



Exam : 642-356

**Title : Cisco Storage Networking Solutions
Specialist(CSSSS)**

Ver : 11.14.07

QUESTION 1

Which command would you use to determine if device aliases in VSAN 5 are configured for fabric-wide distribution?

- A. show zoneset name alias vsan 5
- B. show cfs application name device-alias
- C. show fcalias distribution vsan 5
- D. show vsan 5 device-alias status

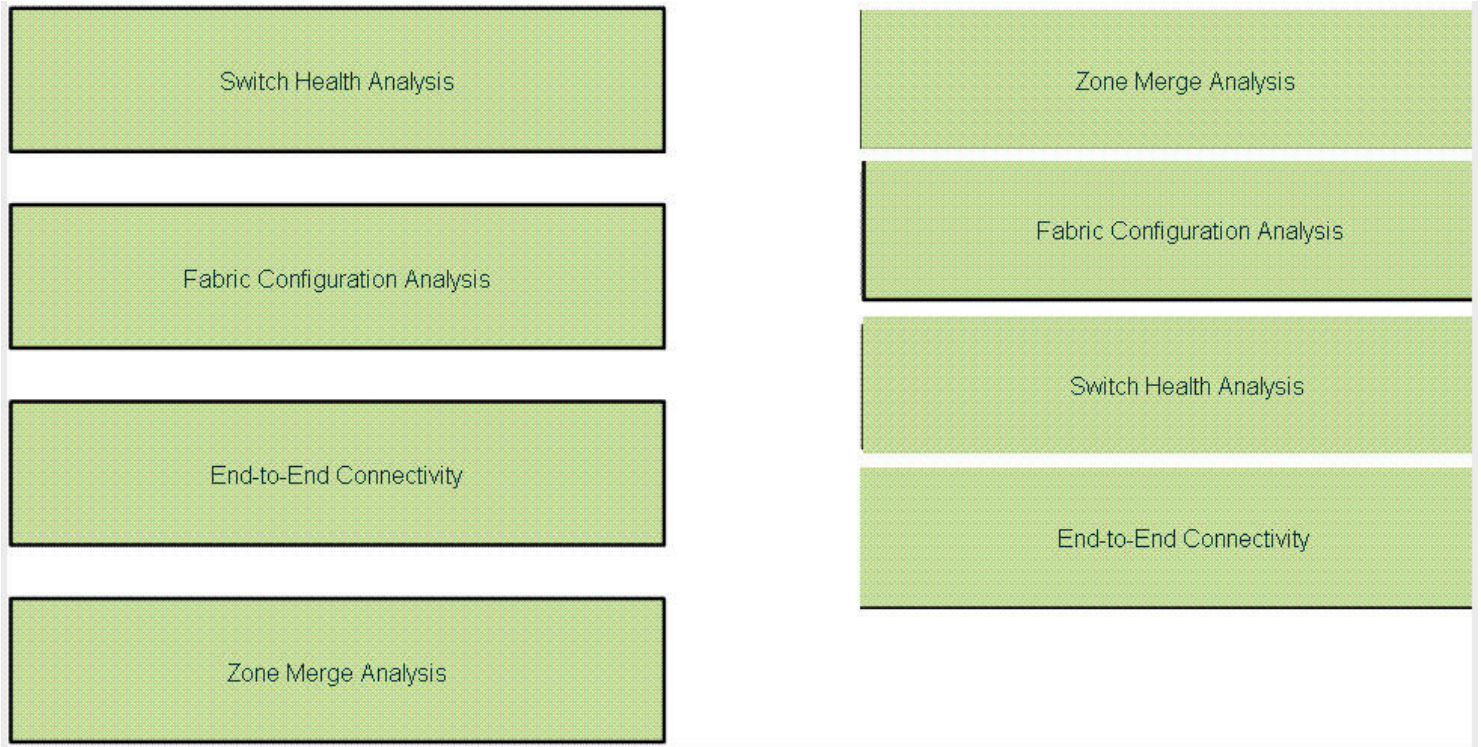
Answer:

QUESTION 2

The Cisco analysis tool on the left to its appropriate description on the right.

Switch Health Analysis	determines if switches will connect successfully without fabric isolation due to mismatched port membership
Fabric Configuration Analysis	compares the configurations of all Cisco MDS switches in a fabric to a reference switch or a policy file
End-to-End Connectivity	runs an in-depth switch analysis with Fabric Manager, verifying status of all critical MDS system, module, port, and Fibre Channel services
Zone Merge Analysis	utilizes FC Ping to verify interconnections between Cisco MDS switches and end-device (HBAs and storage devices) in a particular VSAN

Answer:



QUESTION 3

The MDS 9000 family switches use what three technologies to protect against unauthorized management access? (Choose three.)

- A. SNMPv3
- B. SSH
- C. RBAC
- D. RMON
- E. SES
- F. WEBM

Answer: A, B, C

QUESTION 4

What is a benefit of enhanced zoning?

- A. fabric locked during configuration changes
- B. larger zoning database size
- C. database rollback in case of failure
- D. zones allowed to span VSANs

Answer: A

QUESTION 5

Which two of these environments suggest the use of FCIP Write Acceleration? (Choose two.)

- A. remote tape backup
- B. PortChannel links between sites
- C. applications that support multiple outstanding I/Os
- D. fast network with minimal delays
- E. DWDM links

Answer: B, C

QUESTION 6

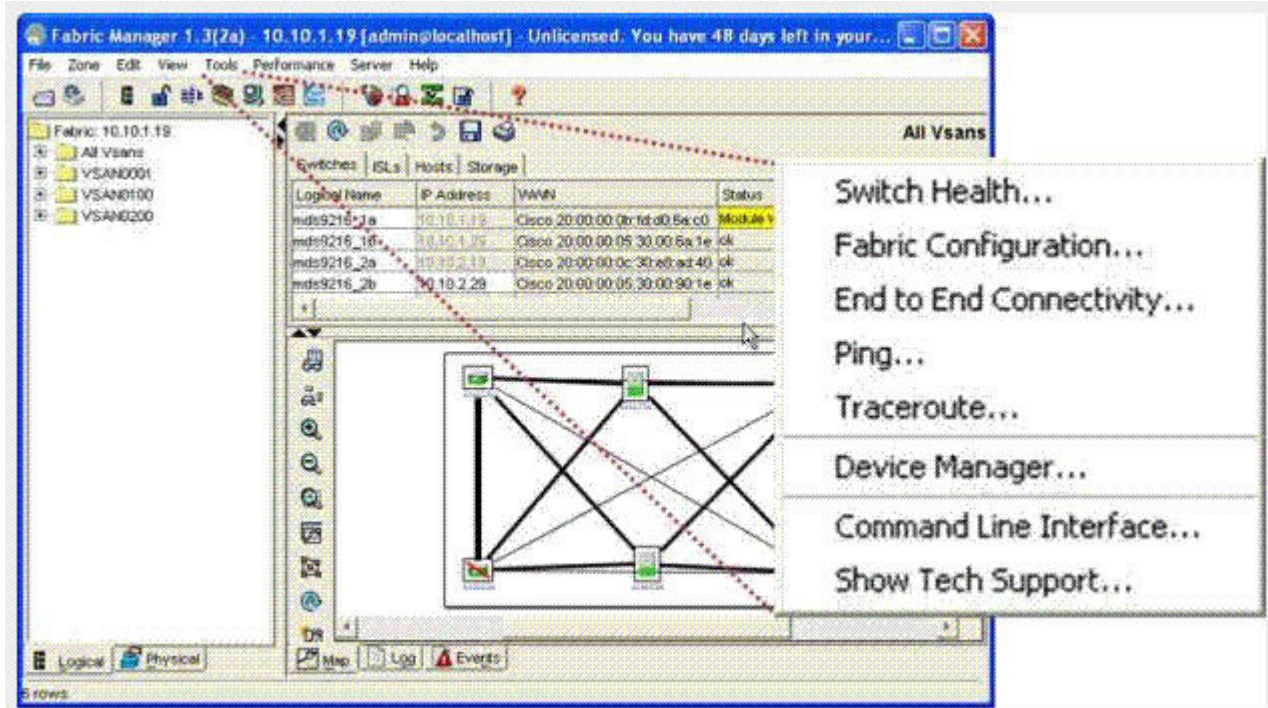
Which three of the following are possible reasons why a line card module does not come online? (Choose three.)

- A. Port indexes have been taken offline.
- B. Available port indexes are noncontiguous.
- C. Not enough power is available in the chassis.
- D. An invalid interoperability mode has been configured.
- E. Unsupported SFPs have been installed.
- F. Not enough port indexes are available.

Answer: B, C, F

QUESTION 7

Which two options from the Tools menu would you select to verify connectivity and latency to a Fibre Channel end device? (Choose two.)



- A. Switch Health
- B. Fabric Configuration
- C. End to End Connectivity
- D. Ping
- E. Device Manager

Answer: C, D

QUESTION 8

During initial switch configuration, the administrator elects to enable full zoneset distribution. What is the impact of this choice during zoneset activation?

- A. only the active zoneset is distributed to all switches in the fabric
- B. both the full zone database and active zoneset are distributed to all switches in the fabric
- C. both FCID and WWN information are distributed to all switches in the fabric
- D. only the full zone database is distributed to all switches in the fabric

Answer: B

QUESTION 9

You are asked to review the running configuration of a switch that a junior administrator has prepared to be placed in a heterogeneous SAN environment. This environment includes three different brands of Fibre Channel switches. In this particular environment, only VSAN 1 is being used.

Which of these attributes suggests that the switch has been incorrectly configured?

- A. A static domain ID has been set to 0x21.
- B. The src-dst-ox load balancing has been selected.
- C. Interop mode 1 has been selected.
- D. FCC has been enabled.

Answer: A

QUESTION 10

The correct compression mode on the left to its appropriate bandwidth on the right.

- mode1
- mode2
- mode3
- auto

a high-compression mode for low-bandwidth links (less than 10 Mbps)

a fast-compression mode for high-bandwidth links (greater than 25 Mbps)

a moderate compression mode for moderately low bandwidth links (between 10 and 25 Mbps)

default mode: picks the appropriate compression scheme based on the bandwidth of the link configured in the TCP parameters in the FCIP profile

Answer:

- mode1
- mode2
- mode3
- auto

- mode3
- mode1
- mode2
- auto

QUESTION 11

Drag each item on the left to its correct security description on the right.

- SAN extension security
- Fabric Security
- Switch Access Security
- Port Security
- User Authentication
- Role-Based Access

- limits access to the switch by assigning roles or groups to users
- uses FC-SP to provide switch-switch and host-switch authentication
- secures switch access through the CLI or SNMP
- uses AAA strategy to verify identity of, grant access to, and track the actions of remote users
- prevents unauthorized access to a switch port
- uses IPSec for confidentiality, integrity, and authentication between participating peers

Answer:

- SAN extension security
- Fabric Security
- Switch Access Security
- Port Security
- User Authentication
- Role-Based Access

- Role-Based Access
- Fabric Security
- Switch Access Security
- User Authentication
- Port Security
- SAN extension security

QUESTION 12

What two commands must be executed on an MDS 9000 family switch in order to change a dynamically assigned Domain ID 5 to a static Domain ID 10 for VSAN 10? Choose two.

- A. switch(config-if)# shut fcdomain 5
- B. switch(config-if)# no shut fcdomain 10
- C. switch(config)#fcdomain domain 10
- D. switch(config)# fcdomain domain 10 static vsan 10
- E. switch(config)# fcdomain restart vsan 10
- F. switch(config)# fcdomain restart disruptive vsan 10

Answer: D, F

QUESTION 13

When configuring FCIP, packet fragmentation should be avoided in order to achieve optimal throughput. Fragmentation can be avoided by knowing which of the following?

- A. MTU of the source IP interface
- B. largest MTU in the path
- C. smallest MTU in the path
- D. MTU of the destination IP interface

Answer: C

QUESTION 14

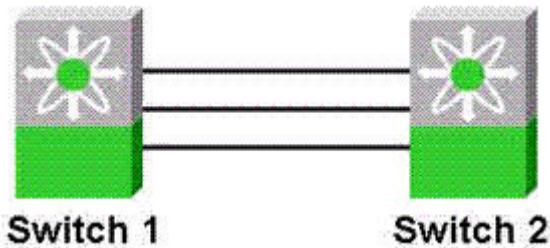
For purposes of granting restricted access to statically configure iSCSI virtual targets, which three of these can be used to identify iSCSI initiators? (Choose three.)

- A. iSCSI node name
- B. host name
- C. IPv4 address and subnet
- D. MAC address
- E. IPv6 address
- F. iSCSI WWN

Answer: A, C, E

QUESTION 15

You have been asked to convert three existing ISLs into a PortChannel as no disruptively as possible.



Which approach will best accomplish this?

- A. Place all three ISLs into a PortChannel, because PortChannel creation is a no disruptive operation.
- B. Convert the ISLs into an EISL and then place them into a PortChannel.
- C. Place one link into a single-link PortChannel and then add the other two links to the PortChannel.
- D. Ensure that the VSAN allowed lists on both ends of each link are identically configured, then create the three-link PortChannel.

Answer: C

QUESTION 16

Which three statements describe automatically supported, basic zone features (no additional configuration required) in the Cisco MDS 9000 Family of switches? (Choose three.)

- A. A VSAN contains the zone sets.
- B. Zone reactivation can disrupt existing traffic.
- C. A zone or zone set with the same name can exist in each VSAN.
- D. Hard zoning can be disabled.
- E. Active zone sets are preserved across switch reboots.
- F. Default zoning behavior is to distribute the Full Zone Database.

Answer: A, C, E

QUESTION 17

Which three options allow or enable no disruptive upgrades? (Choose three.)

- A. IPS module software upgrades
- B. dual supervisor modules on a Cisco MDS 9500 Series switch
- C. using the install-all command
- D. upgrading the loader
- E. installing a license
- F. using the reload command

Answer: B, C, E

QUESTION 18

Which services are supported by a Cisco SAN-OS AAA configuration?

- A. Telnet, SSH, FM and DM logins
- B. console login, FC-SP authentication, FTP
- C. FC-SP authentication, FM and DM logins, TFTP
- D. iSCSI authentication, FTP, FC-SP authentication

Answer: A

QUESTION 19

How many ports are addressable on a fabric arbitrated loop?

- A. 126
- B. 127
- C. 255
- D. 256

Answer: B

QUESTION 20

A customer with multiple vendor switches establishes an ISL between a non-Cisco switch and an E_Port on a Cisco MDS 9000 switch.

Which three statements are true about the interop behavior between the two switches? (Choose three.)

- A. Exchange-based load balancing is supported in all interop modes.
- B. Interop mode affects all VSANs.
- C. Only E_Ports can be used to connect to non-Cisco MDS switches.
- D. The non-Cisco switch must have matching FC timers with the VSAN containing the E Port on the Cisco MDS 9000 Series switch.
- E. Adding another ISL between the switches will allow a PortChannel to be configured for HA.
- F. Interop mode 1 allows full featured communication between all combinations of MDS and non-MDS switches

Answer: A, C, D

QUESTION 21

Which license is required on switches that are going to implement LUN zoning?

- A. Storage Services Enabler
- B. Enterprise license
- C. Fabric Manager Server license
- D. SAN Extension over IP license

Answer: B

QUESTION 22

Match the definition on the left with its appropriate word or phrase about switch interoperability on the right.

- allows the Cisco MDS 9000 to communicate over a standard set of protocols with other vendor switches
- need not be the same on all switches within a heterogeneous fabric
- name for a restrictive PID format, with allocation of one nibble of the FCID/PID in area field 0x0-F for port numbers
- enables MDS 9000 switches to interoperate with other switches that use a less restrictive core PID format that permits up to 256 devices per domain
- enables Cisco MDS 9000 switches to interoperate with other switches that use a restrictive PID format that permits only 16 devices per domain

- FSPF load balancing schemes
- Interop Mode 1
- Interop Mode 2
- Core PID 0
- Interop Mode 3

Answer:

- allows the Cisco MDS 9000 to communicate over a standard set of protocols with other vendor switches
- need not be the same on all switches within a heterogeneous fabric
- name for a restrictive PID format, with allocation of one nibble of the FCID/PID in area field 0x0-F for port numbers
- enables MDS 9000 switches to interoperate with other switches that use a less restrictive core PID format that permits up to 256 devices per domain
- enables Cisco MDS 9000 switches to interoperate with other switches that use a restrictive PID format that permits only 16 devices per domain

- need not be the same on all switches within a heterogeneous fabric
- allows the Cisco MDS 9000 to communicate over a standard set of protocols with other vendor switches
- enables Cisco MDS 9000 switches to interoperate with other switches that use a restrictive PID format that permits only 16 devices per domain
- name for a restrictive PID format, with allocation of one nibble of the FCID/PID in area field 0x0-F for port numbers
- enables MDS 9000 switches to interoperate with other switches that use a less restrictive core PID format that permits up to 256 devices per domain

QUESTION 23

Which two of these logging statements are true? (Choose two.)

- A. Call Home message level 0 is most urgent and level 7 is least urgent, whereas the syslog level 9 is most urgent and level 0 is least urgent.
- B. Syslog message level 0 is most urgent and level 7 is least urgent, whereas the Call Home message level 9 is most urgent and level 0 is least urgent.
- C. Syslog message level 7 is most urgent and level 0 is least urgent, whereas the Call Home message level 9 is most urgent and level 0 is least urgent.
- D. Accounting logs can be stored locally and sent to remote AAA servers.
- E. Go to logs > syslog > setup in Device Manager to view the local accounting log.

Answer: B, D

QUESTION 24

Which of these Cisco Fabric Manager debugging tools can compare the current configuration with a previously saved configuration file?

- A. Switch Health Analysis
- B. Fabric Configuration Analysis
- C. End-to-End Connectivity Analysis
- D. Zone Merge Analysis

Answer: B

QUESTION 25

Choose the correct list of tasks to configure Remote Spanning.

- A. Create a VSAN interface.
Enable a Fibre Channel tunnel.
Initiate the Fibre Channel tunnel.
Configure the ST_Port in the source switch.
Configure the SD_Port in the destination switch.
Configure a SPAN session in the source switch.
- B. Create a VSAN interface.
Enable a Fibre Channel tunnel.
Initiate the Fibre Channel tunnel.
Configure the ST_Port in the source switch.
Configure the SD_Port in the destination switch.
Configure an RSPAN session in the source switch.
- C. Create an RSPAN interface.
Enable a Fibre Channel tunnel.
Initiate the Fibre Channel tunnel.
Configure the SD_Port in the destination switch.
Configure the ST_Port in the source switch.
Configure an RSPAN session in the source switch.
- D. Create a VSAN interface.
Enable a Fibre Channel tunnel.
Initiate the Fibre Channel tunnel.
Configure the ST_Port in the destination switch.
Configure the SD_Port in the source switch.
Configure an RSPAN session in the source switch.

Answer: B

QUESTION 26

When creating an Inter-VSAN routing topology, which type of World Wide Name (WWN) must be used?

- A. Port WWN
- B. Switch WWN
- C. Fabric Port WWN
- D. VSAN WWN

Answer: B

QUESTION 27

Your company has a multiswitch fabric including Switch A and Switch B. An administrator of Switch A creates the following zone set and successfully activates it:

```
zoneset name ZoneSet1 vsan 1
```

```
zone name Zone1 vsan 1
pwwn 21:Q1:00:e0:8b:3c:03:b6
pwwn 21:Q1:00:e0:8b:3c:55:bb
```

Later in the day, a second administrator creates the following zone set on Switch B:

```
zoneset name ZoneSet2 vsan 1
zone name Zone 1 vsan 1
pwwn 21:01:00:e0:8b:8c:03:b6
pwwn 21:01:00:e0:8b:8c:55:aa
```

What happens when the administrator of Switch B attempts to activate Zone Set2?

- A. ZoneSet2 becomes the active zone set for both Switches A and B.
- B. The fabric segments and ZoneSet2 become the active zone set for Switch B only.
- C. The fabric segments and ZoneSet2 become the active zone set for Switch A only.
- D. The fabric segments and ZoneSet1 remain the active zone set for Switch B, while ZoneSet2 becomes the active zone set for Switch A.

Answer: A

QUESTION 28

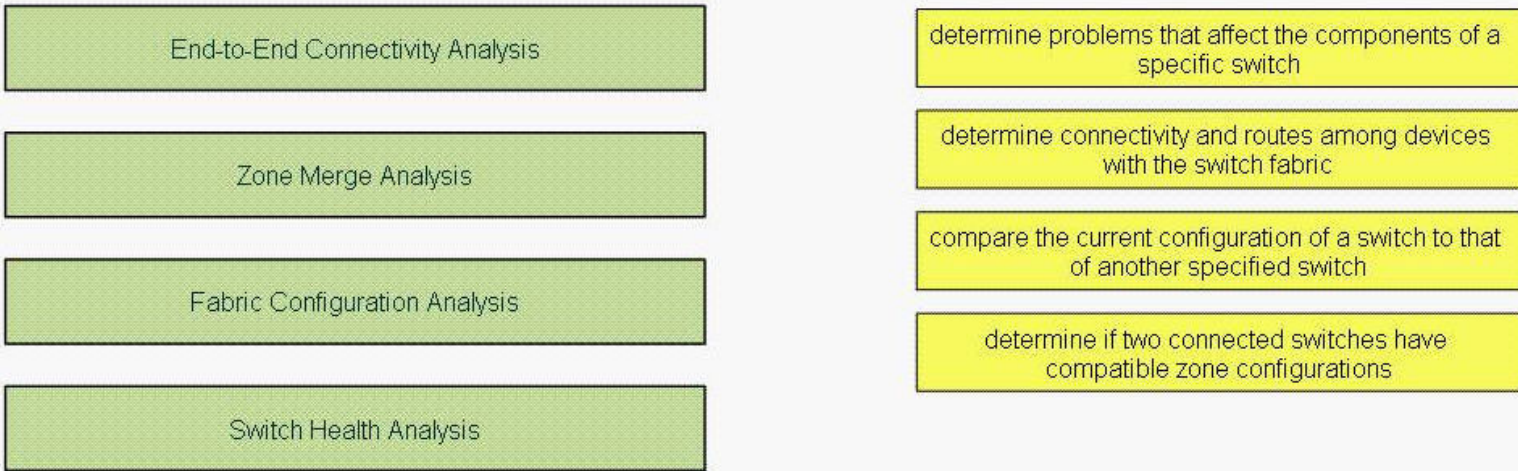
You have been asked to configure a port on your Cisco MDS switch so that a host can join your fabric. Which of these switch port types should the port be set to?

- A. N_Port
- B. NL_Port
- C. F_Port
- D. E_Port
- E. TE_Port
- F. SD Port

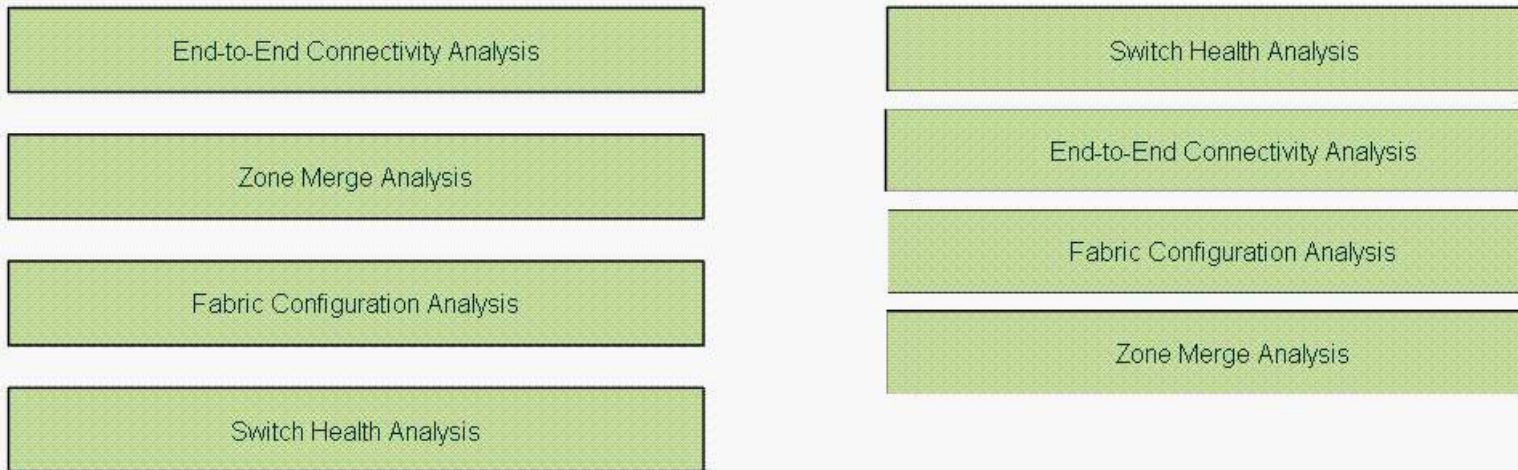
Answer: C

QUESTION 29

The IT director wants to standardize the process that the SAN team follows when troubleshooting the SAN. IT director wants to leverage the tools that are provided by Cisco Fabric Manager so that each member of the team executes the same steps when faced with a problem in the SAN. Drag the Cisco Fabric Manager troubleshooting tool to the purpose it serves in the repair strategy.



Answer:



QUESTION 30

Which of the following tools would you use to view SCSI error count statistics?

- A. Cisco Performance Manager
- B. RMON
- C. Cisco Traffic Analyzer
- D. Cisco Fabric Analyzer

Answer: C

QUESTION 31

A customer would like to implement a low-cost traffic engineering solution that provides a primary data path, and a secondary data path that will only be used in the event of a failure in the primary path. Which of these solutions best meets the customer needs?

- A. VSAN allowed list pruning

- B. FCC
- C. QoS
- D. FSPF link costs
- E. VOQ

Answer: D

QUESTION 32

The output from the switch show interface command indicates that the link from a host comes up as an FL_Port. The switch port is configured as auto. Which three of these HBA configurations could cause this scenario? (Choose three.)

- A. the HBA is configured as an N_Port
- B. the HBA is configured as an NL_Port
- C. the HBA supports only NL mode
- D. the HBA is configured as a TE_Port
- E. the HBA supports only FC-AL technology
- F. the HBA is configured as an TL_Port

Answer: B, C, E

QUESTION 33

Which of the following statements is true?

```
switch (config) # role name sangroup
switch (config) # rule 1 deny Config feature fspf
switch (config) # rule 2 permit config
```

- A. All users belonging to the sangroup role are allowed to perform all configuration commands except fspf commands because the deny config feature fspf is listed first.
- B. All users are allowed to perform all configuration commands because the permit config command is listed last and that will globally override all other rules.
- C. All users belonging to the sangroup role to perform all configuration commands except fspf commands because it does not matter what order the rules are entered.
- D. The configuration is not valid because rules are entered at the switch (config-role-vsant)# level.

Answer: B

QUESTION 34

Which three types of network statistics can be captured with the Cisco Traffic Analyzer? (Choose three.)

- A. historical reporting
- B. total bandwidth used
- C. Tx/Rx bandwidth per VSAN
- D. Tx/Rx bandwidth per N_Port

E. class-based traffic breakdown

Answer: B, C, D

QUESTION 35

Which two security protocols are supported in the Cisco iSCSI implementation? (Choose two.)

- A. IPSec
- B. FC-SP
- C. SLAP
- D. CHAP
- E. PAP

Answer: A, D

QUESTION 36

Which feature requires the Cisco MDS 9000 Series Enterprise license?

- A. PortChannels
- B. virtual output queues
- C. port security
- D. centralized AAA services

Answer: C

QUESTION 37

Which three of these steps are required to configure IVR? (Choose three.)

- A. Enable IVR in the border switches.
- B. Configure interop mode 1.
- C. Configure NAT.
- D. Configure the IVR topology.
- E. Create and activate IVR zone sets.
- F. Configure a transit VSAN.

Answer: A, D, E

QUESTION 38

What is the default policy when defining role-based access for a VSAN?

- A. Deny
- B. Permit
- C. Permit only for the default VSAN.
- D. There is no default role policy for a VSAN.

Answer: B

QUESTION 39

Which two features help you verify connectivity between host and storage devices? (Choose two.)

- A. fcanalyzer
- B. Cisco Traffic Analyzer
- C. End-to-End Connectivity Analysis
- D. Zone Merge Analysis
- E. fcping

Answer: C, E

QUESTION 40

Which two of these features are characteristic of out-of-band management for the Cisco MDS 9000 Series switches? (Choose two.)

- A. CUP management of the switch for FICON
- B. 10/100/1000 Ethernet connection
- C. IPFC
- D. FCIP
- E. logical interface VSAN 1
- F. configuration during the initial switch setup

Answer: B, F

QUESTION 41

A customer has reported performance degradation in the SAN. The system administrator would like to track read-write I/O and LUN use on several devices. The devices are directly connected to various switches and belong to different VSANs. The administrator wants to gather information for the last 72 hours.

Which of the following Cisco MDS 9000 Series tools is needed to track SCSI I/O and LUN statistics?

- A. Cisco Fabric Manager
- B. Cisco Traffic Analyzer and PAA
- C. Cisco Performance Manager
- D. Cisco Fabric Analyzer

Answer: B

QUESTION 42

A customer has configured an FCIP connection between two sites.

switch# ping

Target IP address: 10.0.2.2

Repeat count: 3

```
Datagram size: 2198
Timeout in seconds: 2
Extend commands (y/n) y
Source address or interface: 10.0.1.2
Type of service [0]
Set DF bit in IP header [n]
Data pattern (hex: 16): 1111
PATTERN: 0x1111
PING 10.0.2.2 (10.0.2.2): 2198 data bytes
--- 10.0.2.2 ping statistics ---
```

3 packets transmitted, 0 packets received, 100% packet loss

The customer issues an extended IP ping command to determine path availability, MTU, and round-trip time.

According to the output in the exhibit, which parameter in the extended ping needs adjustment in order to increase the chances of establishing end-to-end connectivity?

- A. timeout in seconds
- B. repeatcount
- C. datagram size
- D. nothing, end-to-end connectivity cannot be established

Answer: C

QUESTION 43

The HBA on your storage server only supports the NL_Port mode. Which interface type on the Cisco MDS 9000 Series fabric switches can support this HBA?

- A. F
- B. TE
- C. FL
- D. N
- E. E

Answer: C

QUESTION 44

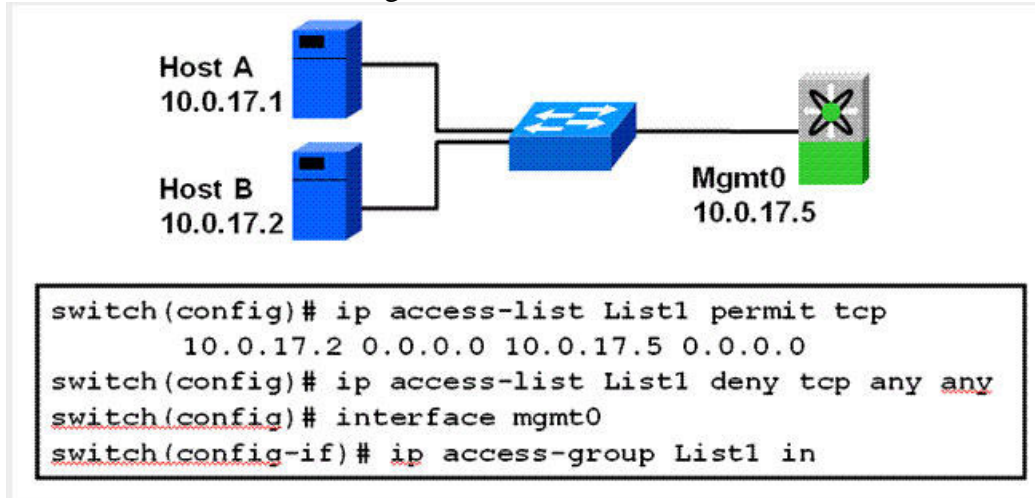
While examining the output of a show run command on the Cisco MDS 9000 Series, you notice that the statement interface GigabitEthernet2/1.2 appears in the output. What does this mean?

- A. It refers to the second FCIP tunnel that is configured on port GigabitEthernet2/1.
- B. It refers to a VLAN sub interface on port GigabitEthernet2/1.
- C. It means that port GigabitEthernet2/1 is assigned to VSAN 2.
- D. It is a mistake in the interface configuration.

Answer: B

QUESTION 45

What is the effect of executing the commands shown in the exhibit?



- A. Host A will not be able to communicate with interface mgmt0.
- B. Host B will not be able to communicate with interface mgmt0.
- C. All hosts will be able to communicate with interface mgmt0.
- D. No hosts will be able to communicate with interface mgmt0.

Answer: A

QUESTION 46

A host is unable to access the storage network after its HBA is replaced. Which of these switch configurations could be preventing access?

- A. port-based zoning
- B. port-mode security
- C. port security
- D. port VSAN membership

Answer: C

QUESTION 47

Which Cisco MDS feature can be used to notify an administrator or call center that a serious event has occurred in the fabric?

- A. Call Home
- B. syslog
- C. FLOGI
- D. SNMP
- E. SPAN

Answer: A

QUESTION 48

Why would you use the fcanalyzer command?

- A. to ensure that Fibre Channel configuration settings are synchronized across all switches in the fabric
- B. to identify common configuration errors in the fabric
- C. to non-disruptively capture and decode Fibre Channel control frames
- D. to decode and analyze Fibre Channel frames and ordered sets on a link

Answer: C

QUESTION 49

What is the recommended minimum clearance between chassis when installing the Cisco MDS 9500 Series in a standard telco rack?

- A. 2.5 inches
- B. 3 inches
- C. 6 inches
- D. 9 inches

Answer: C

QUESTION 50

Your company is planning a SAN deployment using Fibre Channel connections from a central, highly secure data center to several less secure branch offices. Which of these security features would allow you to disable all branch office switch management ports and yet still maintain the complete suite of TCP/IP-based SAN management utilities?

- A. IPSec
- B. Port Mode Security
- C. Port Security
- D. Overlay VSAN

Answer: D

QUESTION 51

What information does the command show flogi database provide?

- A. verifies connectivity for attached devices
- B. verifies that attached devices are in the correct zone
- C. displays a list of the host ports that have logged into each storage port
- D. displays fabric login errors

Answer: A

QUESTION 52

You have set up a session to the SD_Port to enable the investigation of a problem on a particular Fibre Channel port. You need to check whether this has been correctly set up for the desired port. Which command should you use?

- A. show span session
- B. show fcflow
- C. show tport
- D. show fcanalyzer

Answer: A

QUESTION 53

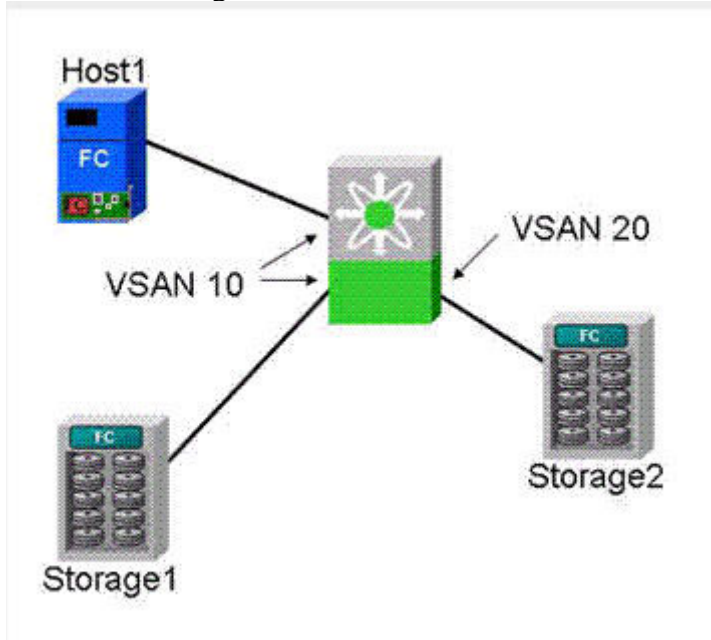
Which feature detects hardware faults and attempts recovery actions?

- A. Switch Health Analysis
- B. Fabric Configuration Analysis
- C. Online Health Management System
- D. End-to-End Connectivity Analysis
- E. Cisco Fabric Services

Answer: C

QUESTION 54

Host1 and Storage1 are in VSAN 10 and have been communicating successfully.



An administrator creates and activates an IVR zoneset enabling Host1 and Storage2 to communicate. Unexpectedly, after this new IVR zoneset is activated, Host1 loses connectivity with Storage 1.

Why did this happen?

- A. The default zone policy in VSAN 10 is set to permit.
- B. The local zoneset distribution policy for VSAN 20 is set to allow.
- C. The zoneset distribution policy for VSAN 10 is set to full.
- D. Standard zones and IVR zones cannot coexist in the same VSAN.

Answer: A

QUESTION 55

You are implementing an FCIP solution for SAN extension between two data centers using the Cisco MDS 9000 Series platform. For redundancy, there are two Metro Ethernet paths between the data centers. How can you specify primary and secondary paths for each FCIP tunnel?

- A. Configure OSPF routing on the IPS-8.
- B. Configure EIGRP routing on the IPS-8.
- C. Configure FSPF link costs on the MDS switch.
- D. Configure QoS on the MDS switch.

Answer: C

QUESTION 56

In order to allow access to a switch using Telnet, which three settings should be configured during the initial setup of a Cisco 9000 Series switch using SAN-OS Release 2.0? (Choose three.)

- A. assign an admin password
- B. accept auto for the switch port trunk mode
- C. configure the IP address for the VSAN 1 interface
- D. configure the net mask for the IP address
- E. configure the IP address for the Mgmt0 interface
- F. Configure SSH with an RSA1 key

Answer: A, D, E

QUESTION 57

What are four valid protocols for copying software to the MDS 9000 family switches? (Choose four.)

- A. Remote Copy Service
- B. Secure Copy Protocol
- C. Trivial File Transfer Protocol
- D. File Transfer Protocol
- E. Secure Trivial File Transfer Protocol
- F. Secure File Transfer Protocol

Answer: B, C, D, F

QUESTION 58

On a Class C IP network, how many bits in the IPv4 address are used to identify the network?

- A. 8
- B. 16
- C. 24
- D. 32

Answer: C

QUESTION 59

After performing the initial switch configuration by running the setup utility, an administrator notices that ports configured to connect to other Cisco MDS 9000 switches invariably come up as E_Ports rather than TE_Ports. Which error was made at initial configuration?

- A. VSAN capabilities were not enabled.
- B. Default switch port trunk mode was set to auto.
- C. Full zoneset distribution was not enabled.
- D. Default switch port trunk mode was set to on.

Answer: B

QUESTION 60

Which three of these terms are valid Fibre Channel topologies? (Choose three.)

- A. point-to-point
- B. switched backbone
- C. Gigabit Ethernet
- D. arbitrated loop
- E. switched fabric
- F. autonomous region

Answer: A, D, E