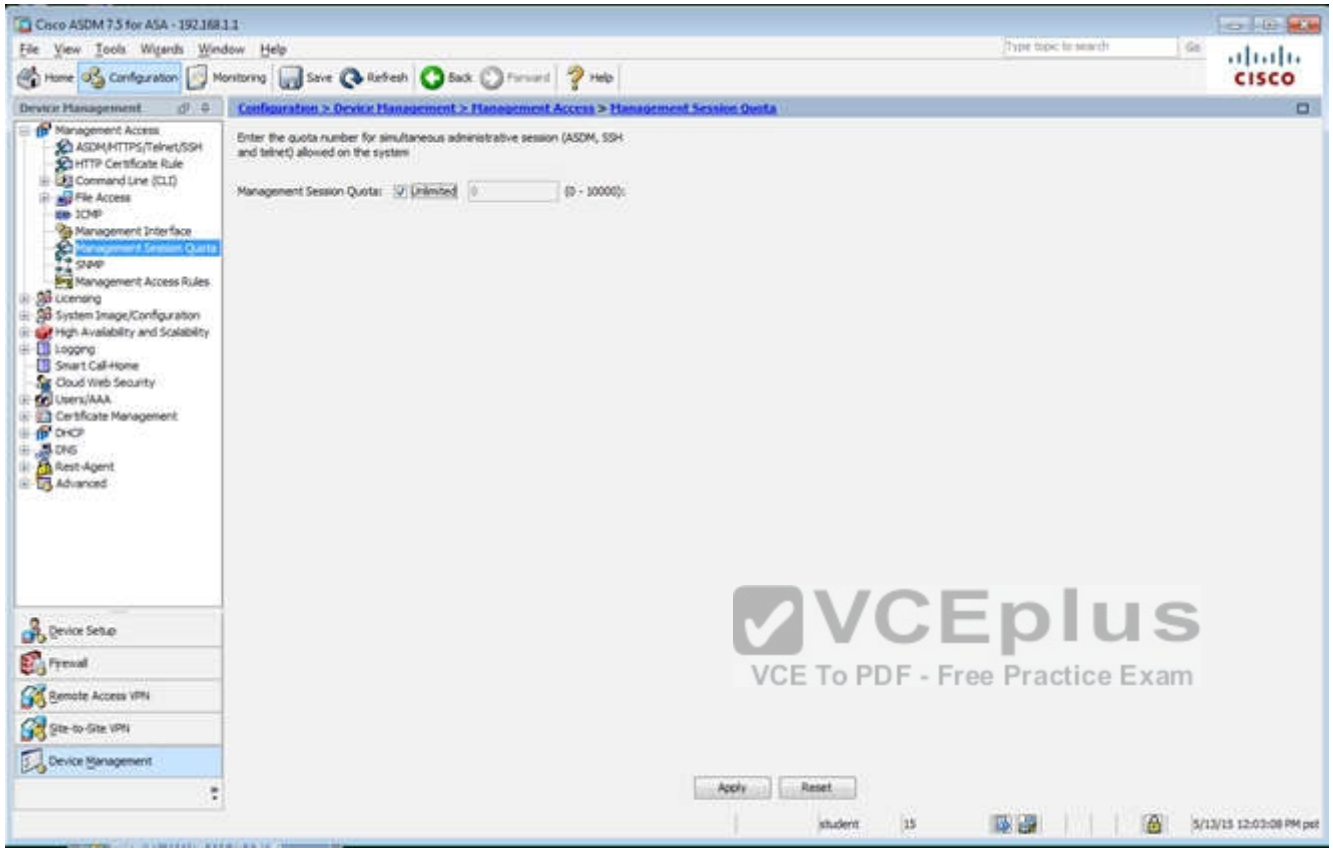


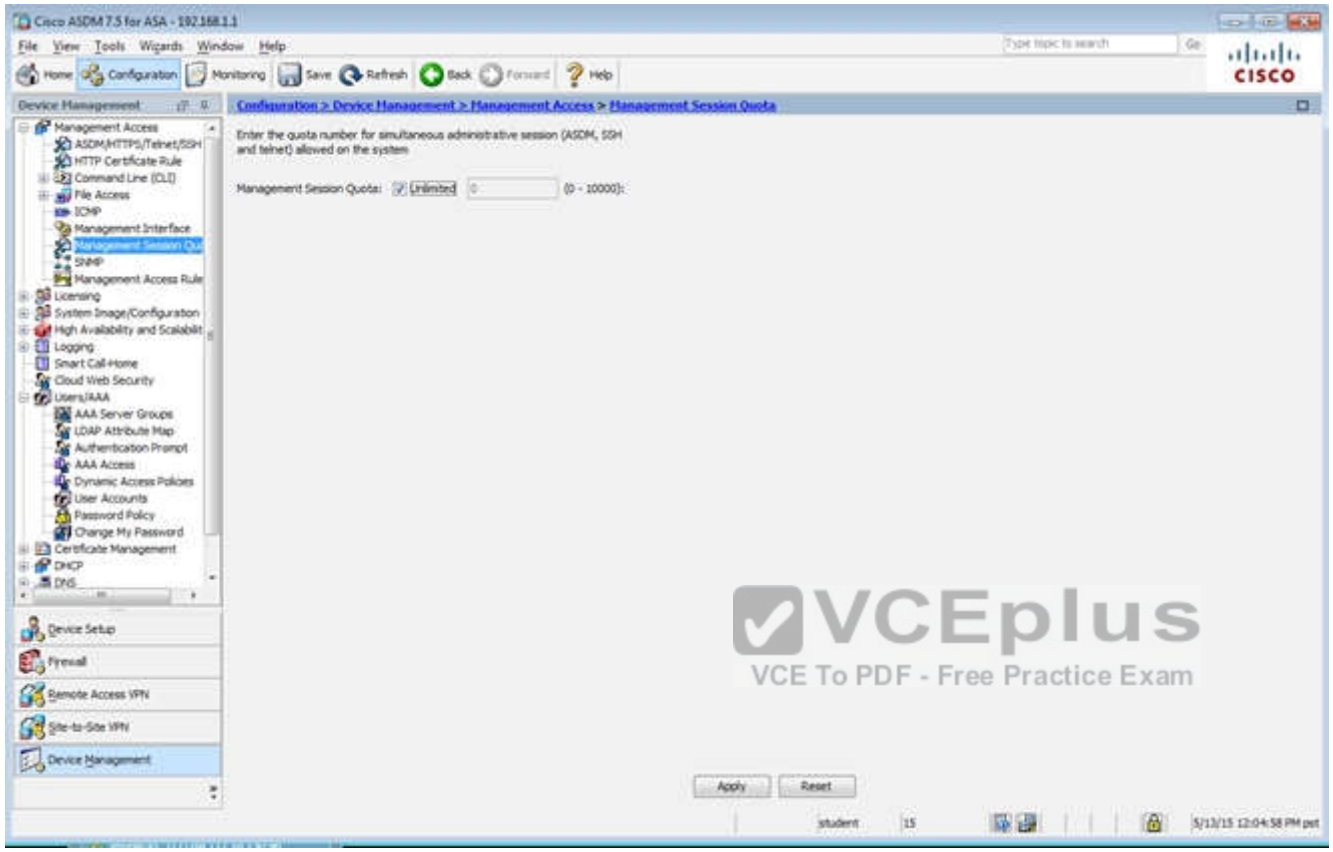


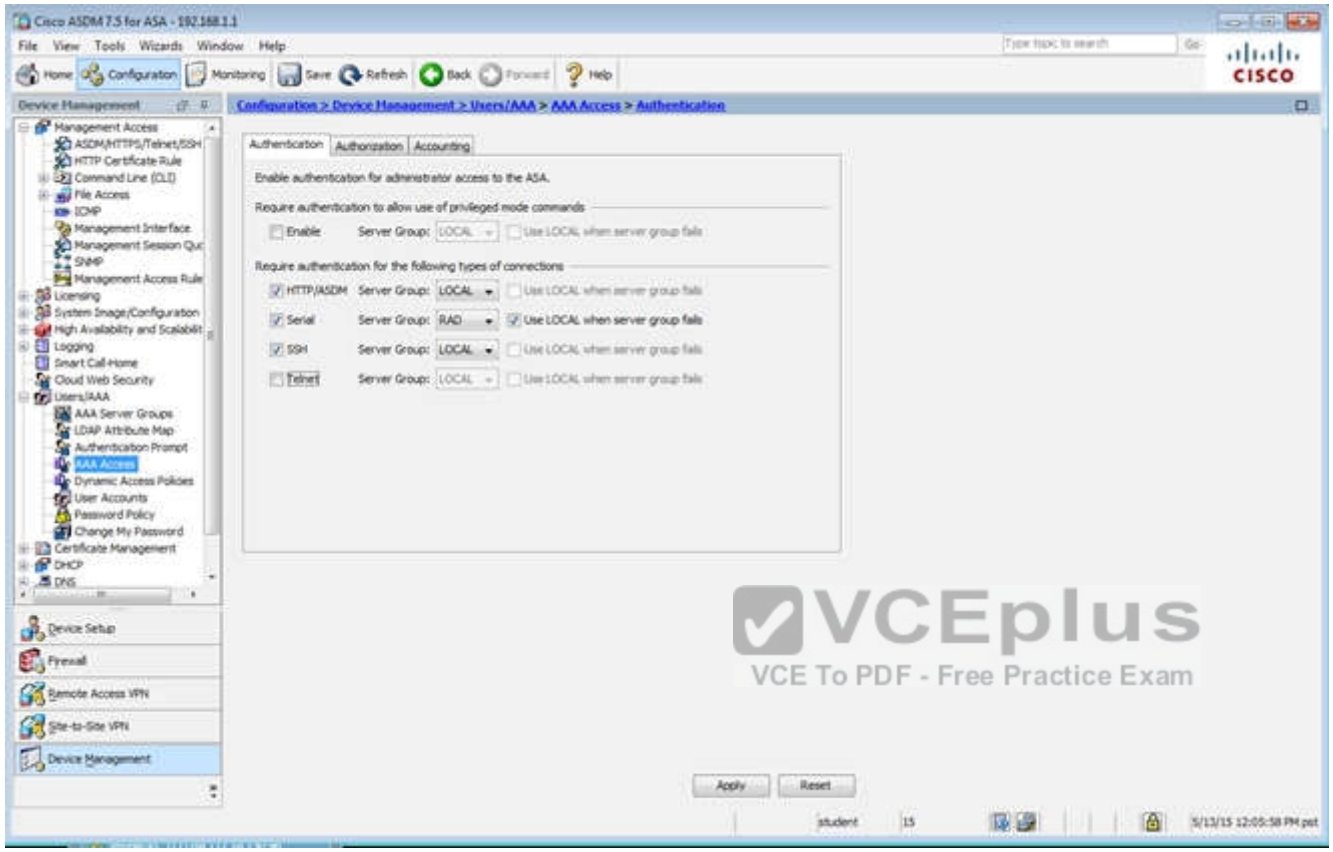


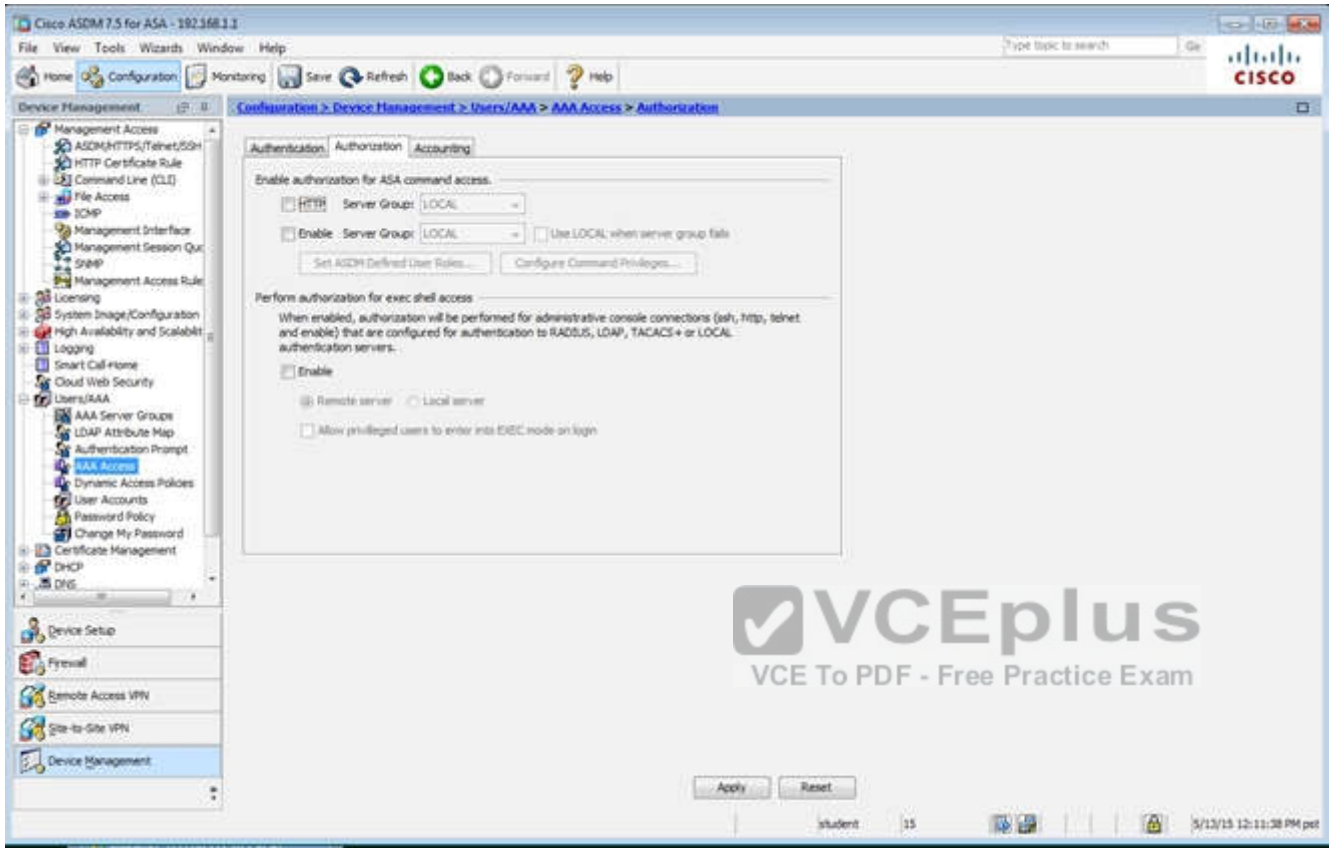


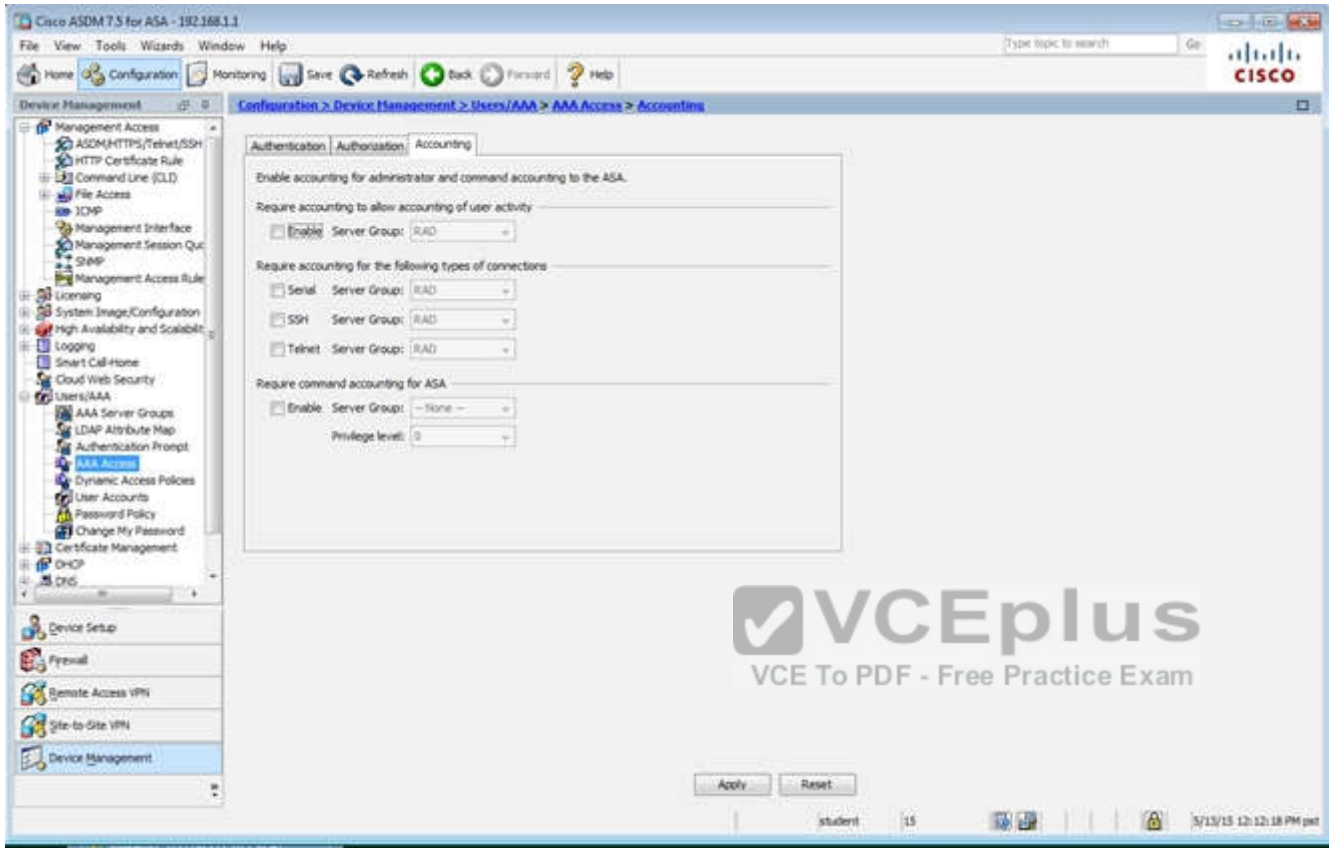


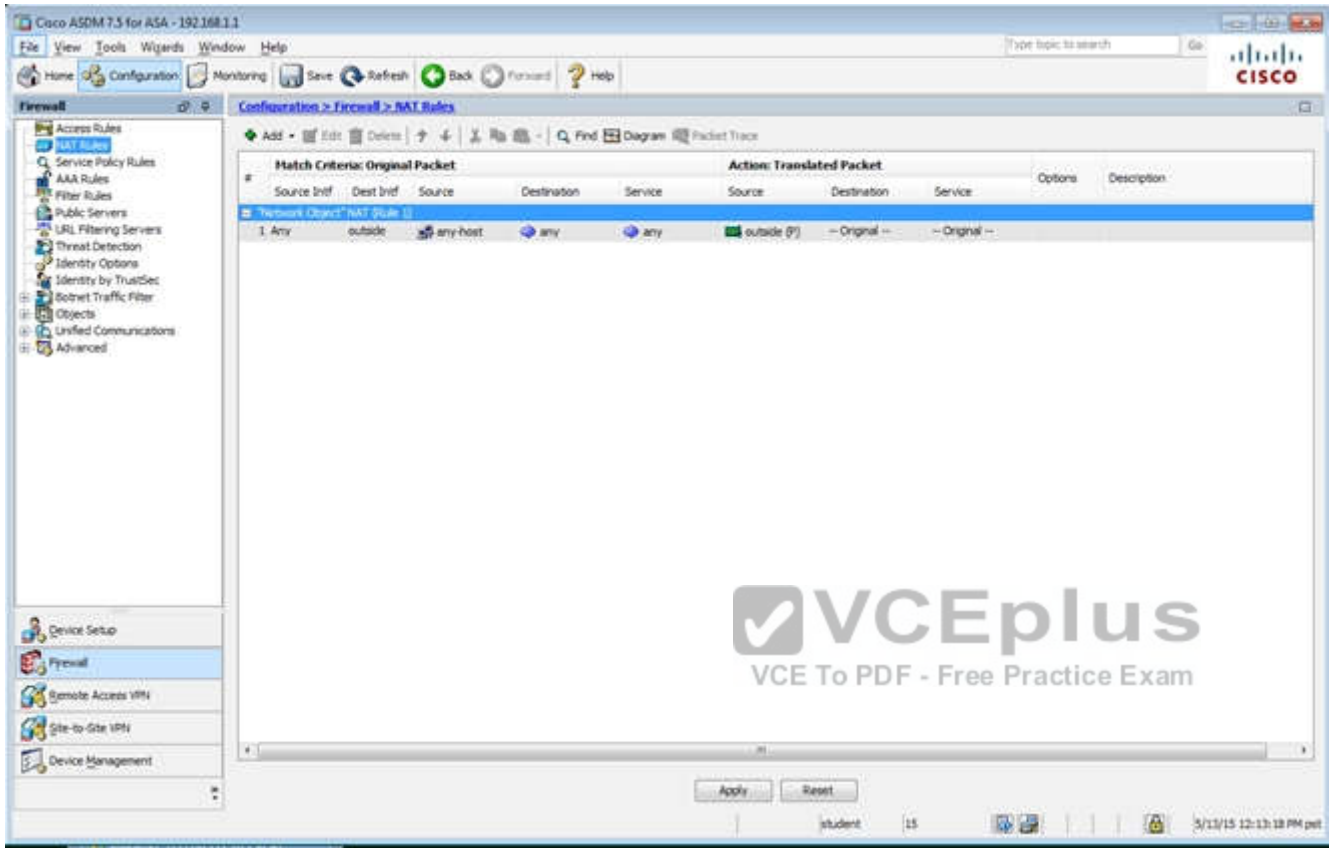


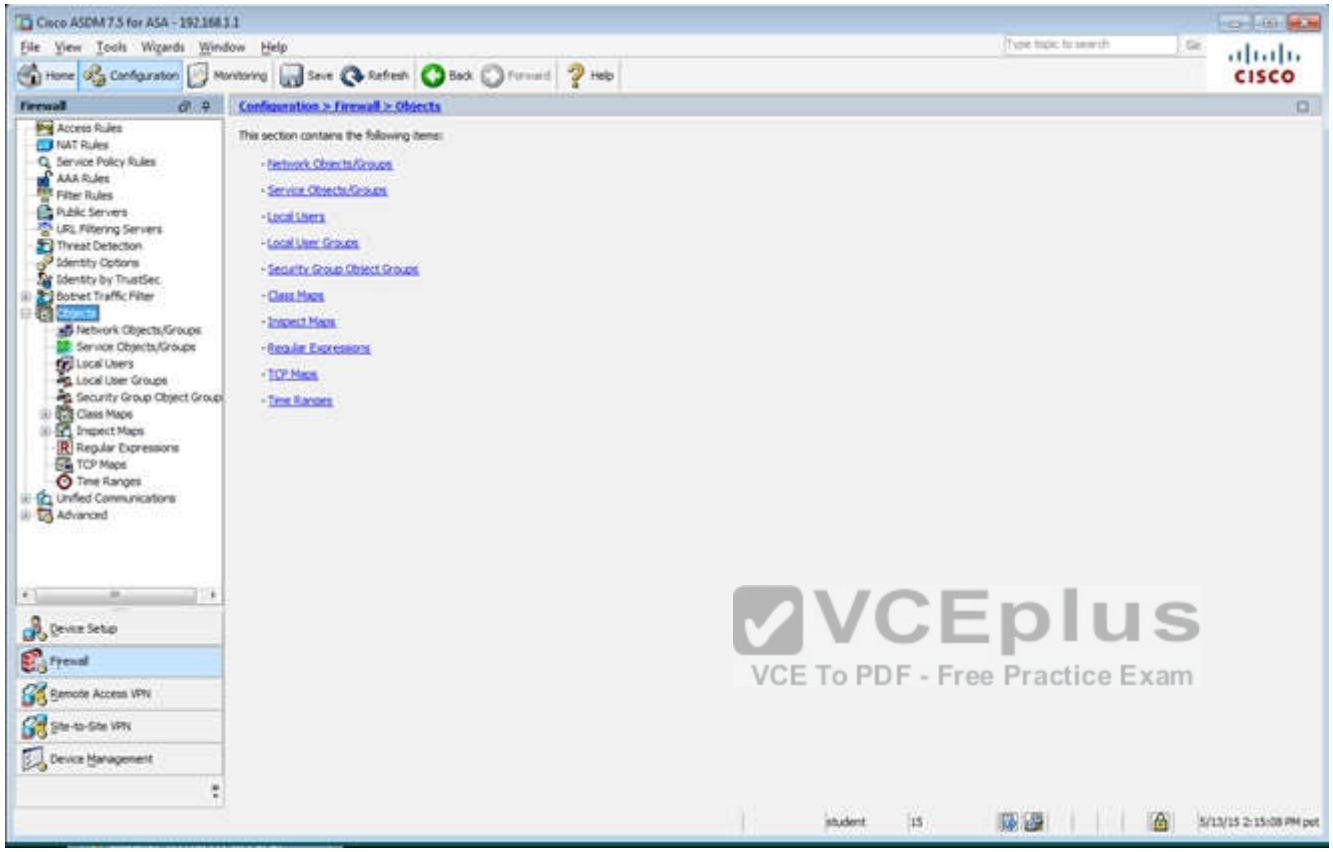


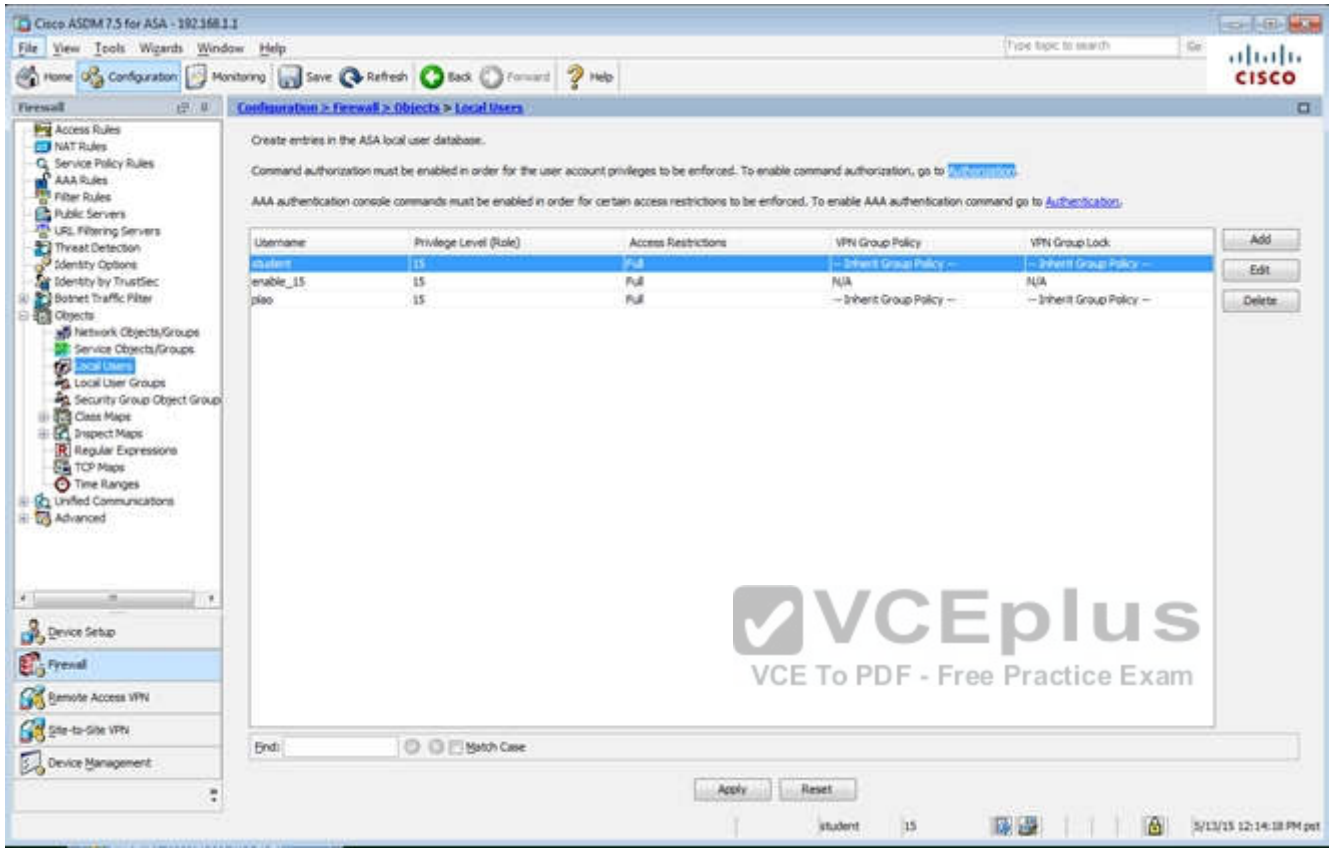


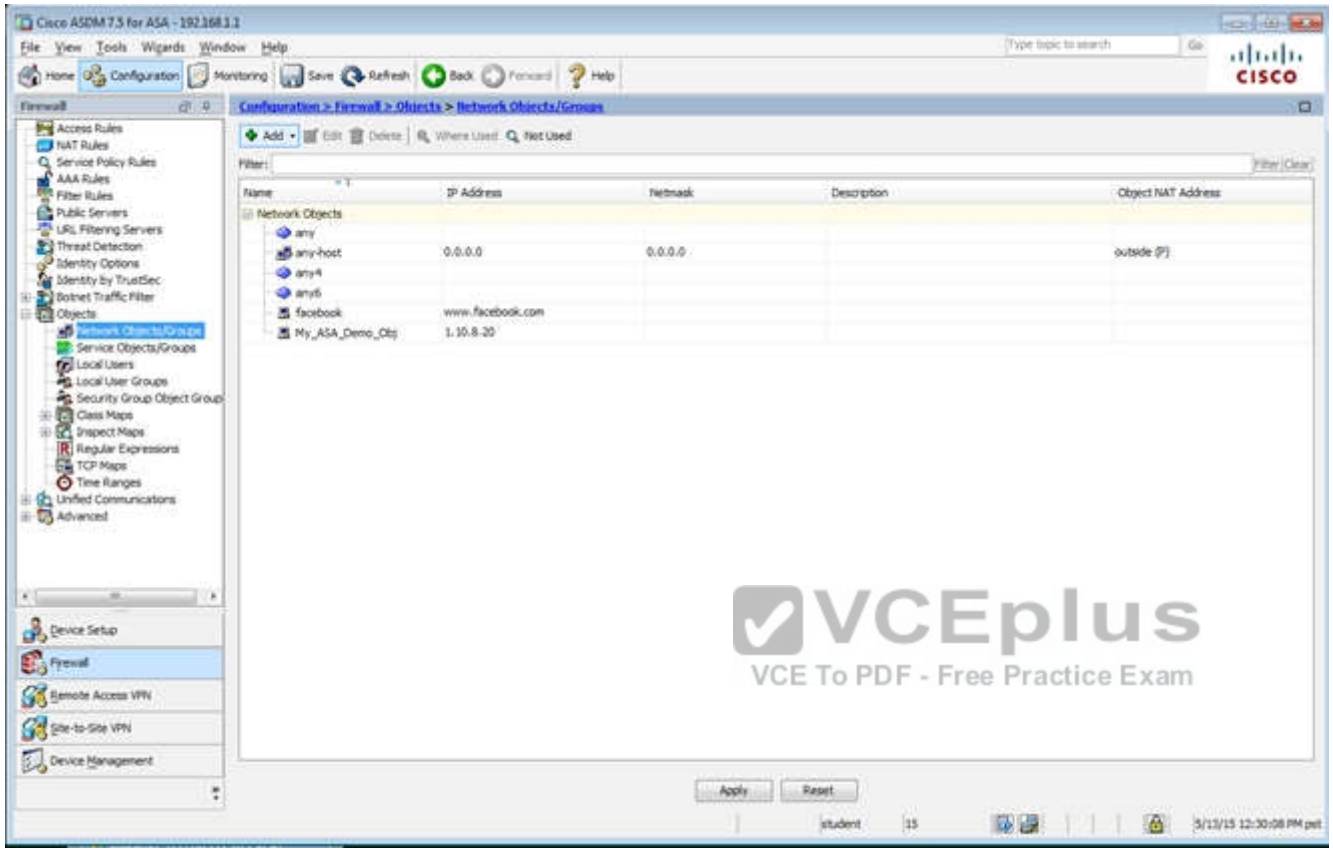


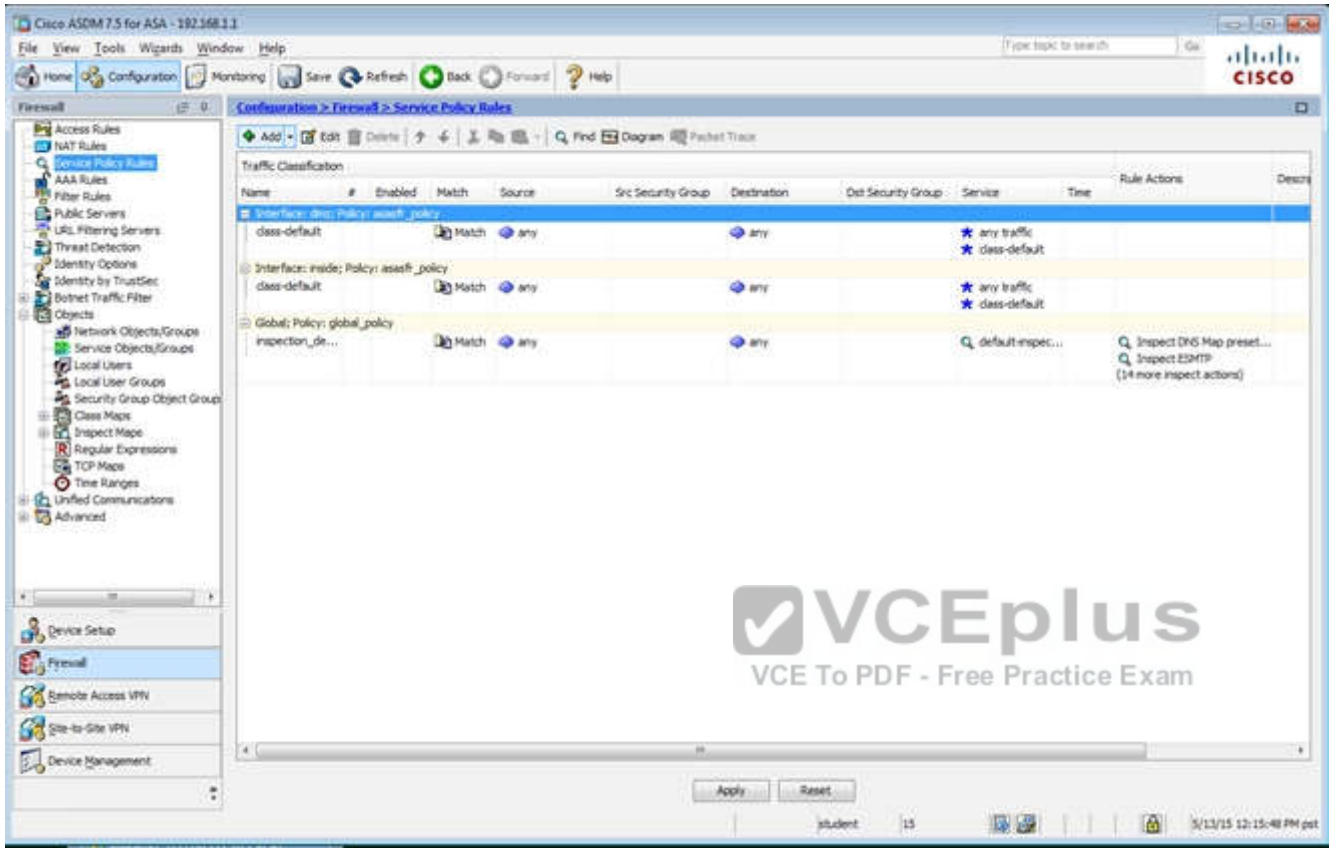


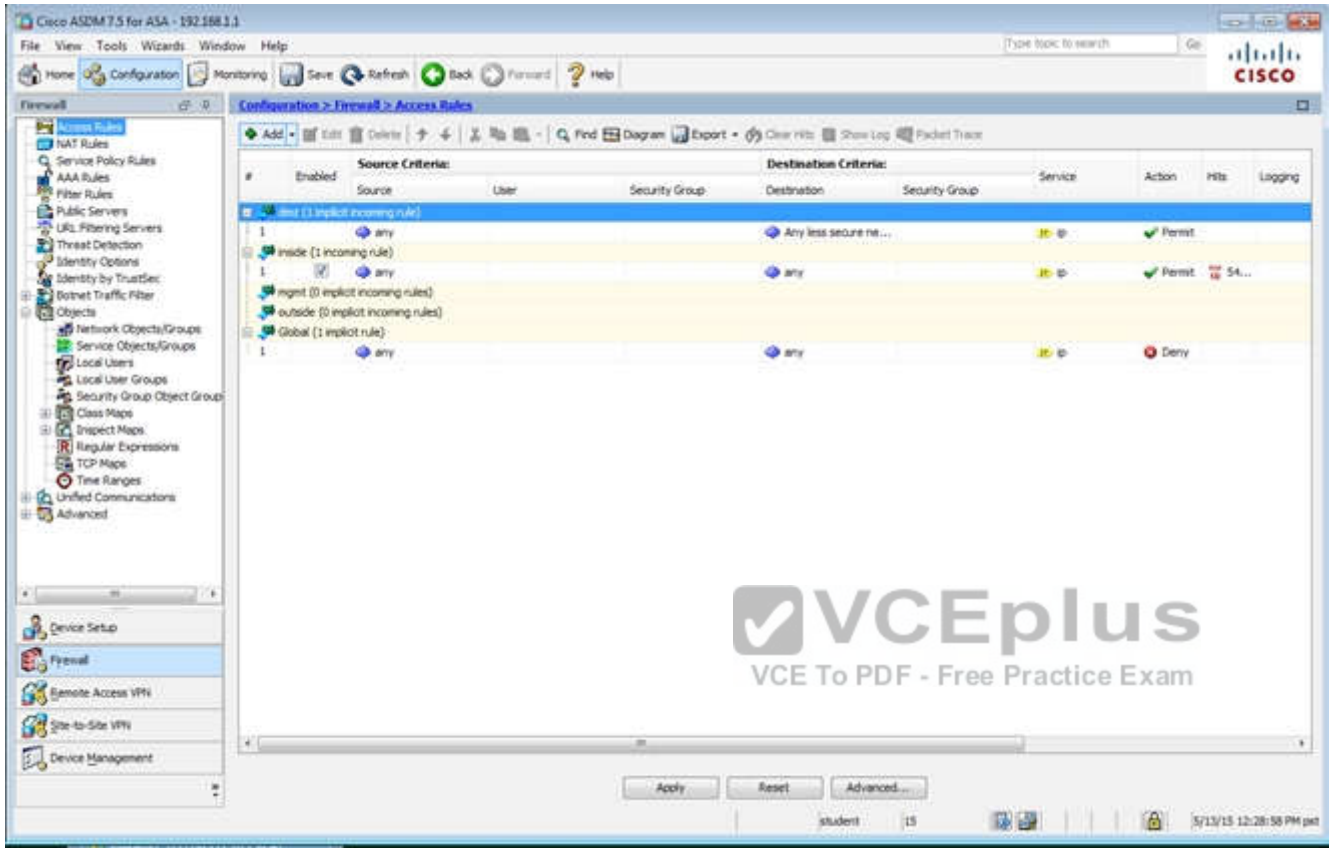


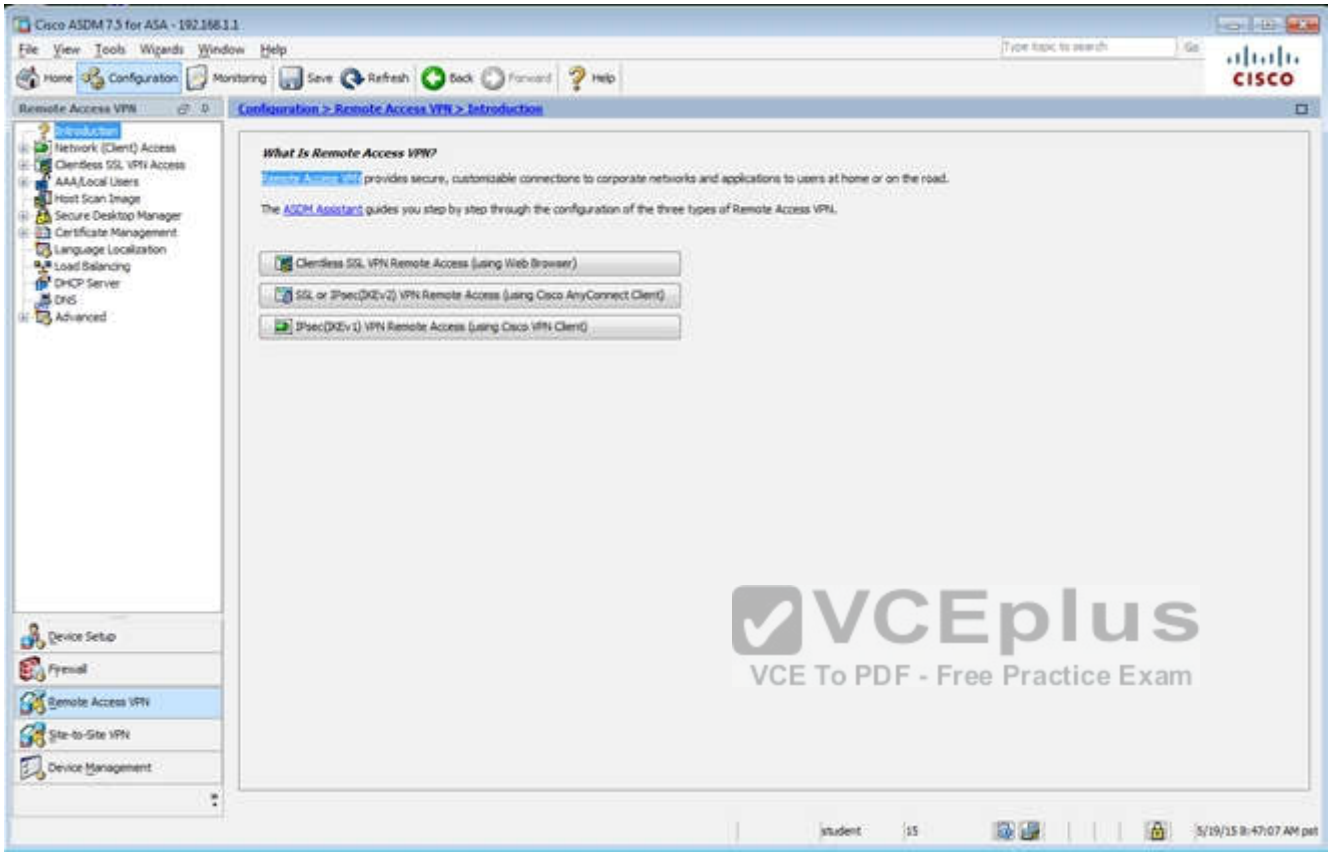


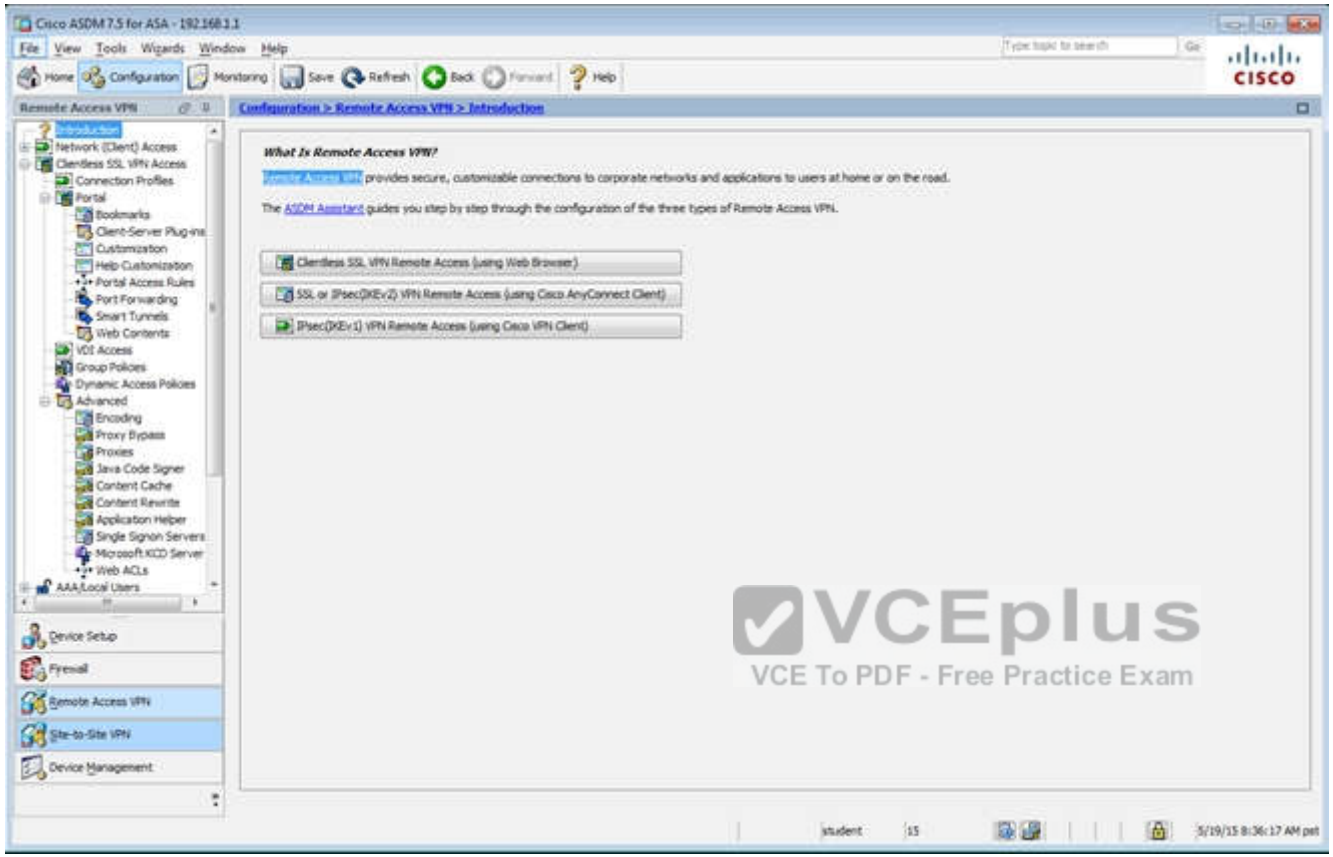


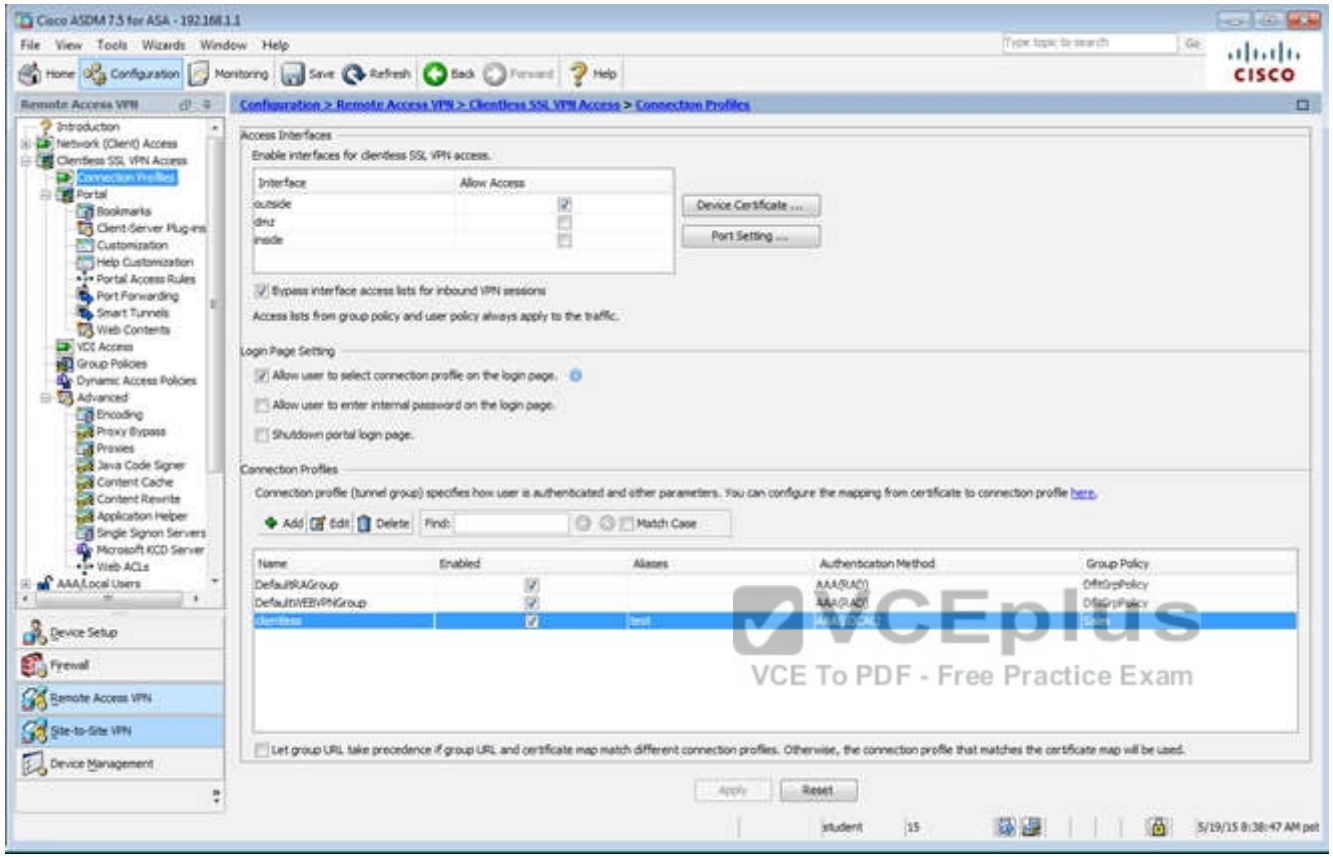


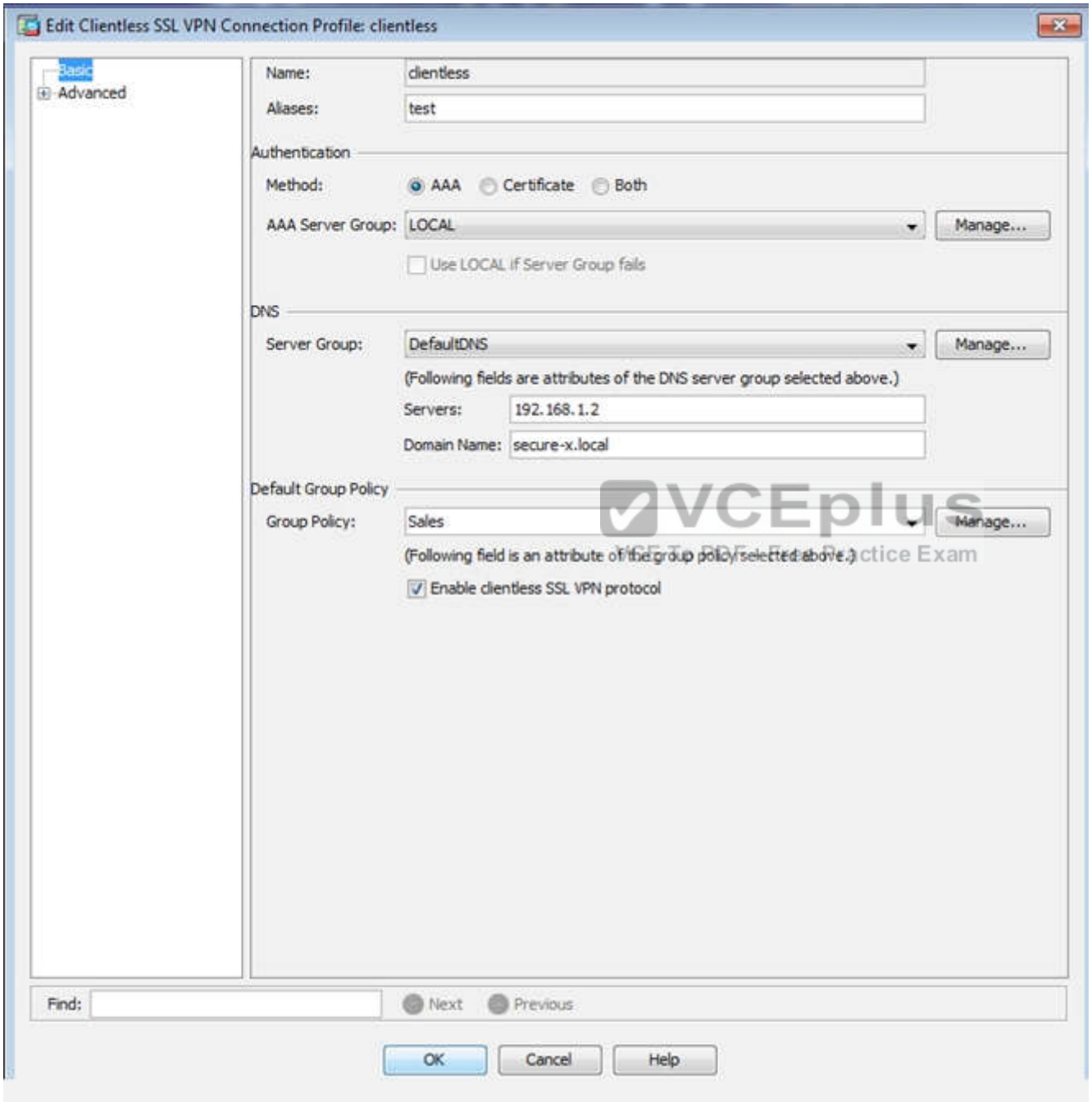












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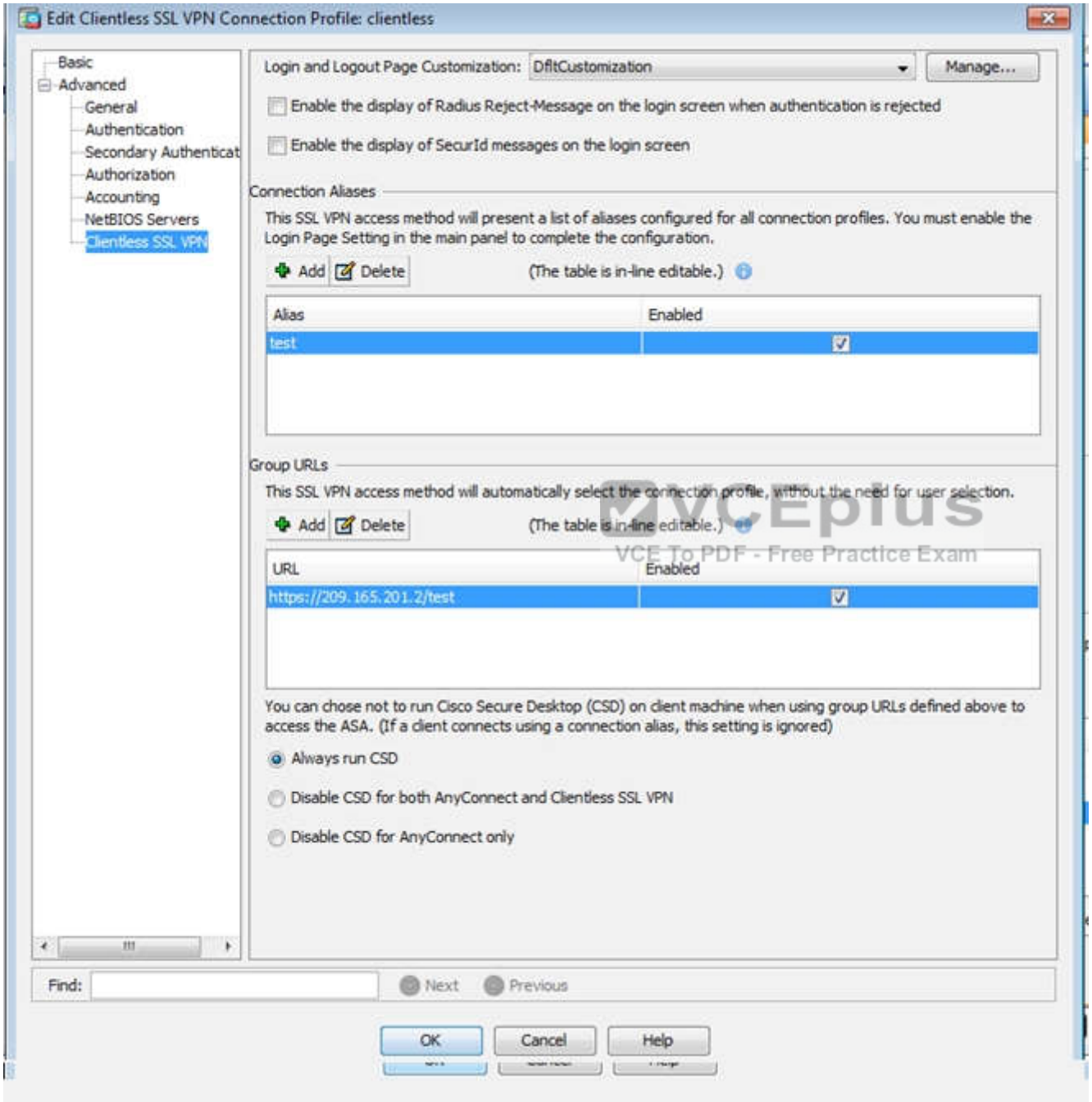

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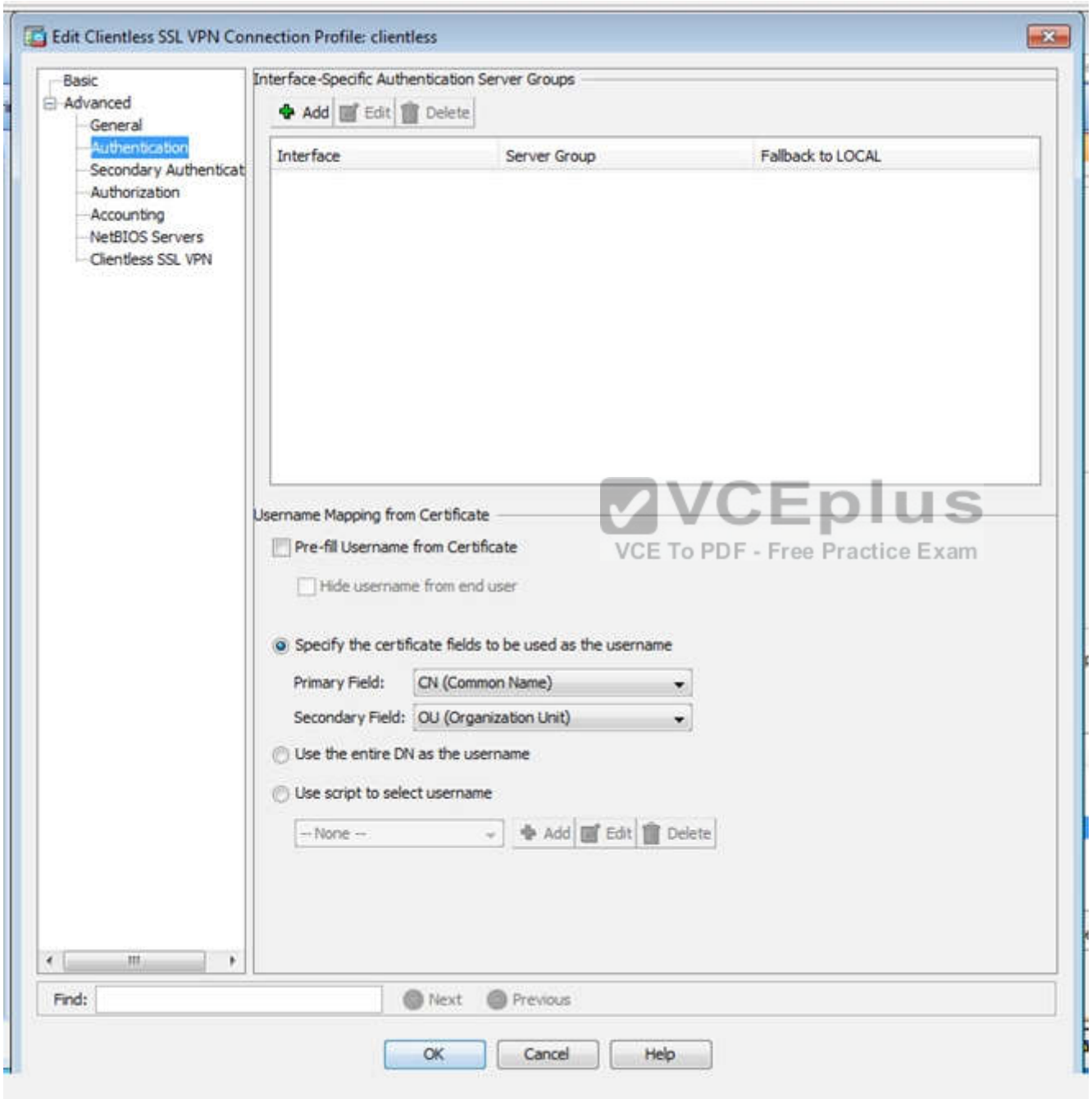

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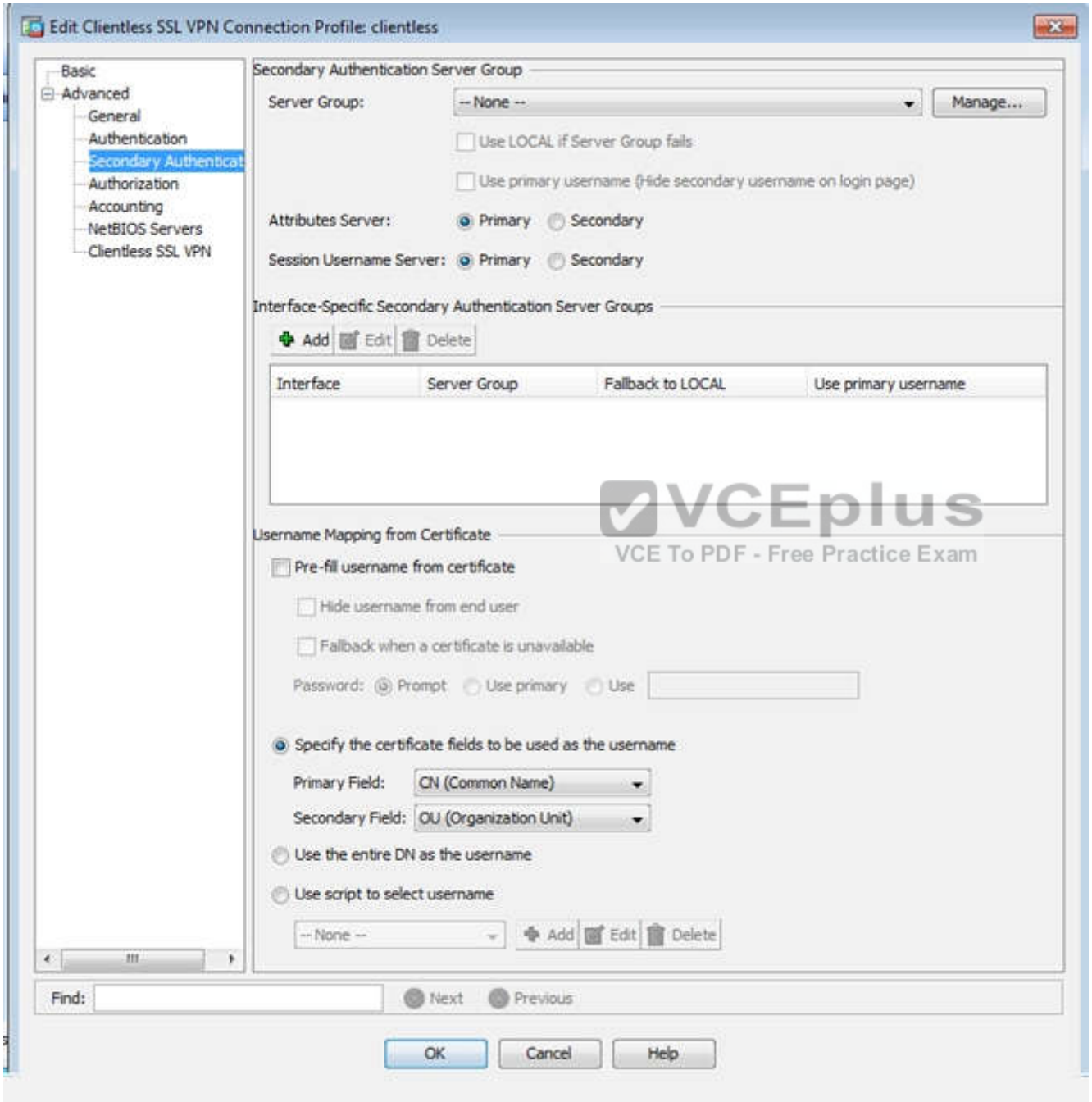
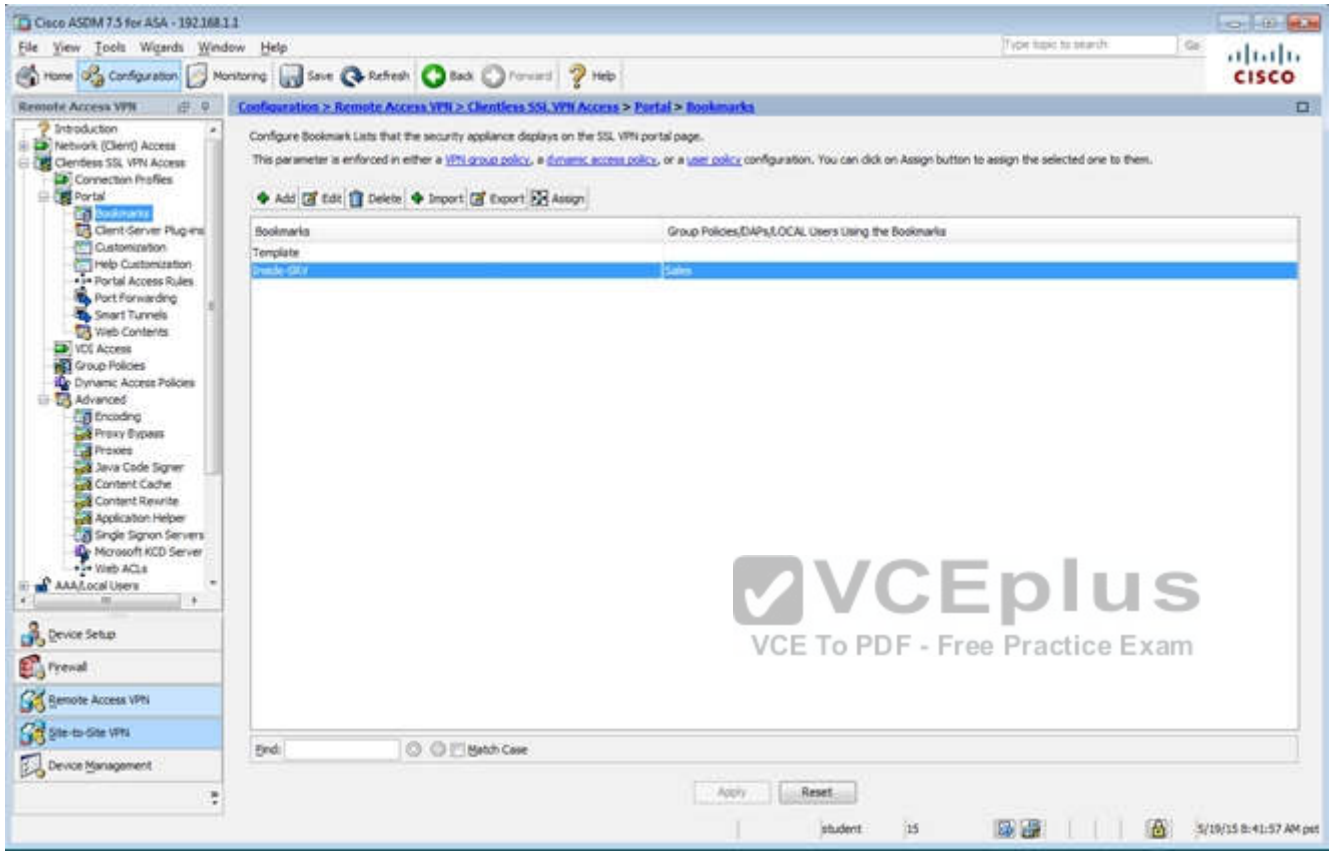
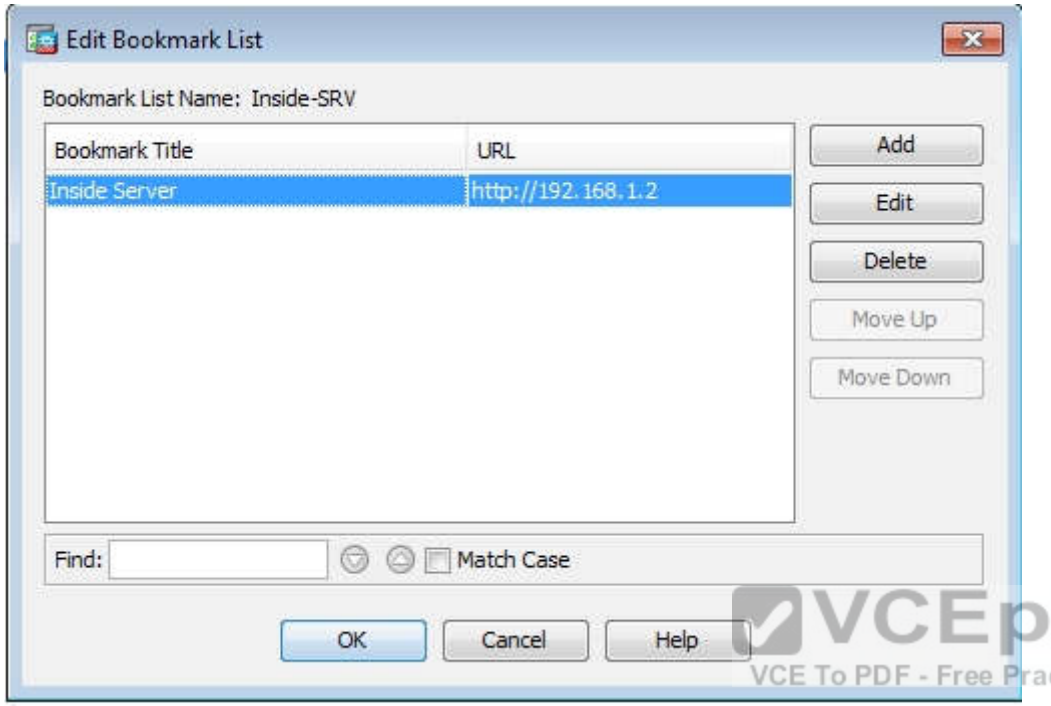
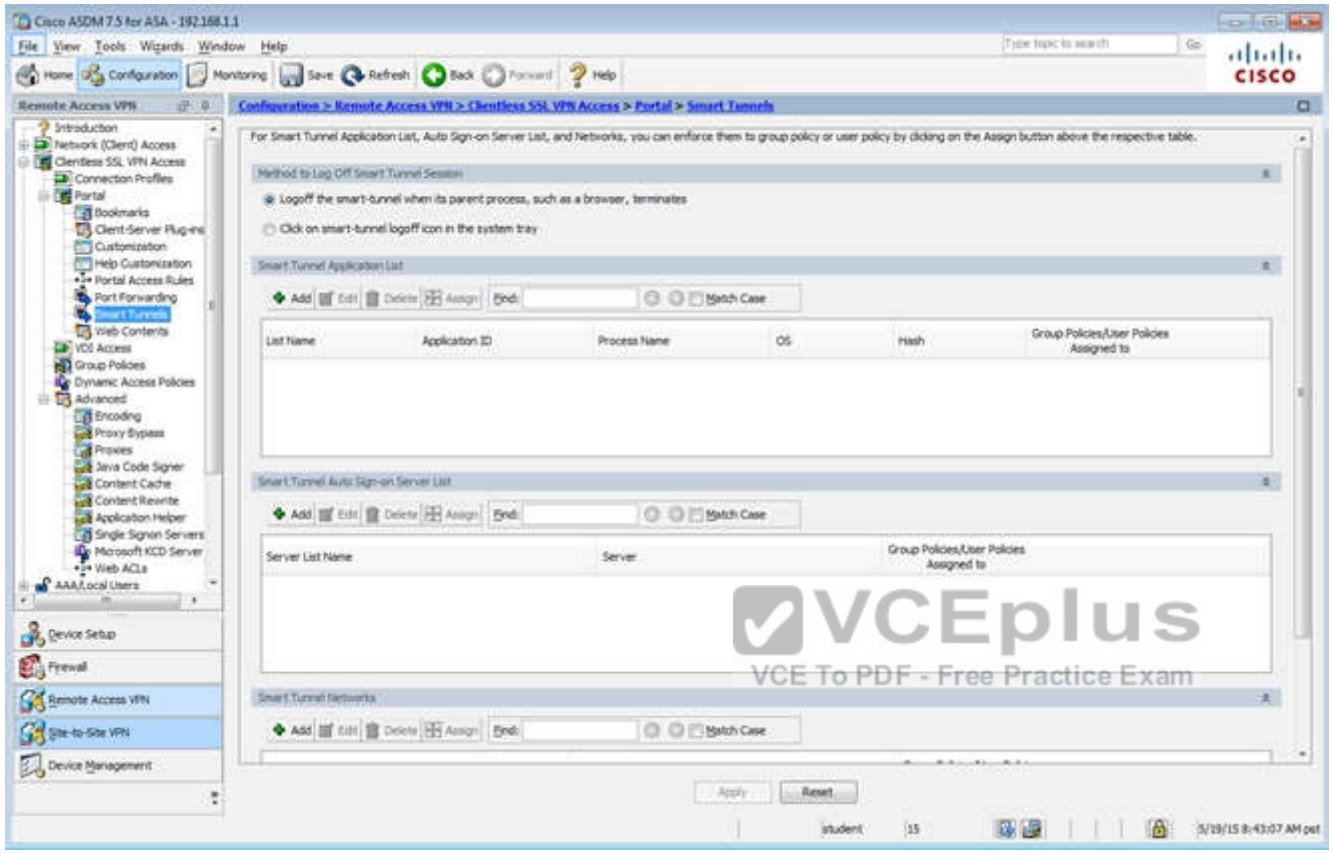
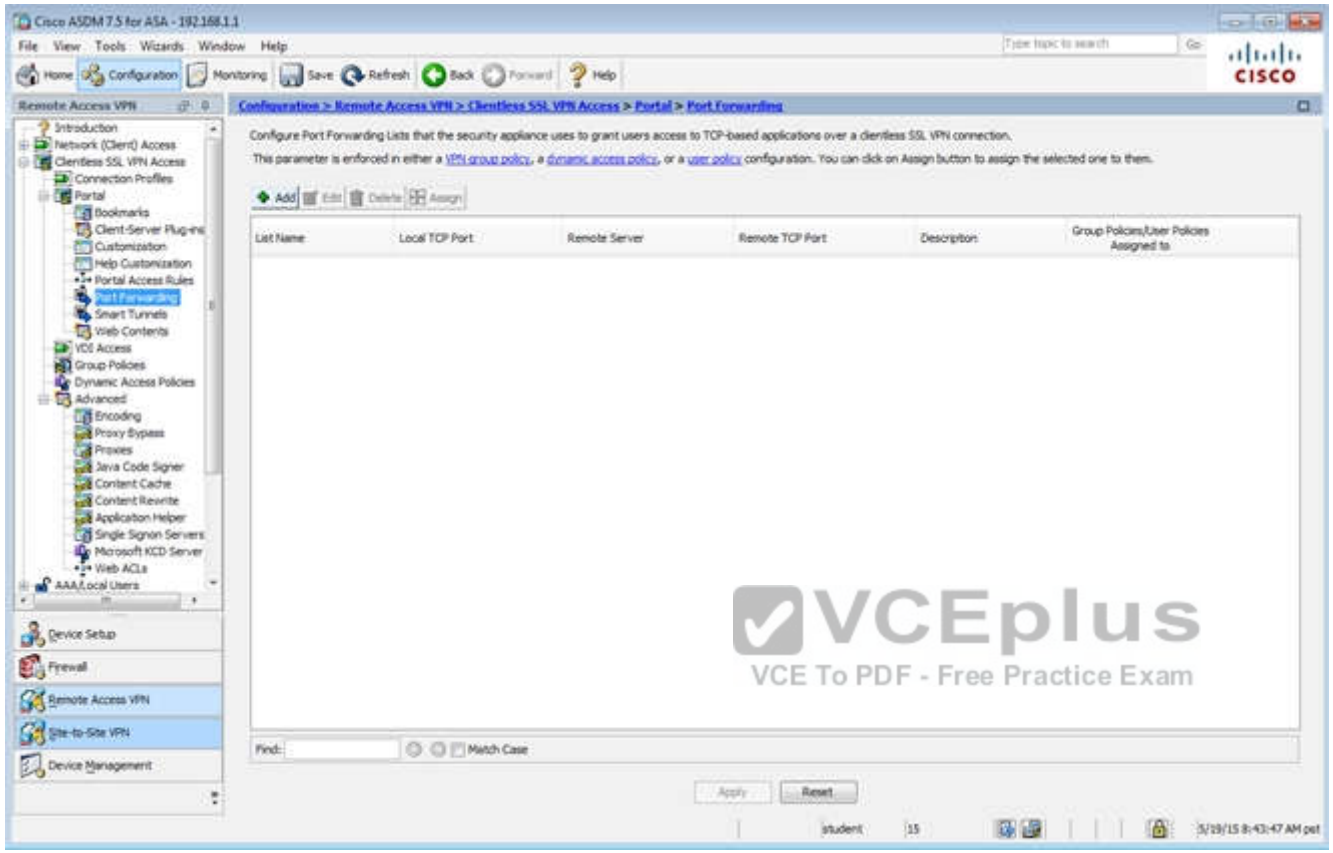
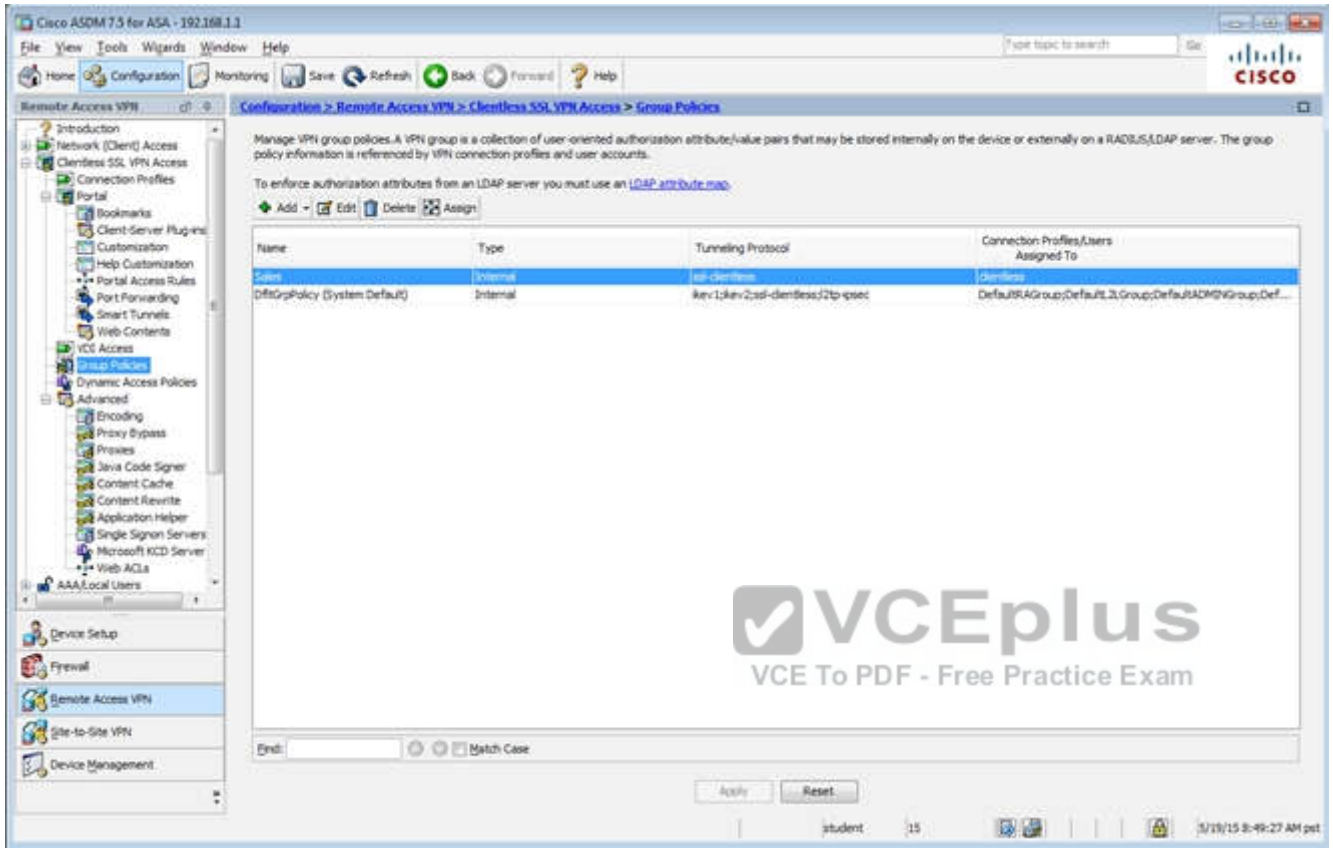


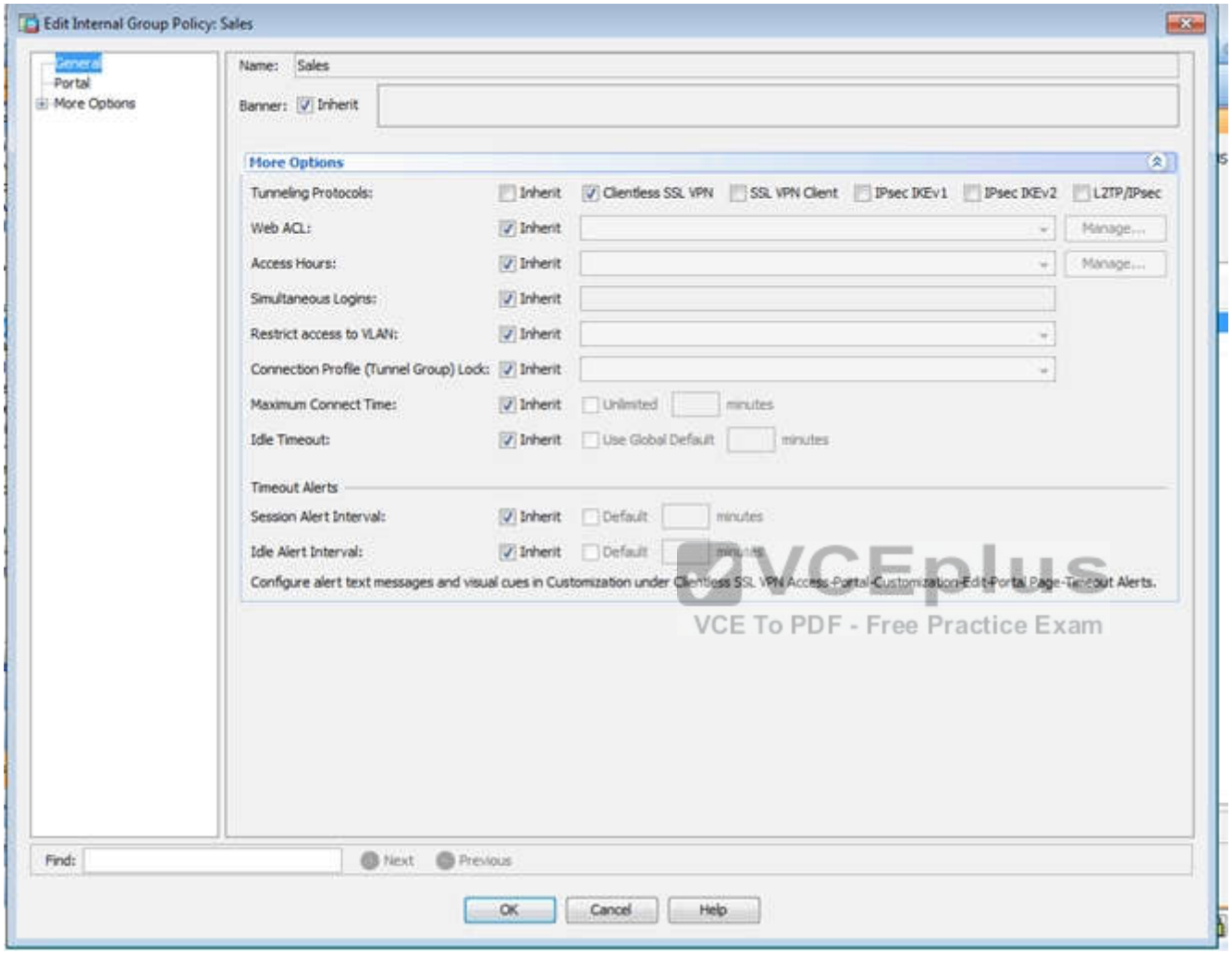


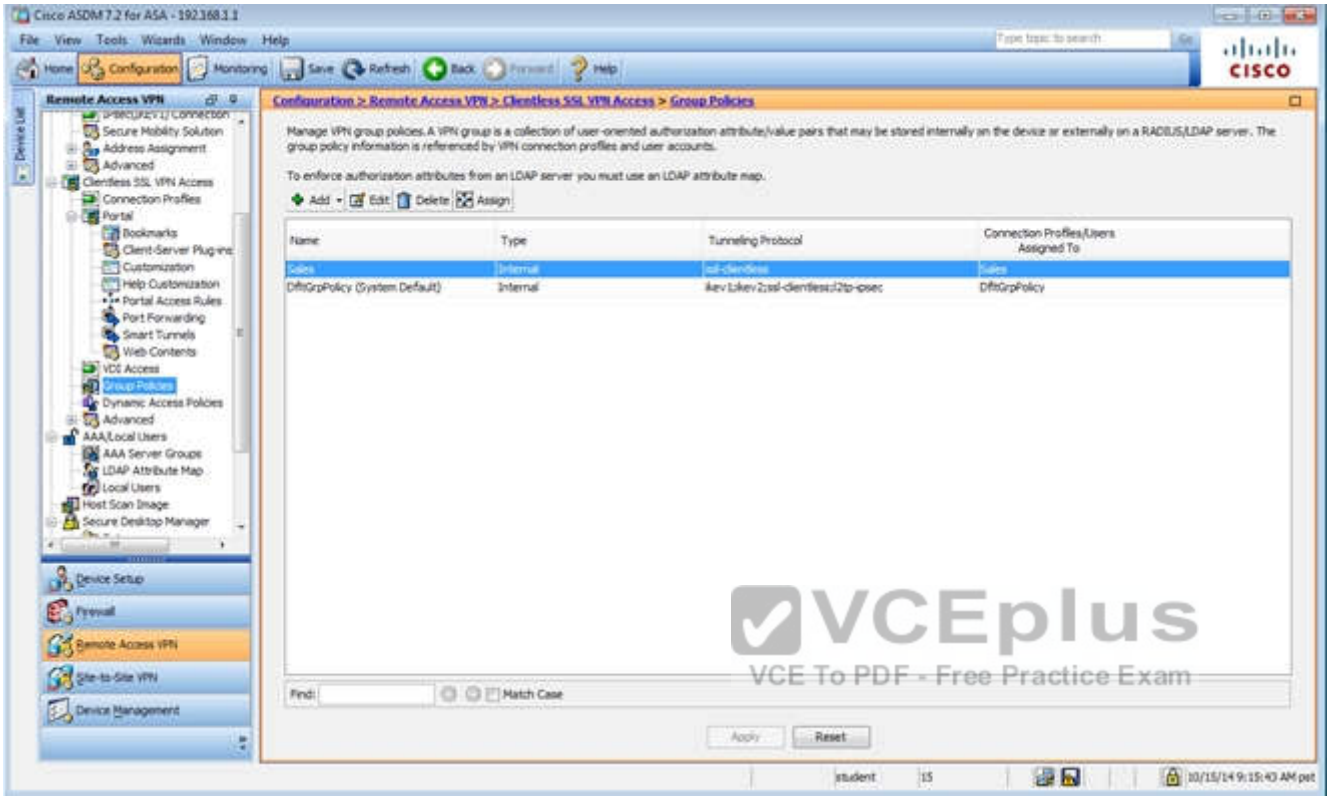


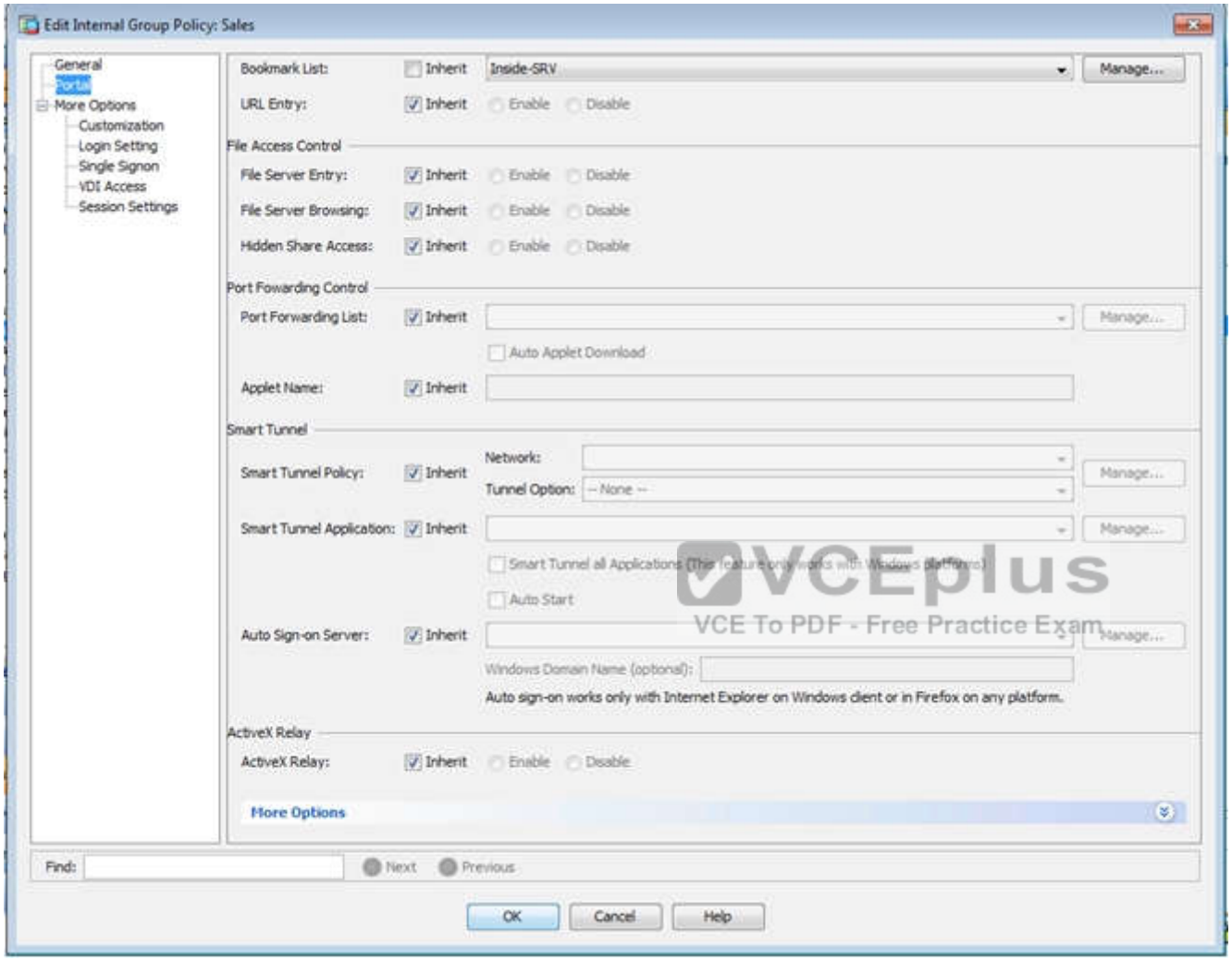


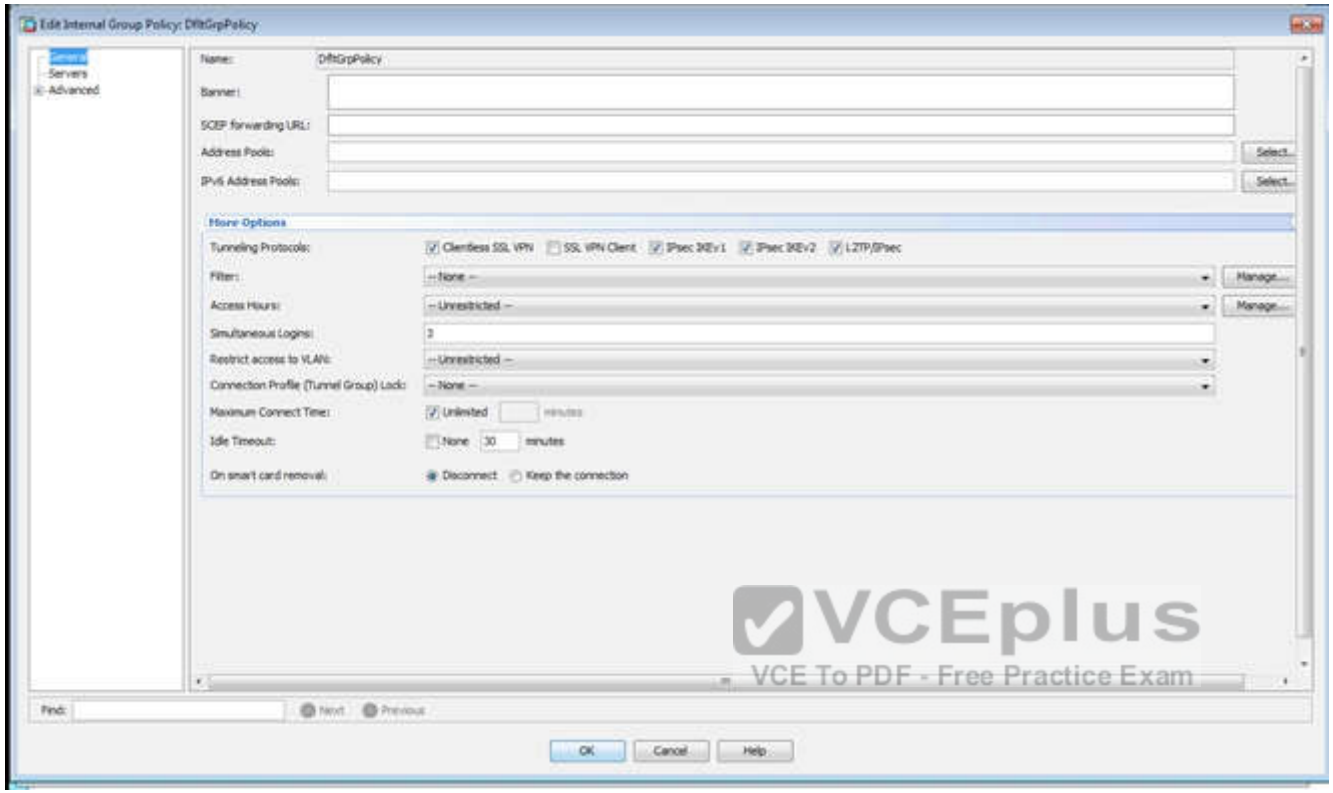


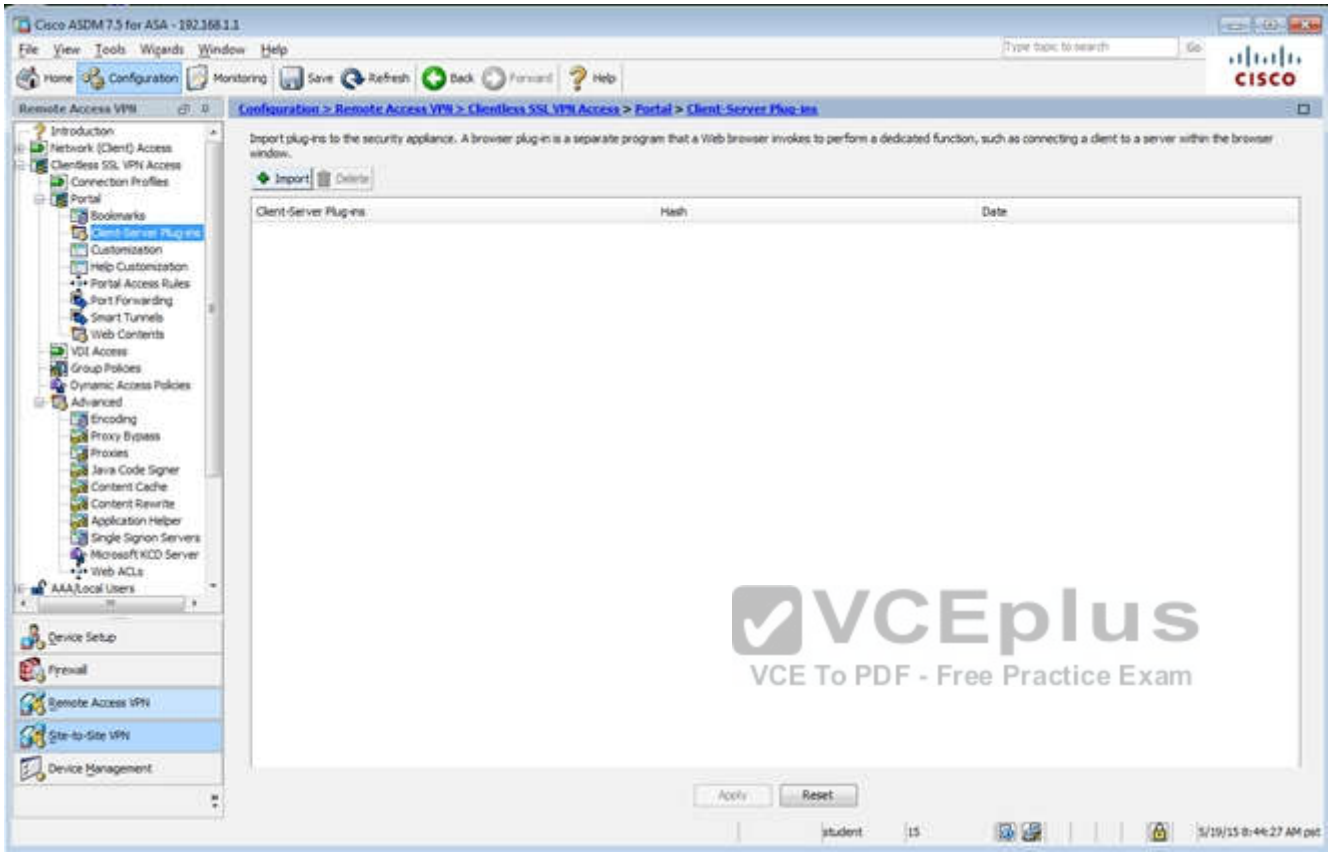


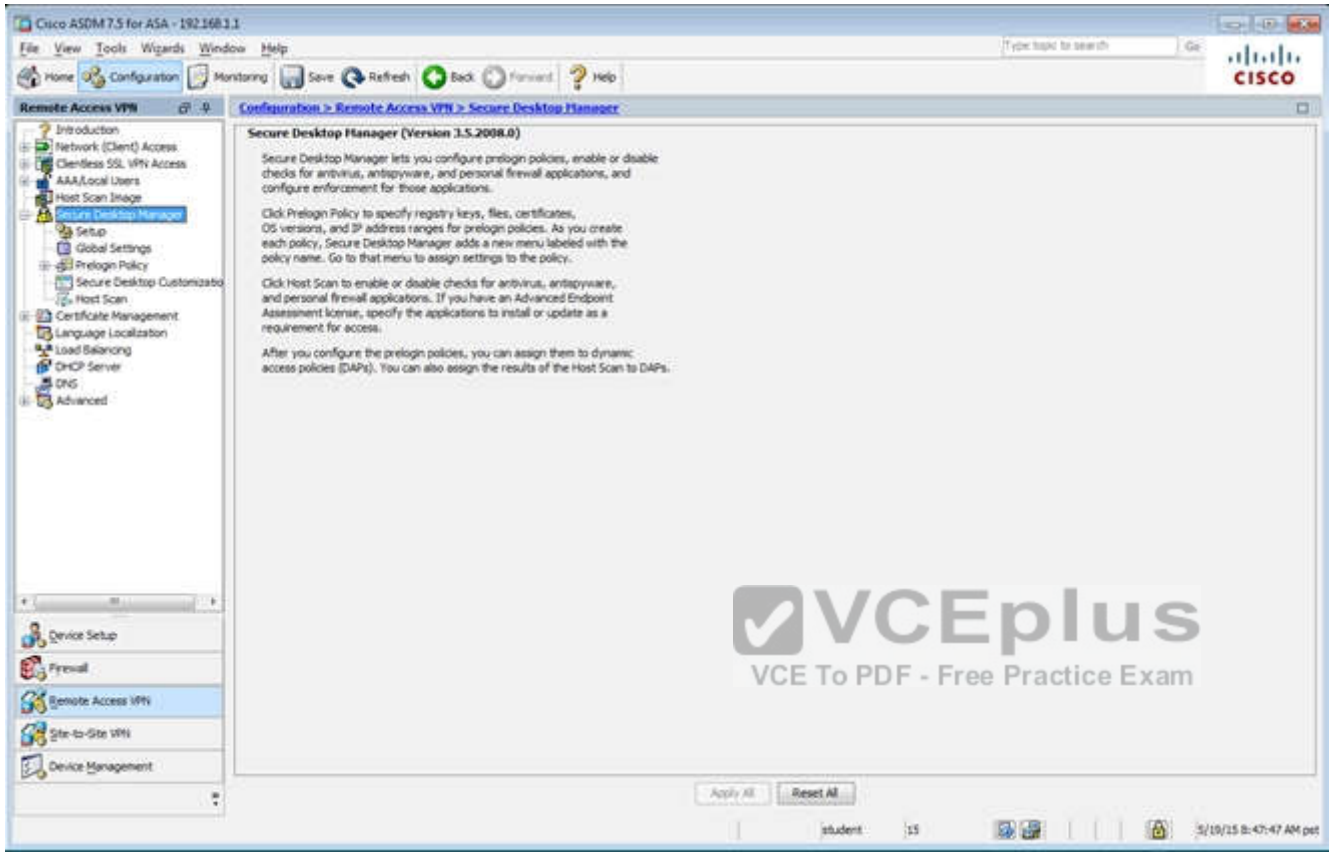


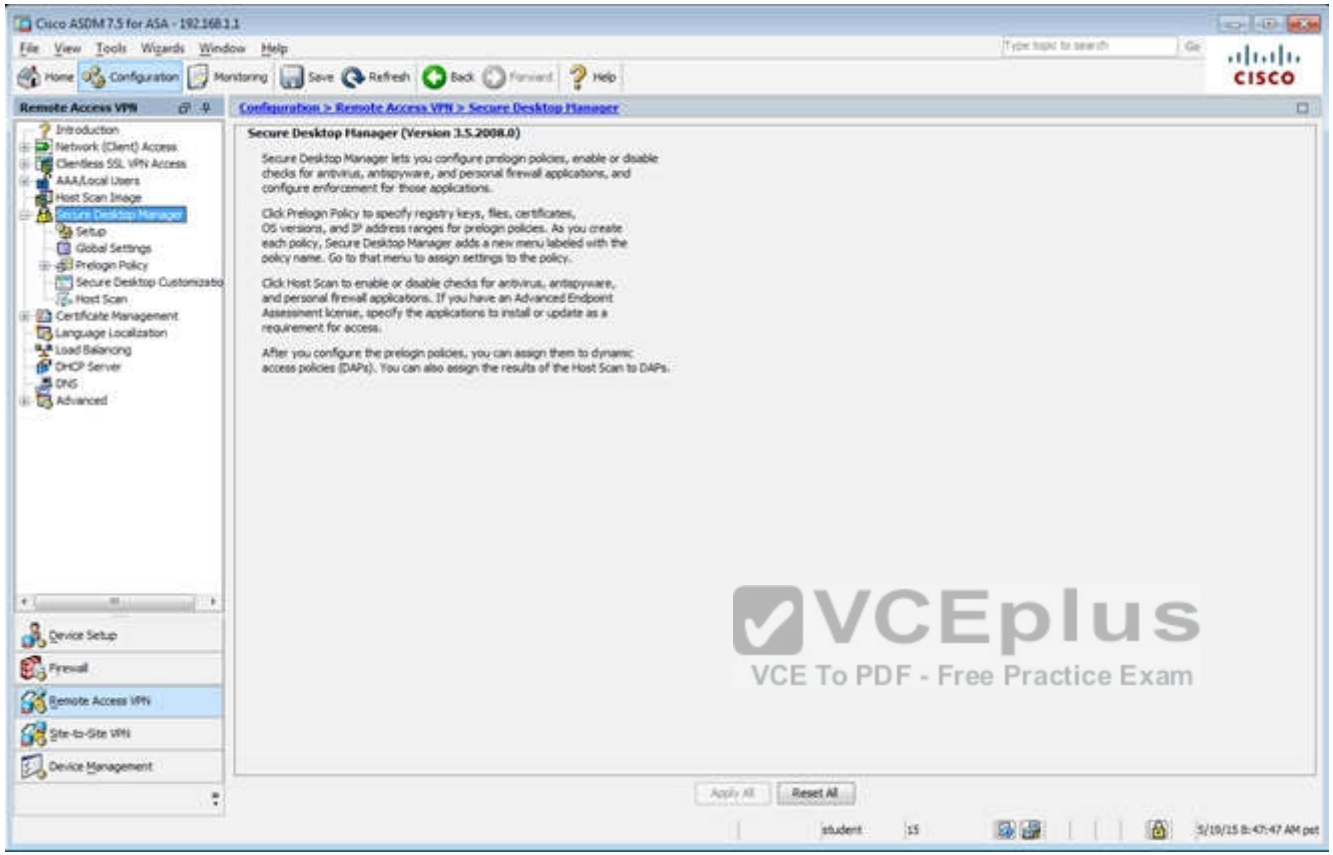


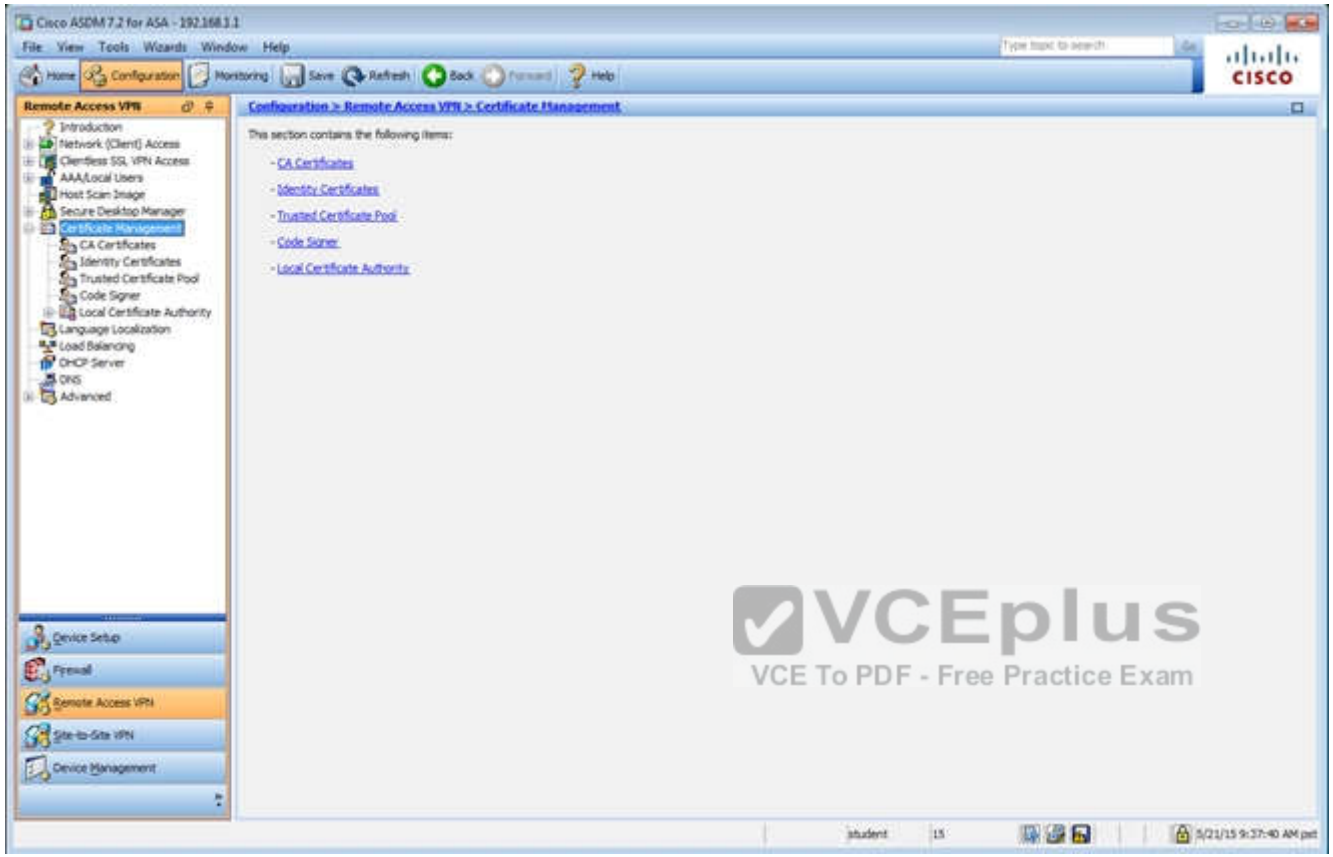


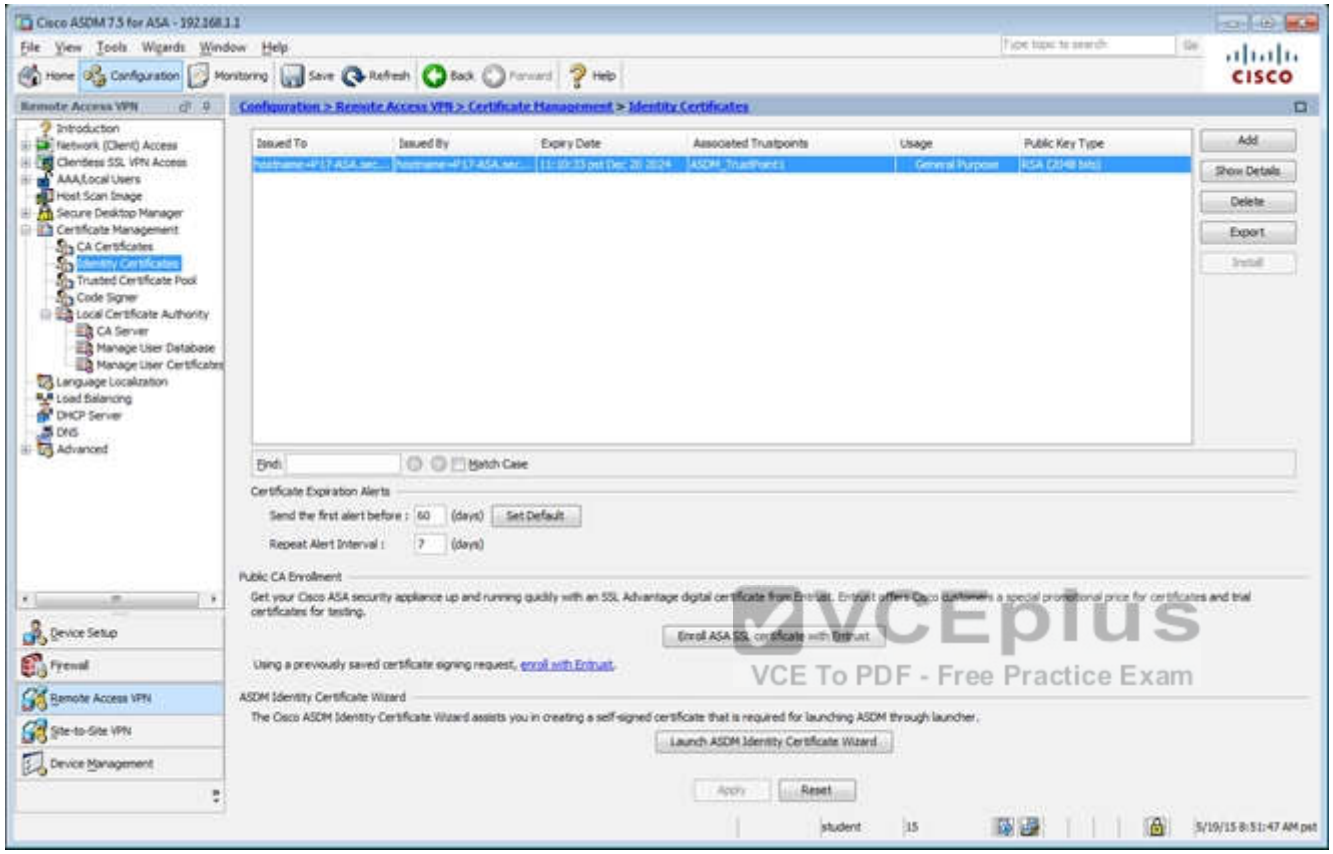


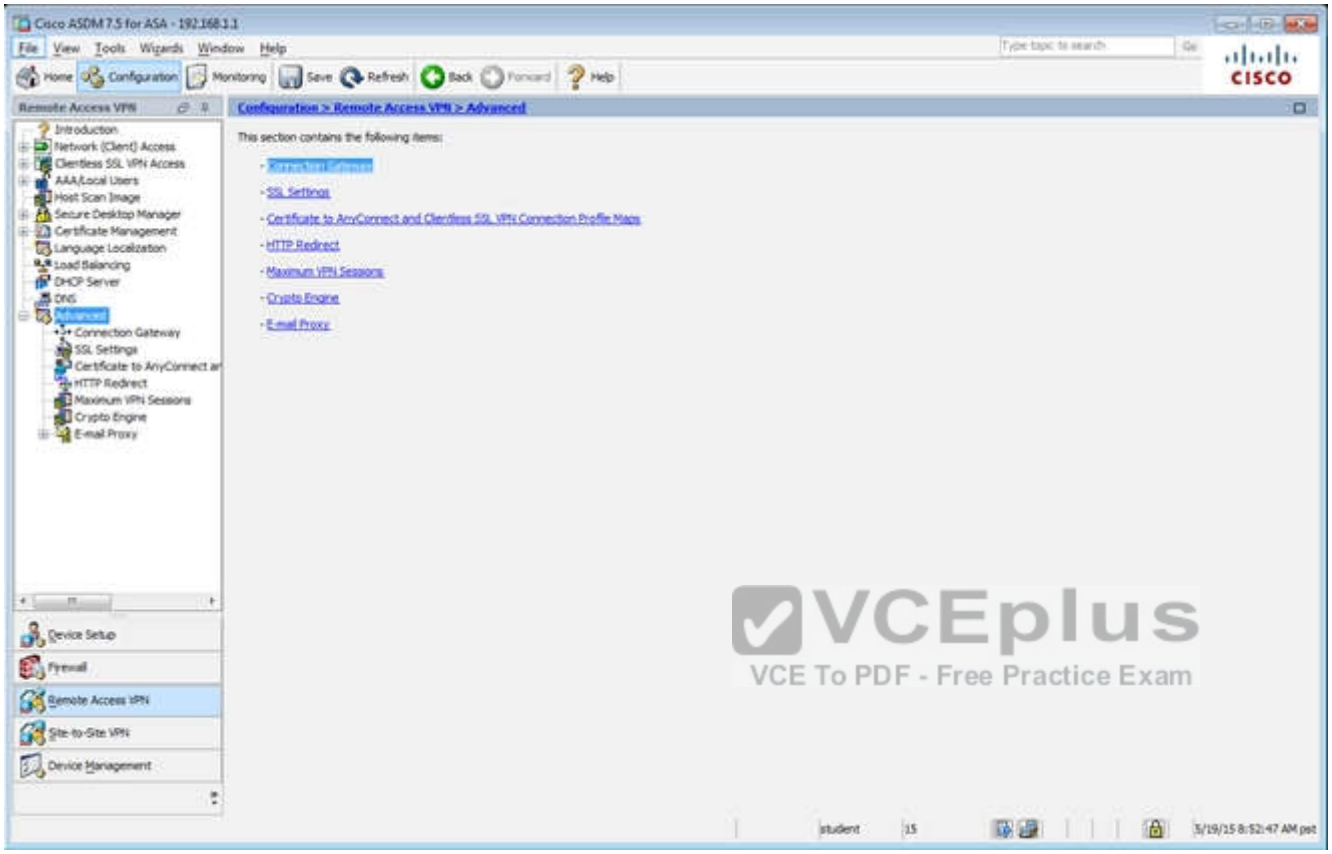


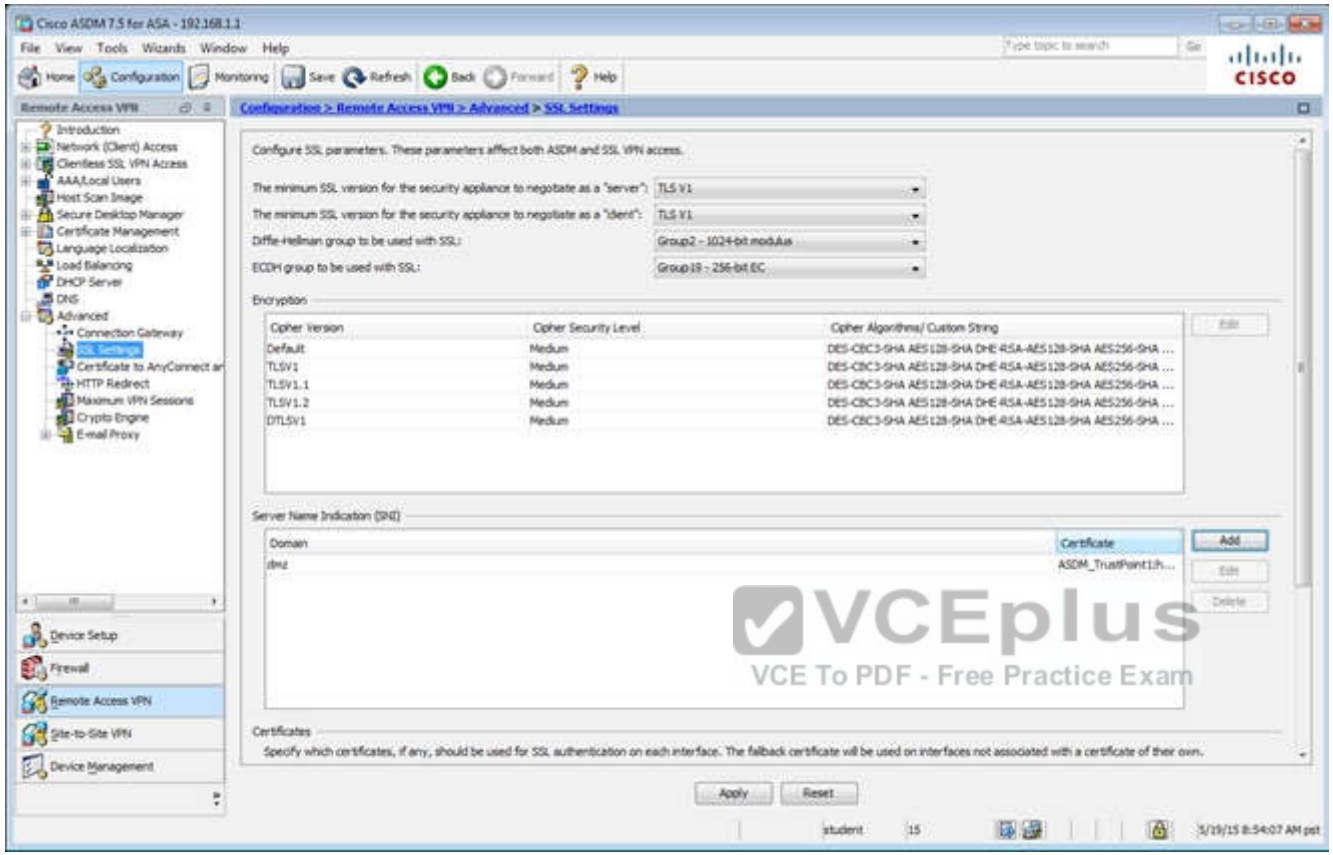


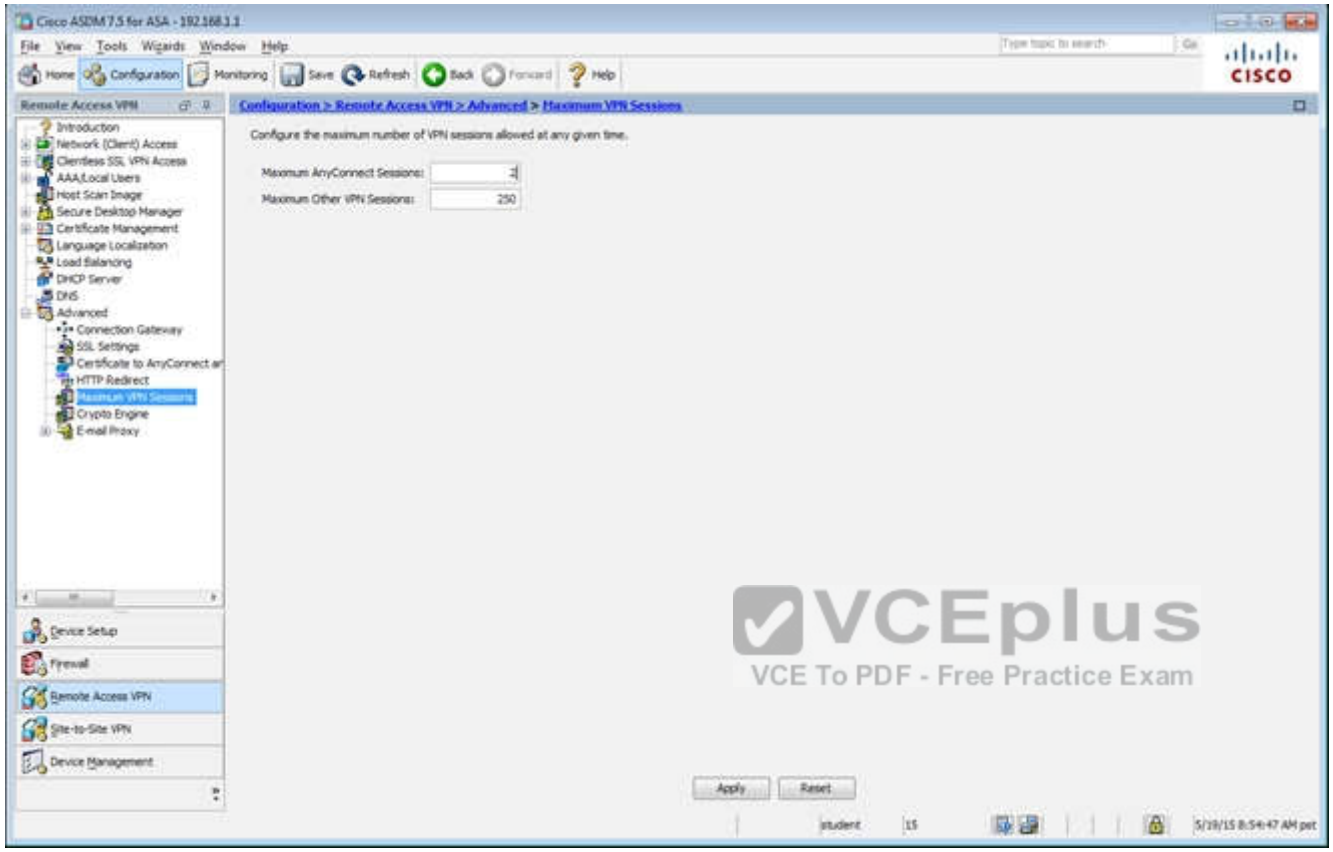


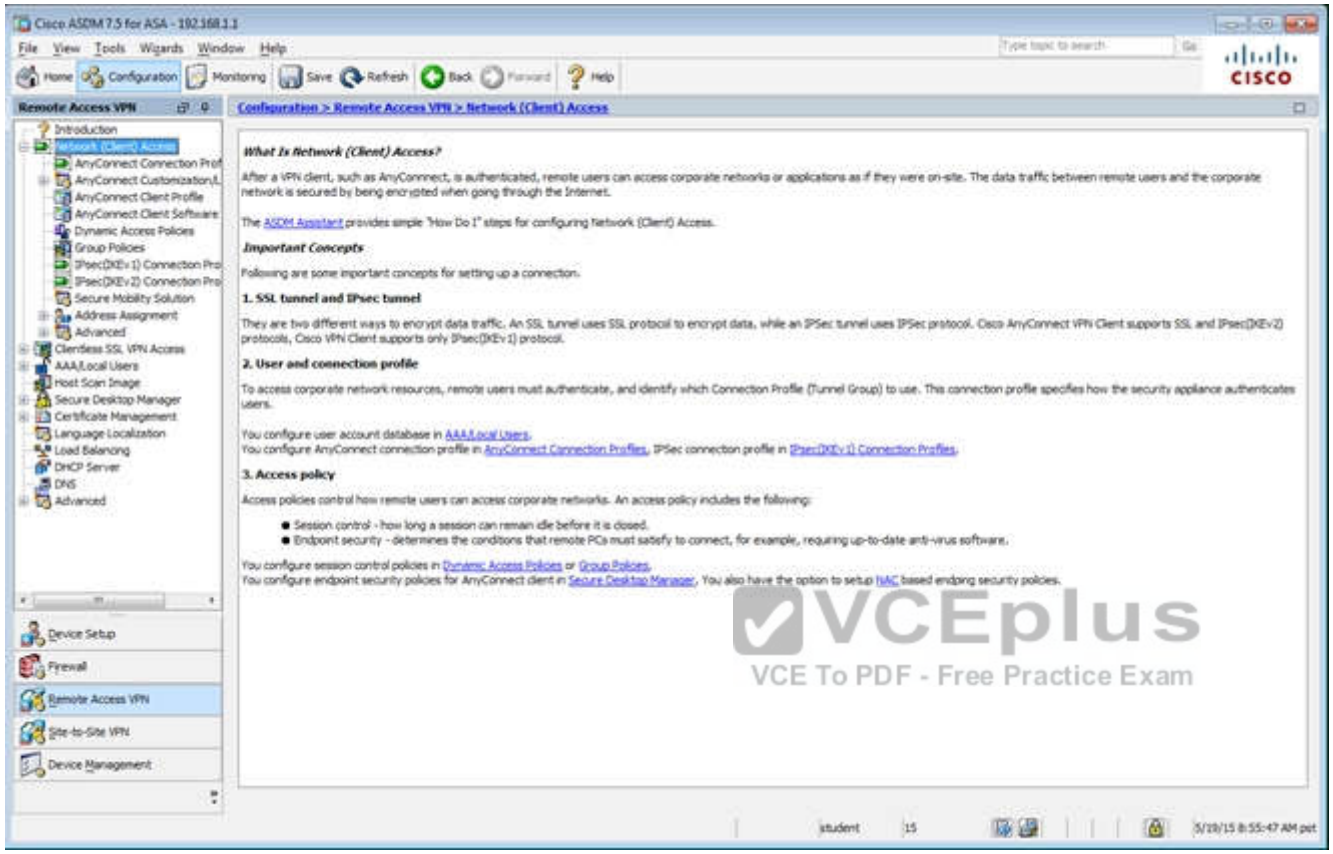


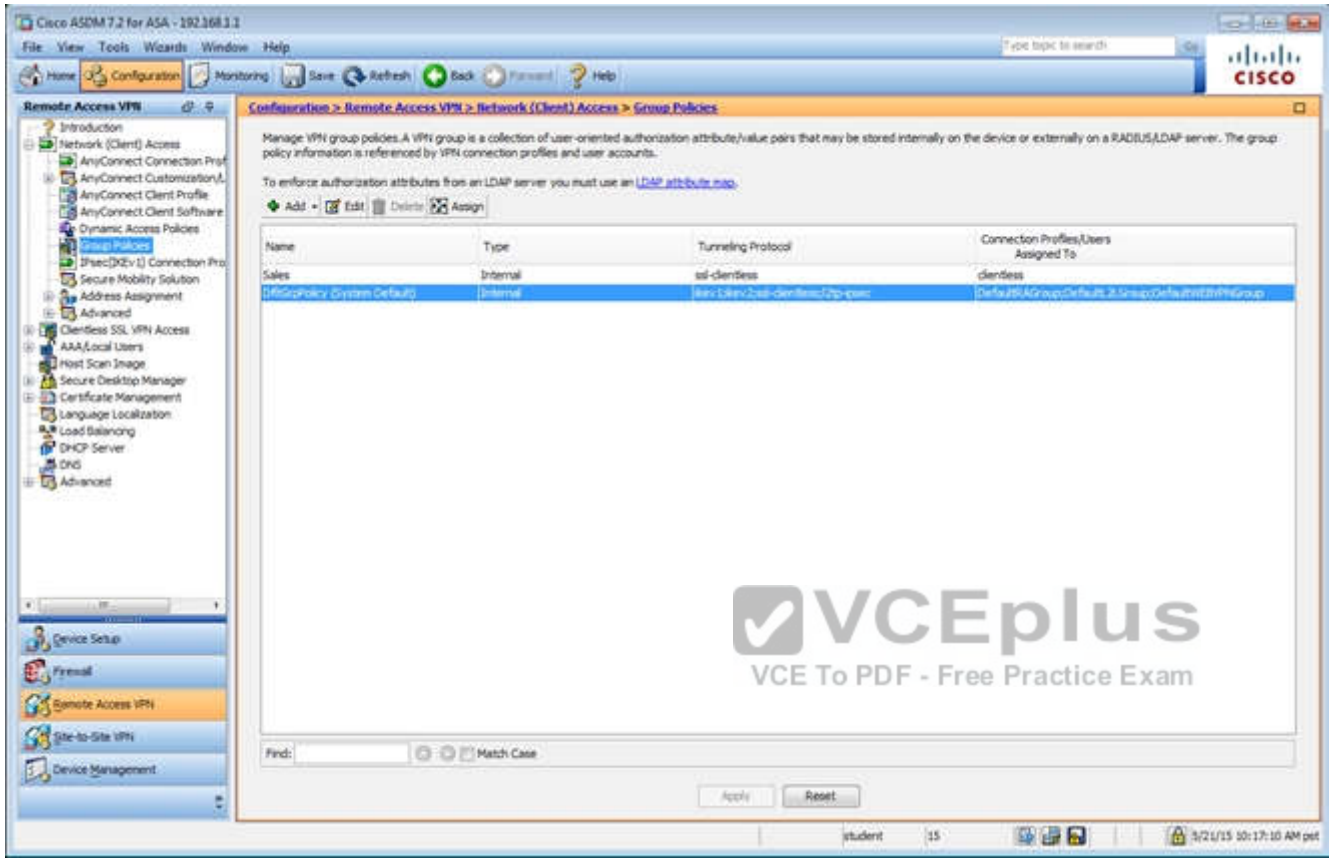


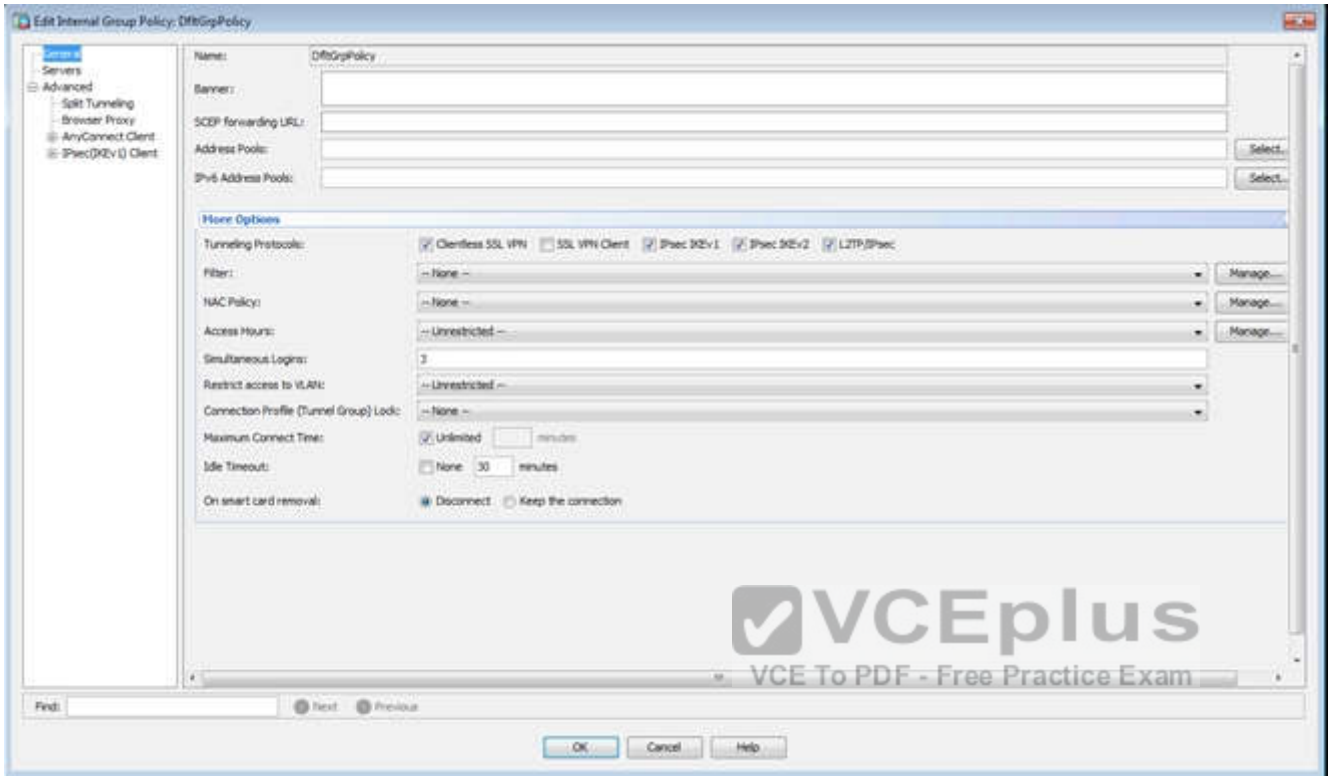


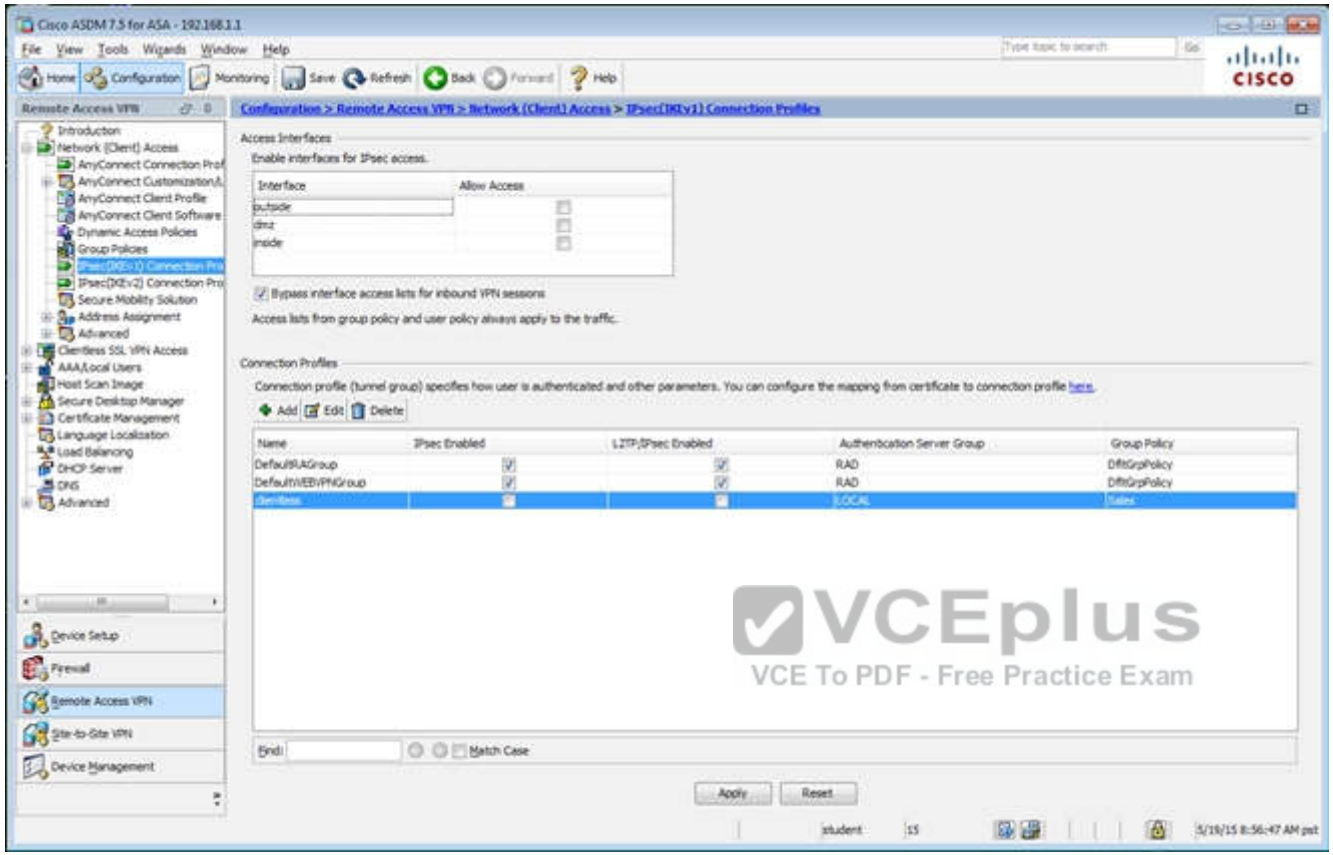


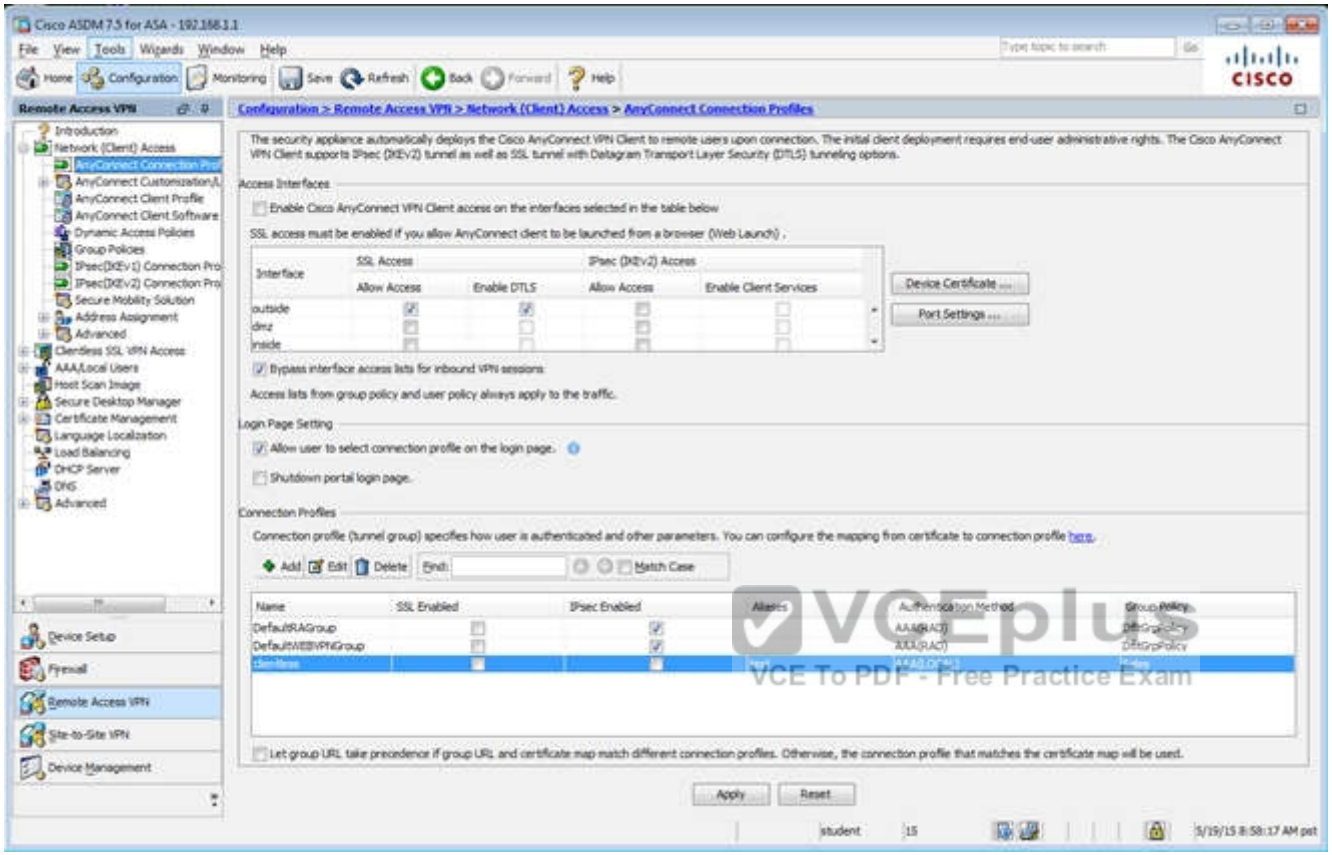


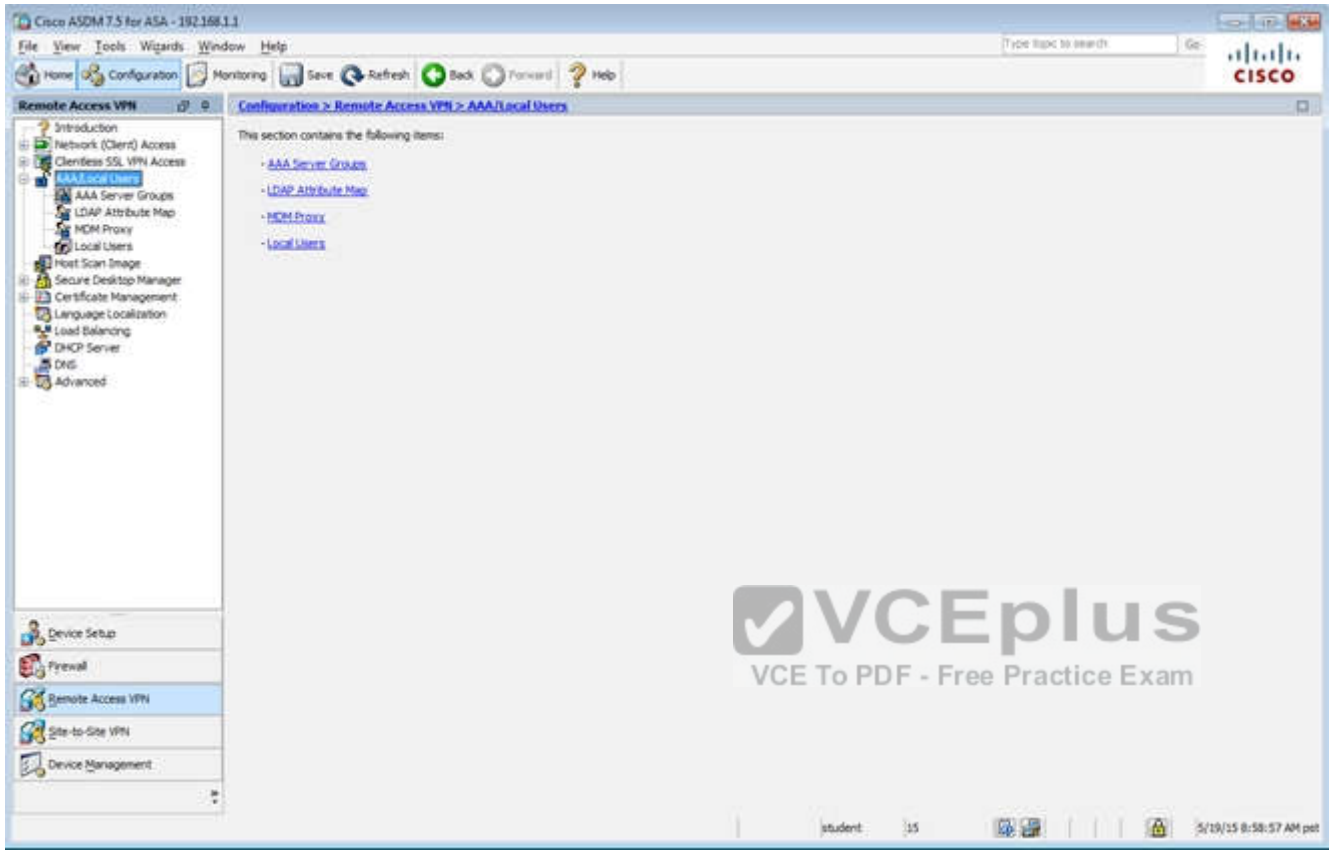


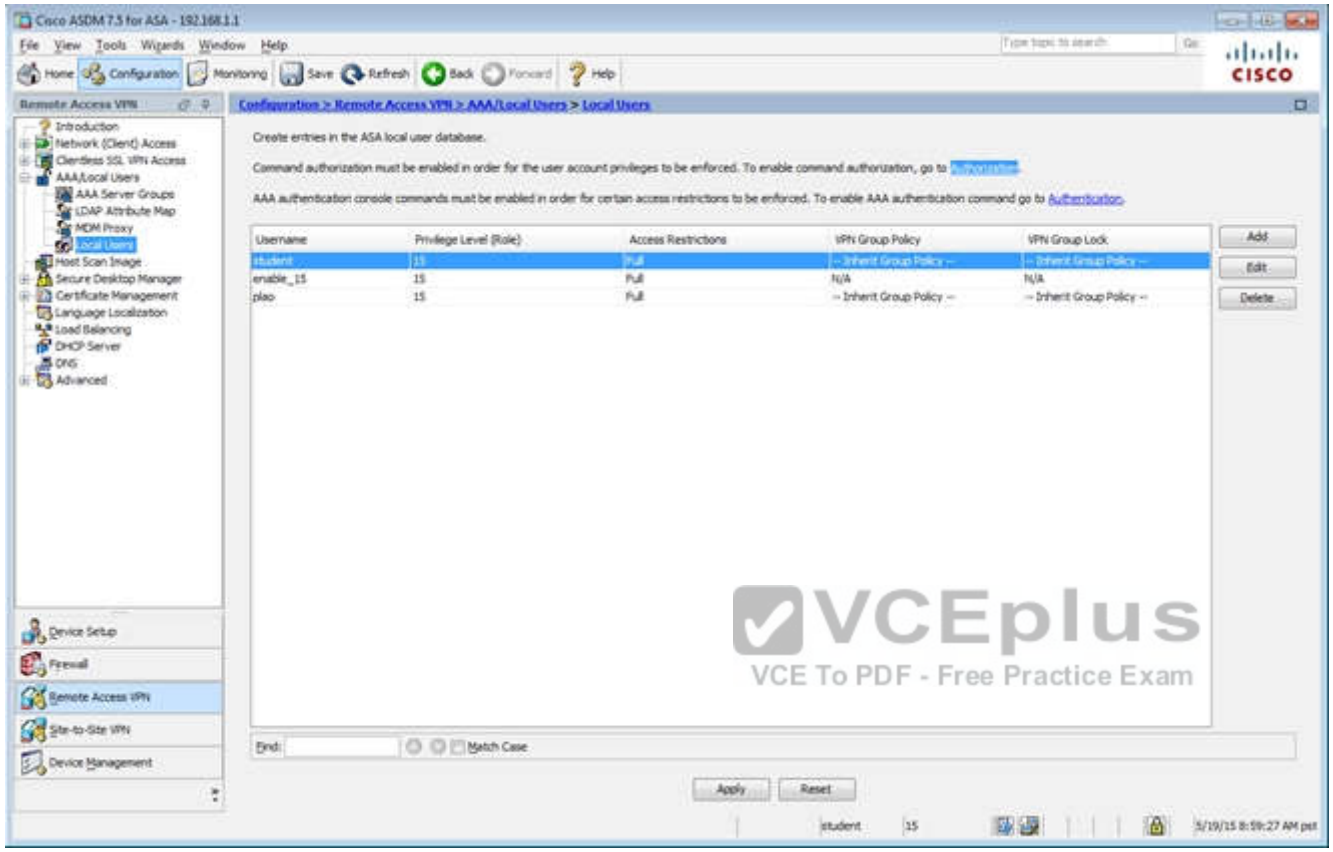


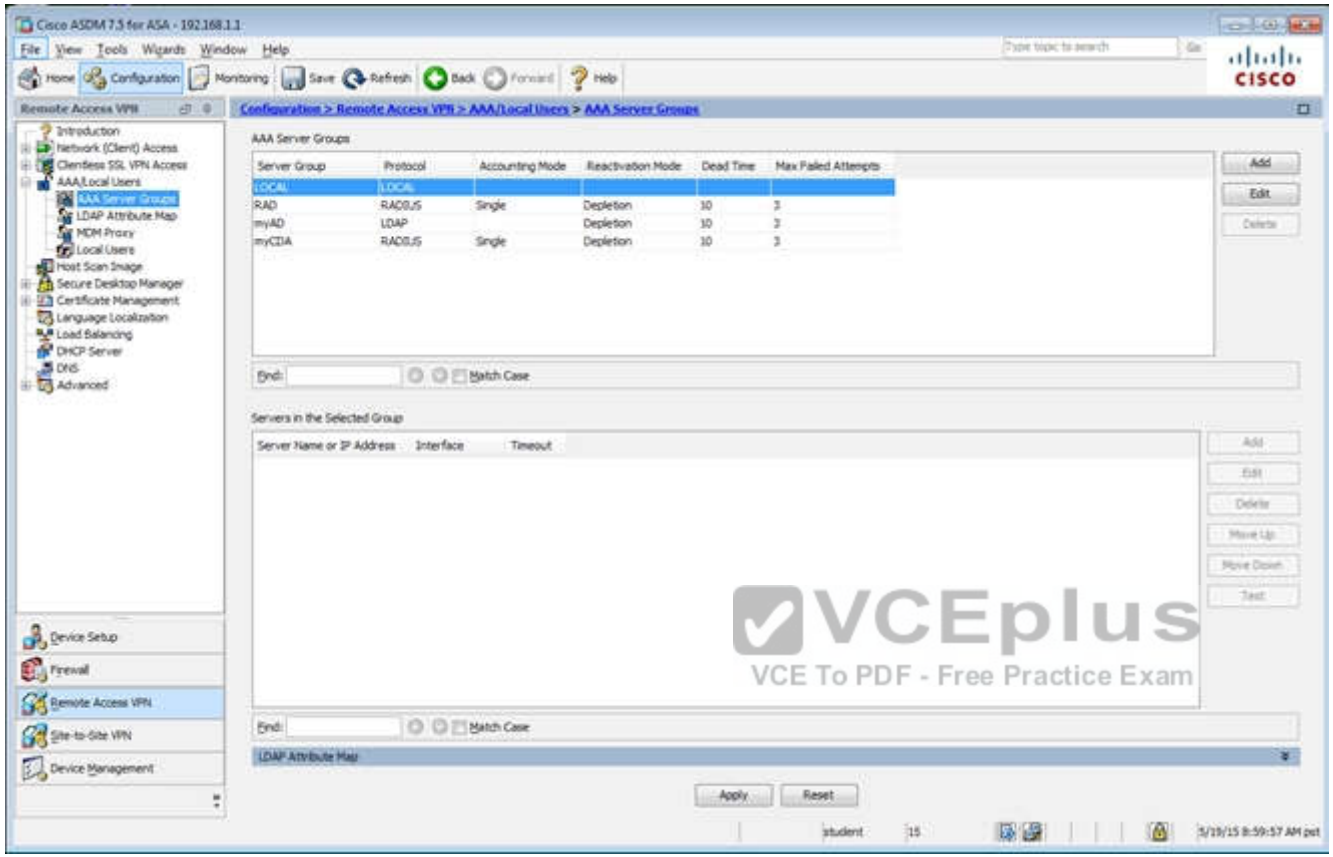












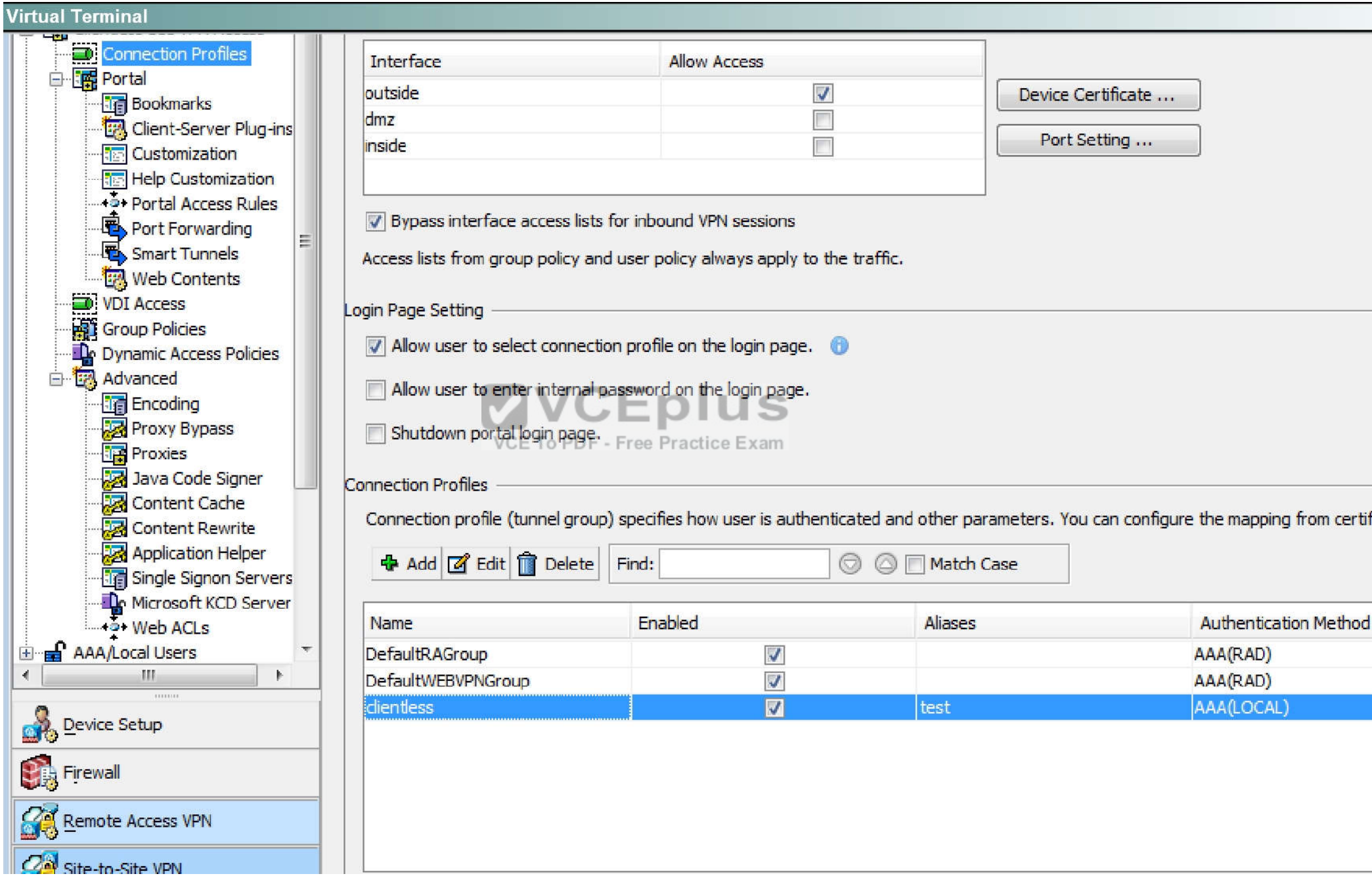
Which two statements regarding the ASA VPN configurations are correct? (Choose two)

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://192.168.1.2 URL
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

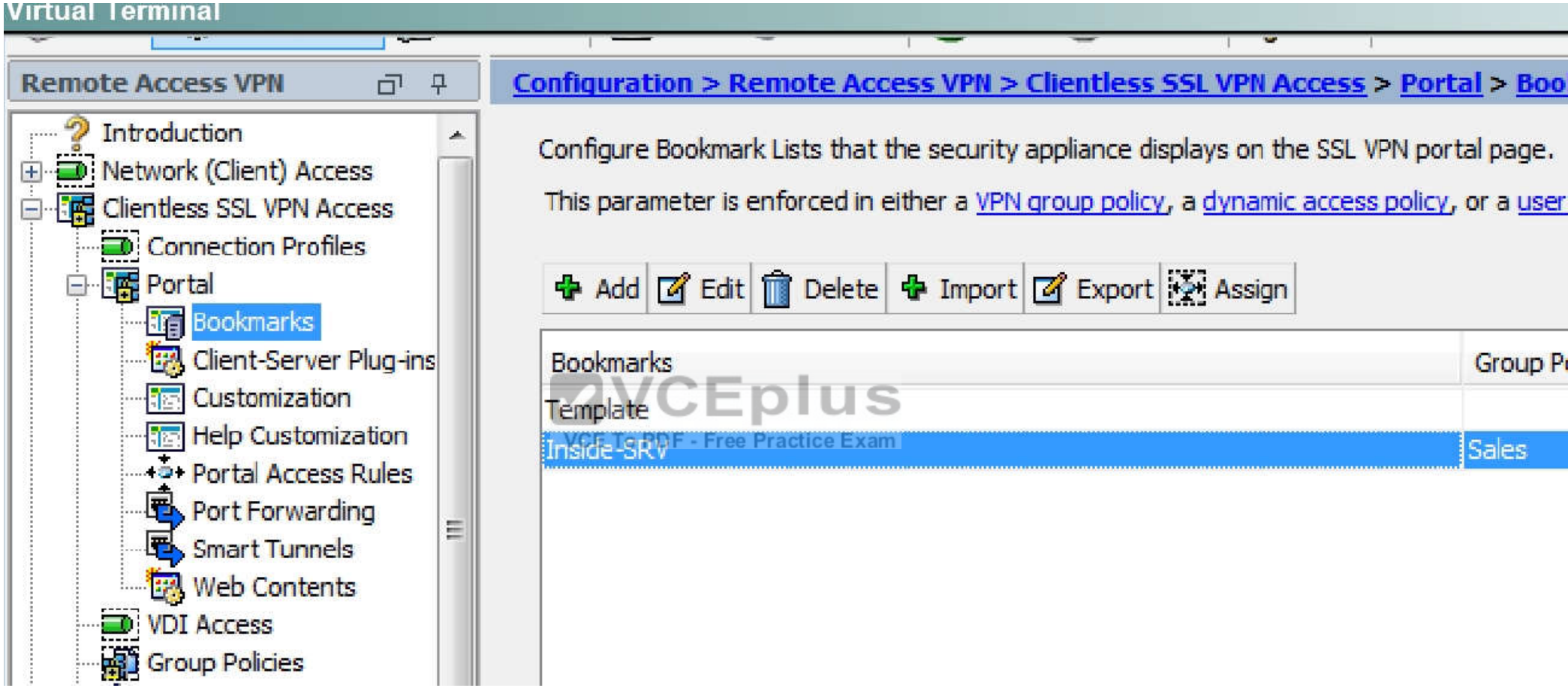
Correct Answer: BC
Section: (none)

Explanation

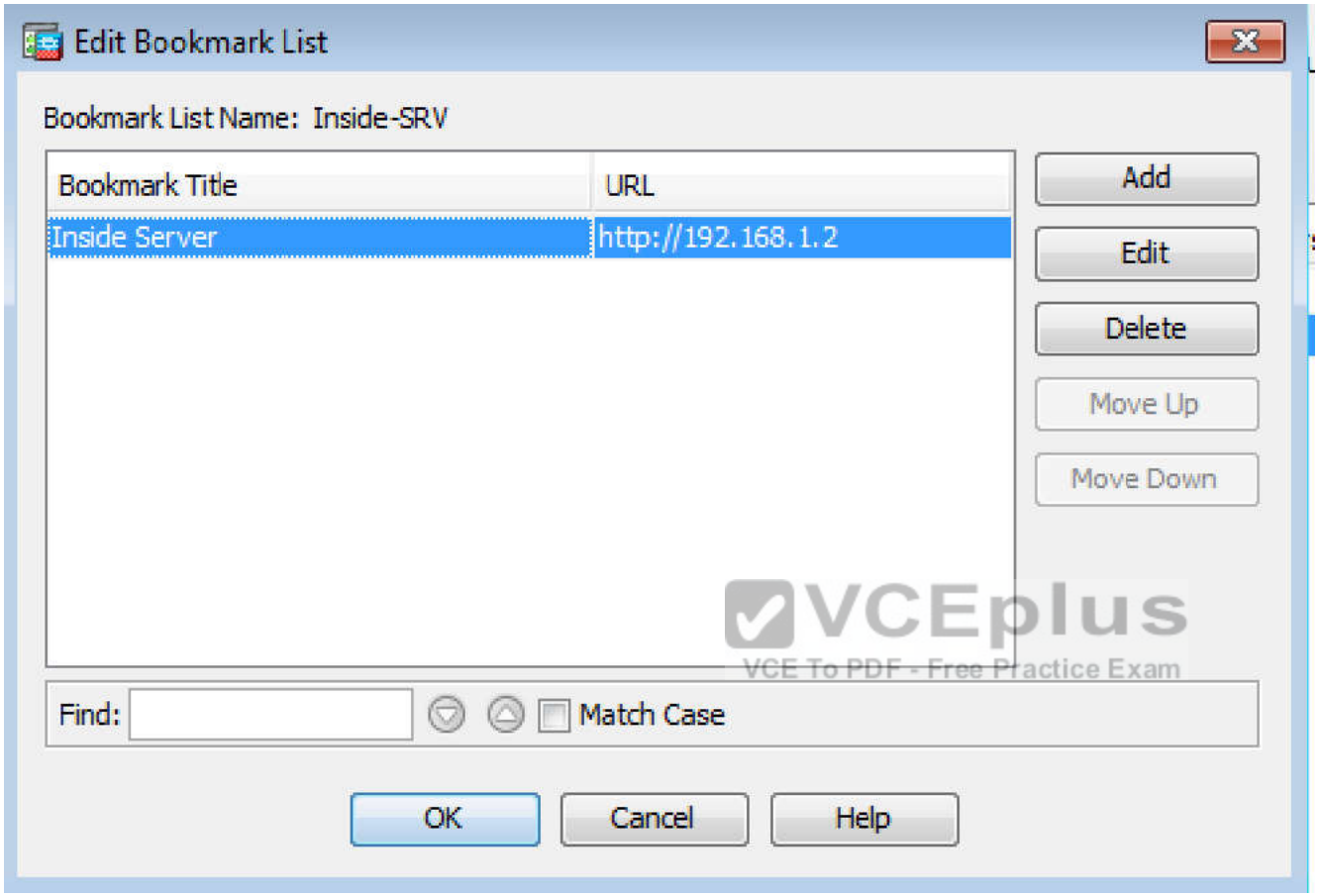
Explanation/Reference:
Explanation:
For B:



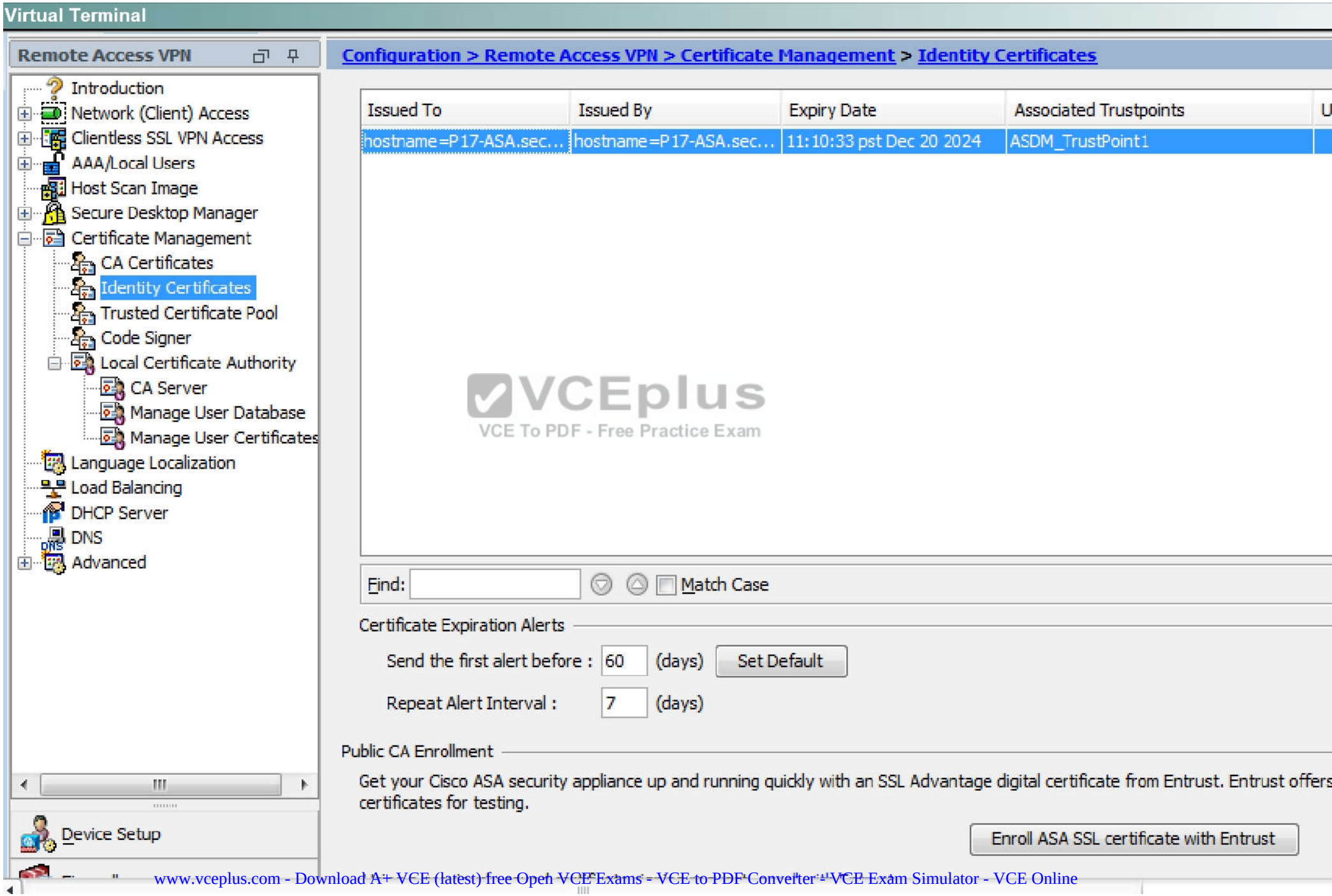
For C, Navigate to the Bookmarks tab:



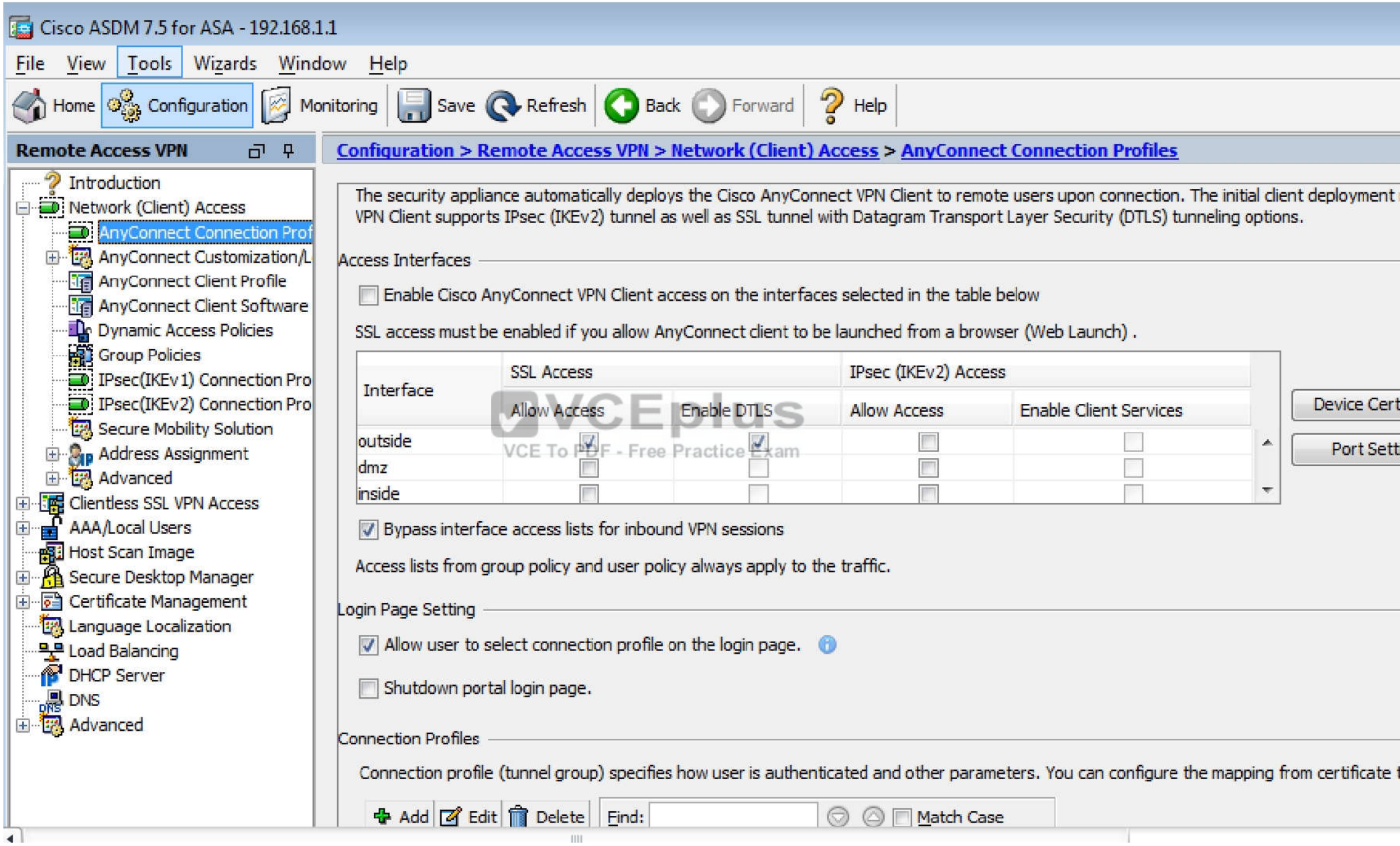
Then hit “edit” and you will see this:



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



Note E:

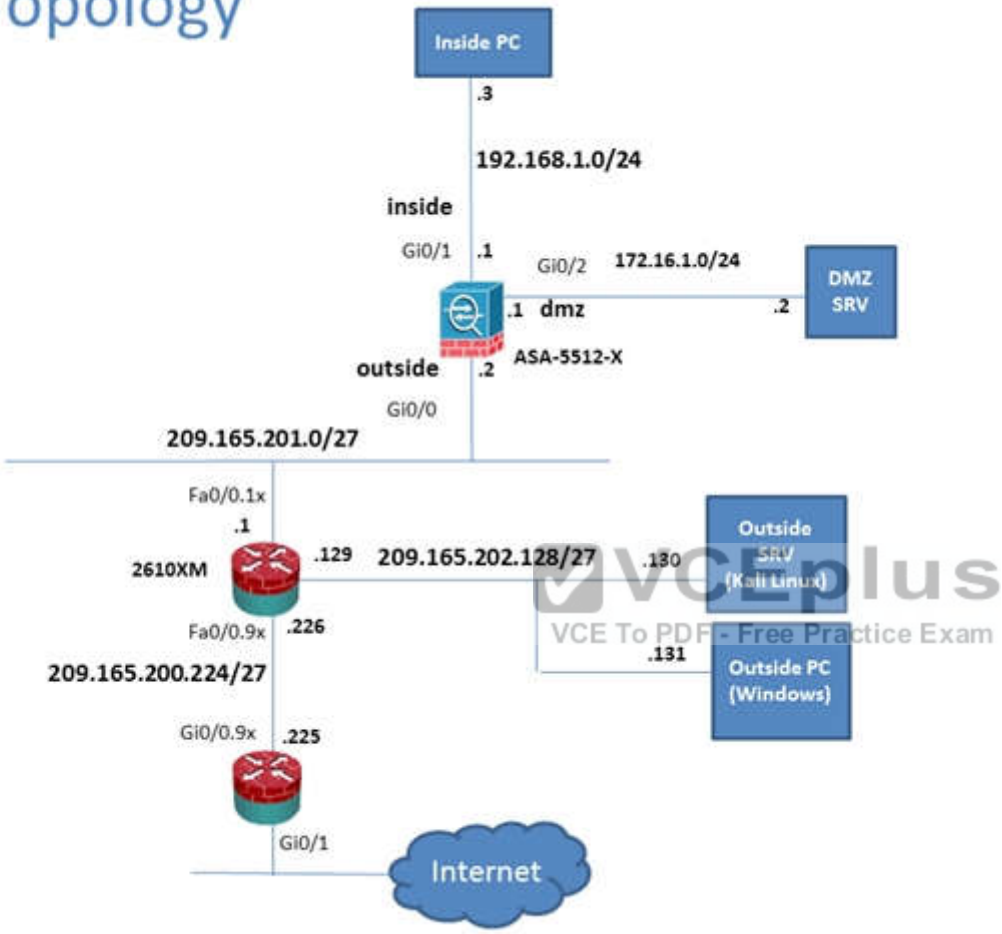


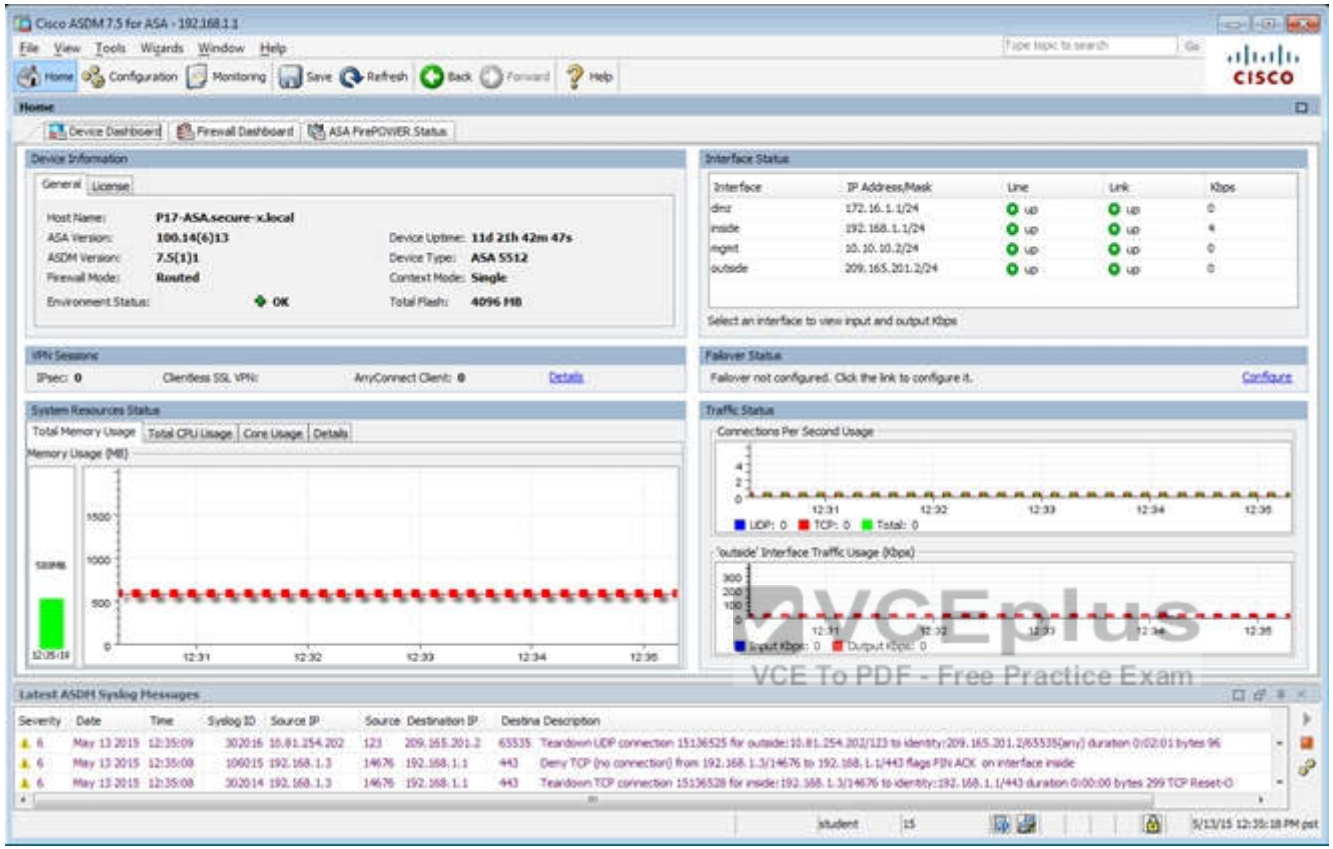
QUESTION 67
Scenario
In this simulation, you have access to ASDM only. Review the various ASA configurations using ASDM then answer the five multiple choice questions about the ASA SSLVPN configurations.

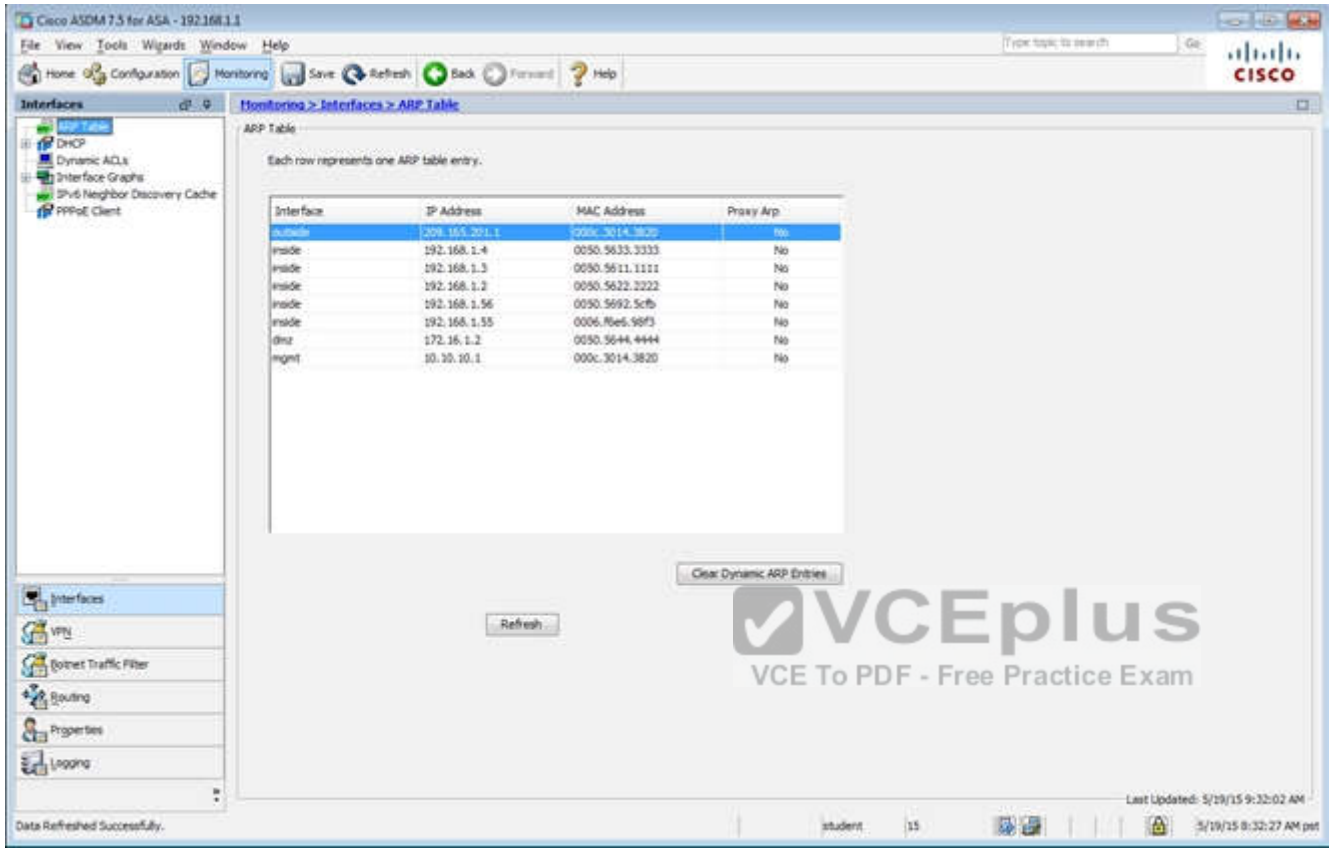
To access ASDM, click the ASA icon in the topology diagram.

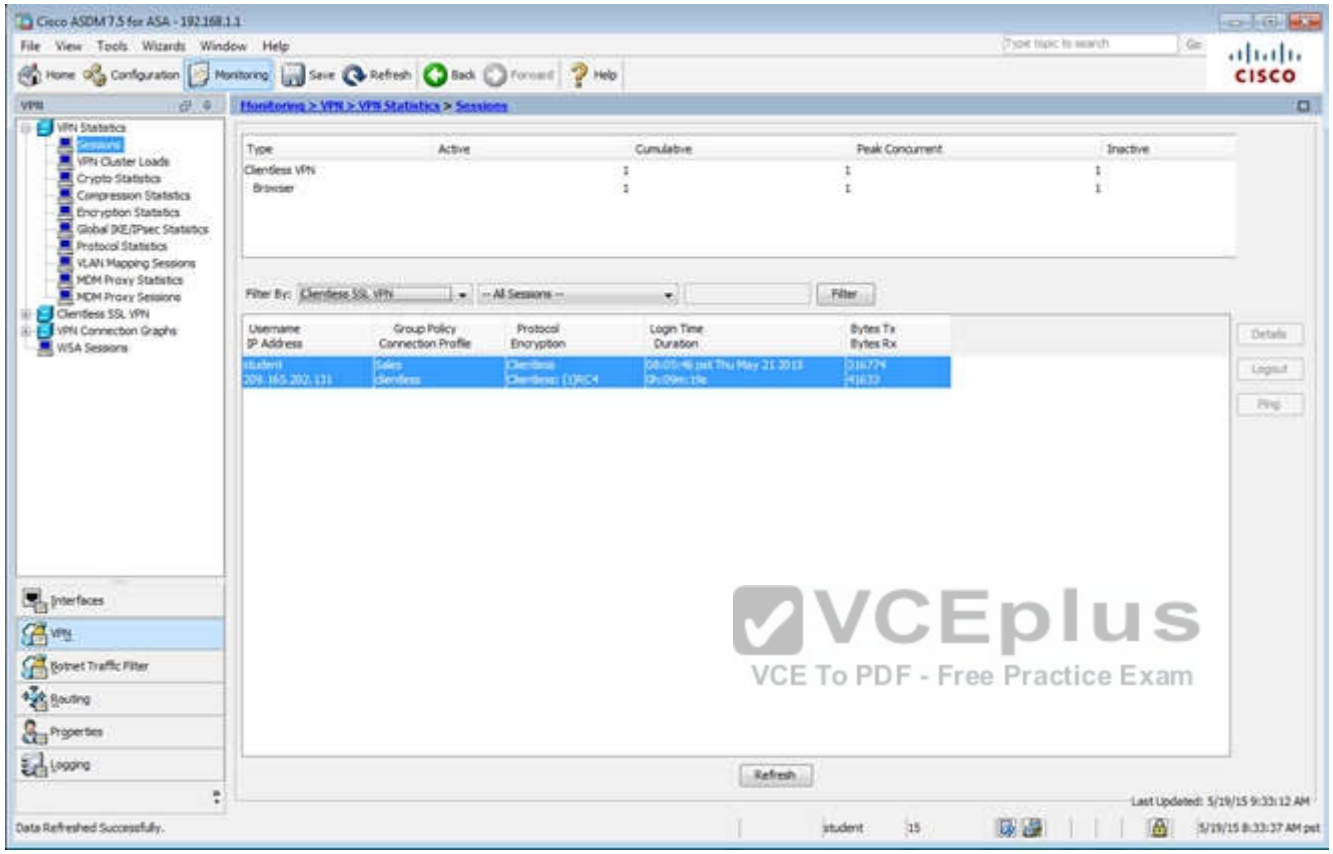
Note: Not all ASDM functionalities are enabled in this simulation.
To see all the menu options available on the left navigation pane, you may also need to un-expand the expanded menu first.

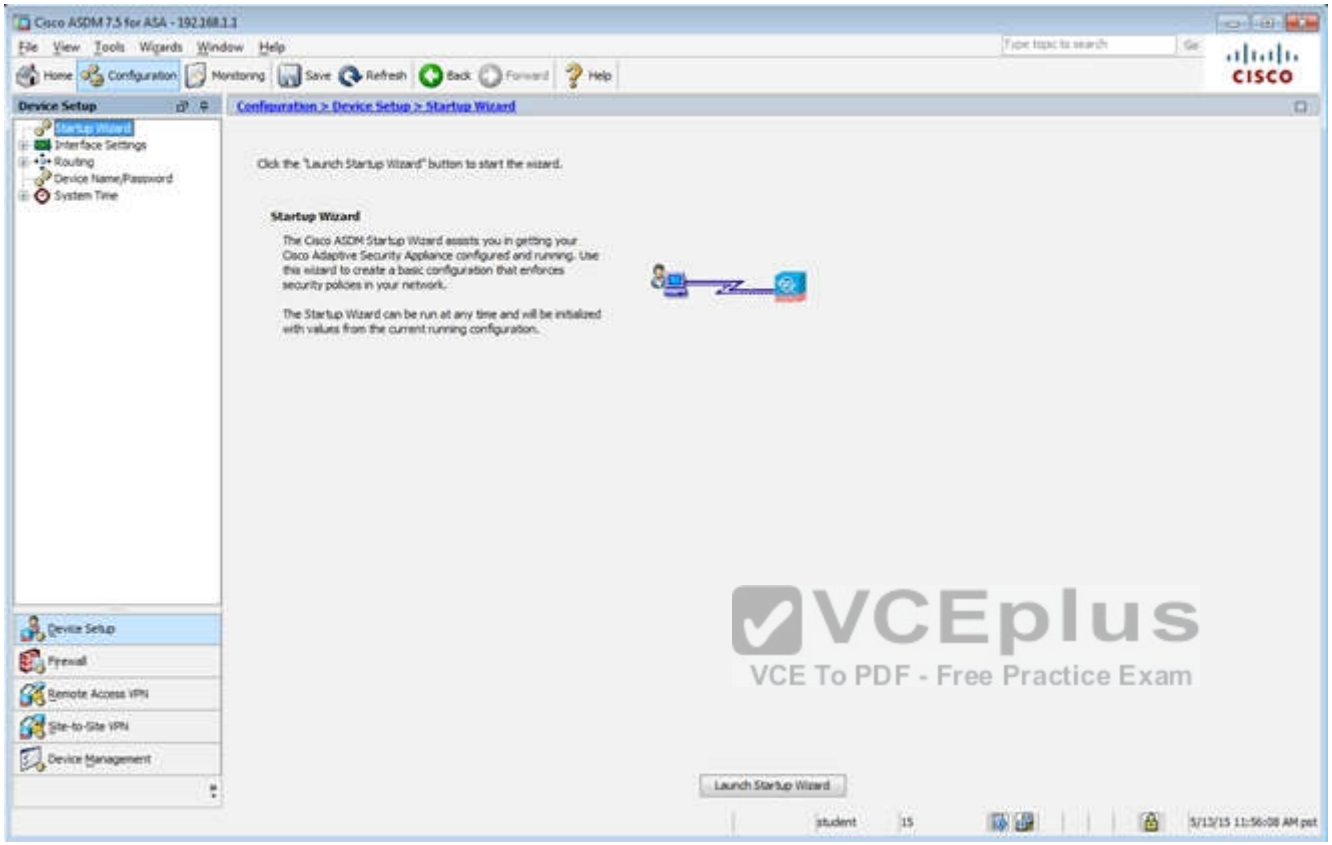
Lab Topology

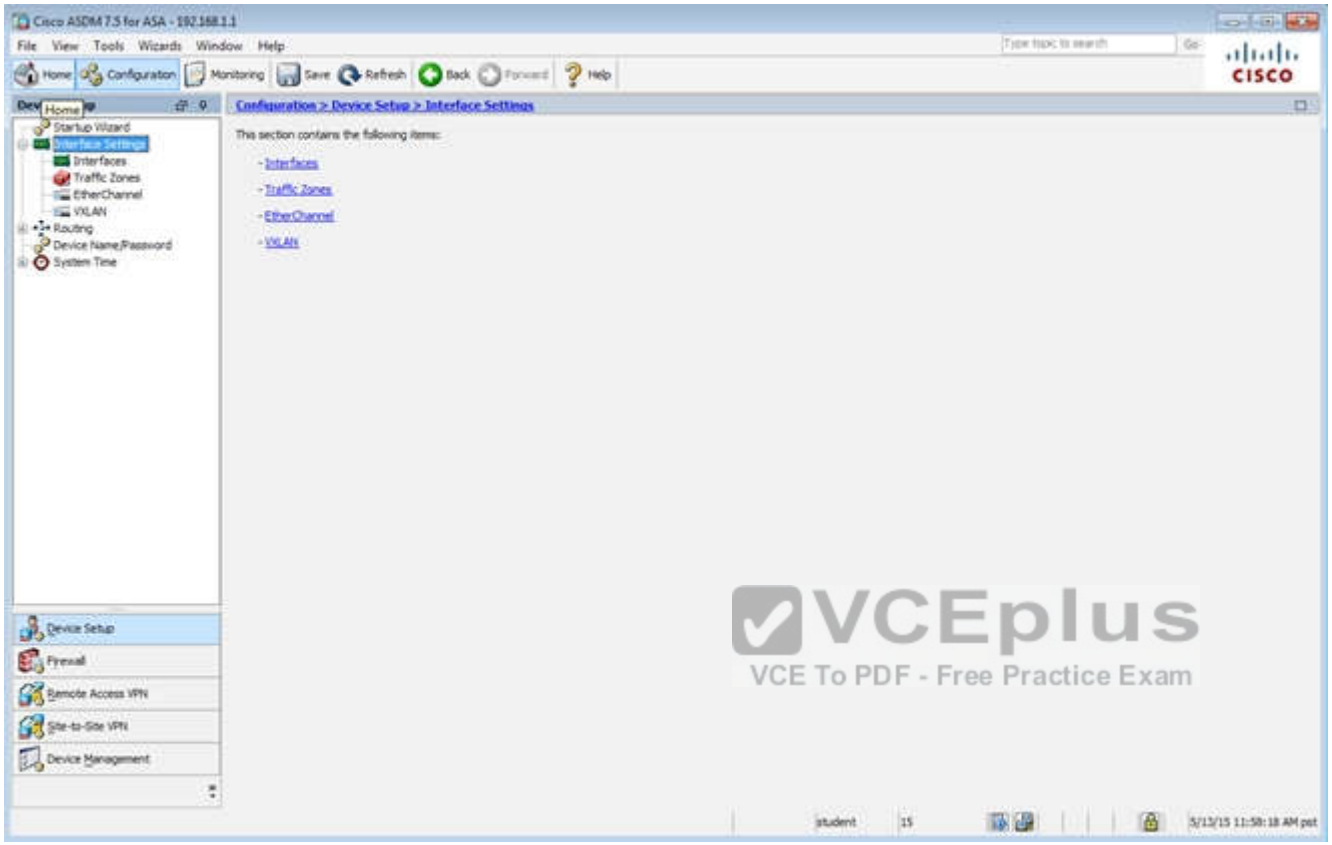


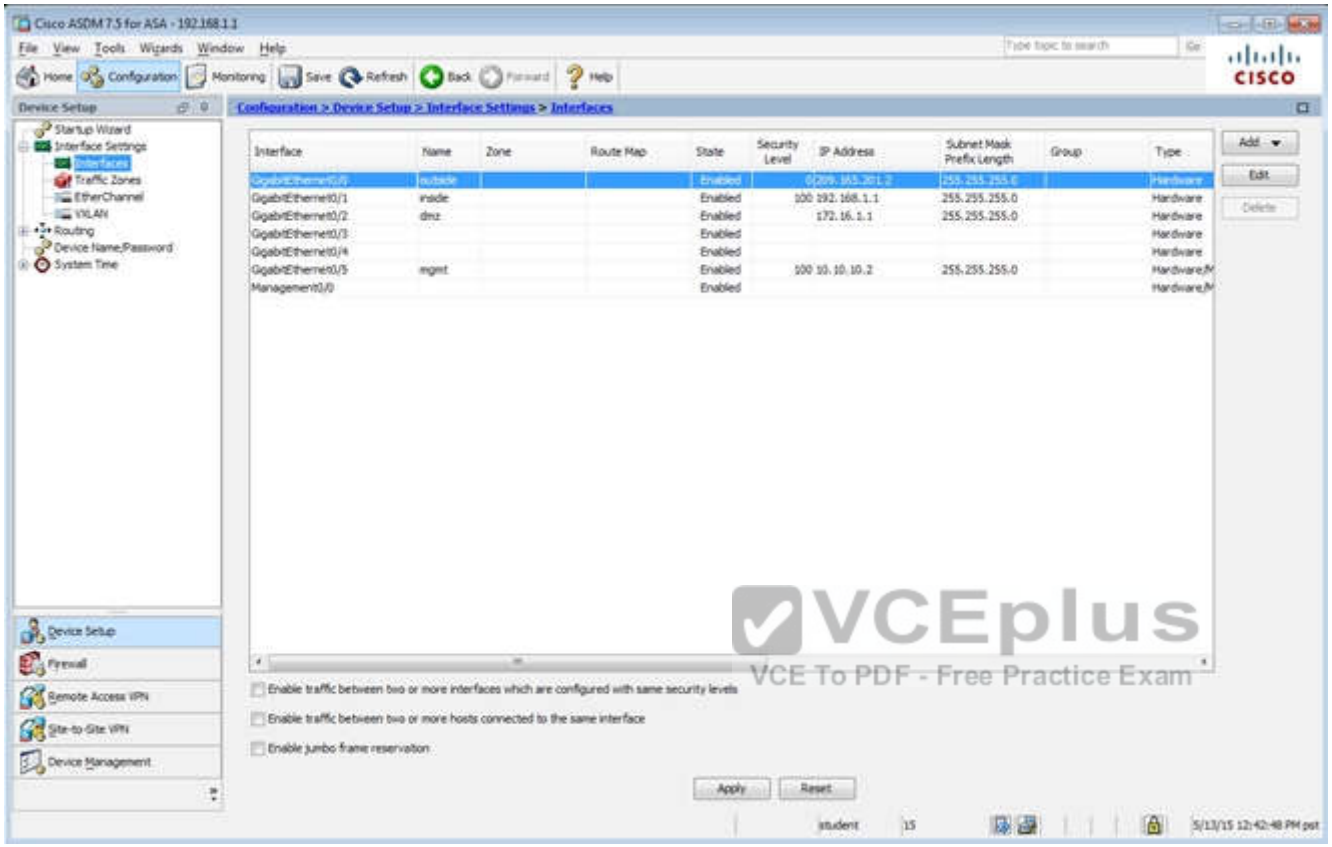


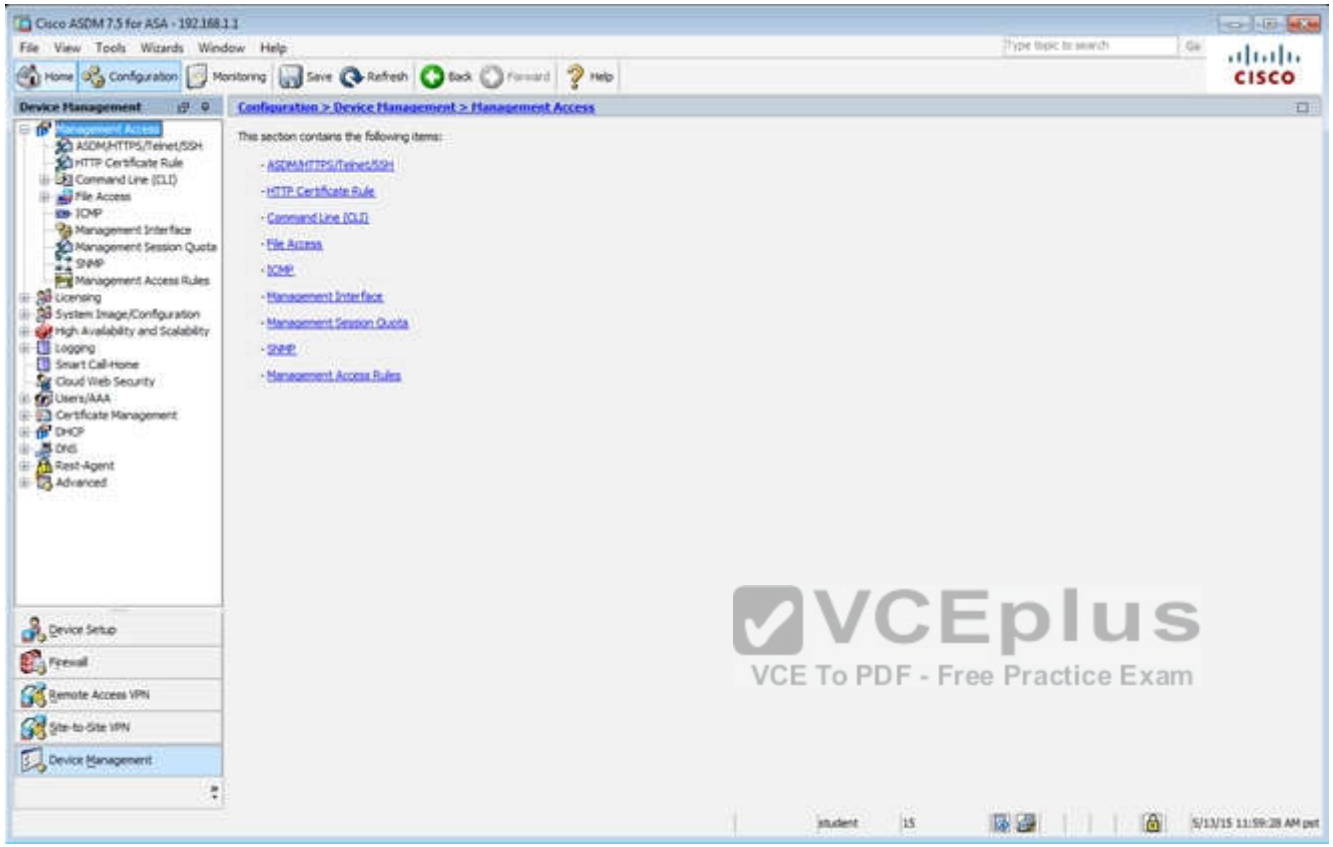


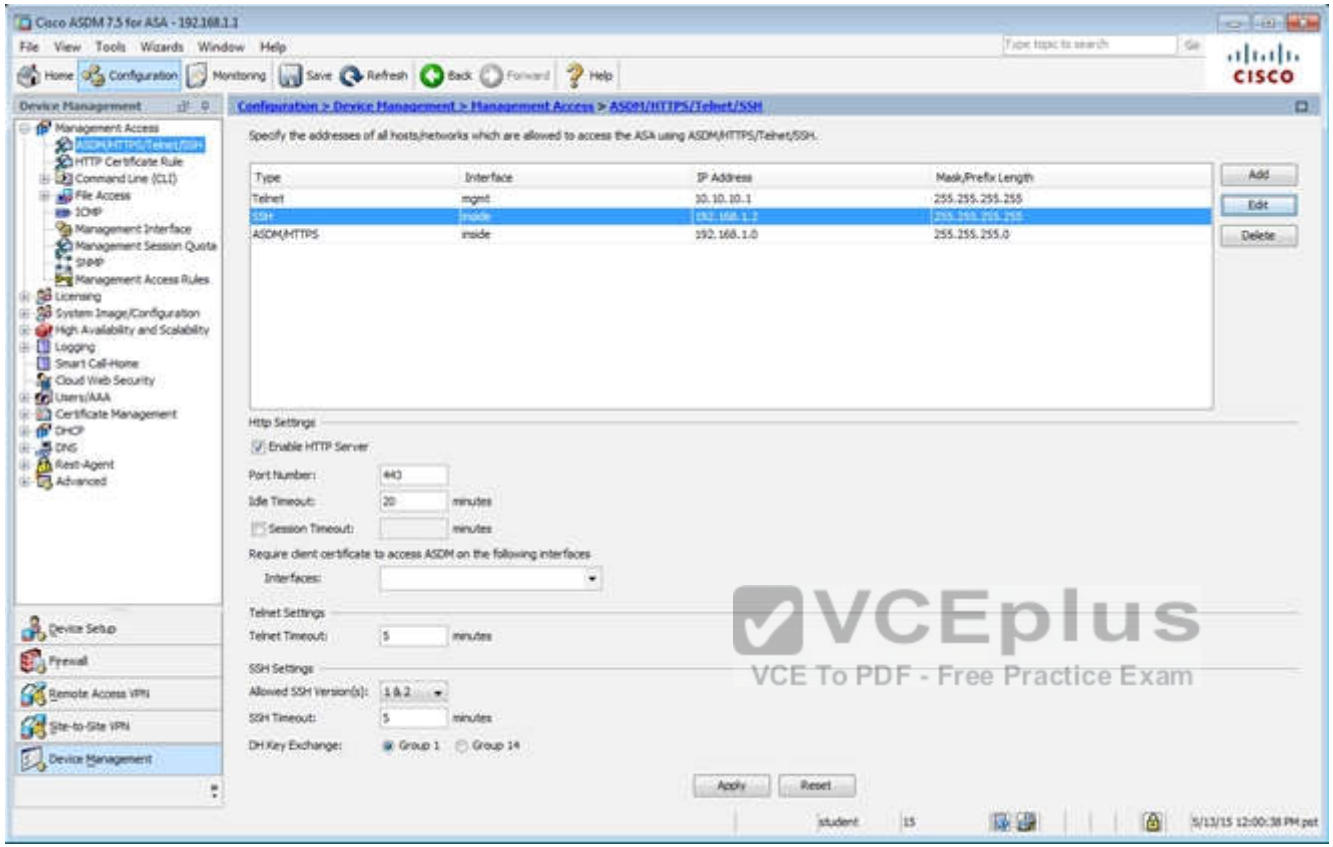


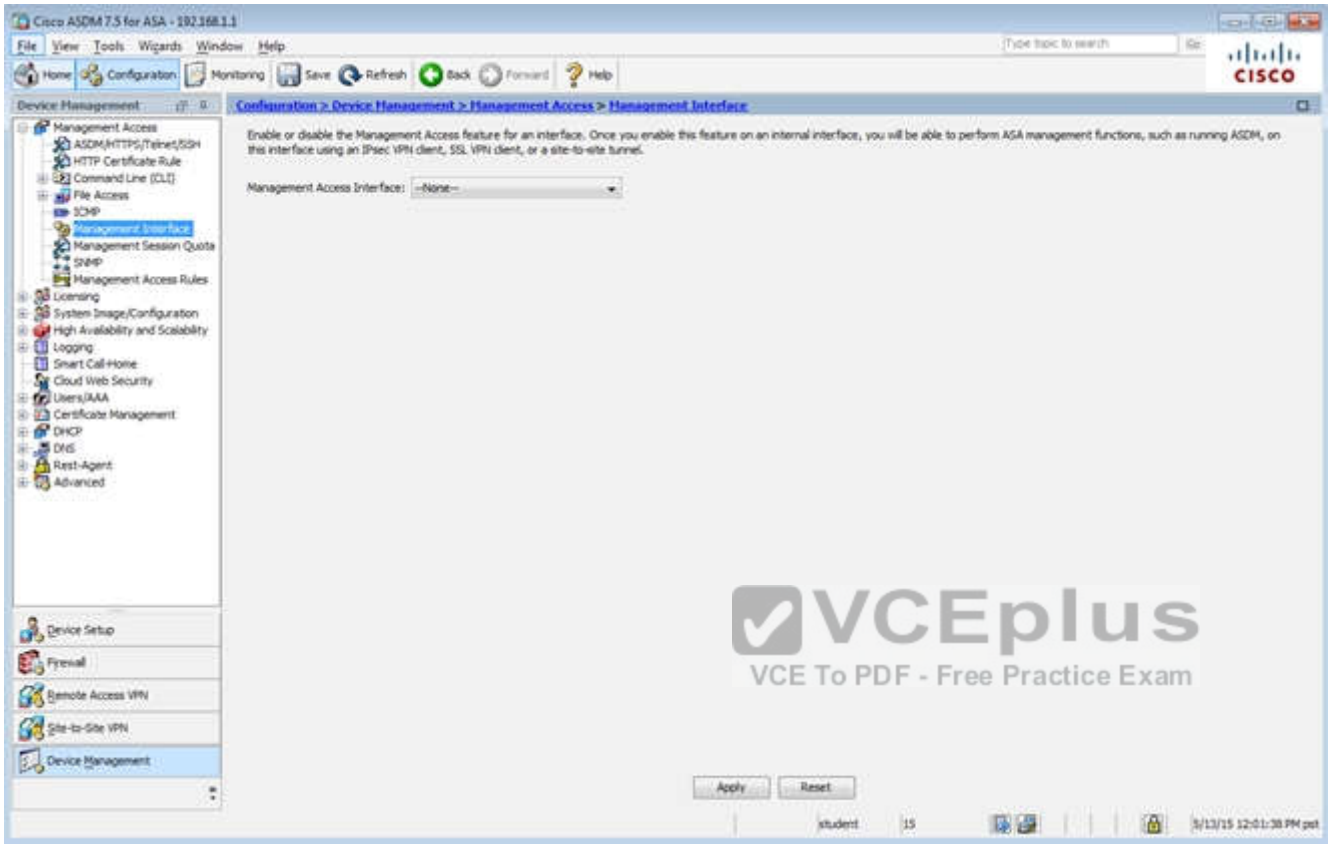


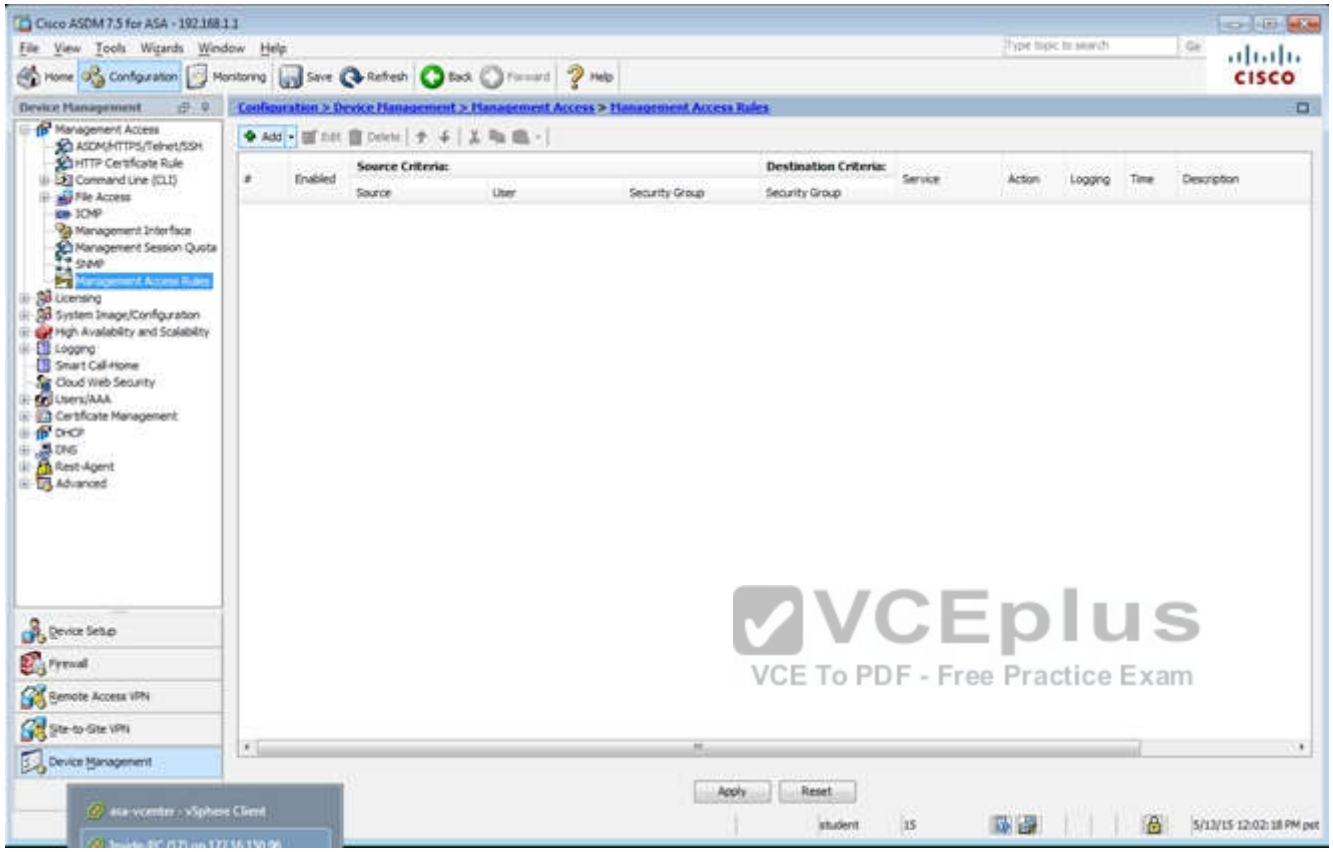


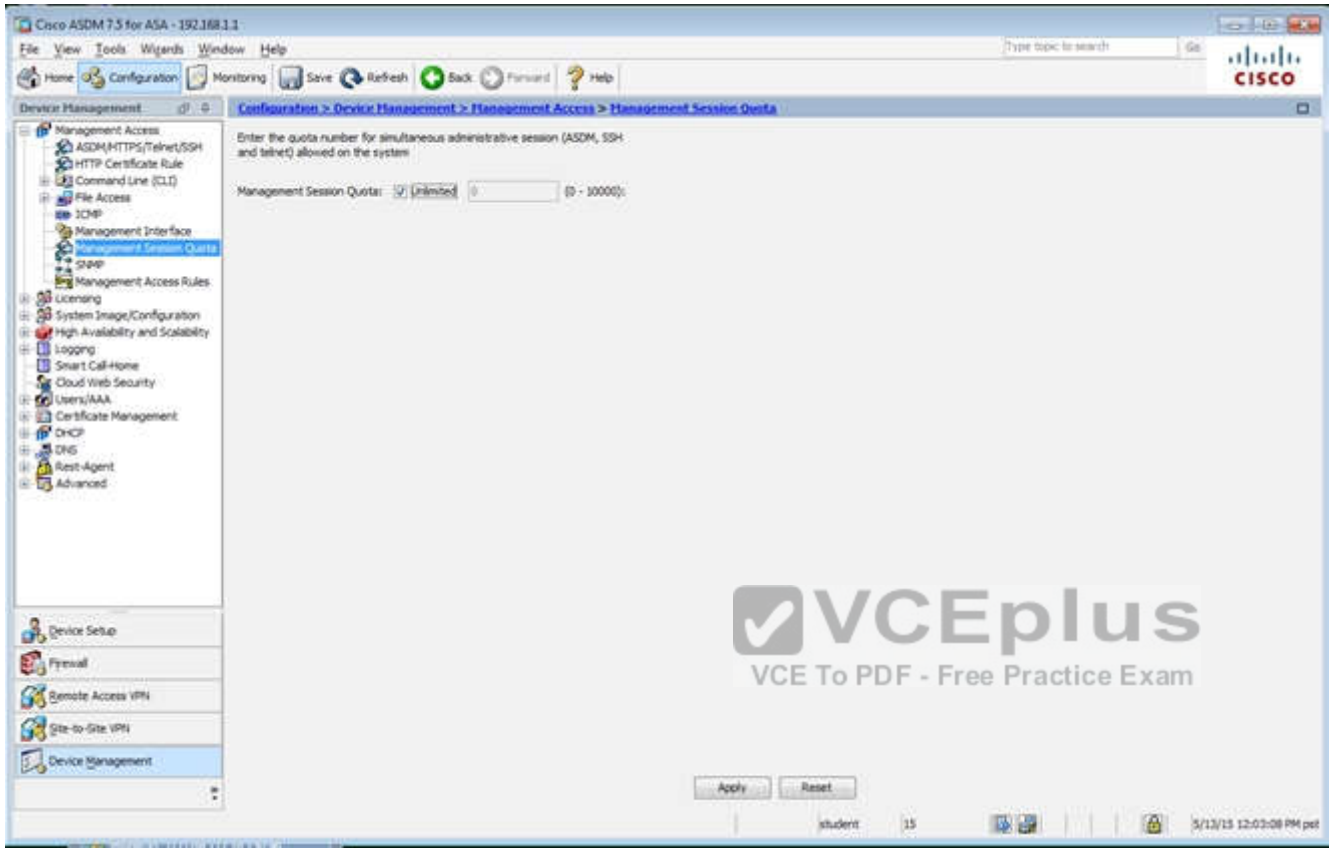


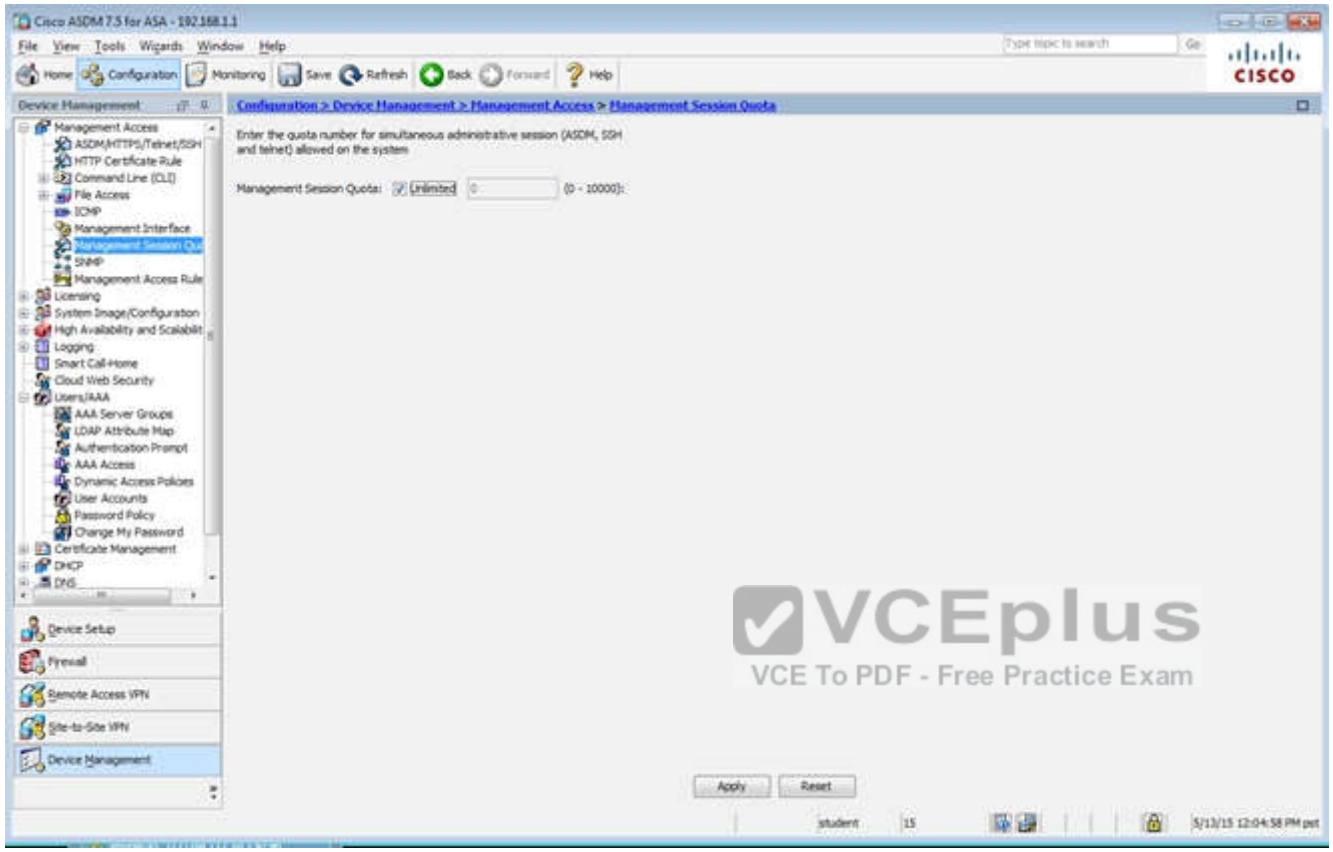


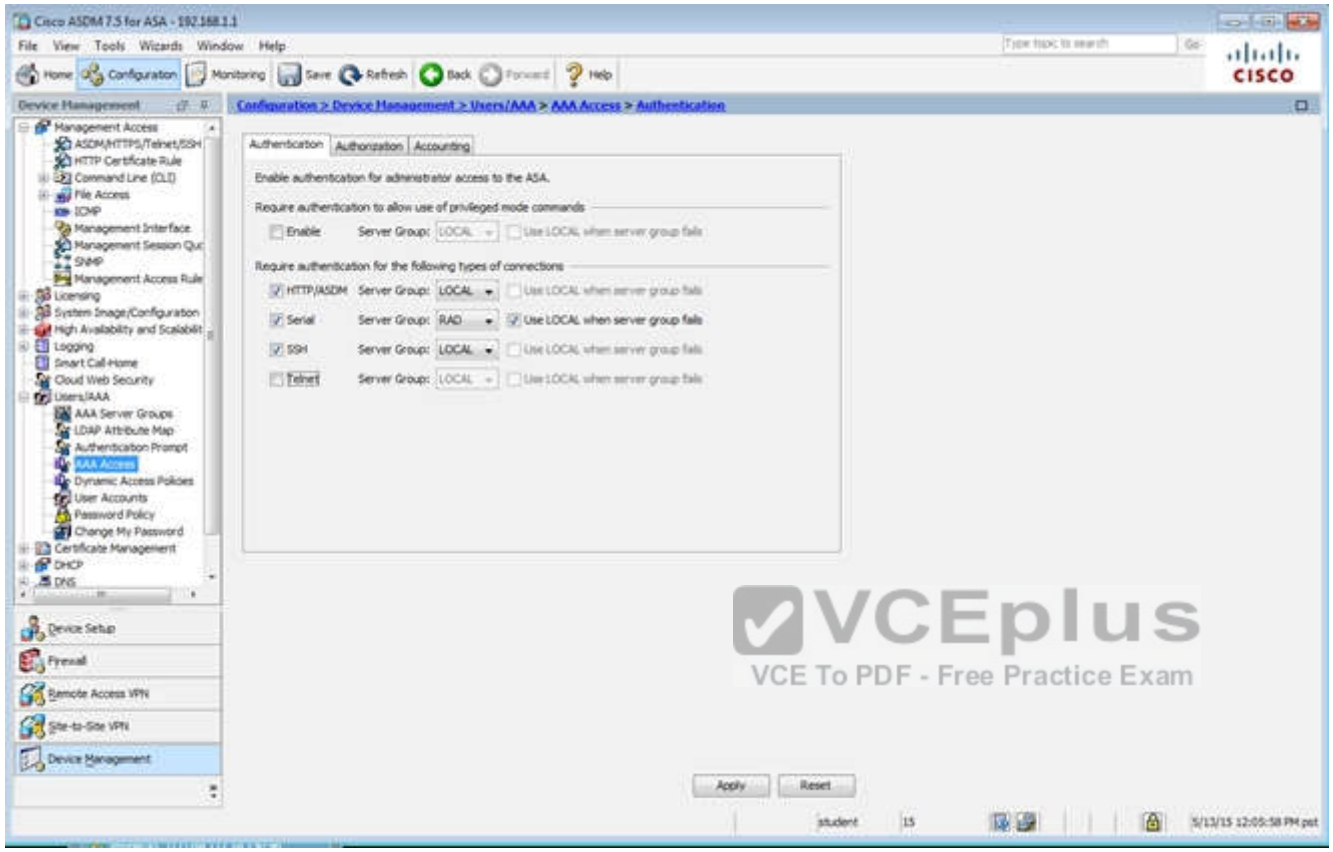


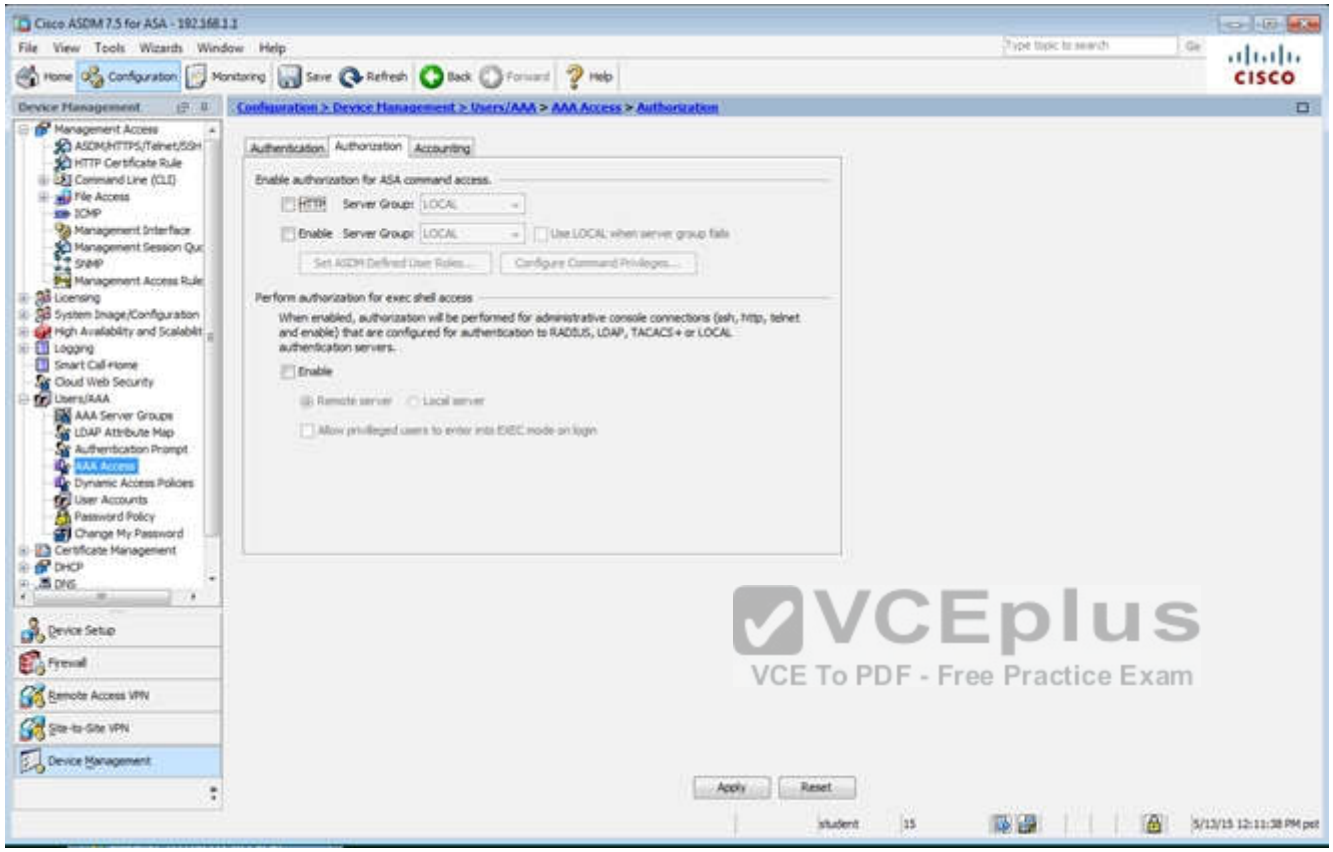


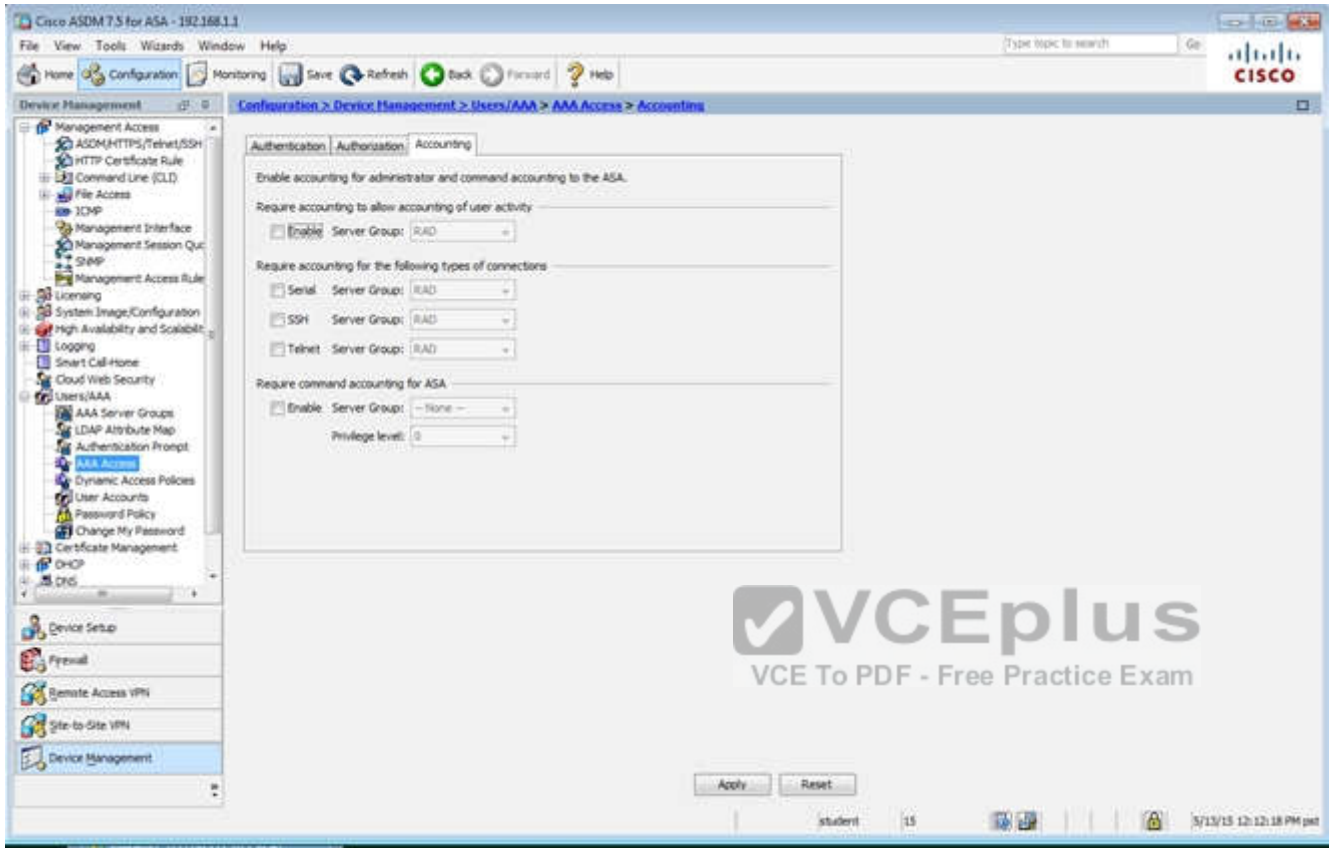


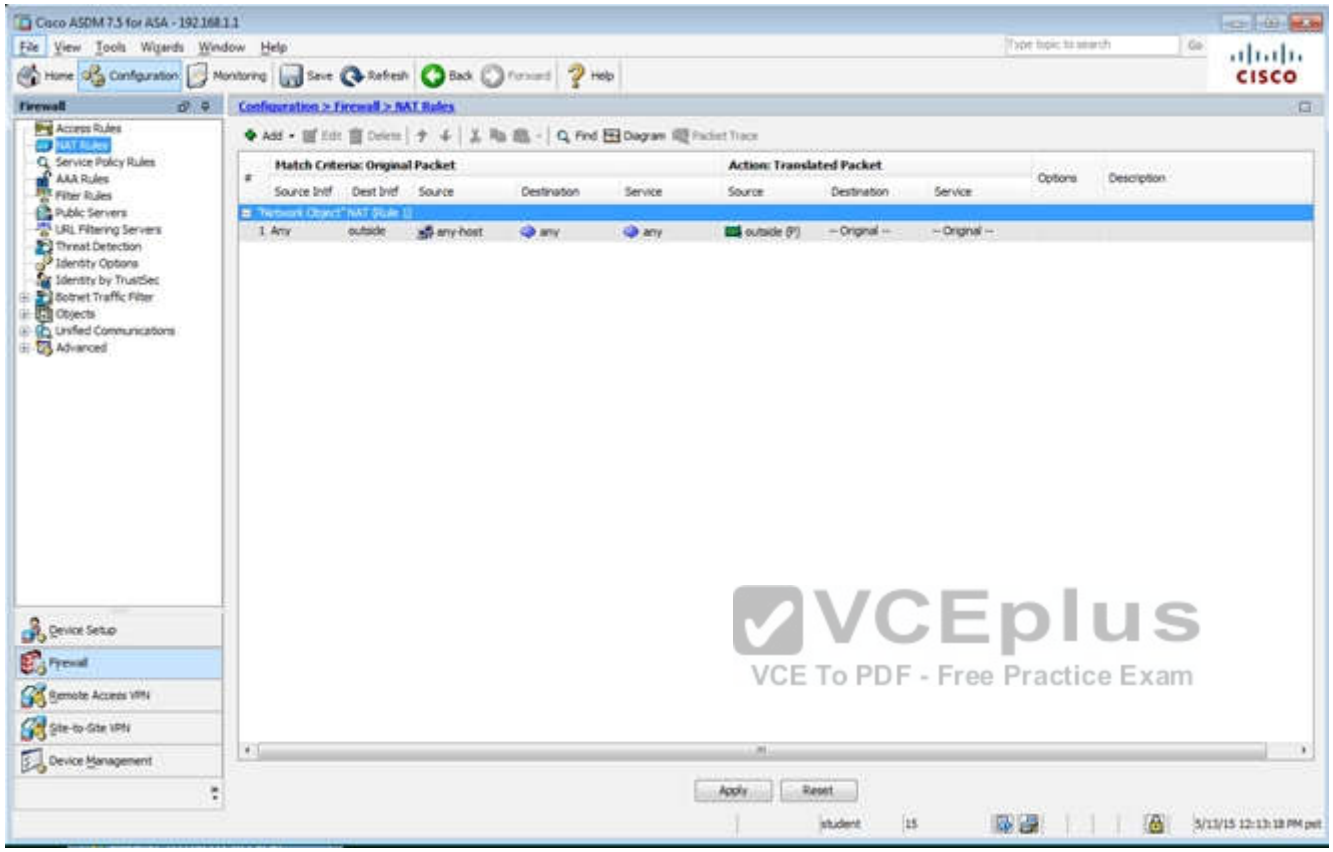


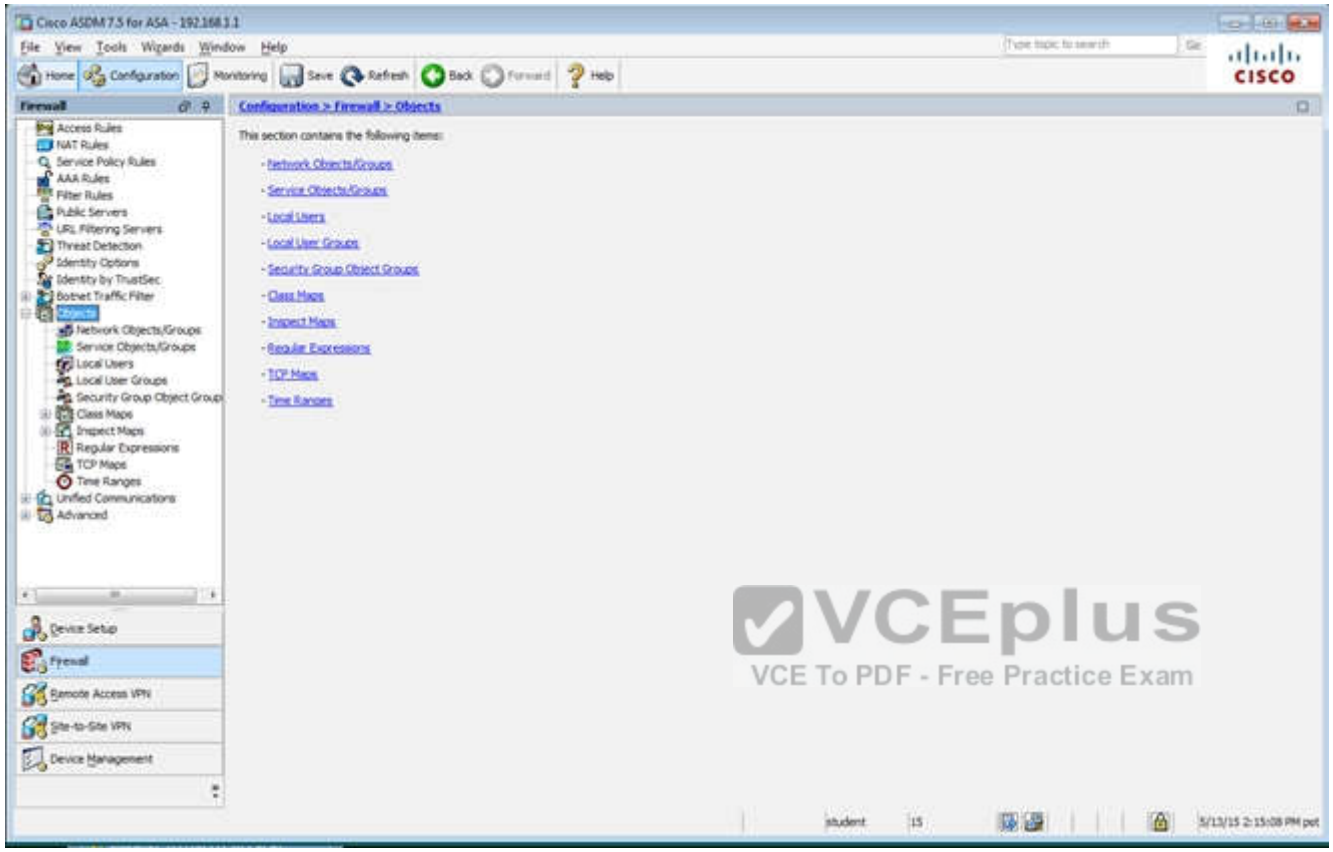


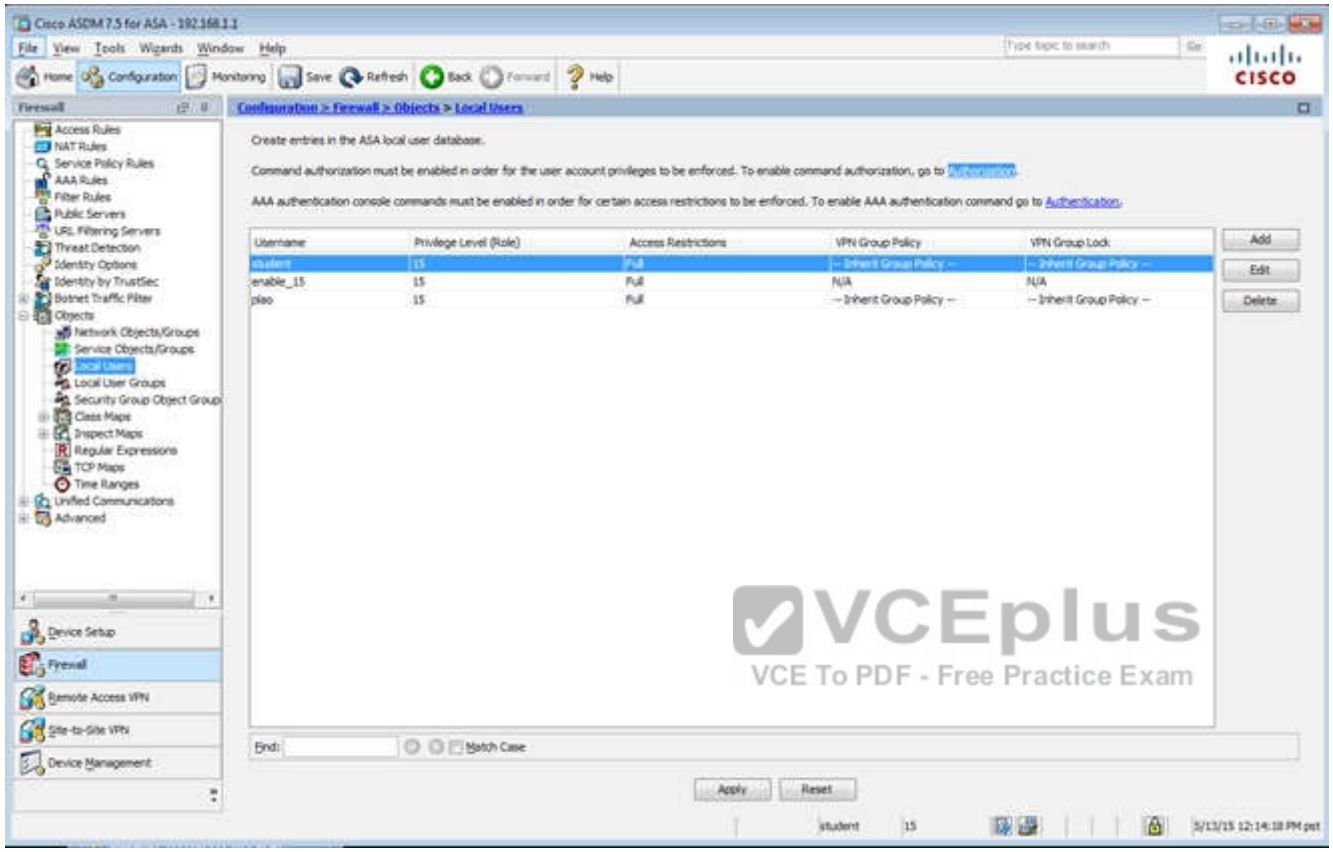


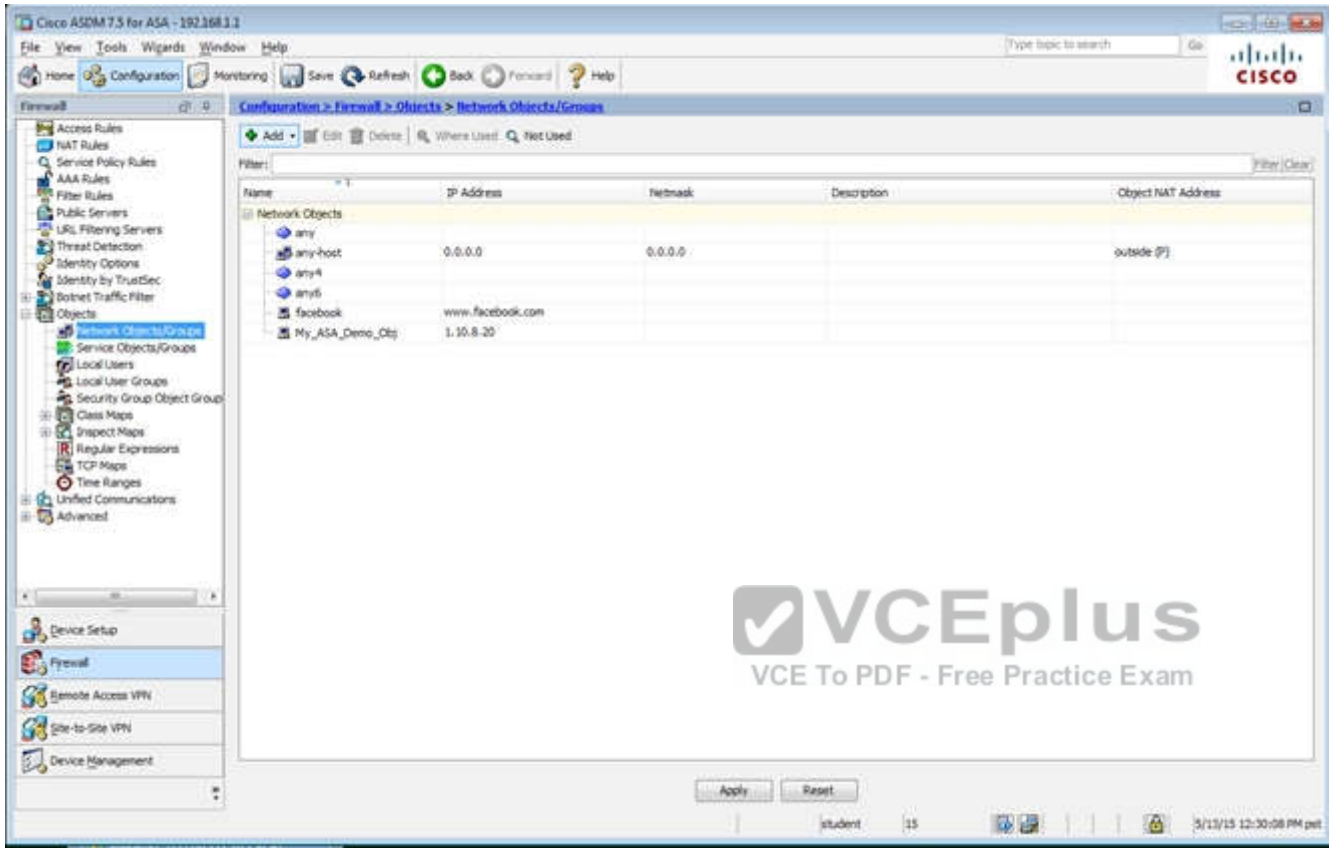


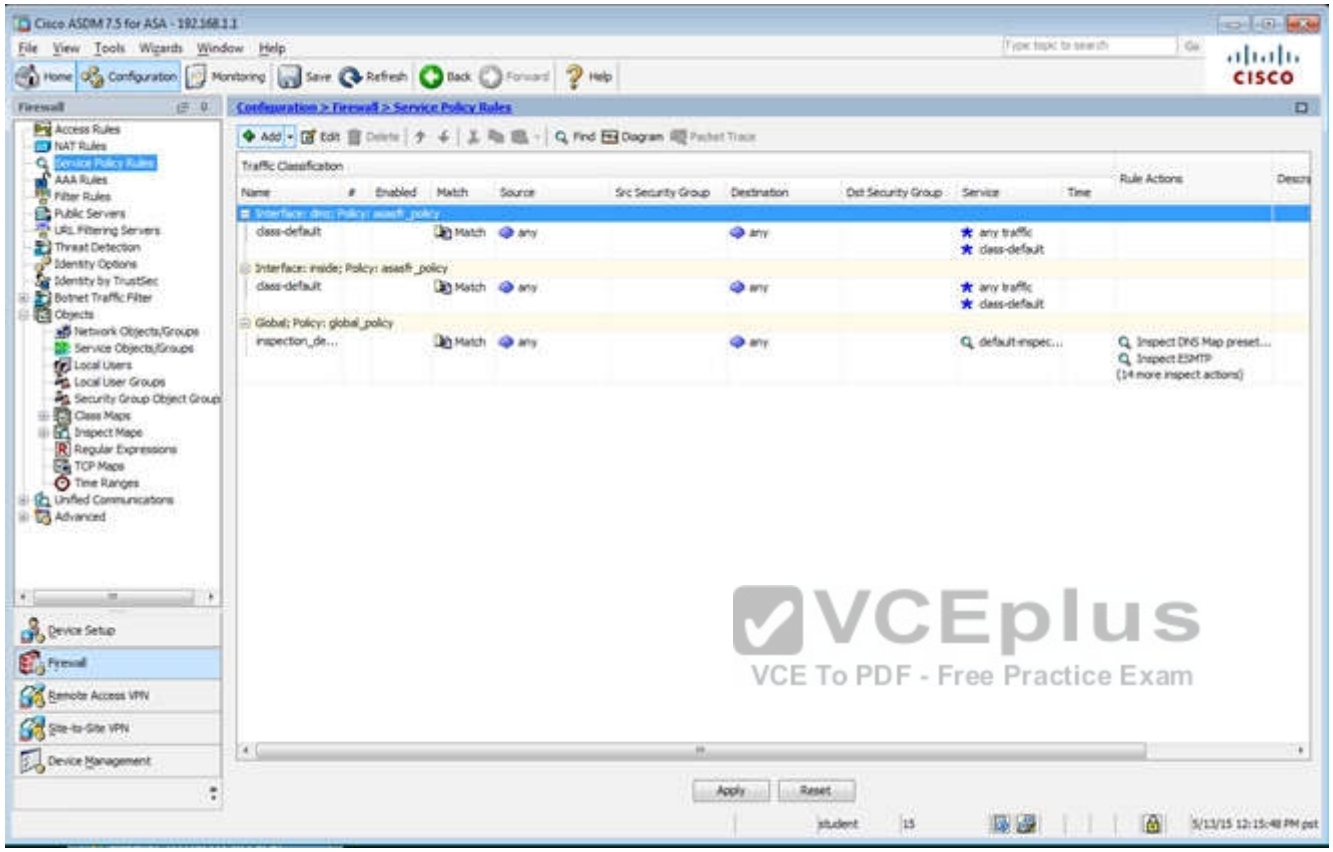


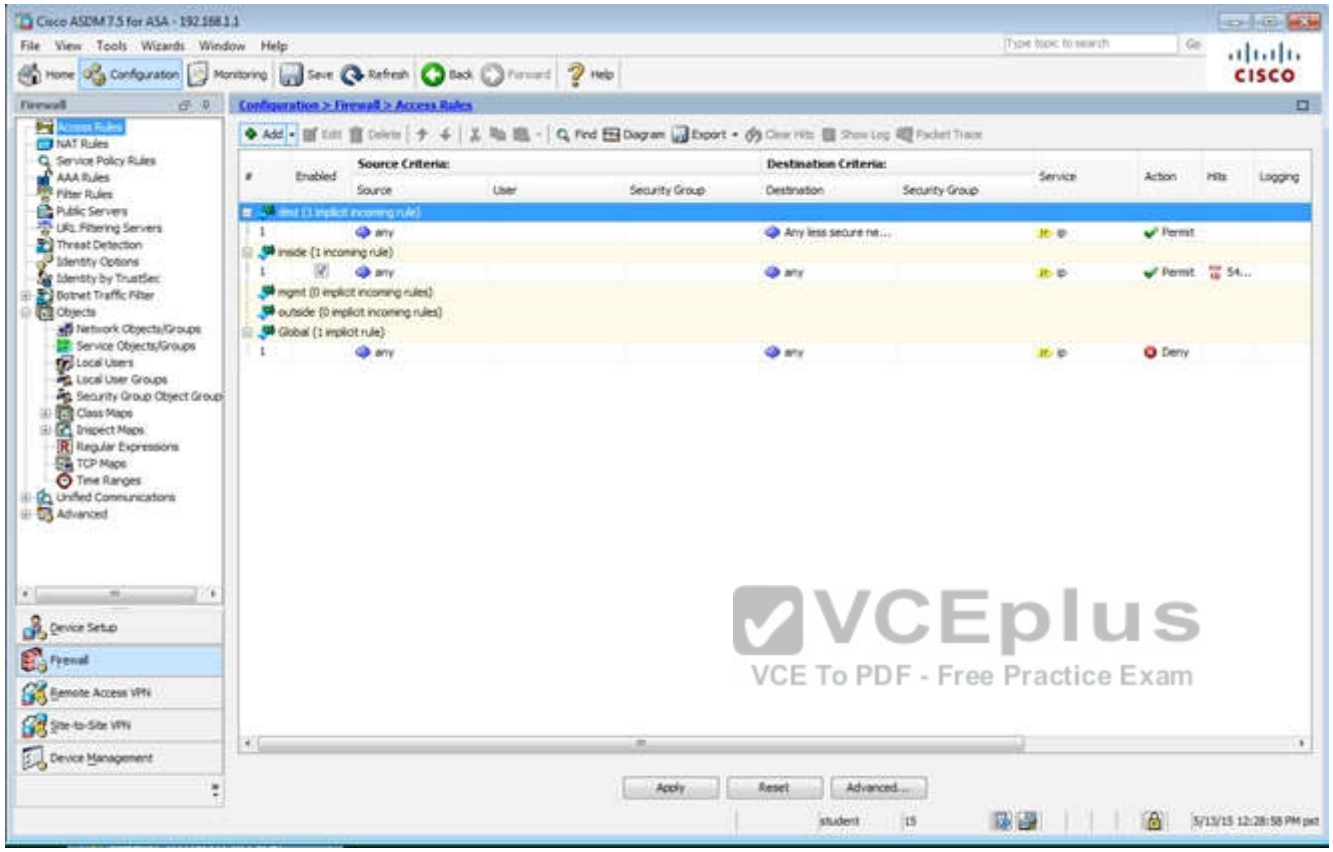


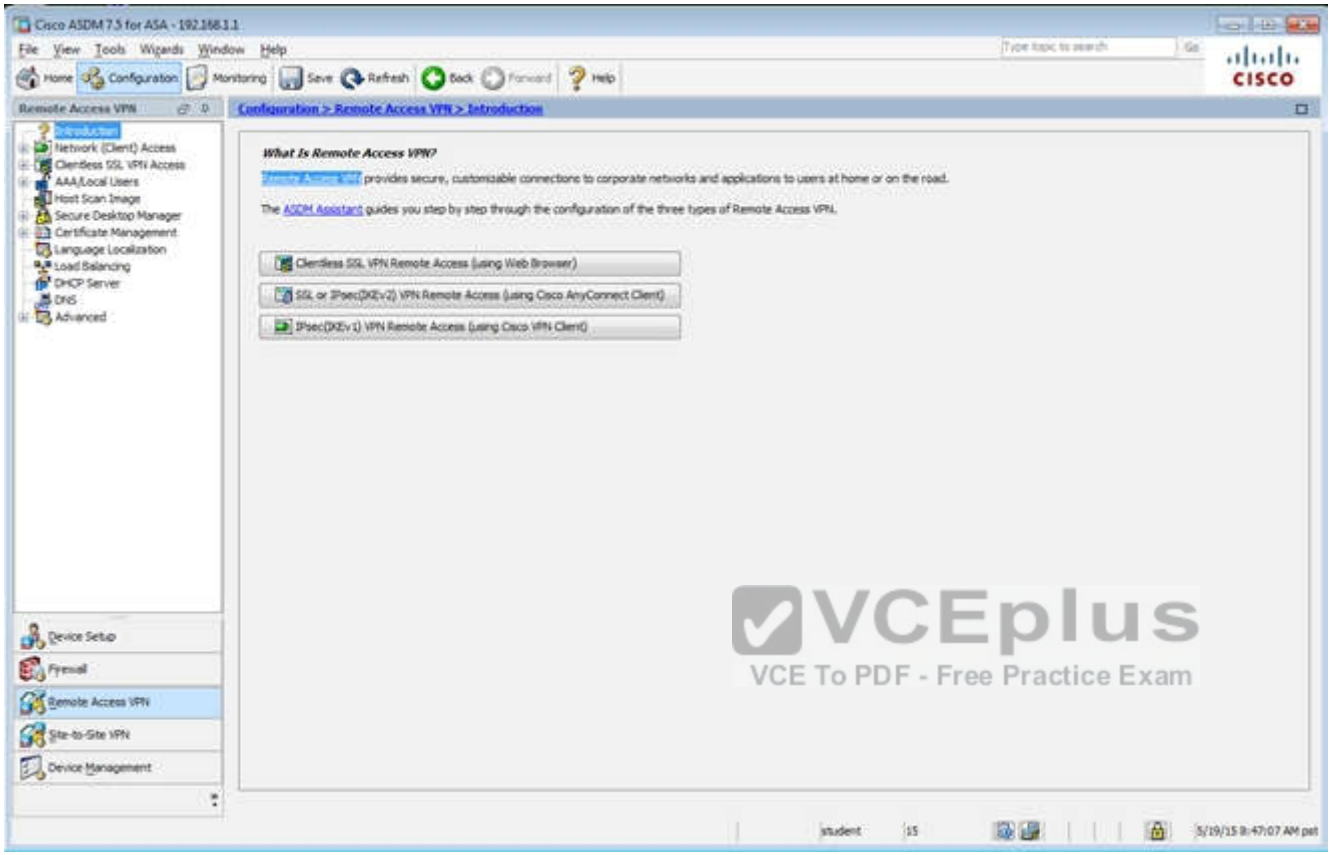


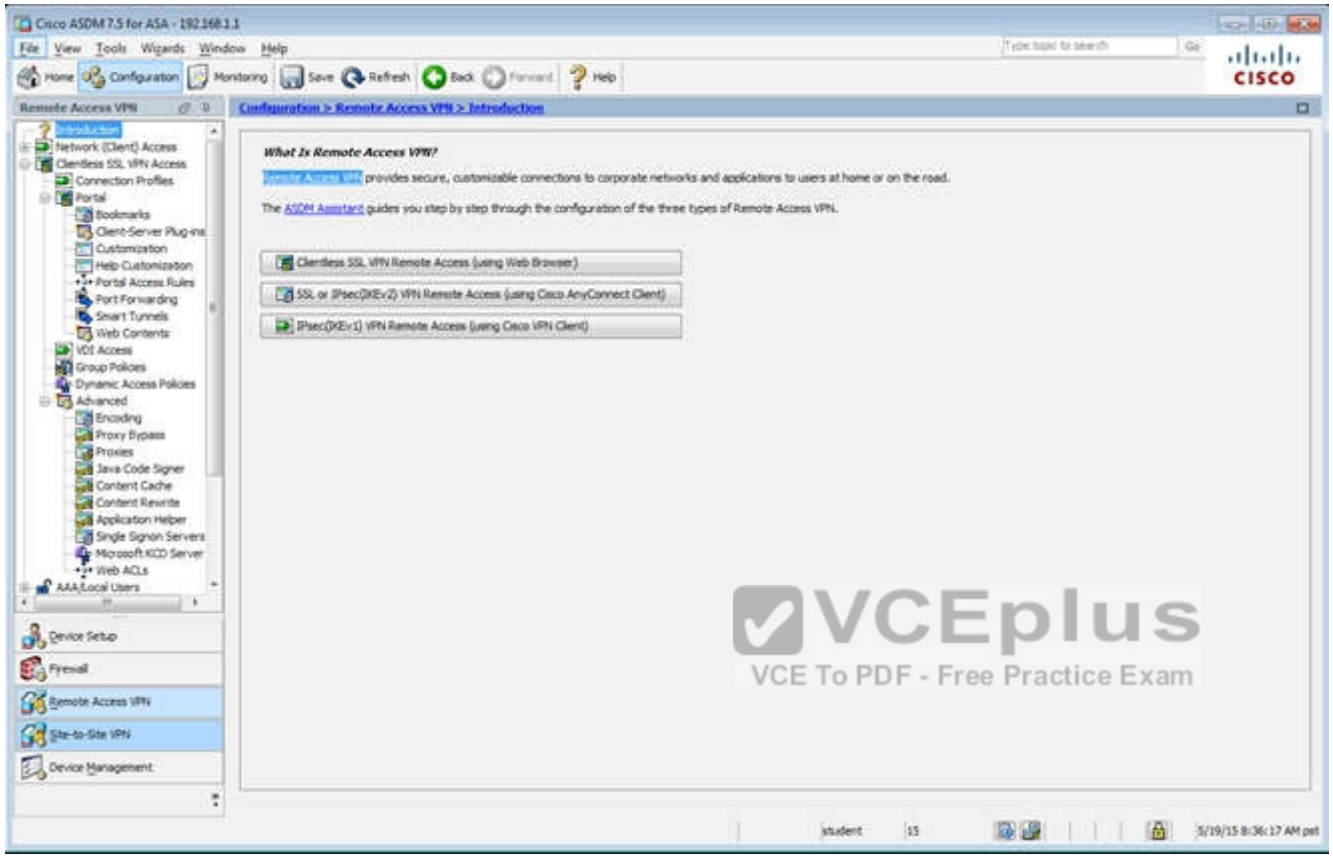


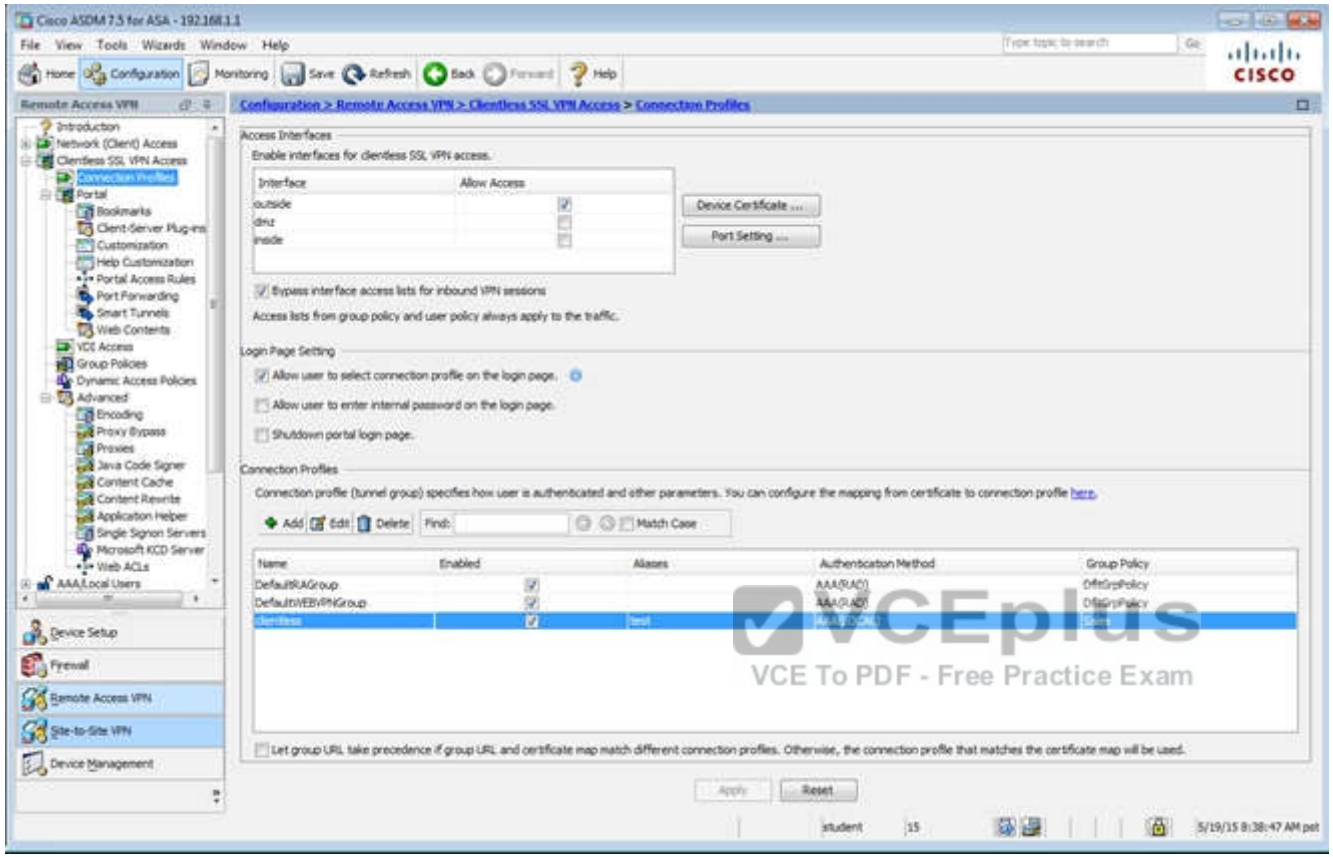


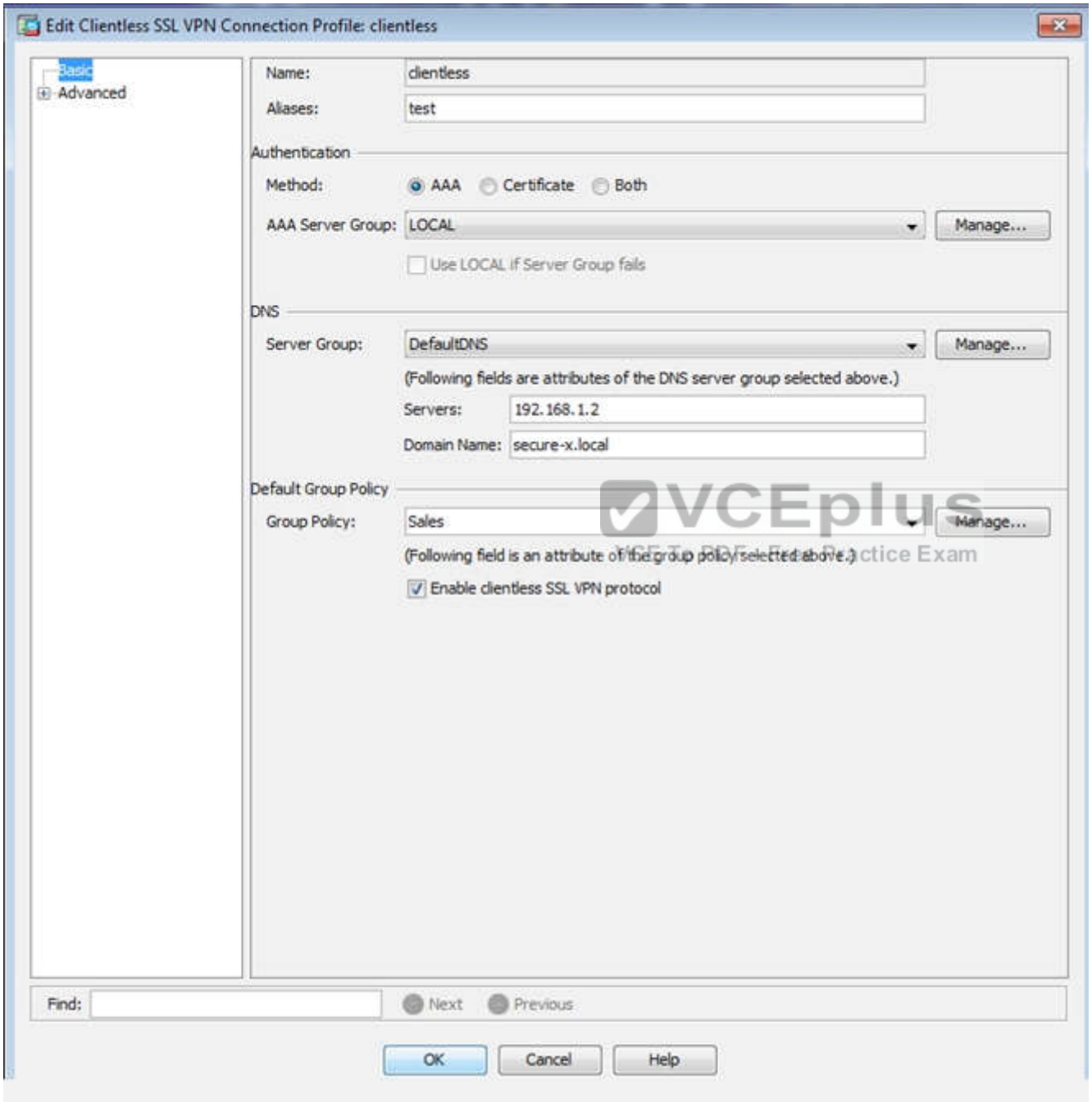












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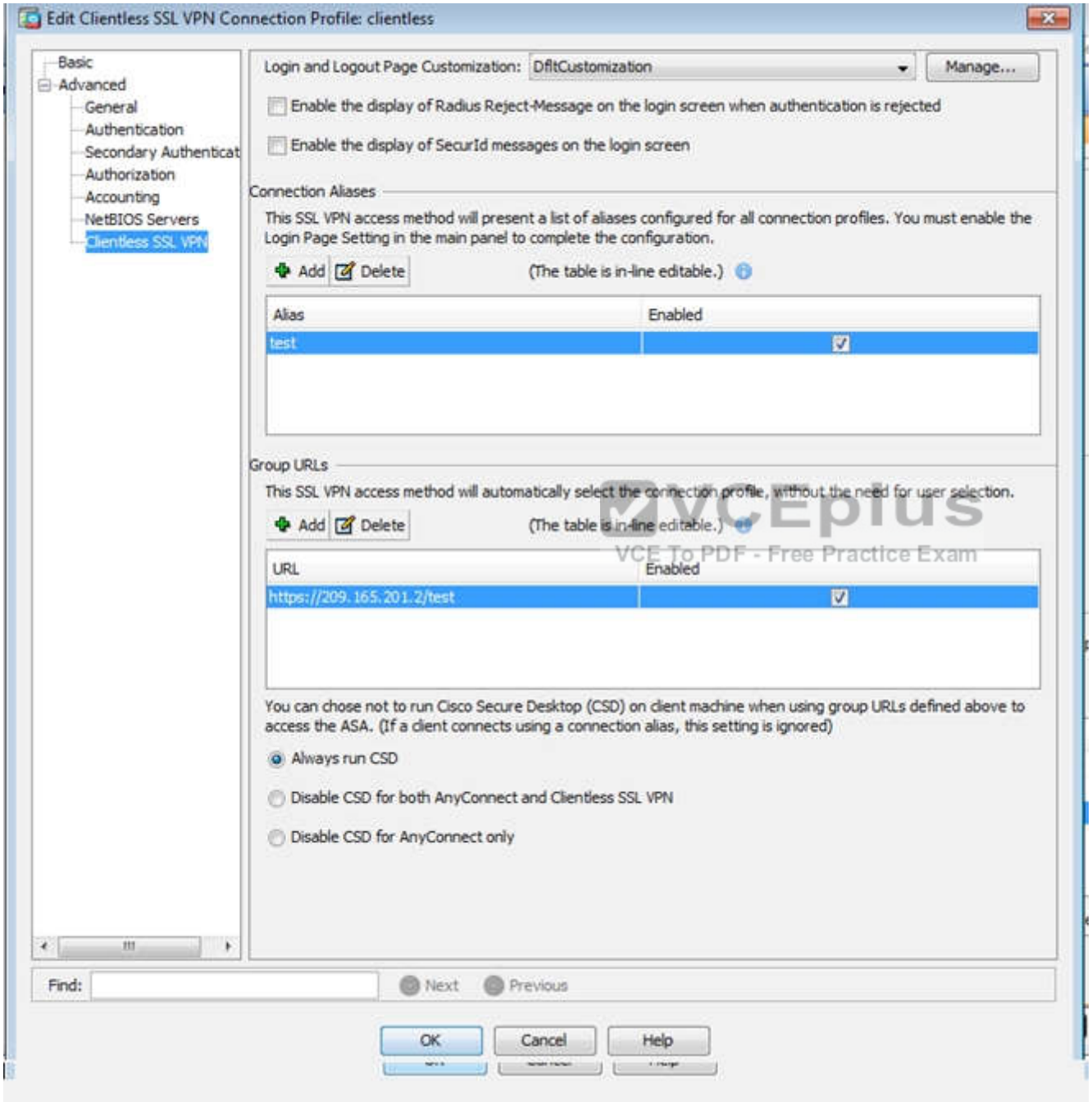

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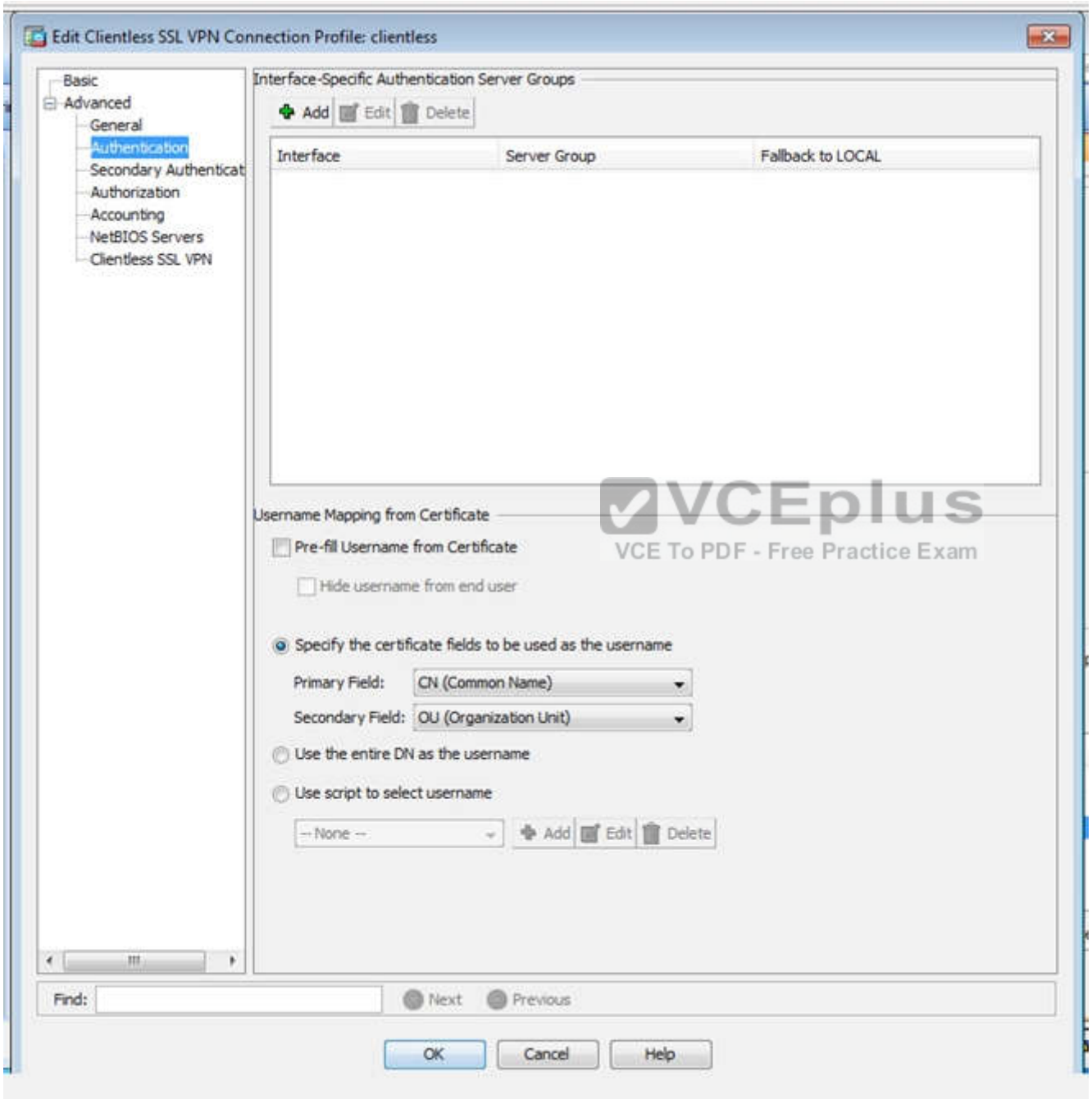

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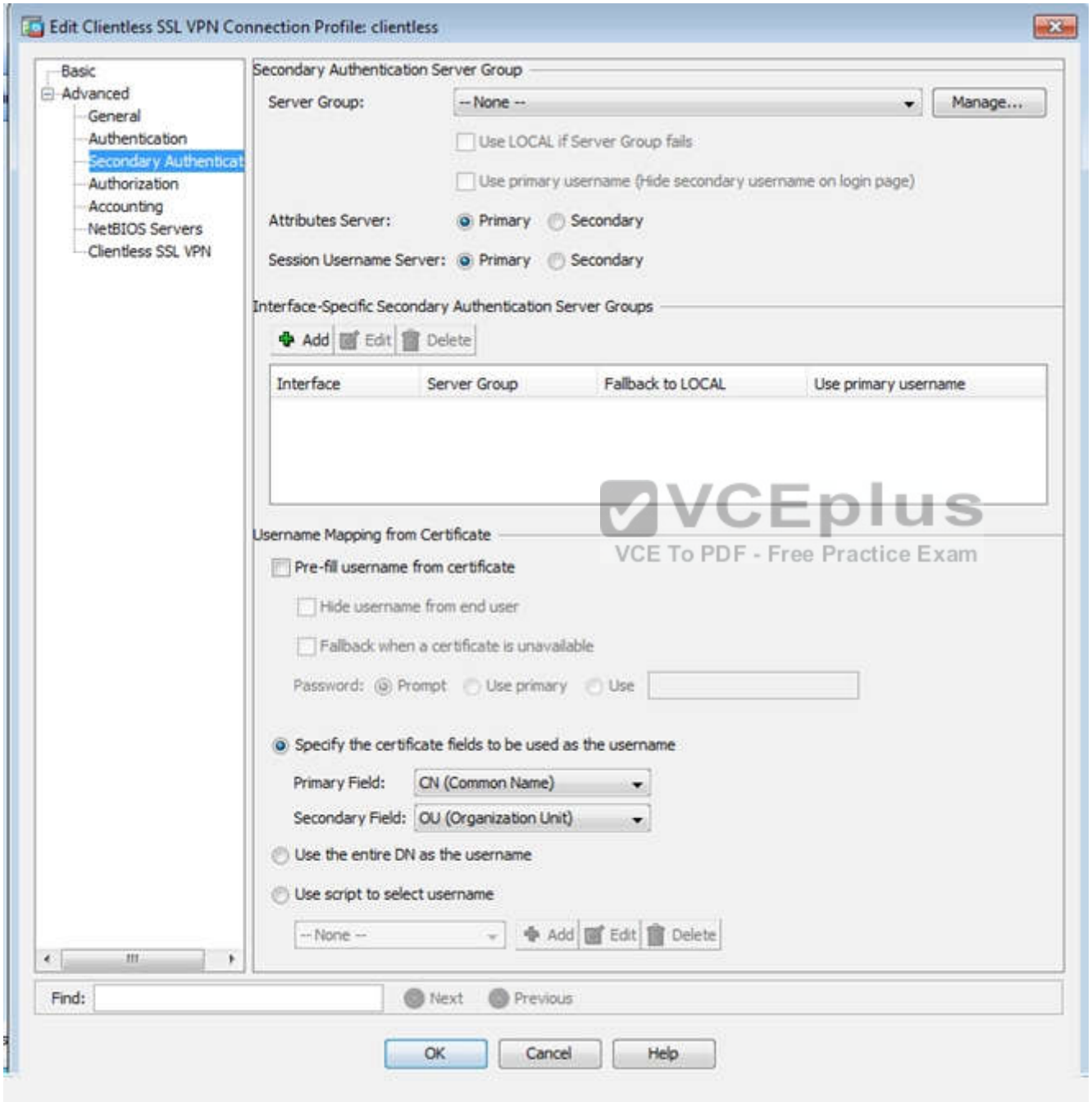
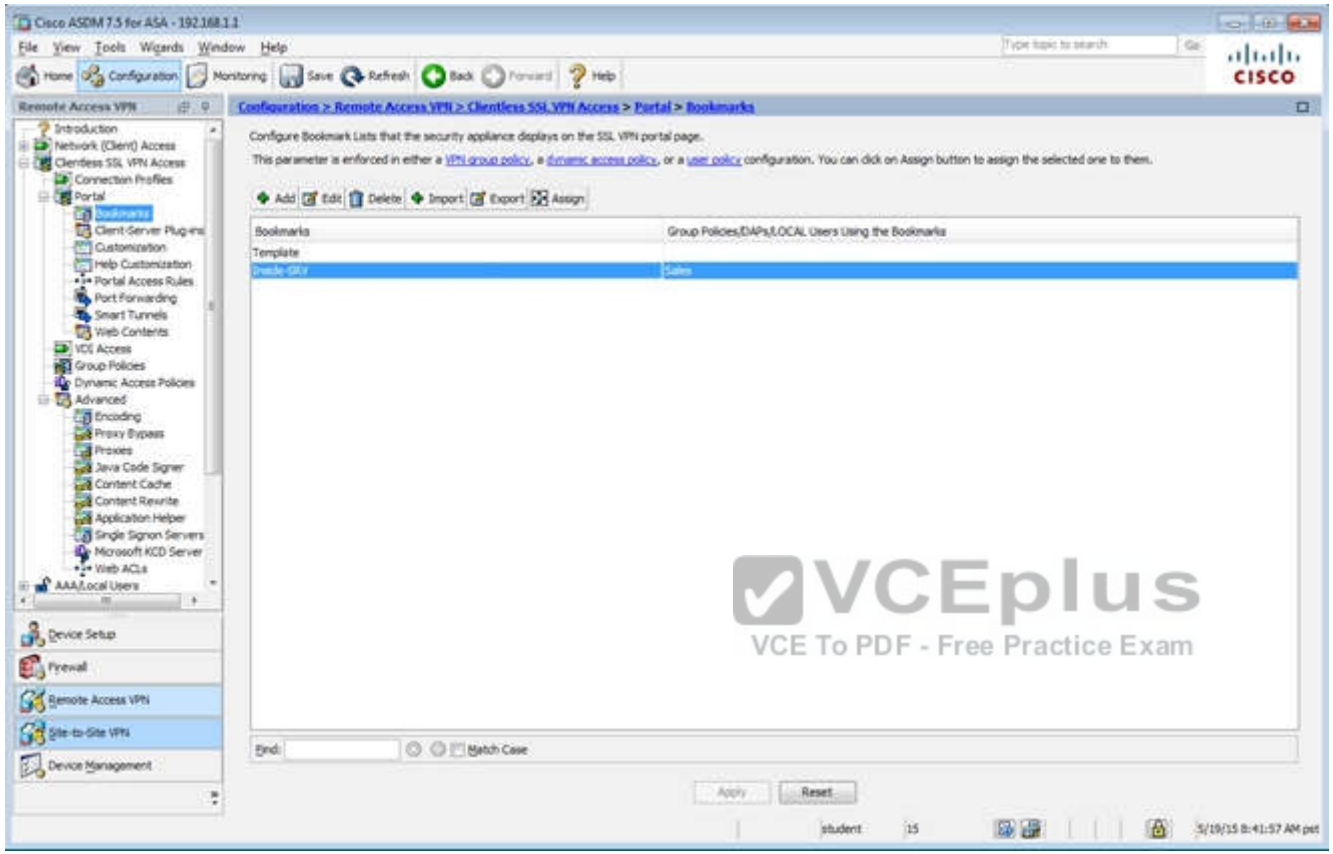
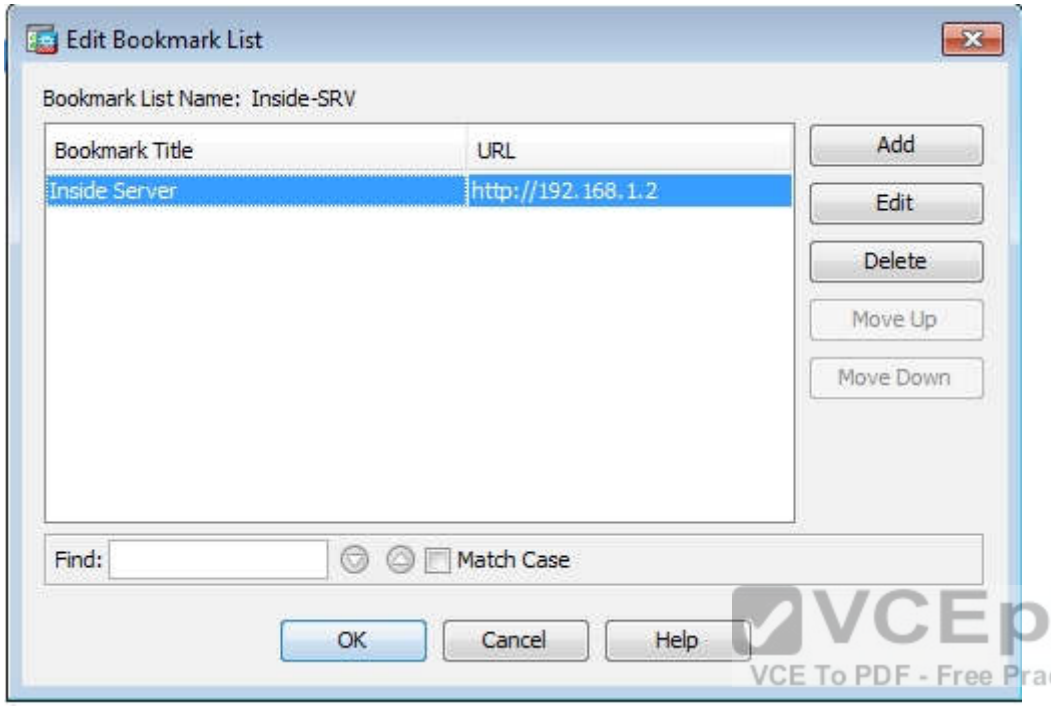
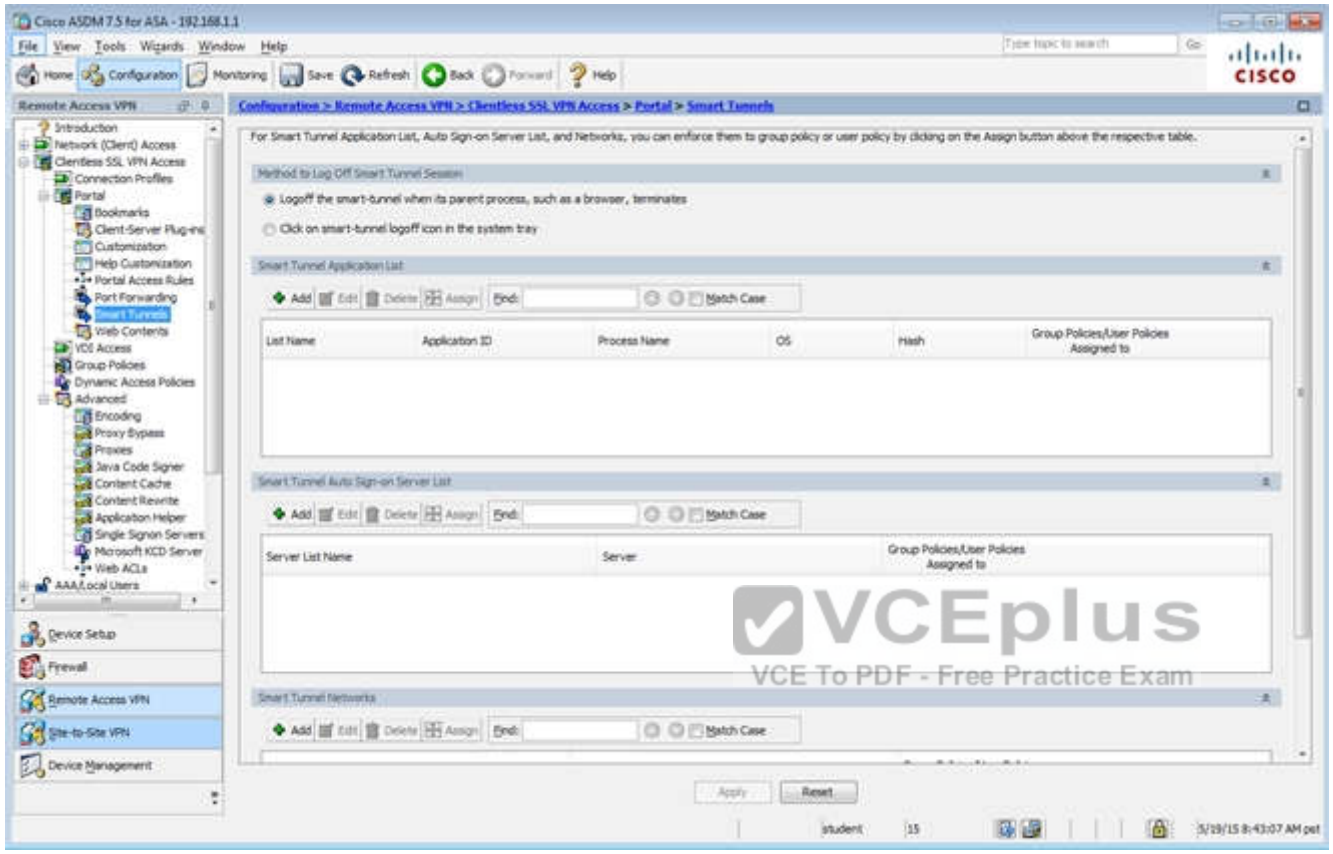
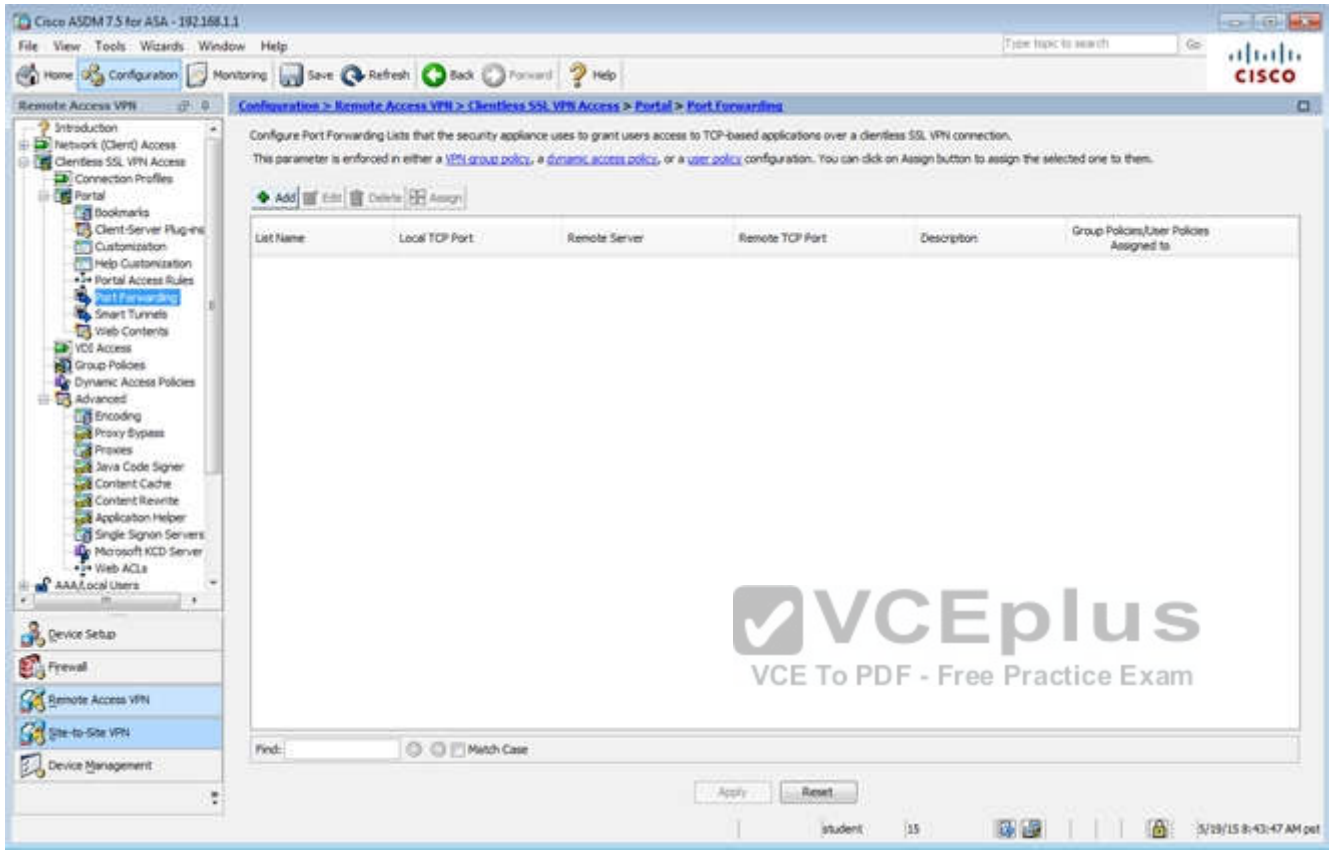
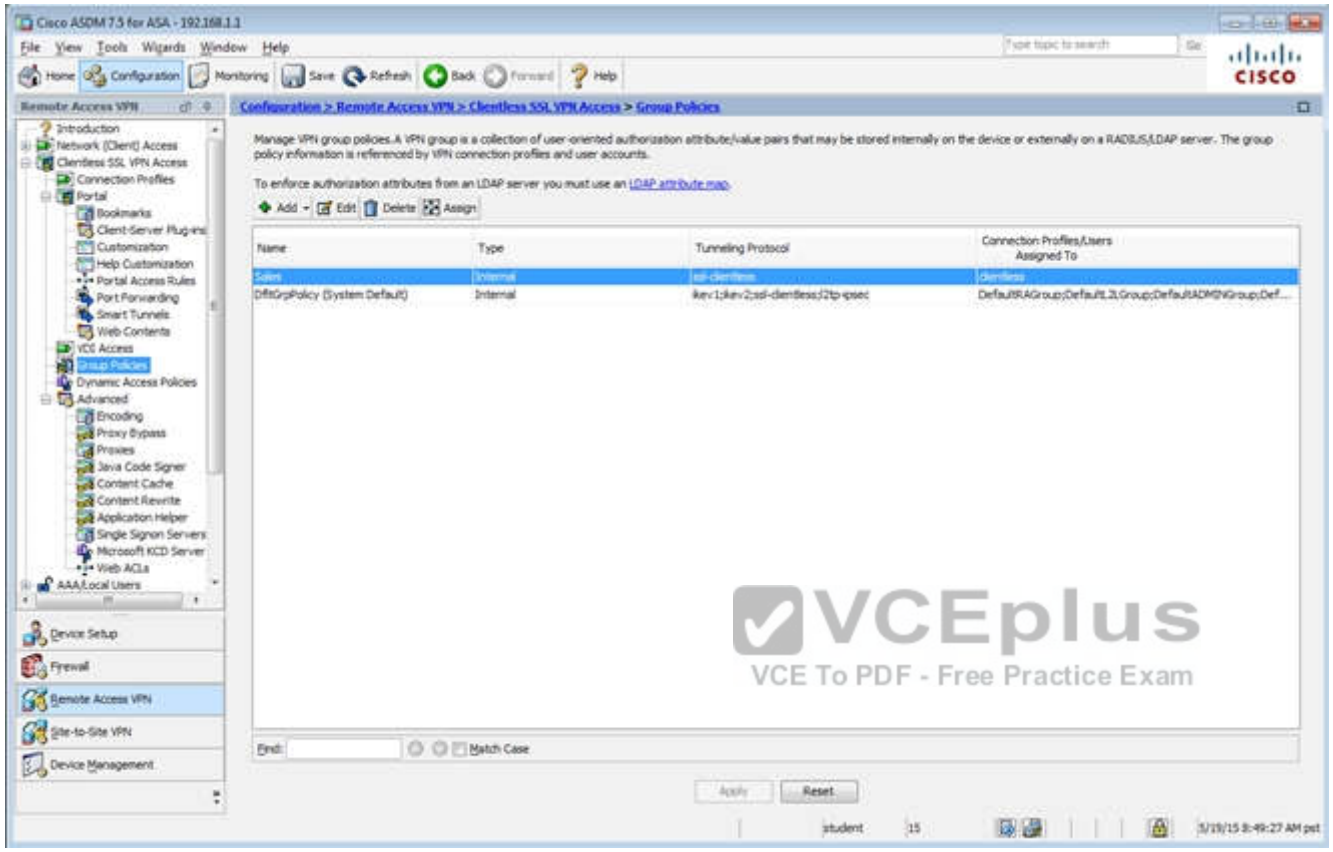


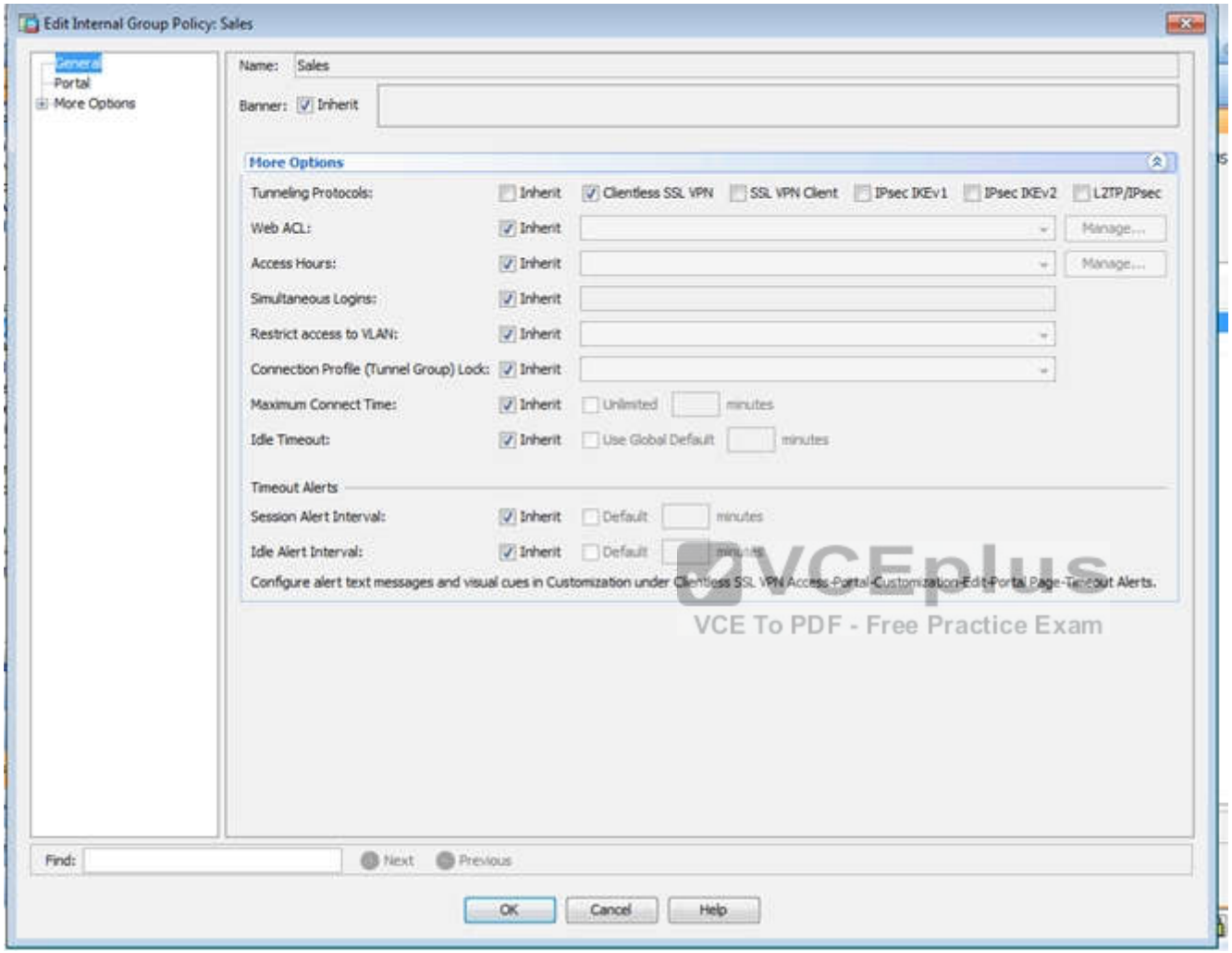


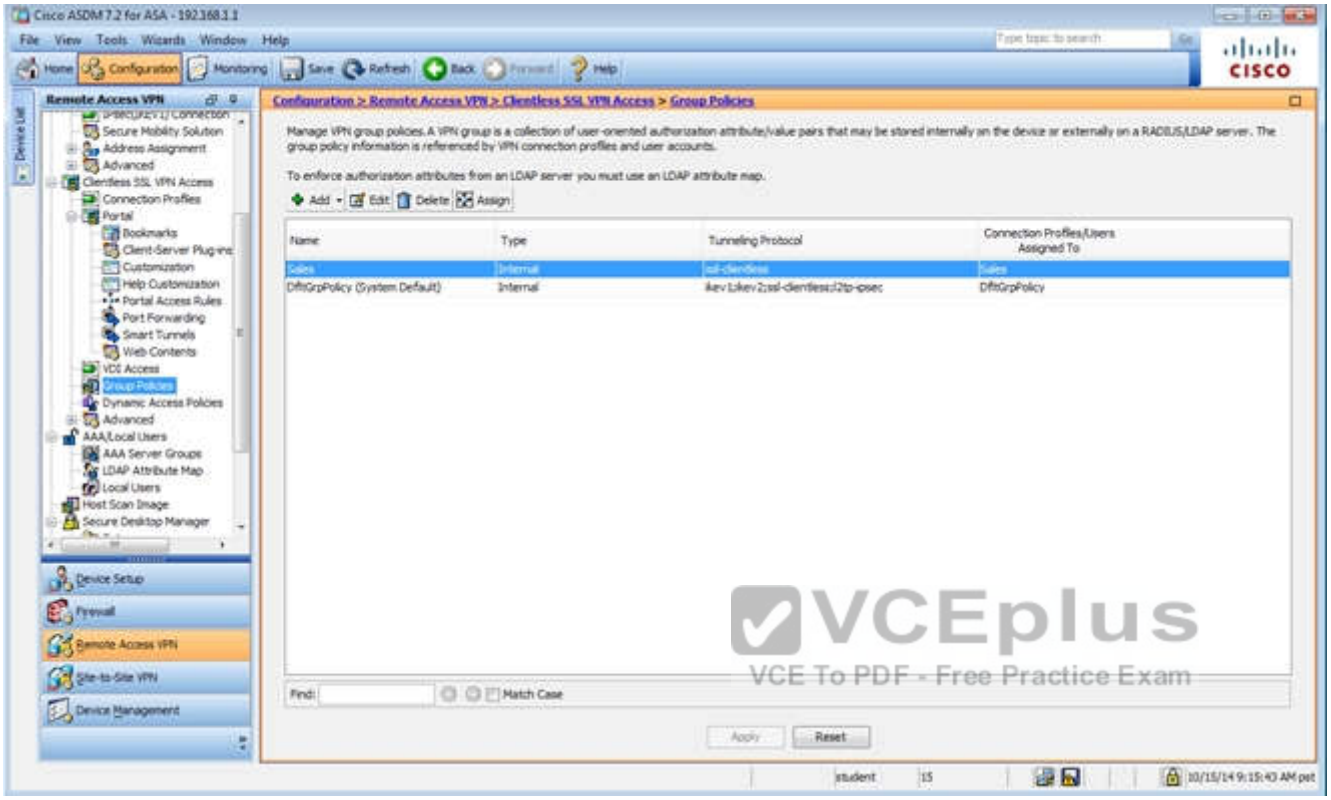


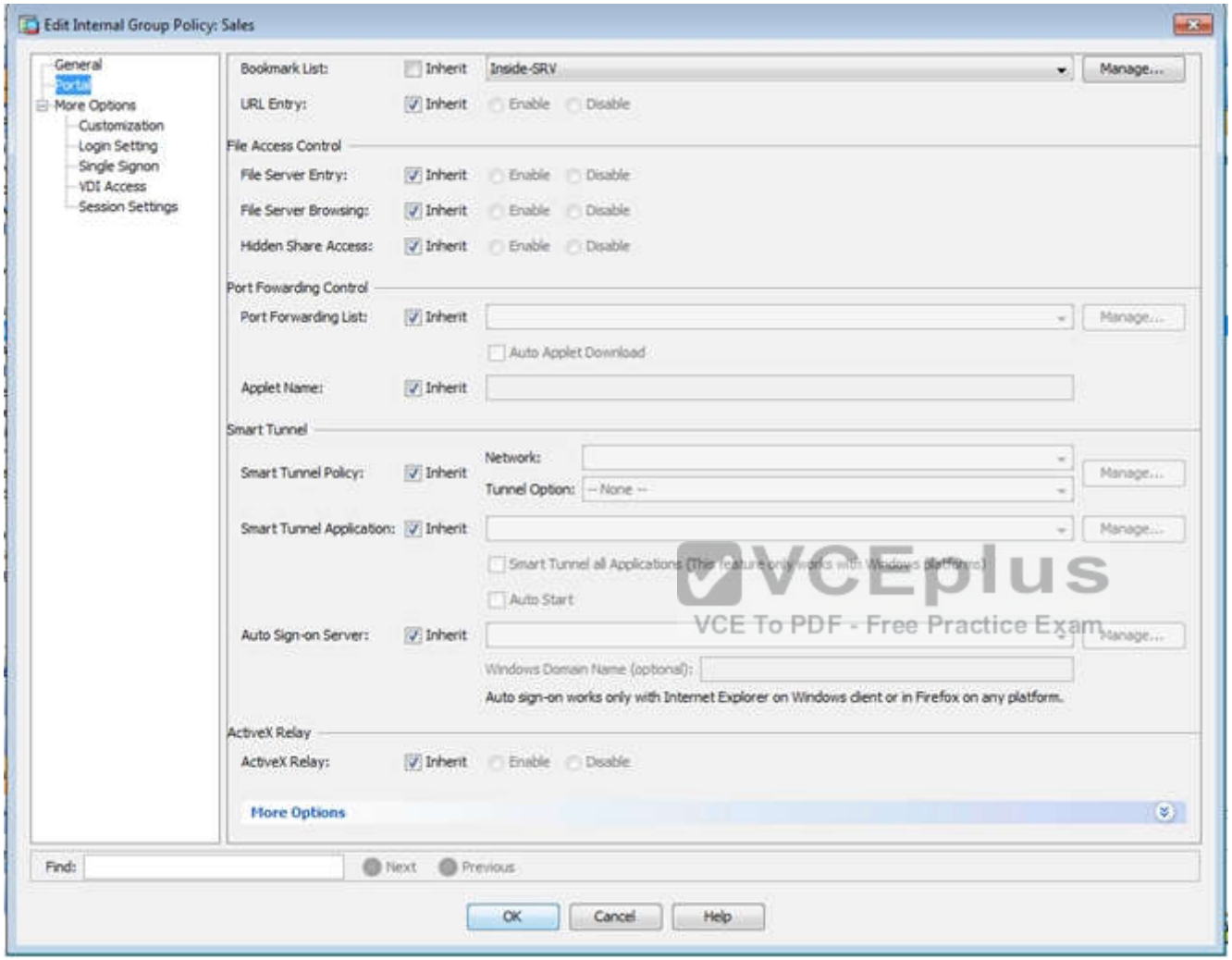


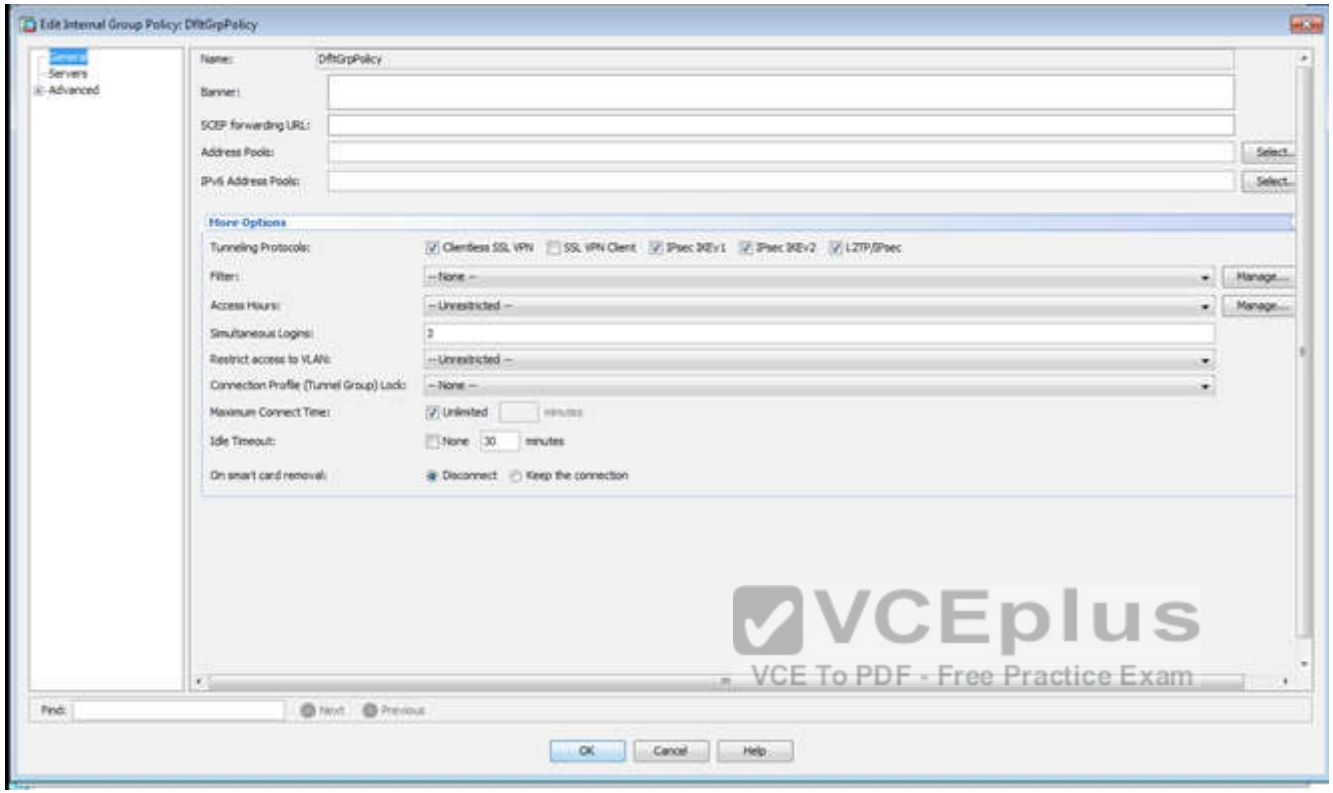


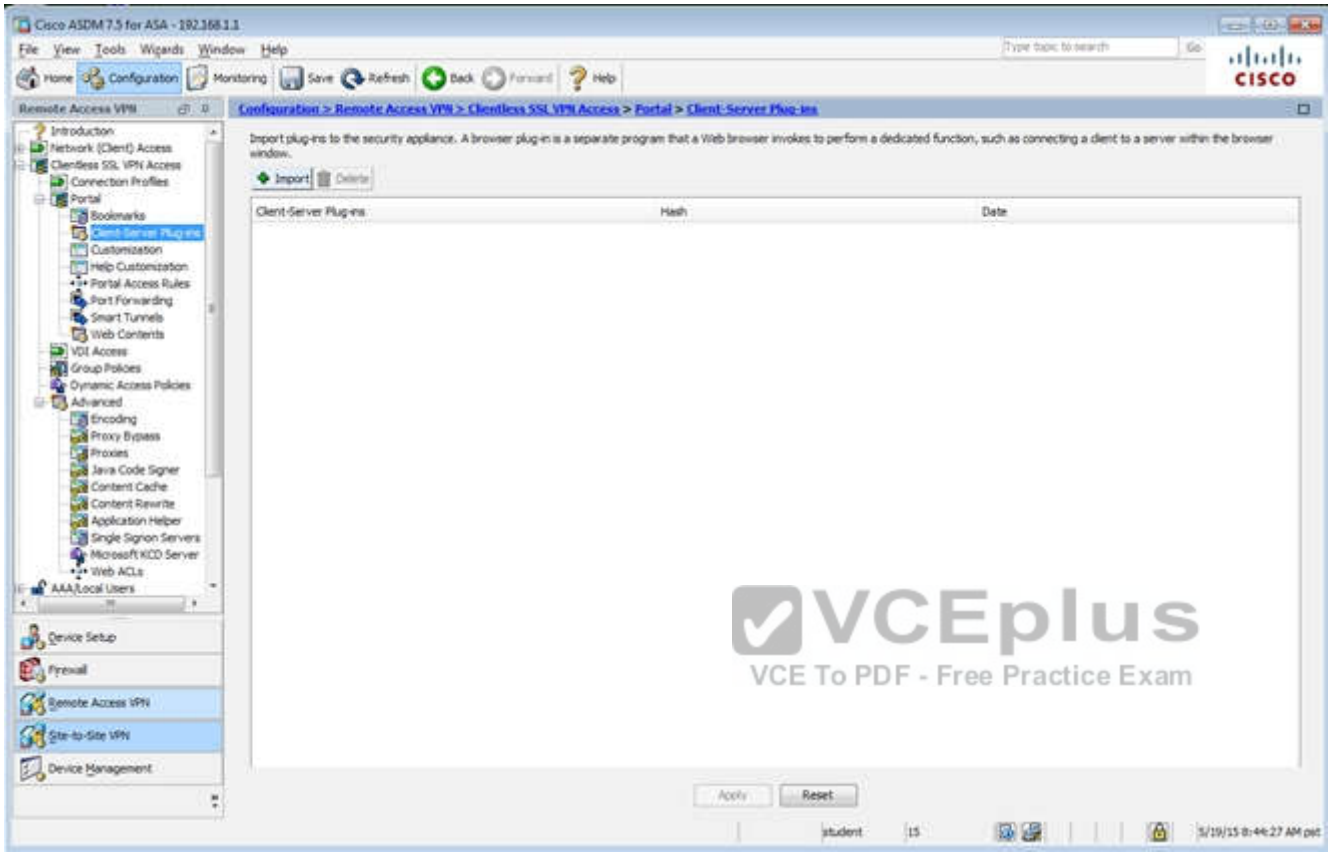


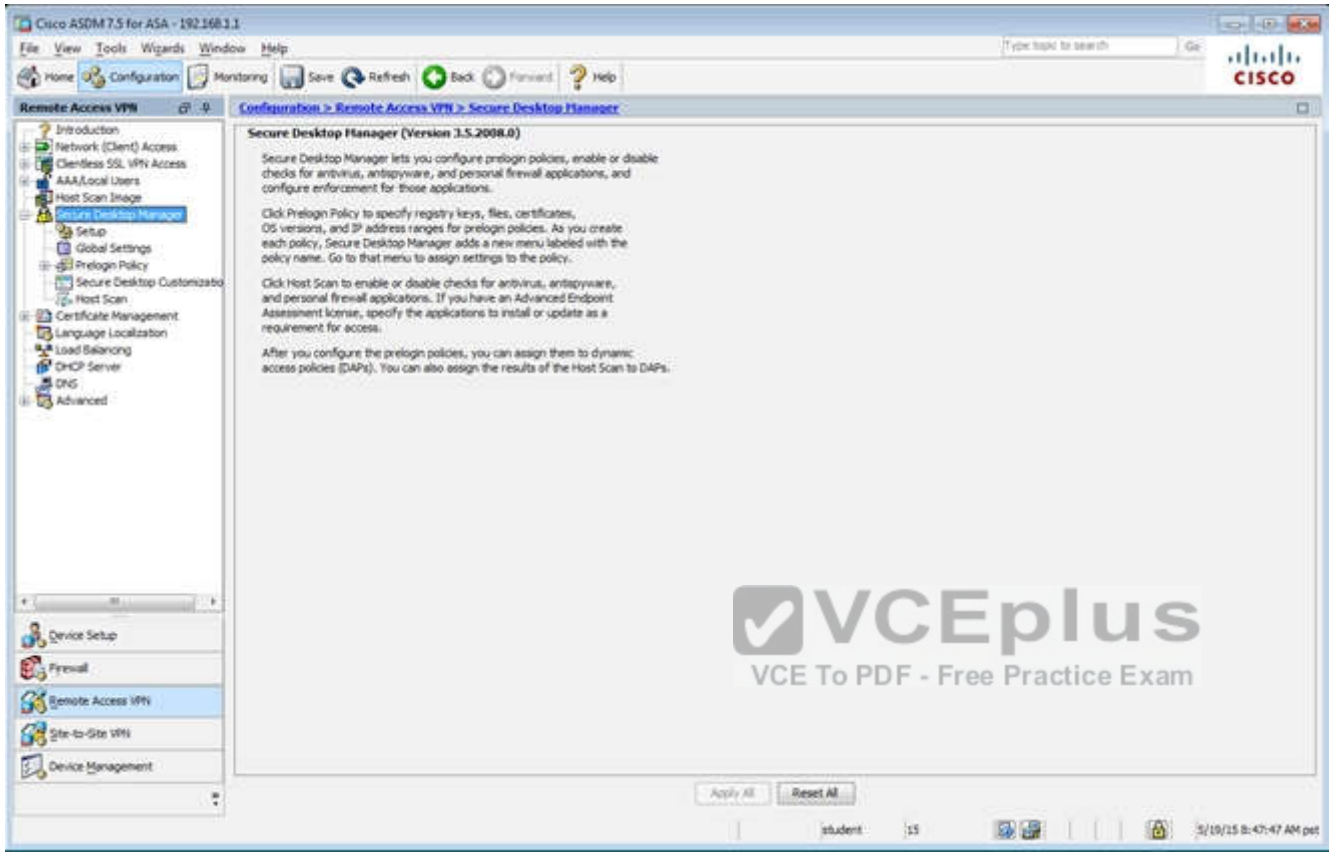


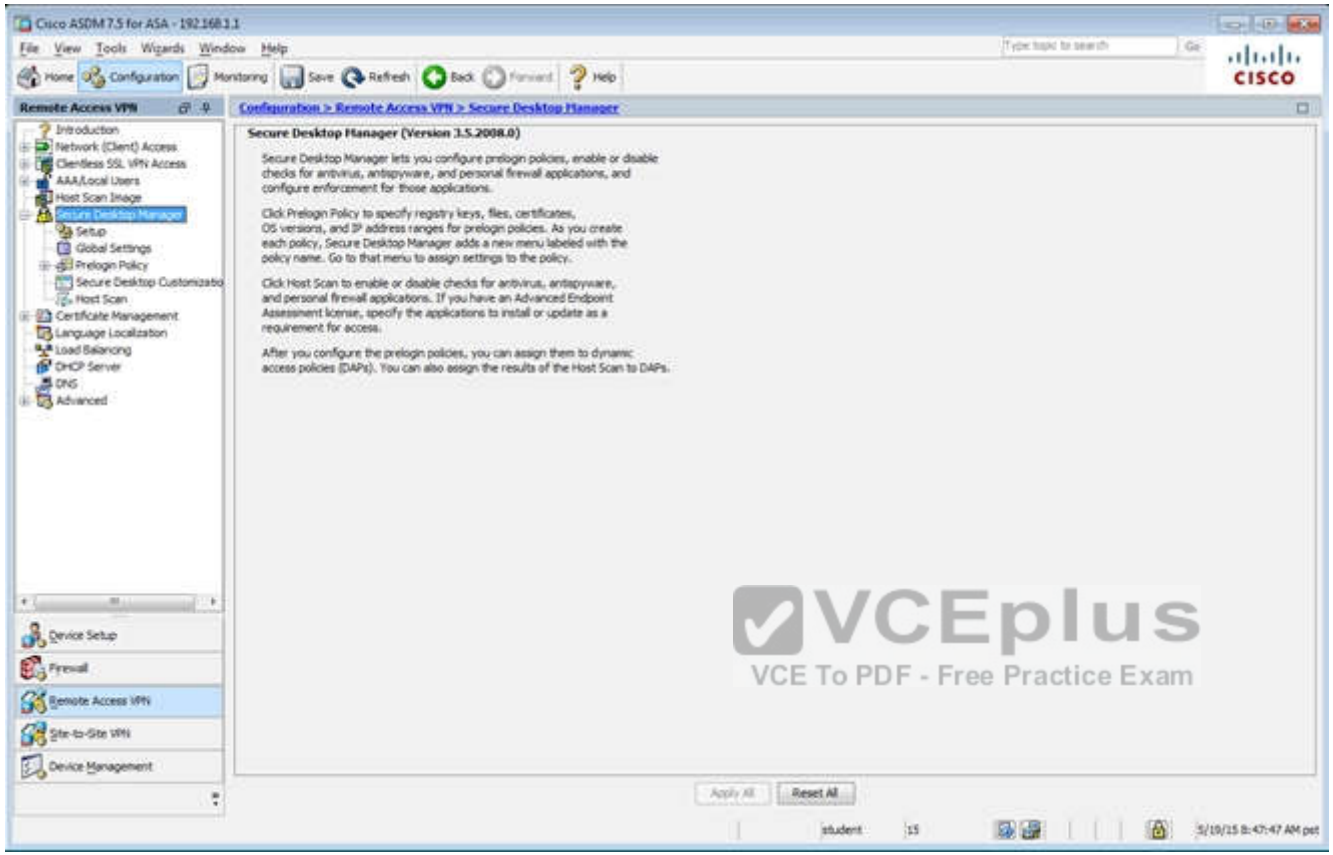


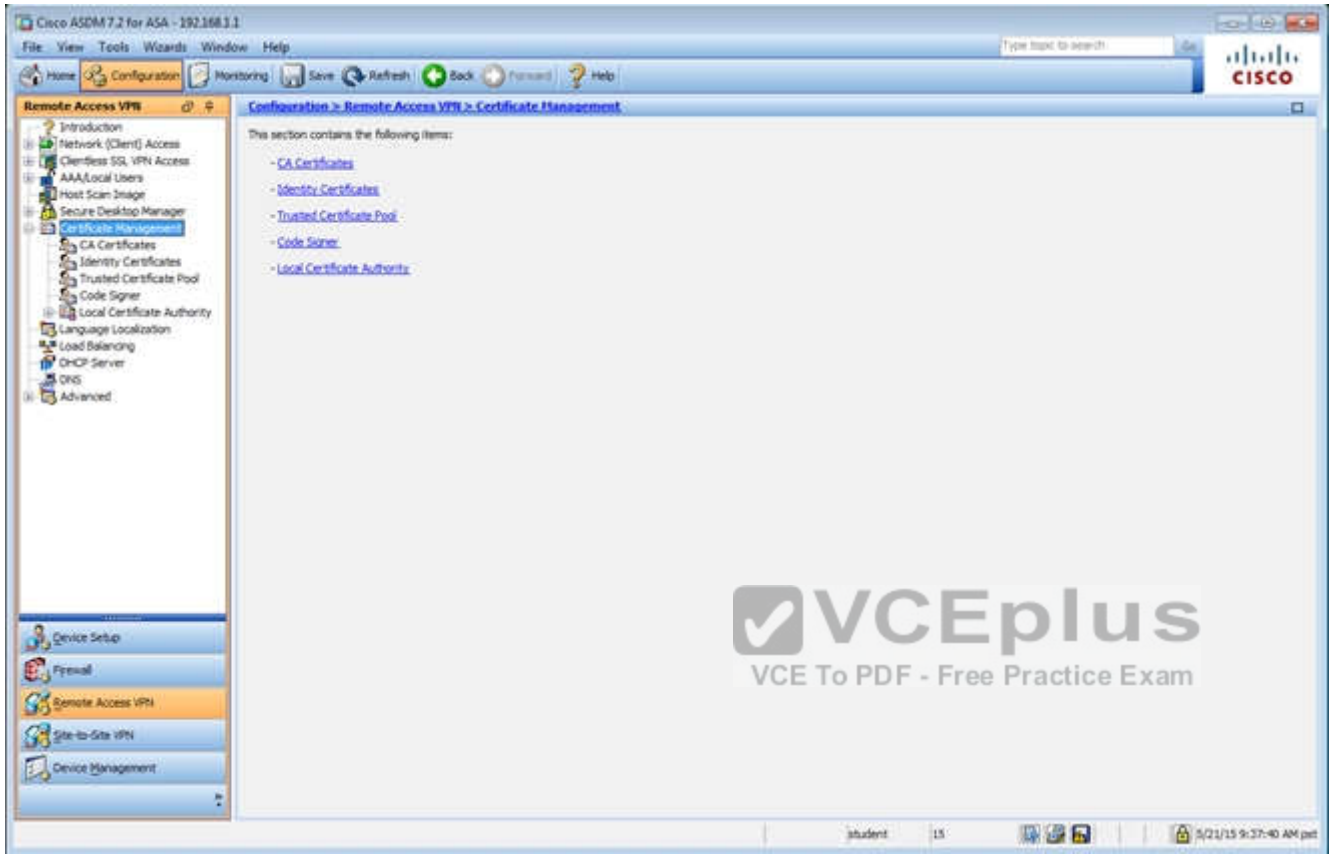


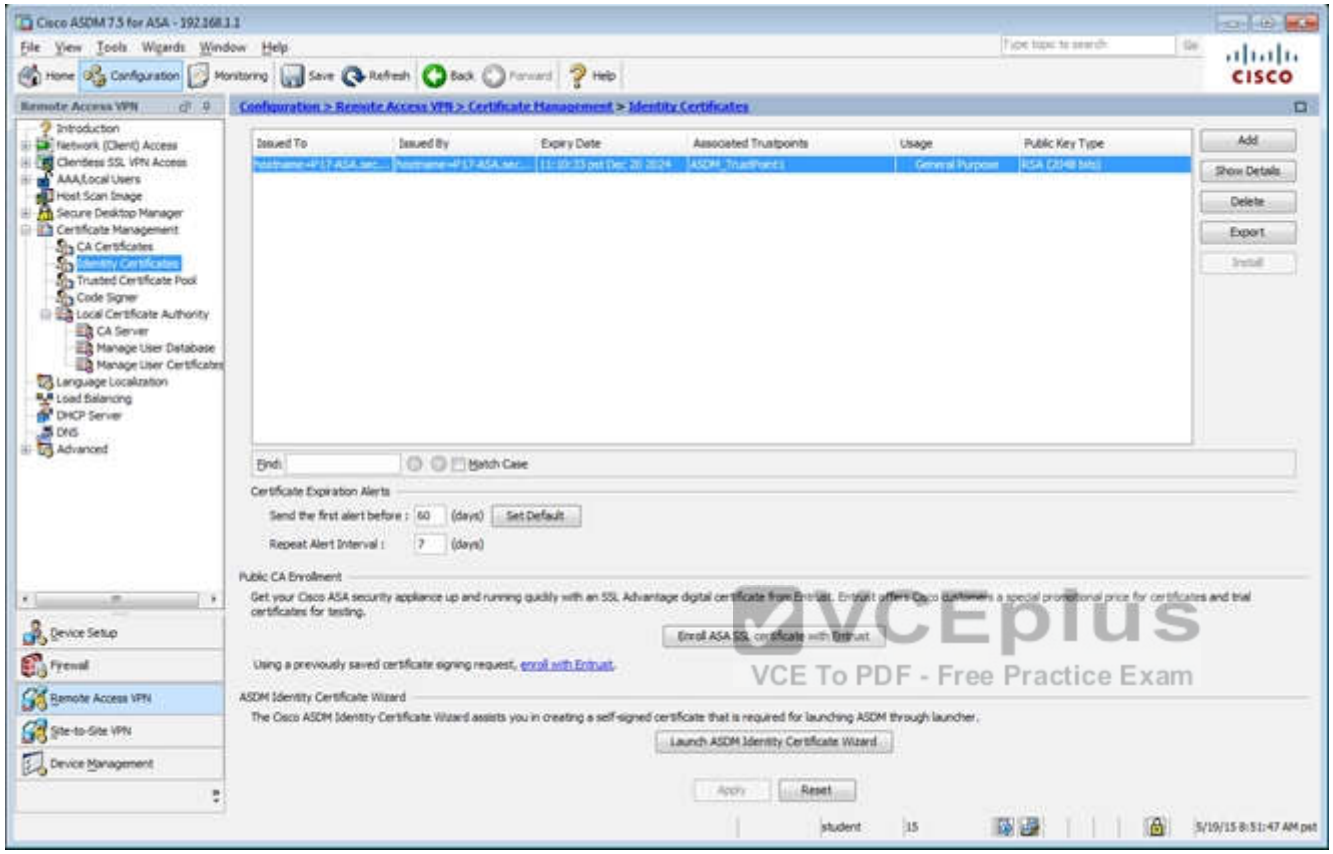


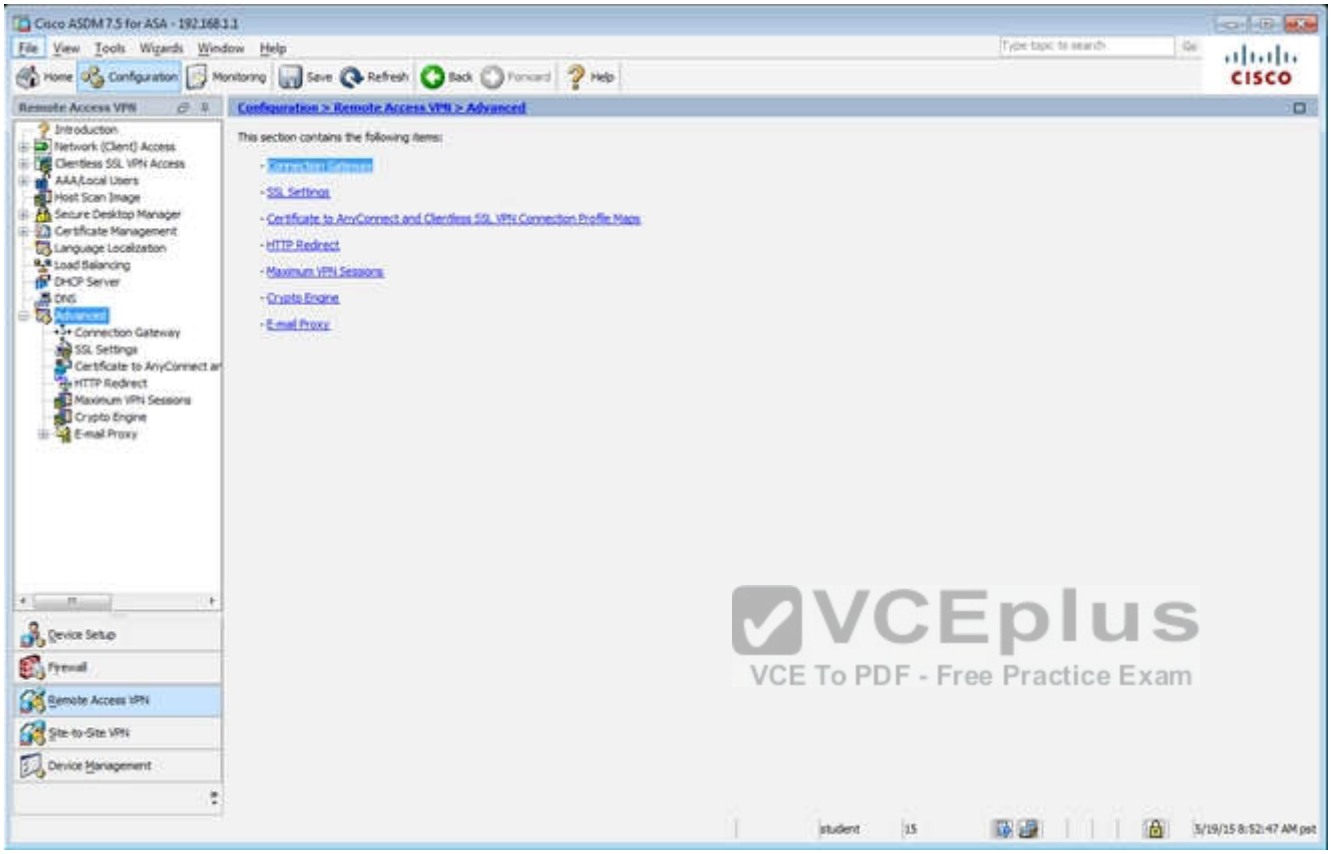


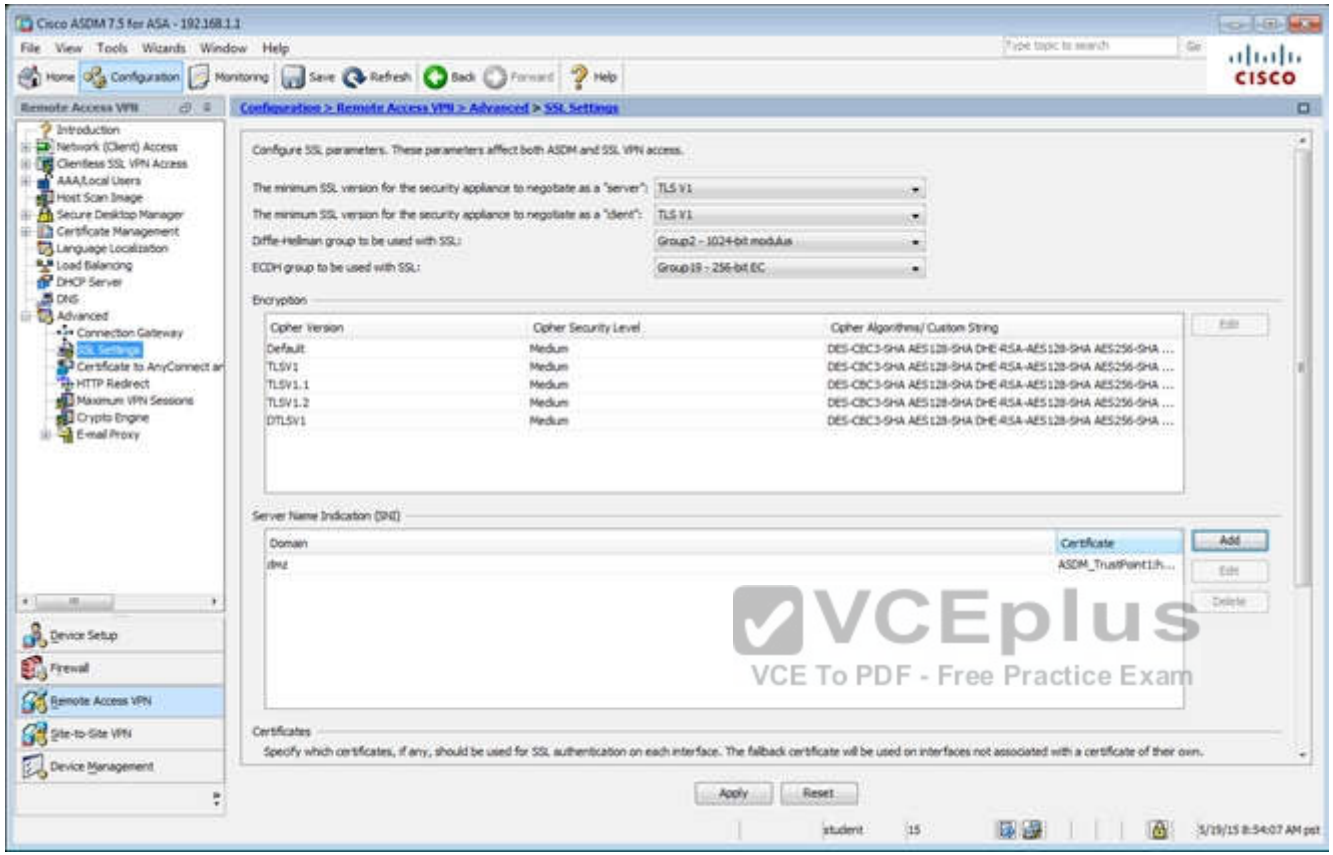


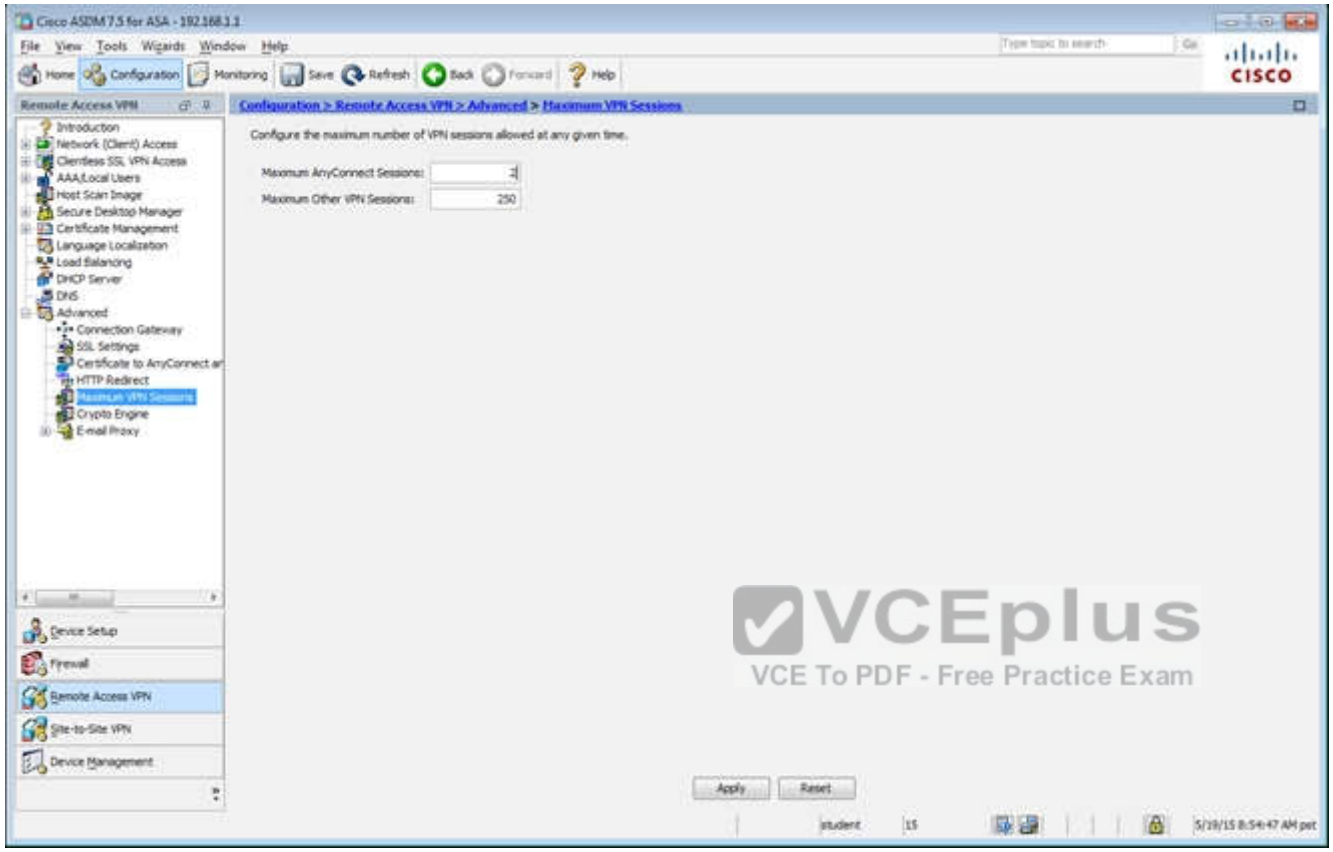


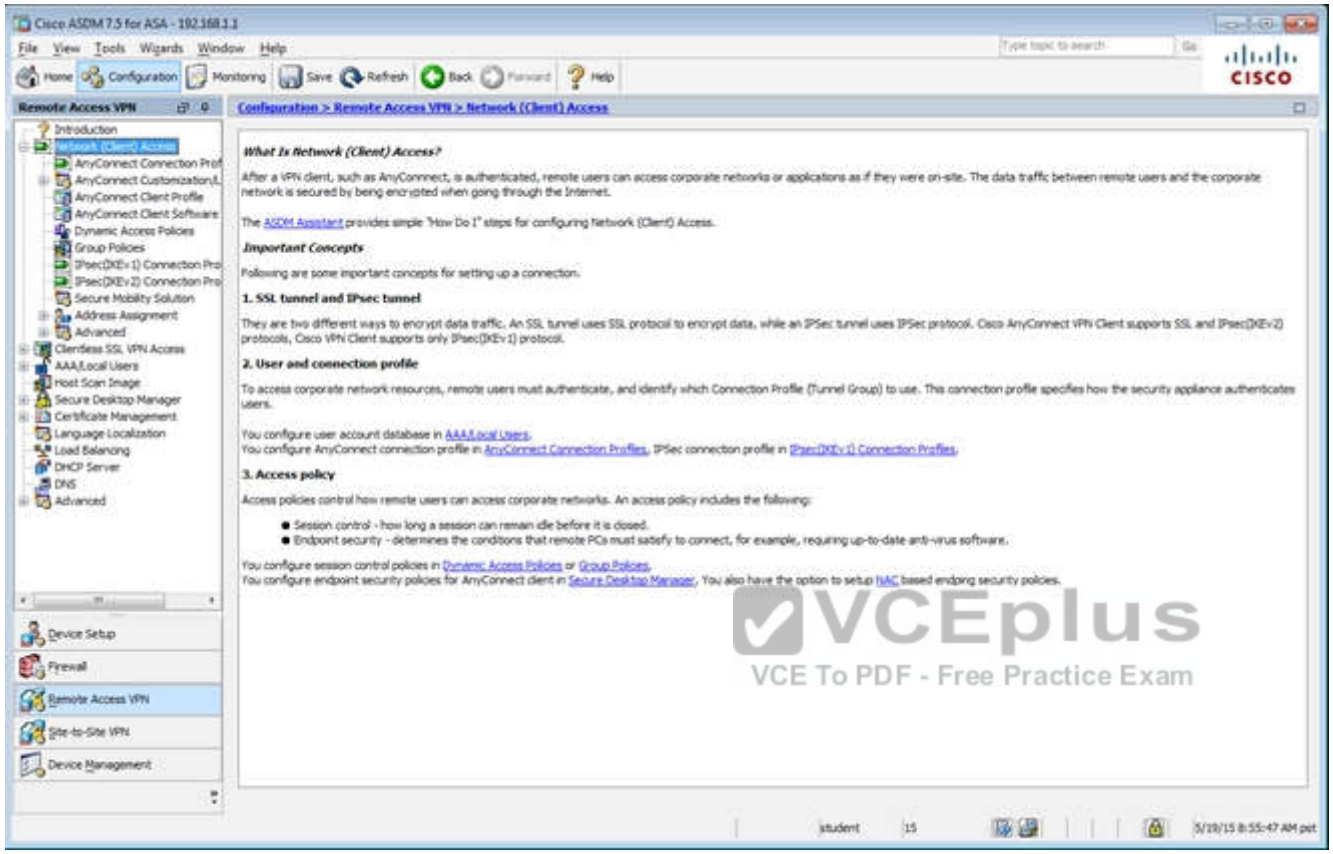


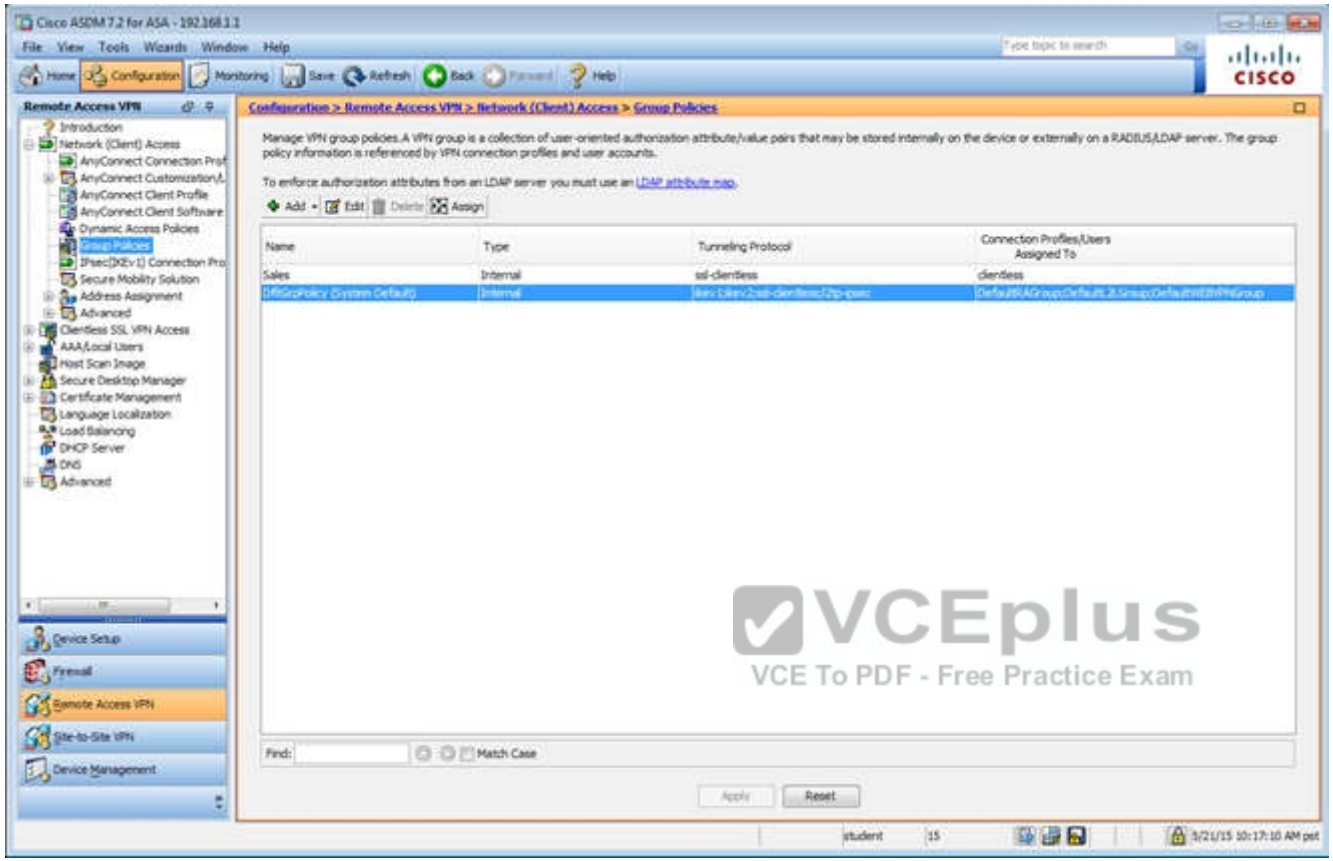


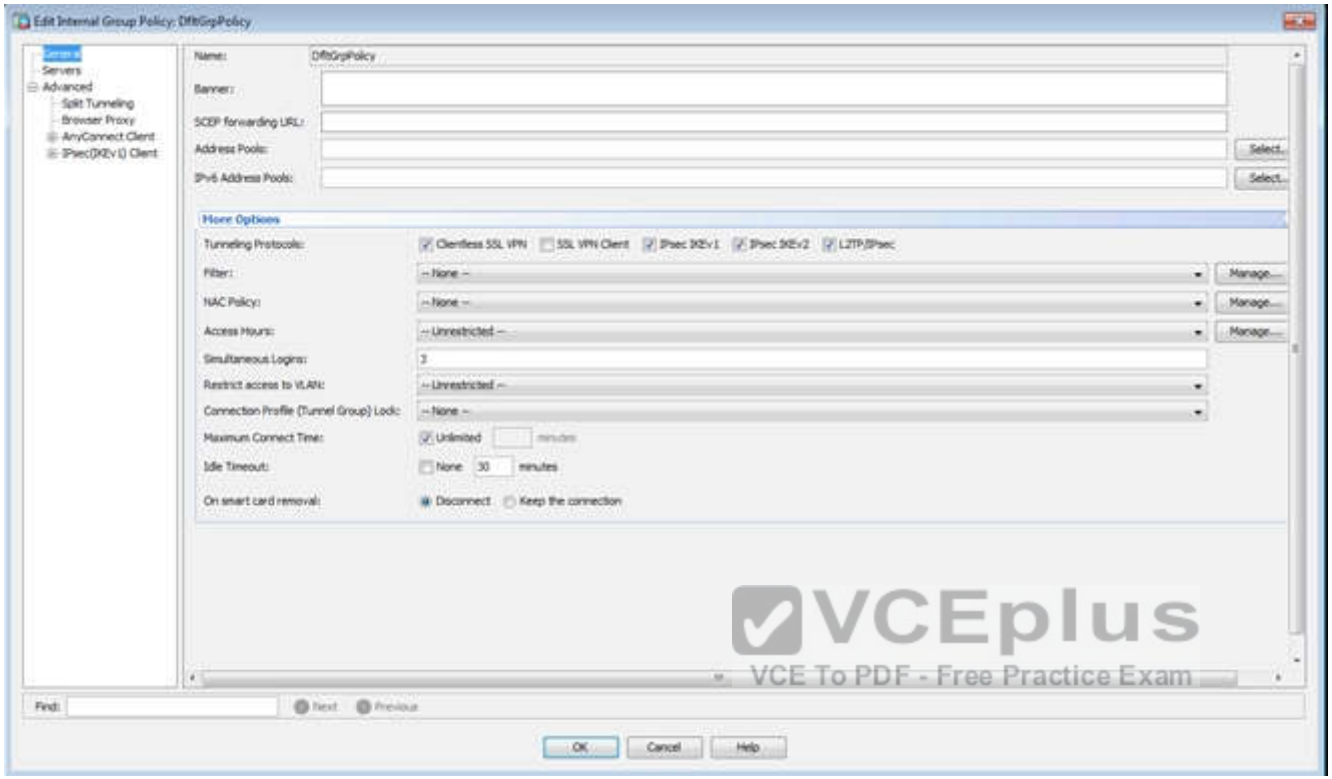


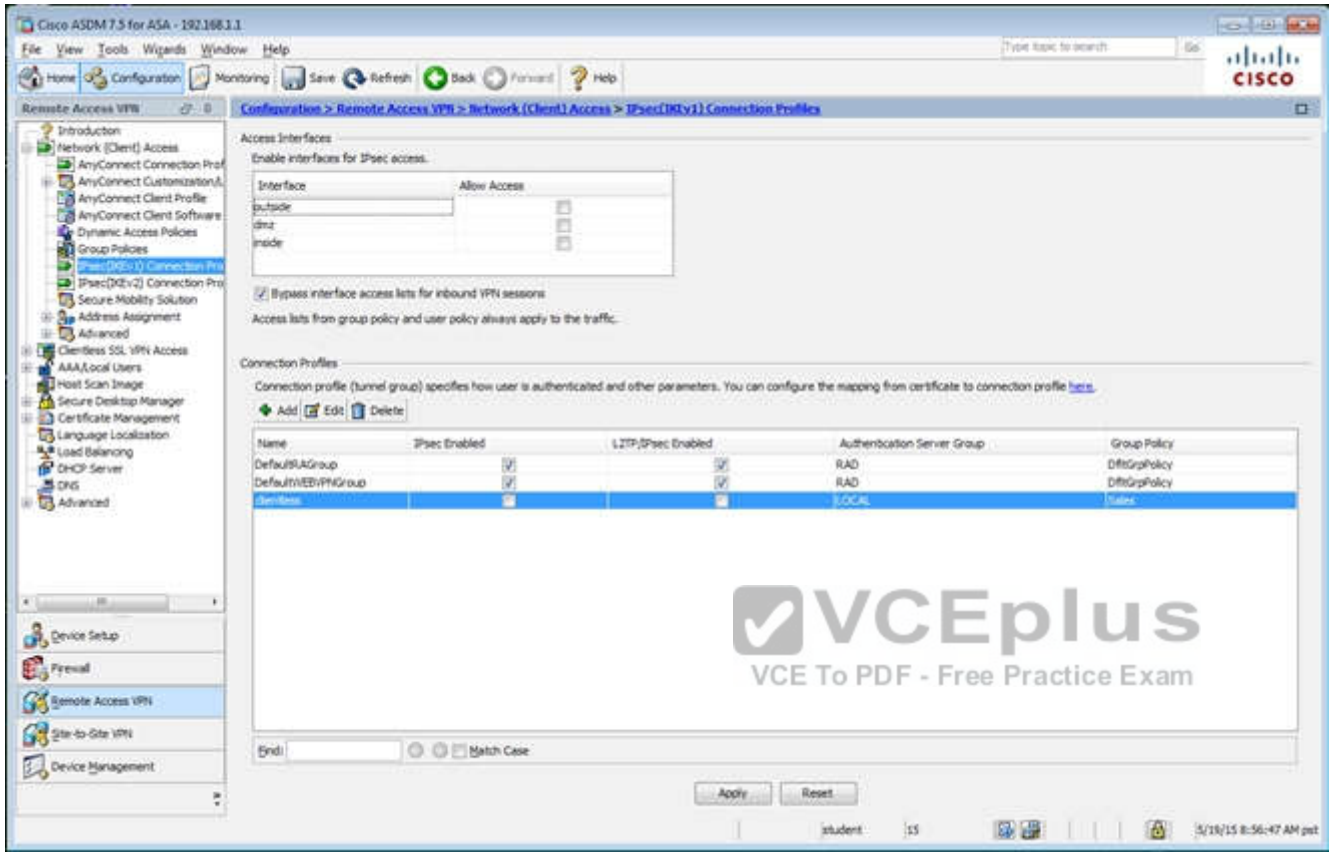


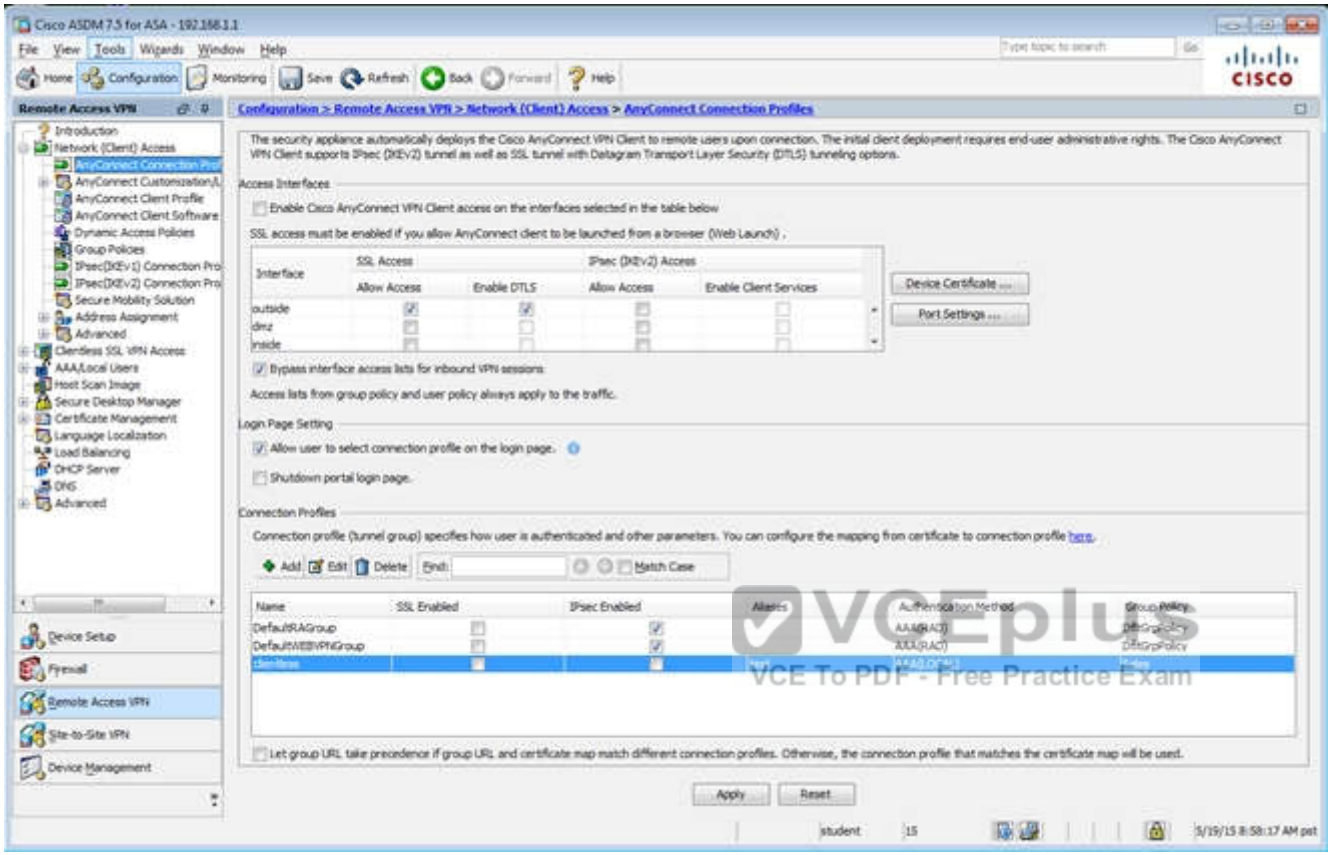


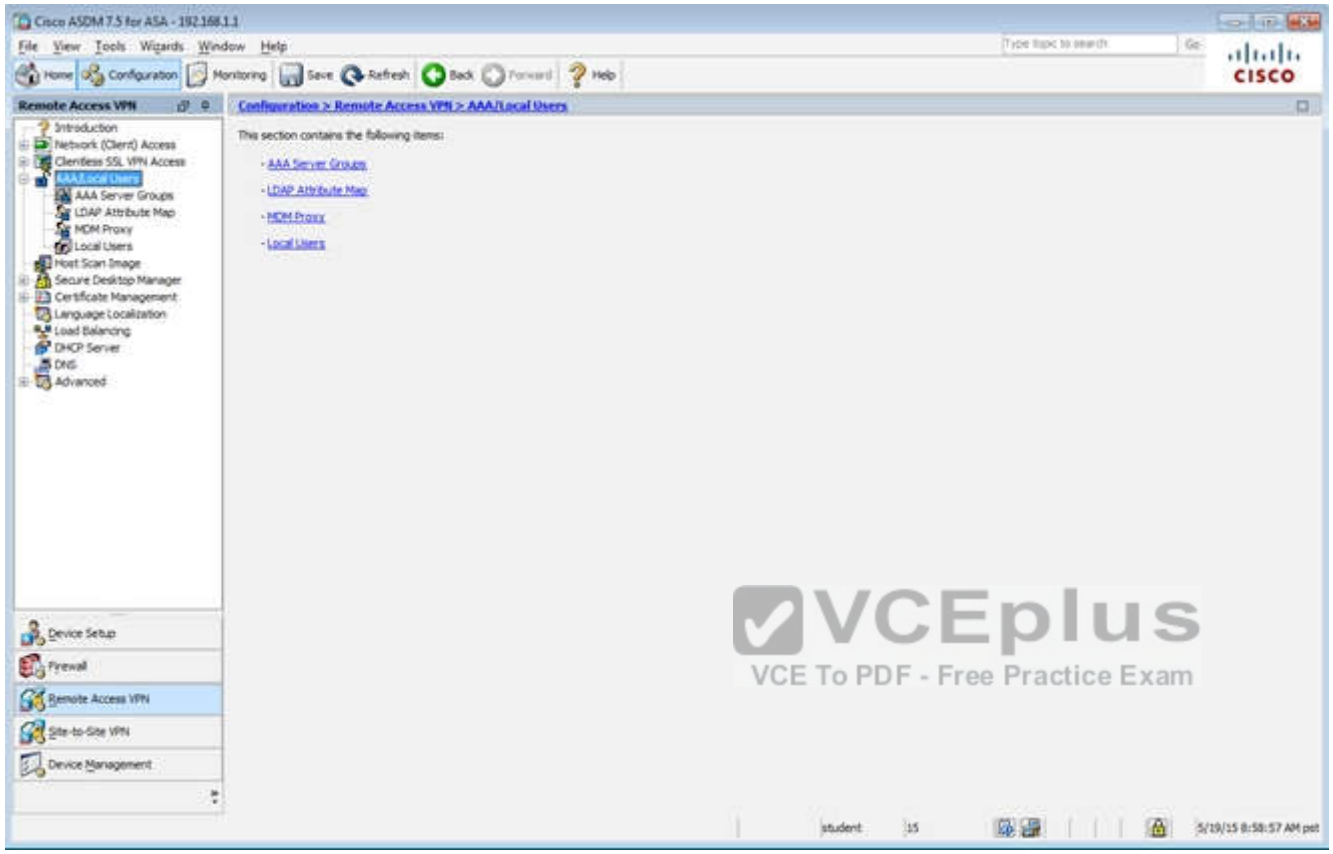


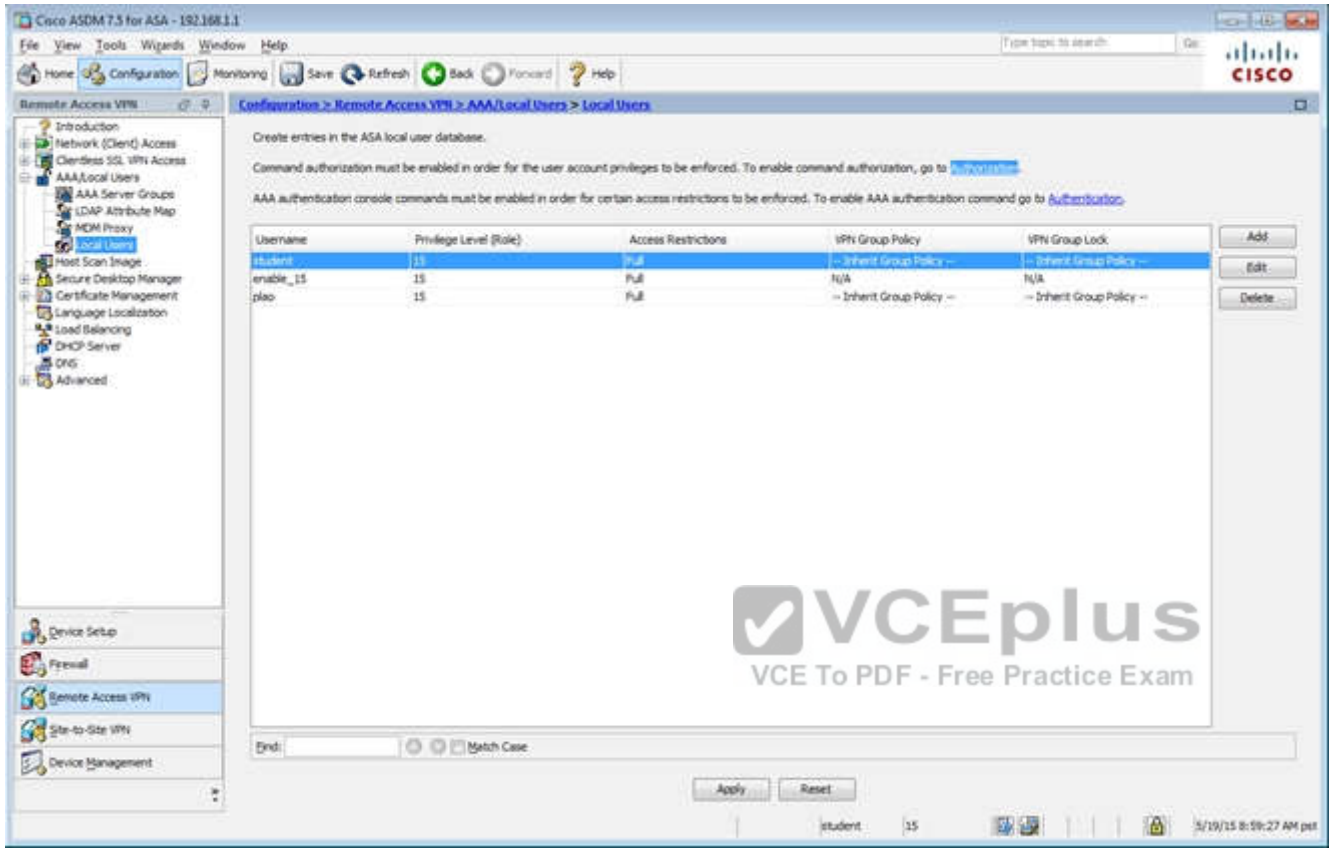


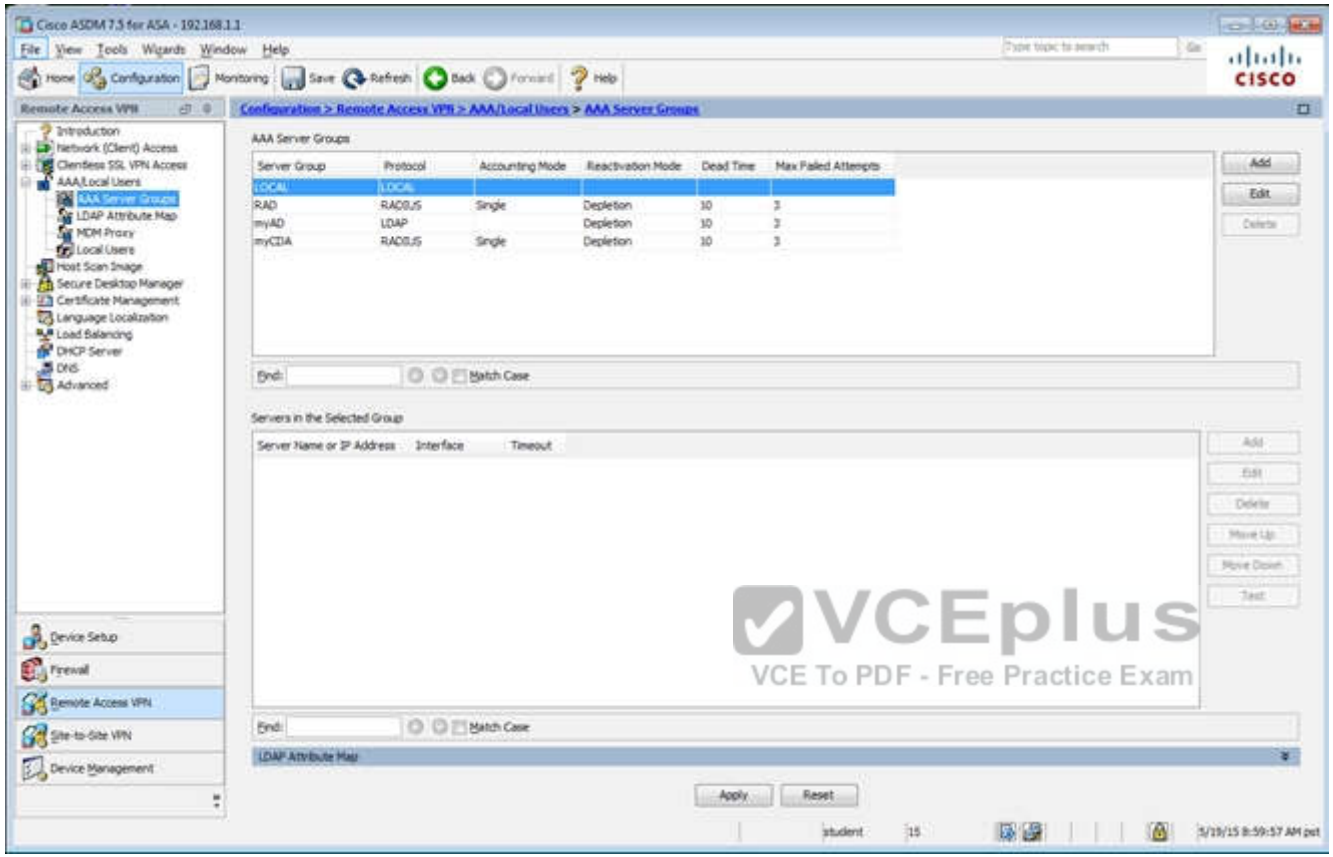












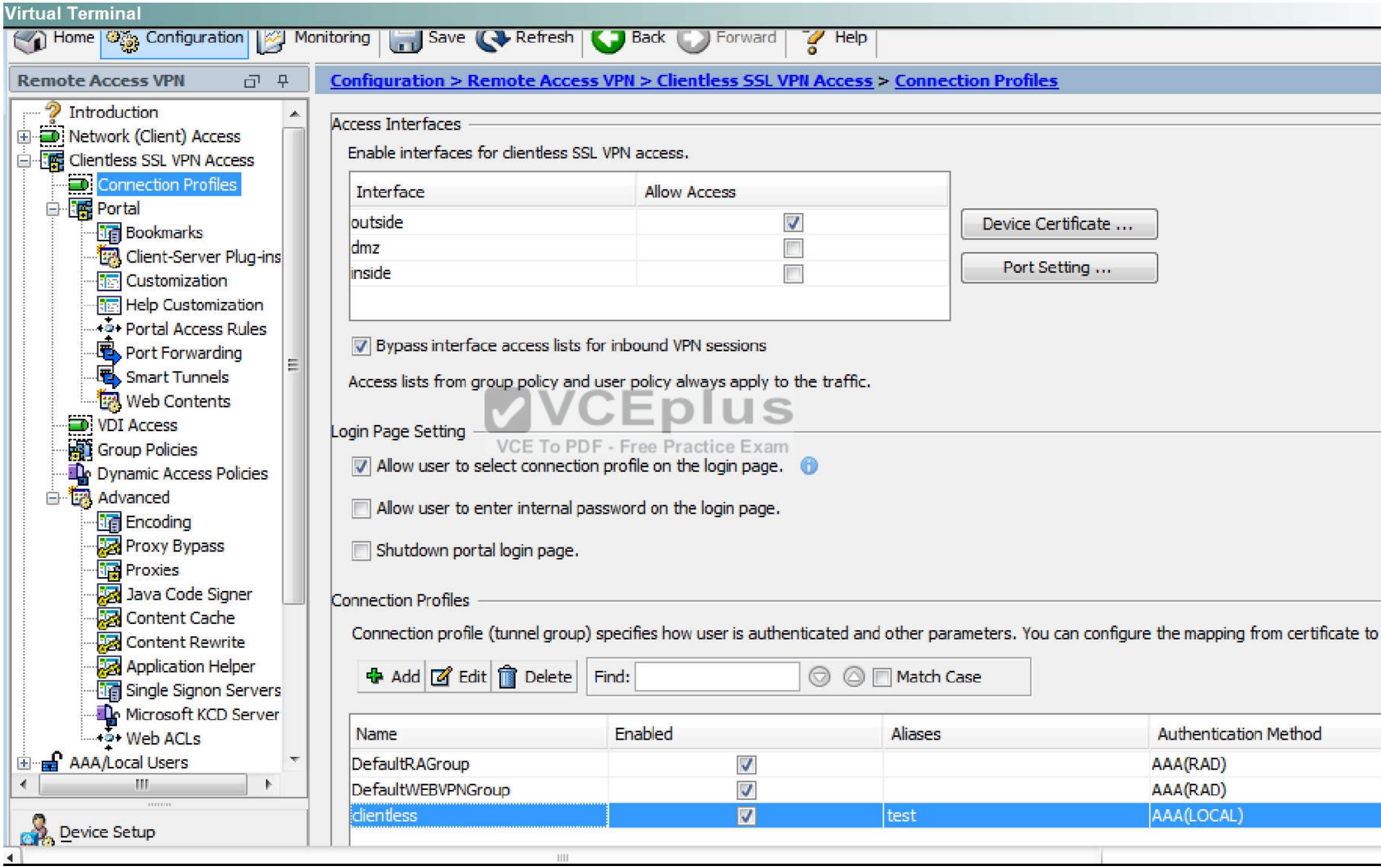
When users login to the Clientless SSLVPN using https://209.165.201.2/test, which group policy will be applied?

A. test
B. clientless
C. Sales
D. DfltGrpPolicy
E. DefaultRAGroup
F. DefaultWEBVPNGroup

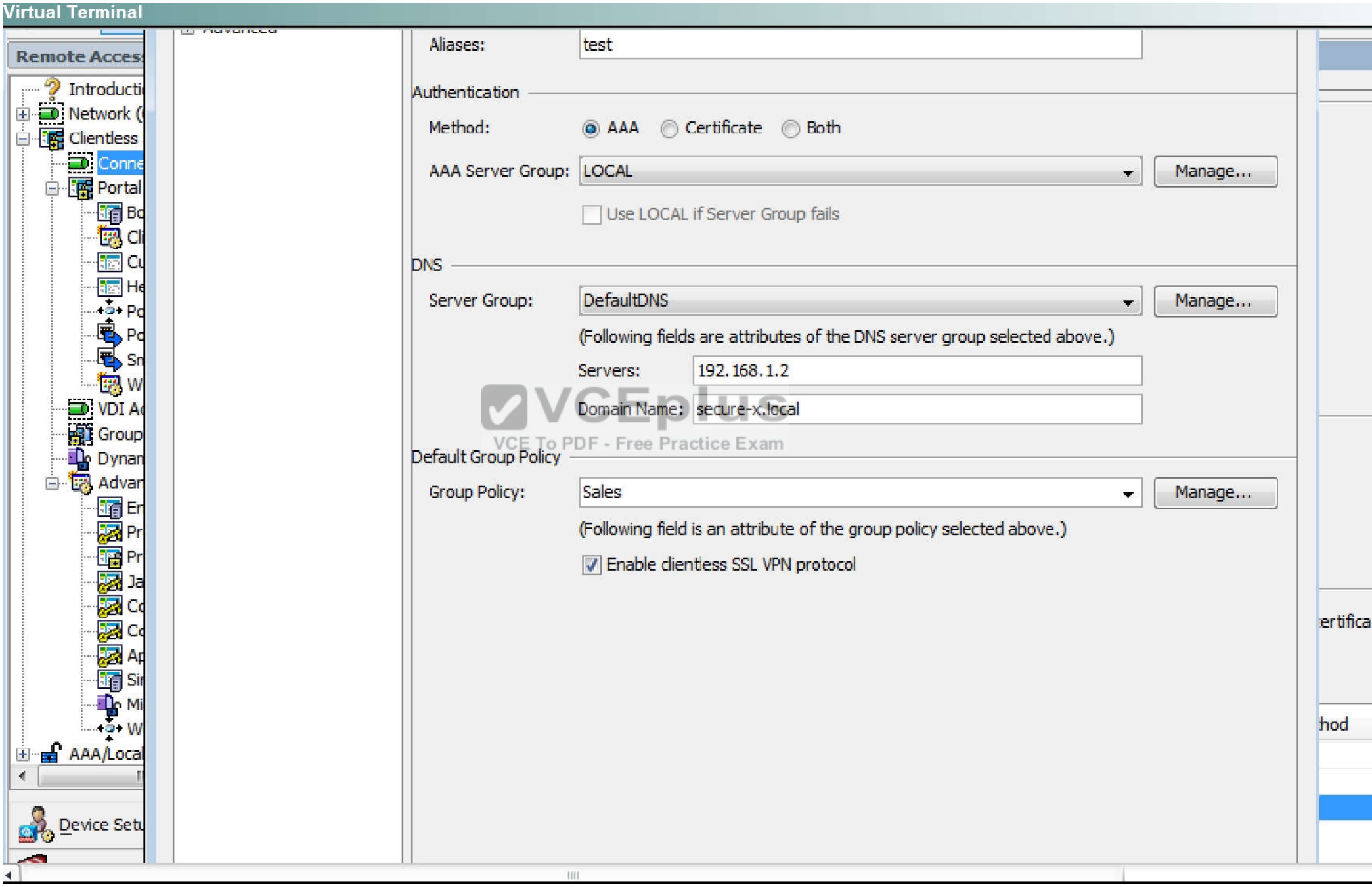
Correct Answer: C
Section: (none)

Explanation

Explanation/Reference:
First navigate to the Connection Profiles tab as shown below, highlight the one with the test alias:



Then hit the “edit” button and you can clearly see the Sales Group Policy being applied.



QUESTION 68
SIMULATION
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:

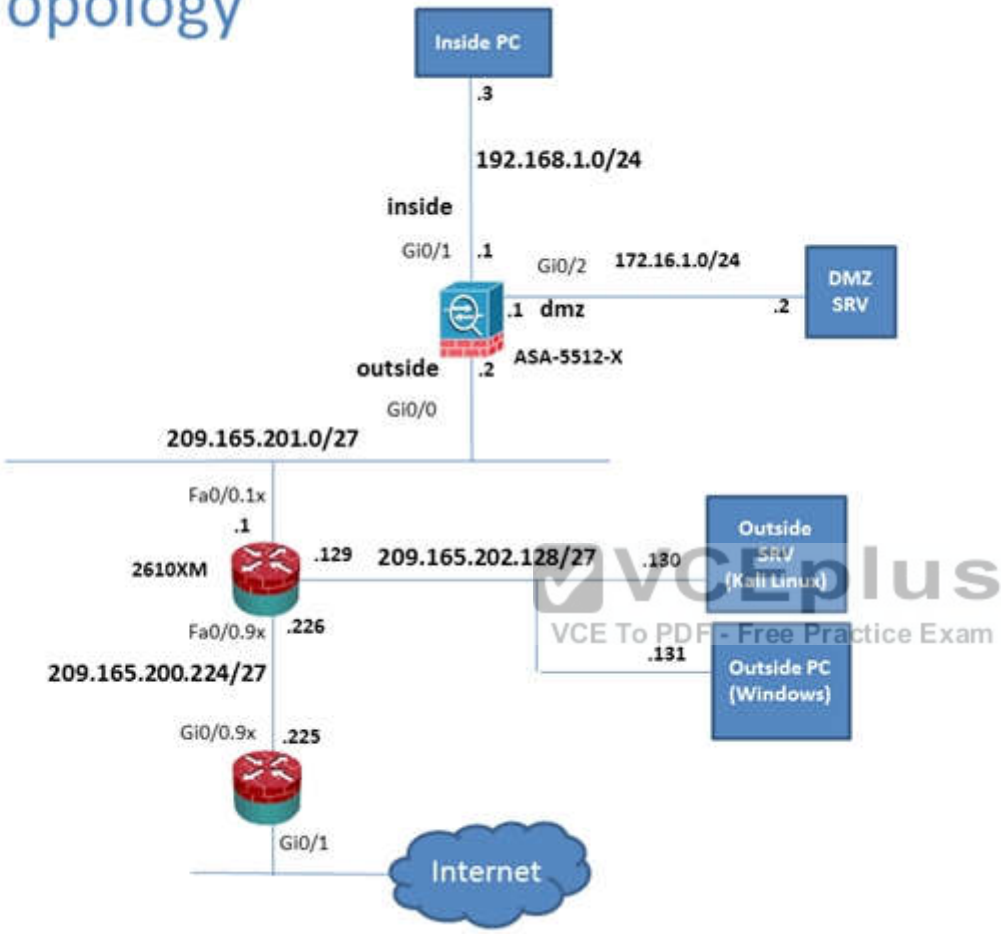
- Currently, the ASA configurations only allow on the Inside and DMZ networks to access any hosts on the Outside. Your task is to use ASDM to configure the ASA to also allow any host only on the Outside to HTTP to the DMZ server. The hosts on the Outside will need to use the 209.165.201.30 public IP address when HTTPing to the DMZ server.
- Currently, hosts on the ASA higher security level interfaces are not able to ping any hosts on the lower security level interfaces. Your task in this simulation is to use ASDM to enable the ASA to dynamically allow the echo-reply responses back through the ASA.

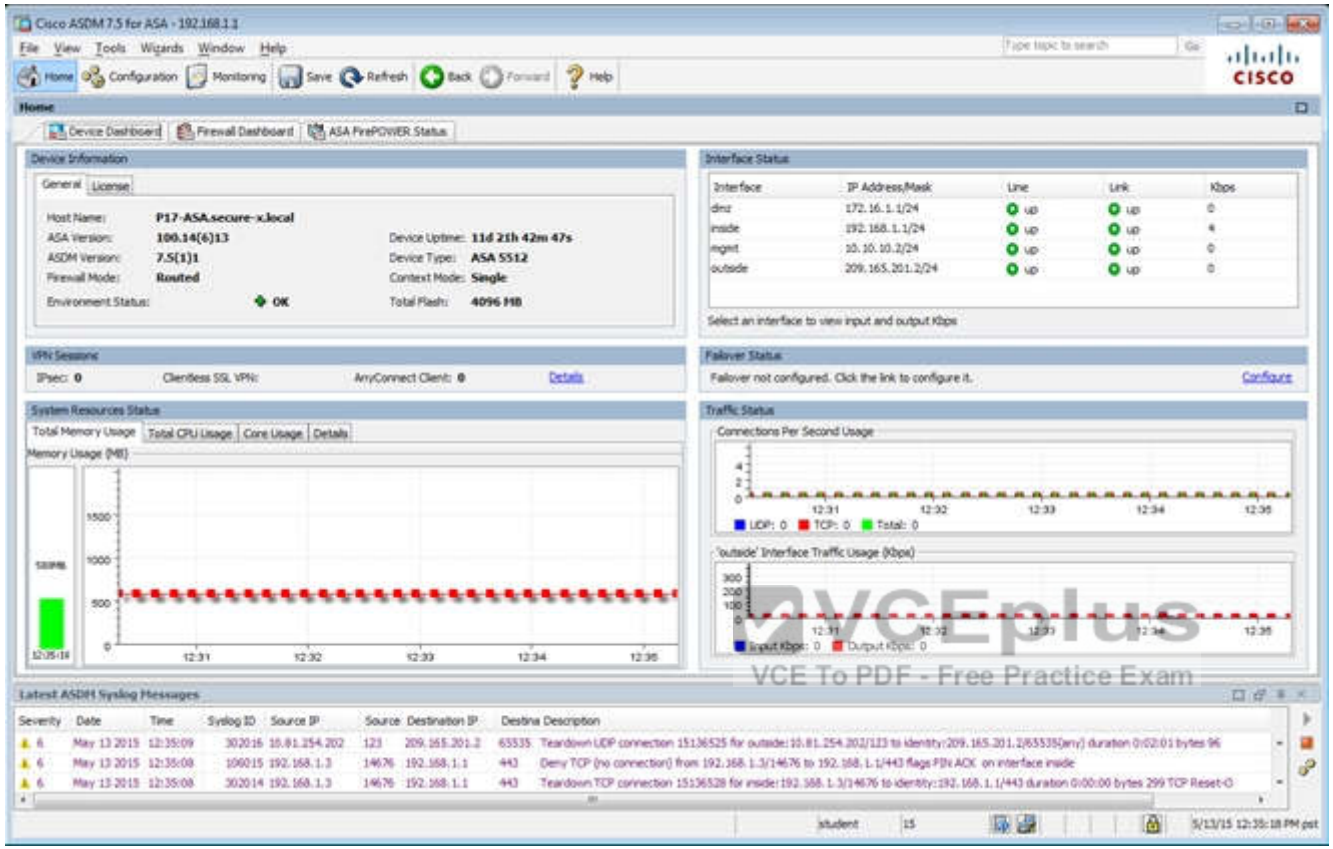
Once the correct ASA configurations have been configured:
- You can test the connectivity to http://209.165.201.30 from the Outside PC browser.
- You can test the pings to the Outside (www.cisco.com) by opening the inside PC command prompt window. In this simulation, only testing pings to www.cisco.com will work.

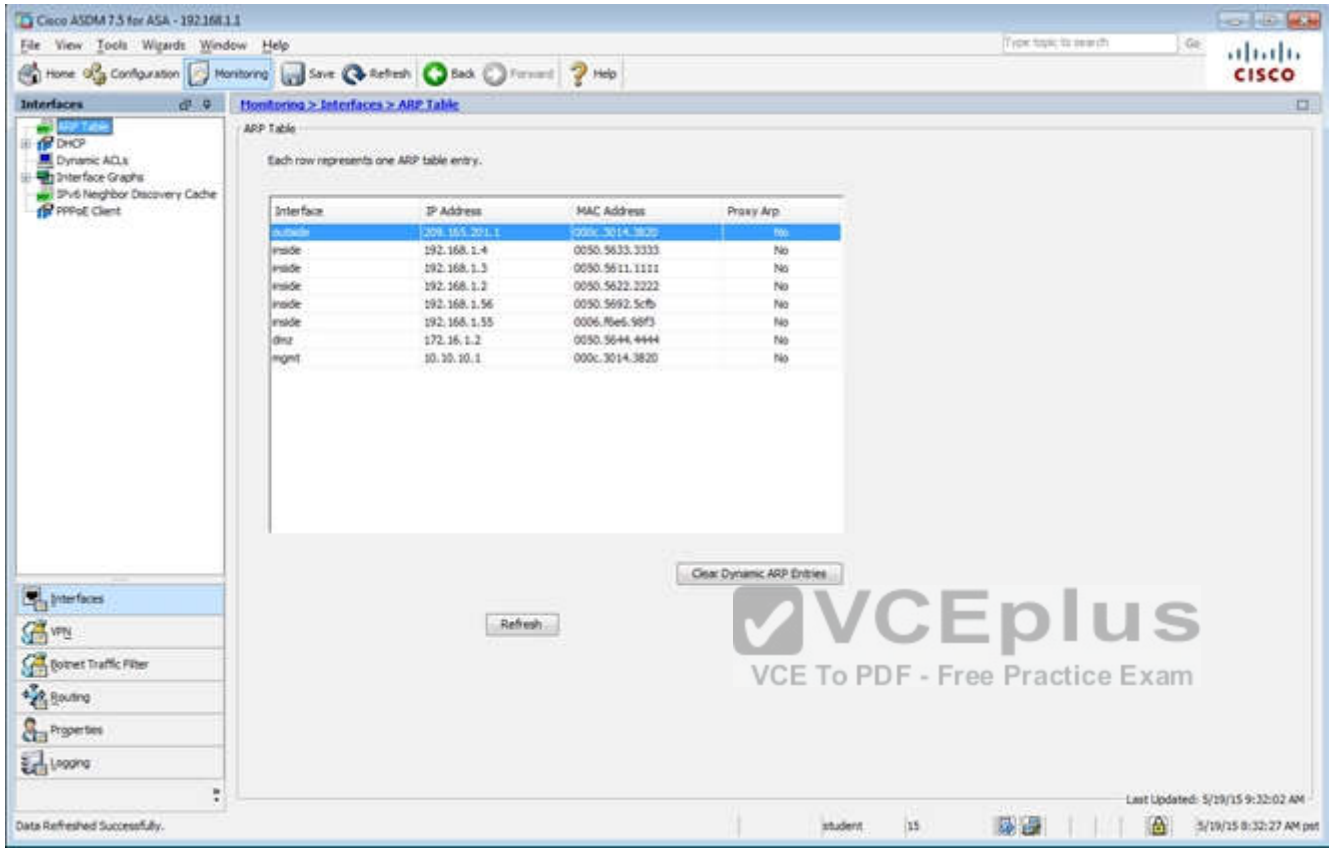
To access ASDM, click the ASA icon in the topology diagram.
To access the Firefox Browser on the Outside PC, click the Outside PC icon in the topology diagram.
To access the Command prompt on the Inside PC, click the Inside PC icon in the topology diagram.

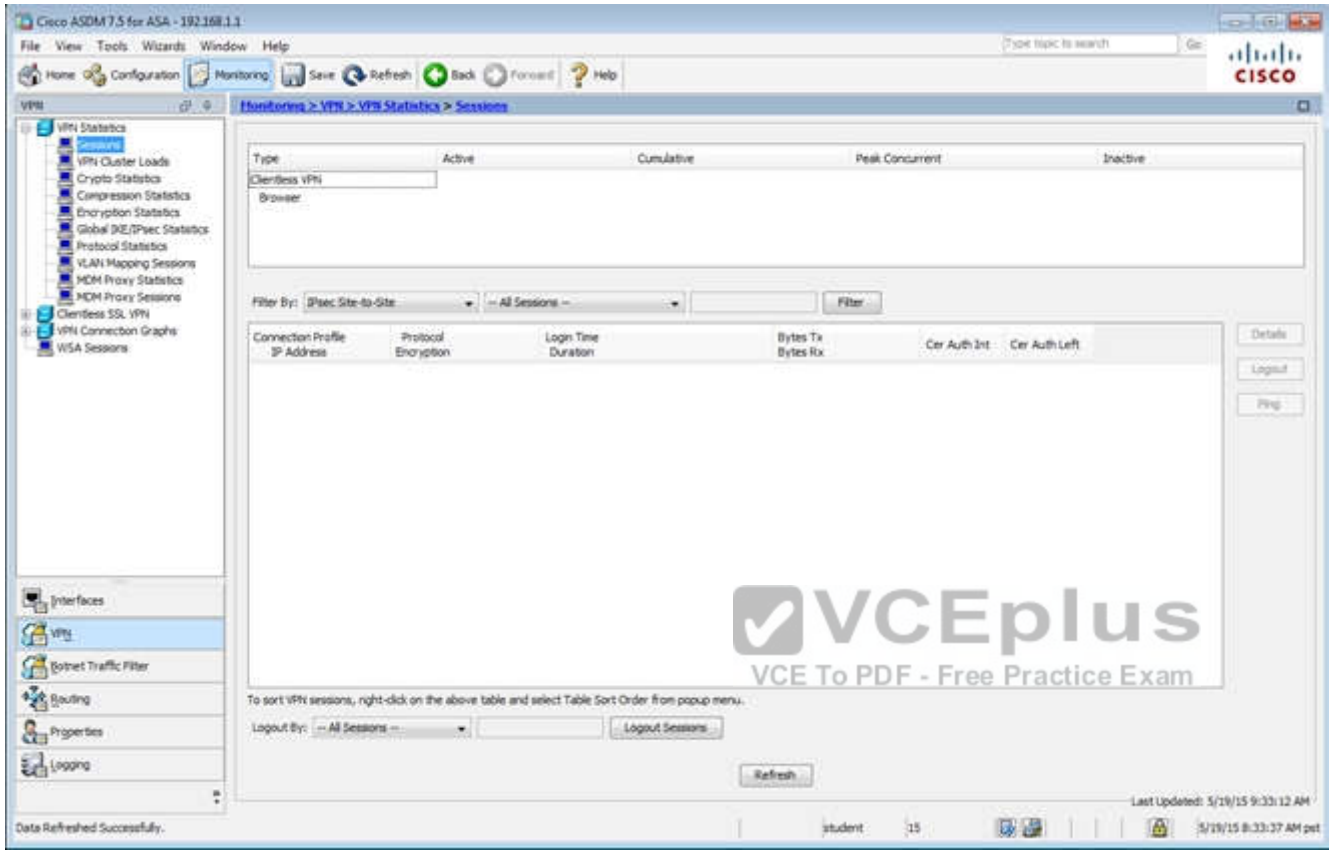
Note:
After you make the configuration changes in ASDM, remember to click Apply to apply the configuration changes.
Not all ASDM screens are enabled in this simulation, if some screen is not enabled, try to use different methods to configure the ASA to meet the requirements.
In this simulation, some of the ASDM screens may not look and function exactly like the real ASDM.

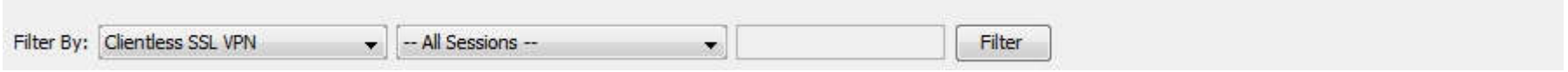
Lab Topology

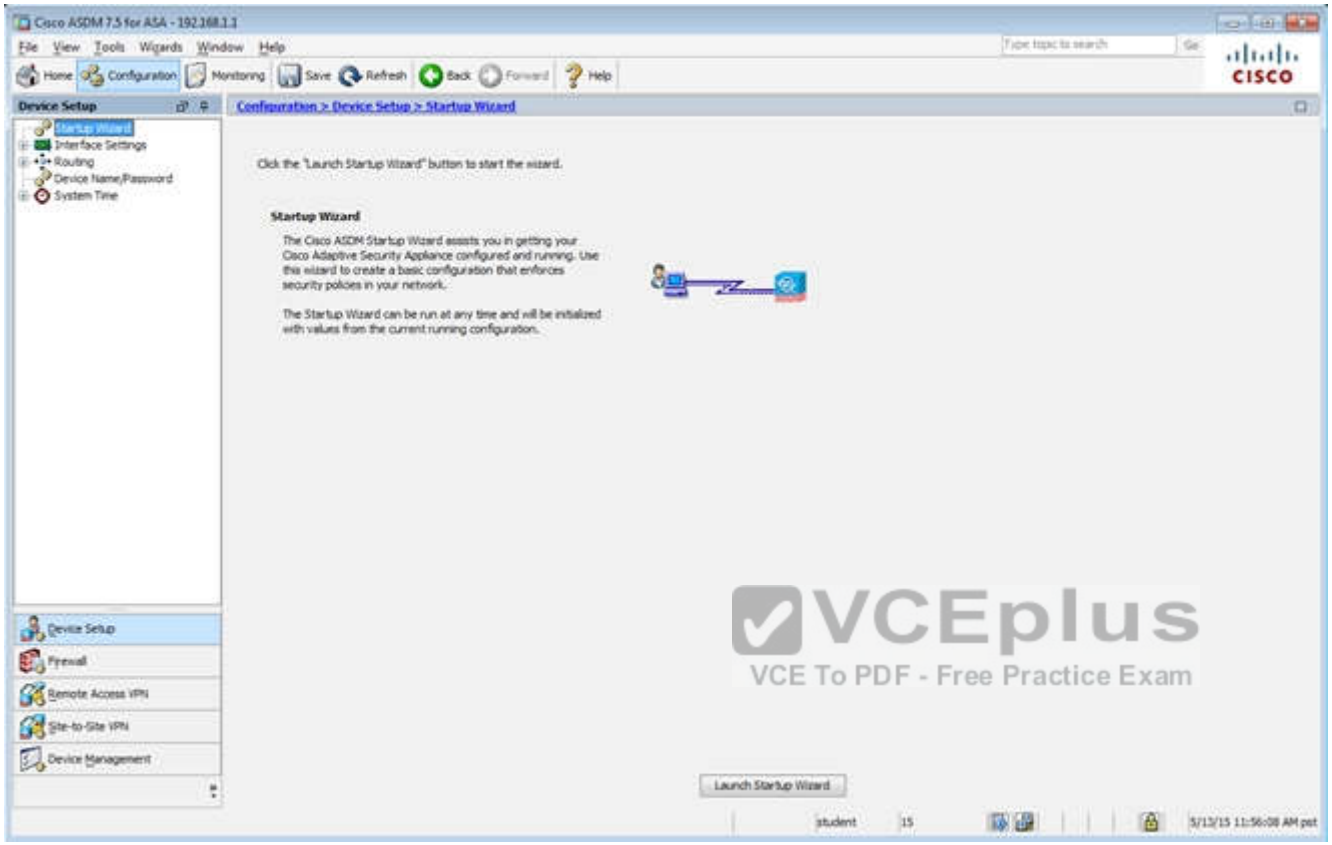


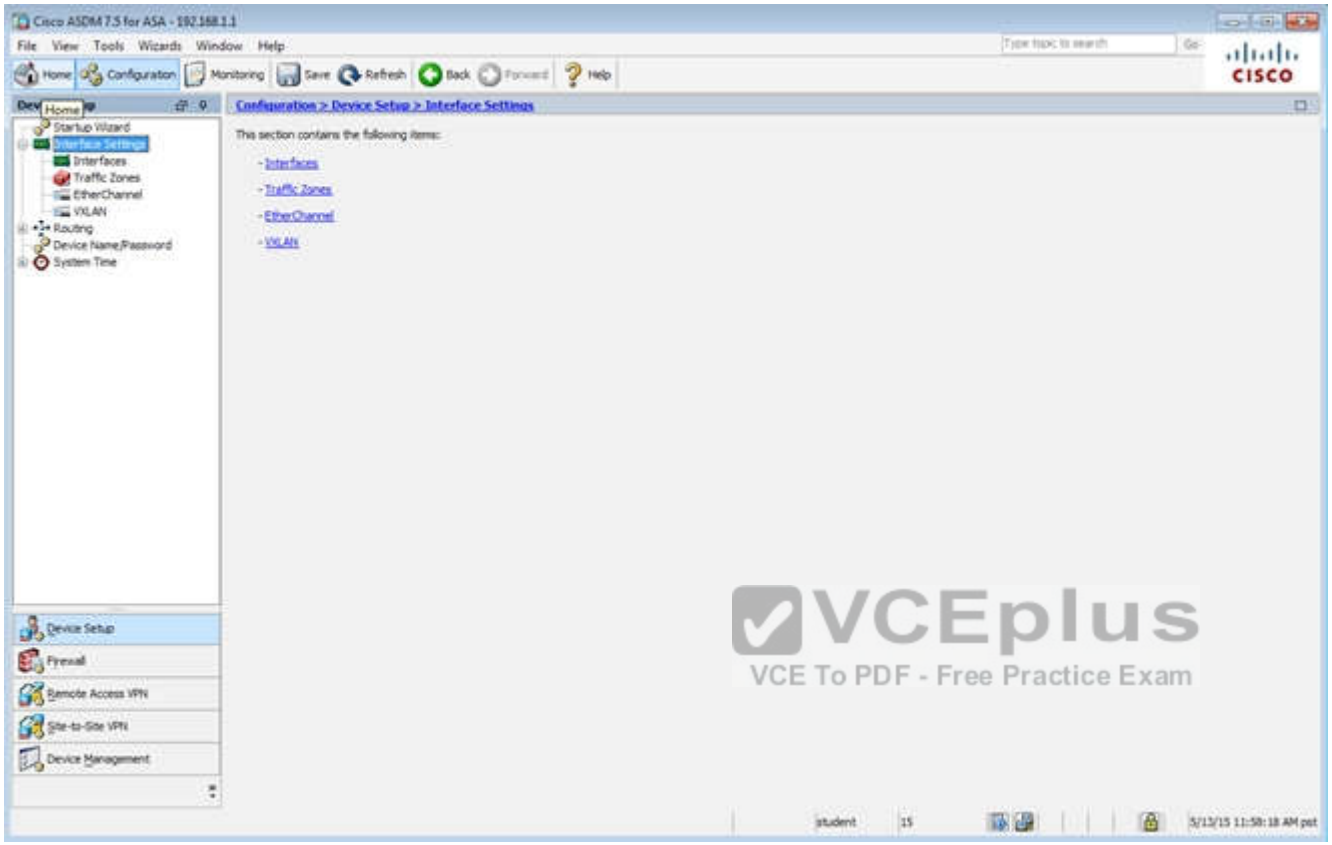


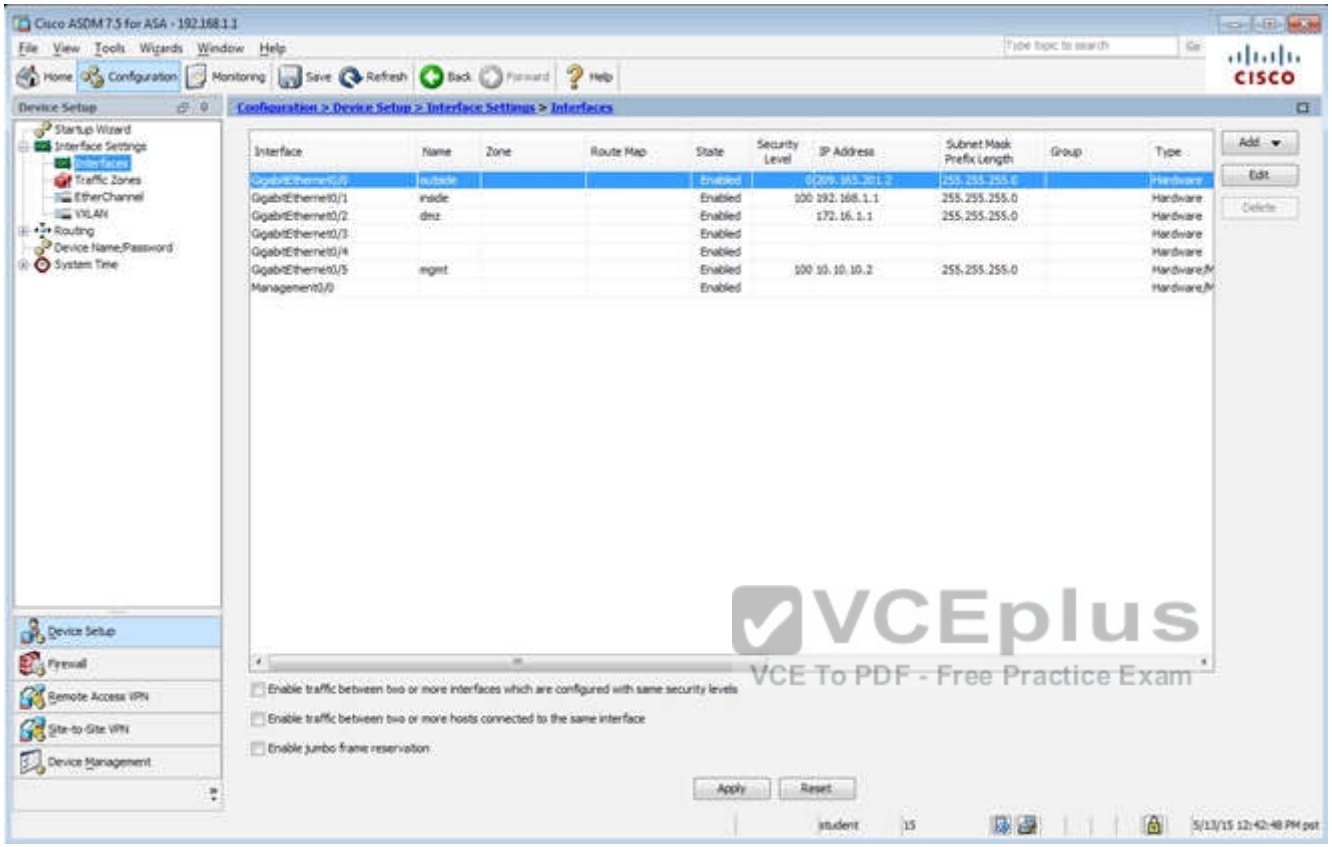


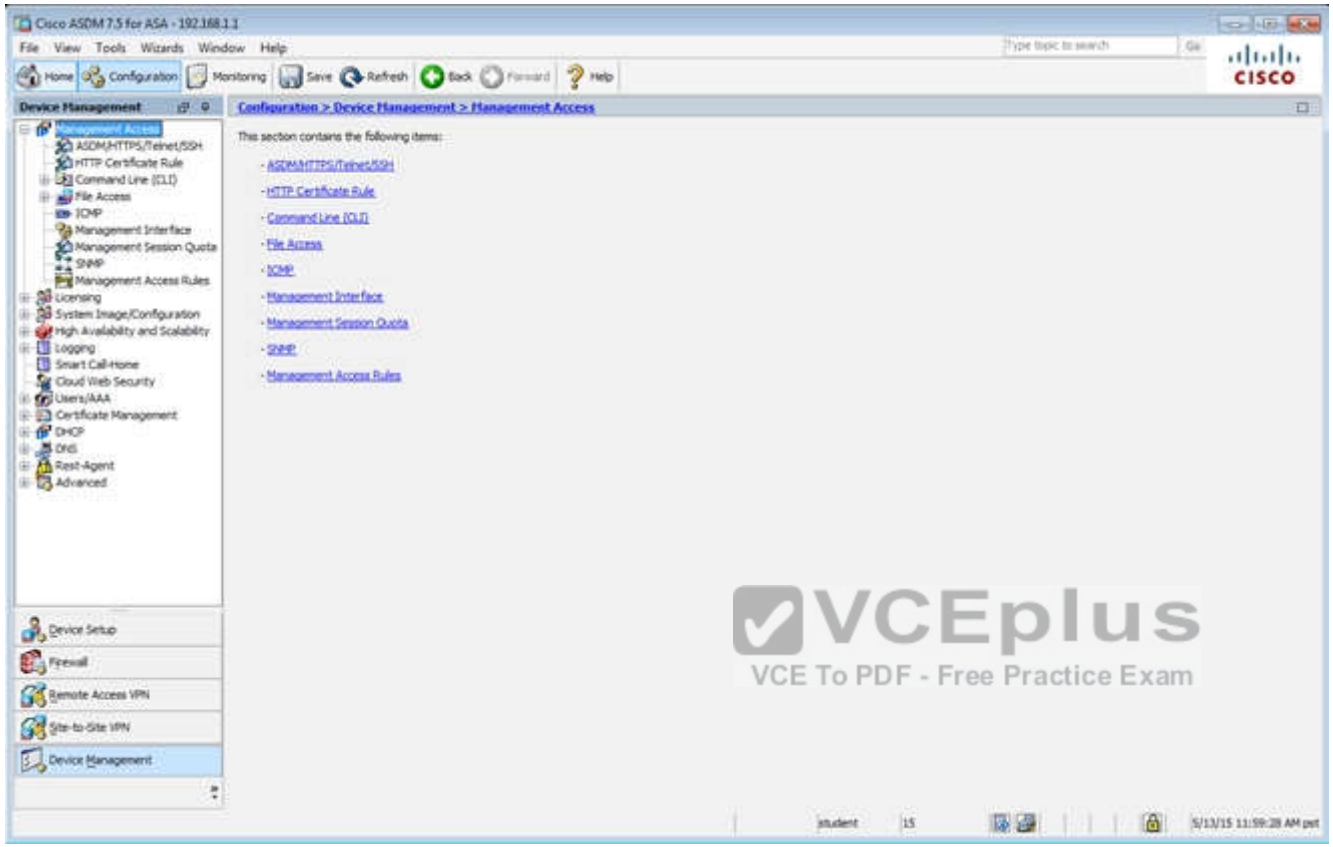


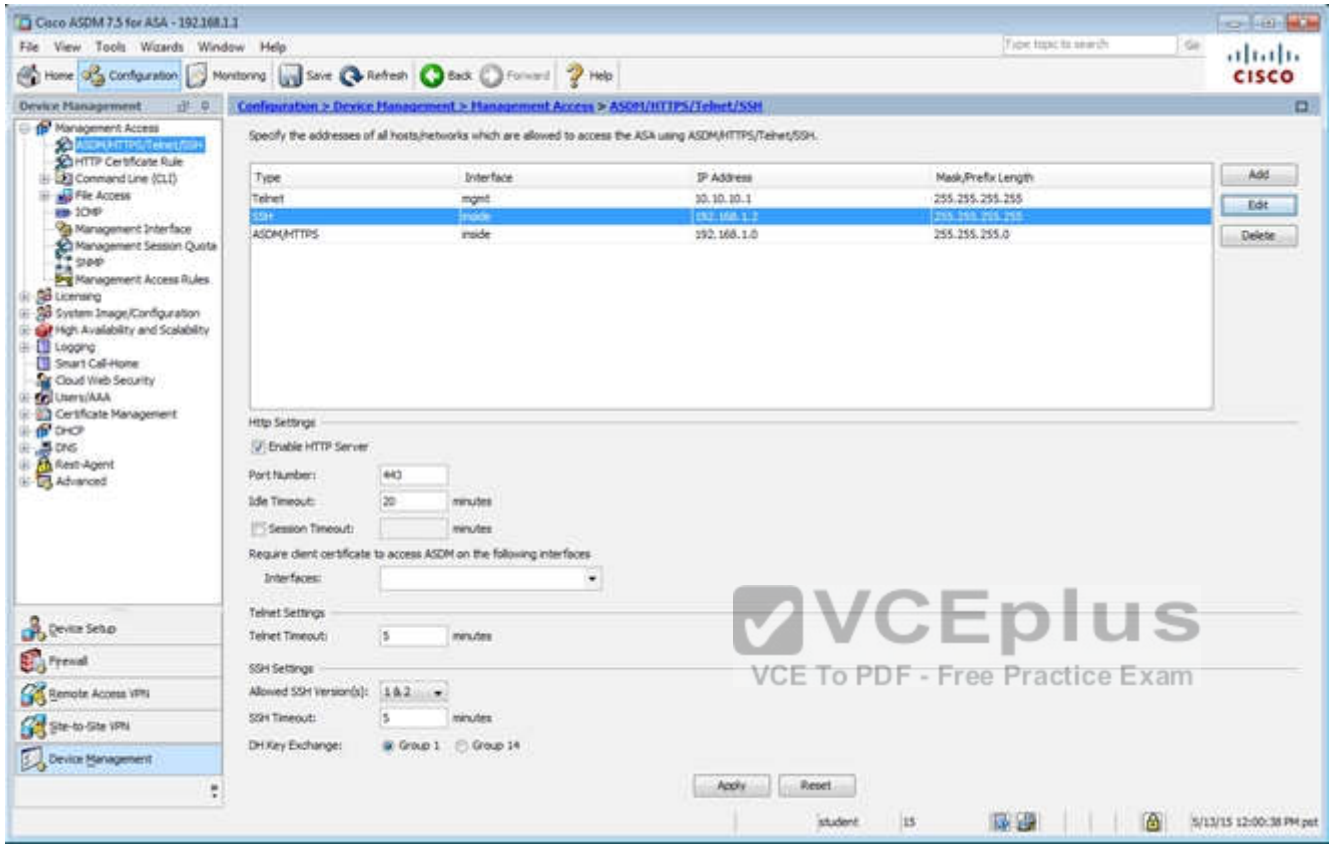


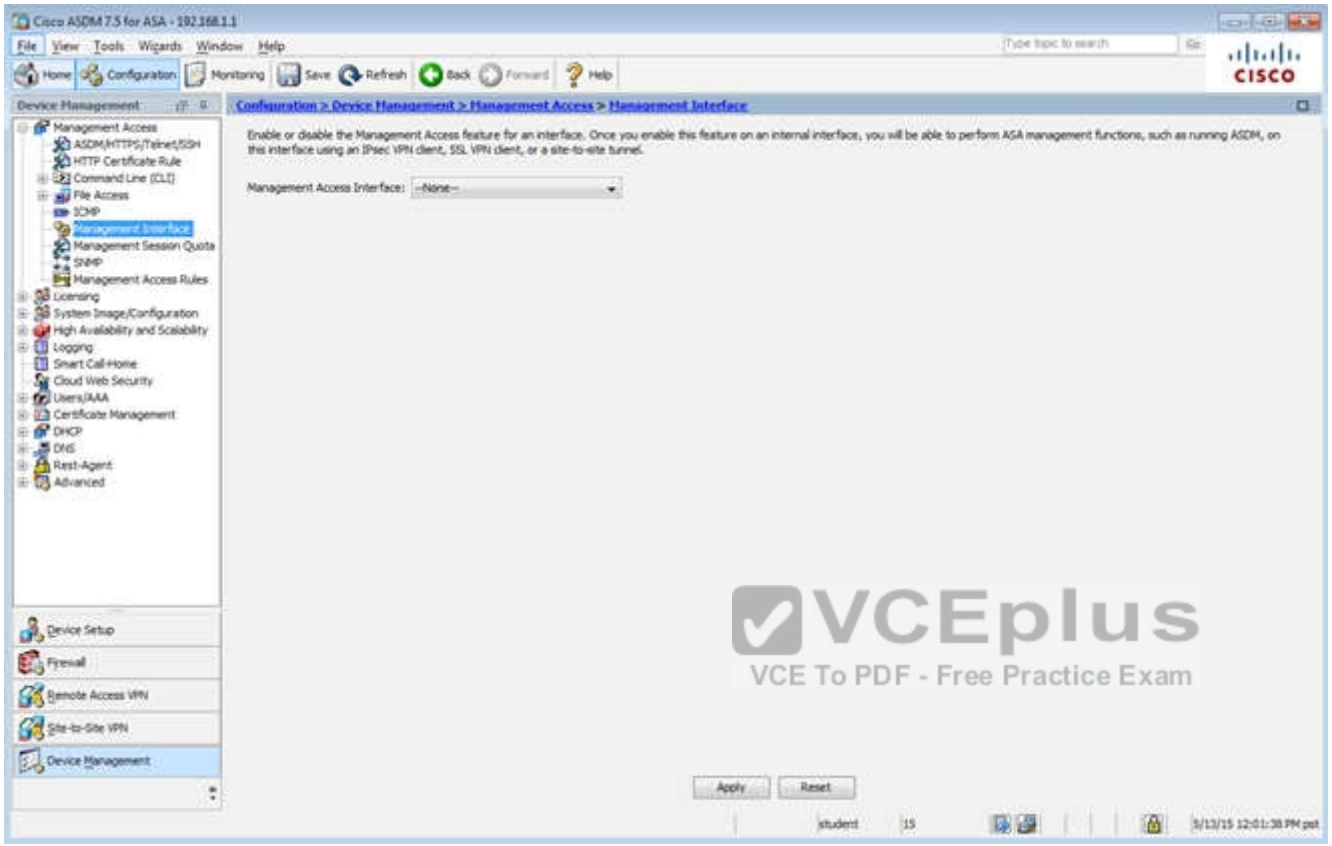


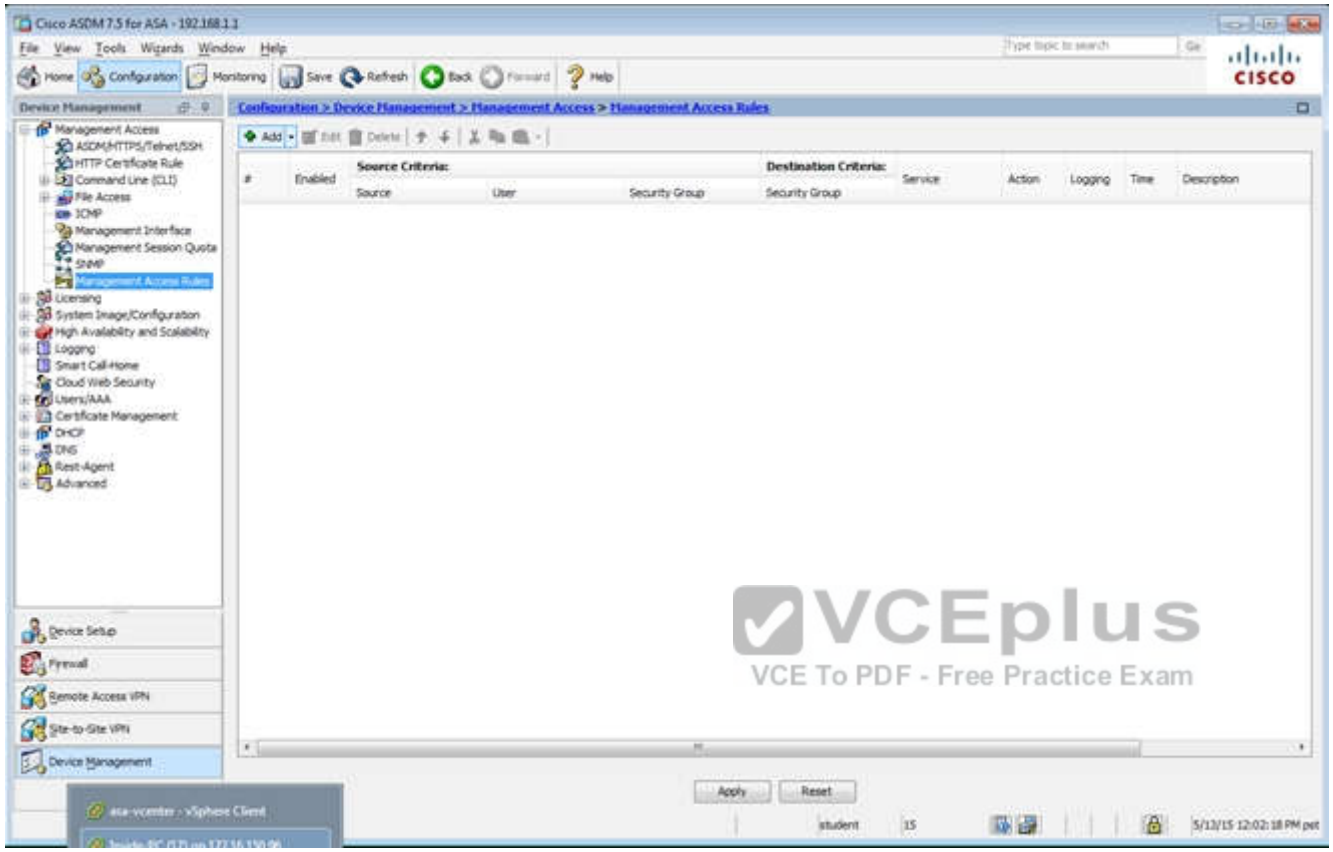


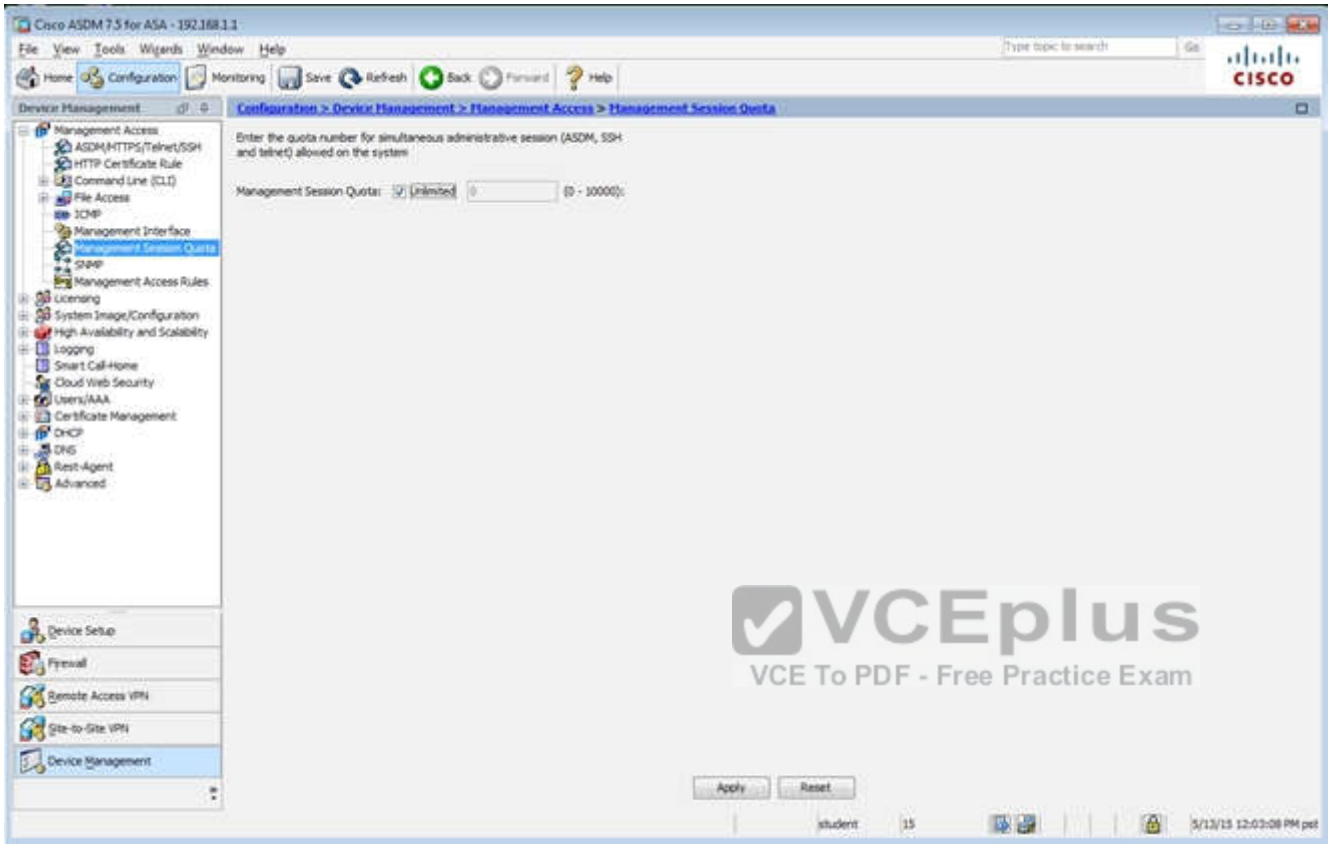


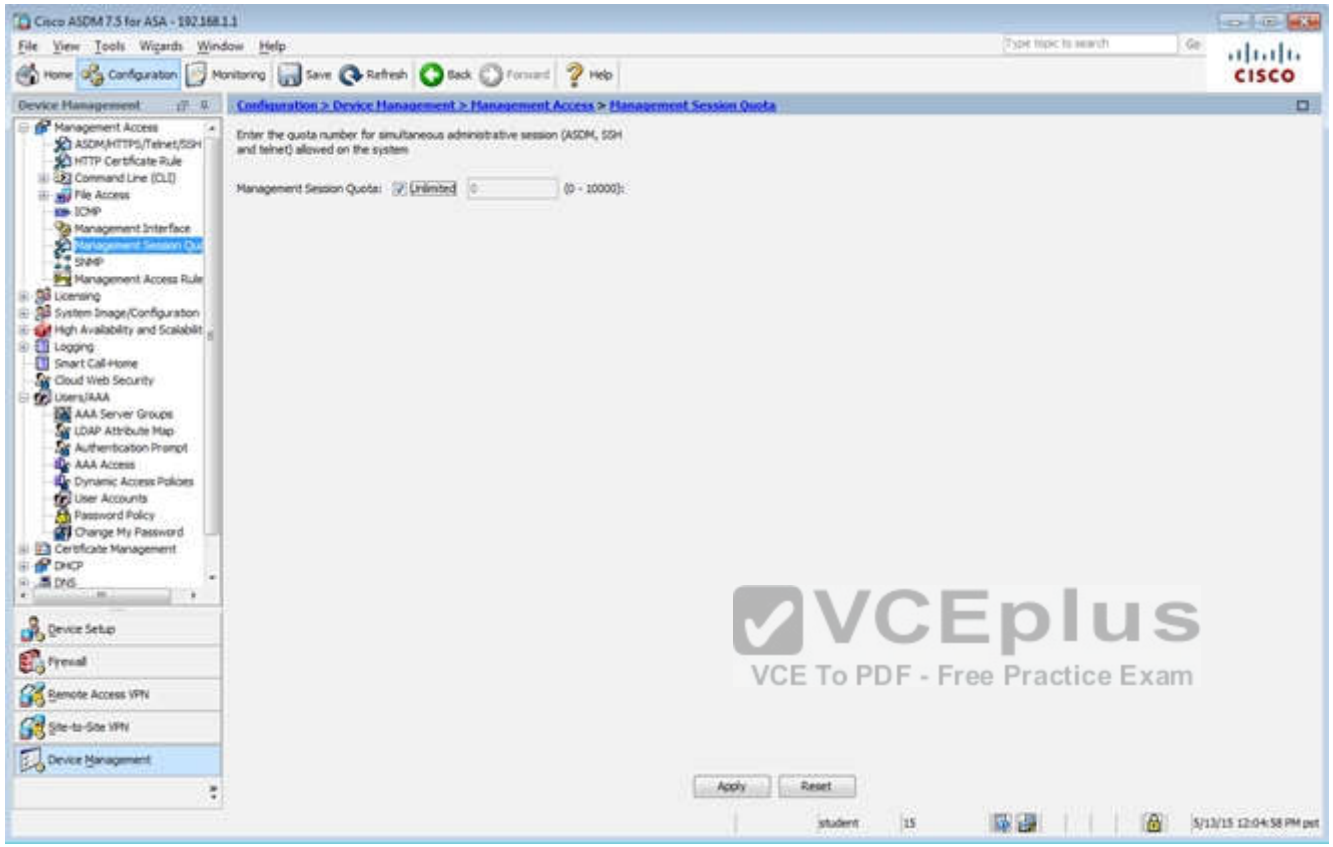


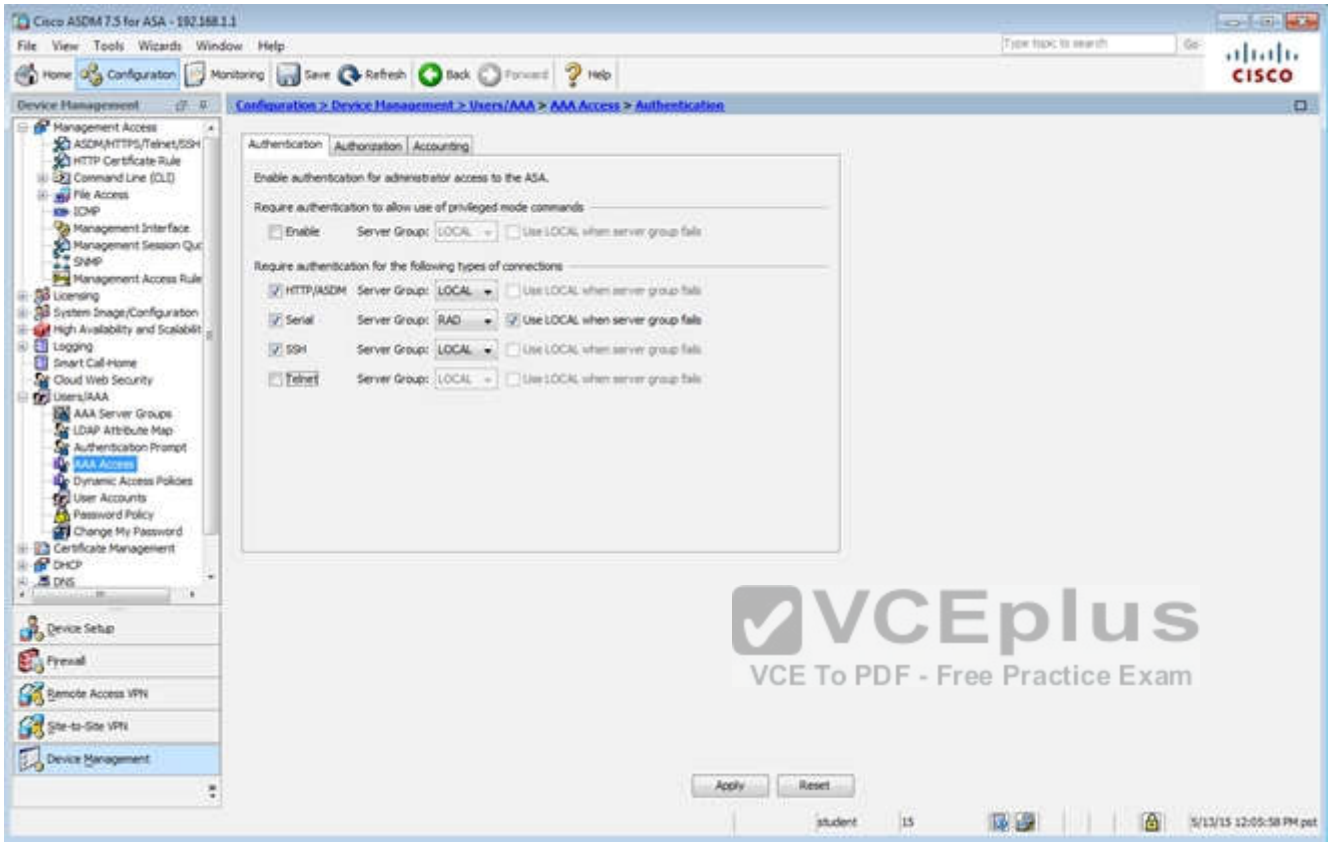


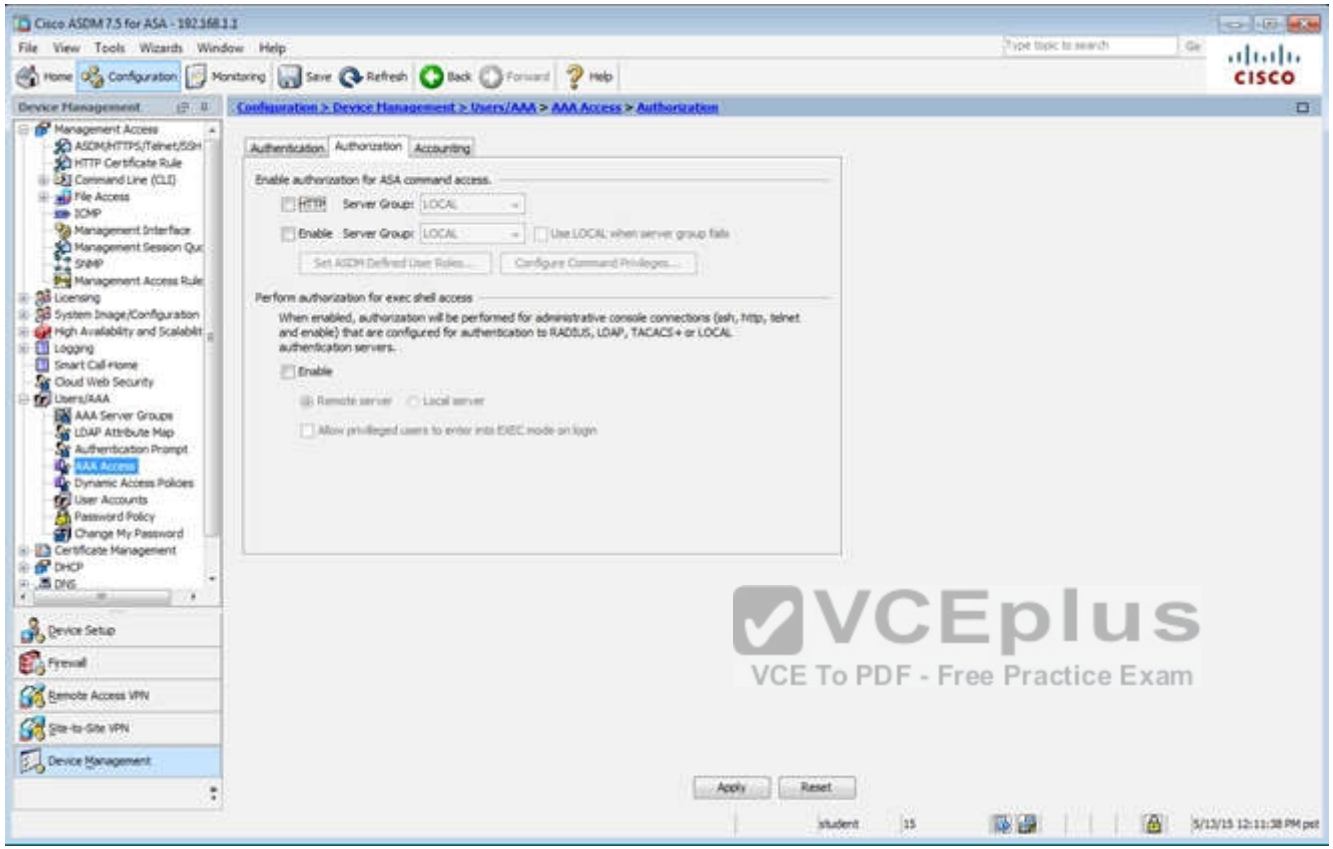


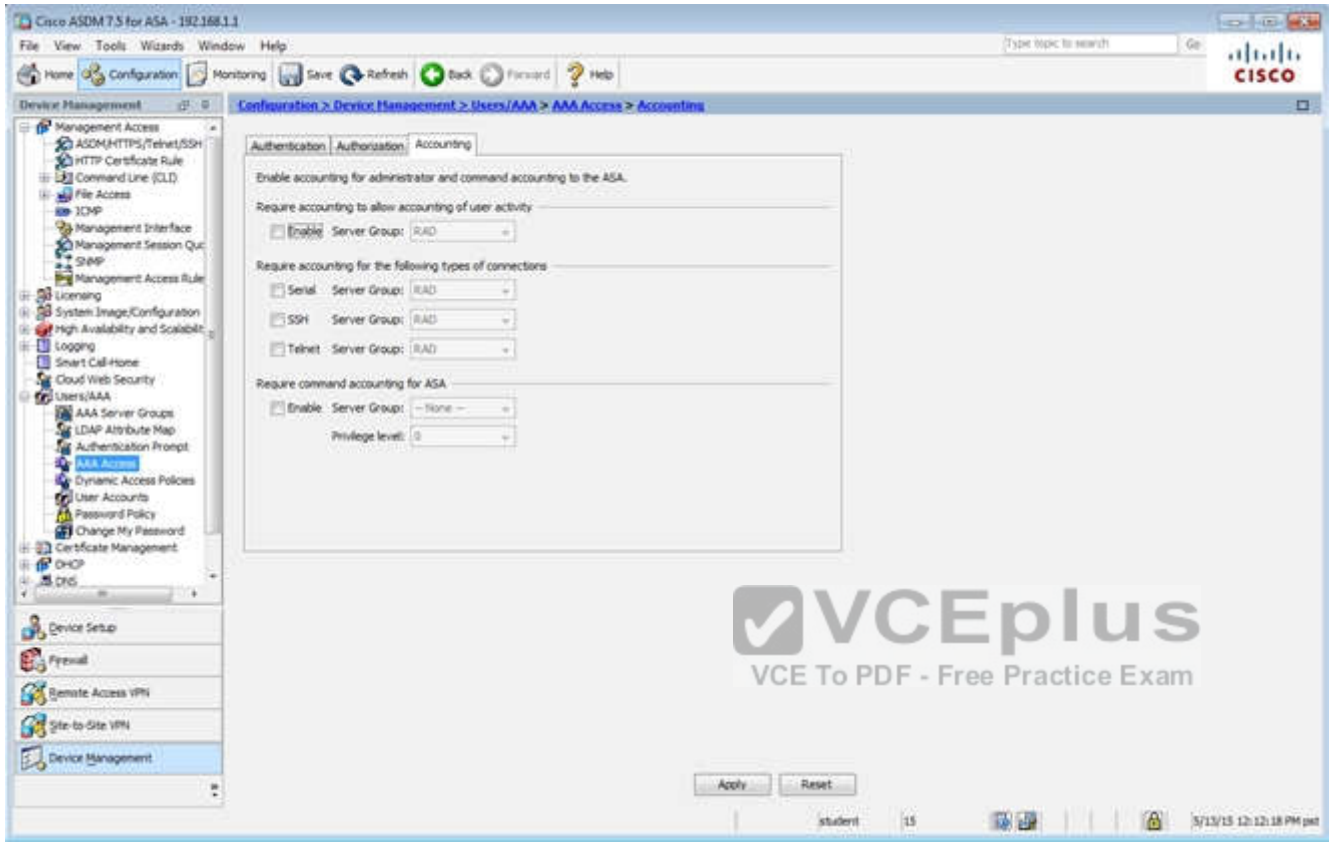


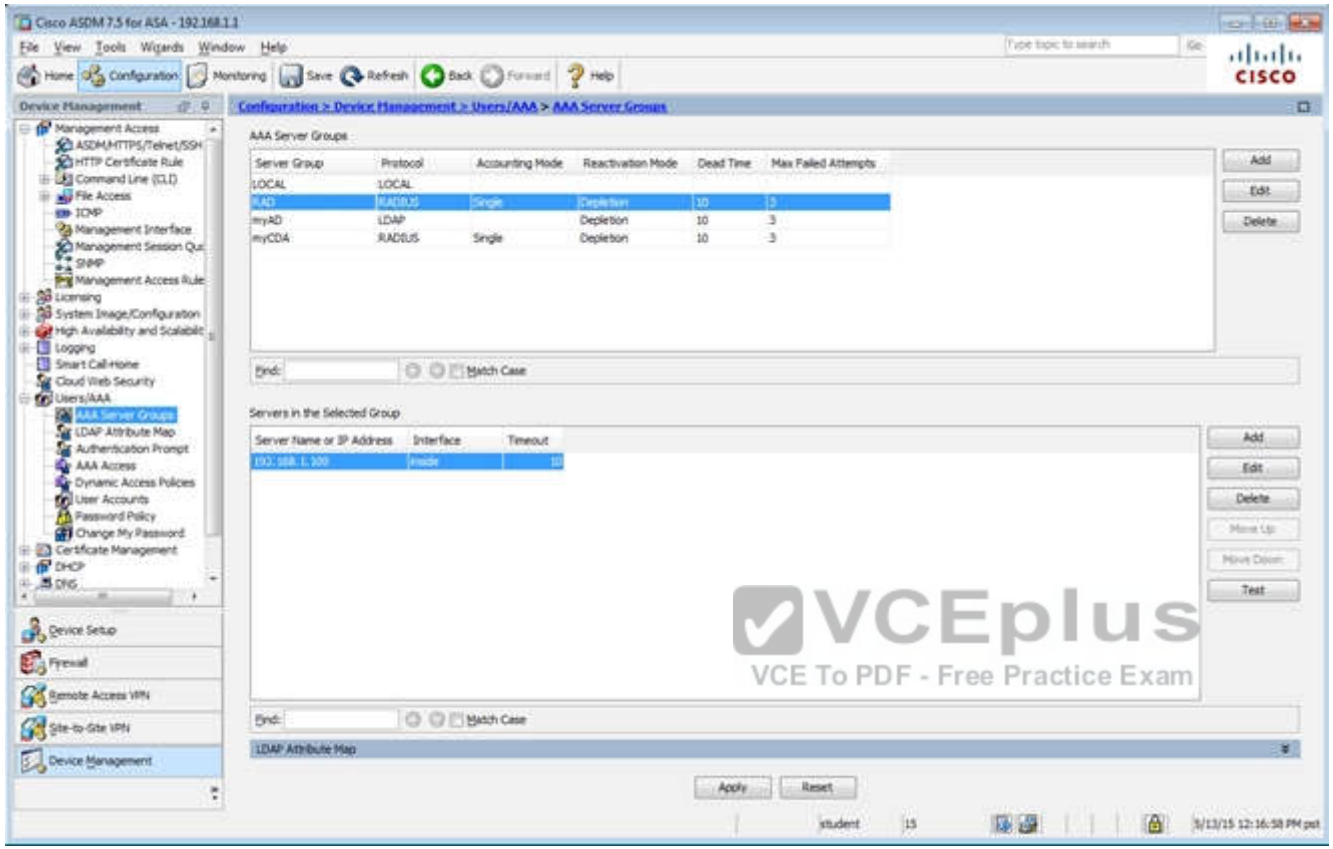


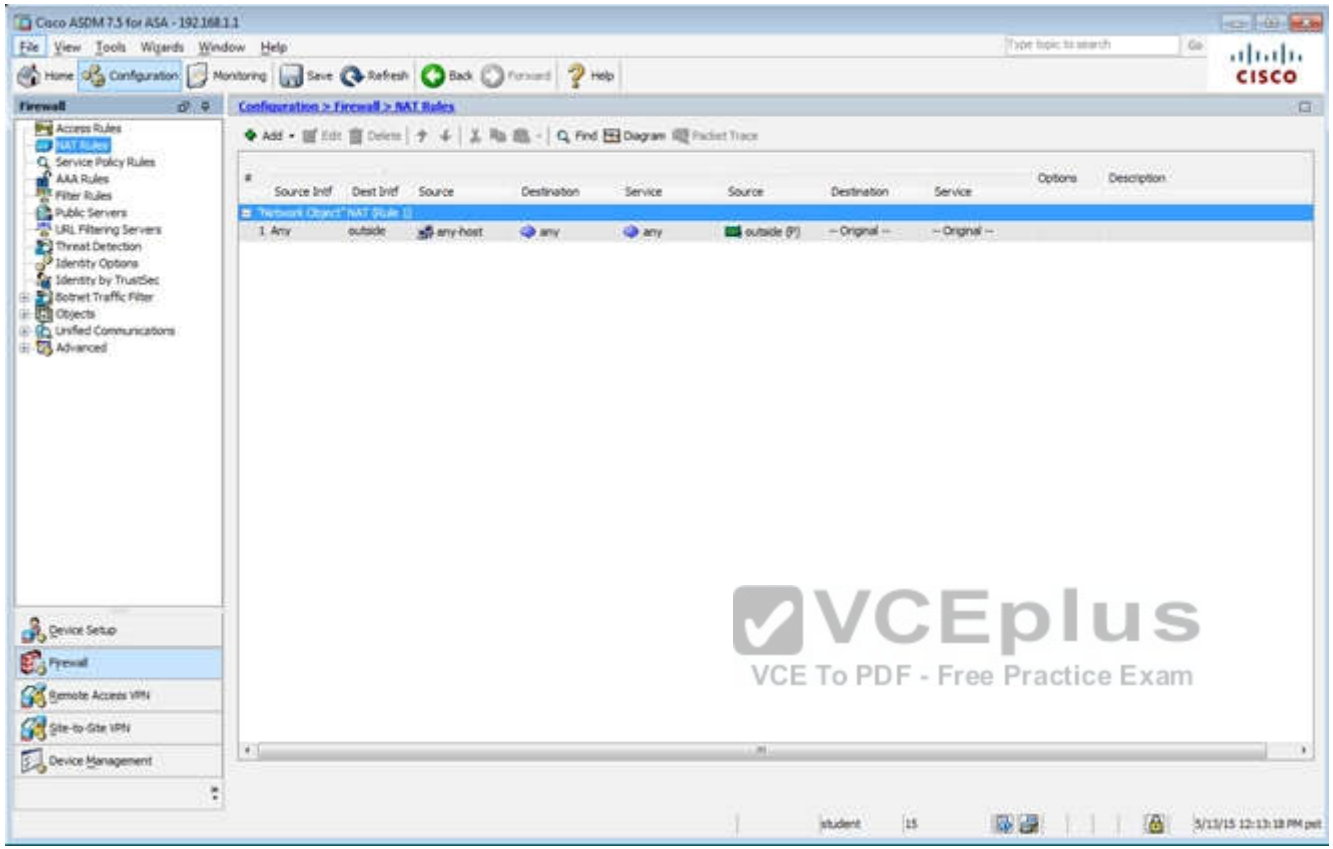


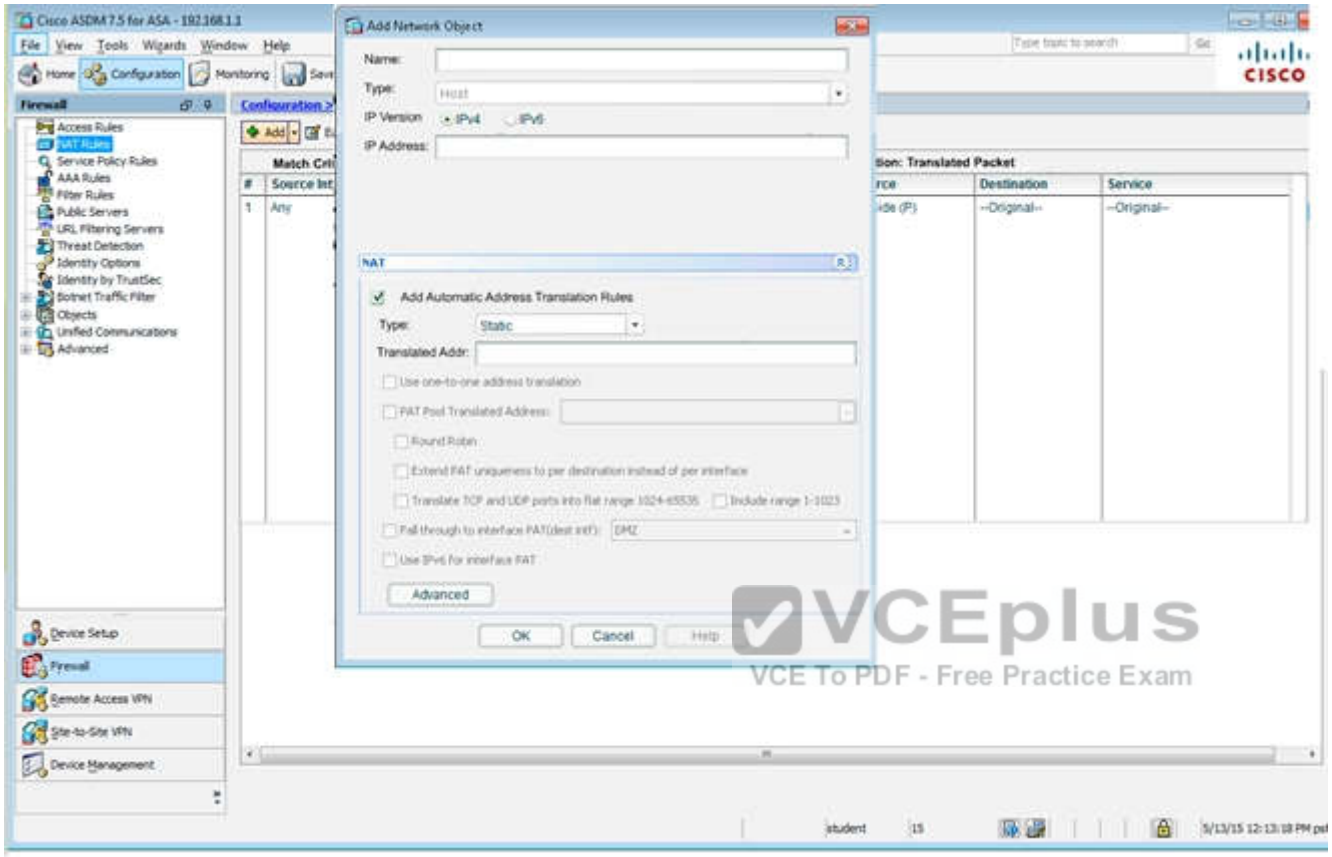


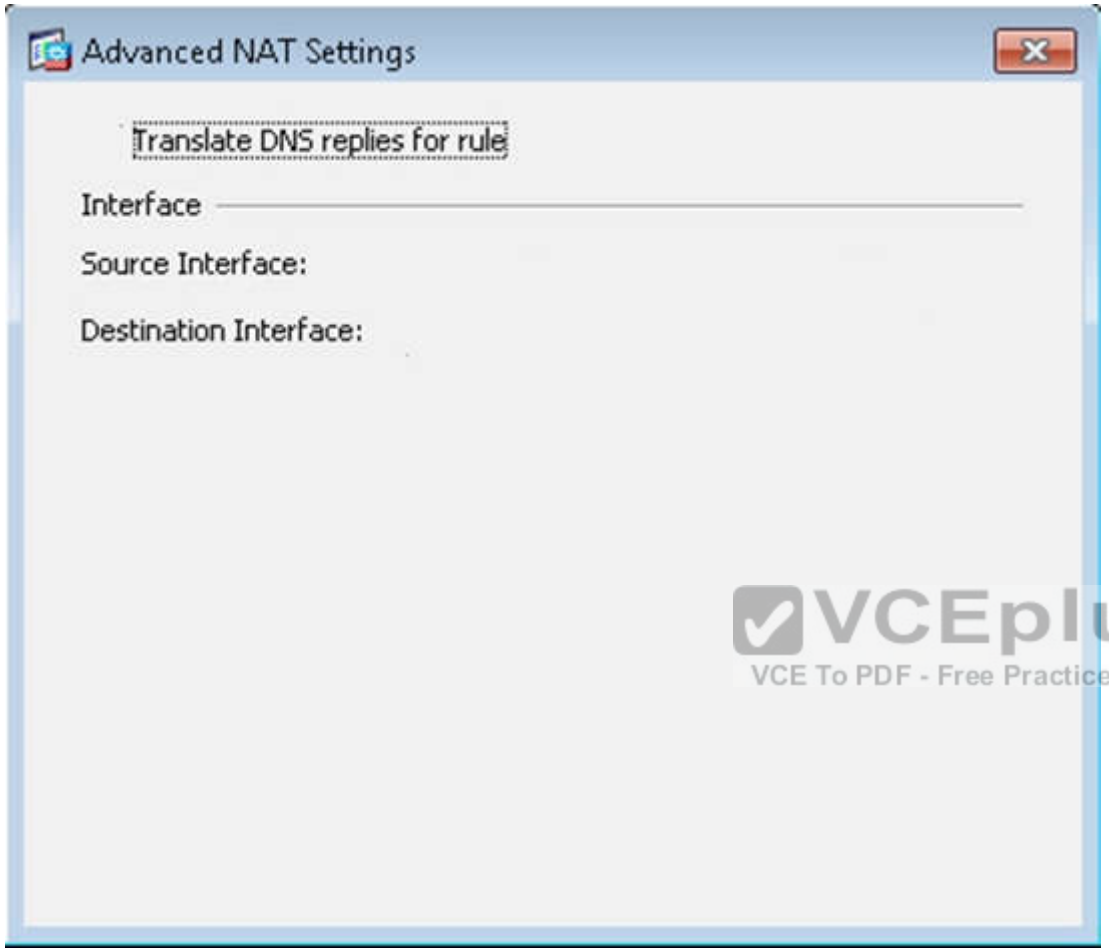


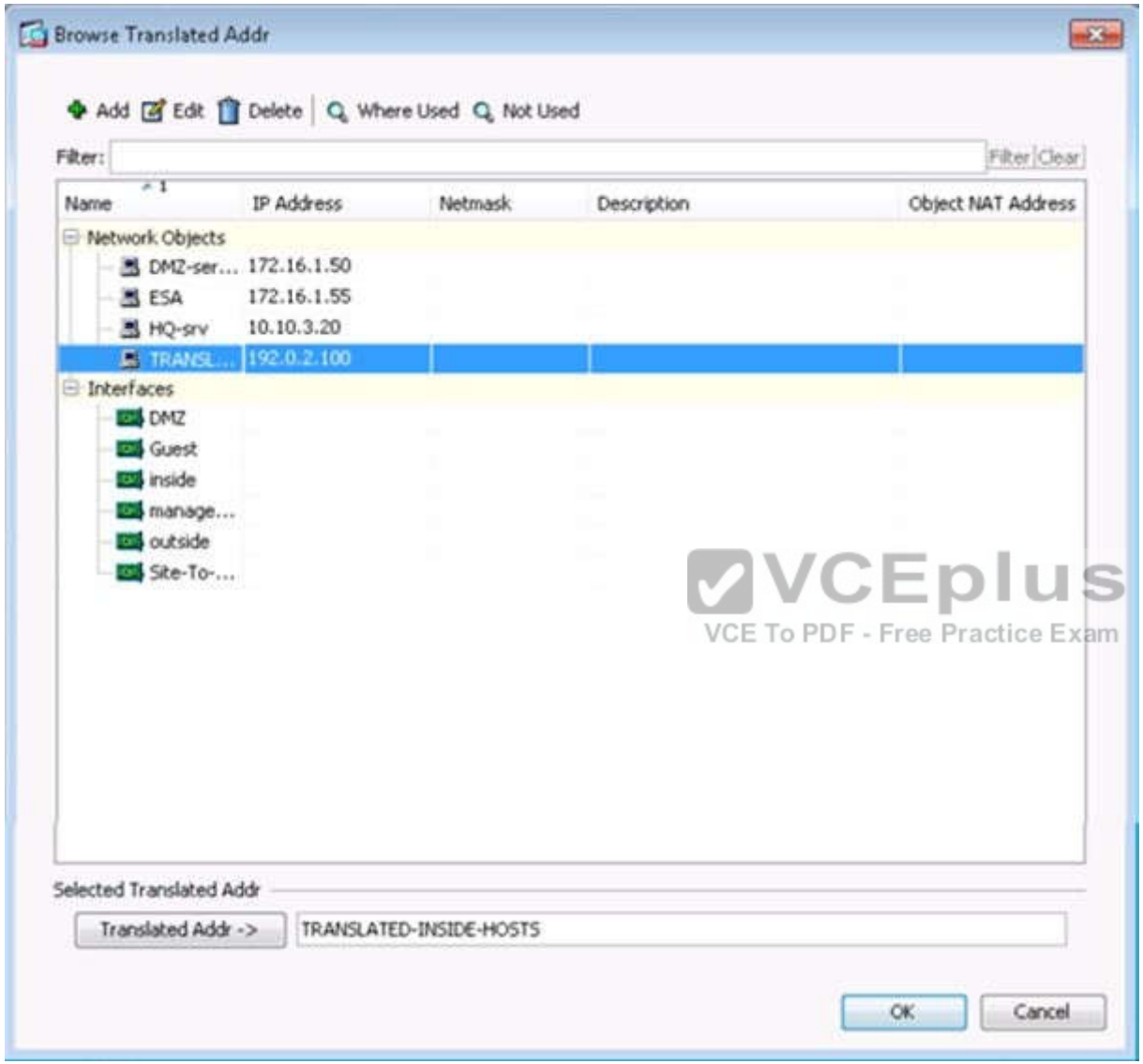


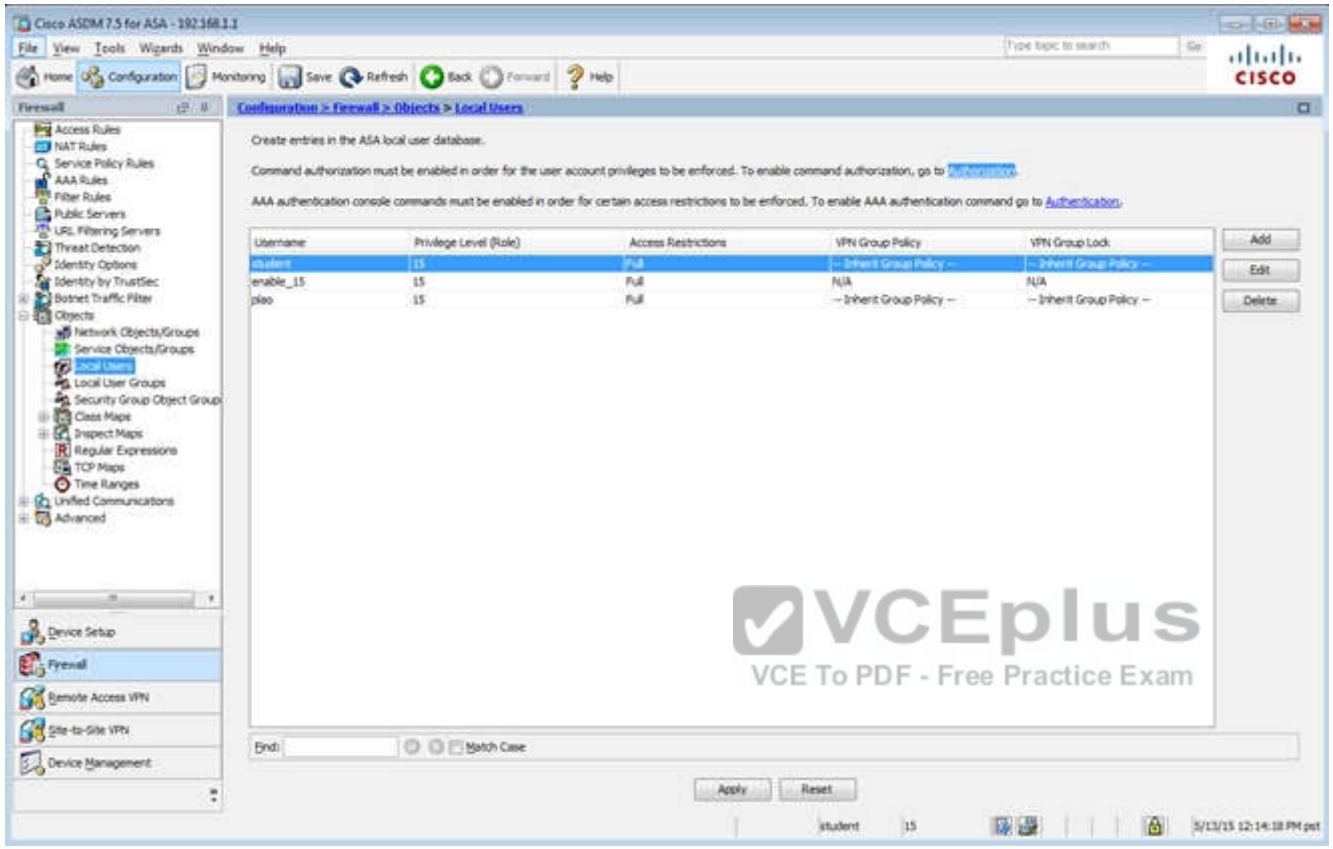


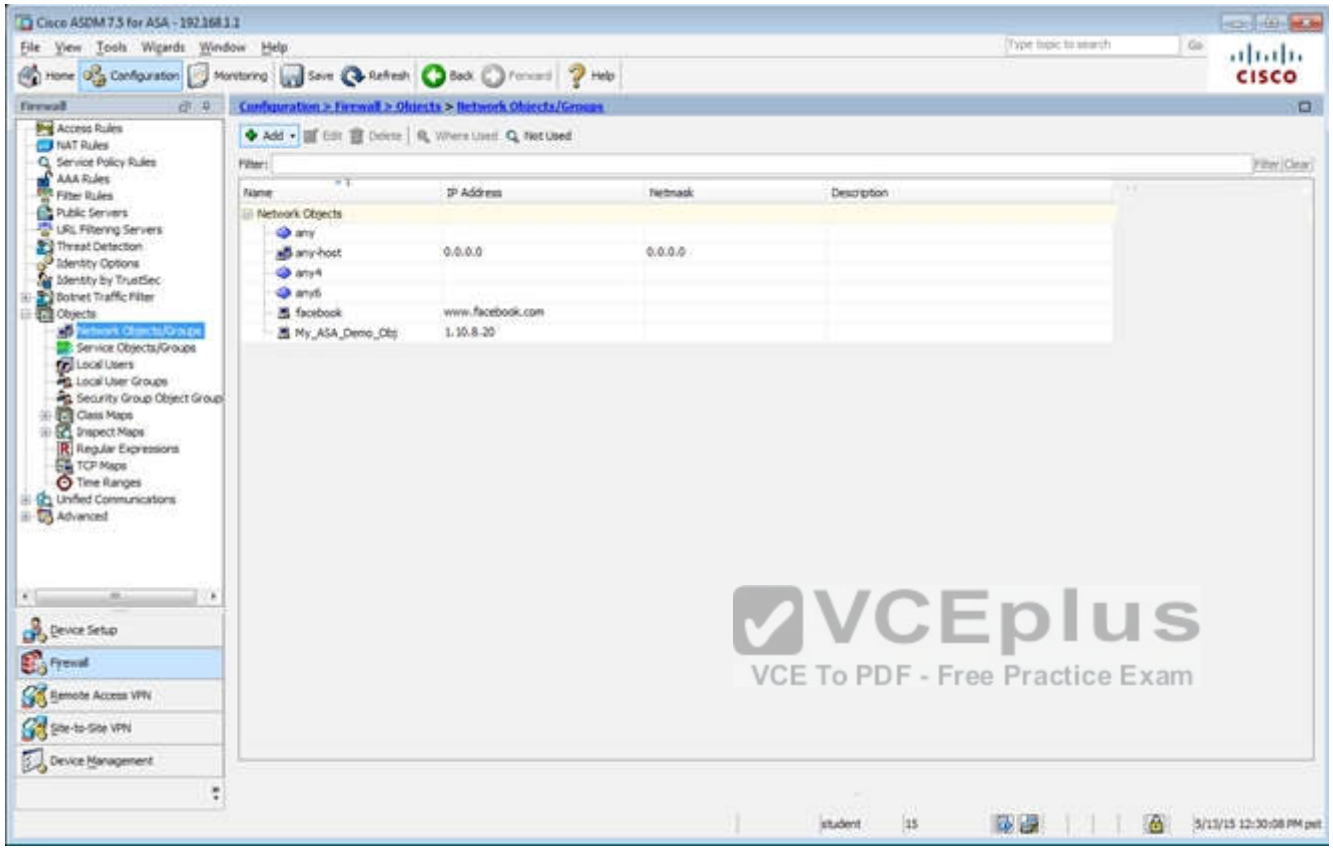


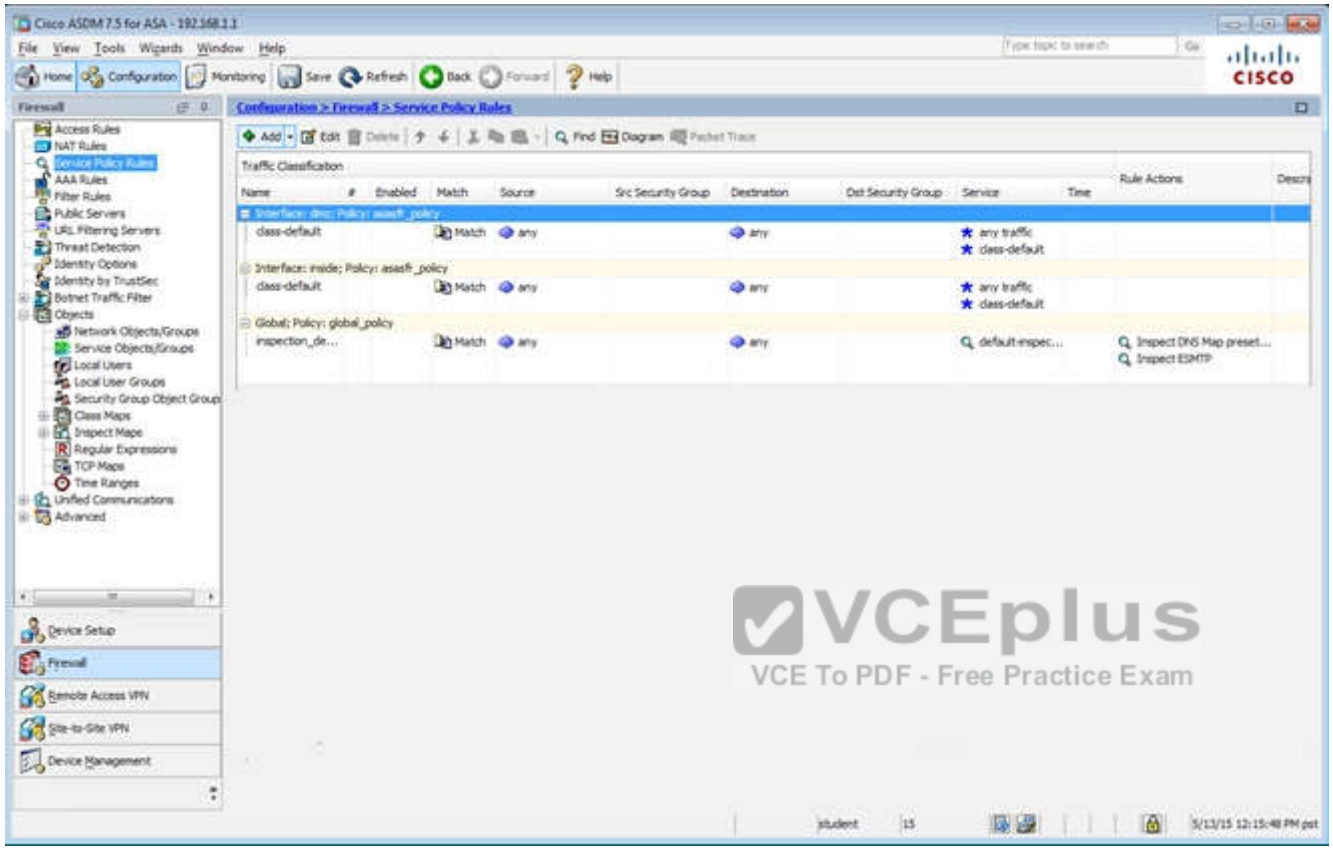


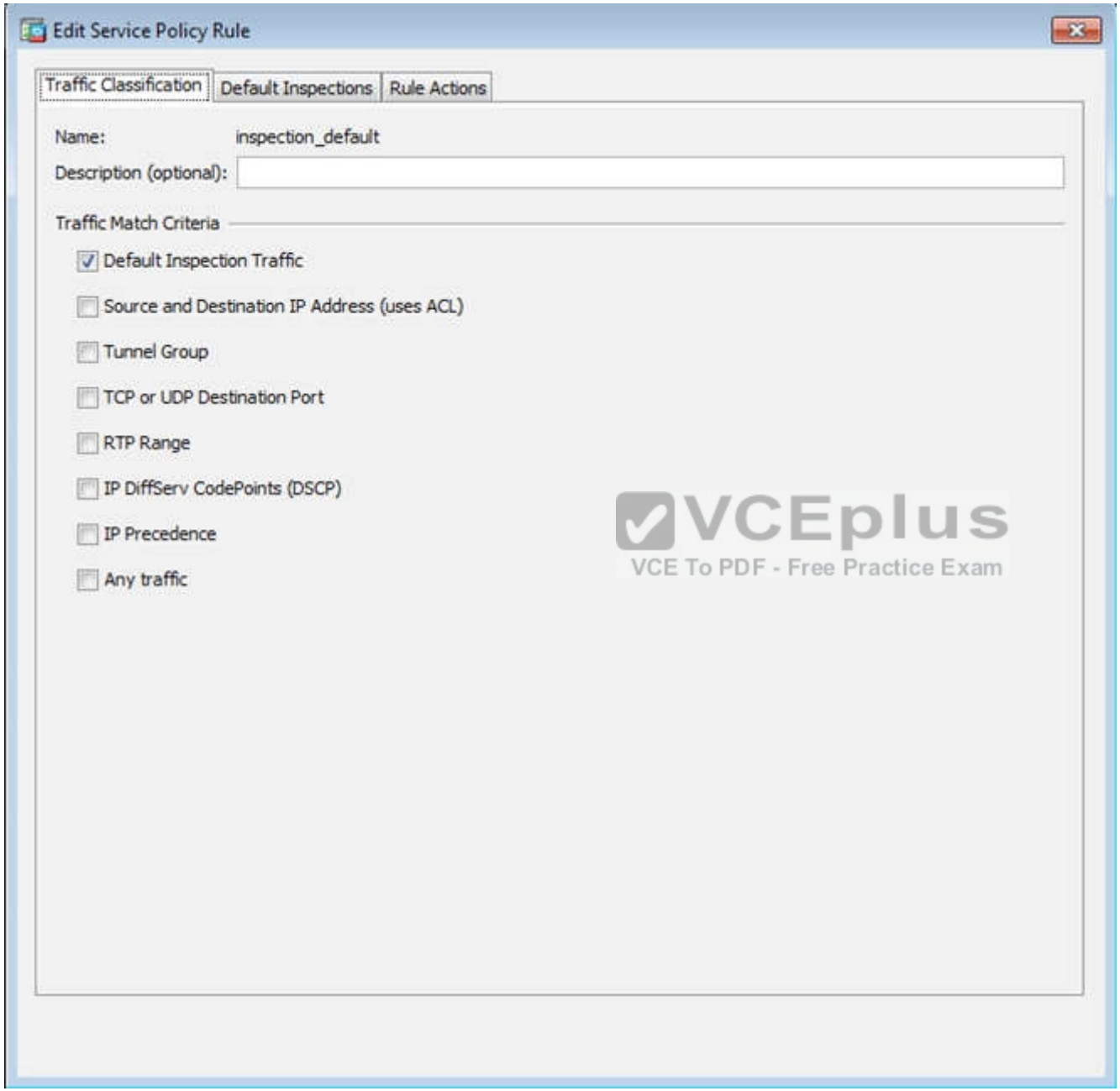


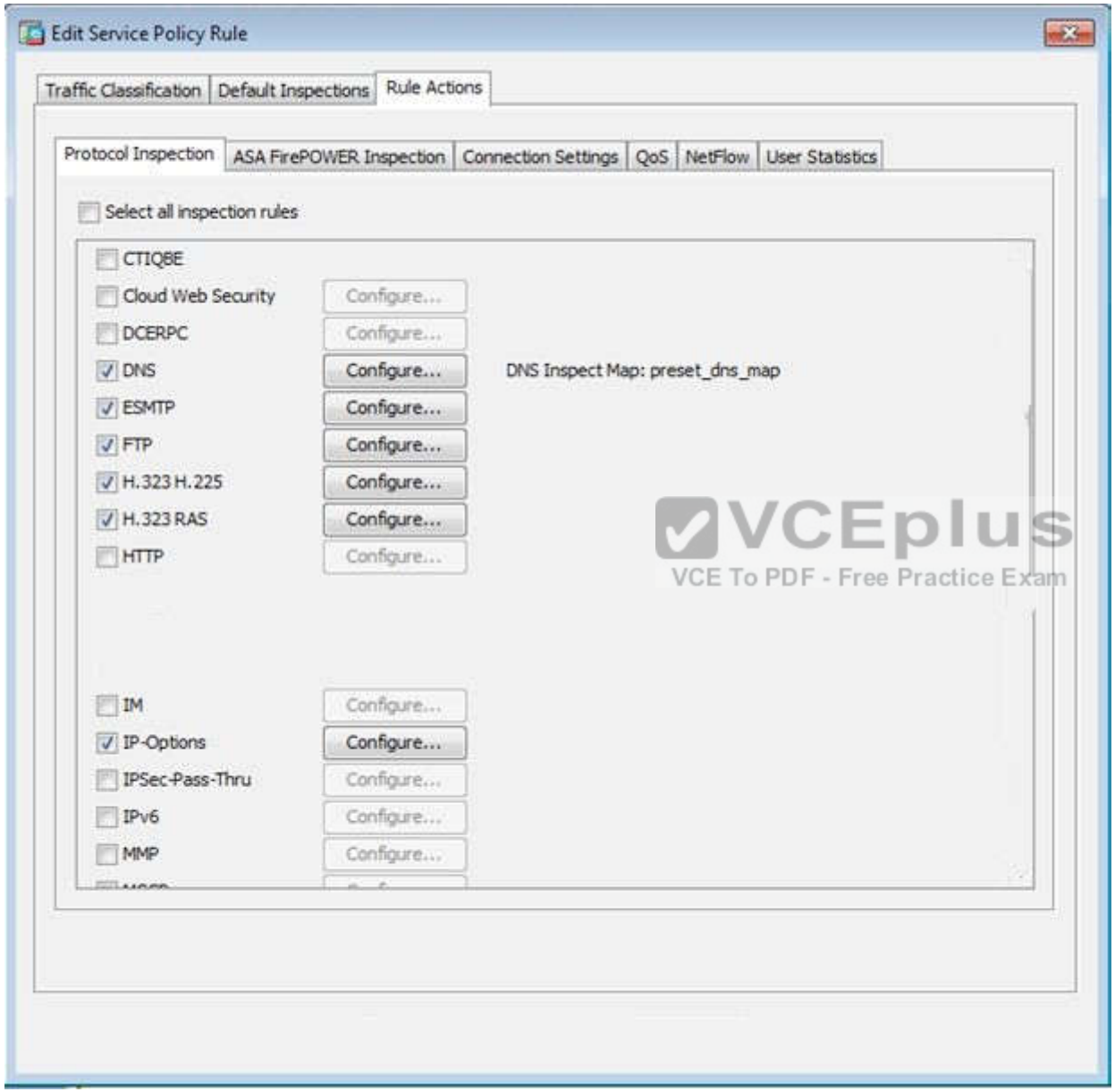


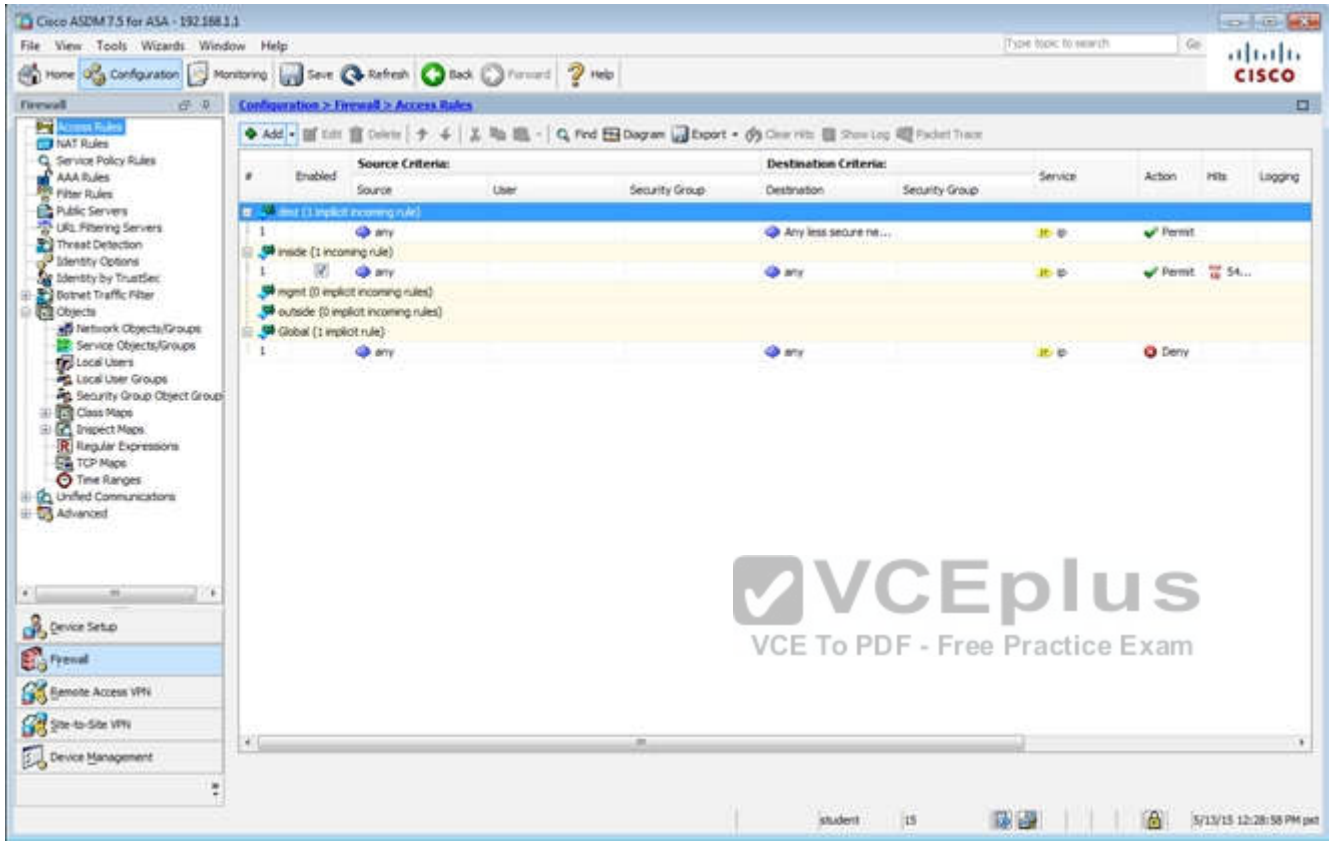


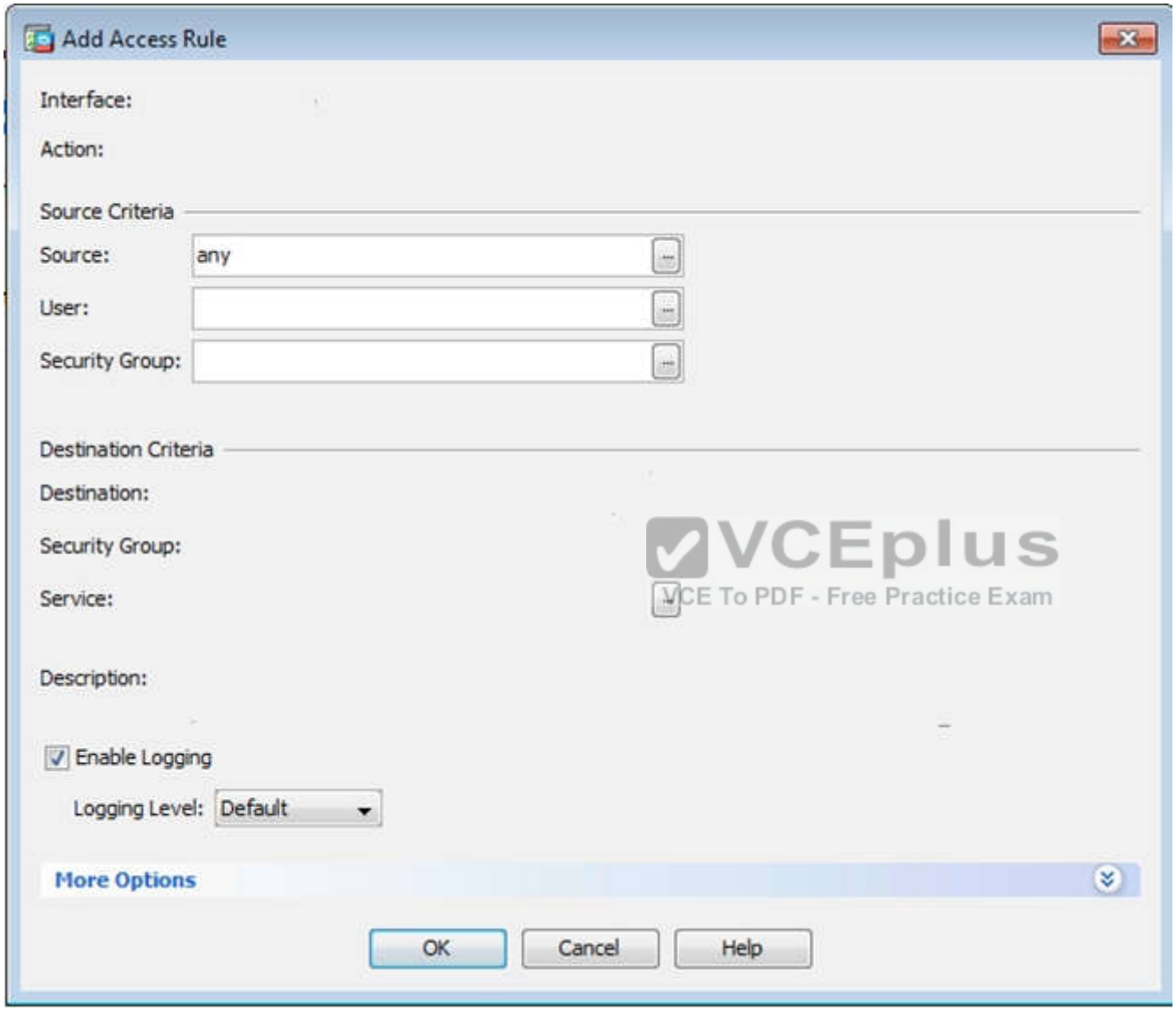


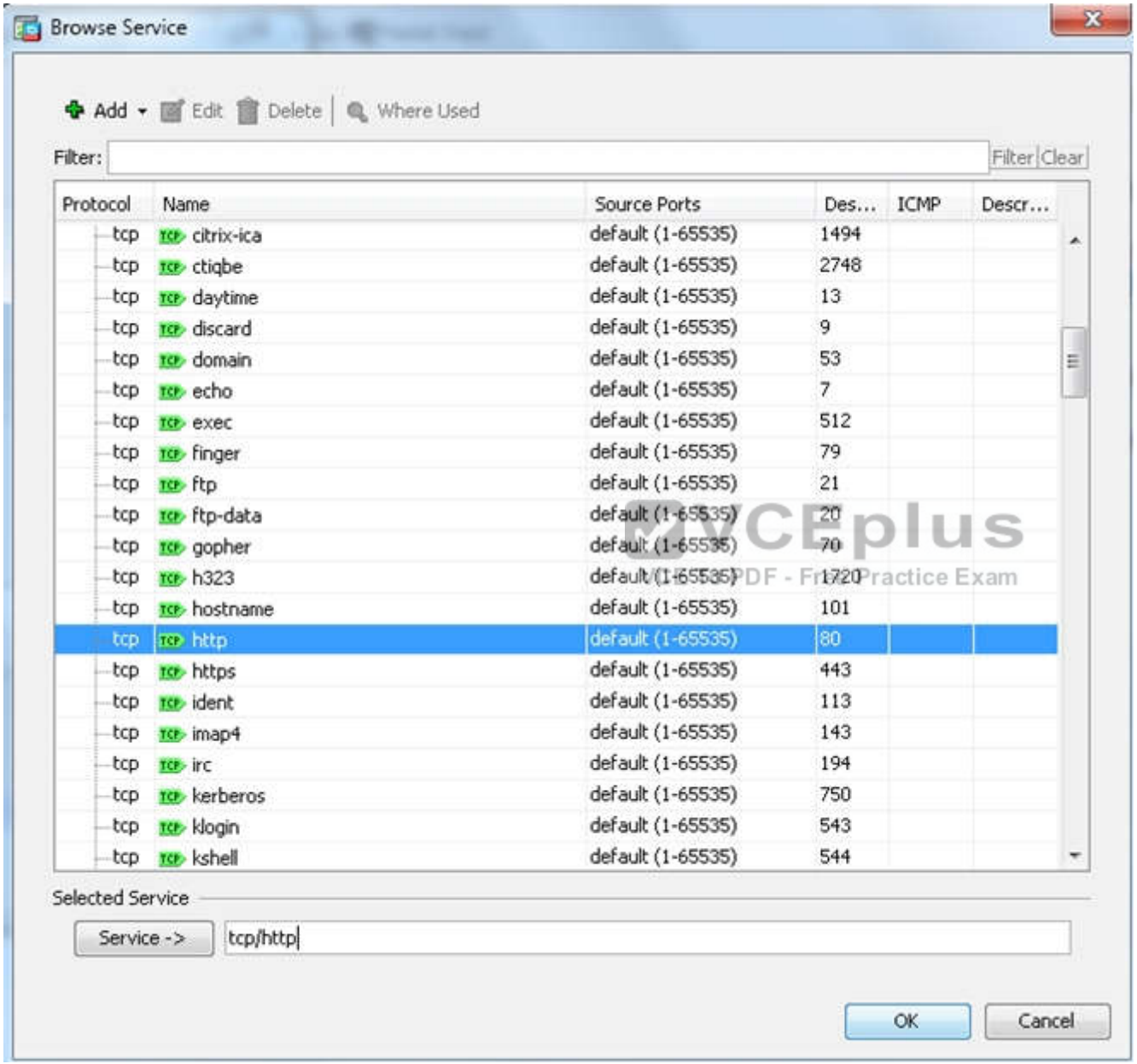


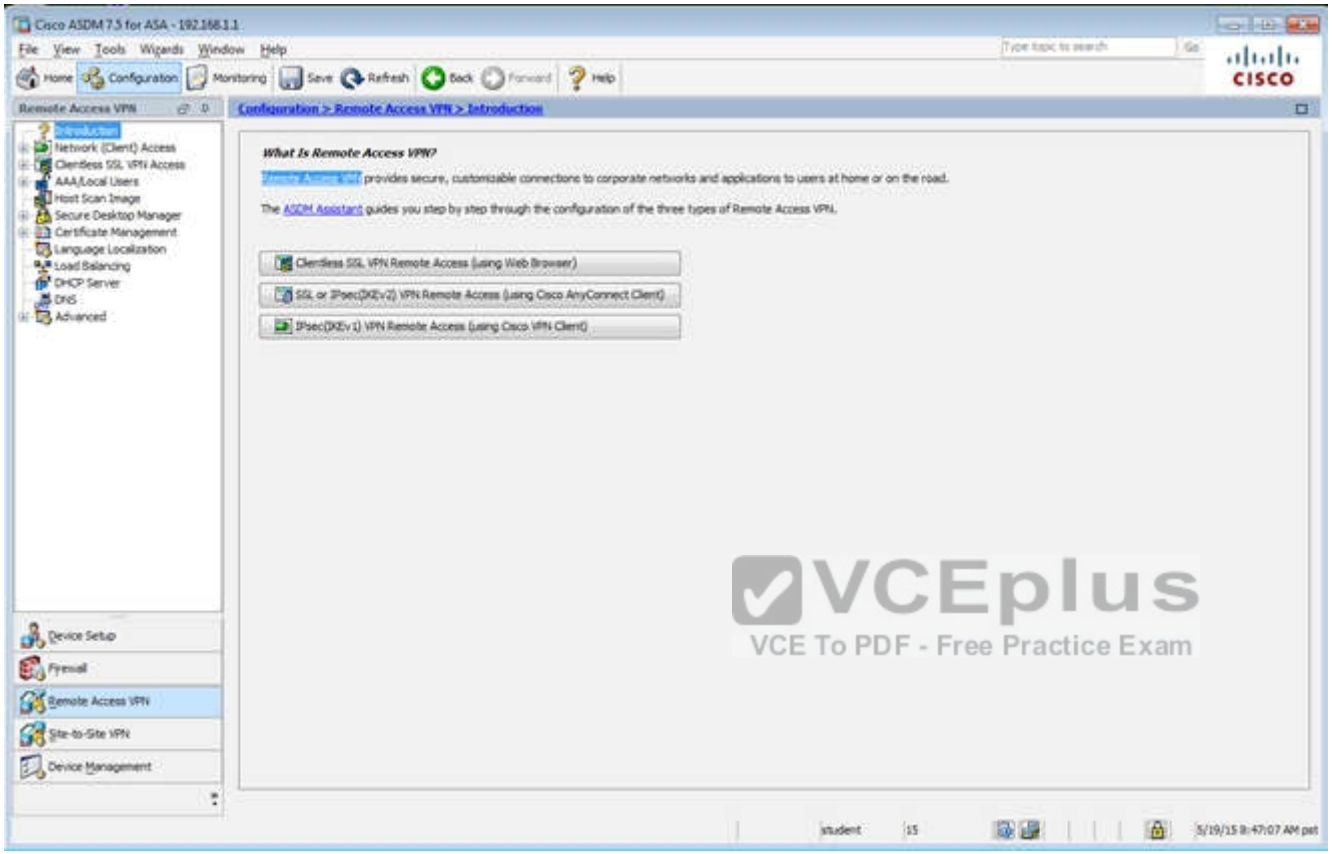


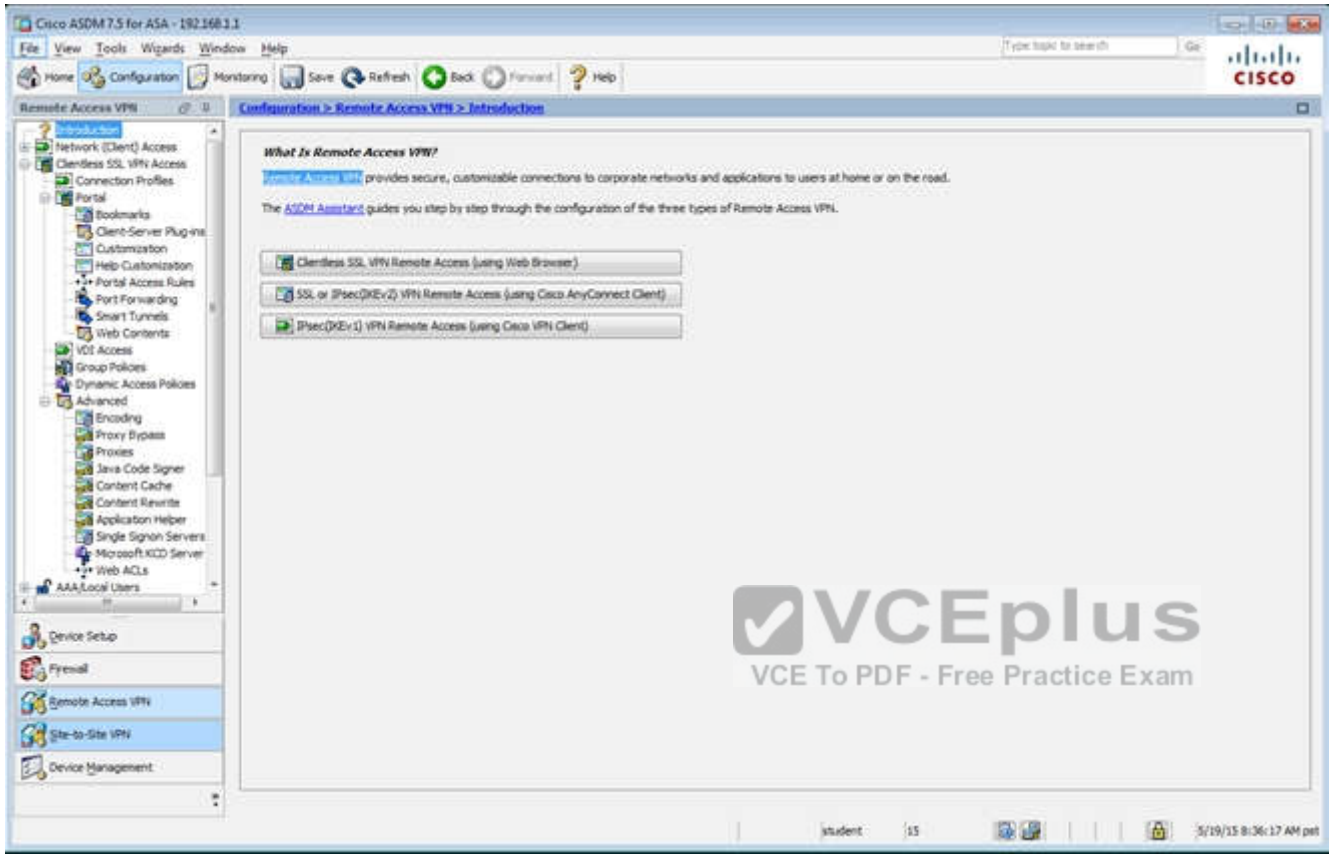


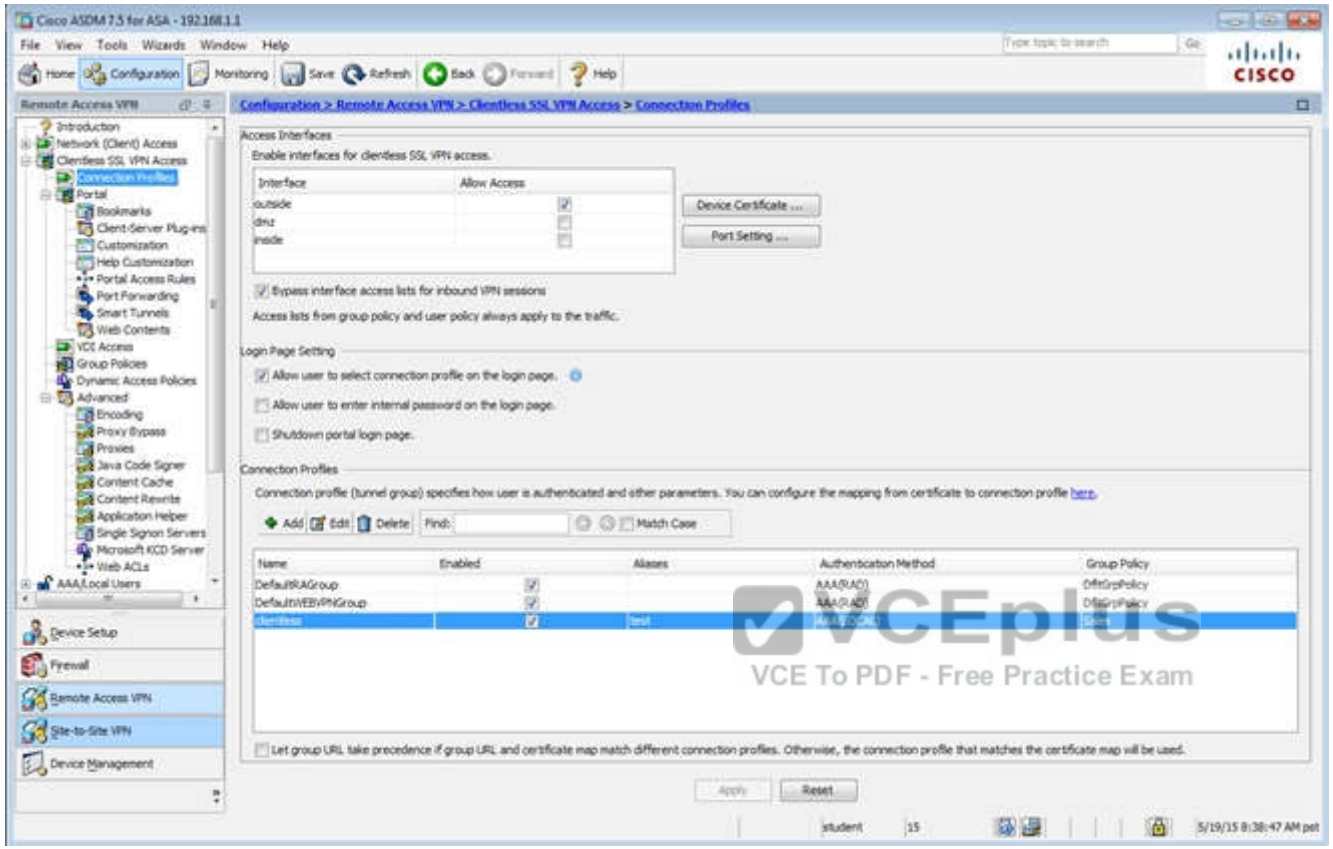


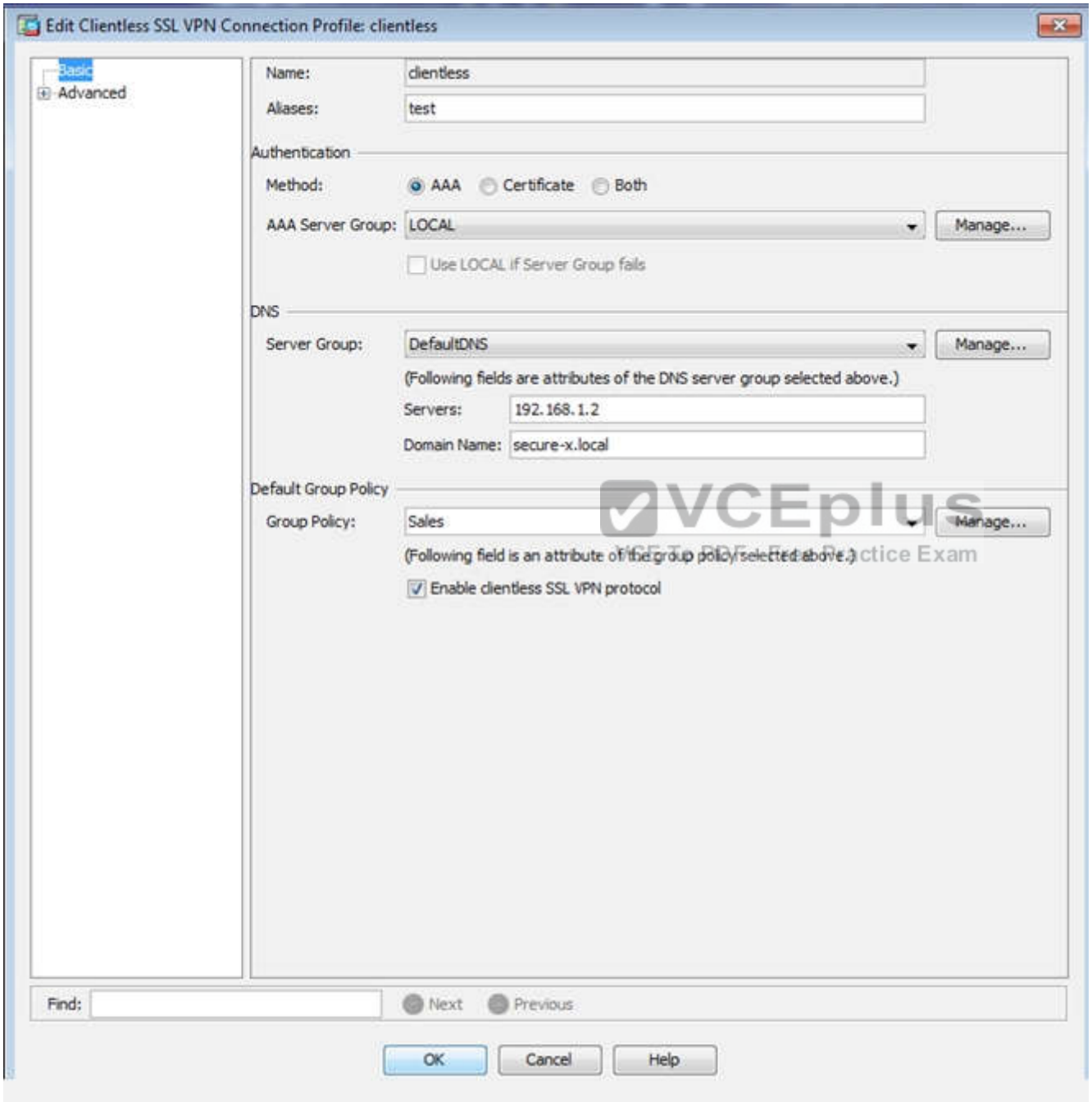












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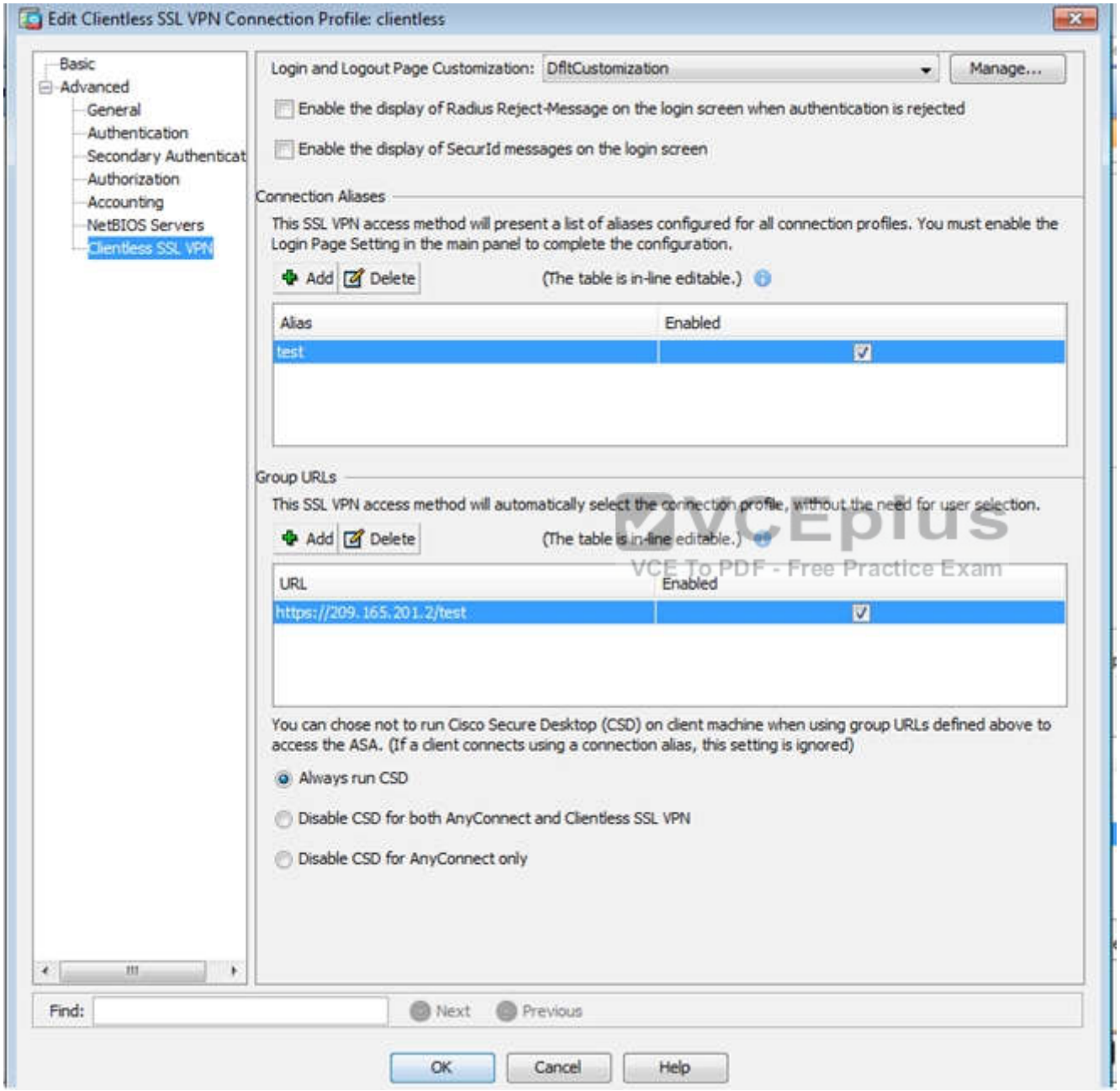

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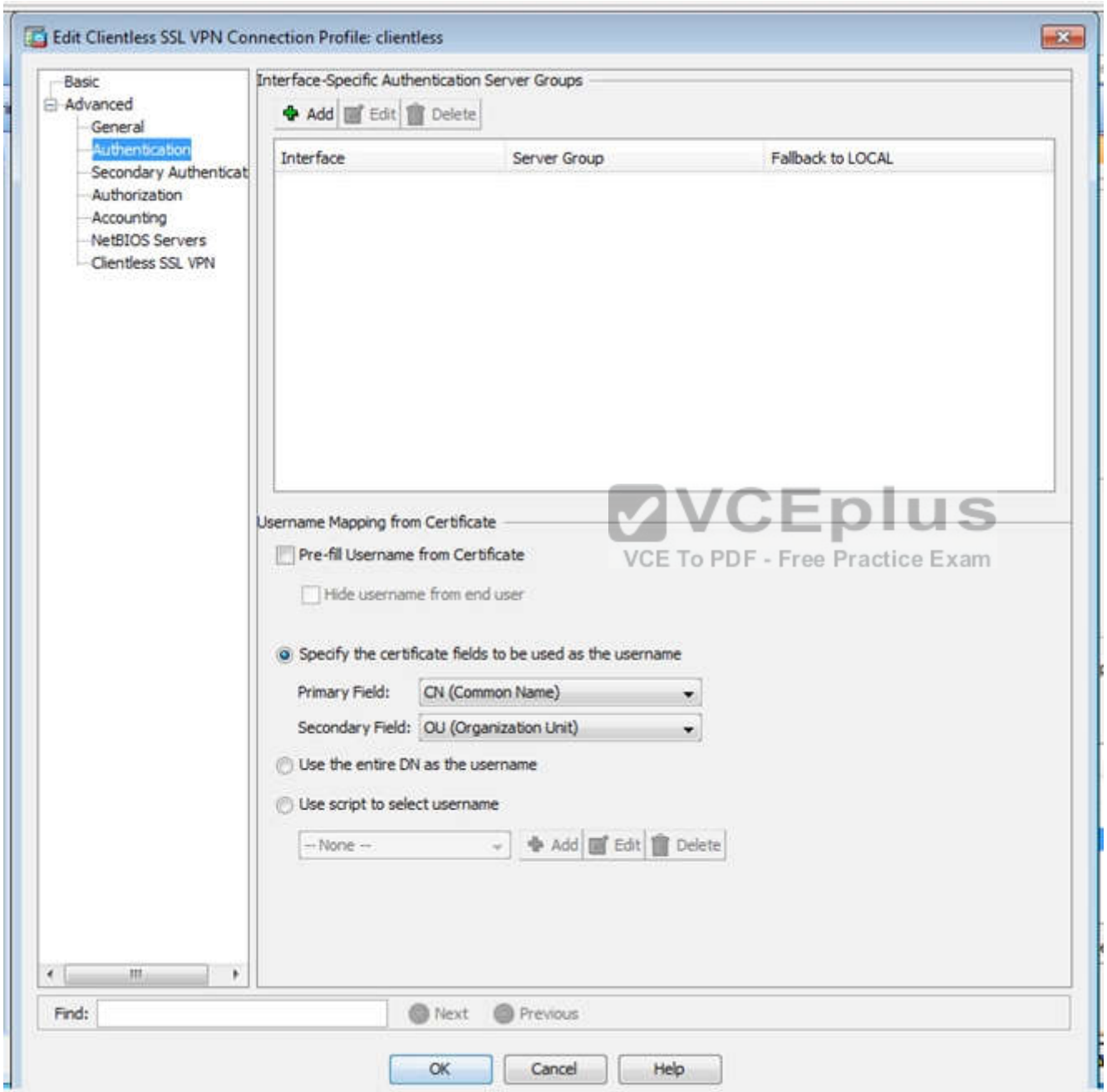

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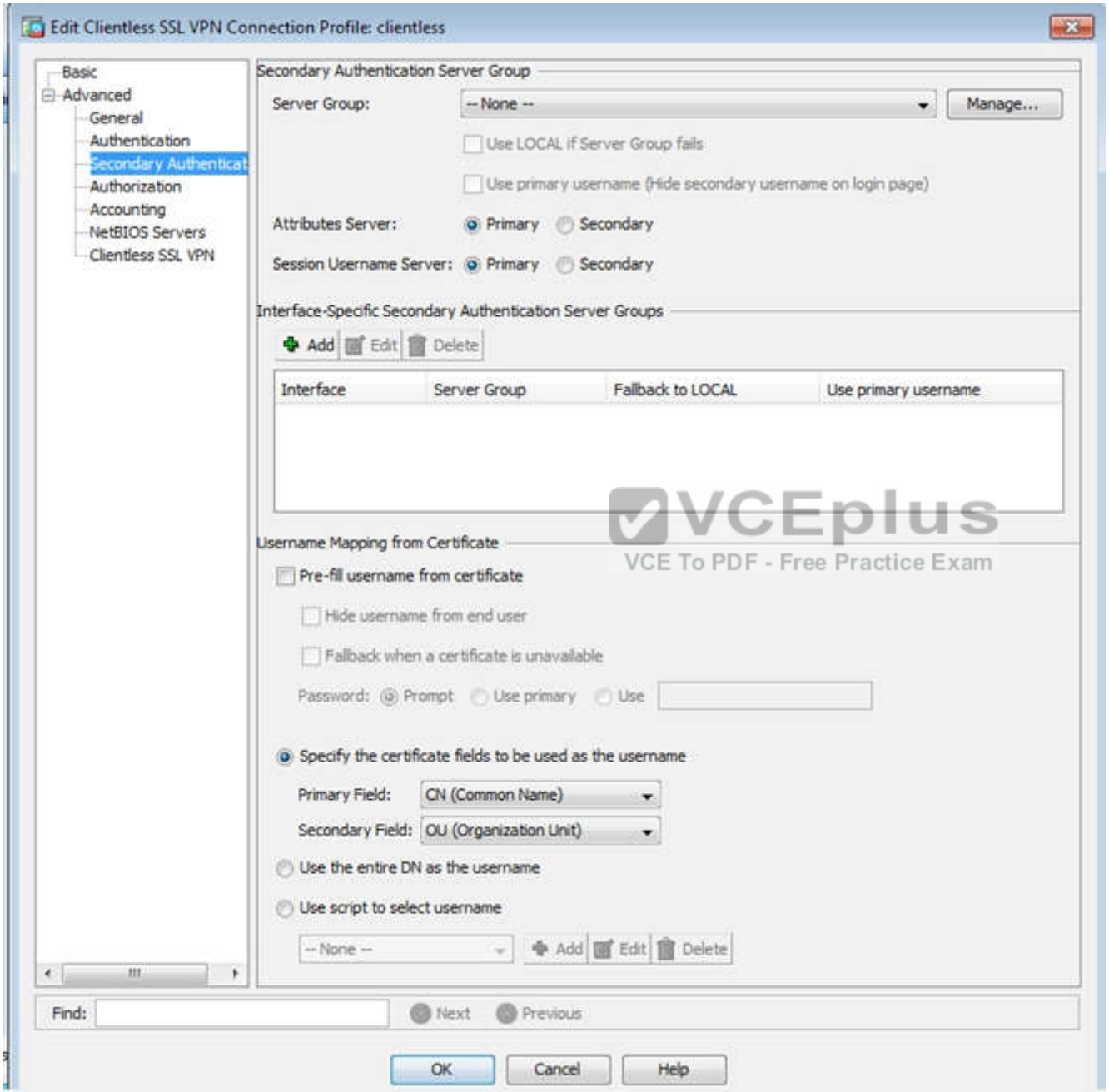
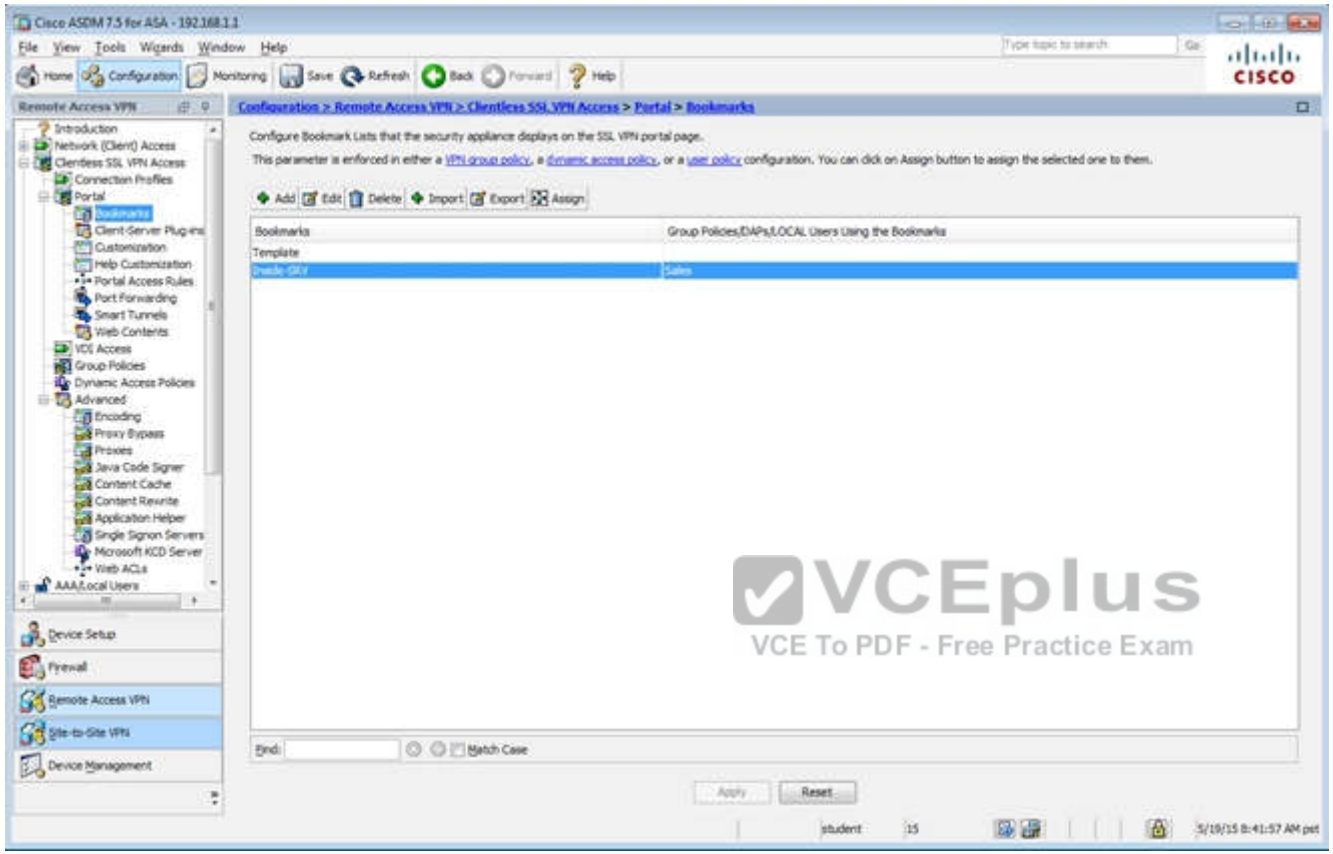
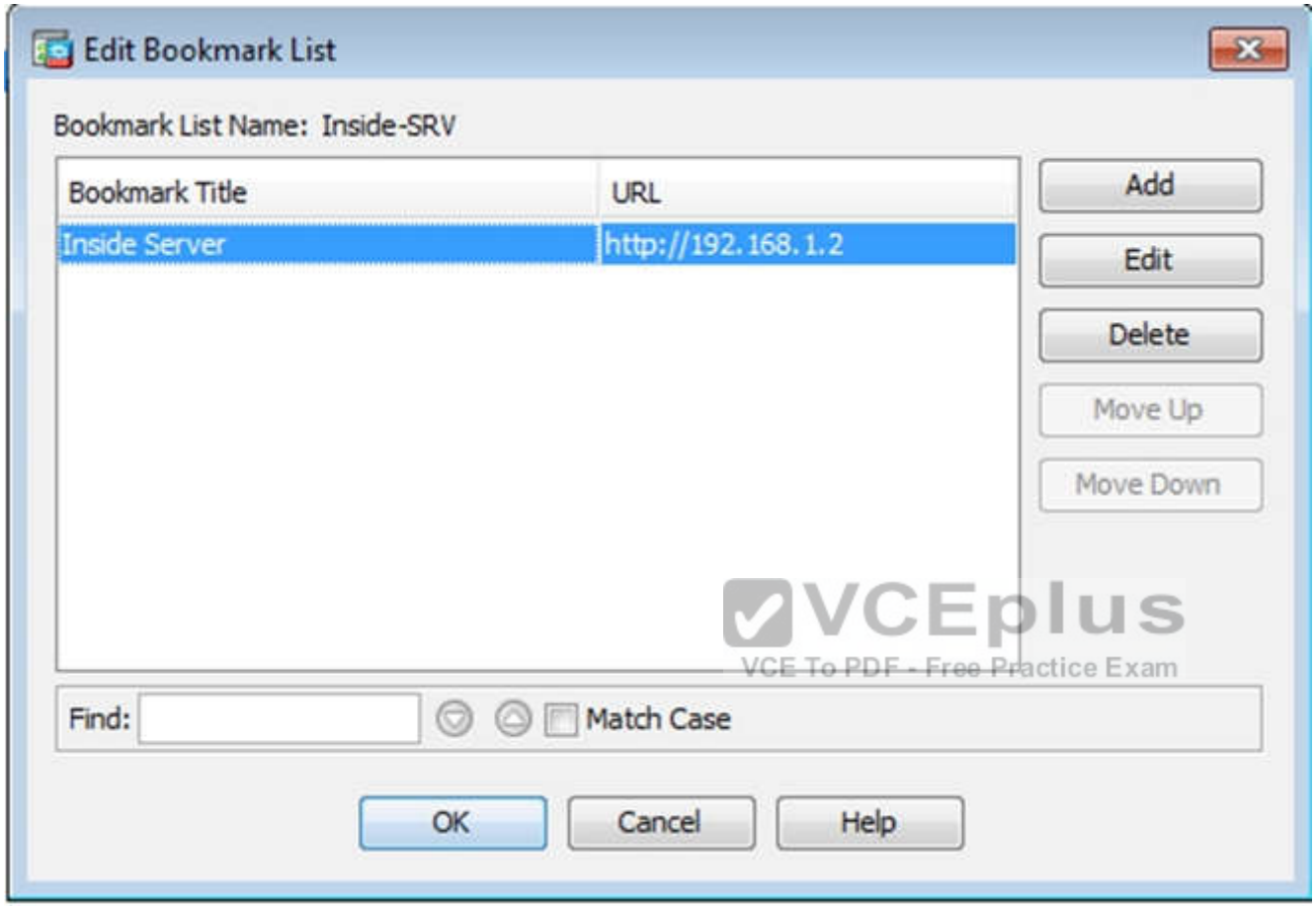
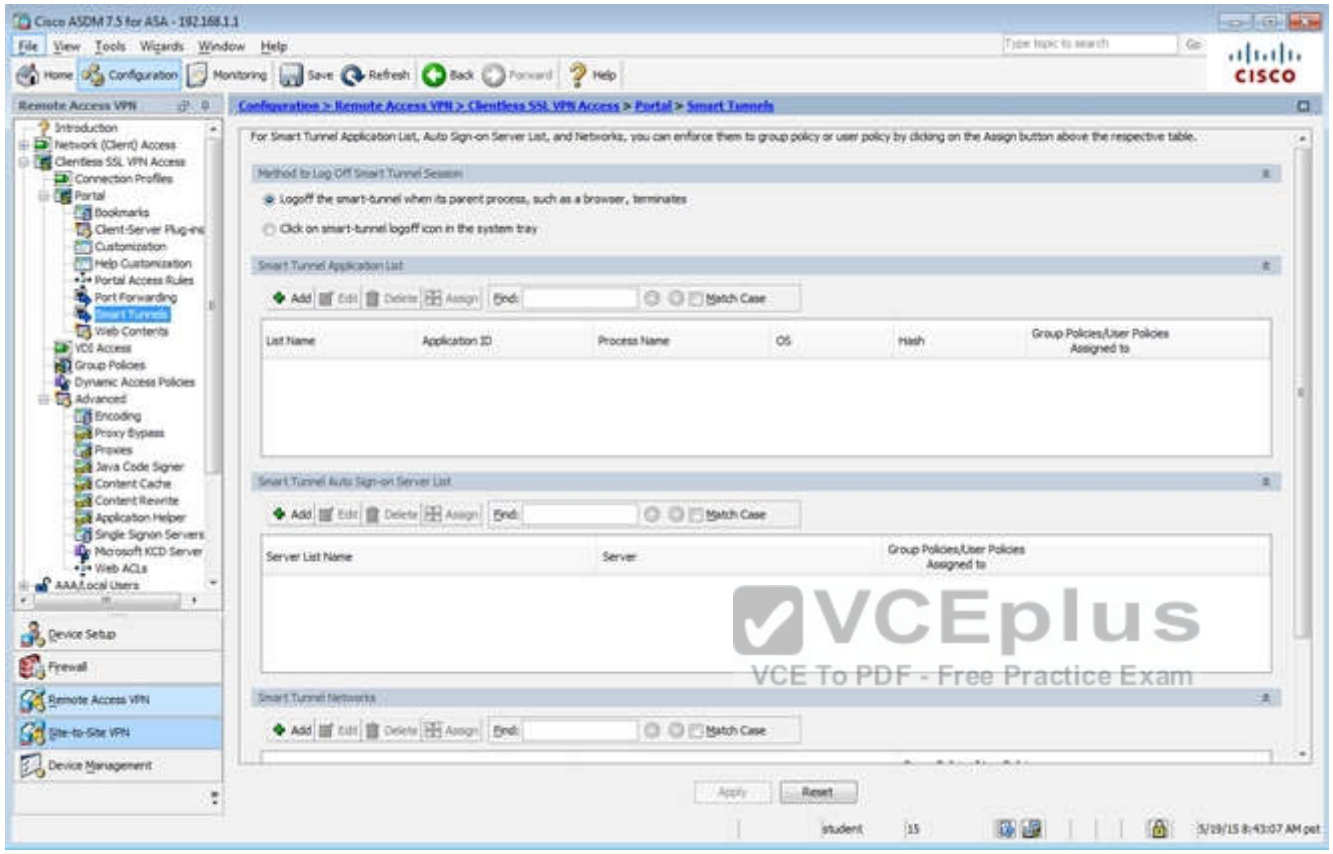
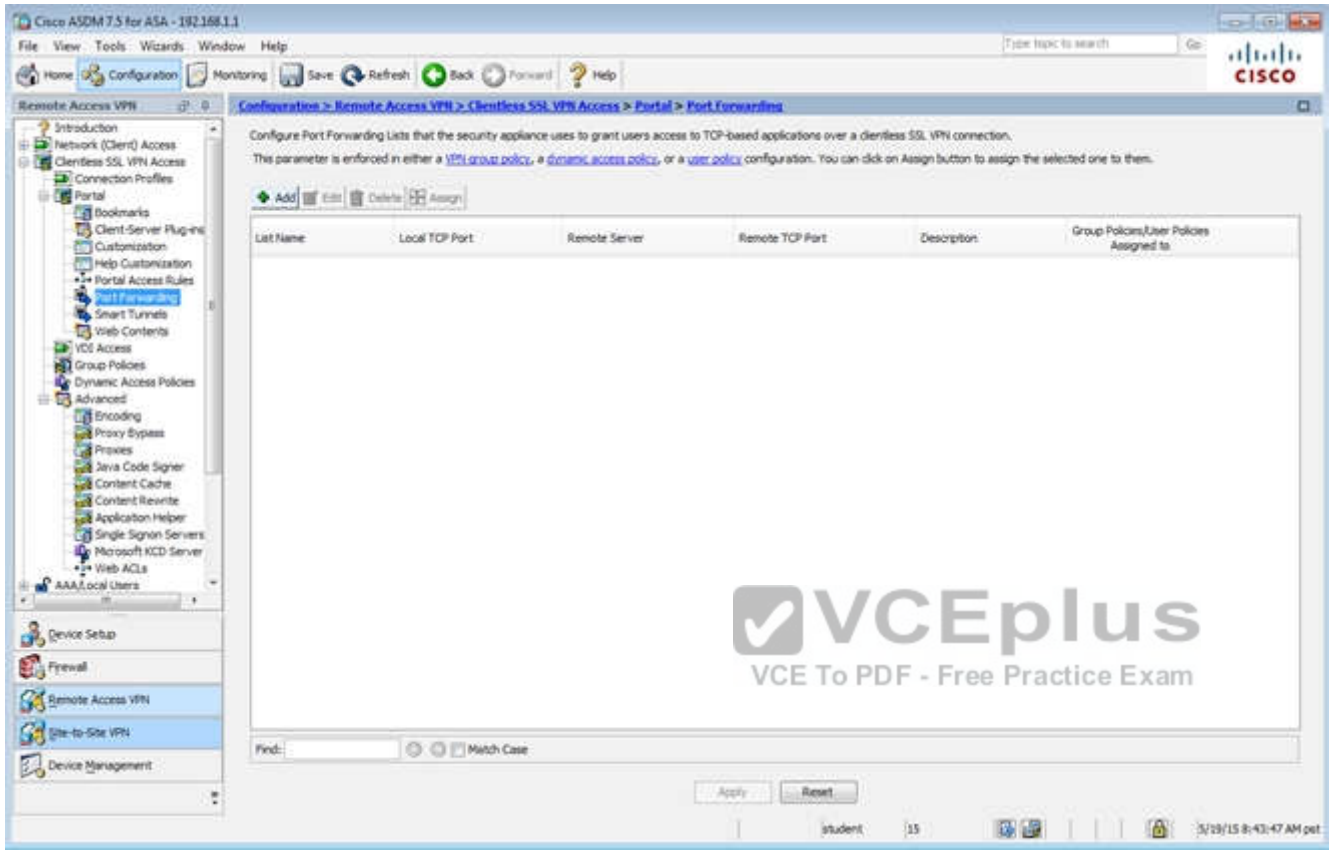
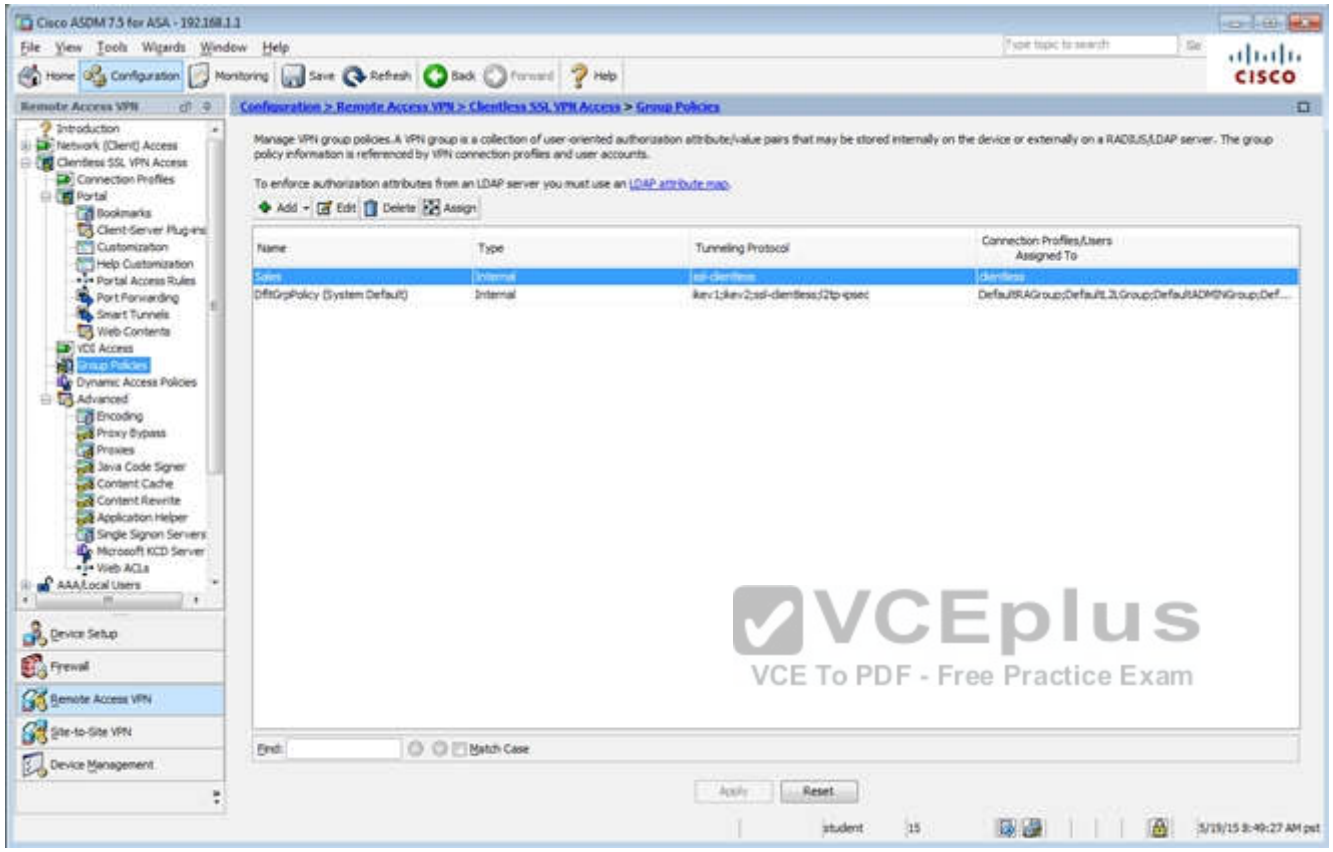


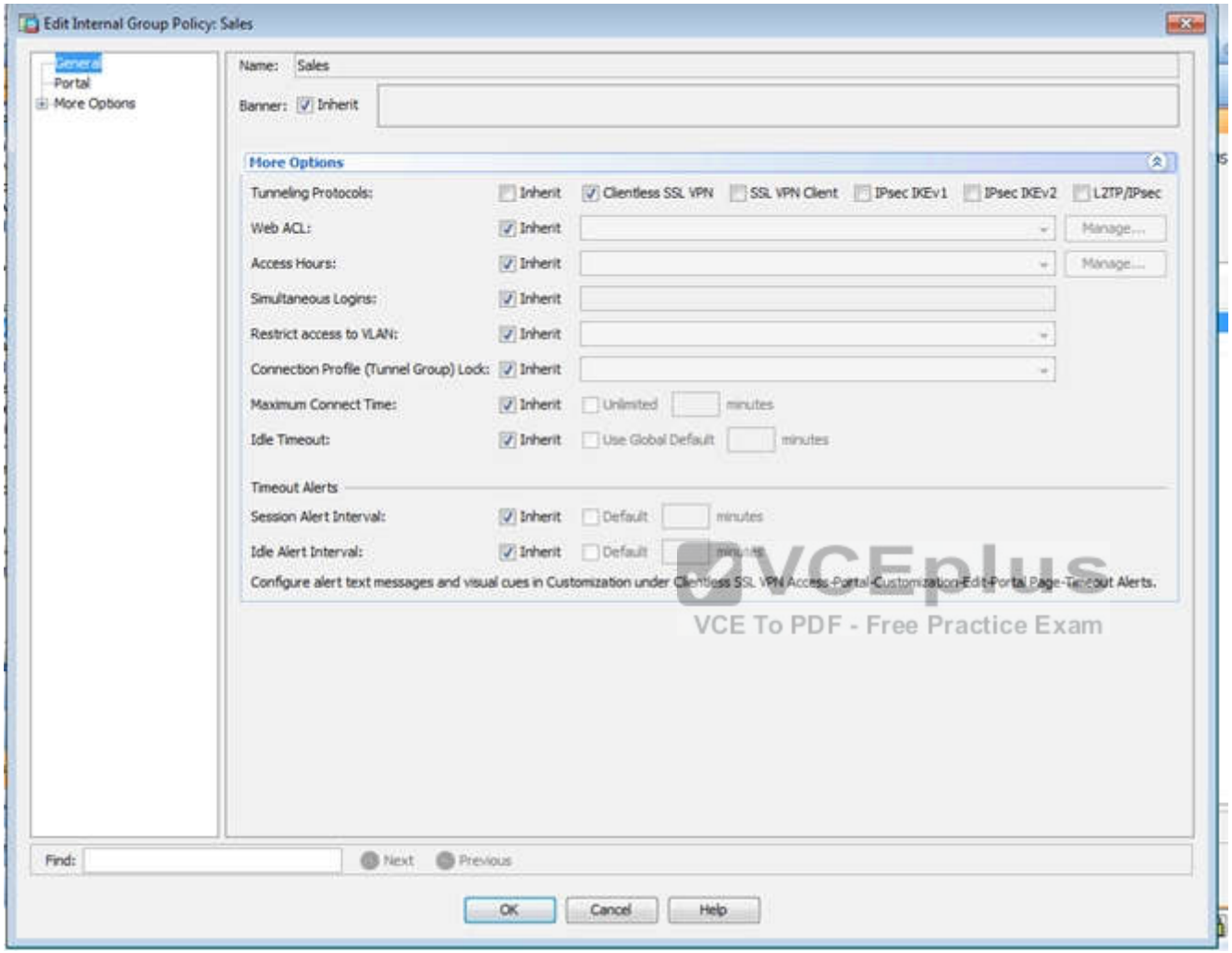


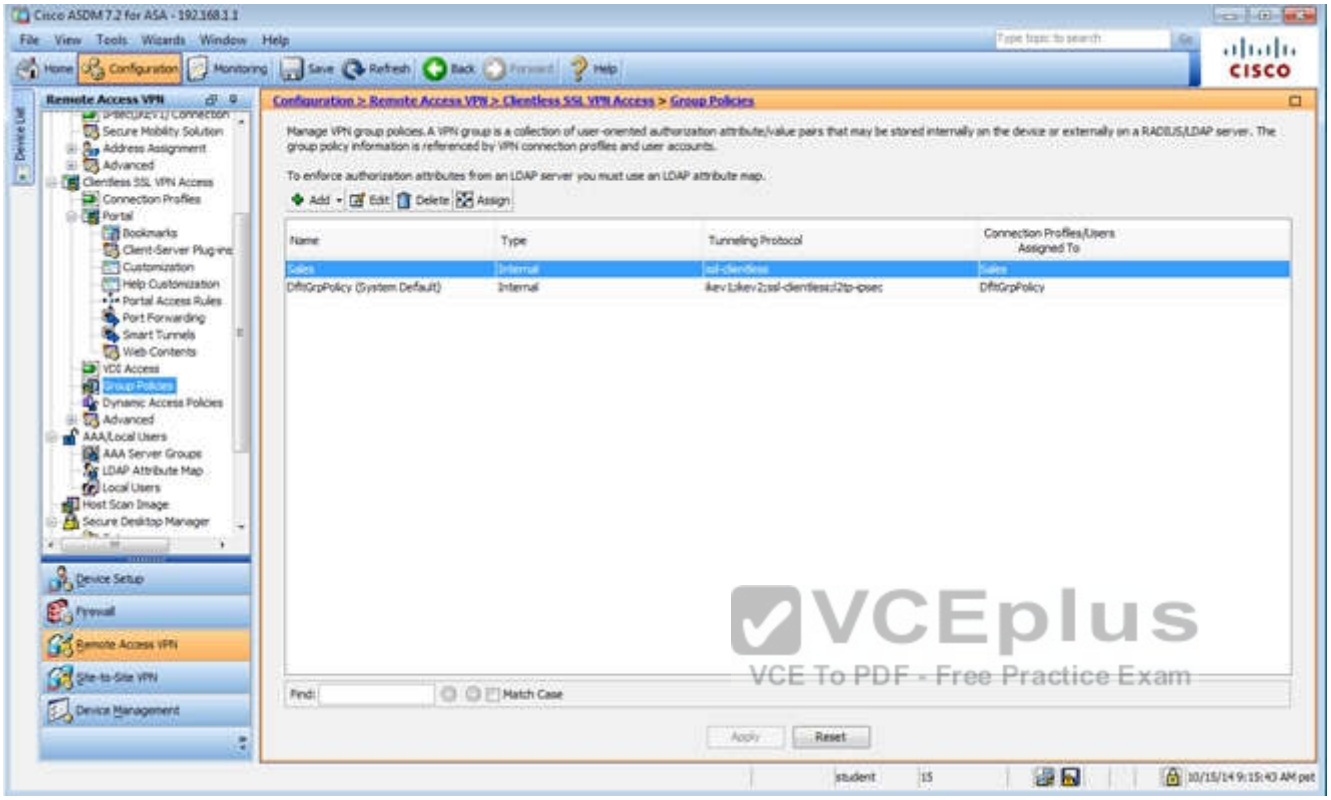


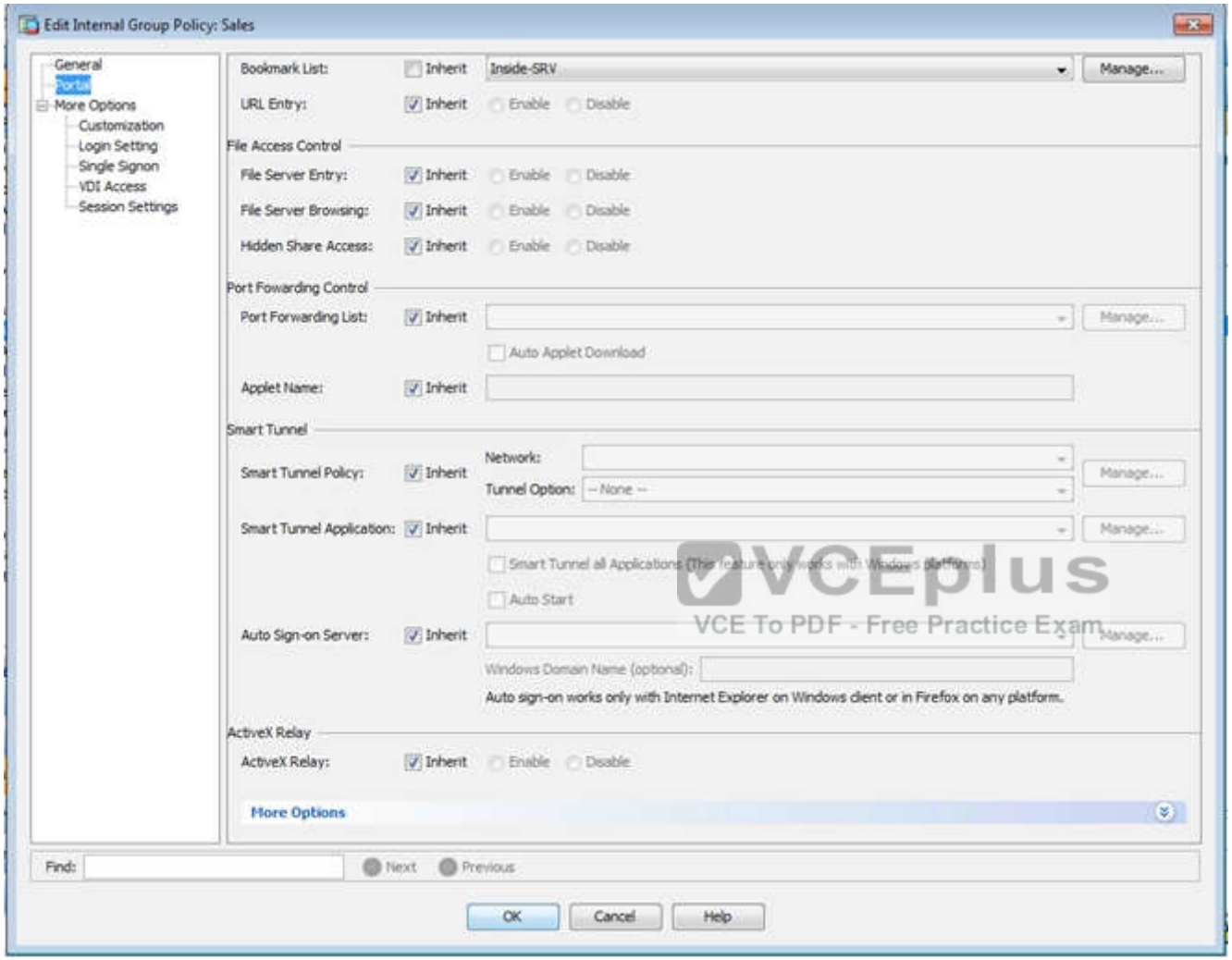


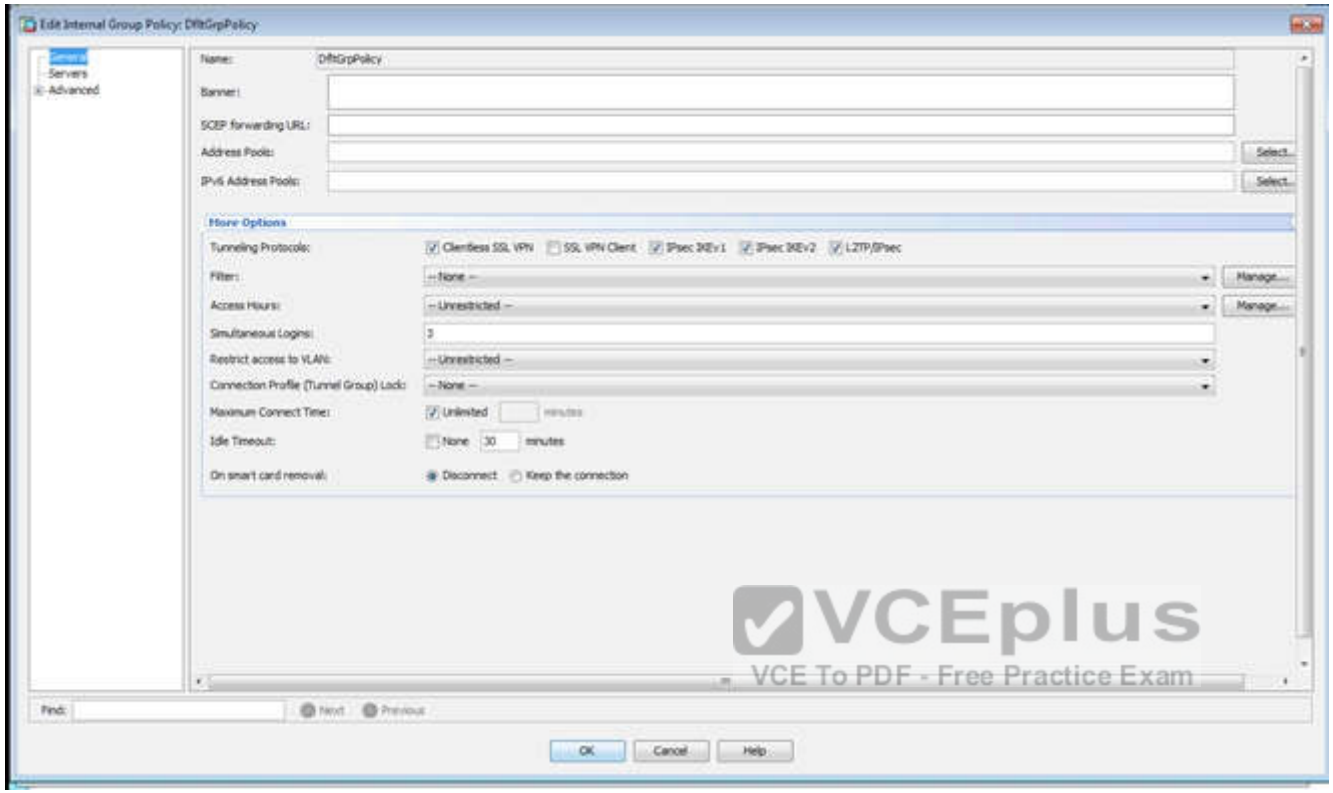


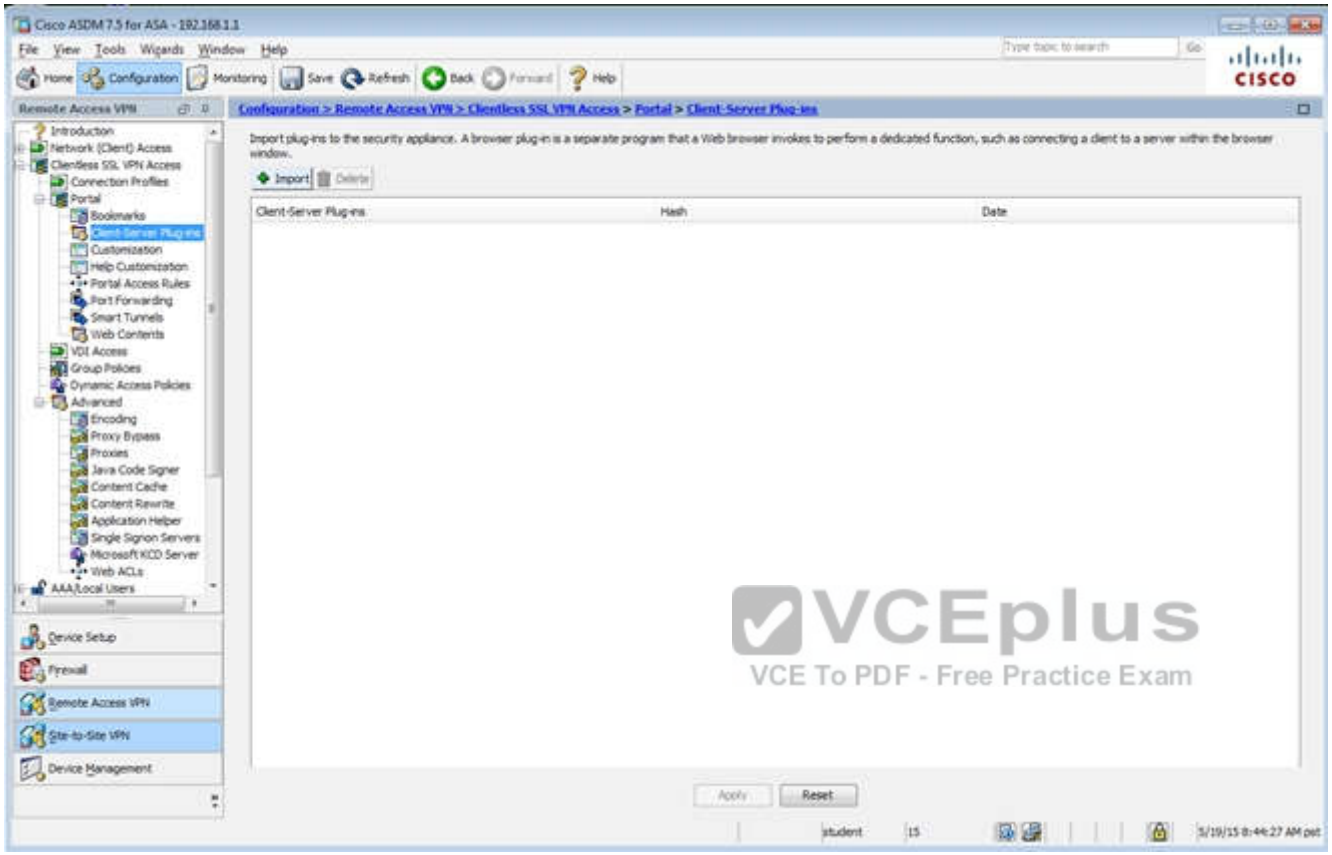


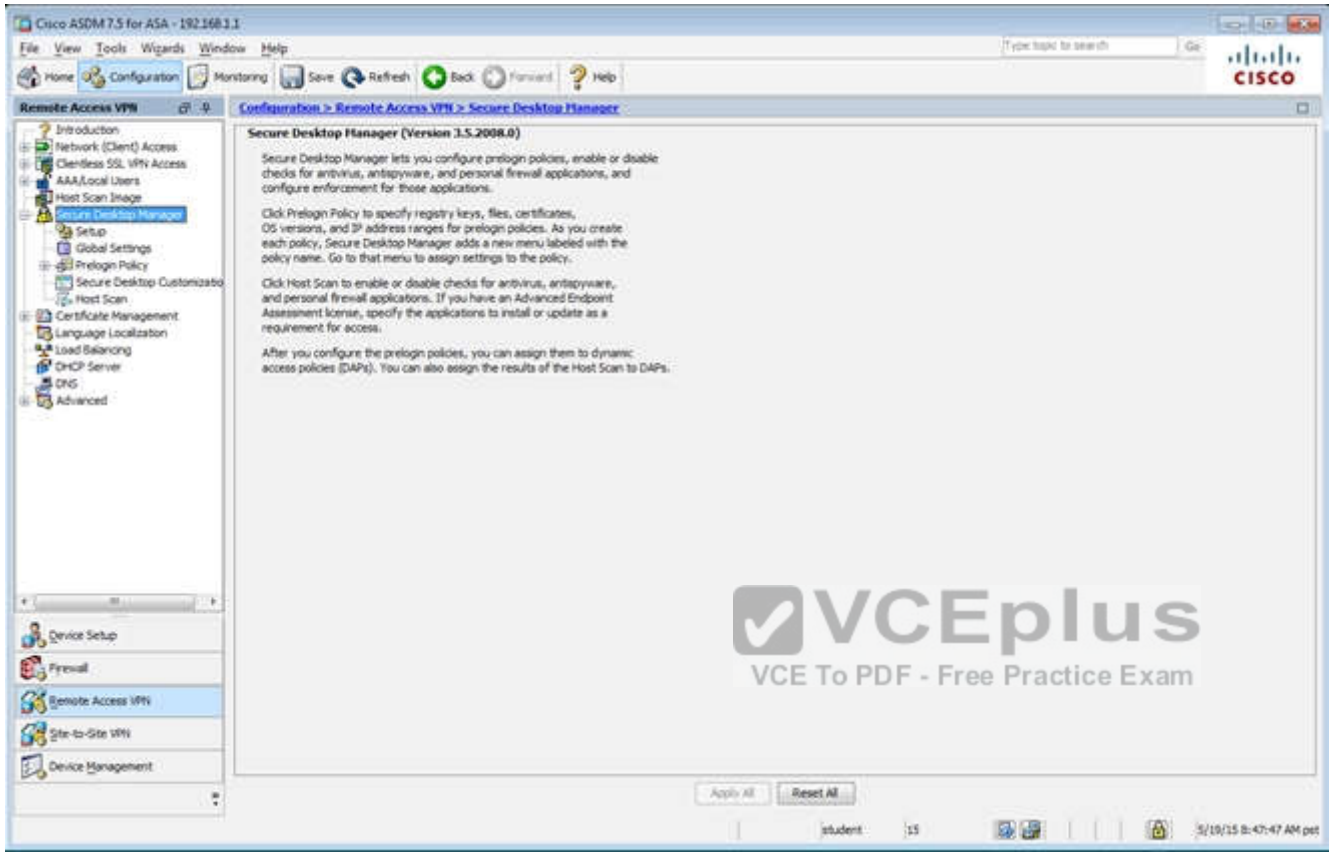


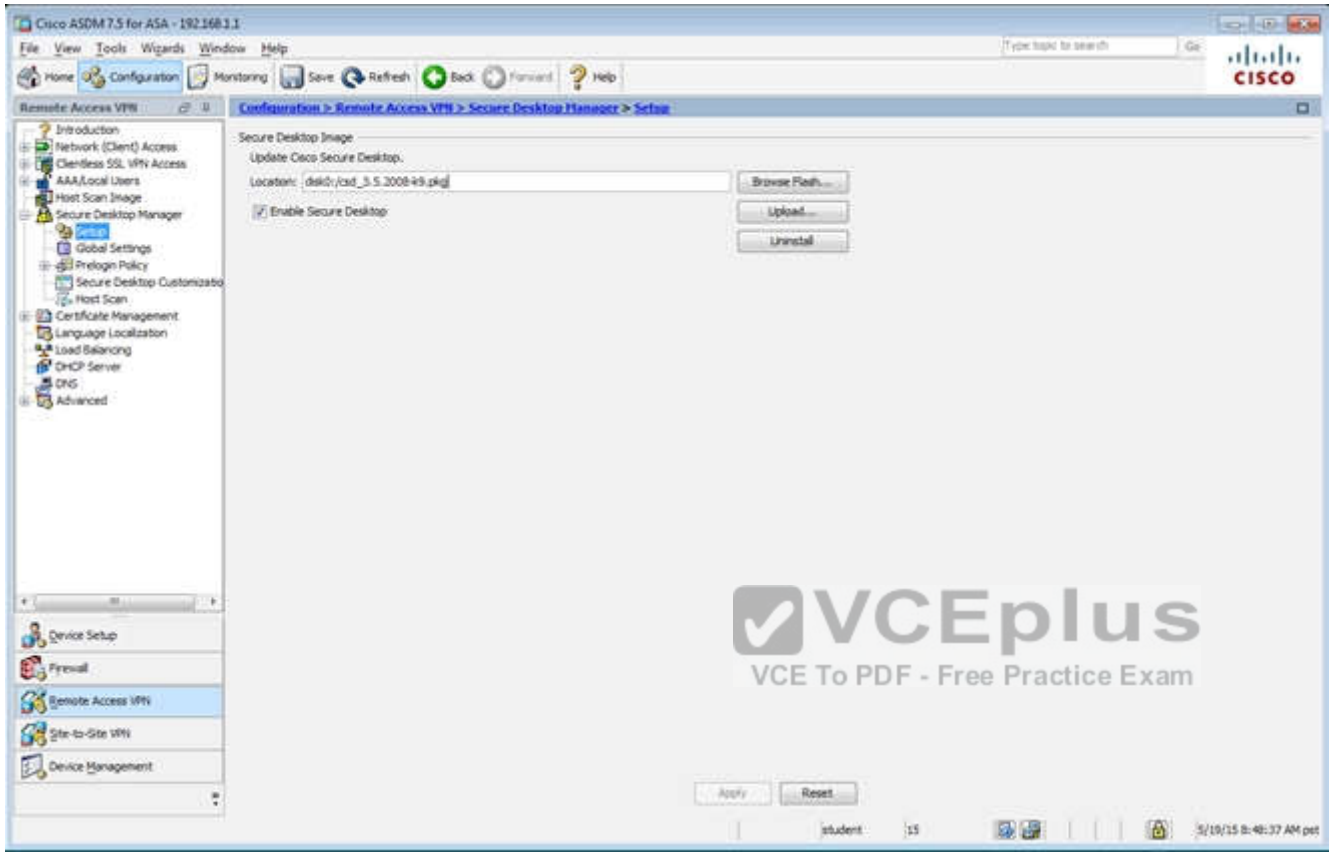


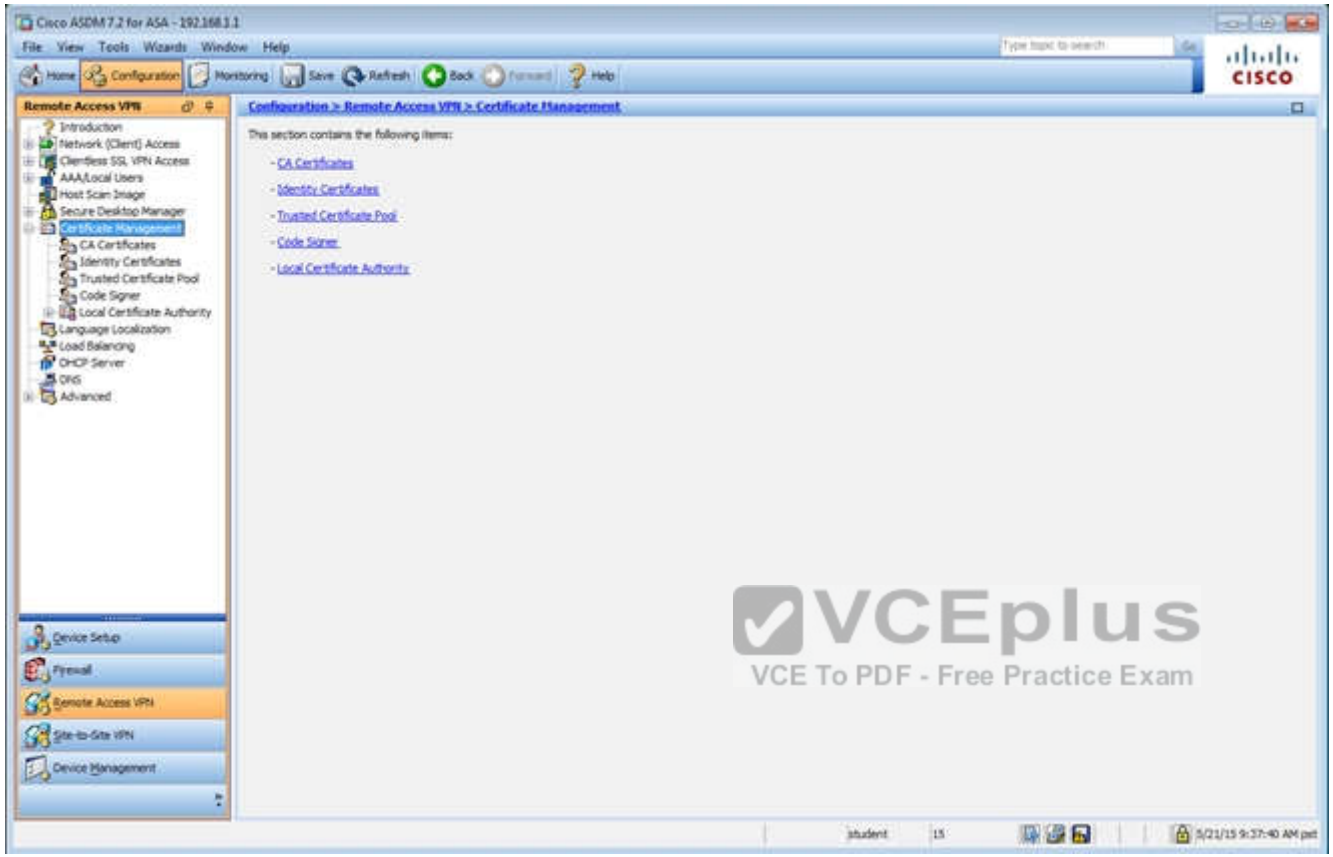


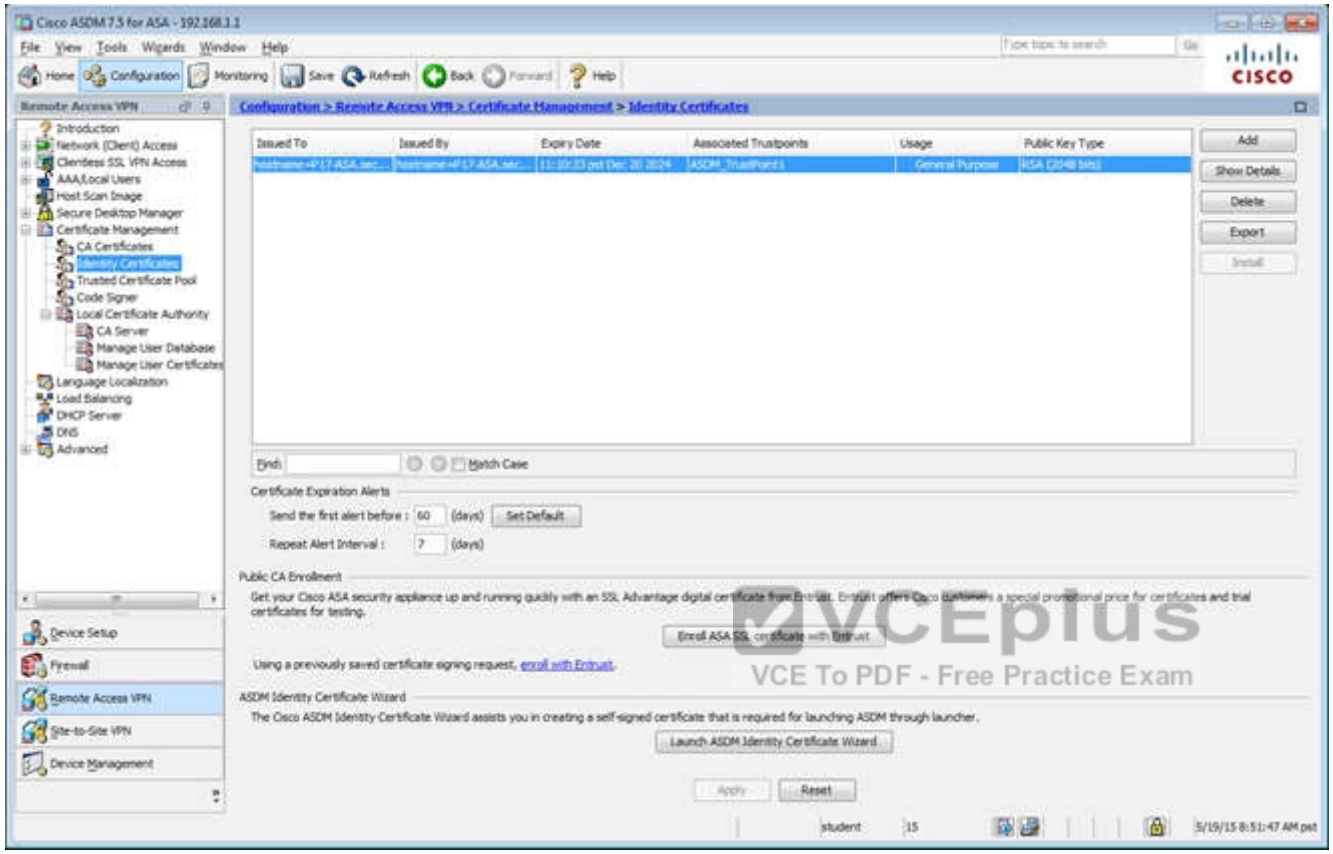


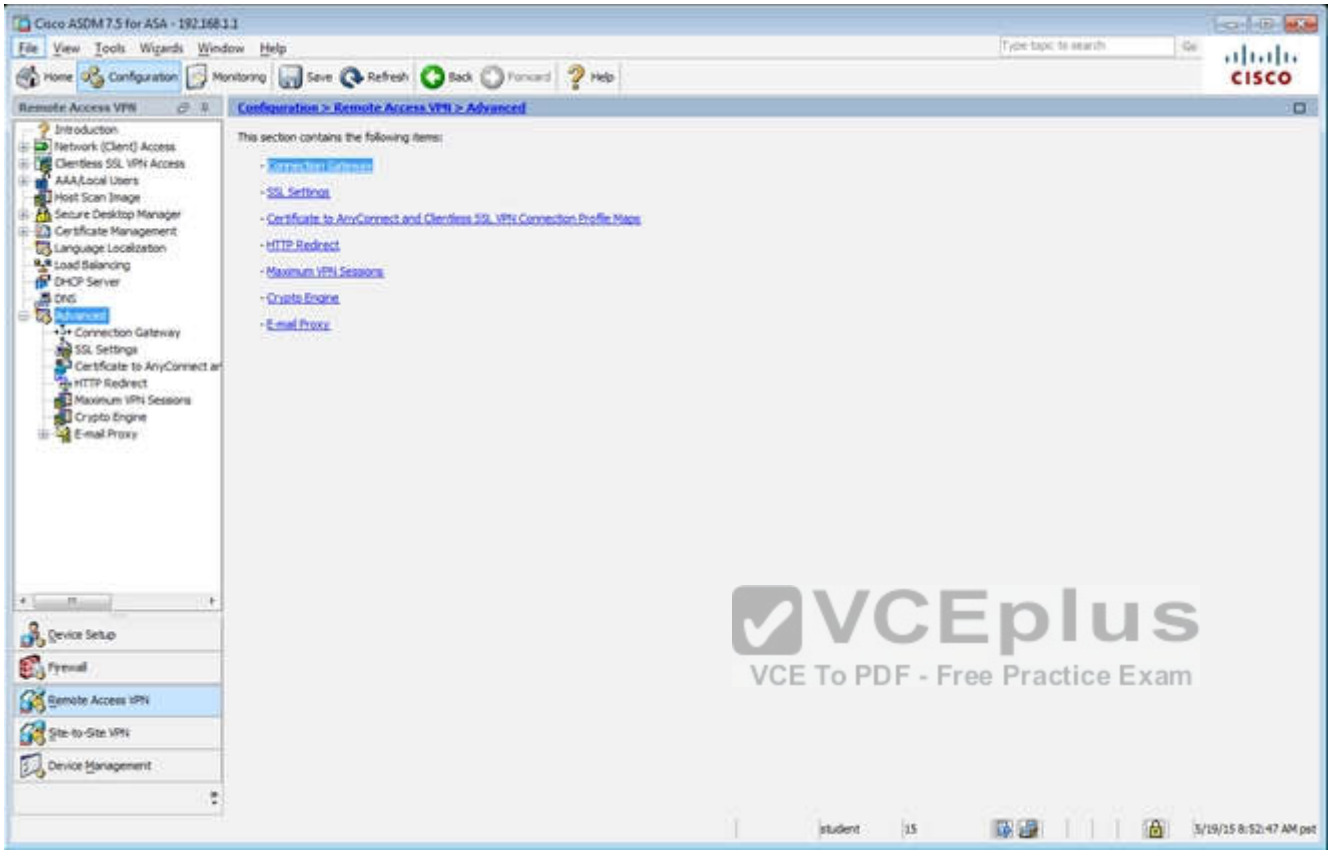


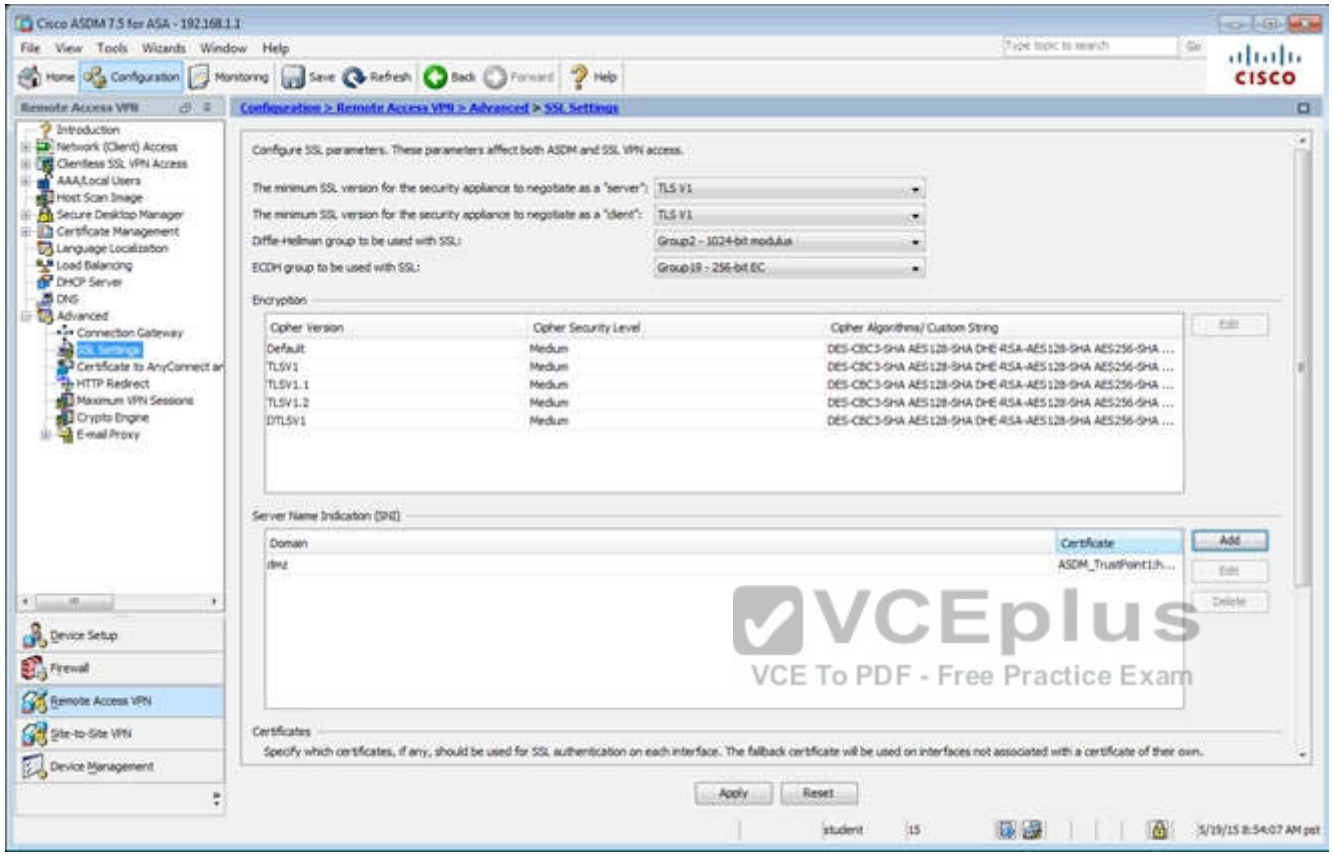


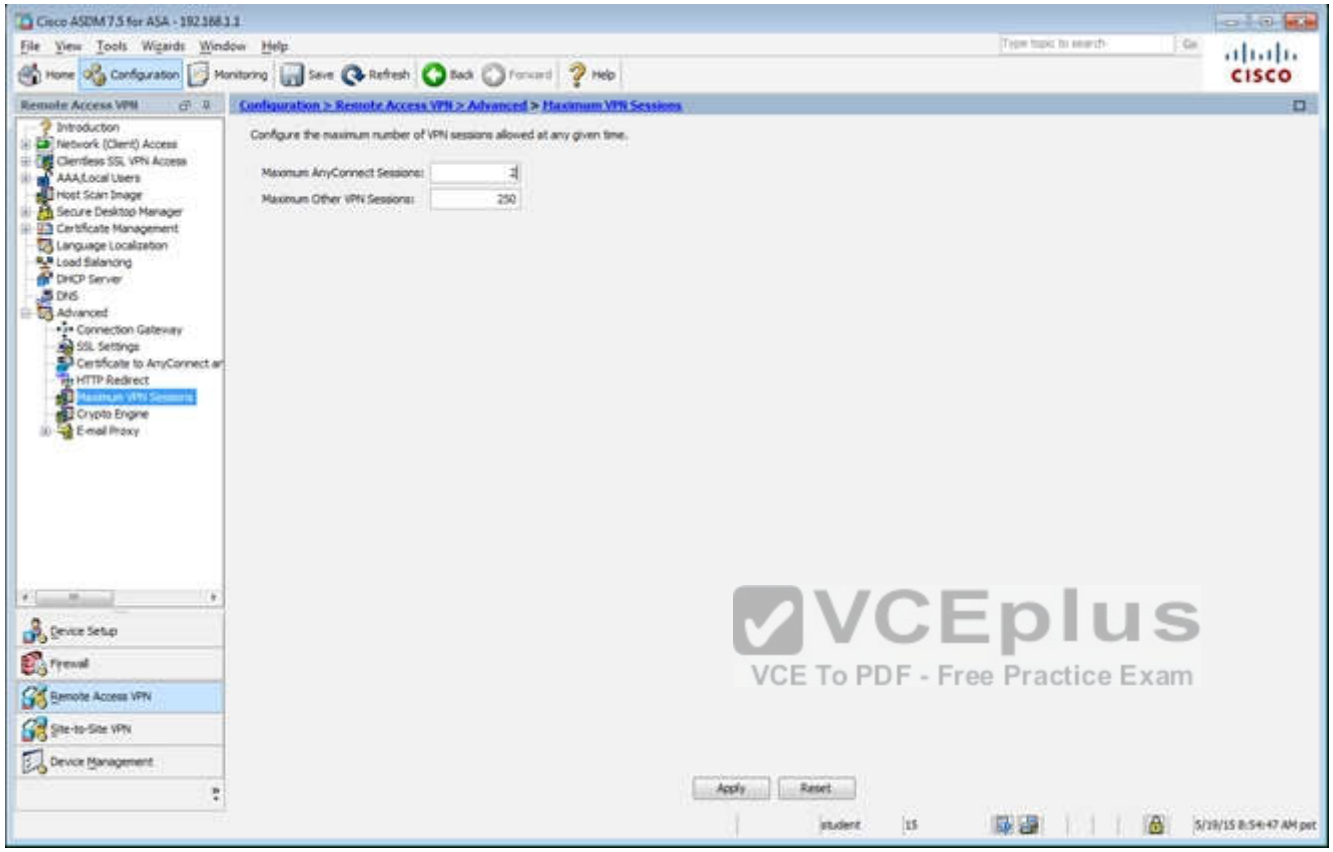


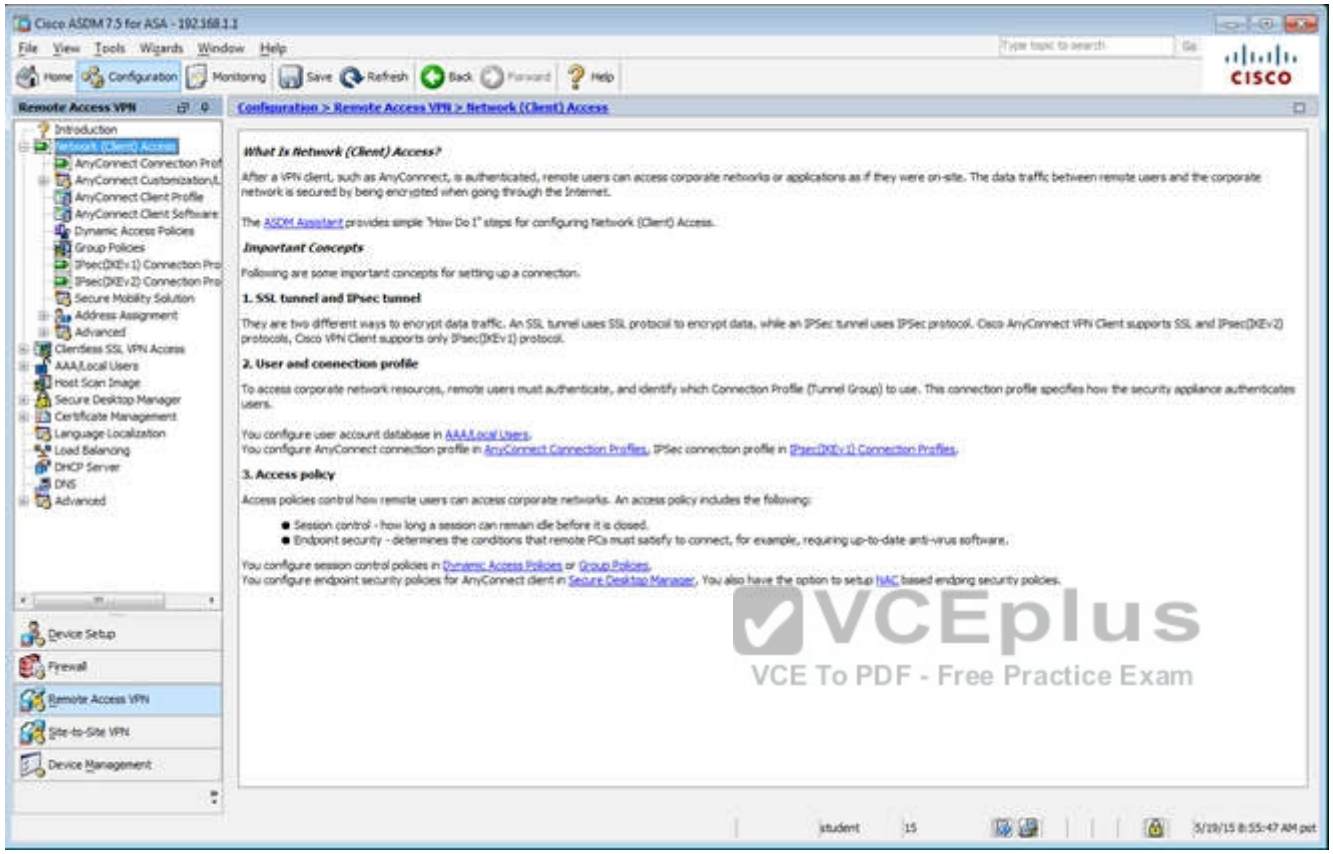


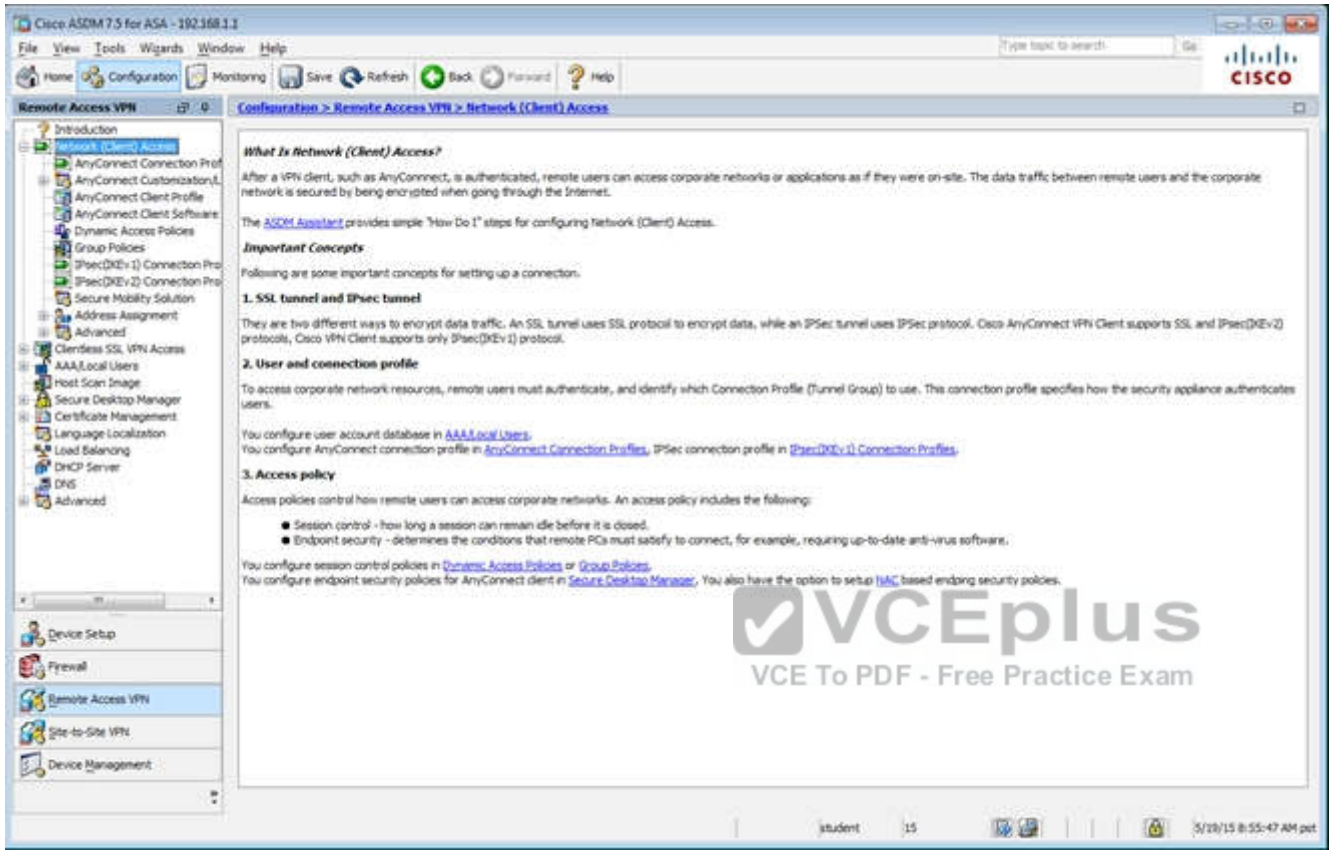


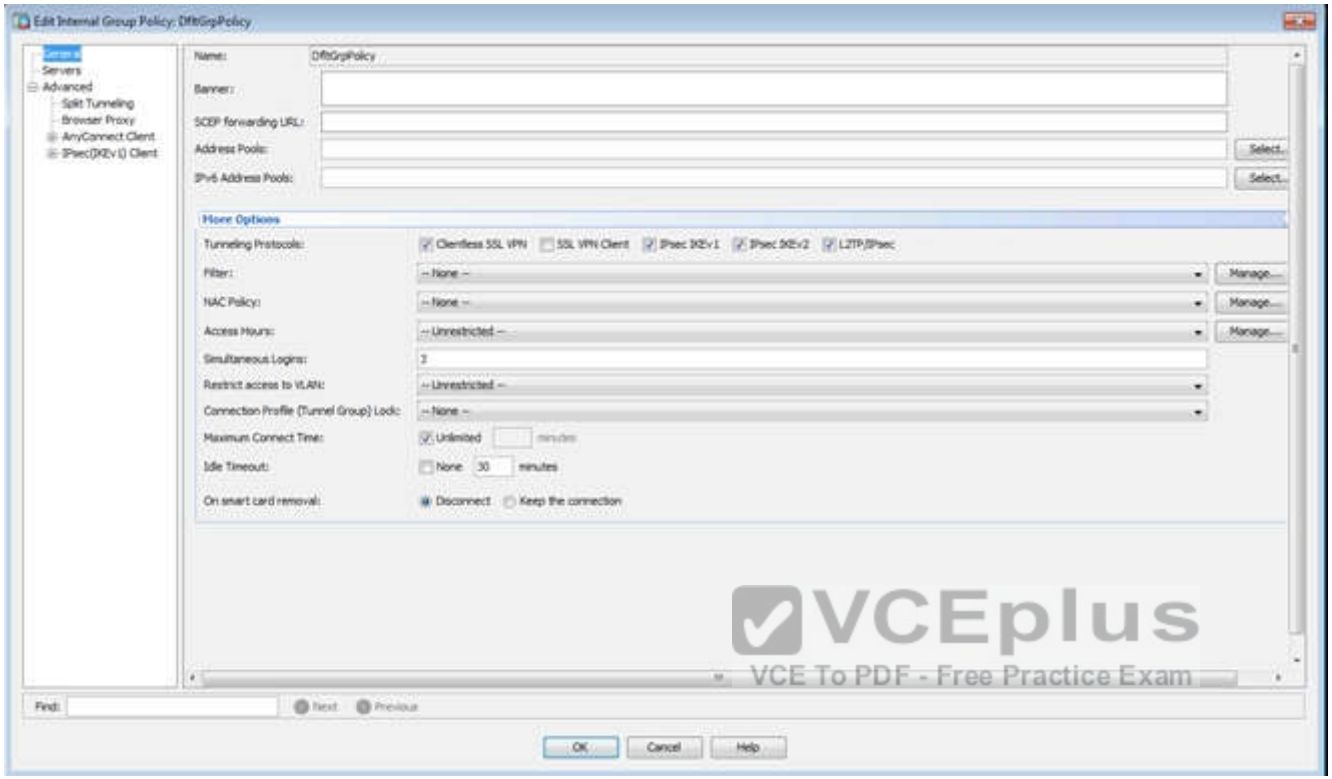


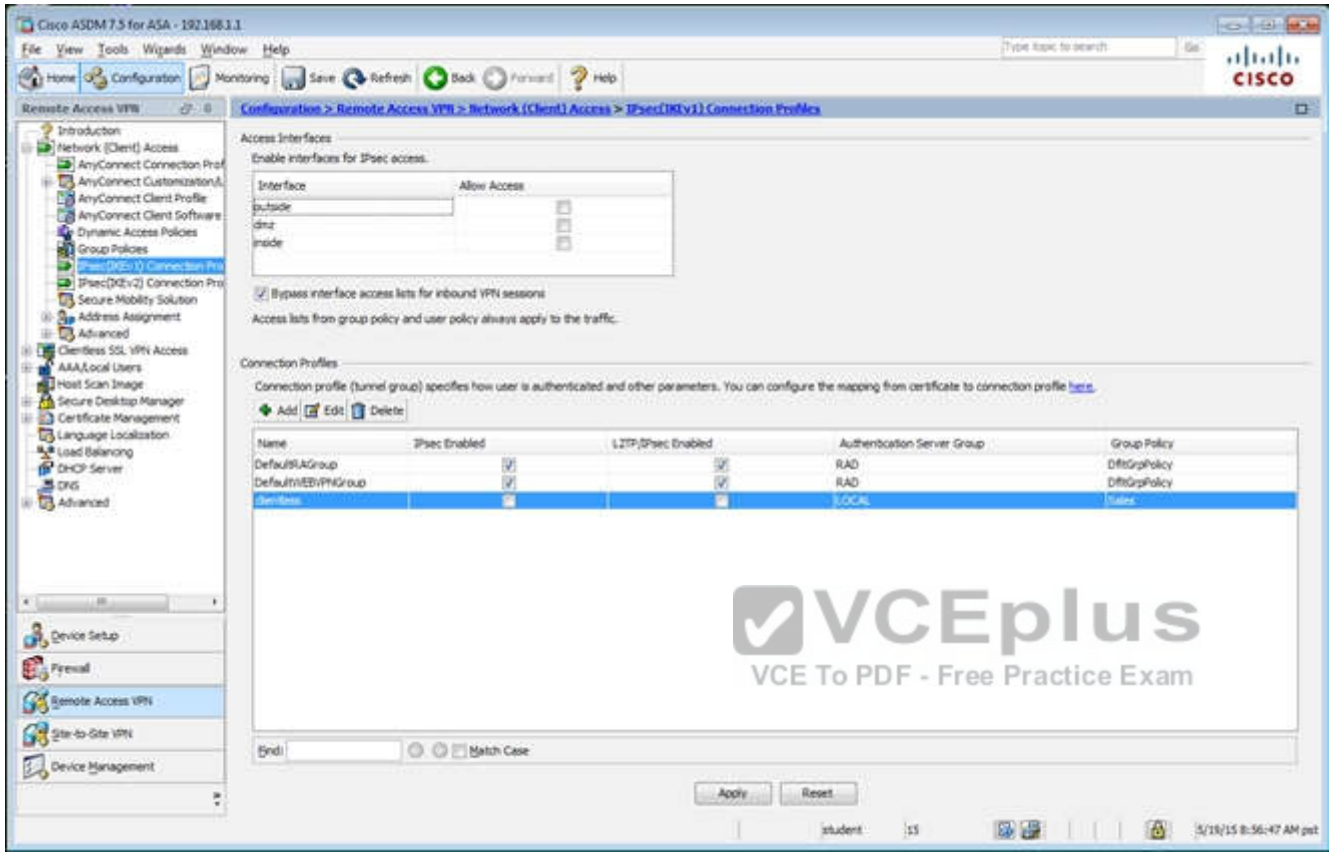


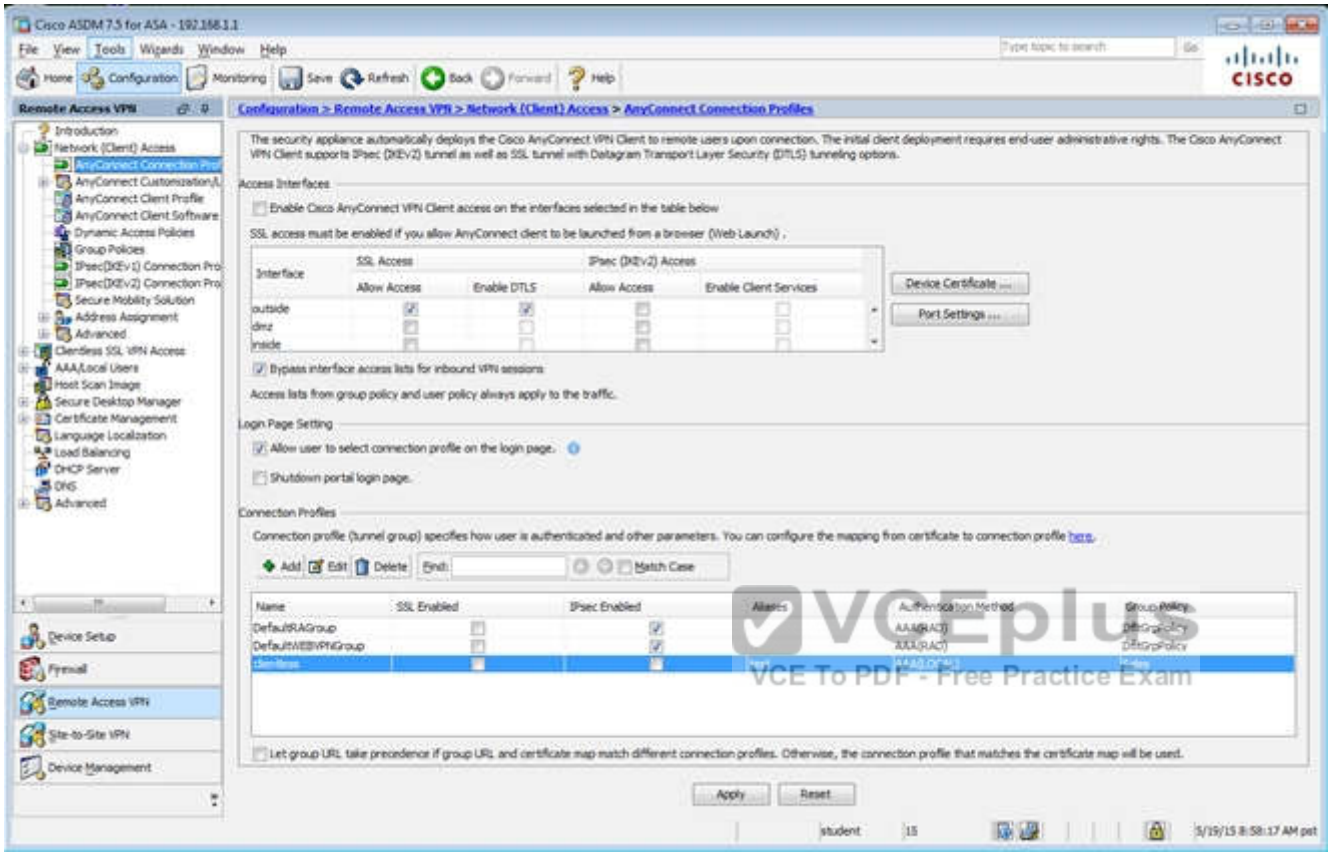


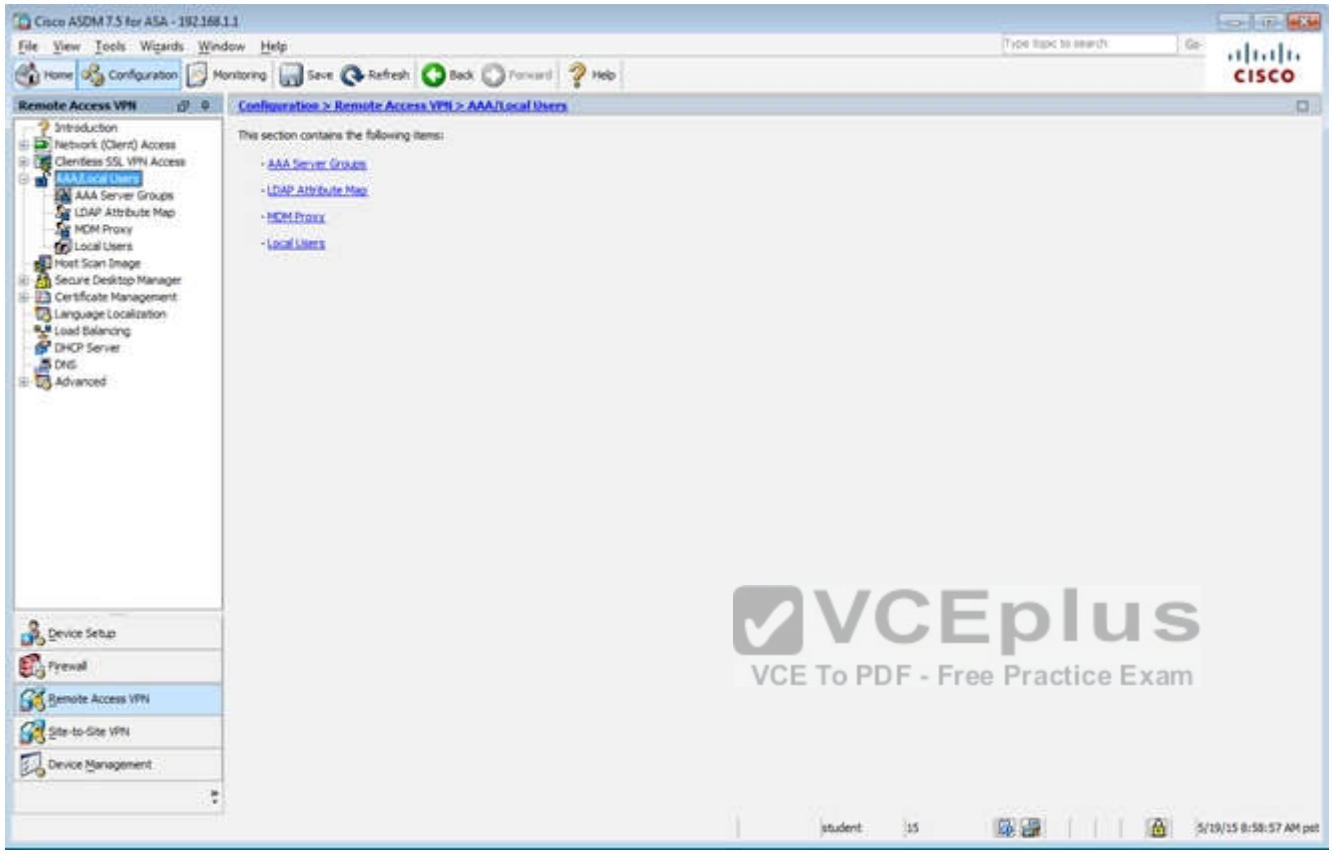


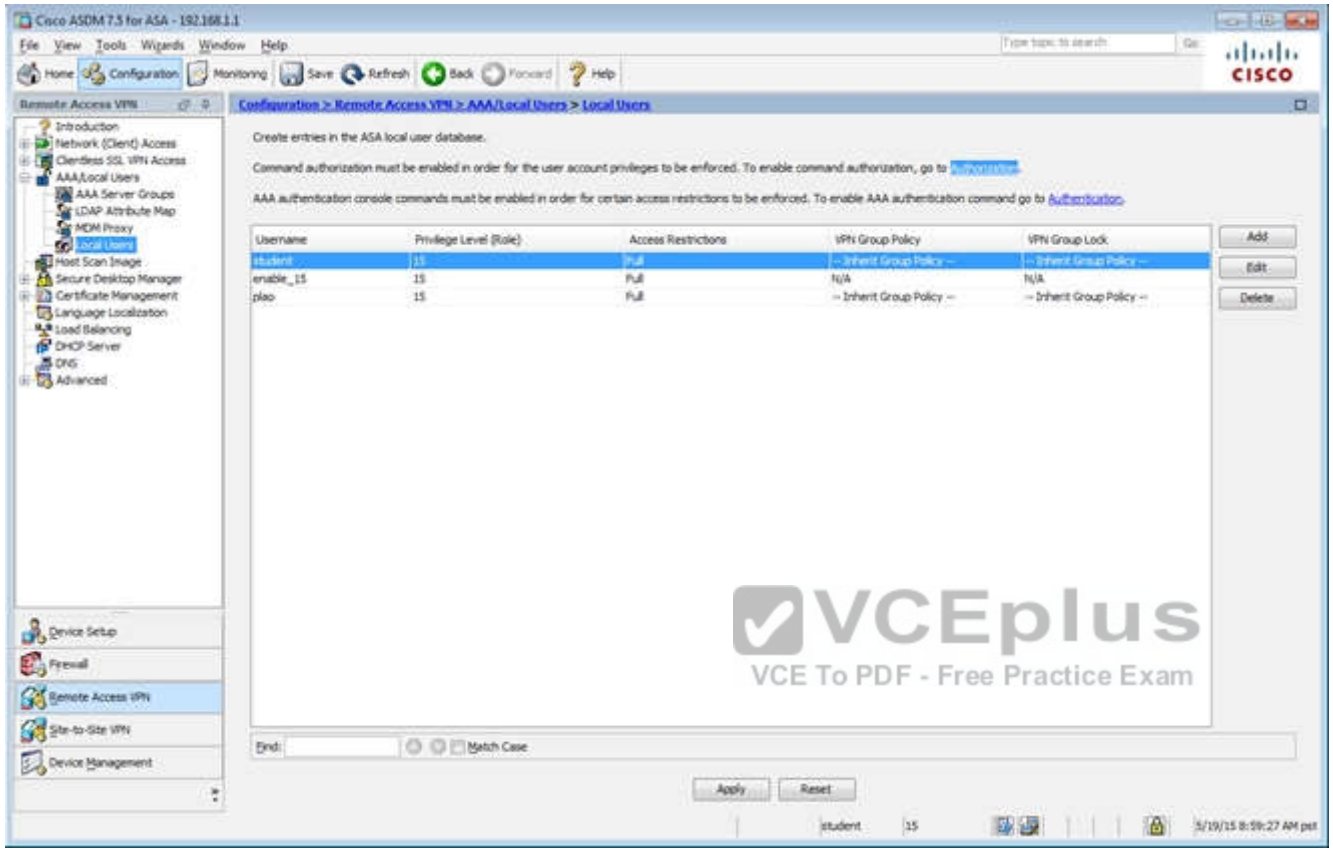


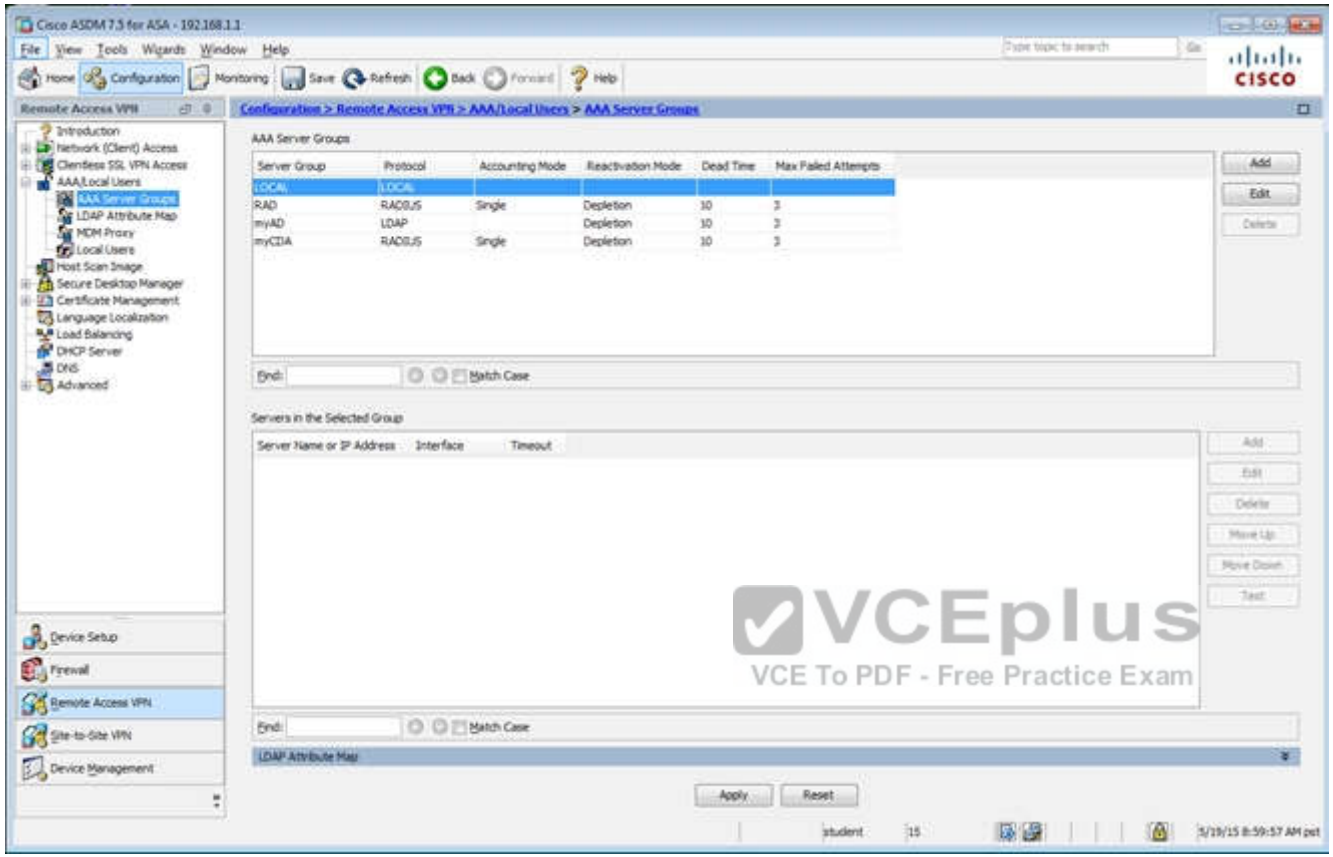






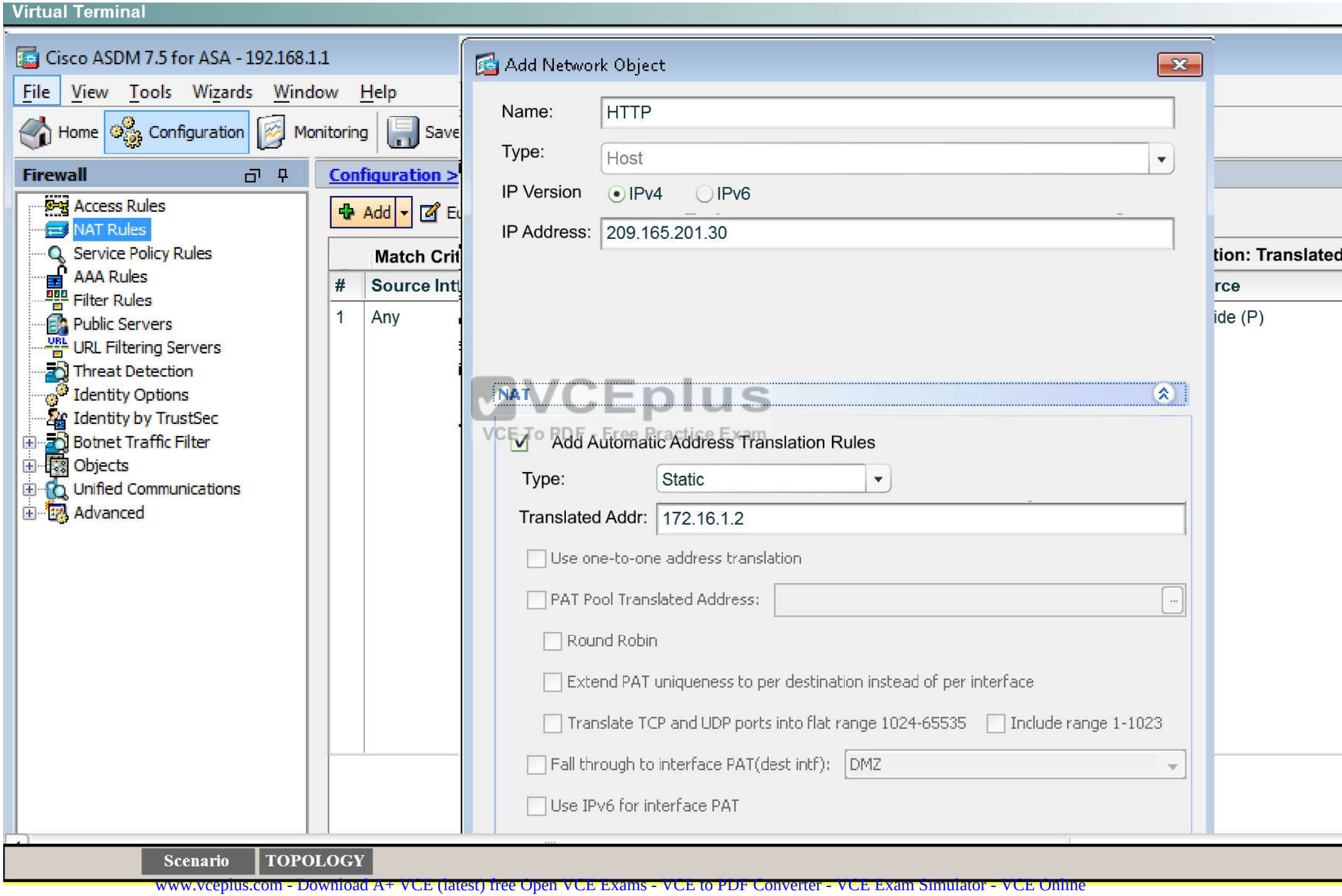




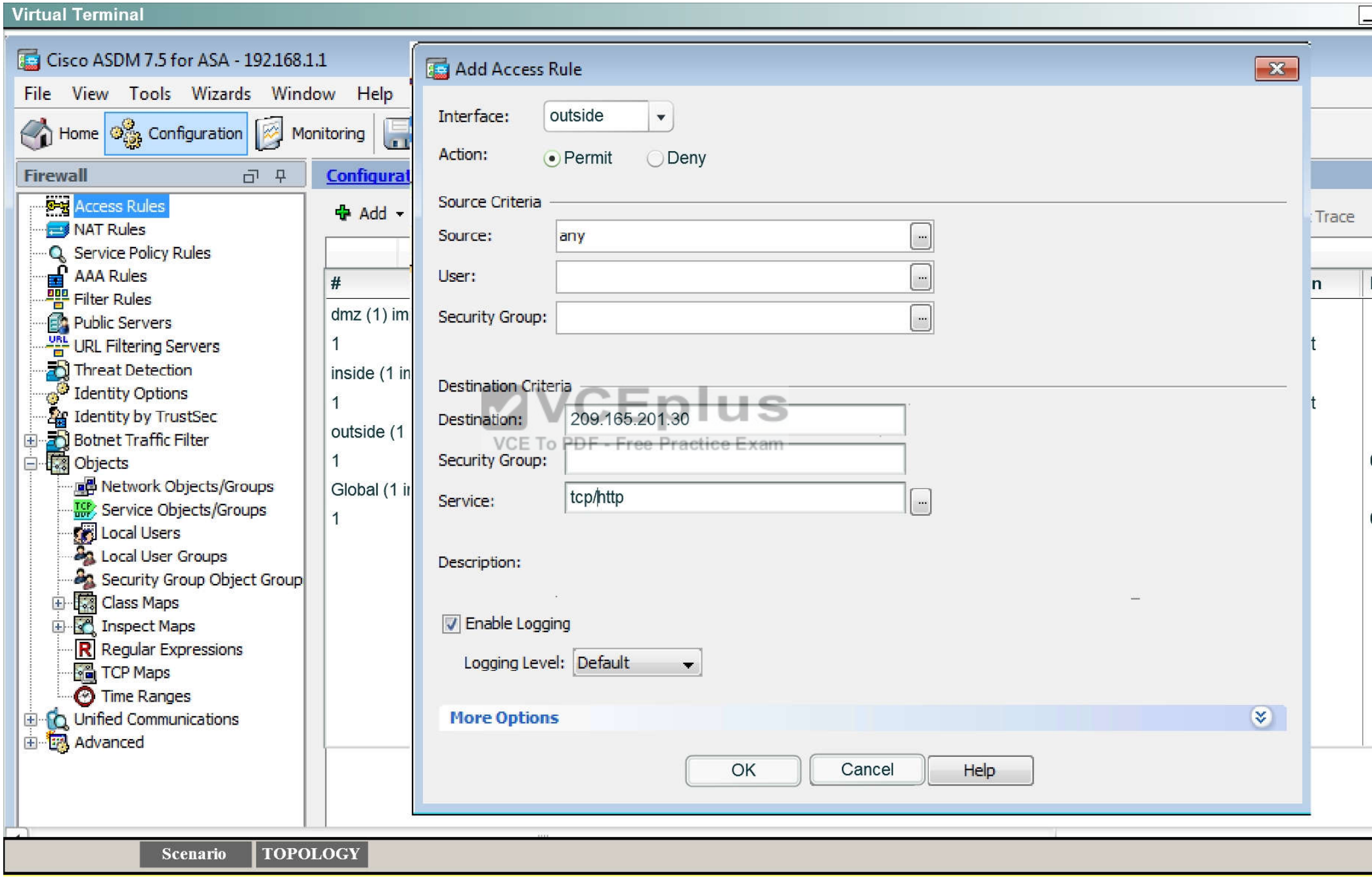


Correct Answer: Follow the explanation part to get answer on this sim question.
Section: (none)
Explanation

Explanation/Reference:
Explanation:
First, for the HTTP access we need to creat 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:



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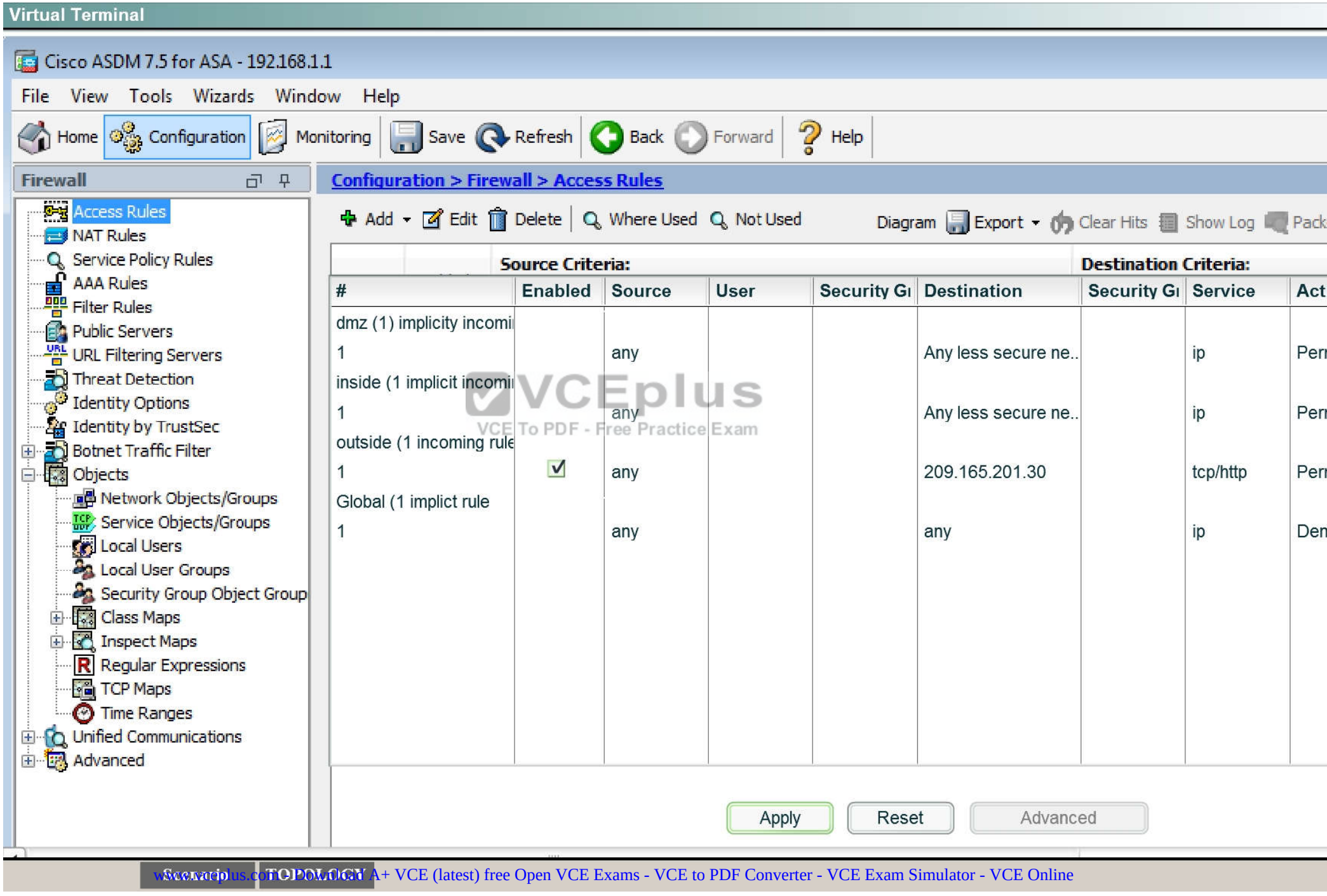
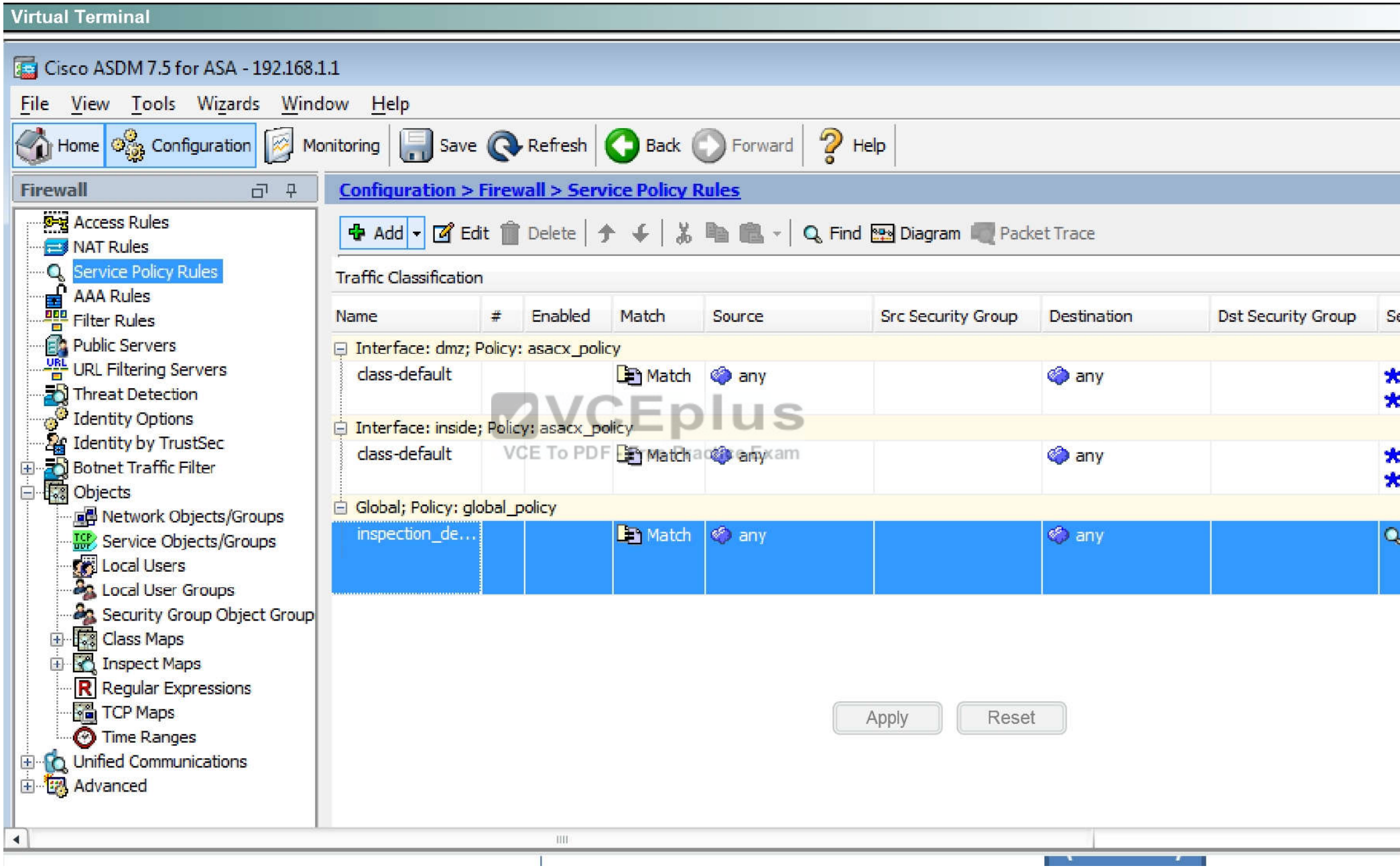
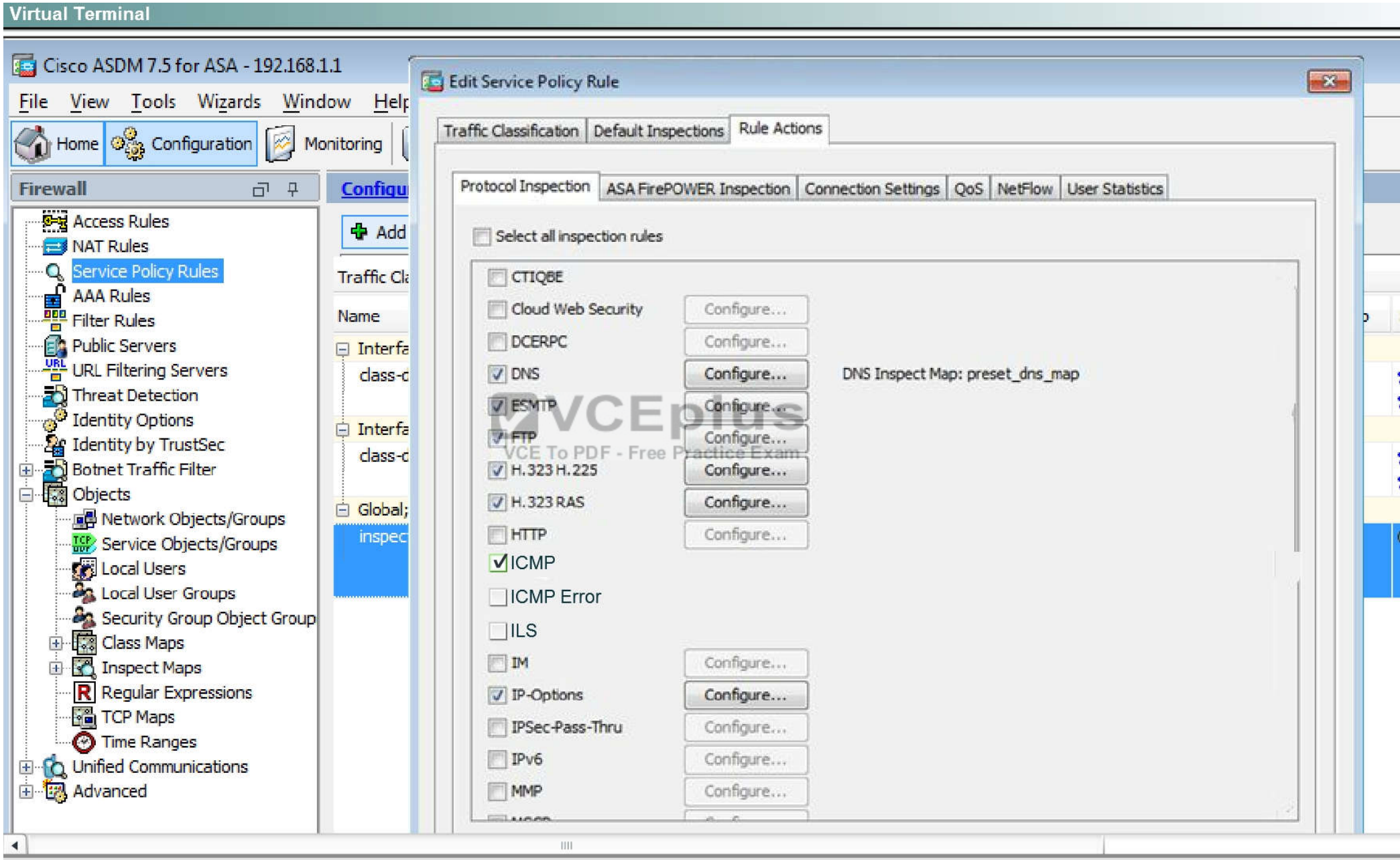


You can verify using the outside PC to HTTP into 209.165.201.30.

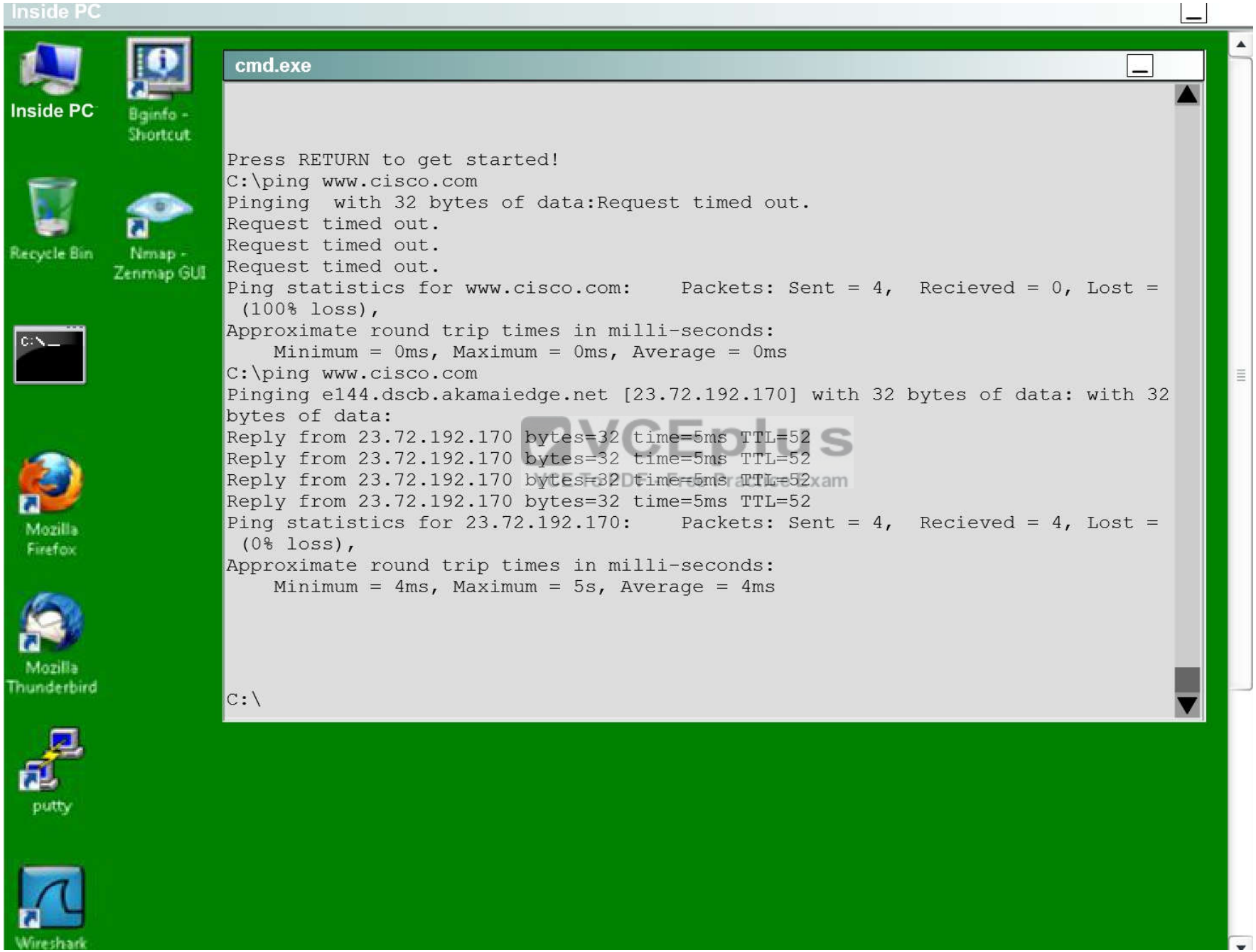
For step two, to be able to ping hosts on the outside, we edit the last service policy shown below:



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:



QUESTION 69
What features can protect the data plane? (Choose three.)

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

Correct Answer: BDF
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Data plane security can be implemented using the following features:
Access control lists
Access control lists (ACLs) perform packet filtering to control which packets move through the network and where.
Antispoofing
ACLs can be used as an antispoofing mechanism that discards traffic that has an invalid source address.
Layer 2 security features
Cisco Catalyst switches have integrated features to help secure the Layer 2 infrastructure.

Reference: http://www.ciscopress.com/articles/article.asp?p=1924983&seqNum=5

QUESTION 70
How many crypto map sets can you apply to a router interface?

A. 3
B. 2
C. 4
D. 1

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
These commands apply the crypto map to the interface. You can assign only one crypto map set to an interface. If multiple crypto map entries have the same map-name but a different seq-num, they are part of the same set and are all applied to the interface. The security appliance evaluates the crypto map entry with the lowest seq-num first.
dt3-45a(config)#interface e0
dt3-45a(config-if)#crypto map armadillo

Reference: http://www.cisco.com/c/en/us/support/docs/security-vpn/ipsec-negotiation-ike-protocols/16439-IPSECpart8.html

QUESTION 71
What is the transition order of STP states on a Layer 2 switch interface?

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

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Each interface on a access point using spanning tree exists in one of these states:
- Blocking—The interface does not participate in frame forwarding.
- Listening—The first transitional state after the blocking state when the spanning tree determines that the interface should participate in frame forwarding.
- Learning—The interface prepares to participate in frame forwarding.
- Forwarding—The interface forwards frames.
- Disabled—The interface is not participating in spanning tree because of a shutdown port, no link on the port, or no spanning-tree instance running on the port.

Reference: http://www.cisco.com/c/en/us/td/docs/wireless/access_point/12-3_7_JA/configuration/guide/i1237sc/s37span.html#wp1040509

QUESTION 72
Which sensor mode can deny attackers inline?

A. IPS
B. fail-close
C. IDS

D. fail-open

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
You can configure certain aspects of the deny attackers inline event action. You can configure the number of seconds you want to deny attackers inline and you can limit the number of attackers you want denied in the system at any one time.
Reference: http://www.cisco.com/c/en/us/td/docs/security/ips/5-1/configuration/guide/cli/cliguide/cliEvAct.html

QUESTION 73
Which options are filtering options used to display SDEE message types? (Choose two.)

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

Correct Answer: CD
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Secure Device Event Exchange (SDEE) messages report on the progress of Cisco IOS IPS initialization and operation. Click to display the Edit IPS: SDEE Messages window, where you can review SDEE messages and filter them to display only error, status, or alert messages.
Reference: http://www.cisco.com/c/en/us/td/docs/routers/access/cisco_router_and_security_device_manager/24/software/user/guide/IPS.html

QUESTION 74
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

Correct Answer: A

Section: (none)
Explanation

Explanation/Reference:
Explanation:
A security policy is used to minimize risk by allocating company's resources to eliminate risk and focus on growth and revenues.
Reference: http://searchsecurity.techtarget.com/definition/security-policy

QUESTION 75
Which wildcard mask is associated with a subnet mask of /27?

A. 0.0.0.31
B. 0.0.027
C. 0.0.0.224
D. 0.0.0.255

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
On Cisco router, wildcard subnet mask is used in the following occasion
* Defining subnet in ACL
* Defining subnet member in OSPF area
Reference: http://www.dslreports.com/faq/15216

QUESTION 76
Which statements about reflexive access lists are true? (Choose three.)

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

Correct Answer: DEF
Section: (none)

Explanation

Explanation/Reference:
Explanation:
Reflexive access lists allow IP packets to be filtered based on upper-layer session information. You can use reflexive access lists to permit IP traffic for sessions originating from within your network but to deny IP traffic for sessions originating from outside your network. This is accomplished by reflexive filtering, a kind of session filtering.
Reflexive access lists can be defined with extended named IP access lists only. You cannot define reflexive access lists with numbered or standard named IP access lists or with other protocol access lists.
Reference: http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/configuration/guide/fsecur_c/scfreflx.html

QUESTION 77
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

Correct Answer: BDE
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The following event actions can be deployed in Promiscuous mode. These actions are in affect for a user-configurable default time of 30 minutes. Because the IPS sensor must send the request to another device or craft a packet, latency is associated with these actions and could allow some attacks to be successful. Blocking through usage of the Attack Response Controller (ARC) has the potential benefit of being able to perform to the network edge or at multiple places within the network.
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. However, in some cases where the attack only needs one packet it may not work as well. Additionally, TCP resets are not very effective with protocols such as SMTP that consistently try to establish new connections, nor are they effective if the reset cannot reach the destination host in time.
Reference: http://www.cisco.com/c/en/us/about/security-center/ips-mitigation.html

QUESTION 78
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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The CONSOLE list overrides the default method list default on line con 0. You need to enter the password "cisco" (configured on line con 0) to get console access. The default list is still used on tty, vty and aux.
Note: To have console access authenticated by a local username and password, use:
Router(config)# aaa authentication login CONSOLE local
Reference: http://www.cisco.com/c/en/us/support/docs/security-vpn/terminal-access-controller-access-control-system-tacacs-/10384-security.html#login_auth

QUESTION 79
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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Health and Performance Monitor (HPM) periodically polls monitored ASA devices, IPS devices, and ASA-hosted VPN services for key health and performance data, including critical and non-critical issues, such as memory usage, interface status, dropped packets, tunnel status, and so on. This information is used for alert generation and email notification, and to display trends based on aggregated data, which is available for hourly, daily, and weekly periods.
Reference: http://www.cisco.com/c/en/us/td/docs/security/security_management/cisco_security_manager/security_manager/4-4/user/guide/CSMUserGuide_wrapper/wfplan.html

QUESTION 80
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

Correct Answer: AC
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Start-stop and stop-only notices are used to send a failed authentication attempt record to AAA server.
Reference: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_usr_aaa/configuration/xe-3s/sec-usr-aaa-xe-3s-book/sec-cfg-accountg.html

QUESTION 81
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

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
There are four steps required to enable SSH support on a Cisco IOS router:
1. Configure the **hostname** command.
2. Configure the DNS domain.
3. Generate the SSH key to be used.
4. Enable SSH transport support for the virtual type terminal (vtys).

If you want to have one device act as an SSH client to the other, you can add SSH to a second device called Reed. These devices are then in a client-server arrangement, where Carter acts as the server, and Reed acts as the client. The Cisco IOS SSH client configuration on Reed is the same as required for the SSH server configuration on Carter.

Reference: http://www.cisco.com/c/en/us/support/docs/security-vpn/secure-shell-ssh/4145-ssh.html

QUESTION 82
Which protocol provides security to Secure Copy?

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

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The Secure Copy (SCP) feature provides a secure and authenticated method for copying device configurations or device image files. SCP relies on Secure Shell (SSH), an application and protocol that provide a secure replacement for the Berkeley r-tools suite (Berkeley university's own set of networking applications).
Reference: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_usr_ssh/configuration/15-s/sec-usr-ssh-15-s-book/sec-secure-copy.html

QUESTION 83
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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The RDP plug-in is only one of the plug-ins available to users, along with others such as Secure Shell (SSH), Virtual Network Computing (VNC), and Citrix. The RDP plug-in is one of the most frequently used plug-ins in this collection. This document provides more details about the deployment and troubleshoot procedures for this plug-in.
Reference: http://www.cisco.com/c/en/us/support/docs/security/asa-5500-x-series-next-generation-firewalls/113600-technote-product-00.html

QUESTION 84
Which security zone is automatically defined by the system?

A. The source zone
B. The self zone
C. The destination zone
D. The inside zone

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The self zone is a system-defined zone which does not have any interfaces as members. A zone pair that includes the self zone, along with the associated policy, applies to traffic directed to the device or traffic generated by the device. It does not apply to traffic through the device.
The most common usage of firewall is to apply them to traffic through a device, so you need at least two zones (that is, you cannot use the self zone).
Reference: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_data_zbf/configuration/15-2mt/sec-zone-pol-fw.html

QUESTION 85
What are purposes of the Internet Key Exchange in an IPsec VPN? (Choose two.)

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

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Using the channel created in phase 1, this phase establishes IPSec security associations and negotiates information needed for the IPSec tunnel. This phase can be seen in the above figure as “IPsec-SA established.” Note that two phase 2 events are shown, this is because a separate SA is used for each subnet configured to traverse the VPN.
Reference: https://documentation.meraki.com/zGeneral_Administration/Tools_and_Troubleshooting/Networking_Fundamentals%3A_IPSec_and_IKEv

QUESTION 86

Which address block is reserved for locally assigned unique local addresses?

A. 2002::/16
B. FD00::/8
C. 2001::/32
D. FB00::/8

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Using one of the common Unique Local IPv6 global prefix generators, the Acme corporate network was assigned the global prefix of 6D8D64AF0C; when pushed together with the common unique local locally assigned prefix (FD00::/8) the prefix expands to FD6D:8D64:AF0C::/48; this leaves Acme with an additional 16 bits of space to use for subnetting across their sites.
Reference: http://www.ciscopress.com/articles/article.asp?p=2154678&seqNum=2

QUESTION 87
What is a possible reason for the error message?Router(config)#aaa server?% Unrecognized command

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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
It means that the router is a new device on which aaa new model command must be applied before inducting it into the system.
Reference: http://www.cisco.com/c/en/us/support/docs/security-vpn/terminal-access-controller-access-control-system-tacacs-/10384-security.html

QUESTION 88
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

Correct Answer: AC
Section: (none)
Explanation

Explanation/Reference:
Explanation:
- Tunnel offers better performance than browser plug-ins.
- 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.
- Smart Tunnel does not require users to have administrator privileges.
- Smart Tunnel does not require the administrator to know application port numbers in advance.

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

QUESTION 89
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

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
If the native VLAN on a trunk is different on each end of the link, STP loops may occur.
Reference: https://supportforums.cisco.com/discussion/12477986/using-different-native-vlans-different-ports-switch-configured-trunks

QUESTION 90
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

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
You use direction of the access group when you apply an access list to a physical interface.
Reference: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_data_acl/configuration/xe-3s/sec-data-acl-xe-3s-book/sec-create-ip-apply.html

QUESTION 91
Which source port does IKE use when NAT has been detected between two VPN gateways?

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

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Take the common case of the initiator behind the NAT. The initiator must quickly change to port 4500 once the NAT has been detected to minimize the window of IPsec-aware NAT problems.
Reference: https://tools.ietf.org/html/rfc3947

QUESTION 92
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

Correct Answer: ADE
Section: (none)
Explanation

Explanation/Reference:
Explanation:
IPSec can be run in either tunnel mode or transport mode. Each of these modes has its own particular uses and care should be taken to ensure that the correct one is selected for the solution:

- *Tunnel mode* is most commonly used between gateways, or at an end-station to a gateway, the gateway acting as a proxy for the hosts behind it.
- *Transport mode* is used between end-stations or between an end-station and a gateway, if the gateway is being treated as a host—for example, an encrypted Telnet session from a workstation to a router, in which the router is the actual destination.

Reference: http://www.ciscopress.com/articles/article.asp?p=25477

QUESTION 93
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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Configure routed ports by putting the interface into Layer 3 mode with the no switchport interface configuration command. Then assign an IP address to the port, enable routing, and assign routing protocol characteristics by using the ip routing and router protocol global configuration commands.

Reference: http://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst3750/software/release/12-2_55_se/configuration/guide/scg3750/swint.html

QUESTION 94
Which TACACS+ server-authentication protocols are supported on Cisco ASA firewalls? (Choose three.)

A. EAP
B. ASCII
C. PAP

D. PEAP
E. MS-CHAPv1
F. MS-CHAPv2

Correct Answer: BCE
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The ASA supports TACACS+ server authentication with the following protocols: ASCII, PAP, CHAP, and MS-CHAPv1.
Reference: http://www.cisco.com/c/en/us/td/docs/security/asa/asa92/asdm72/general/asa-general-asdm/aaa-tacacs.html

QUESTION 95
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

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Cisco's best-in-class anomaly detection feature detects worms by learning the "normal" traffic patterns of the network, and then scanning for anomalous behavior. Fast-propagating network worms scan the network in order to infect other hosts. For each protocol or service, the anomaly detection program studies what is normal scanning activity, and accumulates this information in a threshold histogram and an absolute scanner threshold. The scanner threshold specifies the absolute scanning rate above which any source is considered malicious.

Reference: http://www.cisco.com/c/en/us/products/collateral/security/ips-4200-series-sensors/prod_brochure0900aecd805baea7.html

QUESTION 96
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

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
When a problem exist with the connectivity, even phase 1 of VPN does not come up. On the ASA, if connectivity fails, the SA output is similar to this example, which indicates possibly an incorrect crypto peer configuration and/or incorrect ISAKMP proposal configuration:
Router#**show crypto isakmp sa**
1 IKE Peer: XX.XX.XX.XX
Type : L2L Role : initiator
Rekey : no State : MM_WAIT_MSG2
Reference: http://www.cisco.com/c/en/us/support/docs/security/asa-5500-x-series-next-generation-firewalls/81824-common-ipsec-trouble.html

QUESTION 97
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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
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. You can use this analysis to tune your sensor signatures to detect new types of malicious network traffic.
Honeypot systems are used in production environments, typically by large organizations that come across as interesting targets for hackers, such as financial enterprises, governmental agencies, and so on. Also, antivirus and other security vendors tend to use them for research.
Reference: http://www.ciscopress.com/articles/article.asp?p=1336425

QUESTION 98
Which type of firewall can act on the behalf of the end device?

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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Local session termination allows routers to act as proxies for remote systems that represent session endpoints. (A proxy is a device that acts on behalf of another device.)
Reference: http://docwiki.cisco.com/wiki/Internetwork_Design_Guide_--_Internetworking_Design_Basics

QUESTION 99
Which syslog severity level is level number 7?

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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Level	Description
0 - emergency	System unusable
1 - alert	Immediate action needed
2 - critical	Critical condition
3 - error	Error condition
4 - warning	Warning condition
5 - notification	Normal but significant condition
6 - informational	Informational message only
7 - debugging	Appears during debugging only

Reference: http://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/5_x/nx-os/system_management/configuration/guide/sm_nx_os_cg/sm_5syslog.html

QUESTION 100
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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Phishing is the attempt to acquire sensitive information such as usernames, passwords, and credit card details (and sometimes, indirectly, money), often for malicious reasons, by masquerading as a trustworthy entity in an electronic communication.
Reference: https://en.wikipedia.org/wiki/Phishing

QUESTION 101
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

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The traffic for each RSPAN session is carried as Layer 2 nonroutable traffic over a user-specified RSPAN VLAN that is dedicated for that RSPAN session in all participating switches. All participating switches must be trunk-connected at Layer 2.
Reference: http://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst6500/ios/12-2SX/configuration/guide/book/span.html

QUESTION 102
Which tasks is the session management path responsible for? (Choose three.)

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

Correct Answer: BDF
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The session management path is responsible for the following tasks:
– Performing the access list checks
– Performing route lookups
– Allocating NAT translations (xlates)
– Establishing sessions in the "fast path"

Reference: http://www.cisco.com/c/en/us/td/docs/security/fwsm/fwsm31/configuration/guide/fwsm_cfg/intro_f.html

QUESTION 103
Which network device does NTP authenticate?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
NTP authentication, the device synchronizes to a time source only if the source carries one of the authentication keys specified by the ntp trusted-key command. The device drops any packets that fail the authentication check and prevents them from updating the local clock. NTP authentication is disabled by default.
Reference: http://www.cisco.com/c/en/us/td/docs/switches/datacenter/sw/5_x/nx-os/system_management/configuration/guide/sm_nx_os_cg/sm_3ntp.html#wp1100303

QUESTION 104
Which Cisco product can help mitigate web-based attacks within a network?

A. Adaptive Security Appliance
B. Web Security Appliance
C. Email Security Appliance
D. Identity Services Engine

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
To protect against the growing breadth and diversity of threats in today's business climate, you need a modern approach. That means a variety of protections that can block hidden malware from both suspicious and legitimate sites before it reaches you. We think the best Web security solutions today should be backed by the best real-time security intelligence available to help you stay abreast of this changing threat landscape and prevent the latest exploits from turning into issues. And modern Web security should be able to support policies that give employees access to the sites they need to use to do their jobs while selectively denying the use of undesired sites and features like web-based file-sharing.
You get all of those features and more with the Cisco® Web Security Appliance (WSA), Figure 1. Cisco WSA safeguards businesses through broad threat

intelligence, multiple layers of malware defense, and vital data loss prevention (DLP) capabilities across the attack continuum. It's an all-in-one web gateway that brings you broad protection, extensive controls, and investment value. It also offers an array of competitive web security deployment options, each of which includes Cisco's market-leading global threat intelligence infrastructure.
Reference: http://www.cisco.com/c/en/us/products/collateral/security/web-security-appliance/solution-overview-c22-732948.html

QUESTION 105
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
A private VLAN partitions the Layer 2 broadcast domain of a VLAN into subdomains, allowing you to isolate the ports on the switch from each other. A subdomain consists of a primary VLAN and one or more secondary VLANs
Reference: http://www.cisco.com/c/en/us/td/docs/switches/datacenter/nexus5000/sw/configuration/guide/cli/CLIConfigurationGuide/PrivateVLANs.pdf

QUESTION 106
What hash type does Cisco use to validate the integrity of downloaded images?

A. Sha1
B. Sha2
C. Md5
D. Md1

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
The MD5 File Validation feature allows you to generate the MD5 checksum for the Cisco IOS image stored on your router and compare it to the value posted on Cisco.com to verify that the image on your router is not corrupted.
Reference: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sys-image-mgmt/configuration/15-s/sysimgmgmt-15-s-book/sysimgmgmt-md5.html#GUID-9E5A6790-5E81-442B-8F6F-54271B25A9F8

QUESTION 107
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

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
The Unicast RPF feature helps to mitigate problems that are caused by malformed or forged IP source addresses that are passing through a router.
Reference: http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/configuration/guide/fsecur_c/scfrpf.html

QUESTION 108
What is the most common Cisco Discovery Protocol version 1 attack?

A. Denial of Service
B. MAC-address spoofing
C. CAM-table overflow
D. VLAN hopping

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
The older version of CDP v1 are vulnerable to DoS attacks, such that an attacker could flood the network segment with large CDP frames containing random device ID's causing Cisco devices running this version to crash. Targeting a vulnerable router using this attack could allow the attacker to send spoofed CDP frames with new route information with a higher priority so that traffic is rerouted to an unauthorised device. Although this form of DoS only affects older versions of the protocol many older platforms cannot upgrade to newer releases due to flash ROM size constraints, so I'm sure there are many devices still at risk to this exploit.
Reference: http://packetbuddha.blogspot.com/2009/12/cdp-attacks.html

QUESTION 109
What is the Cisco preferred countermeasure to mitigate CAM overflows?

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

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Port Security on a Cisco switch enables you to control how the switch port handles the learning and storing of MAC addresses on a per-interface basis. The main use of this command is to set a limit to the maximum number of concurrent MAC addresses that can be learned and allocated to the individual switch port.
Reference: http://www.ciscopress.com/articles/article.asp?p=1681033&seqNum=2

QUESTION 110
Which option is the most effective placement of an IPS device within the infrastructure?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Cisco IOS Intrusion Prevention System (IPS) is an inline, deep-packet-inspection-based feature that enables Cisco IOS Software to effectively mitigate a wide range of network attacks. While it is common practice to defend against attacks by inspecting traffic at the data centers and corporate headquarters, it is also critical to distribute the network-level defense to stop malicious traffic close to its entry point at the branch or telecommuter offices.
Reference: http://www.cisco.com/c/en/us/products/collateral/security/ios-intrusion-prevention-system-ips/prod_white_paper0900aecd8062acfb.html

QUESTION 111
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

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:
When a remote user attempts to dial in to the network, the network access server first queries R1 for authentication information. If R1 authenticates the user, it issues a PASS response to the network access server and the user is allowed to access the network. If R1 returns a FAIL response, the user is denied access and the session is terminated. If R1 does not respond, then the network access server processes that as an ERROR and queries R2 for authentication information. This pattern would continue through the remaining designated methods until the user is either authenticated or rejected, or until the session is terminated.
It is important to remember that a FAIL response is significantly different from an ERROR. A FAIL means that the user has not met the criteria contained in the applicable authentication database to be successfully authenticated. Authentication ends with a FAIL response. An ERROR means that the security server has not responded to an authentication query. Because of this, no authentication has been attempted. Only when an ERROR is detected will AAA select the next authentication method defined in the authentication method list.
Suppose the system administrator wants to apply a method list only to a particular interface or set of interfaces. In this case, the system administrator creates a named method list and then applies this named list to the applicable interfaces.
Reference: http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/configuration/guide/fsecur_c/scfathen.html

QUESTION 112
Which alert protocol is used with Cisco IPS Manager Express to support up to 10 sensors?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Cisco's IPS sensors support event retrieval using the Security Device Event Exchange (SDEE) protocol. SDEE is an industry standard protocol and there are several open-source libraries available for using in the creation of an event collection and storage solution.
Reference: https://supportforums.cisco.com/discussion/10988211/how-monitor-cisco-ids-4215-v60

QUESTION 113
When a switch has multiple links connected to a downstream switch, what is the first step that STP takes to prevent loops?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
To prevent loops when a switch has multiple links connected to a downstream switch, STP will elect Root Bridge to prevent loops in the process.
Reference: http://networkengineering.stackexchange.com/questions/114/how-is-the-stp-root-bridge-and-path-to-the-root-bridge-determined

QUESTION 114
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Using NAT on a security appliance operating in transparent mode eliminates the need for upstream or downstream routers to perform NAT for their networks.
Reference: http://www.cisco.com/c/en/us/td/docs/security/security_management/cisco_security_manager/security_manager/4-1/user/guide/CSMUserGuide_wrapper/NATchap.html#51621

QUESTION 115
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

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:
Explanation:
An HMAC is a MAC which is based on a hash function. The basic idea is to concatenate the key and the message, and hash them together. Since it is impossible, given a cryptographic hash, to find out what it is the hash of, knowing the hash (or even a collection of such hashes) does not make it possible to find the key. The basic idea doesn't quite work out, in part because of length extension attacks, so the actual HMAC construction is a little more complicated.
Reference: http://security.stackexchange.com/questions/20129/how-and-when-do-i-use-hmac/20301

QUESTION 116
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
You can set a global timeout interval for all TACACS+ servers. The timeout interval determines how long the Cisco CG-OS router waits for responses from TACACS+ servers before declaring a timeout failure.

acacs-server timeout*seconds*	Specifies the timeout interval for TACACS+ servers. The range is from 1 to 60 seconds. The default timeout interval is 5 seconds.

Reference: http://www.cisco.com/c/en/us/td/docs/routers/connectedgrid/cgr1000/1_0/software/configuration/guide/security/security_Book/sec_tacacspl_cgr1000.html

QUESTION 117
Which RADIUS server authentication protocols are supported on Cisco ASA firewalls? (Choose three.)

A. EAP

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

Correct Answer: CEF
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The ASA supports the following authentication methods with RADIUS servers:
- PAP—For all connection types.
- CHAP and MS-CHAPv1—For L2TP-over-IPsec connections.
- MS-CHAPv2—For L2TP-over-IPsec connections, and for regular IPsec remote access connections when the password management feature is enabled. You can also use MS-CHAPv2 with clientless connections.
- Authentication Proxy modes—For RADIUS-to Active-Directory, RADIUS-to-RSA/SDI, RADIUS- to-Token server, and RSA/SDI-to-RADIUS connections,

Reference: http://www.cisco.com/c/en/us/td/docs/security/asa/asa91/configuration/general/asa_91_general_config/aaa_radius.html#pgfId-1211697

QUESTION 118
Which command initializes a lawful intercept view?

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

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Parser view cisco li-view is the command that initializes lawful intercept view.
Reference: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_usr_cfg/configuration/xe-3s/sec-usr-cfg-xe-3s-book/sec-role-base-cli.html#GUID-682CE43D-C9FC-4F47-848E-0DBC84ED6F32

QUESTION 119

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

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

Correct Answer: BD
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The best measure is to enable DHCP snooping and dynamic ARP inspection for ARP spoofing attacks.
Reference: http://www.cisco.com/c/en/us/products/collateral/switches/catalyst-6500-series-switches/white_paper_c11_603839.html

QUESTION 120
Which of the following statements about access lists are true? (Choose three.)

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

Correct Answer: BCE
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Standard ACLs
A standard IP ACL is simple; it filters based on source address only. You can filter a source network or a source host, but you cannot filter based on the destination of a packet, the particular protocol being used such as the Transmission Control Protocol (TCP) or the User Datagram Protocol (UDP), or on the port number. You can permit or deny only source traffic.
Extended ACLs:
An extended ACL gives you much more power than just a standard ACL. Extended IP ACLs check both the source and destination packet addresses. They can also check for specific protocols, port numbers, and other parameters, which allow administrators more flexibility and control.

Named ACLs
One of the disadvantages of using IP standard and IP extended ACLs is that you reference them by number, which is not too descriptive of its use. With a named ACL, this is not the case because you can name your ACL with a descriptive name. The ACL named DenyMike is a lot more meaningful than an ACL simply numbered 1. There are both IP standard and IP extended named ACLs.
Another advantage to named ACLs is that they allow you to remove individual lines out of an ACL. With numbered ACLs, you cannot delete individual statements. Instead, you will need to delete your existing access list and re-create the entire list.
Reference: http://computernetworkingnotes.com/network-security-access-lists-standards-and-extended/access-control-list.html

QUESTION 121
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

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
An extended ACL gives you much more power than just a standard ACL. Extended IP ACLs check both the source and destination packet addresses. They can also check for specific protocols, port numbers, and other parameters, which allow administrators more flexibility and control.
Reference: http://computernetworkingnotes.com/network-security-access-lists-standards-and-extended/access-control-list.html

QUESTION 122
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

Correct Answer: AE
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Starting with Cisco IOS Software release 12.4(4)T, Control Plane Protection (CPPr) can be used to restrict and/or police control plane traffic destined to the route processor of the Cisco IOS device. Although it is similar to Control Plane Policing (CoPP), CPPr has the ability to restrict/police traffic using finer granularity than that used by CoPP. CPPr divides the aggregate control plane into three separate control plane categories, known as subinterfaces: (1) host, (2) transit, and (3) CEF-exception. In addition, CPPr includes the following additional control plane protection features:

- The port-filtering feature provides for policing/dropping of packets going to closed or nonlistening TCP/UDP ports
- Queue thresholding limits the number of packets for a specified protocol that will be allowed in the control plane IP input queue

Reference: http://www.cisco.com/c/en/us/about/security-center/understanding-cppr.html

QUESTION 123
In which stage of an attack does the attacker discover devices on a target network?

A. Reconnaissance
B. Covering tracks
C. Gaining access
D. Maintaining access

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Knowledge is power goes the old and equally wise saying. This axiom is applicable to the arena of network attacks as well. The reconnaissance attack is one where the main purpose of the attacker is to find out information about the vulnerable points of the network which is being targeted.
Reference: https://www.certificationkits.com/cisco-certification/ccna-security-certification-topics/ccna-security-describe-security-threats/ccna-security-common-network-attacks/

QUESTION 124
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

Correct Answer: BE
Section: (none)
Explanation

Explanation/Reference:
Explanation:
An encrypted connection becomes useless if you've unknowingly connected to a bogus server or a malicious client. While SSH and SSL use symmetric cryptography to preserve the confidentiality of transmitted data, they use another form of encryption for authentication. Authentication allows one party to verify whether the other party is really who it claims it is.
Reference: http://www.jscape.com/blog/ssl-vs-ssh-simplified

QUESTION 125
What are the primary attack methods of VLAN hopping? (Choose two.)

A. VoIP hopping
B. Switch spoofing
C. CAM-table overflow
D. Double tagging

Correct Answer: BD
Section: (none)
Explanation

Explanation/Reference:
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. Both attack vectors can be easily mitigated with proper switchport configuration.
Reference: https://en.wikipedia.org/wiki/VLAN_hopping

QUESTION 126
How can the administrator enable permanent client installation in a Cisco AnyConnect VPN firewall configuration?

A. Issue the command anyconnect keep-installer under the group policy or username webvpn mode
B. Issue the command anyconnect keep-installer installed in the global configuration
C. Issue the command anyconnect keep-installer installed under the group policy or username webvpn mode
D. Issue the command anyconnect keep-installer installer under the group policy or username webvpn mode

Correct Answer: C
Section: (none)

Explanation

Explanation/Reference:
Explanation:
To enable permanent client installation for a specific group or user, use the **anyconnect keep-installer** command from group-policy or username webvpn modes:

anyconnect keep-installer installer

The default is that permanent installation of the client is enabled. The client remains on the remote computer at the end of the session. The following example configures the existing group-policy *sales* to remove the client on the remote computer at the end of the session:

hostname(config)# **group-policy sales attributes**
hostname(config-group-policy)# **webvpn**
hostname(config-group-policy)# **anyconnect keep-installer installed none**

Reference: http://www.cisco.com/c/en/us/td/docs/security/asa/asa84/configuration/guide/asa_84_cli_config/vpn_anyconnect.html

QUESTION 127
Which type of security control is defense in depth?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Defense in-depth is a technique that uses many layers of network defense to secure a network and all devices connected to that network. The theory behind defense in-depth is to deploy different layers of security in key parts of the network to detect, contain and ultimately stop an attack.
Reference: http://security2b.blogspot.com/2006/12/what-is-defense-in-depth-and-why-is-it.html

QUESTION 128
On which Cisco Configuration Professional screen do you enable AAA

A. AAA Summary
B. AAA Servers and Groups

C. Authentication Policies
D. Authorization Policies

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
AAA summary screen is used to enable AAA authentication.
Reference: https://books.google.com.pk/books?id=V8kmEemJPIkC&pg=PA81&lpg=PA81&dq=enable+AAA+AAA+summary+screen&source=bl&ots=Yw_-pFKTbZ&sig=GxQD3FnhFotUeDenrA4Ssg4oQxg&hl=en&sa=X&ved=0ahUKEwjdlaCcoKPNAhUK6xQKHa9OAV0Q6AEIMjAE#v=onepage&q=enable%20AAA%20AAA%20summary%20screen&f=false

QUESTION 129
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

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:
SIEM can be used collecting and archiving syslog data and alerting administrators to security events in real time.
Reference: http://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise/design-zone-smart-business-architecture/sbaSIEM_deployG.pdf

QUESTION 130
What are the three layers of a hierarchical network design? (Choose three.)

A. access
B. core
C. distribution
D. user

E. server
F. Internet

Correct Answer: ABC
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Hierarchical network design has access, core and distribution layers.
Reference: http://www.ciscopress.com/articles/article.asp?p=2202410&seqNum=4

QUESTION 131
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

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:
In-band management can be used when management applications need concurrent access to the device. In-band management can also be used to gain administrator access from multiple locations.
Reference: http://www.cisco.com/c/en/us/td/docs/switches/lan/hubs/fhub316c_t/bmm/install_config/guide/bmmicg/bmminbn.pdf

QUESTION 132
What are two ways to prevent eavesdropping when you perform device-management tasks? (Choose two.)

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

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Explanation:
To prevent eavesdropping during device management tasks, you can use SSH and SNMPv3 to get info on eavesdropping if any.
Reference: https://www.ietf.org/rfc/rfc5592.txt

QUESTION 133
In which three ways does the RADIUS protocol differ from TACACS? (Choose three.)

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

Correct Answer: ABC
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Two prominent security protocols used to control access into networks are Cisco TACACS+ and RADIUS. The RADIUS specification is described in RFC 2865 leavingcisco.com, which obsoletes RFC 2138 leavingcisco.com. Cisco is committed to supporting both protocols with the best of class offerings. It is not the intention of Cisco to compete with RADIUS or influence users to use TACACS+. You should choose the solution that best meets your needs.
Reference: http://www.cisco.com/c/en/us/support/docs/security-vpn/remote-authentication-dial-user-service-radius/13838-10.html

QUESTION 134
Which three statements describe DHCP spoofing attacks? (Choose three.)

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

F. They can physically modify the network gateway.

Correct Answer: ABC
Section: (none)
Explanation

Explanation/Reference:
Explanation:
DHCP spoofing attacks modify traffic in transit and they use man-in-the-middle attacks along with ARP poisoning.
Reference: https://learningnetwork.cisco.com/thread/67229

QUESTION 135
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
IF the data breach is occurred within the company and the database has been copied, the confidentiality has been breached.
An employee may steal valuable trade secret information as seen at DuPont. However, not every business has these types of trade secrets. The type of information an employee is most likely to steal is the information needed to do his or her specific job, usually information that is readily available to them. To maintain a competitive advantage, the electronic information an employee uses everyday must be protected. Everyday employees have access to a wide variety of electronic information which range from important (email lists and non-financial business information), to confidential (customer information), to private (employee records), through the most sensitive and potentially damaging data: financial records, databases with enormous company history, trade secrets and intellectual property.
Reference: https://www.nowsecure.com/blog/2010/08/31/departing-employees-and-data-theft/

QUESTION 136
In which type of attack does an attacker send email messages that ask the recipient to click a link such as https://www.cisco.net.cc/securelogon?

A. phishing
B. pharming
C. solicitation

D. secure transaction

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 137
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Phishing attempts most often take the form of an email that seemingly comes from a company the recipient knows or does business with. The most recognized type of phishing attack is similar to the bank example described above, where the email asks the recipient to enter his account credentials on a website.
Reference: https://digitalguardian.com/blog/what-phishing-attack-defining-and-identifying-different-types-phishing-attacks

QUESTION 138
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Malware" is short for malicious software and used as a single term to refer to virus, spy ware, worm etc. Malware is designed to cause damage to a stand alone computer or a networked pc. So wherever a malware term is used it means a program, which is designed to damage your computer it may be a virus, worm, or Trojan.
Reference: http://www.symantec.com/connect/articles/what-are-malware-viruses-spyware-and-cookies-and-what-differentiates-them

QUESTION 139
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Asymmetric cryptography, also known as public key cryptography, uses public and private keys to encrypt and decrypt data. The keys are simply large numbers that have been paired together but are not identical (asymmetric). One key in the pair can be shared with everyone; it is called the public key. The other key in the pair is kept secret; it is called the private key. Either of the keys can be used to encrypt a message; the opposite key from the one used to encrypt the message is used for decryption.
Reference: http://searchsecurity.techtarget.com/definition/asymmetric-cryptography

QUESTION 140
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 D7AD1419.9EB5272B (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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
192.168.10.7 is clearly shown in the exhibit. It is NTP server address which is synchronized with router.

QUESTION 141
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The single connection command cause the device to establish a connection for all TACACS transations.

QUESTION 142
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
To associate a dialed number identification service (DNIS) or calling line identification (CLID) user profile with the record that is sent to the RADIUS server or to manually test load-balancing server status, use the test aaa group command in privileged EXEC mode.
Reference: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/security/s1/sec-s1-xe-3se-3850-cr-book/sec-s1-xe-3se-3850-cr-book_chapter_0101.html#wp1375904793

QUESTION 143
How does PEAP protect the EAP exchange?

A. It encrypts the exchange using the server certificate.
B. It encrypts the exchange using the client certificate.
C. It validates the server-supplied certificate, and then encrypts the exchange using the client certificate.
D. It validates the client-supplied certificate, and then encrypts the exchange using the server certificate.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Protected Extensible Authentication Protocol (PEAP) is an 802.1X authentication type for wireless LANs (WLANs). PEAP provides strong security, user database extensibility, and support for one-time token authentication and password change or aging.
Reference: http://www.cisco.com/c/en/us/products/collateral/wireless/aironet-1200-series/prod_qas0900aecd801764fa.html

QUESTION 144
What improvement does EAP-FASTv2 provide over EAP-FAST?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The one improvement EAP-FASTv2 provides is that it allows multiple credentials to be passed in a single EAP exchange. EAP-FAST was unable to do that in a single EAP exchange.
Reference: https://tools.ietf.org/html/draft-zhou-emu-eap-fastv2-00

QUESTION 145
How does a device on a network using ISE receive its digital certificate during the new-device registration process?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The device uses ISE in a way that it acts as a SCEP proxy to enable device to receive a certificate from a central CA server.
Reference: http://www.cisco.com/c/en/us/support/docs/security/identity-services-engine-software/116068-configure-product-00.html

QUESTION 146
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
In this case, ISE will ask the admin to chose between erasing all device data or only managed corporate data.

QUESTION 147
What configuration allows AnyConnect to automatically establish a VPN session when a user logs in to the computer?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
You can configure AnyConnect to establish a VPN session automatically after the user logs in to a computer. The VPN session remains open until the user logs out of the computer, or the session timer or idle session timer expires. The group policy assigned to the session specifies these timer values. If AnyConnect loses the connection with the ASA, the ASA and the client retain the resources assigned to the session until one of these timers expire. AnyConnect continually attempts to reestablish the connection to reactivate the session if it is still open; otherwise, it continually attempts to establish a new VPN session.
Reference: http://www.cisco.com/c/en/us/td/docs/security/vpn_client/anyconnect/anyconnect30/administration/guide/anyconnectadmin30/ac03vpn.html

QUESTION 148
What security feature allows a private IP address to access the Internet by translating it to a public address?

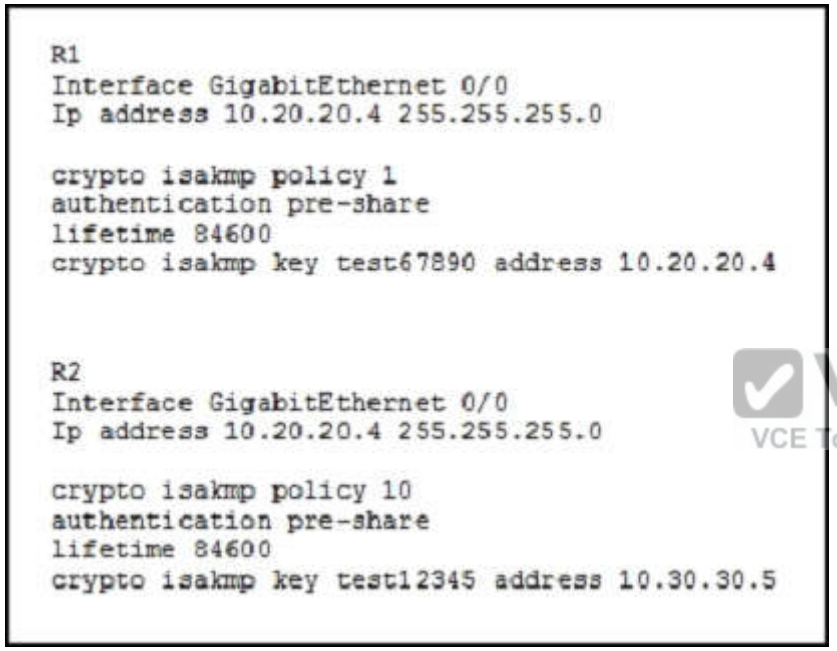
A. NAT
B. hairpinning
C. Trusted Network Detection
D. Certification Authority

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
One of the main functions of NAT is to enable private IP networks to connect to the Internet. Network address translation replaces a private IP address with a public IP address, translating the private addresses in the internal network into legal, routable addresses that can be used on the public Internet. In this way, NAT

conserves public addresses; for example, NAT rules can be configured to utilize only one public address for the entire network in communications with the outside world.
Reference: http://www.cisco.com/c/en/us/td/docs/security/security_management/cisco_security_manager/security_manager/4-3/user/guide/CSMUserGuide_wrapper/NATchap.pdf

QUESTION 149
Refer to the exhibit.



You have configured R1 and R2 as shown, but the routers are unable to establish a site-to-site VPN tunnel. What action can you take to correct the problem?

A. Edit the crypto keys on R1 and R2 to match.
B. Edit the ISAKMP policy sequence numbers on R1 and R2 to match.
C. Set a valid value for the crypto key lifetime on each router.
D. Edit the crypto isakmp key command on each router with the address value of its own interface.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Routers will establish a site-to-site VPN tunnel when you edit the crypto keys on R1 and R2 to match.
Reference: http://www.cs.rpi.edu/~kotfid/secvoice10/labs/Security_Chp8_Lab-A-Site2Site-VPN_Instructor.doc

QUESTION 150
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The crypto ipsec transform-set myset esp-md5-hmac esp-aes-256 command merges authentication and encryption methods to protect traffic that matches an ACL.

QUESTION 151
Refer to the exhibit.

```
dst          src         state          conn-id     slot
10.10.10.2   10.1.1.5    MM_NO_STATE    1           0
```

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

A. IKE Phase 1 main mode was created on 10.1.1.5, but it failed to negotiate with 10.10.10.2.
B. IKE Phase 1 main mode has successfully negotiated between 10.1.1.5 and 10.10.10.2.
C. IKE Phase 1 aggressive mode was created on 10.1.1.5, but it failed to negotiate with 10.10.10.2.
D. IKE Phase 1 aggressive mode has successfully negotiated between 10.1.1.5 and 10.10.10.2.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The IKE phase 1 main mode was created on 10.1.1.5 but it failed to negotiate with 10.10.10.2.
Reference: http://www.juniper.net/techpubs/software/screenos/screenos6.3.0/630_ce_VPN.pdf

QUESTION 152
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Use either of these commands with the level option to define a password for a specific privilege level. After you specify the level and set a password, give the password only to users who need to have access at this level. Use the privilege level configuration command to specify commands accessible at various levels.
Reference: http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/configuration/guide/fsecur_c/scfpass.html

QUESTION 153
Refer to the exhibit.

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

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

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
To enable a privileged user to view the entire configuration in memory, the user needs to modify privileges for all commands that are configured on the router. For example:
aaa new-model
aaa authentication login default local
aaa authorization exec default local

username john privilege 9 password 0 doe
username six privilege 6 password 0 six
username poweruser privilege 15 password poweruser
username inout password inout
username inout privilege 15 autocommand show running

privilege configure level 8 snmp-server community
privilege exec level 6 show running
privilege exec level 8 configure terminal

Reference: http://www.cisco.com/c/en/us/support/docs/security-vpn/terminal-access-controller-access-control-system-tacacs-/23383-showrun.html

QUESTION 154
In the router ospf 200 command, what does the value 200 stand for?

A. process ID
B. area ID
C. administrative distance value
D. ABR ID

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
This command performs the same function as the distance command used with an access list. However, the distance ospf command allows you to set a distance for an entire group of routes, rather than a specific route that passes an access list.

A common reason to use the distance ospf command is when you have multiple OSPF processes with mutual redistribution, and you want to prefer internal routes from one over external routes from the other.
Reference: http://www.cisco.com/c/en/us/td/docs/ios/12_2/iproute/command/reference/fiprrp_r/1rfospf.html

QUESTION 155
Which feature filters CoPP packets?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Access control lists (ACLs) cannot be applied directly to the control plane subinterfaces. Instead, ACLs are used within the MQC policies (that is, class maps) and the service policy is then applied to the individual control plane subinterfaces.
Reference: http://www.cisco.com/c/en/us/about/security-center/understanding-cppr.html

QUESTION 156

In which type of attack does the attacker attempt to overload the CAM table on a switch so that the switch acts as a hub?

A. MAC spoofing
B. gratuitous ARP
C. MAC flooding
D. DoS

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
MAC flooding is the act of attempting to overload the switches content addressable memory (CAM) table. By sending a large stream of packets with random addresses, the CAM table of the switch will evenly fill up and the switch can hold no more entries; some switches might divert to a "fail open" state. This means that all frames start flooding out all ports of the switch.
Reference: http://howdoesinternetwork.com/2011/mac-address-flooding

QUESTION 157
Which type of PVLAN port allows hosts in the same VLAN to communicate directly with each other?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Private VLANs (PVANs) allow splitting the domain into multiple isolated broadcast “subdomains”, introducing sub-VLANs inside a VLAN. As we know, Ethernet VLANs can not communicate directly with each other – they require a L3 device to forward packets between separate broadcast domains. The same restriction applies to PVLANS – since the subdomains are isolated at Level 2, they need to communicate using an upper level (L3/packet forwarding) device – such as router.

Reference: http://blog.ine.com/tag/private-vlan/

QUESTION 158
What is a potential drawback to leaving VLAN 1 as the native VLAN?

A. It may be susceptible to a VLAN hoping attack.
B. Gratuitous ARPs might be able to conduct a man-in-the-middle attack.
C. The CAM might be overloaded, effectively turning the switch into a hub.
D. VLAN 1 might be vulnerable to IP address spoofing.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
If you leave VLAN 1 as native, your network might be susceptible to a VLAN hoping attack.
Reference: http://www.ciscopress.com/articles/article.asp?p=1681033&seqNum=3

QUESTION 159
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
f there are two zones and you require policies for traffic going in both directions (from Z1 to Z2 and Z2 to Z1), you must configure two zone pairs (one for each direction).
Reference: http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_data_zbf/configuration/xe-3s/sec-data-zbf-xe-book/sec-zone-pol-fw.html#GUID-16FD9685-CB43-45AF-9D24-F6E2E6467FF3

QUESTION 160
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
ARPs are allowed through the transparent firewall in both directions without an ACL. ARP traffic can be controlled by ARP inspection.
Reference: http://www.cisco.com/c/en/us/td/docs/security/asa/asa93/configuration/general/asa-general-cli/intro-fw.html

QUESTION 161
Which statement about the communication between interfaces on the same security level is true?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
If you have "same-security-traffic permit inter-interface" configured and have 2 interfaces with same "security-level" value and you have "access-list" configured on both interfaces then the ACLs will handle the decision of what traffic is allowed and what is not.
Reference: https://supportforums.cisco.com/discussion/11852506/asa-91-code-enable-traffic-between-interfaces-same-security-levels

QUESTION 162
Which IPS mode provides the maximum number of actions?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
IPS inline provides maximum number of actions.
Reference: http://www.cisco.com/c/en/us/td/docs/security/ips/5-1/configuration/guide/cli/cliguide/cliEvAct.html

QUESTION 163
How can you detect a false negative on an IPS?

A. View the alert on the IPS.
B. Review the IPS log.
C. Review the IPS console.
D. Use a third-party system to perform penetration testing.
E. Use a third-party to audit the next-generation firewall rules.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
You need a third party system to perform penetration testing to identify false negative on IPS.
Reference: http://airccse.org/journal/ijsptm/papers/4115ijsptm04.pdf

QUESTION 164
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
You can choose from the following summarization options:

- fire-all—Fires an alert each time the signature is triggered. If the threshold is set for summarization, alerts are fired for each execution until summarization occurs. After summarization starts, only one alert every summary interval fires for each address set. Alerts for other address sets are either all seen or separately summarized. The signature reverts to fire all mode after a period of no alerts for that signature.
- summary—Fires an alert the first time a signature is triggered, and then additional alerts for that signature are summarized for the duration of the summary interval. Only one alert every summary interval should fire for each address set. If the global summary threshold is reached, the signature goes into global summarization mode.
- global-summarization—Fires an alert for every summary interval. Signatures can be preconfigured for global summarization.
- fire-once—Fires an alert for each address set. You can upgrade this mode to global summarization mode.

Reference: http://www.cisco.com/c/en/us/td/docs/security/ips/7-0/configuration/guide/cli/cliguide7/cli_event_action_rules.html

QUESTION 165
Which Sourcefire event action should you choose if you want to block only malicious traffic from a particular end user?

A. Allow with inspection
B. Allow without inspection
C. Block
D. Trust
E. Monitor

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Choose allow with inspection to block only malicious traffic from a specific end user.

Reference: https://popravak.wordpress.com/2015/05/20/sourcefire-access-control-policies-part-two/

QUESTION 166
How can FirePOWER block malicious email attachments?

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

D. It sends an alert to the administrator to verify suspicious email messages.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
FirePOWER forwards email request to an external signature engine
Reference: http://www.cisco.com/c/en/us/td/docs/security/firesight/541/firepower-module-user-guide/asa-firepower-module-user-guide-v541/AMP-Config.html

QUESTION 167
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
- **Enable policy—**Enables or disables the individual policy; the global URL Filtering setting overrides the specifications of an individual policy.
- **URL Category—**Choose a filtering action for the URL categories to which you want to restrict access. There are over 80 categories segmented in seven logical groups. You can create custom categories in **HTTP > Configuration > Custom Categories**.
  The following describes the available filtering actions:
  - **Allow—**Connection to the target server is allowed and users can access the Web site.
  - **Block—**Connection to the target server is not established and users are not allowed to access the Web site. A log entry is also created for this event.
  - **Block w/Override—**Connection to target service is not established unless the user can type a specific password to override the category blocking.

Reference: https://docs.trendmicro.com/all/ent/iwsva/v5.5/en-us/iwsva_5.5_olh/urlf_policy_rule.htm

QUESTION 168
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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
File analysis rate data fidelity to provide an authenticated hash for data.
Reference: http://www.cisco.com/c/en/us/td/docs/security/ips/7-1/configuration/guide/idm/idmguide71/idm_collaboration.html

QUESTION 169
Which type of encryption technology has the broadest platform support to protect operating systems?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Software encryption has the broadest platform support to protect operating systems
Reference: https://marketplace.cisco.com/catalog/companies/vormetric/products/vormetric-data-security

QUESTION 170
A proxy firewall protects against which type of attack?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Cross-site scripting involves the injection of malicious scripts into web pages, where they can be used to gain access to user's systems or to sensitive information. The Cisco ACE Web Application Firewall provides rules that inspect messages for JavaScript, ECMAScript, VBScript and other types of code artifacts that could indicate a cross-site scripting attack.
Reference: http://www.cisco.com/c/en/us/td/docs/app_ntwk_services/data_center_app_services/ace_waf/v60/gettingstarted/guide/acewafgsg/waf_gs_XSS_attacks.html

QUESTION 171
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.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Web application firewall blocks a cache of known vulnerabilities without patching applications
Reference: http://searchsecurity.techtarget.com/feature/Introduction-to-Web-application-firewalls-in-the-enterprise

QUESTION 172
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

Correct Answer: A
Section: (none)

Explanation

Explanation/Reference:
The Email Security Appliance is the industry's first proven zero-hour antivirus solution. It offers a best-in-class capability to control and encrypt sensitive outbound email. At the same time, its layered defense, built into a single appliance, quickly blocks incoming attacks. It provides:

- Contextual analysis against phishing and snowshoe spam attacks
- A superior spam-capture rate (more than 99 percent) with few false positives (less than one in one million)
- File reputation, dynamic analysis (sandboxing), and retrospective security with Cisco AMP Threat Grid
- Graymail management and web interaction tracking

Reference: http://www.cisco.com/c/en/us/products/security/email-security-appliance/index.html

QUESTION 173
Which NAT type allows only objects or groups to reference an IP address?

A. dynamic NAT
B. dynamic PAT
C. static NAT
D. identity NAT

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Dynamic PAT translates multiple real addresses to a single mapped IP address by translating the real source address and source port to the mapped address and unique mapped port. Each connection requires a separate translation session because the source port differs for each connection.

Reference: http://www.cisco.com/c/en/us/support/docs/security/asa-5500-x-series-next-generation-firewalls/111842-asa-dynamic-pat-00.html

QUESTION 174
Which feature allows a dynamic PAT pool to select the next address in the PAT pool instead of the next port of an existing address?

A. next IP
B. round robin
C. dynamic rotation
D. NAT address rotation

Correct Answer: B

Section: (none)
Explanation

Explanation/Reference:
Explanation:
Check the Round Robin check box to assign addresses/ports in a round-robin fashion. By default without round robin, all ports for a PAT address will be allocated before the next PAT address is used. The round-robin method assigns one address/port from each PAT address in the pool before returning to use the first address again, and then the second address, and so on.
Reference: http://www.cisco.com/c/en/us/td/docs/security/asa/asa84/asdm65/configuration_guide/asa_cfg_asdm_65/nat_objects.html

QUESTION 175
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 are two possible types of attacks your team discovered? (Choose two.)

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

Correct Answer: CE
Section: (none)
Explanation

Explanation/Reference:
Explanation:
In this case, advanced persistent threat and targeted malware might do the damage according to the scenario given in the question.
Reference: http://www.spamtitan.com/blog/category/phishing-email-spam/

QUESTION 176
Refer to the exhibit.

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

What are two effects of the given command? (Choose two.)

A. It configures authentication to use AES 256.

B. It configures authentication to use MD5 HMAC.
C. It configures authorization use AES 256.
D. It configures encryption to use MD5 HMAC.
E. It configures encryption to use AES 256.

Correct Answer: BE
Section: (none)
Explanation

Explanation/Reference:
To define a transform set—an acceptable combination of security protocols and algorithms—use the **crypto ipsec transform-set** global configuration command.
To delete a transform set, use the **no** form of the command.
crypto ipsec transform-set transform-set-name transform1 [**transform2** [**transform3**]]
no crypto ipsec transform-set transform-set-name

Reference: http://www.cisco.com/c/en/us/td/docs/ios/12_2/security/command/reference/srfipsec.html#wp1017694

QUESTION 177
In which three cases does the ASA firewall permit inbound HTTP GET requests during normal operations? (Choose three).

A. when a matching TCP connection is found
B. when the firewall requires strict HTTP inspection
C. when the firewall receives a FIN packet
D. when matching ACL entries are configured
E. when the firewall requires HTTP inspection
F. when matching NAT entries are configured

Correct Answer: ADF
Section: (none)
Explanation

Explanation/Reference:
Explanation:
During normal operations, ASA firewall permit inbound HTTP GET requests when a matching TCP connection is found and a matching ACL entries are configured or when the firewall requires HTTP inspection.
Reference: https://supportforums.cisco.com/document/69281/asa-using-packet-capture-troubleshoot-asa-firewall-configuration-and-scenarios

QUESTION 178
If a switch port goes directly into a blocked state only when a superior BPDU is received, what mechanism must be in use?

A. STP BPDU guard
B. loop guard
C. STP Root guard
D. EtherChannel guard

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The **Root Guard** feature can be enabled on all switch ports in the network off of which the root bridge should not appear (that is, every port that is not a root port , the port on each switch that is considered to be closest to the root
bridge). If a port configured for Root Guard receives a superior BPDU, instead of believing the BPDU, the port goes into a root-inconsistent state. While a port is in the root-inconsistent state, no user data is sent across it. However, after the superior BPDUs stop, the port returns to the forwarding state.

The **BPDU Guard** feature is enabled on ports configured with the Cisco PortFast feature. The PortFast feature is enabled on ports that connect to end-user devices, such as PCs. It reduces the amount of time required for the port to go into forwarding state after being connected. The logic of PortFast is that a port that connects to an end-user device does not have the potential to create a topology loop. Therefore, the port can go active sooner by skipping STP's listening and learning states, which by default take 15 seconds each. Because these PortFast ports are connected to end-user devices, they should never receive a BPDU. Therefore, if a port enabled for BPDU Guard receives a BPDU, the port is disabled.

Reference: https://learningnetwork.cisco.com/thread/4575

QUESTION 179
When is the default **deny all** policy an exception in zone-based firewalls?

A. when traffic traverses two interfaces in different zones
B. when traffic sources from the router via the self zone
C. when traffic traverses two interfaces in the same zone
D. when traffic terminates on the router via the self zone

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 180
What is true about the Cisco IOS Resilient Configuration feature?

A. The feature can be disabled through a remote session.
B. There is additional space required to secure the primary Cisco IOS image file.
C. Remote storage is used for securing files.
D. The feature automatically detects image or configuration version mismatch.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 181
Which product can be used to provide application layer protection for TCP port 25 traffic?

A. WSA
B. ASA
C. CWS
D. ESA

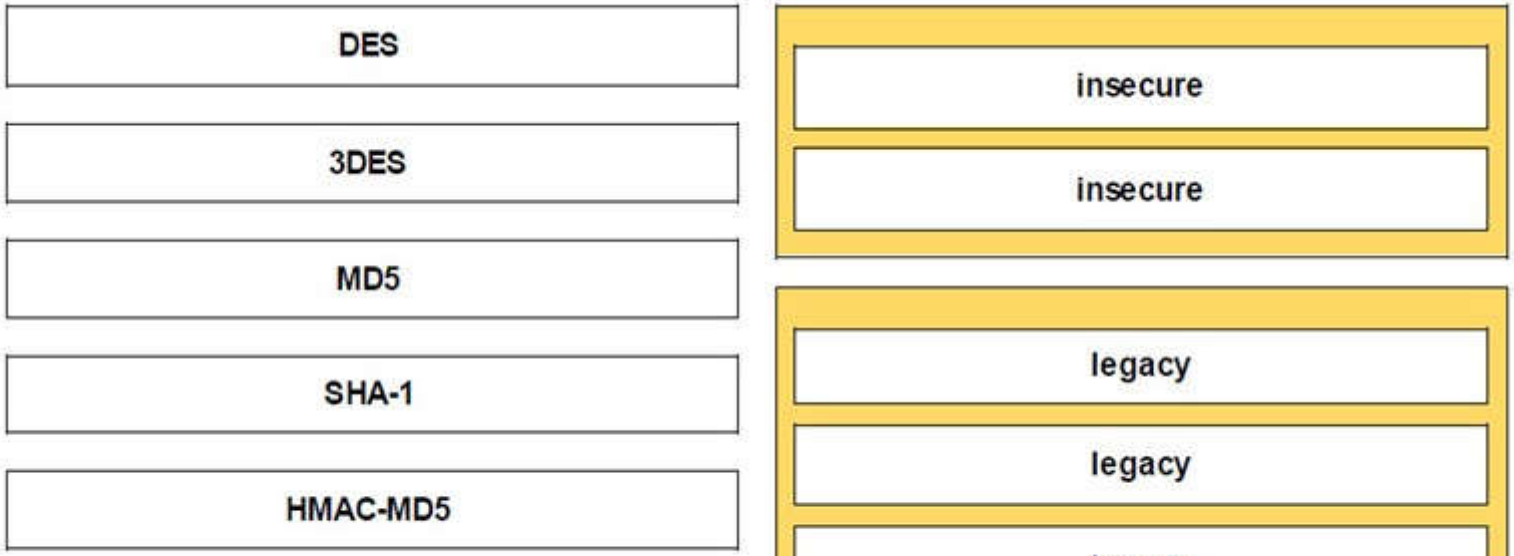
Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

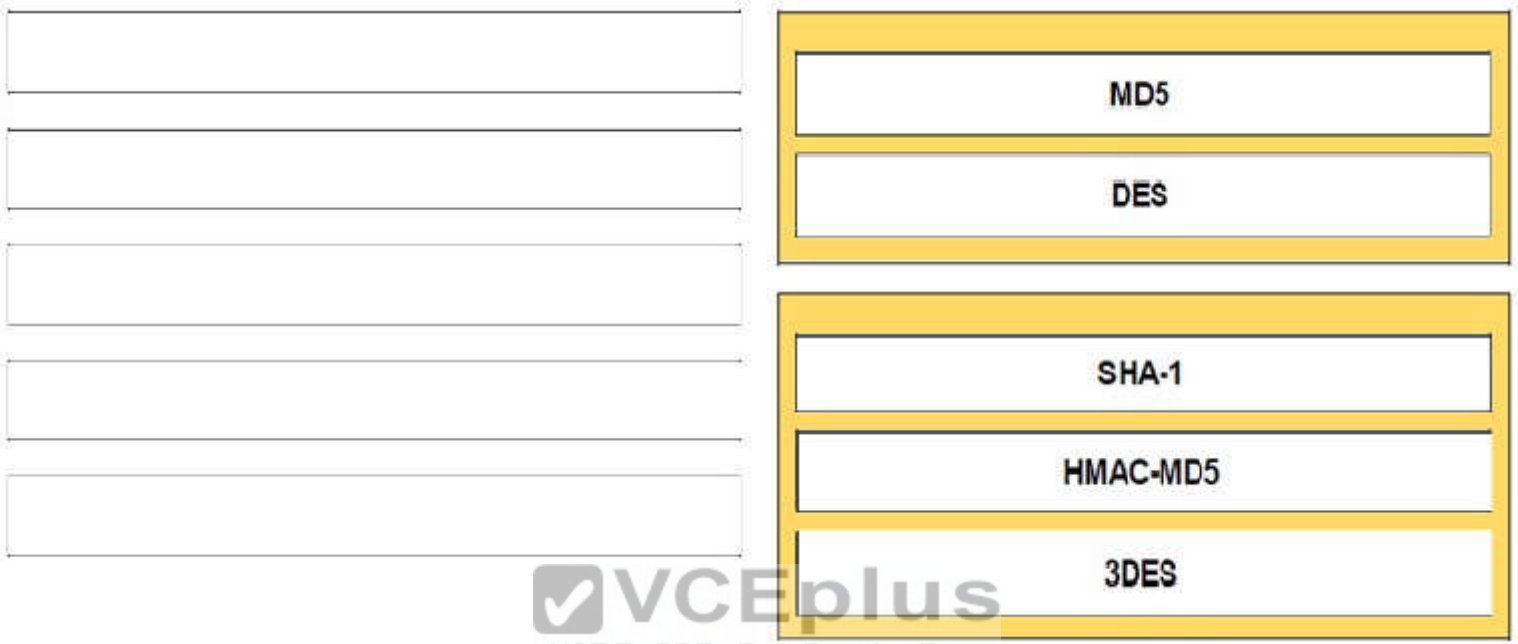
QUESTION 182
DRAG DROP

Drag the hash or algorithm from the left column to it's appropriate category on the right.

Select and Place:



Correct Answer:



Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.cisco.com/c/en/us/about/security-center/next-generation-cryptography.html

QUESTION 183
Which two options are the primary deployment models for mobile device management? (Choose two.)

A. multisite
B. hybrid cloud-based
C. single-site
D. on-premises
E. cloud-based

Correct Answer: DE

Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Borderless_Networks/Unified_Access/BYOD_Design_Guide/BYOD_MDMs.html

QUESTION 184
Which two characteristics apply to an Intrusion Prevention System (IPS)? (Choose two.)

A. Does not add delay to the original traffic
B. Cabled directly inline with the flow of the network traffic
C. Can drop traffic based on a set of rules
D. Cannot drop the packet on its own
E. Runs in promiscuous mode

Correct Answer: BE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 185
Which two are valid types of VLANs using PVLANs? (Choose two.)

A. Backup VLAN
B. Secondary VLAN
C. Promiscuous VLAN
D. Community VLAN
E. Isolated VLAN

Correct Answer: DE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 186

Which two actions can a zone-based firewall take when looking at traffic? (Choose two.)

A. inspect
B. forward
C. drop
D. filter
E. broadcast

Correct Answer: AC
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Traffic cannot flow between a zone member interface and any interface that is not a zone member. Pass, inspect, and drop actions can only be applied between two zones.
Reference: https://www.cisco.com/c/en/us/support/docs/security/ios-firewall/98628-zone-design-guide.html

QUESTION 187
Which two are the default settings for port security? (Choose two.)

A. Violation is Protect
B. Maximum number of MAC addresses is 1
C. Violation is Restrict
D. Violation is Shutdown
E. Maximum number of MAC addresses is 2

Correct Answer: BD
Section: (none)
Explanation

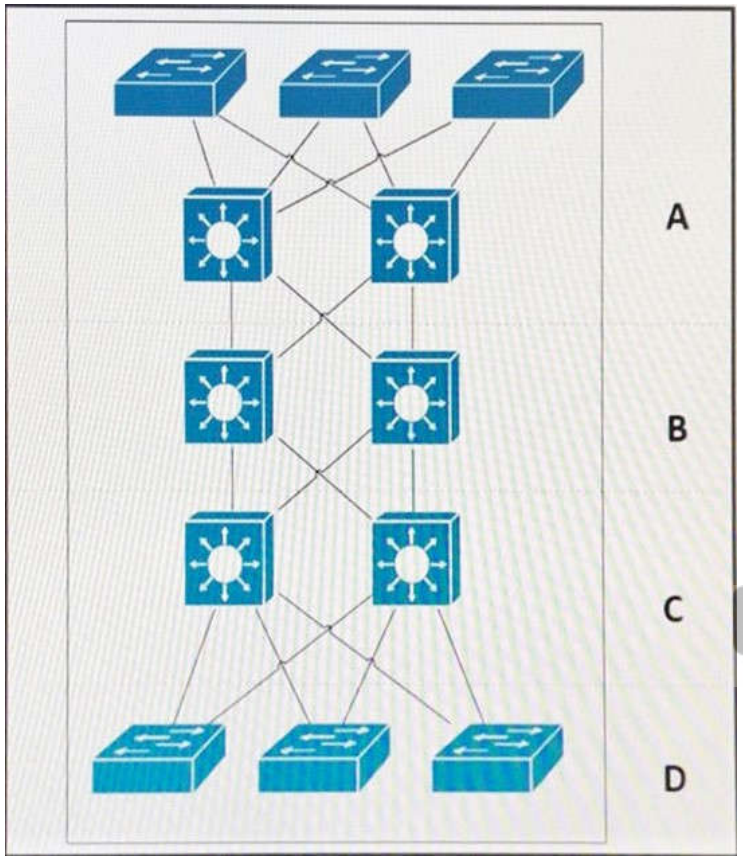
Explanation/Reference:
Explanation:

Default Port Security Configuration

Feature	Default Setting
Port security	Disabled on a port
Maximum number of secure MAC addresses	1
Violation mode	Shutdown. The port shuts down when the maximum number of secure MAC addresses is exceeded, and an SNMP trap notification is sent.
Aging	Disabled
Aging type	Absolute
Static Aging	Disabled
Sticky	Disabled

Reference: https://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst4500/12-2/25ew/configuration/guide/conf/port_sec.html

QUESTION 188
Refer to the exhibit.



Which area represents the data center?

A. A
B. B
C. C
D. D

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 189
Which quantifiable item should you consider when your organization adopts new technologies?

A. exploits
B. risk
C. threats
D. vulnerability

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 190
Refer to the exhibit.

```
ASA#show nat
Manual NAT Policies (Section 1)
1 (inside) to (outside) source dynamic LOCALUSERS GLBPOOL
        translate_hits=3218, untranslate_hits=0
2 (inside) to (outside) source static REAL_SERVER GLB_SERVER
        translate_hits=0, untranslate_hits= 108764

Auto NAT Policies (Section 2)
1 (inside) to (outside) source static SSL_SERVER 88.1.115.1
        translate_hits=0, untranslate_hits=0

Manual NAT Policies (Section 3)
1 (inside) to (outside) source dynamic NEW_USERS GLBPOOL2
        translate_hits=0, untranslate_hits=0
```


A network security administrator checks the ASA firewall NAT policy table with the **show nat** command. Which statement is false?

A. First policy in the Section 1 is dynamic nat entry defined in the object configuration.
B. There are only reverse translation matches for the REAL_SERVER object.
C. NAT policy in Section 2 is a static entry defined in the object configuration.
D. Translation in Section 3 is used when a connection does not match any entries in first two sections.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 191
How can you protect CDP from reconnaissance attacks?

A. Enable dot1x on all ports that are connected to other switches.
B. Disable CDP on trunk ports.
C. Disable CDP on ports connected to endpoints.
D. Enable dynamic ARP inspection on all untrusted ports.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 192
Which option is the cloud-based security service from Cisco that provides URL filtering, web browsing content security, and roaming user protection?

A. Cloud Web Service
B. Cloud Web Security
C. Cloud Advanced Malware Protection
D. Cloud Web Protection

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 193
Which IDS/IPS solution can monitor system processes and resources?

A. IDS
B. HIPS
C. IPS
D. PROXY

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
HIPS audits host log files, host file systems, and resources. A significant advantage of HIPS is that it can monitor operating system processes and protect critical system resources, including files that may exist only on that specific host.

QUESTION 194
Which option is the default value for the Diffie-Hellman group when configuring a site-to-site VPN on an ASA device?

A. Group 7
B. Group 5
C. Group 1
D. Group 2

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 195
Which type of attack can exploit design flaws in the implementation of an application without going noticed?

A. volume-based DDoS attacks
B. DHCP starvation attacks
C. low-rate DoS attacks
D. application DDoS flood attacks

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 196
Which two are characteristics of RADIUS? (Choose two.)

A. Uses TCP ports 1812/1813
B. Uses UDP port 49
C. Encrypts only the password between user and server
D. Uses TCP port 49
E. Uses UDP ports 1812/1813

Correct Answer: CE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 197
Which two characteristics of symmetric encryption are true? (Choose two.)

A. It is faster than asymmetric encryption.
B. It uses digital certificates.
C. It requires more resources than asymmetric encryption.
D. It uses a public key and a private key to encrypt and decrypt traffic.
E. It uses the same key to encrypt and decrypt traffic.

Correct Answer: AE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 198
Which two types of firewalls work at layer 4 and above? (Choose two.)

A. Application level firewall
B. Circuit-level gateway
C. Static packet filter
D. Network Address Translation
E. Stateful inspection

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Reference: https://supportforums.cisco.com/t5/security-documents/firewall-and-types/ta-p/3112038

QUESTION 199
When setting up a site-to-site VPN with PSK authentication on a Cisco router, which two elements must be configured under crypto map? (Choose two.)

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

Correct Answer: BE
Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.cisco.com/c/en/us/td/docs/security/vpn_modules/6342/vpn_cg/6342site3.html#wp1036915

QUESTION 200
Which two commands are used to implement Resilient IOS Configuration? (Choose two.)

A. **copy flash:/ios.bin tftp**
B. **copy running-config tftp**
C. **copy running-config startup-config**
D. **secure boot-image**
E. **secure boot-config**

Correct Answer: DE
Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_usr_cfg/configuration/15-mt/sec-usr-cfg-15-mt-book/sec-resil-config.html

QUESTION 201
What is the actual IOS privilege level of User Exec mode?

A. 1
B. 0
C. 5
D. 15

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 202
Referencing the CIA model, in which scenario is a hash-only function most appropriate?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 203
Which Firepower Management Center feature detects and blocks exploits and hack attempts?

A. advanced malware protection
B. intrusion prevention
C. file control
D. content blocker

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 204
Which IPS detection method can you use to detect attacks that are based on the attackers IP address?

A. reputation-based
B. signature-based
C. policy-based
D. anomaly-based

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 205
By default, how does a zone-based firewall handle traffic to and from the self zone?

A. It inspects all traffic to determine how it is handled.
B. It drops all traffic.
C. It permits all traffic after inspection.
D. It permits all traffic without inspection.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 206
Which command do you enter to enable authentication for OSPF on an interface?

A. router(config-router)**#area 0 authentication message-digest**
B. router(config-router)**#ip ospf authentication-key CISCOPASS**
C. router(config-if)**#ip ospf message-digest-key 1 md5 CISCOPASS**
D. router(config-if)**#ip ospf authentication message-digest**

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 207
Which IPS mode is less secure than other options but allows optimal network throughput?

A. transparent mode
B. promiscuous mode
C. inline mode
D. inline-bypass mode

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 208
Which two events would cause the state table of a stateful firewall to be updated? (Choose two.)

A. when a connection's timer has expired within the state table
B. when a connection is created
C. when rate-limiting is applied
D. when a packet is evaluated against the outbound access list and is denied
E. when an outbound packet is forwarded to the outbound interface

Correct Answer: AB

Section: (none)
Explanation

Explanation/Reference:

QUESTION 209
Which IPSec mode is used to encrypt traffic directly between a client and a server VPN endpoint?

A. transport mode
B. tunnel mode
C. aggressive mode
D. quick mode

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 210
Refer to the exhibit.

```
Router#show crypto ipsec sa
interface: FastEthernet0
Crypto map tag: SDM_CMAP_1, local addr 172.17.1.1
protected vrf: (none)
   local ident (addr/mask/prot/port): (10.40.20.0/255.255.255.0/0/0)
   remote ident (addr/mask/prot/port): (10.50.30.0/255.255.255.0/0/0)
   current_peer 192.168.1.1 port 500
   PERMIT, flags={origin_is_acl,}

   #pkts encaps: 68, #pkts encrypt: 68, #pkts digest: 68
   #pkts decaps: 0, #pkts decrypt: 0, #pkts verify: 0
```

For which reason is the tunnel unable to pass traffic?

A. UDP port 500 is blocked.
B. The local peer is unable to encrypt the traffic.
C. The IP address of the remote peer is incorrect.
D. The tunnel is failing to receive traffic from the remote peer.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 211
Which two characteristics of an application layer firewall are true? (Choose two.)

A. provides reverse proxy services
B. has low processor usage
C. is immune to URL manipulation
D. provides stateful firewall functionality
E. provides protection for multiple applications

Correct Answer: AE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 212
Which two functions can SIEM provide? (Choose two.)

A. dual-factor authentication
B. proactive malware analysis to block malicious traffic
C. centralized firewall management
D. correlation between logs and events from multiple systems

E. event aggregation that allows for reduced log storage requirements

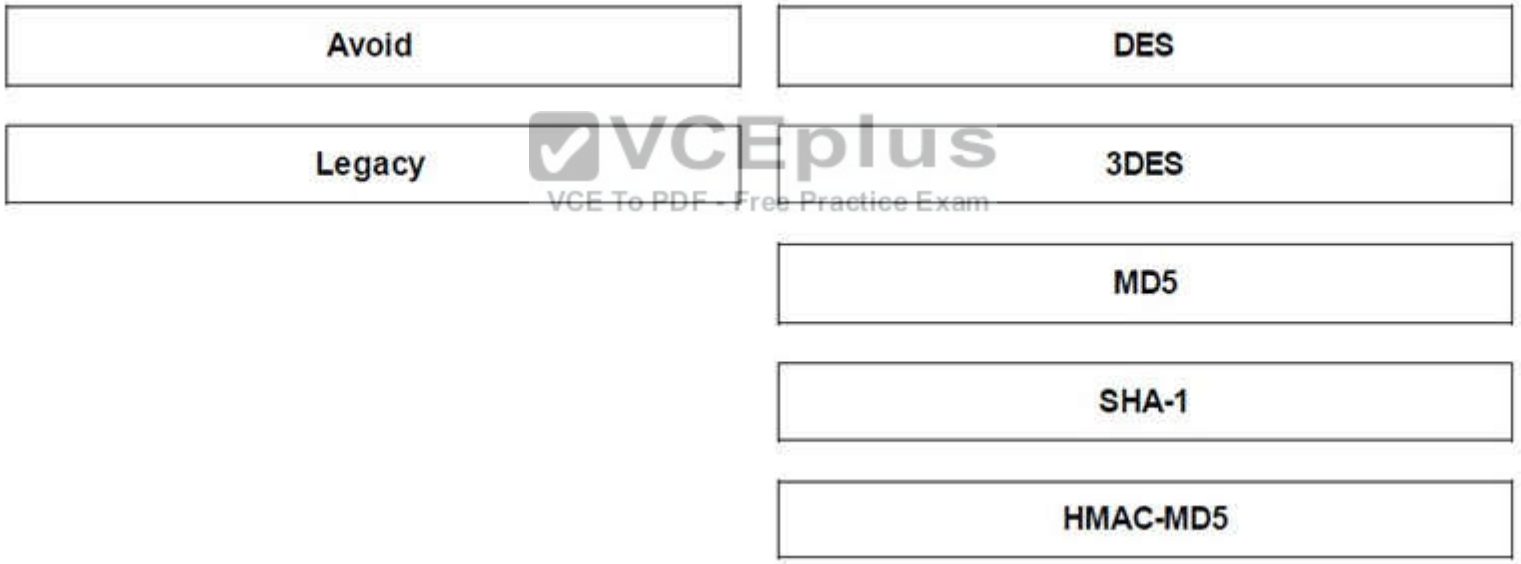
Correct Answer: DE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 213
DRAG DROP

Drag the recommendations on the left to the Cryptographic Algorithms on the right. Options will be used more than once.

Select and Place:



Correct Answer:

Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.cisco.com/c/en/us/about/security-center/next-generation-cryptography.html

QUESTION 214
Which two primary security concerns can you mitigate with a BYOD solution? (Choose two.)

A. device tagging and inventory
B. connections to public Wi-Fi networks
C. schedule for patching the device
D. compliance with applicable policies
E. securing access to a trusted corporate network

Correct Answer: DE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 215
On an ASA, the policy that indicates that traffic should not be translated is often referred to as which of the following?

A. NAT zero
B. NAT forward
C. NAT null
D. NAT allow

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 216
What is true of an ASA in transparent mode?

A. It requires a management IP address
B. It allows the use of dynamic NAT
C. It requires an IP address for each interface
D. It supports OSPF

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
For IPv4, a management IP address is required for both management traffic and for traffic to pass through the adaptive security appliance. For multiple context mode, an IP address is required for each context.

QUESTION 217
Which component offers a variety of security solutions, including firewall, IPS, VPN, antispyware, antivirus, and antiphishing features?

A. Cisco IOS router
B. Cisco ASA 5500-X Series Next Gen. Security appliance

C. Cisco 4200 series IPS appliance
D. Cisco ASA 5500 series security appliance

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 218
Which command should be used to enable AAA authentication to determine if a user can access the privilege command level?

A. **aaa authentication enable level**
B. **aaa authentication enable local**
C. **aaa authentication enable method default**
D. **aaa authentication enable default local**

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 219
Which type of social-engineering attack uses normal telephone service as the attack vector?

A. vishing
B. phishing
C. war dialing
D. smishing

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 220
How does a zone pair handle traffic if the policy definition of the zone pair is missing?

A. It permits all traffic without logging.
B. It drops all traffic.
C. It inspects all traffic.
D. It permits and logs all traffic.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 221
In which configuration mode do you configure the **ip ospf authentication-key 1** command?

A. routing process
B. global
C. interface
D. privileged

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 222
Which statement about zone-based firewall configuration is true?

A. The zone must be configured before it can be assigned.
B. Traffic that is destined to or sourced from the Self zone is denied by default.
C. You can assign an interface to more than one zone.
D. Traffic is implicitly denied by default between interfaces in the same zone.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 223
Which command do you enter to configure your firewall to conceal internal addresses?

A. **no ip logging facility**
B. **no ip directed-broadcast**
C. **no ip inspect**
D. **no proxy-arp**
E. **no ip source-route**
F. **no ip inspect audit-trail**

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 224
Which command do you enter to verify that a VPN connection is established between two endpoints and that the connection is passing traffic?

A. Firewall#**sh crypto isakmp sa**
B. Firewall#**sh crypto session**
C. Firewall#**debug crypto isakmp**
D. Firewall#**sh crypto ipsec sa**

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 225
Which IOS command do you enter to test authentication against a AAA server?

A. **aaa authentication enable default test group tacacs+**
B. **dialer aaa suffix <suffix> password <password>**
C. **ppp authentication chap pap test**
D. **test aaa-server authentication dialergroup username <user> password <password>**

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 226
Which technology can block a non-malicious program that is run from a local computer that has been disconnected from the network?

A. antivirus software
B. firewall
C. host IPS
D. network IPS

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 227
Which protocol offers data Integrity, encryption, authentication, and anti-replay functions for IPSec VPN?

A. AH protocol
B. IKEv2 Protocol
C. IKEv1 Protocol

D. ESP protocol

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 228
Which two characteristics of a PVLAN are true? (Choose two.)

A. Isolated ports cannot communicate with other ports on the same VLAN.
B. Promiscuous ports can communicate with PVLAN ports.
C. They require VTP to be enabled in server mode.
D. Community ports have to be a part of the trunk.
E. PVLAN ports can be configured as EtherChannel ports.

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:

QUESTION 229
What are two challenges when deploying host-level IPS? (Choose two.)

A. It is unable to determine the outcome of every attack that it detects.
B. It is unable to provide a complete network picture of an attack.
C. The deployment must support multiple operating systems.
D. It does not provide protection for offsite computers.
E. It is unable to detect fragmentation attacks.

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:

Explanation:
Advantages of HIPS: The success or failure of an attack can be readily determined. A network IPS sends an alarm upon the presence of intrusive activity but cannot always ascertain the success or failure of such an attack. HIPS does not have to worry about fragmentation attacks or variable Time to Live (TTL) attacks because the host stack takes care of these issues. If the network traffic stream is encrypted, HIPS has access to the traffic in unencrypted form.
Limitations of HIPS:
There are two major drawbacks to HIPS:
+ HIPS does not provide a complete network picture: Because HIPS examines information only at the local host level, HIPS has difficulty constructing an accurate network picture or coordinating the events happening across the entire network. + HIPS has a requirement to support multiple operating systems: HIPS needs to run on every system in the network. This requires verifying support for all the different operating systems used in your network.

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