



Exam : 642-652

**Title : Wide Area Application Services for
Field Engineers**

Ver : 11.12.07

QUESTION 1

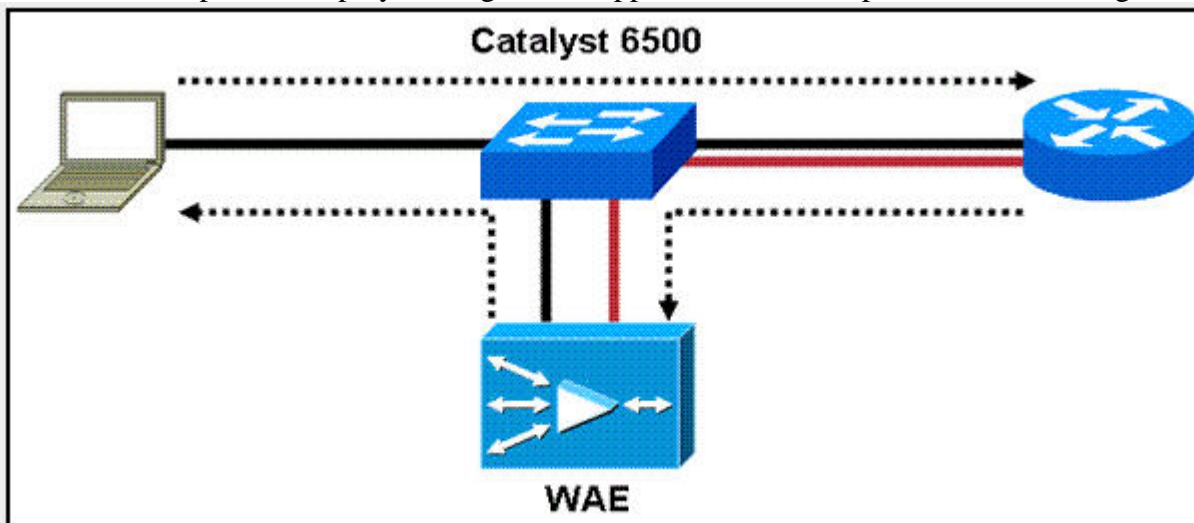
After configuring a Cisco WAAS deployment using WCCPv2, you find that you can successfully ping a data center server from a workstation in the branch office. However, when you attempt to start one of the optimized applications, the application cannot communicate with the server. What is the most likely cause?

- A. There is insufficient disk space on either the edge or core WAE.
- B. You configured half-duplex mode on the WAE interfaces.
- C. You configured auto negotiate duplex mode on the WAE interfaces.
- D. You deployed the WAE on the same subnet as the users or servers.

Answer: D

QUESTION 2

Your customer plans to deploy the edge WAE appliances in an off-path, two-arm configuration.



The WAE appliances are connected to Cisco Catalyst 6500 Series Switches and use WCCPv2 for traffic interception. The customer wants to minimize the latency added by interception. The customer also wants to know if Layer 2 redirection, rather than GRE tunnels, will improve performance.

What should you tell your customer?

- A. Layer 2 redirection can be used only in in-path configurations.
- B. Layer 2 redirection can be used only in one-arm configurations.
- C. Layer 2 redirection can be used in the customer configuration.
- D. GRE tunnels provide better performance than Layer 2 redirection.

Answer: C

QUESTION 3

When implementing Windows authentication for WAE management, what is the maximum allowable time skew between each WAE and the Windows domain controller?

- A. 1 second
- B. 5 seconds
- C. 120 seconds
- D. 300 seconds

Answer: D

QUESTION 4

Your customer plans to implement Cisco WAAS using four WAE appliances in a load-balanced configuration. Which feature must be supported on the switches to which the WAE appliances are attached?

- A. redirect exclusion
- B. Layer 2 redirection
- C. WCCPv2
- D. WCCPv2 or PBR

Answer: C

QUESTION 5

Your customer has deployed Cisco WAAS using ACE for traffic interception. The customer reports that traffic is not being optimized. Which command would you use to troubleshoot network interception?

- A. WAE-CORE# show wccp routers
- B. WAE-CORE# show ip access-lists
- C. ACE/Admin# show wccp routers
- D. ACE/Admin# show rserver detail
- E. router# show wccp services

Answer: D

QUESTION 6

What are two possible reasons the CORE1 WAE might be displayed as "Online"? (Choose two.)

Device Name	Services	IP Address	CMS Status	Device Status
CM1	CM (Primary)	10.10.10.10	Online	Online
CM2	CM (Standby)	10.10.10.11	Online	Online
CORE1	Core	2.2.2.2	Offline	Offline
EDGE-NM	Edge	10.10.100.2	Online	Online
EDGE1	Edge	1.1.1.2	Online	Online

- A. The WAE is powered off.
- B. The HTTPS service is disabled.
- C. The Central Manager service is disabled.
- D. The WAE is configured in the same VLAN as the server nodes.

Answer: A, C

QUESTION 7

Your customer reports that traffic has never been received by the remote device after deploying Cisco WAAS using WCCPv2 in an off-path configuration. Which two parameters should you verify? (Choose two.)

- A. IP SLAs
- B. WAE subnet
- C. router IP address
- D. routing configuration
- E. service group redirection

Answer: B, E

QUESTION 8

This partial listing shows output from the show tfo connection summary command.

Local-IP:Port	Remote-IP:Port	ConId	PeerId	Policy
10.10.13.100:3826	10.10.10.100:80	34755	00:11:25:aa:c1:e8	L,F,L,L

Given this output, which statement is correct?

- A. The local WAE policy was configured for LZ compression only; the remote WAL policy was configured for full optimization.
- B. The local WAE policy was configured for LZ compression and TFO optimization; the remote WAE policy was configured for LZ compression only.
- C. Both the local and remote WAE policies were configured for LZ compression only.

D. Both the local and remote WAE policies were configured for LZ compression and TFO optimization, but only LZ compression was applied.

Answer: A

QUESTION 9

You have configured a Central Manager WAE cluster for your customer. After a technician accidentally unplugs the power cord from the primary Central Manager WAE, the network administrator calls you to complain that the standby Central Manager WAE did not automatically assume the primary role. What should you tell this administrator?

- A. You must manually initiate failover and fallback processes on the WAE.
- B. You should verify that the datafeed.pollrate setting is configured properly.
- C. You must manually copy the Central Manager database to the standby Central Manager WAE.
- D. You should make sure the two Central Manager WAE appliances are on the same subnet.

Answer: A

QUESTION 10

When must WCCPv2 redirect exclusion be configured on the routers?

- A. when redirect in is used on any interface
- B. when redirect in is used on the LAN interface only
- C. when redirect in is used on the WAN interface only
- D. when redirect out is used on any interface
- E. when redirect out is used on the LAN interface only
- F. when redirect out is used on the WAN interface only

Answer: D

QUESTION 11

How many IP addresses are required for an in-line card in a redundant, serially clustered configuration?

- A. none
- B. one
- C. two
- D. four

Answer: A

QUESTION 12

Which two symptoms would you expect to observe in a TCP trace if a Cisco WAE that was optimizing connections fails? (Choose two.)

- A. The receiving node receives TCP segments with invalid sequence numbers and resets the connection.
- B. The secondary WAE takes over the connection and the receiving node sees nothing.
- C. The receiving node continues normally because it has a session to the originating node.
- D. All optimized TCP connections handled by that WAE are reset.
- E. All optimized TCP connections are taken over by the receiving node.

Answer: A, D

QUESTION 13

How can you verify that the WAE has joined a Microsoft Windows domain correctly?

- A. Execute the show windows-domain command on the WAE.
- B. Click the Show Authentication Status button in Central Manager.
- C. Use the Windows nbtstat command.
- D. Use the Windows netstat command.

Answer: B

QUESTION 14

The exhibit shows the result of executing the show wccp services configuration.

```
wass-core# sh wccp services
Services configured on this File Engine
TCP Promiscuous 61
```

What conclusion can you draw from this result?

- A. The configuration is valid.
- B. The configuration is valid for an in-line deployment only.
- C. The configuration is valid if a redirect exclude directive has been configured correctly.
- D. The configuration is not valid.

Answer: D

QUESTION 15

In a Cisco WMS deployment, what should you check first if your customer is reporting poor performance across all optimized applications?

- A. Verify that full duplex is configured on all interfaces.
- B. Verify that only one Central Manager WAE is set to active.
- C. Verify that PBR has a route map for each direction of traffic flow.
- D. Verify that WCCP is configured with one service group in the path of each direction of traffic flow.

Answer: A

QUESTION 16

Your customer is using firewalls. What must be permitted to pass through firewalls in order to allow WAE auto discovery?

- A. TCP SYN-ACK with data
- B. TCPOptions
- C. TCPport 139
- D. TCP port445

Answer: B

QUESTION 17

Your customer has configured each Cisco WAE to belong to multiple device groups for monitoring purposes. However, the customer wants to ensure that the policies are applied to the device from one specific device group. What should you do?

- A. You should configure an explicit policy device group.
- B. You should configure the other device groups as monitoring-only
- C. You should rejoin the WAE to the desired device group.
- D. You must remove the WAE from all other device groups.

Answer: A

QUESTION 18

How do you access the WAE Central Manager GUI?

- A. http://(ip_addr_of_WAE)
- B. https://(ip_addr_of_WAE):443
- C. https://(ip_addr_of_WAE):8080
- D. https://(ip_addr_of_WAE):6443

Answer: D

QUESTION 19

How many baseline device groups can be configured for the acceleration feature set?

- A. one
- B. two
- C. three
- D. as many as needed

Answer: A

QUESTION 20

TCP options are added to which TCP connection establishment messages during Cisco WAAS auto discovery?

- A. ACK and SYN-ACK
- B. SYN and ACK
- C. SYN and SYN-ACK
- D. SYN and RST

Answer: C

QUESTION 21

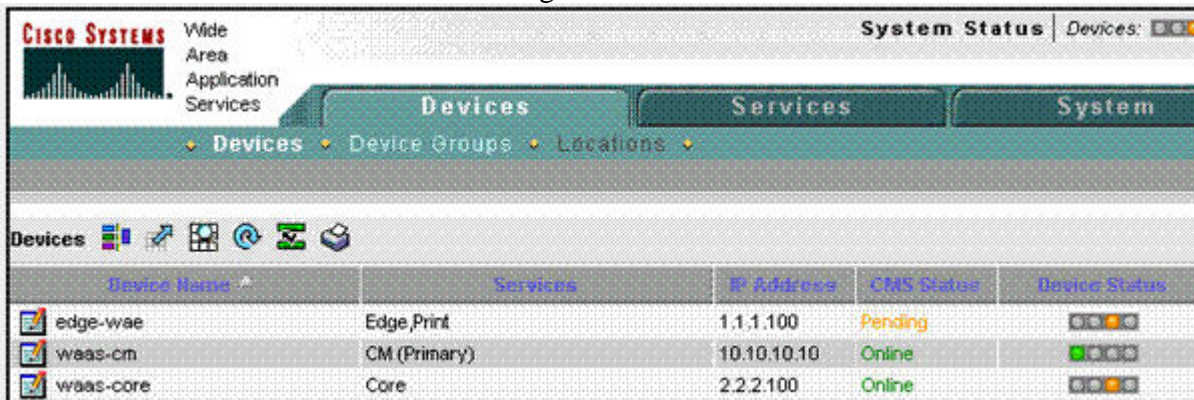
Your customer has configured traffic interception using PBR and four core WAE appliances. The customer has discovered that Cisco WAAS is not load-balancing across the WAE appliances, and wants to know how to diagnose the problem. What should you tell your customer?

- A. PBR uses only the first-available next hop; only one WAE is used at a time.
- B. IP SLAs are configured incorrectly.
- C. The inbound access list on the core router is configured incorrectly.
- D. The PBR route map on the edge router is configured incorrectly.

Answer: A

QUESTION 22

What do the status fields shown for the edge-wae device indicate?



Device Name	Services	IP Address	CMS Status	Device Status
edge-wae	Edge,Print	1.1.1.100	Pending	■ ■ ■ ■
waas-cm	CM (Primary)	10.10.10.10	Online	■ ■ ■ ■
waas-core	Core	2.2.2.100	Online	■ ■ ■ ■

- A. The edge-wae device has been activated, but auto discovery failed.
- B. The edge-wae device has been activated, but activation did not complete successfully.
- C. The Central Manager is awaiting confirmation that device activation completed successfully.
- D. The edge-wae device has not been activated.

Answer: C

QUESTION 23

What is one user authentication method that is supported on Cisco WAE devices?

- A. LDAP
- B. SNMP

- C. Kerberos
- D. Active Directory

Answer: D

QUESTION 24

After completing the initial setup script on the Central Manager WAE, your customer executed the commands shown in the exhibit to complete the setup.

```
waas-cm% conf t
waas-cm (config) %primary-interface gigabitEthernet 1/0
waas-cm (config) %device mode central-manager
waas-cm (config) %exit
waas-cm%copy run start
waas-cm reload
...(WAE reboots)...
waas-cm#conf t
waas-cm (config) %central-manager role primary
waas-cm (config) %exit
```

The customer cannot access the Central Manager GUI.
What happened?

- A. The customer forgot to reload the WAE after setting the Central Manager role.
- B. The customer forgot to specify the IP address of the secondary Central Manager WAE.
- C. The customer forgot to issue the cms enable command.
- D. The customer forgot to issue the central-manager address [ip_address] command.

Answer: C

QUESTION 25

The command show tfo connection summary displays what?

- A. which optimizations are applied to each connection
- B. the number of optimized connections
- C. per-application optimization statistics
- D. whether accelerator services are under load

Answer: A

QUESTION 26

Six months after deploying a Cisco WAAS solution, your customer reports that CIFS performance has decreased at one or the branch offices.

```
Name: CIFS                               State: Registered,           Handling level: 0%
Keepalive timeout: 4.0 seconds,           Session timeouts:2,         Total timeouts:2
Last registration occurred 03:55:44.5     Hours:Mins:Secs ago
```

To troubleshoot the problem, you run the show tfo accelerators command on the edge WAE.

Based on the output displayed from the CIFS accelerator service, what is the likely cause of the

problem?

- A. The CIFS accelerator service failed about four hours ago.
- B. The CIFS accelerator service is experiencing an overload condition.
- C. The CIFS optimization policy is not being negotiated properly.
- D. The CIFS accelerator service is functioning properly and is not overloaded.

Answer: B

QUESTION 27

Which WAE deployment model must you use to configure PortChannels on the core WAE appliances to enable load balancing across WAE interfaces?

- A. on-router, one-arm
- B. off-router, one-arm
- C. un-router, two-arm
- D. off-router, two-arm

Answer: B

QUESTION 28

In a Cisco WAAS environment, what is the role of Application Traffic Policies?

- A. to associate a flow with a WAE and associate the optimized flow with a device group
- B. to associate a flow with a Central Manager and associate the optimized flow with an application definition
- C. to associate a flow with an optimization and associate the optimized flow with an application definition
- D. to associate a flow with a WAN connection and associate the WAN connection with an application accelerator

Answer: C

QUESTION 29

What is a valid WCCP configuration?

- A. 61/inbound on LAN interface, 62/outbound on LAN interface
- B. 61/outbound on LAN interface, 62/inbound on WAN interface
- C. 61/inbound on WAN interface, 62/inbound on WAN interface
- D. 61/inbound on LAN interface, 62/outbound on WAN interface

Answer: A

QUESTION 30

Which associates classified traffic to an application definition and assigns an action?

- A. application definitions
- B. baseline policies
- C. policy maps
- D. traffic classifiers

Answer: C

QUESTION 31

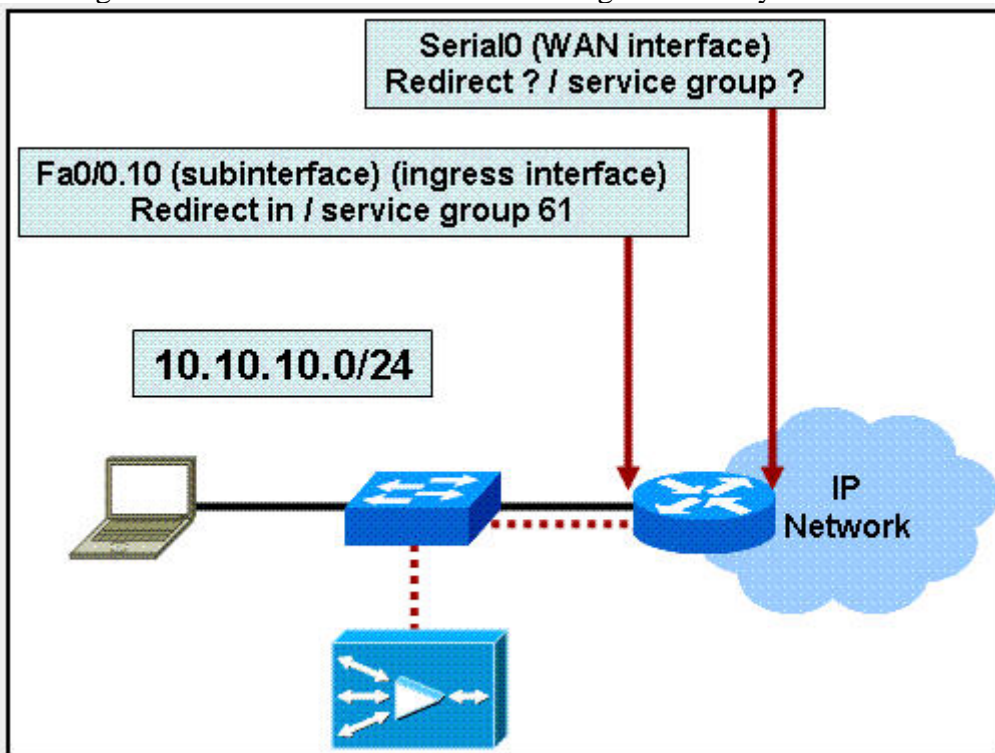
You want to configure the Cisco WAE to log only emergency messages to a syslog server. Which logging level should you use?

- A. logging level 7
- B. logging level 5
- C. logging level 3
- D. logging level 0

Answer: D

QUESTION 32

The diagram illustrates the Cisco WAAS configuration for your customer.



Which WCCPv2 interception configuration should you apply to interface Serial0?

- A. Redirect in / service group 61
- B. Redirect in / service group 62
- C. Redirect out / service group 61
- D. Redirect out / service group 62

Answer: B

QUESTION 33

Your customer has recently completed a large expansion of one of their regional offices. They have discovered that the WAE-512-2GB Edge WAE in that office has begun passing through some TCP connections without optimizing those connections. What two actions would solve the problem? (Choose two.)

- A. Add more memory to the WAE.
- B. Add another WAE-512 edge WAE.
- C. Bundle the WAE interfaces into a PortChannel.
- D. Use the ACE module to load-balance the WAE5.
- E. Upgrade to a WAE-612 or WAE-7326.

Answer: B, E

QUESTION 34

This partial listing shows output from the show tfo connection summary command.

Local-IP:Port	Remote IP:Port	ConId	PeerId	Policy
10.10.13.100:3826	10.10.10.100:80	34755	00:11:25:aa:c1:e8	F,F,F,T

Given this output, which statement is correct?

- A. The HTTP policy on the local WAE was incorrectly configured.
- B. The HTTP policy on the remote WAE was incorrectly configured.
- C. The WAE appliances did not correctly negotiate optimizations during auto discovery.
- D. One of the WAE appliances may be experiencing an overload condition.

Answer: D

QUESTION 35

When using PBR, what do you need to configure to enable failover?

- A. IP SLAs or Cisco Discovery Protocol
- B. MPLS or GRE
- C. NetFlow or NBAR
- D. QoS or IP SLAs

Answer: A

QUESTION 36

Which three parameters are valid for a device group? (Choose three.)

- A. Acceleration configuration
- B. Authentication provider
- C. Installed software version

- D. Interception configuration
- E. IP SLA configuration
- F. Location

Answer: A, C, D

QUESTION 37

When using PBR for network interception, how many WAE appliances can be used by a router as a next hop at a given time?

- A. one
- B. two
- C. three
- D. four

Answer: A

QUESTION 38

The exhibit shows an entry from a TFO transaction log on the WAE.

wass-edge-1% type-tail working.log

Wed Jan 3 07:42:09 2007:BP:10.10.10.10:443:10.10.100.2:60107:NO_PEER: OPT

What conclusion can you draw from this result?

- A. The connection is not being optimized because the remote WAE had different TFO optimizations configured than the local WAE.
- B. The connection is not being optimized because the configured optimizations are not supported on the peer WAE,
- C. The connection is not being optimized because auto discovery failed with the remote WAE.
- D. The connection is being optimized correctly, but no traffic has been optimized yet.

Answer: C

QUESTION 39

Your customer implemented Cisco WAAS several months ago using WCCPv2. Yesterday, the customer implemented an asymmetric routing configuration, and today the customer called to complain that Cisco WAAS is no longer optimizing connections properly. Which command would you use to troubleshoot this situation?

- A. show service-policy
- B. show wccp routers
- C. show ip access-lists
- D. show route-map

Answer: B

QUESTION 40

The Cisco WAAS design for your customer calls for the Central Manager to be deployed on the core WAE, which is a Cisco WAE-612 with 2-GB RAM. The customer initially configured the WAE as an application accelerator, and then issued the device mode central-manager command to enable Central Manager service. The customer reports that the WAE is no longer accelerating traffic.

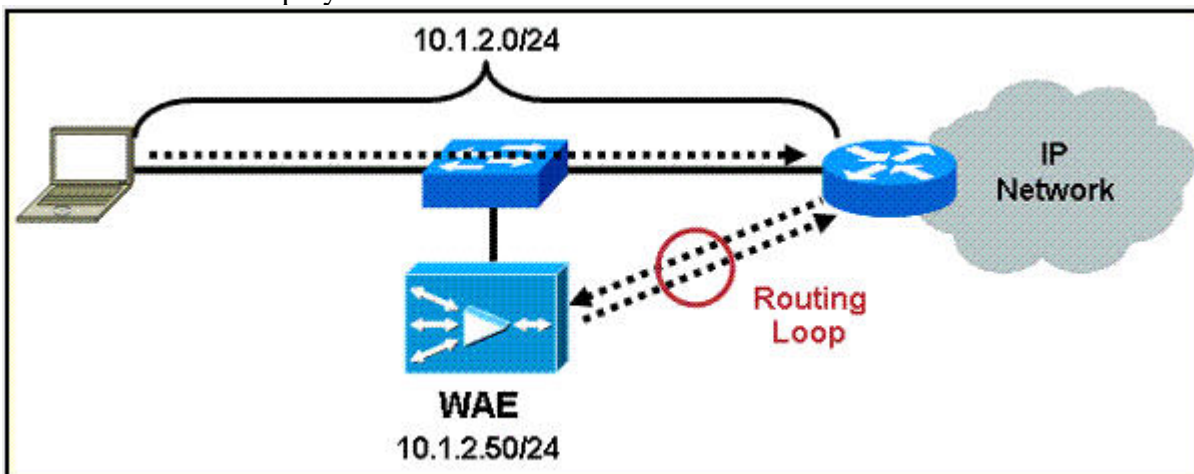
What is the problem?

- A. The device mode central-manager command must be issued before the device mode application-accelerator command.
- B. Central Manager is consuming too much CPU time on the WAE. The Central Manager service should be implemented on a less-utilized edge WAE.
- C. At least 4 GB of RAM must be installed for the WAE to serve as both Central Manager and application accelerator.
- D. Central Manager and application accelerator cannot be deployed on the same WAE.

Answer: D

QUESTION 41

Your customer has deployed a WAE in the data center.



The servers that are being optimized are on subnet 10.1.2.0/24, and the WAE has been configured with the IP address 10.1.2.50. The customer has observed that routing loops have resulted from this configuration.

How should the customer fix the problem?

- A. Configure a PBR access list to exclude the WAE IP address.
- B. Configure a WCCPv2 redirect exclude directive.
- C. Correct the configuration of the WCCPv2 service groups.
- D. Redeploy the WAE on a different subnet for VLAN sub interface.

Answer: D

QUESTION 42

During initial setup of the Central Manager WAE, at which point must a reload command be

issued?

- A. after running the initial setup script
- B. after specifying the device mode
- C. after issuing the copy run start command
- D. after specifying the primary interface of the WAE

Answer: C

QUESTION 43

With Cisco WAAS, which two WCCPv2 service groups are used to make up the TCP Promiscuous service group? (Choose two.)

- A. 60
- B. 61
- C. 62
- D. 89
- E. 90

Answer: B, C

QUESTION 44

How can you monitor optimization statistics for a given application across multiple WAE devices?

- A. Create a device group for all WAE devices on which that application is optimized.
- B. Create a location group for all WAE devices on which that application is optimized.
- C. Create a separate application traffic policy for each application.
- D. Ensure that each application resides on a different subnet.

Answer: A

QUESTION 45

How can you configure a WAE to reboot after a software image has been installed?

- A. Configure the WAE manually by using the reload command.
- B. Configure the WAE manually by using the "auto-reload" check box on the software files page.
- C. The WAE should not be rebooted after a software image has been installed.
- D. The WAE automatically reboots after a software image has been installed.

Answer: B

QUESTION 46

In a WAAS Application Traffic Policy, what are three valid match conditions for traffic classifiers? (Choose three.)

- A. IP address

- B. muted protocol
- C. routing
- D. subnet
- E. TCP port
- F. UDP port

Answer: A, D, E

QUESTION 47

A WAE device recently registered against a Central Manager. What must you do before the WAE can receive a policy and interact with other WAE devices?

- A. Specify a primary interface.
- B. Assign an IP address.
- C. Specify the device group.
- D. Activate the device.

Answer: D

QUESTION 48

The command `show wccp services` displays what?

- A. the routers that are registered with the WCCP service of the WAE
- B. the WAE appliances that are registered with the router WCCP service
- C. the WCCP service groups that are configured on the router
- D. the WCCP service groups that are configured on the WAE

Answer: D

QUESTION 49

Which command verifies that a WAE in-line card is intercepting traffic from the correct VLANs?

- A. `show wccp services`
- B. `show ip access-lists`
- C. `show int inlinegroup x/y`
- D. `show wccp vlans inline`

Answer: C

QUESTION 50

Which feature of Central Manager specifies the configuration items that a user can see?

- A. roles
- B. policy maps
- C. system settings
- D. authentication providers

Answer: A

QUESTION 51

When configuring adapter policies in a Cisco WA\S environment, what is the purpose of the EPM adapter?

- A. to specify the traffic that is associated with an optimization
- B. to provide grouping for statistics and monitoring
- C. to differentiate priority on a congested link
- D. to identify the dynamically assigned port number of a connection

Answer: D

QUESTION 52

Which three must be configured on the edge WAE when you configure an edge print queue? (Choose three.)

- A. Central Manager service
- B. device URI
- C. EPM policy
- D. print administration user
- E. print driver repository
- F. WAFS edge service

Answer: B, D, F

QUESTION 53

This list identifies some of the tasks that should be performed when deploying a Central Manager WAE.

1. Configure the device mode.
2. Enable the Central Manager role.
3. Assign a primary interface.
4. Enable Central Manager service.

What is the correct order for these tasks to be performed?

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

Answer: C

QUESTION 54

Which two options are available for Cisco WAAS file-services integration? (Choose two.)

- A. nontransparent appearing as a node on the remote office LAN
- B. transparent appearing as a node on the remote office LAN
- C. nontransparent not appearing as a node on the remote office LAN
- D. transparent not appearing as a node on the remote office LAN
- E. transparent and nontransparent appearing as a node on the remote office LAN

Answer: A, D

QUESTION 55

How should you configure authentication when your customer wants to use Active Directory to manage authentication for WAE administrative users?

- A. Configure Windows domain as the primary login method in Central Manager.
- B. Configure LDAP services on the Active Directory server, and set LDAP as the primary login method in Central Manager.
- C. Configure RADIUS services on the Active Directory server, and set RADIUS as the primary login method in Central Manager.
- D. Configure TACACS+ services on the Active Directory server, and set TACACS+ as the primary login method in Central Manager.

Answer: A

QUESTION 56

Effective device permissions such as access and configure are the summations of what?

- A. roles assigned to that user
- B. policy maps assigned to that user
- C. domains assigned to that user
- D. authentication providers assignments to that user

Answer: C

QUESTION 57

The command show fit accelerators displays what?

- A. which optimizations are applied to each connection
- B. the number of optimized connections
- C. per-application optimization statistics
- D. whether accelerator services are under load

Answer: D

QUESTION 58

Which Cisco WAAS feature is used to provide a logical grouping of traffic types to support the monitoring and collection of statistics?

- A. application definitions
- B. baseline policies
- C. policy maps
- D. traffic classifiers

Answer: A

QUESTION 59

Which three must be configured when you configure an edge print queue? (Choose three.)

- A. device URI
- B. EPM policy
- C. location
- D. Postscript printer
- E. printer name
- F. WAFS edge service

Answer: A, E, F

QUESTION 60

What is a valid Cisco WAAS device group type?

- A. location group
- B. WAFS core cluster
- C. application accelerator group
- D. authentication group

Answer: B