

300-320 Dumps

Designing Cisco Network Service Architectures

<https://www.certleader.com/300-320-dumps.html>



NEW QUESTION 1

Drag the characteristic on the left to the corresponding RP model on the right.

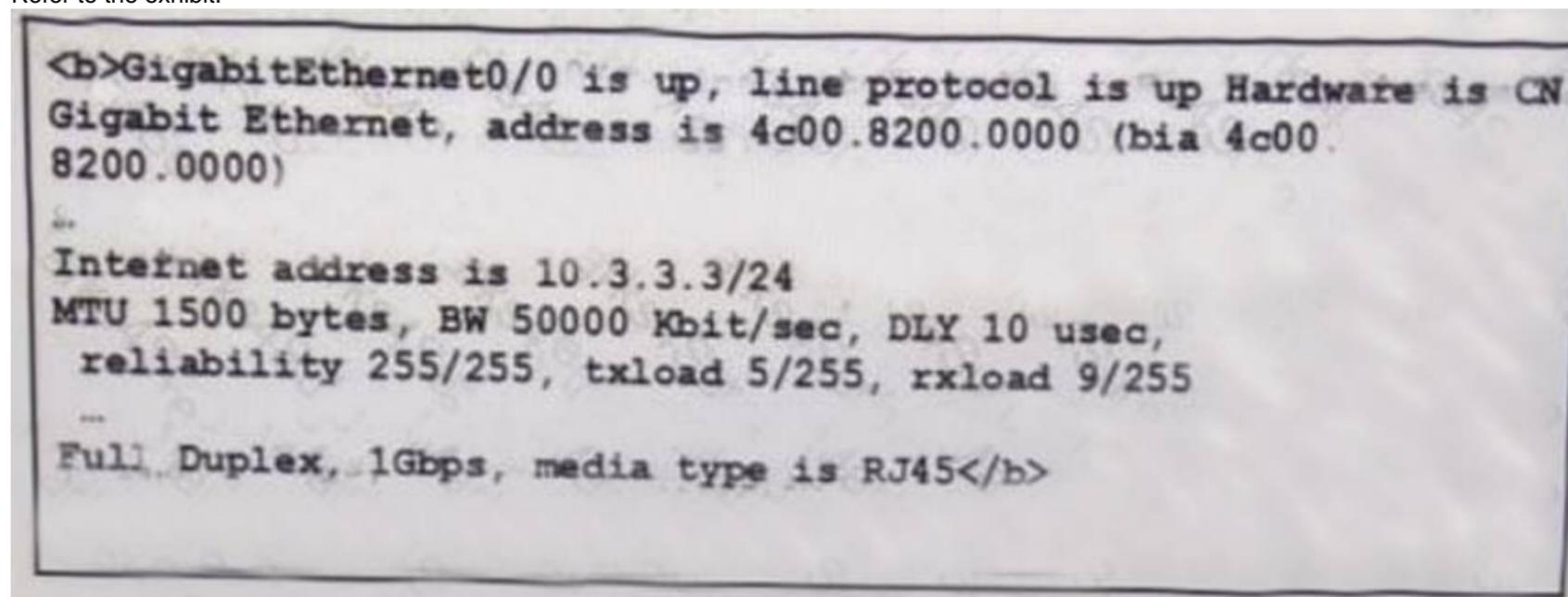
Dynamic, utilizing link-local multicast messages which are flooded hop by hop	Static RP
Static, with fault tolerance utilizing with the Multicast Source Discovery Protocol	Auto-RP
Static, with no inherent failover or load balancing mechanism	Anycast RP
Dynamic, utilizing RP mapping agents with dense mode flooding	BSR

Answer:

Explanation: Static, with no inherent failover or load balancing mechanism >Static RP Dynamic, utilizing RP mapping agents with dense mode flooding >Auto-RP Static, with fault tolerance utilizing with the Multicast Source Discovery Protocol (MSDP)> Anycast RP Dynamic, utilizing link-local multicast messages which are flooded hop by hop >BSR

NEW QUESTION 2

Refer to the exhibit.



An engineering team is analyzing the WAN connection for a site that has a 50 Mbps Ethernet circuit. Which technology should be used to keep the router from overrunning the carrier's 50 Mbps rate?

- A. shaping
- B. Access Control List
- C. Committed Information Rate
- D. Rate-Limit
- E. Policing

Answer: C

NEW QUESTION 3

You need to design a network with a summary segment that supports up to 15 IP segments and all segments must be /24?

- A. /20
- B. /21
- C. /18
- D. /19

Answer: A

NEW QUESTION 4

Which two types of authentication mechanisms can be used by VRRP for security? (Choose two.)

- A. SHA-1
- B. MD5
- C. SHA-256
- D. plaintext authentication
- E. PEAP

Answer: BD

NEW QUESTION 5

What QoS technology allows traffic to pass even though it has exceeded the bandwidth limit but will be queued later?

- A. Shaping
- B. Policing
- C. Weighted Fair Queuing
- D. Low Latency Queuing

Answer: A

NEW QUESTION 6

Which action should be taken when implementing a preferred IPS design?

- A. Place the management interface on a separate VLAN
- B. Place all sensors on PVLAN community ports
- C. Place the management interface on the same VLAN
- D. Place the monitoring interface on the inside network

Answer: A

NEW QUESTION 7

With which of the following could EIGRP and OSPF achieve sub second convergence ? (Choose Two)

- A. BFD
- B. Triangle topology
- C. Square topology
- D. Ring topology
- E. Tuning timers
- F. IP SLA

Answer: AB

NEW QUESTION 8

Which two options improve BGP scalability in a large autonomous system? (Choose two.)

- A. route reflectors
- B. route redistribution
- C. confederations
- D. communities

Answer: AC

NEW QUESTION 9

What is one limitation of MPLS Layer 3 VPN networks?

- A. They require less powerful routers with limited capabilities
- B. They require the customer to control routing
- C. They support only IP traffic
- D. PE routers are underutilized

Answer: C

NEW QUESTION 10

Which network virtualization technology provides logical isolation of network traffic at Layer 3?

- A. VSS
- B. VLAN
- C. VRF-Lite
- D. MEC

Answer: C

NEW QUESTION 10

An engineer is working on an OSPF network design and wants to minimize the failure detection time and the impact on the router CPU. Which technology accomplishes this goal?

- A. LSA pacing
- B. LSA delay interval
- C. BFD
- D. Fast hellos

Answer: C

NEW QUESTION 12

A company have single ASA hardware box and they need to separate company departments in way that they can apply different rules on them, ACL, NAT, and so on... Which mode is needed?

- A. routed mode
- B. transparent mode
- C. multiple context mode
- D. active failover mode

Answer: C

NEW QUESTION 14

A Layer 2 switch in the network has recently started broadcasting traffic out of every port and is impacting network performance. The engineering department determines that a MAC overflow attack is the cause. Which two features can protect and mitigate the damage of the attacks? (Choose two.)

- A. Storm Control
- B. Port Security
- C. SPAN
- D. BPDU Filters
- E. IP Source Guard
- F. VACLs

Answer: AB

NEW QUESTION 16

Two company want to merge their OSPF networks , but they run different OSPF domains , Which is option must be created to accomplished this requirement?

- A. OSPF virtual link to bridge the backbone areas of the two company together
- B. Route Summarization
- C. Static OSPF
- D. Redistribute routes between domains

Answer: A

NEW QUESTION 21

You need to use source specific multicast, which addressing should you use ?

- A. 224.0.0.0/8
- B. 232.0.0.0/8
- C. 248.0.0.0/8
- D. 254.0.0.0/8
- E. 242.0.0.0/8

Answer: B

NEW QUESTION 26

In which OSI layer does IS-IS operate?

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

Answer: B

NEW QUESTION 27

An engineer is designing an IP addressing scheme for a local company that requires multicast for its applications. For security reasons, only explicitly configured devices can be permitted to transmit across the network. Which multicast technology and address range must the engineer select?

- A. PIM-SM; 232.0.0.0/8
- B. ASM; 232.0.0.0/8
- C. SSM; 232.0.0.0/8
- D. SSM; 224.0.0.0/8

Answer: D

NEW QUESTION 29

Which one of these could you implement to sustain a large DDoS attack?

- A. Stateful firewall
- B. uRPF
- C. Connections limits and timeouts
- D. Access-lists

Answer: C

NEW QUESTION 33

An engineering team must design a firewall solution with shared hardware resources but separation of features such as ACLs, NATs, and management between the external business partners of the organization. Which ASA deployment mode meets these requirements?

- A. clustering mode
- B. multicontext mode
- C. transparent mode
- D. routed mode

Answer: B

NEW QUESTION 36

In what situation must spanning-tree be implemented?

- A. When redundant Layer 2 links, that are not part of a single EtherChannel or bundle, exist between distribution switches
- B. When redundant Layer 3 links, that are not part of a single EtherChannel or bundle, exist between distribution switches
- C. Between Distribution and Core switches when interfaces are configured with "no switchport"
- D. Between Distribution and Core switches when VSS is configured

Answer: A

NEW QUESTION 38

Transition to Named EIGRP without causing an outage?

- A. router eigrp NAME
- B. router eigrp 1 named NAME
- C. router eigrp 1 eigrp upgrade-cli NAME
- D. interface fa0/1ip router eigrp 1 named NAME

Answer: C

NEW QUESTION 42

A network engineer is implementing virtualization into the enterprise network. Which system should be used to address policy enforcement at the distribution layer?

- A. Cisco IOS based firewall
- B. multilayer switches
- C. integrated firewall services
- D. identity services engine
- E. intrusion protection systems

Answer: C

NEW QUESTION 43

A company is multihomed to different service providers running BGP. Which action ensures that the company AS does not become a transit AS?

- A. Create a prefix list that matches the company prefix(es) and applies to both BGP neighbor definitions in the outbound direction.
- B. Create a distribute list that filters all routes except the default route and applies to a single BGP neighbor in the outbound direction.
- C. Create a route map that matches the provider BGP communities and networks and applies to both BGP neighbor interfaces in the outbound direction.
- D. Create a distribute list that filters all routes except the default route and applies to both BGP neighbor interfaces in the inbound direction.

Answer: A

NEW QUESTION 48

When APIC is down on cluster device ... What is the minimum number of APICs requirement for a production ACI Fabric to continue to operate?

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

Answer: C

Explanation: From Designing for Cisco Network Service Architecture Fourth Edition: The recommended minimum sizing has the following requirements:

* Three or more Cisco APIC controllers that are dual connected to different leaf switches for maximum resilience. Note that the fabric is manageable even with just one controller and operational without a controller.

NEW QUESTION 50

Which two of these are recommended practices with trunks? (Choose two.)

- A. use ISL encapsulation
- B. use 802.1q encapsulation
- C. set ISL to desirable and auto with encapsulation negotiate to support ISL protocol negotiation
- D. use VTP server mode to support dynamic propagation of VLAN information across the network

E. set DTP to desirable and desirable with encapsulation negotiate to support DTP protocol negotiation.

Answer: BE

Explanation: "As a recommended practice, when configuring switch-to-switch interconnections to carry multiple VLANs, set Dynamic Trunking Protocol (DTP) to Desirable and Desirable with Encapsulation Negotiate to support DTP negotiation."

NEW QUESTION 52

A network team is designing a Layer 3 Data Center Interconnect between two data centers. There is a requirement for all links of equal bandwidth be utilized have automatic failover and not use any bundling technology. Which routing function must be used to achieve this requirement?

- A. virtual links
- B. virtual private LAN service
- C. policy-based routing
- D. BGP route reflectors
- E. equal cost multipath routing

Answer: E

NEW QUESTION 55

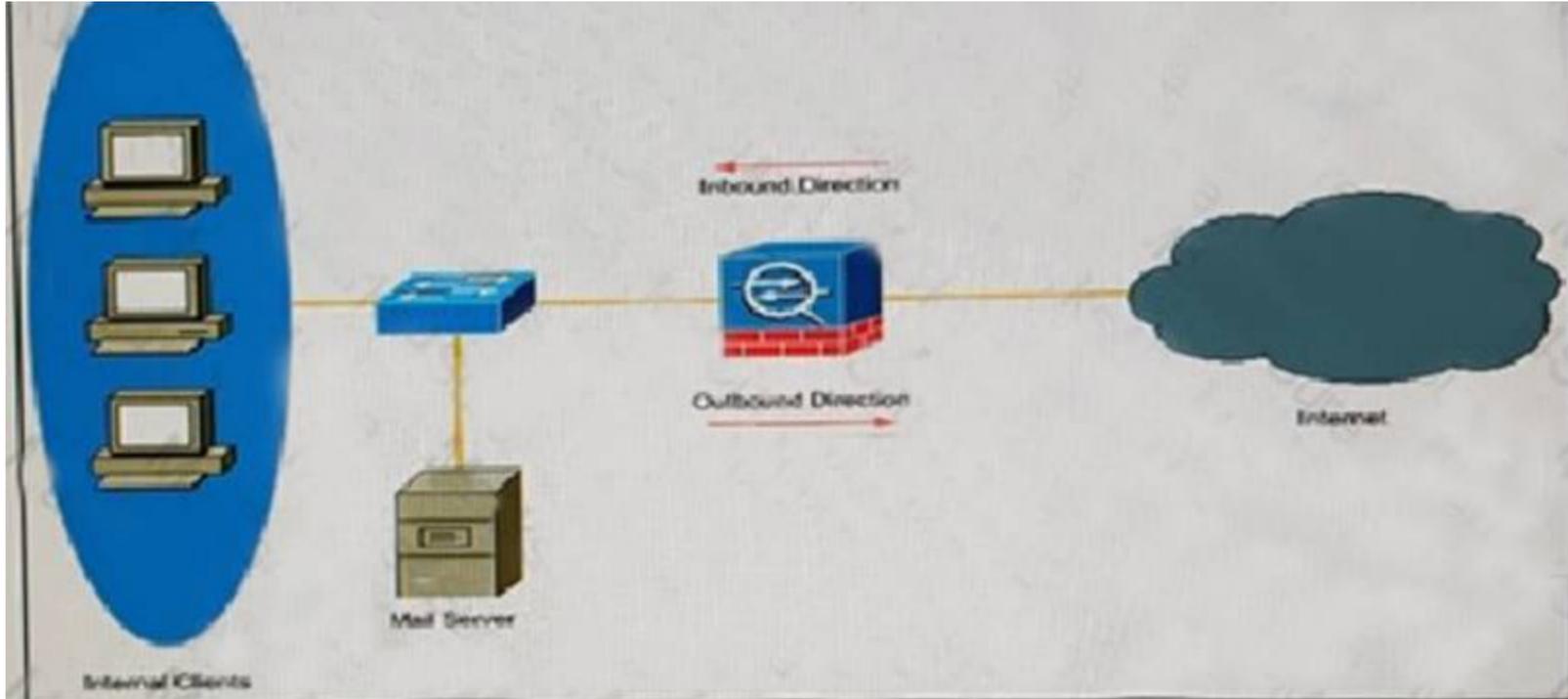
What are two point-to-multipoint overlay tunneling strategies that are used in transitioning to IPv6 (choose two)?

- A. ISATAP
- B. 6to4
- C. Nat64
- D. Dual-stack

Answer: AB

Explanation: <https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/interface/configuration/xe-3s/ir-xe-3s-book/ip6-6to4-tunlsxe>. "The key difference between automatic 6to4 tunnels and manually configured tunnels is that the tunnel is not point-to-point; it is point-to-multipoint."
<https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/interface/configuration/xe-3s/ir-xe-3s-book/ip6-isatap-xe.htm> "ISATAP Point-to-multipoint tunnels that can be used to connect systems within a site."

NEW QUESTION 58



A company needs to configure a new firewall and have only one public IP address to use in this firewall. The engineer need to configure the firewall with NAT to handle inbound traffic to the mail server in addition to internet outbound traffic. Which options could he use? (Choose Two)

- A. Static NAT for inbound traffic on port 25
- B. Dynamic NAT for outbound traffic
- C. Static NAT for outbound traffic on port 25
- D. Dynamic NAT for inbound traffic
- E. NAT overload for outbound traffic
- F. NAT overload for inbound traffic on port 25

Answer: AE

NEW QUESTION 60

Which Cisco feature can be run on a Cisco router that terminates a WAN connection, to gather and provide WAN circuit information that helps switchover to dynamically back up the WAN circuit?

- A. Cisco Express Forwarding

- B. IP SLA
- C. Passive interface
- D. Traffic shaping

Answer: B

NEW QUESTION 62

For which engine an IPS can use its reputation awareness? (Choose two)

- A. Reputation filtering
- B. Reputation subscriptions
- C. Correlation rules
- D. Global correlation inspection

Answer: AC

Explanation: <https://www.cisco.com/c/en/us/td/docs/security/firepower/60/configuration/guide/fpmc-config-guide-v60/Correl> Correlation rules -> Connection Tracker -> URL Reputation

NEW QUESTION 66

Which two characteristics of the 802.1X standard are true? (Choose two.)

- A. This standard supports only wired LANs.
- B. It can package EAP messages in Ethernet frames and not use PPP.
- C. It was created by IEEE
- D. It was created by IETF
- E. Its EAP messages always require underlying PPP protocol

Answer: BC

NEW QUESTION 71

Which two features can you implement to control which networks are advertised by a BGP router? (Choose two.)

- A. prefix lists
- B. route maps
- C. policy maps
- D. router SNMP statements
- E. crypto maps

Answer: AB

NEW QUESTION 74

Which design technology allows two Cisco Catalyst chassis to use SSO and NSF to provide nonstop communication even if one of the member chassis fails?

- A. peer gateway
- B. VSS
- C. vPC
- D. auto chassis detect

Answer: B

NEW QUESTION 77

Which QoS mechanism uses PHBs?

- A. DiffServ
- B. IntServ
- C. CoS
- D. ToS

Answer: A

NEW QUESTION 80

Which technology guarantees loop free network and does not contain the state "listening"?

- A. RPVST+
- B. MEC
- C. VSS
- D. STP

Answer: A

NEW QUESTION 82

You are given the 192.168.2.0/24 network and you should divide it in 4 subnets. Which statements are true regarding the first subnet? (Choose three)

- A. 62 hosts in subnet
- B. 255.255.255.192 mask
- C. 192.168.2.62 last host
- D. 255.255.255.128 mask
- E. 126 hosts in subnet
- F. 192.168.2.126 last host

Answer: ABC

NEW QUESTION 84

During the design of a new data center, a company requires that access switches be placed only in network racks. Which switch layout must be used?

- A. centralized
- B. integrated
- C. top of rack
- D. end of row

Answer: D

NEW QUESTION 86

A network engineer is using OTV to connect six data centers. Which option is preferred when deploying OTV to more than three sites?

- A. Filter MAC address at the join interface
- B. Use multicast-enabled transport
- C. Use Unicast-only transport
- D. Avoid multihoming.

Answer: B

NEW QUESTION 87

Which two methods are available to connect a Cisco IOS device to an active directory domain for authentication? (Choose two)

- A. LDAP (Lightweight Directory Access Protocol)
- B. Radius
- C. TACACS+
- D. AAA

Answer: AB

NEW QUESTION 92

When designing data centers for multitenancy, which two benefits are provided by the implementation of VSAN and zoning? (Choose two)

- A. VSAN provides a means of restricting visibility and connectivity among devices connected to a zone
- B. VSANs have their own set of services and address space, which prevents an issue in one VSAN from affecting others
- C. Zones provide the ability to create many logical SAN fabrics on a single Cisco MDS 9100 family switch
- D. VSANs and zones use separate fabrics
- E. Zones allow an administrator to control which initiators can see which targets

Answer: DE

NEW QUESTION 97

Two Cisco switches with 1 SUP and many 10G line-card ports for each switch, run in VSS mode. In which case or for what reason you don't connect all VSL to SUP?

- A. The need for hardware diversity
- B. Bandwidth congestion at SUP
- C. In case the sup fail
- D. Qos must be configured on both

Answer: A

NEW QUESTION 98

Which VPN technology supports dynamic creation of spoke-to-spoke VPN tunnels to provide a scalable design?

- A. IPsec
- B. GRE over IPsec
- C. DMVPN
- D. GRE

Answer: C

NEW QUESTION 100

An CSPF router should have a maximum of how many adjacent neighbors?

- A. 80

- B. 60
- C. 100
- D. 50

Answer: B

NEW QUESTION 105

Which two features provide resiliency in a data center? (Choose two.)

- A. Cisco FabricPath
- B. VTP
- C. encryption
- D. vPC
- E. VRF

Answer: AD

NEW QUESTION 108

An engineer is trying to minimize the number of EIGRP routes within an infrastructure. Which command achieves automatic summarization?

- A. ip summary-address eigrp 1 10.0.0.0 255.0.0.0
- B. area 0 range 10.0.0.0 255.0.0.0
- C. ip summary-address 10.0.0.0 255.0.0.0
- D. router eigrp 1
- E. eigrp stub

Answer: A

NEW QUESTION 113

ASA firewall cause outage....maintaining QOS in architecture(or)Cisco ASA in active /active mode, how to pass almost like stateful info across to the other member?

- A. ECMP
- B. BFD
- C. IP SLA
- D. ASR groups

Answer: D

Explanation: ASR = Asymmetric routing

NEW QUESTION 114

Which OSPF concept is used to relate areas to the backbone area through another area?

- A. Virtual Links
- B. Backup Links
- C. Inter-backbone Links
- D. Point-to-point Links

Answer: A

NEW QUESTION 117

DCI: simple extend layer 2 data center less than 4000 VLAN ? (Choose Two)

- A. OTV
- B. VXLAN
- C. LISP
- D. MPLS
- E. L2TP

Answer: AD

Explanation: MPLS using AToM or VPLS I guess..

VXLAN could do it but I think they would have not specified "<4000 vlans" if they wanted us to answer that. In fact, we could even think of L2TPv3...

Even if it's really dirty, it's possible (https://www.cisco.com/c/en/us/td/docs/ios/12_0s/feature/guide/l2tpv30s.html#wp1027175)

"For L2TPv3, an Ethernet subinterface configured to support VLAN switching may be bound to an Xconnect service so that all Ethernet traffic, tagged with a VID specified on the subinterface, is tunneled to another PE.")

NEW QUESTION 118

Which Cisco NAC Appliance design is the most scalable in large Layer 2-to-distribution implementation?

- A. Layer 2 out-of-band
- B. Layer 2 in-band
- C. Layer 3 out-of-band

D. Layer 3 in-band

Answer: B

Explanation: <https://www.safaribooksonline.com/library/view/foundation-learning-guide/9780132652933/ch08.html> "Layer 2 In-Band Designs The Layer 2 in-band topology is the most common deployment option.

[...]

This is the most scalable design in large L2-to-distribution environments, because this design can be transparently implemented in the existing network supporting multiple access layer switches. It supports all network infrastructure equipment. The Cisco NAS supports per-user ACLs."

NEW QUESTION 119

On which two types of links should routing protocol peerings be established according to best practice? (Choose two.)

- A. distribution links
- B. end user links
- C. transit links
- D. core links

Answer: CD

Explanation: https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Campus/HA_campus_DG/hacampusdg.html#wp110

NEW QUESTION 123

Multicast has been configured and enabled within an Enterprise network. PIM sparse-mode has been enabled on all VLANs. What feature is required to stop multicast traffic from being broadcasted on the access layer switches?

- A. Multicast boundary filter
- B. PIM Dense-Mode
- C. IGMP snooping
- D. Dynamic ARP inspection

Answer: C

Explanation: "Cisco Group Management Protocol (CGMP), Router Group Management Protocol (RGMP), and IGMP snooping efficiently constrain IP multicast in a Layer 2 switching environment"

NEW QUESTION 126

A company is running BGP on the edge with multiple service providers in a primary and secondary role. The company wants to speed up time if a failure were to occur with the primary, but they are concerned about router resources. Which method best achieves this goal?

- A. Utilize BFD and lower BGP hello interval
- B. Decrease the BGP keepalive timer
- C. Utilize BFD and tune the multiplier to 50
- D. Utilize BFD and keep the default BGP timers

Answer: D

NEW QUESTION 130

Which STP feature allows an access port to bypass the learning and listening?

- A. PortFast
- B. BPDU Guard
- C. BPDU Filter
- D. UplinkFast

Answer: A

NEW QUESTION 134

An engineer is designing a Multichassis Etherchannel using VSS. Which network topology is the result?

- A. Looped
- B. Ring
- C. Hybrid
- D. Star

Answer: D

NEW QUESTION 136

Where should loop guard be implemented in a campus network design?

- A. Ports configured with port fast
- B. Alternate ports only

- C. Ports configured with root guard
- D. Alternate, backup and root ports

Answer: D

NEW QUESTION 139

IP multicast packets when designing IPSec VPN?

- A. IPSec forwarding using tunnel mode
- B. Encapsulation of traffic with GRE or VTI
- C. Additional bandwidth for headend
- D. IPSec forwarding using transport mode

Answer: B

NEW QUESTION 141

Recently, the WAN links between the headquarters and branch offices have been slow under peak congestion, yet multiple alternate WAN paths exist that are not always congested. What technology can allow traffic to be routed in a more informed manner to utilize transport characteristics such as delay, loss, or link load?

- A. performance routing
- B. static routing
- C. on demand routing
- D. policy based routing

Answer: A

NEW QUESTION 143

A client security policy requires separate management control planes for different divisions within the company. Which technology can be used to achieve this requirement while minimizing physical devices?

- A. Virtual routing and forwarding
- B. Virtual device contexts
- C. Virtual Switching System
- D. Virtual Local Area Networks
- E. Virtual port channels

Answer: B

NEW QUESTION 144

HSRP. Router 1 (master) and Router 2 (standby), same priority. When router 1 f0/1 (outside interface) down. With which tracking commands the Router 2 will be able to preempt ? (Choose Two)

- A. Track 50
- B. Track 50 decrement 20
- C. ip tracking 50 interface f0/1 reachability
- D. ip tracking 50 Interface f0/1 ip routing (or line protocol)

Answer: BD

NEW QUESTION 148

Which authentication framework is used in wireless networks and point-to-point connections?

- A. EAP
- B. L2TP
- C. TKIP
- D. PPP

Answer: A

NEW QUESTION 153

An engineer wants to assure that host can locate routers that can be used as a gateway to reach IPbased devices on other networks. Which first hop redundancy protocol accomplishes this goal?

- A. VRRP
- B. GLBP
- C. IRDP
- D. HSRP
- E. GSLB

Answer: C

NEW QUESTION 157

Which security Mechanism can you implement to protect the OSPF?

- A. Cryptographic authentication

- B. Access-lists
- C. Route-maps
- D. Passive interfaces

Answer: A

NEW QUESTION 159

With which technology can VSS be combined to achieve better performance?

- A. MEC
- B. NSF
- C. BFD
- D. UDLD

Answer: B

NEW QUESTION 163

The WAN link between HQ and Branch ... What Technology that to be routed in a more informed way , ...

- A. Policy base routing
- B. On demand routing
- C. Static routing
- D. Performance routing

Answer: D

NEW QUESTION 165

ACME corporation owns a single MDS. Which two SAN tools can be used to optimize the use and cost of the switching hardware? (Choose two.)

- A. zoning
- B. IVR
- C. VSAN
- D. iSCSI

Answer: BC

NEW QUESTION 169

Which virtualization technology uses Layer 3 BFD to detect network failure between Network devices?

- A. Cisco Fabric path
- B. VXLAN
- C. VSAN
- D. VLAN

Answer: A

NEW QUESTION 172

A network engineer designing an access layer that requires all uplinks to be active, furthermore, VLANs must span across the entire switch block. Which two design fulfill this requirement? (Choose two)

- A. Layer 2 Flex Links
- B. Layer 2 loop-free inverted U
- C. Layer 2 loop square
- D. Layer 2 loop-free U

Answer: BC

NEW QUESTION 176

An engineer is designing a redundant dual-homed BGP solution that should prefer one specific carrier under normal conditions. Traffic should automatically fail over to a secondary carrier in case of a failure. Which two BGP attributes can be used to achieve this goal for inbound traffic?

- A. AS-PATH
- B. weight
- C. origin
- D. local preference
- E. MED

Answer: AE

Explanation: Topic 2, Exam Pool B

NEW QUESTION 177

A network engineer must perform posture assessments on Cisco ASA remote access VPN clients and control their network access based on the results. What mode is the Cisco best practice NAC deployment design for this situation?

- A. Layer 2 in-band real IP gateway mode
- B. Layer 2 out-of-band real IP gateway mode
- C. Layer 3 in-band virtual gateway mode
- D. Layer 3 out-of-band virtual gateway mode

Answer: C

NEW QUESTION 182

Why IP MPLS has preference compared to VRF-Lite over WAN?

- A. Distribute load balancing
- B. Reliability
- C. Opex – Cost

Answer: C

NEW QUESTION 185

A network engineer wants to limit the EIGRP query scope to avoid high CPU and memory utilization on low-end routers as well as limiting the possibility of a stuck-in-active routing event between HQ and branch offices. Which way to achieve these goals?

- A. Configure different Autonomous System number per each branch office and HQ and redistribute routes between autonomous systems.
- B. Configure all routers at branch offices as EIGRP stub and allow only directly connected networks at branch offices to be advertised to HQ
- C. Configure all routers at branch offices as EIGRP stub
- D. Configure all routers at HQ and branch offices as EIGRP stub

Answer: C

NEW QUESTION 188

When a site has Internet connectivity with two different ISP's, which two strategies are recommended to avoid becoming a BGP transit site? (Choose two.)

- A. accept all inbound routes from ISPs
- B. advertise all routes to both ISPs.
- C. filter routes inbound from the ISPs.
- D. filter routes outbound to the ISPs.
- E. use a single service provider.

Answer: AD

NEW QUESTION 193

What is the preferred protocol for a router that is running an IPv4 and IPv6 dual stack configuration?

- A. IPX
- B. microsoft Netbios
- C. IPv6
- D. IPv4

Answer: C

NEW QUESTION 197

When designing layer 2 STP based LAN with FHRP, what design recommendation should be followed?

- A. Assign STP root with active FHRP device
- B. Assign native VLAN to lowest number in use
- C. Avoid configuring router preempt
- D. Avoid modifying STP & FHRP default timers

Answer: A

NEW QUESTION 201

A company wants to configure BGP on a router so that other BGP neighbors cannot influence the path of a particular route .which action must be taken to accomplish this configuration ?

- A. Configure a low router ID for the route
- B. Configure a high local preference for the route
- C. Configure a high weight for the route
- D. Configure a low MED for the route

Answer: B

NEW QUESTION 205

An engineer is considering uplink bandwidth over-subscription in a Layer 3 network design. Which option is the Cisco recommended over-subscription ratio for uplinks between the distribution and core layers?

- A. 3 to 1
- B. 4 to 1

- C. 6 to 1
- D. 8 to 1

Answer: B

NEW QUESTION 207

A Consultant has been tasked with QoS design. The customer has specified that for the application end-to-end bandwidth has to be specified. With what can you accomplish this?

- A. IntServ with RSVP
- B. DiffServ
- C. CoS markings
- D. DSCP markings

Answer: A

NEW QUESTION 212

What command essentially turns on auto summarization for EIGRP?

- A. area 0 range 10.0.0.0 255.0.0.0
- B. router eigrp 1
- C. ip summary-address eigrp 1 10.0.0.0 255.0.0.0
- D. ip summary-address 10.0.0.0 255.0.0.0
- E. eigrp stub

Answer: C

NEW QUESTION 214

You use 2x ISPs for the internet connectivity. How could you avoid your internal network to become a transit area (Choose two)?

- A. accept all routes from ISPs inbound
- B. advertise all routes outbound
- C. filter internal routes inbound
- D. filter internal routes outbound
- E. use just one ISP

Answer: AD

Explanation: When connecting to multiple exit points from your AS and peering with multiple ISPs, there is a danger that by misconfiguration, you advertise routes that are received from one ISP to the other ISP. Your AS can become a transit area for Internet traffic of other networks, which can cost you money and resources. You can easily avoid this situation by advertising only your assigned address space to all adjacent ISPs (also, you can advertise only your local AS and filter out the other ASs using BGP AS-path filter).

From a design point of view, this model (Multi-homing with Two ISPs) requires careful design consideration. For example, to avoid making the enterprise network as a transit AS/path for the two external ISPs (for example, ISP1 and ISP2), it is recommended that you always announce only your PI address space to the ISPs you are directly connected to. If, by mistake, you advertise routes that are received from ISP1 to ISP2, and ISP2's policy is not restrictive enough, your AS will start to participate in the Internet traffic exchange (become a transit AS). In addition, if AS X, as shown in Figure 5-23, decided that the path to ISP1 from AS X is shorter through your network (via ISP2), it will start sending traffic that is destined for ISP1 to your router. Your router will happily route the traffic to ISP1, but the problem is that this extra traffic might leave your users with no bandwidth for themselves and, as a result, it will impact the overall user experience. Also, this situation raises a high security concern, because external traffic from an unknown network, traffic that could be malicious, will be using your corporate network as a transit path. Therefore, you, as the network designer, need to ensure that only the enterprise-owned PI address range is announced, combined with AS PATH filtering to permit only routes originating from the enterprise local AS to be advertised.

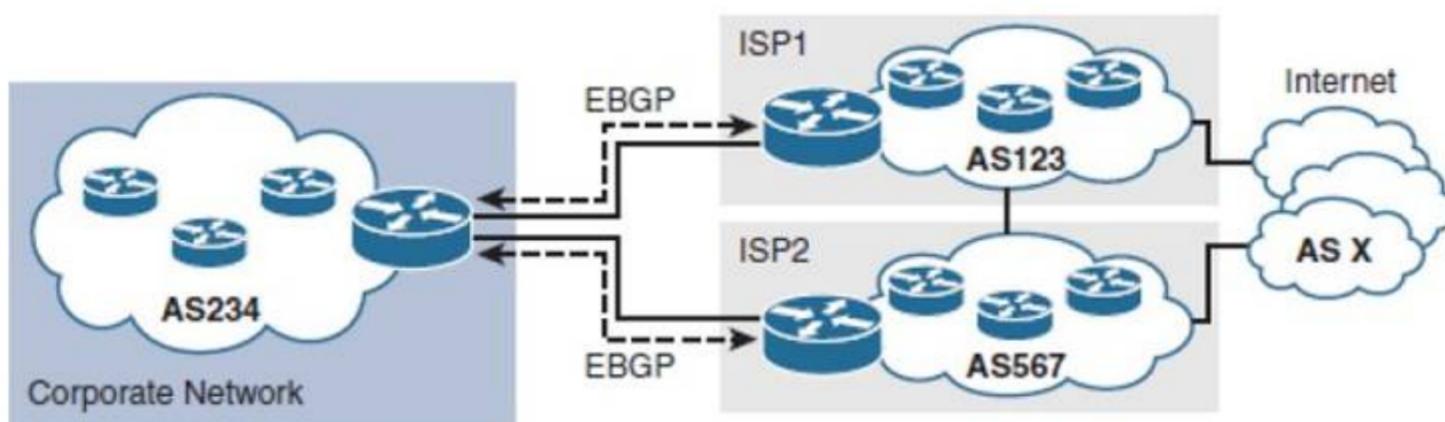


Figure 5-23 *Multihoming: Two ISPs and a Single Local Edge Router*

To prevent your network from becoming a transit AS, make sure that you advertise only your own PI address space to both ISPs by using outbound route filtering, BGP AS-PATH filtering, or a combination of both.

NEW QUESTION 215

What are the True regarding 802.1X. (Choose three)

- A. Authenticates the user itself
- B. Authenticates the device itself

- C. If the device does not support, allow the access automatically
- D. Cisco proprietary
- E. Industry standard

Answer: ABE

NEW QUESTION 219

What need to be added to the R1 configuration to allow R2 be the active in case of R1 failure? (Choose two)
(There is a diagram showing one switch connected with 2x links to 2x HSRP routers (R1 and R2). They are connected to two user computers. The HSRP configuration for R1 and R2 is the same.

- A. ip track 50 ip route 10.1.1.0 ...
- B. ip track 50 interface f0\1 line-protocol (or ip routing)
- C. track 50 decrement 20
- D. track 50 shutdown

Answer: BC

NEW QUESTION 220

Click and drag the command on the left to the associated task on the right.	
10.3.3.0/26	5 hosts required
10.3.3.64/26	12 hosts required
10.3.3.16/27	32 hosts required
10.3.3.64/27	18 hosts required
10.3.3.8/28	
10.3.3.96/28	
10.3.3.112/29	

Answer:

Explanation:

Click and drag the command on the left to the associated task on the right.	
10.3.3.0/26	10.3.3.112/29
10.3.3.64/26	10.3.3.96/28
10.3.3.16/27	10.3.3.0/26
10.3.3.64/27	10.3.3.64/27
10.3.3.8/28	
10.3.3.96/28	
10.3.3.112/29	

NEW QUESTION 221

What is the preferred protocol for a router that is running an IPv4 and IPv6 dual stack configuration?

- A. IPX
- B. Microsoft NetBIOS
- C. IPv6
- D. IPv4

Answer: C

NEW QUESTION 223

Which two options describe how Taboo contracts differ from regular contracts in Cisco ACI? (Choose two) (E)

- A. Taboo contract entries are looked up with higher priority than entries in regular contracts
- B. Taboo contract entries are looked up with lower priority than entries in regular contracts.

- C. They are not associated with one EPG
- D. They are not associated with EPGs
- E. Taboo contract entries are looked up based on administrator configured priority
- F. They are associated with pair of EPGs

Answer: AF

Explanation: There may be times when the ACI administrator might need to deny traffic that is allowed by another contract. Taboos are a special type of contract that an ACI administrator can use to deny specific traffic that would otherwise be allowed by another contract. Taboos can be used to drop traffic matching a pattern (any EPG, a specific EPG, matching a filter, and so forth). Taboo rules are applied in the hardware before the rules of regular contracts are applied. Taboo contracts are not recommended as part of the ACI best practices but they can be used to transition from traditional networking to ACI. To imitate the traditional networking concepts, an "allow-all-traffic" contract can be applied, with taboo contracts configured to restrict certain types of traffic."

NEW QUESTION 228

When designing a layer 2 STP-based LAN with Layer 3 FHRP, which design recommendation should be followed?

- A. Avoid modifying default STP and FHRP timers.
- B. Assign the native VLAN to the lowest number in use.
- C. Avoid configuring router preemption.
- D. Align the STP root with the active FHRP device.

Answer: D

NEW QUESTION 232

A network manager wants all remote sites to be designed to communicate dynamically with each other using DMVPN technology without requiring much configuration on the spoke routers. DMVPN uses which protocol to achieve this goal?

- A. GRE
- B. NHRP
- C. SSH
- D. ARP

Answer: B

NEW QUESTION 236

What to configure in BGP so that other BGP neighbours cannot influence the path of a route.

- A. Lower MED
- B. Higher Local pref
- C. Higher weight
- D. Lower router ID

Answer: C

Explanation: The list of the selection criteria is presented below in the same order in which BGP uses them to select the optimal routes to be injected into the IP Routing table:

https://www.noction.com/blog/bgp_bestpath_selection_algorithm

- 1) Weight — weight is the first criterion used by the router and it is set locally on the user's router. The Weight is not passed to the following router updates. In case there are multiple paths to a certain IP address, BGP always selects the path with the highest weight. The weight parameter can be set either through neighbour command, route maps or via the AS-path access list.
- 2) Local Preference — this criterion indicates which route has local preference and BGP selects the one with the highest preference. Local Preference default is 100.
- 3) Network or Aggregate — this criterion chooses the path that was originated locally via an aggregate or a network, as the aggregation of certain routes in one is quite effective and helps to save a lot of space on the network.
- 4) Shortest AS_PATH — this criterion is used by BGP only in case it detects two similar paths with nearly the same local preference, weight and locally originated or aggregate addresses.
- 5) Lowest origin type — this criterion assigns higher preference to Exterior Gateway Protocol (EGP) and lower preference to Interior Gateway Protocol (IGP).
- 6) Lowest multi-exit discriminator (MED) — this criterion, representing the external metric of a route, gives preference to the lower MED value.
- 7) eBGP over iBGP — just like the "Lowest origin type" criterion, this criterion prefers eBGP rather than iBGP.
- 8) Lowest IGP metric — this criterion selects the path with the lowest IGP metric to the BGP next hop.
- 9) Multiple paths — this criterion serves as indication whether multiple routes need to be installed in the routing table.
- 10) External paths — out of several external paths, this criterion selects the first received path.
- 11) Lowest router ID — this criterion selects the path which connects to the BGP router that has the lowest router ID.
- 12) Minimum cluster list — in case multiple paths have the same router ID or originator, this criterion selects the path with the minimum length of the cluster list.
- 13) Lowest neighbour address — this criterion selects the path, which originates from the lowest neighbour address.

On eBGP router with single-homed (connected to single ISP with single router and multiple links) or dual-homed (connected to single ISP with dual router) topology, the route could be influenced by ISP by tuning the MED attribute (as we know MED is the attribute which is exchanged between eBGP peers), also we could influence the route advertised to our ISP by tuning the same metric - MED.

On eBGP router with multi-homed (connected to multiple ISPs) topology the MED attribute won't work anymore.

On iBGP router with single-homed, dual-homed or multi-homed (doesn't really matter as we are talking about iBGP peer) the route can be influenced by tuning the Local Preference attribute (as we know Local Preference is the attribute which is exchanged between iBGP peers).

Now, no matter what router we are on (eBGP or iBGP) and no matter what topology we are using (single-homed, dual-homed, multi-homed) if we don't want to our BGP neighbors to influence the route choice, we can configure higher Weight attribute (for that route) locally on the router and no matter what the other routers do, they can not change it.

NEW QUESTION 237

Which of this is true of IP addressing with regard to VPN termination?

- A. IGP routing protocols will update their routing tables over an IPsec VPN
- B. Termination devices need routable addresses inside the VPN
- C. Addressing design need to allow for summarization
- D. Designs should not include overlapping address spaces between sites, since NAT is not supported

Answer: C

Explanation: Best design practices say the VPN design should allow for summarization. With regards to D - sometimes you cannot avoid overlapping addresses as this is what is configured at client's end, and the only option is to hide the overlapping subnet behind NAT - based on experience (The author of this remark has 50x VPN tunnels and majority of them is using NAT, even if the subnet doesn't overlap, we want to hide our real IPs behind something else - extra security)

NEW QUESTION 241

An engineer is configuring QoS to meet the following requirement. All traffic that exceeds the allocated bandwidth will still traverse the infrastructure, but will be buffered and queued for later transmission. Which QoS tool meets these requirements?

- A. Per-Hop behaviours
- B. Weighted Fair Queuing
- C. IP Precedence
- D. Shaping

Answer: D

NEW QUESTION 242

Drag the IS-IS fast convergence components on the left to the order in which they occur on the right.

SPF run time	occurs first
failure detection time	occurs second
RIB FIB update time	occurs third
event propagation time	occurs fourth

Answer:

Explanation: First – Failure detection time

Second – Event propagation time

Third – SPF run time

Fourth – RIB FIB update time

NEW QUESTION 246

What results to connect 2 VSS routers on 10G card over Supervisor engine ports?

- A. It will cause loop
- B. Design lacks of hardware diversity

Answer: B

NEW QUESTION 250

An engineer is designing a network using RSTP. Several devices on the network support only legacy STP. Which outcome occurs?

- A. RSTP and STP choose the protocol with the best performance.
- B. RSTP and STP interoperate and fast convergence is achieved.
- C. RSTP and STP are not compatible and legacy ports error disable.
- D. RSTP and STP interoperate, but the fast convergence is not used.

Answer: D

NEW QUESTION 251

How does stub routing affect transit routes in EIGRP?

- A. Transit routes are passed from a stub network to a hub network.
- B. It is designed to prevent the distribution of external routes.
- C. It prevents the hub router from advertising networks learned from the spokes.
- D. Transit routes are filtered from stub networks to the network hub.

Answer: B

NEW QUESTION 255

A network engineer must use an Internet connection to provide backup connectivity between two sites. The backup must be encrypted and support multicast. Which technology must be used?

- A. DMVPN
- B. GRE over IPSec
- C. IPSec direct encapsulation
- D. GETVPN

Answer: B

NEW QUESTION 257

Which ASA to action with Web traffic to treat both HTTP and HTTPS for local internet proxy?

- A. Redirect traffic HTTP & HTTPS to WSA using wccp
- B. Send traffic for inspection to CWS
- C. Send traffic to a different port for http & https monitoring to WSA using L2TP.
- D. Use IPS module in ASA for inspection

Answer: A

NEW QUESTION 260

Which VPN connectivity representing both Hub-and-Spokes and Spokes-to-Spokes?

- A. DMVPN
- B. IPSec VPN
- C. VPN Router
- D. VPN hub

Answer: A

NEW QUESTION 265

What security feature would require a packet to be received on the interface that the interface would use to forward the return packet?

- A. urpf
- B. arp inspection
- C. vlan acl
- D. ...

Answer: A

NEW QUESTION 266

What location are security policies enforced in ACI?

- A. leaf
- B. spine
- C. core
- D. distribution

Answer: A

NEW QUESTION 267

Click and drag the command on the left to the associated task on the right.

VRF-Lite	Network Separation
LUN masking	Compute Separation 1
FC Zoning	Compute Separation 2
vPath	SAN Separation 1
vNIC	SAN Separation 2
Port Policies	

Answer:

Explanation:

Click and drag the command on the left to the associated task on the right.

VRF-Lite	VRF-Lite
LUN masking	vPath
FC Zoning	vNIC
vPath	LUN masking
vNIC	FC Zoning
Port Policies	

NEW QUESTION 272

An engineer is designing a multicluster bgp network, each cluster has 2 RRs and 4 RR clients which 2 options must be considered?

- A. Clients from all clusters should peer with all RRs
- B. All route reflectors should be non client peers & topology partially meshed
- C. All RRs must be non client peers in a fully meshed topology
- D. Clients must not peer with IBGP speakers outside the client router
- E. Clients should peer with at least one other client outside it's cluster

Answer: DE

NEW QUESTION 276

What protocol is used for connectivity between VSS layers?

- A. PAgP
- B. IVR
- C. ISL
- D. VSL

Answer: D

NEW QUESTION 280

A network engineer wants to segregate three interconnected campus network via IS-IS routing. A two-layer hierarchy must be used to support large routing domains to avoid more specific routes from each campus network being advertised to other campus network routers automatically. What two actions should be taken to accomplish this segregation? (Choose two).

- A. Assign a unique IS-IS NET value for each campus and configure internal campus routers with level 1 routing.
- B. Designate two IS-IS routers from each campus to act as a Layer 1/Layer 2 backbone routers at the edge of each campus network.
- C. Designate two IS-IS routers as BDR routers at the edge of each campus.
- D. Assign similar router IDs to all routers within each campus.
- E. Change the MTU sizes of the interface of each campus network router with a different value

Answer: AB

NEW QUESTION 284

```

interface f0/0
ip address 10.10.10.2 255.255.255.0
standby version 2
standby 10 ip 10.10.10.1
standby 10 timers 5 15
standby 10 preempt

R2
interface f0/0
ip address 10.10.10.3 255.255.255.0
standby version 2
standby 10 ip 10.10.10.1
standby 10 timers 5 15
standby 10 preempt
    
```

Refer to the exhibit. A customer wants to use HSRP as a First Hop Redundancy Protocol. Both routers are currently running and all interfaces are active. Which factor determines which router becomes the active HSRP device?

- A. the router with the highest MAC address for the respective group
- B. the router with the highest IP address for the respective group
- C. the router that boots up last
- D. the router with the highest interface bandwidth for the respective group

Answer: B

NEW QUESTION 287

Which two options regarding the Cisco TrustSec Security Group Tag are true? (Choose Two.)

- A. It is assigned by the Cisco ISE to the user or endpoint session upon login
- B. Best practice dictates it should be statically created on the switch
- C. It is removed by the Cisco ISE before reaching the endpoint.
- D. Best Practice dictates that deployments should include a guest group allowing access to minimal services
- E. Best Practice dictates that deployments should include a security group for common services such as DNS and DHCP

Answer: AE

NEW QUESTION 291

What is the most important consideration when selecting a VPN termination device?

- A. CPU cycles per second
- B. VPN sessions per interface
- C. Packets per second
- D. Bits per second

Answer: C

NEW QUESTION 295

Which of the following facts must be considered when designing for IP telephony within an Enterprise Campus network?

- A. Because the IP phone is a three-port switch, IP telephony extends the network edge, impacting the Distribution layer.
- B. Video and voice are alike in being bursty and bandwidth intensive, and thus impose requirements to be lossless, and have minimized delay and jitter.
- C. IP phones have no voice and data VLAN separation, so security policies must be based on upper layer traffic characteristics.
- D. Though multi-VLAN access ports are set to Dot1Q and carry more than two VLANs they are not trunk ports.

Answer: D

Explanation: <https://www.cisco.com/c/en/us/support/docs/switches/catalyst-4500-series-switches/69632-configuring-cat-ipp.html#topic1>

When you connect an IP phone to a switch using a trunk link, it can cause high CPU utilization in the switches.

As all the VLANs for a particular interface are trunked to the phone, it increases the number of STP instances the switch has to manage. This increases the CPU utilization. Trunking also causes unnecessary broadcast / multicast / unknown unicast traffic to hit the phone link. In order to avoid this, remove the trunk configuration and keep the voice and access VLAN configured along with Quality of Service (QoS). Technically, it is still a trunk, but it is called a Multi-VLAN Access Port (MVAP). Because voice and data traffic can travel through the same port, you should specify a different VLAN for each type of traffic. You can configure a switch port to forward voice and data traffic on different VLANs. Configure IP phone ports with a voice VLAN configuration.

This configuration creates a pseudo trunk, but does not require you to manually prune the unnecessary VLANs.

NEW QUESTION 296

Which Dual stack preferred protocol when configured?

- A. IPV6
- B. IPV4
- C. IPX

Answer: A

NEW QUESTION 301

Which protocols support 10 and 40 Gb interfaces? (Choose two)

- A. RIP
- B. OSPF
- C. EIGRP
- D. BGP

Answer: BC

NEW QUESTION 304

Click and drag the command on the left to the associated task on the right.

VSS	Virtual interface
VPLS	xconnect
A-VPLS	Virtual-ethernet interface
FoMPLS	pseudowire

Answer:

Explanation: Click and drag the command on the left to the associated task on the right.

VSS	VSS
VPLS	VPLS
A-VPLS	A-VPLS
FoMPLS	FoMPLS

NEW QUESTION 306

How to choose the root bridge in the spanning-tree?

- A. Highest MAC address
- B. Lowest Mac address

Answer: B

Explanation: Lower priority means it is preferred compared to a higher. The priority is set in multiples of 4096. If there is a tie in priority then the lowest MAC address will determine which bridge becomes the root. To select the path to the root, the cost to the root is calculated.

NEW QUESTION 309

A client request includes a network design that ensures all connections between the access layer and distribution layer are active and forwarding traffic at all times. Which design approach achieves this request?

- A. Enable backbone fast on the two distribution switches and create a port channel between each access layer switch and both distribution switches
- B. Configure HSRP for all VLANs and adjust the hello timer for faster convergence
- C. Configure Rapid PVST+ and adjust the timers for fast convergence
- D. Create a VSS between the two distribution switches and also create a MEC between the VSS and each access layer switch.

Answer: D

NEW QUESTION 314

Which two technologies can be used to interconnect data centers over an IP network and provide Layer 2 LAN extension? (Choose two.)

- A. IS-IS
- B. VXLAN
- C. TRILL
- D. Fabric Path
- E. OTV

Answer: BE

NEW QUESTION 315

A network design team tasked to address congestion, QoS has been implemented but no longer effective?

- A. Bundle additional uplinks into logical etherchannels
- B. Configure selective packet discard to drop non-critical network traffic
- C. Implement highspeed uplink interfaces
- D. Reconfigure QoS based on intserv
- E. Utilize random early detection

Answer: AC

NEW QUESTION 317

Drag the OSPF technology on the left to the appropriate network convergence step on the right that this technology helps to mitigate.

CEF	Detect the event
SPF throttling or pacing Timers	Propagate the event
Bidirectional Forwarding Detection	Process the event
LSA Propagation/throttling/pacing Timers	Update forwarding data structures

Answer:

Explanation:

Drag the OSPF technology on the left to the appropriate network convergence step on the right that this technology helps to mitigate.

CEF	Bidirectional Forwarding Detection
SPF throttling or pacing Timers	LSA Propagation/throttling/pacing Timers
Bidirectional Forwarding Detection	SPF throttling or pacing Timers
LSA Propagation/throttling/pacing Timers	CEF

NEW QUESTION 319

A large-scale IP SLA deployment is causing memory and CPU shortages on the routers in an enterprise network. Which solution can be implemented to mitigate these issues? (E)

- A. An offline router for disaster recovery
- B. a CPE device that is managed by the network provider
- C. A shadow router
- D. A standby router for failover operation

Answer: C

NEW QUESTION 322

A network engineer is designing a network that must incorporate active-active redundancy to eliminate disruption when a link failure occurs between the core and distribution layer.

What two technologies will allow this? (Choose two.)

- A. Equal Cost Multi-Path (ECMP)
- B. Rapid Spanning Tree Protocol Plus (RSTP+)
- C. Hot Standby Routing Protocol (HSRP)
- D. Rapid Spanning Tree Protocol (RSTP)
- E. EtherChannel (MEC)

Answer: CE

NEW QUESTION 325

What are the most important scaling factors that need to be considered while selecting VPN head end device? (Choose two) (E)

- A. Memory
- B. Packets per seconds
- C. Connection speed
- D. CPU Limit
- E. No of Tunnels

Answer: BD

NEW QUESTION 326

Web server placed in front of the firewall in ACI?

- A. Application profile
- B. L4-L7 services

Answer: B

NEW QUESTION 327

Company has asked for an OOB management network design. Which option is one Cisco best practice parameter that must be followed?

- A. Data networks must be limited to SSH, NTP, FTP, SNMP and TaCACS+ protocols
- B. Data networks must never traverse the management network
- C. Data networks and management networks must be in the routing table
- D. Data networks must traverse the management network as a backup path

Answer: B

NEW QUESTION 328

Multicast PIM-Sparse mode sends traffic overload. Which feature can reduce the multicast traffic in the access layer? (E)

- A. IGMP snooping
- B. Filter at Boundaries
- C. PIM Dense-Mode
- D. MSDP

Answer: A

NEW QUESTION 329

A customer is discussing QoS requirements with a network consultant. The customer has specified that end-to-end path verification is a requirement. Which QoS architecture is most appropriate for the requested design?

- A. marking traffic at the access layer with DSCP to support the traffic flow
- B. marking traffic at the access layer with CoS to support the traffic flow
- C. RSTP model with PHB to support the traffic flows
- D. IntServ model with RSVP to support the traffic flows

Answer: D

NEW QUESTION 331

Which technology should a network designer combine with VSS to ensure a loop free topology with optimal convergence time?

- A. Portfast
- B. UplinkFast
- C. RPVST +
- D. Multichassis EtherChannel

Answer: D

NEW QUESTION 334

A network consultant is designing an Internet Edge solution and is providing the details around the flows supporting a local Internet Proxy. How is on-premises web filtering supported?

- A. A Cisco ASA uses an IPS module to inspect HTTP and HTTPS traffic.
- B. A Cisco ASA redirects HTTP and HTTPS traffic to the WSA using WCCP.
- C. A Cisco ASA connects to the web security appliance via TLS to monitor HTTP and HTTPS traffic.
- D. A Cisco ASA redirects HTTP and HTTPS traffic to CWS with a Web Security Connector.

Answer: B

NEW QUESTION 338

An engineer must add a new firewall in front of the public web server infrastructure in an ACI network. Which ACI function is used to accomplish this requirement?

- A. Application Network Profile
- B. Service chaining
- C. Static binding
- D. Layer 4-7 services

Answer: D

NEW QUESTION 342

An engineer is designing an infrastructure to use a 40 Gigabit link as the primary uplink and a 10 Gigabit uplink as the alternate path. Which Routing protocol allows for unequal cost load balancing?

- A. Ospf
- B. Eigrp
- C. ISIS
- D. BGP
- E. RIP

Answer: B

Explanation: Traffic Sharing

EIGRP not only provides unequal cost path load balancing, but also intelligent load balancing, such as traffic sharing. In order to control how traffic is distributed among routes when there are multiple routes for the same

destination network that have different costs, use the traffic-share balanced command. With the keyword balanced, the router distributes traffic proportionately to the ratios of the metrics that are associated with different routes.

NEW QUESTION 344

What is the built in native security to ACI?

- A. IPS
- B. Native Deny
- C. EPG to EPG ...
- D. ACL

Answer: B

NEW QUESTION 346

An OSPF router should have a maximum of how many adjacent neighbors?

- A. 100
- B. 80
- C. 60
- D. 50

Answer: C

NEW QUESTION 348

An engineer is designing a Layer 3-enabled access layer. Which design recommendation must the engineer consider when deploying EIGRP routing within the access layer?

- A. Use the First Hop Redundancy Protocol on access layer switches.
- B. Implement floating static routes on access switches for redundant links.
- C. Enable multiple uplinks from each access switch stack to the distribution switches.
- D. Configure all edge access layer switches to use a stub routing feature.

Answer: D

NEW QUESTION 351

Which two protocols support simple plaintext and MD5 authentication? (Choose two)

- A. RIP
- B. IPv6
- C. EIGRP
- D. BGP
- E. OSPF

Answer: CE

Explanation: Simple password authentication (also called plain text authentication) - supported by Integrated-System to Integrated-System (IS-IS), Open Shortest Path First (OSPF) and Routing Information Protocol Version 2 (RIPv2)
MD5 authentication - supported by OSPF, RIPv2, BGP, and EIGRP

NEW QUESTION 355

What is one function of key server in Cisco GETVPN deployment?

- A. sending the RSA certificate
- B. providing preshared keys
- C. maintaining security policies
- D. providing the group ID

Answer: C

Explanation: Key server is responsible for maintaining security policies, authenticating the GMs and providing the session key for encrypting traffic. KS authenticates the individual GMs at the time of registration. Only after successful registration the GMs can participate in group SA.
https://www.cisco.com/c/en/us/products/collateral/security/group-encrypted-transportvpn/deployment_guide_c0

NEW QUESTION 359

Which VPN connectivity representing both Hub-and-Spokes and Spokes-to- Spokes?

- A. DMVPN
- B. IPSec VPN
- C. VPN Router
- D. VPN Hub

Answer: A

NEW QUESTION 363

A company is Multi-Homed to different service providers running BGP. Which action ensures that the company AS does not become a transit AS?

- A. Create a distribute list that filters all routes except the default route and applies to both BGP neighbour interfaces in the inbound direction
- B. Create a distribute list that filters all routes except the default route and applies to a single BGP neighbour in the outbound direction
- C. Create prefix list that matches the company prefixes and applies to both BGP neighbour definitions in the outbound direction.
- D. Create a route map that matches the provider BGP communities and networks and applies to both BGP neighbour interfaces in the outbound direction.

Answer: C

NEW QUESTION 364

Which OSPF option can you configure to connect two parts of a partitioned backbone through a nonbackbone area?

- A. route summarization
- B. a virtual link
- C. an NSSA
- D. a static OSPF neighbor

Answer: B

NEW QUESTION 367

A customer with 30 branch offices requires dynamic IGP routing protocol, IP multicast, and non-IP protocol support. Which solution satisfies these requirements?

- A. dmvpn spoke-to-spoke
- B. dmvpn hub-and-spoke
- C. vti
- D. p2p gre
- E. IPsec direct encapsulation

Answer: C

NEW QUESTION 368

When 2 distribution switches are configured for VSS, what needs to be done to extend back plane connectivity? (E)

- A. ISL
- B. VSL
- C. VSS

Answer: B

NEW QUESTION 372

A network engineer must create a backup network connection between two corporate sites over the Internet using the existing ASA firewalls. Which VPN technology best satisfies this corporate need?

- A. VPLS
- B. DMVPN
- C. GETVPN
- D. IPSec
- E. MPLS
- F. OTV

Answer: D

NEW QUESTION 374

```
<b>GigabitEthernet0/0 is up, line protocol is up Hardware is CN
Gigabit Ethernet, address is 4c00.8200.0000 (bia 4c00.
8200.0000)
...
Internet address is 10.3.3.3/24
MTU 1500 bytes, BW 50000 Kbit/sec, DLY 10 usec,
reliability 255/255, txload 5/255, rxload 9/255
...
Full Duplex, 1Gbps, media type is RJ45</b>
```

What should be implemented to prevent exceeding the 50mb allowable bandwidth of internet circuit?

- A. policing
- B. shaping
- C. CIR
- D. rate-limit

Answer: B

NEW QUESTION 379

A network designer needs to explain the advantages of route summarization to a client. Which two options are advantages that should be included in the? (Choose two)

- A. Increases security by advertising fake networks
- B. Reduces routing table size
- C. Advertises detailed routing tables
- D. Utilizes the routers full CPU capacity
- E. Reduces the upstream impact of a flapping interface

Answer: BE

NEW QUESTION 382

While designing a wide area network, the network team wants to avoid undesired transit traffic through remote branch sites with multiple WAN connections. Which option can be used to manage traffic flows in the remote network?

- A. route weighting
- B. route tagging
- C. route filtering
- D. route leaking

Answer: C

NEW QUESTION 386

What is the correct oversubscription ratio between aggregation and core layer? (E)

- A. 1 to 2
- B. 1 to 4
- C. 1 to 8
- D. 1 to 10

Answer: B

Explanation: Network oversubscription refers to a point of bandwidth consolidation where the ingress bandwidth is greater than the egress bandwidth. For example, at an ISL uplink from an edge layer switch to a core, the oversubscription of the ISL is typically on the order of 7:1 or greater. In a single director fabric, the fan-out ratio of server to storage subsystem ports is directly related to the network oversubscription and is typically on the order of 10:1 or higher. Network oversubscription is normal and unavoidable-it is a direct by product of the primary purpose for deploying a SAN. An important characteristic of the network related to oversubscription is its ability to fairly allocate its bandwidth resources among all clients of the SAN.

NEW QUESTION 391

A network team must provide a redundant secure connection between two entities using OSPF. The primary connection will be an Ethernet Private Line and the secondary connection will be a site-to-site VPN. What needs to be configured in order to support routing requirements for over the VPN connection?

- A. GRE Tunnel
- B. HTTPS
- C. Root Certificate
- D. AAA Server

Answer: A

NEW QUESTION 392

A Network administrator want to increase the security level in the core layer and want to confirm that the users that have their default GW on an interface in the core switch can access specific networks and can't access the remaining networks. Which feature can help him to achieve this?

- A. vlan access control list
- B. ...
- C. ...
- D. ...

Answer: A

NEW QUESTION 397

A data center has several business partners who want to have their compute resources installed. The data center uses one VLAN to support vendor equipment and requires limited visibility and connectivity between vendor servers. Which segmentation concept satisfies theses requirements?

- A. Ip NAT
- B. Private vlans
- C. LAN-to-LAN VPN
- D. Protected VLANs

Answer: B

NEW QUESTION 399

What multicast design would you use that cannot use rendezvous points....don't remember the complete

- A. Pim bidirectional
- B. Pim Sparse

- C. Pim Dense
- D. Pim-SSM

Answer: D

NEW QUESTION 404

What needs to be configured to control unwanted transit traffic to not be routed to remote branches that have multiple WAN connections?

- A. route weighting
- B. route tagging
- C. route filtering
- D. route prioritising

Answer: C

NEW QUESTION 405

A network engineer wants to limit the EIGRP query scope to avoid high CPU and memory utilization on low-end routers as well as limiting the possibility of a stuck-in-active routing event between HQ and branch offices. Which way to achieve these goals?

- A. Configure different Autonomous System number per each branch office and HQ and redistribute routes between autonomous systems.
- B. Configure all routers at branch offices as EIGRP stub and allow only directly connected networks at Branch offices to be advertised to HQ
- C. Configure all routers at branch offices as EIGRP stub
- D. Configure all routers at HQ and branch offices as EIGRP stub

Answer: C

NEW QUESTION 409

Which technology simplifies encryption management?

- A. GETVPN
- B. DMVPN
- C. IPsec
- D. EasyVPN
- E. GRE

Answer: A

NEW QUESTION 413

A customer has an existing Wan circuit with a capacity 10 mbps. The circuit has 6 Mbps of various user traffic and 5 mbps of real-time audio traffic on average. Which two measures could be taken to avoid loss of real time Traffic? (Choose Two)

- A. Police the traffic to 5 mbps and allow excess traffic to be remarked to the default queue
- B. Configure congestion avoidance mechanism WRED within the priority queue
- C. Policy the traffic to 3.3 mbps and allow excess traffic to be remarked to the default queue
- D. Increase the wan circuit bandwidth
- E. Ensure that real time traffic is prioritized over other traffic

Answer: AE

NEW QUESTION 418

About how to avoid overrunning the 50 Mbps on company bandwidth

- A. CIR
- B. police
- C. shaping
- D. ACL
- E. rate-limit

Answer: C

Explanation: Because it is company they shape the SP police – may be there is more info in the QUESTION NO:

NEW QUESTION 419

Which option is the Cisco recommendation for data oversubscription for access ports on the access-to distribution uplink?

- A. 4 to 1
- B. 20 to 1
- C. 16 to 1
- D. 10 to 1

Answer: B

NEW QUESTION 424

Which technology will you use to connect 2x Data Centres and extend Layer 2 VLANs? (Choose two)

- A. OTV
- B. VXLAN
- C. Fabric Path
- D. IS-IS
- E. EIGRP

Answer: AB

NEW QUESTION 425

What security feature would require a packet to be received on the interface that the interface would use to forward the return packet?

- A. urpf
- B. arp inspection
- C. vlan acl
- D. ...

Answer: A

NEW QUESTION 430

A network engineer is designing a dual router, dual ISP solution and must prefer one ISP for inbound traffic over the other. Which two BGP attributes can be manipulated to accomplish this goal? (Choose two)

- A. AS path
- B. MED
- C. local preference
- D. weight
- E. origin code

Answer: AB

Explanation: Note : local pref and weight are for the other direction .

NEW QUESTION 434

A company is Multi-Homed to different service providers running BGP. Which action ensures that the company AS does not become a transit AS?

- A. Create a distribute list that filters all routes except the default route and applies to both BGP neighbour interfaces in the inbound direction
- B. Create a distribute list that filters all routes except the default route and applies to a single BGP neighbour in the outbound direction
- C. Create prefix list that matches the company prefixes and applies to both BGP neighbour definitions in the outbound direction.
- D. Create a route map that matches the provider BGP communities and networks and applies to both transit neighbour interfaces in the outbound direction.

Answer: C

NEW QUESTION 437

An engineer is designing a multi cluster BGP network, each cluster has two Route Reflectors and four Route Reflector clients. Which 2 options must be considered? (Choose two)

- A. Clients from all clusters should peer with all Route Reflectors
- B. All Route Reflectors should be non-client peers in a partially meshed topology
- C. All Route Reflectors must be non-client peers in a fully meshed topology
- D. Clients must not peer with iBGP speakers outside the client router
- E. Clients should peer with at least one other client outside its cluster

Answer: CD

NEW QUESTION 439

What is the built in native security to ACI?

- A. IPS
- B. Native Deny
- C. EPG to EPG ...
- D. ACL

Answer: B

Explanation: All the traffic between servers is denied (micro segmentation), to allow the traffic between EPGs we need to configure contracts.

NEW QUESTION 443

What 2 statements are correct when it comes to PIM-BIDIR.

- A. Used in many-to-many multicast implementations
- B. The IP-address from any interface in a router can be used as RP-address
- C. The RP address dont have to be an IP in the router
- D. Explicit join-messages are used to signal grp membership in PIM-BIDIR

Answer: AB

NEW QUESTION 444

Which two BGP attributes can be set with outbound policy to manipulate inbound traffic, if honoured by the remote Autonomous system? (Choose two)

- A. Multi-exit discriminator
- B. AS path
- C. Local Preference
- D. Weight

Answer: AB

NEW QUESTION 449

All links between distribution and core layer must be active, how can we archive this goal? Choose two

- A. Equal-cost links
- B. Unequal-cost links
- C. HSRP
- D. IGP
- E. PVRSTP+

Answer: AD

NEW QUESTION 454

the states that the designer want to use the three PIM-SM kinds and which one is true about bidirectional pim

- A. three of them cannot be used at the same time
- B. source has to be expelicitly mentioned
- C. The RP donot need IP address
- D. the RP ip address can be shared by other interface

Answer: D

NEW QUESTION 455

When a site has Internet connectivity with two different ISP's, which two strategies are recommended to avoid becoming a BGP transit site? (Choose two)

- A. Use a single service provider
- B. Filter routes outbound to the ISPs
- C. Accept all inbound routes from the ISPs
- D. Filter routes inbound from the ISPs
- E. Advertise all routes to both ISPs

Answer: BC

Explanation: When connecting to multiple exit points from your AS and peering with multiple ISPs, there is a danger that by misconfiguration, you advertise routes that are received from one ISP to the other ISP. Your AS can become a transit area for Internet traffic of other networks, which can cost you money and resources. You can easily avoid this situation by advertising only your assigned address space to all adjacent ISPs (also, you can advertise only your local AS and filter out the other ASs using BGP AS-path filter).

From a design point of view, this model (Multi-homing with Two ISPs) requires careful design consideration.

For example, to avoid making the enterprise network as a transit AS/path for the two external ISPs (for example, ISP1 and ISP2), it is recommended that you always announce only your PI address space to the ISPs you are directly connected to. If, by mistake, you advertise routes that are received from ISP1 to ISP2, and ISP2's policy is not restrictive enough, your AS will start to participate in the Internet traffic exchange (become a transit AS).

In addition, if AS X, as shown in Figure 5-23, decided that the path to ISP1 from AS X is shorter through your network (via ISP2), it will start sending traffic that is destined for ISP1 to your router. Your router will happily route the traffic to ISP1, but the problem is that this extra traffic might leave your users with no bandwidth for themselves and, as a result, it will impact the overall user experience. Also, this situation raises a high security concern, because external traffic from an unknown network, traffic that could be malicious, will be using your corporate network as a transit path. Therefore, you, as the network designer, need to ensure that only the enterprise-owned PI address range is announced, combined with AS PATH filtering to permit only routes originating from the enterprise local AS to be advertised.

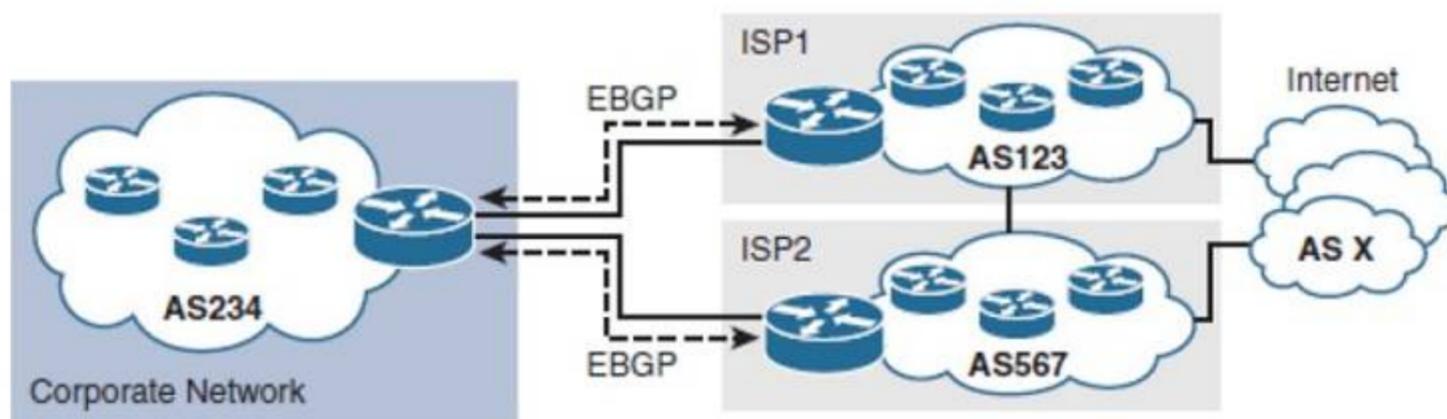


Figure 5-23 *Multiboming: Two ISPs and a Single Local Edge Router*

To prevent your network from becoming a transit AS, make sure that you advertise only your own PI address space to both ISPs by using outbound route filtering, BGP AS-PATH filtering, or a combination of both.

NEW QUESTION 459

An engineer set up a multicast network design using all three Cisco supported PIM modes. Which are two characteristics of Bidirectional PIM in this situation are true?

- A. In Bidirectional PIM, the RP IP address does not need to be a router.
- B. Bidirectional PIM is designed to be used for one-to-many applications.
- C. In Bidirectional PIM, the RP IP address can be shared with any other router interface.
- D. A Cisco router cannot support all three PIM modes simultaneously.
- E. Membership to be bidirectional group is signaled via explicit join messages.

Answer: CD

NEW QUESTION 460

An engineer is designing a QoS architecture for a small organization and must meet these requirements:

- Guarantees resources for a new traffic flow prior to sending
- Polices traffic when the flow does not conform Which QoS architecture model will accomplish this?

- A. auto quality of service
- B. modular quality of service
- C. differentiated services
- D. integrated services

Answer: D

NEW QUESTION 464

When designing data centres for multitenancy, which two benefits are provided by the implementation of VSAN and zoning? (Choose two)

- A. VSAN provides a means of restricting visibility and connectivity among devices connected to a zone
- B. VSANs have their own set of services and address space, which prevents an issue in one VSAN from affecting others
- C. Zones provide the ability to create many logical SAN fabrics on a single Cisco MDS 9100 family switch
- D. VSANs and zones use separate fabrics
- E. Zones allow an administrator to control which initiators can see which targets

Answer: BE

NEW QUESTION 466

An OSPF router should have a maximum of how many adjacent neighbours?

- A. 80
- B. 50
- C. 60
- D. 100

Answer: C

NEW QUESTION 471

What is the outcome when RPF check passes successfully?

- A. Packet is dropped because it arrived on the interface that used to forward the packet back to source.
- B. Packet is dropped because it arrived on the interface that used to forward the packet back to destination.
- C. Packet is forwarded because it arrived on the interface that used to forward the packet back to destination
- D. Packet is forwarded because it arrived on the interface that used to forward the packet back to source

Answer: D

Explanation: Routers perform a reverse path forwarding (RPF) check to ensure that arriving multicast packets were received through the interface that is on the most direct path to the source that sent the packets. An RPF check is always performed regarding the incoming interface, which is considered to be the RPF interface. The RPF check will succeed if the incoming interface is the shortest path to the source. The router determines the RPF interface by the underlying unicast routing protocol or the dedicated multicast routing protocol in cases where one exists. An example of a dedicated multicast routing protocol is MP-BGP. It is important to note that the multicast routing protocol relies on the underlying unicast routing table. Any change in the unicast routing table immediately triggers an RPF recheck on most modern routers.

NEW QUESTION 475

During the integration of a new company, a network engineering team discovers that IP address space overlaps, between the two company networks. Which two technologies can be used to allow overlapping IP addresses to coexist on shared network infrastructure? (Choose two)

- A. OTV
- B. VPN
- C. HSRP
- D. NAT
- E. VRF

Answer: DE

NEW QUESTION 480

One new regarding 802.1X. (Choose three)

- A. Authenticates the user itself
- B. Authenticates the device itself
- C. If the device does not support, allow the access automatically
- D. Cisco proprietary
- E. Industry standard

Answer: ABE

NEW QUESTION 482

Multipath to two datacenter by L2 networks overlap addresses and must be work (2 answers)

- A. vxlan
- B. OTV
- C. VRF
- D. vpn
- E. HSRP

Answer: AB

NEW QUESTION 487

A network engineer is designing a network that must incorporate active-active redundancy to eliminate disruption when a link failure occurs between the core and distribution layer. What two technologies will allow this? (Choose two)

- A. Equal Cost Multi-Path (ECMP)
- B. Rapid Spanning Tree Protocol Plus (RSTP+)
- C. Hot Standby Routing Protocol (HSRP)
- D. Rapid Spanning Tree Protocol (RSTP)
- E. EtherChannel (MEC)

Answer: AE

NEW QUESTION 492

Which protocol should be run on the LAN side of two edge routers (that are terminating primary and backup WAN circuits) to provide quick failover in case of primary WAN circuit failure?

- A. VTP
- B. STP
- C. VRRP
- D. RIP

Answer: C

NEW QUESTION 494

After an incident caused by a DDOS attack on a router, an engineer must ensure that the router is accessible and protected from future attacks without making any changes to traffic passing through the router. Which security function can be utilized to protect the router?

- A. zone-based policy firewall
- B. access control lists
- C. class maps
- D. control plane policing

Answer: D

NEW QUESTION 498

Which technology should a network designer combine with VSS to ensure a loop free topology with optimal convergence time?

- A. PortFast
- B. UplinkFast
- C. RPVST+
- D. Multichassis EtherChannel

Answer: D

Explanation: "C" definitely not as STP is disabled when VSS is configured at the distribution layer. MEC comes with Cisco Catalyst (VSS) like vPC comes with Cisco NX-OS.

NEW QUESTION 500

What network technology provides Layer 2 high availability between the access and distribution layers?

- A. HSRP
- B. MEC

- C. EIGRP
- D. GLBP

Answer: B

NEW QUESTION 501

Which desing tecnology allows two cisco catalyst chassis to use SSO and NSF to provide nonstop communication even if one of the menber chasis fails?

- A. Auto chassis detect
- B. VSS
- C. VPc
- D. Peer Gateway

Answer: A

NEW QUESTION 506

A network engineer must create a backup network connection between two corporate sites over the Internet using the existing ASA firewalls. Which VPN technology best satisfies this corporate need?

- A. VPLS
- B. DMVPN
- C. GETVPN
- D. IPSec
- E. MPLS
- F. OTV

Answer: D

NEW QUESTION 510

While configuring WOS policy, analysis of the switching infrastructure indicates that the switches support 1P3Q3T egress queuning. wich option describes the egress queueing in the infrastruture?

- A. The threshold configuration allos of inter-queq Wos by utilizing buffers
- B. The 1P3Q3T indicates one priority queue, three standard queues, and three thresholds
- C. The priority queue should use less than 20% of the total bandwidth
- D. The prority queue must contain real-time traffic and network management traffic

Answer: B

NEW QUESTION 515

What is the characteristic of 802.1x (Choose two)

- A. EAP messages in Ethernet frames and don't use PPP
- B. Works only on wired connections
- C. It's created by IETF
- D. It's created by IEEE

Answer: AD

NEW QUESTION 516

How to apply firewall mode that shares ACL NAT?

- A. Router mode
- B. Transparent

Answer: A

NEW QUESTION 519

Seven sites are connected via OTV, what is the best practice to connect more than three sites using OTV?

- A. Filter MAC address at the join interface
- B. Use multicast-enabled transport
- C. Use Unicast-only transport
- D. Configure one edge device for each data centre

Answer: B

NEW QUESTION 524

Which technology is an example of the need for a designer to clearly define features and desired performance when designing advanced WAN services with a service provider?

- A. FHRP to remote branches
- B. Layer 3 MPLS VPNs secure routing
- C. Control protocols (for example Spanning Tree Protocol) for a Layer 3 MPLS service

D. Intrusion prevention, QoS, and stateful firewall support network wide

Answer: C

Explanation: This answer is an example that show that the designer did not clearly defined his needs because the SP gave a L3 service when L2 was needed. In other dumps from Internet answer is B and I think it is right, because designer must be sure that SP provides secure routing service with needed performance, but how control protocols works inside SP net designer.

NEW QUESTION 528

A network Engineer is designing a hierarchical design and needs to optimize WAN design. On what group of devices can a network engineer summarise routes to remote WAN sites?

- A. Core
- B. Distribution
- C. Data Center Distribution WAN Edge
- D. WAN Edge
- E. Campus access distribution layer

Answer: B

Explanation: Summarize at Service Distribution. It is important to force summarization at the distribution towards WAN Edge and towards campus & data centre

NEW QUESTION 533

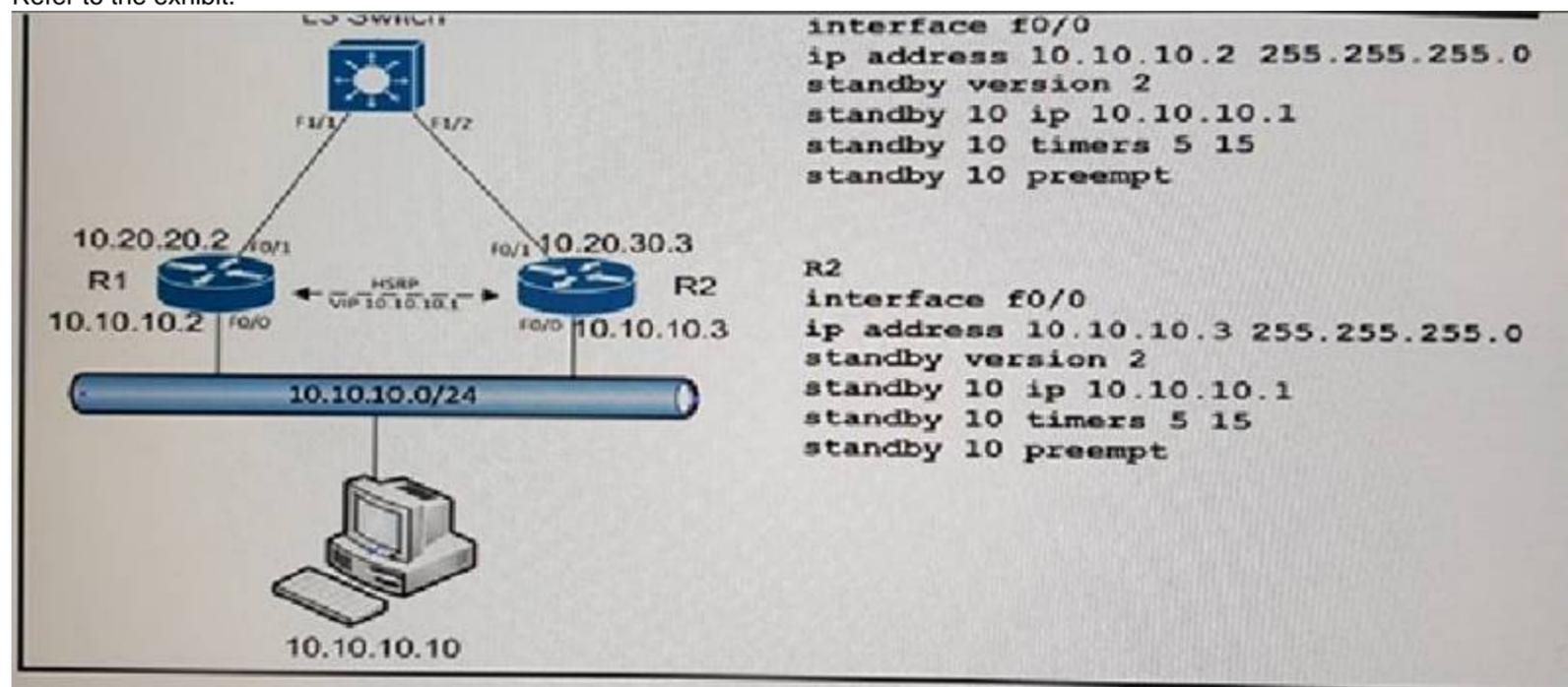
Which option is the primary reason to implement security in a multicast network?

- A. maintain network operations
- B. allow multicast to continue to function
- C. optimize multicast utilization
- D. ensure data streams are sent to the intended receivers

Answer: A

NEW QUESTION 535

Refer to the exhibit.



A customer wants to use HSRP as a First Hop Redundancy Protocol. Both routers are currently running and all interfaces are active. Which factor determines which router becomes the active HSRP device?

- A. the router with the highest MAC address for the respective group
- B. the router with the highest interface bandwidth for the respective group
- C. the router that boots up last
- D. the router with the highest IP address for the respective group

Answer: D

NEW QUESTION 540

While designing a backup BGP solution, a network engineer wants to ensure that a single router with multiplex connections prefers the routes from a specific connection over all others. Which BGP path selection attribute is considered first when selecting a route?

- A. As-Length
- B. Link Bandwidth
- C. Local preference
- D. Weight
- E. MED

Answer: D

NEW QUESTION 545

An organization is creating a detailed QoS plan that limits bandwidth to specific rates. Which three parameters can be configured when attempting to police traffic within the network? (Choose three)

- A. Conforming
- B. Violating
- C. Bursting
- D. Peak information rate
- E. Committed information rate
- F. Exceeding
- G. Shaping rate

Answer: CDE

NEW QUESTION 549

Which two hashing distribution algorithms are available for an engineer when work with multichassis etherchannel? Choose two

- A. src-dst-mac
- B. src-dst-ip
- C. round-robin
- D. fixed
- E. adaptive

Answer: DE

NEW QUESTION 550

A client requirement to separate management and control layer within an organization. Which technology can be used to achieve this requirement while minimizing physical devices?

- A. Virtual Device Context
- B. VRF
- C. Virtual Switching System
- D. Virtual Local Area Networks
- E. MEC

Answer: A

NEW QUESTION 555

What is advantage of using the vPC feature in Data Centre environment?

- A. Two switches form a single control plane
- B. Utilizes all available uplinks bandwidth
- C. FHRP is not required
- D. A single IP is used for management for both devices

Answer: B

NEW QUESTION 560

A data center is being deployed, and one design requirement is to be able to readily scale server virtualization. Which IETF standard technology can provide this requirement?

- A. Transparent interconnection of Lots of Links
- B. data center bridging
- C. cisco fabric path
- D. cisco unified fabric

Answer: A

NEW QUESTION 562

Which one is IETF standard

- A. Cisco Fabric Path
- B. Data Center Bridging
- C. CUS
- D. Transparent Interconnection of Lots of Links

Answer: D

Explanation: The Data Center Bridging (DCB) architecture is based on a collection of open standards Ethernet extensions developed through the IEEE 802.1 working group to improve and expand

Ethernet networking and management capabilities in the data center. https://www.cisco.com/c/dam/en/us/solutions/collateral/data-center-virtualization/ieee-802-1-data-centerbridging-at-a-glance_c45-460907.pdf

TRILL ("Transparent Interconnection of Lots of Links") is an IETF Standard[1] implemented by devices called RBridges (routing bridges) or TRILL Switches. [https://en.wikipedia.org/wiki/TRILL_\(computing\)](https://en.wikipedia.org/wiki/TRILL_(computing))

NEW QUESTION 564

What is one function of key server in Cisco GETVPN deployment?

- A. sending the RSA certificate
- B. providing pre-shared keys
- C. maintaining security policies
- D. providing the group ID

Answer: C

Explanation: Key server is responsible for maintaining security policies, authenticating the GMs and providing the session key for encrypting traffic. KS authenticates the individual GMs at the time of registration. Only after successful registration the GMs can participate in group SA. https://www.cisco.com/c/en/us/products/collateral/security/group-encrypted-transportvpn/deployment_guide_c07_554713.html

NEW QUESTION 567

An engineer is designing an infrastructure to use a 40 Gigabit link as the primary uplink and a 10 Gigabit uplink as the alternate path. Which routing protocol allows for unequal cost load balancing?

- A. OSPF
- B. RIP
- C. EIGRP
- D. BGP
- E. IS-IS

Answer: C

NEW QUESTION 572

An engineer is designing a network using RSTP. Several devices on the network support only legacy STP. Which outcome occurs?

- A. RSTP and STP choose the protocol with the best performance.
- B. RSTP and STP interoperate and fast convergence is achieved.
- C. RSTP and STP are not compatible and legacy ports error disable.
- D. RSTP and STP interoperate but the fast convergence is not used.

Answer: D

NEW QUESTION 575

Which two options are advantages of having a modular design instead of an EOR design in a data centre? (Choose two)

- A. cooling constraints
- B. cable bulk
- C. decreased STP processing
- D. redundancy options
- E. cost minimization
- F. low-skilled manager

Answer: AB

NEW QUESTION 578

An engineer is implementing VXLAN to extend layer 2 traffic at three geographically diverse data centers. Which feature is required at each data center to extend traffic?

- A. VTEP
- B. VRRP
- C. VLSM
- D. VPLS
- E. VRF

Answer: A

NEW QUESTION 580

A network design team is experiencing sustained congestion on access and distribution uplinks. QoS has already been implemented and optimized, and it is no longer effective in ensuring optimal network performance.

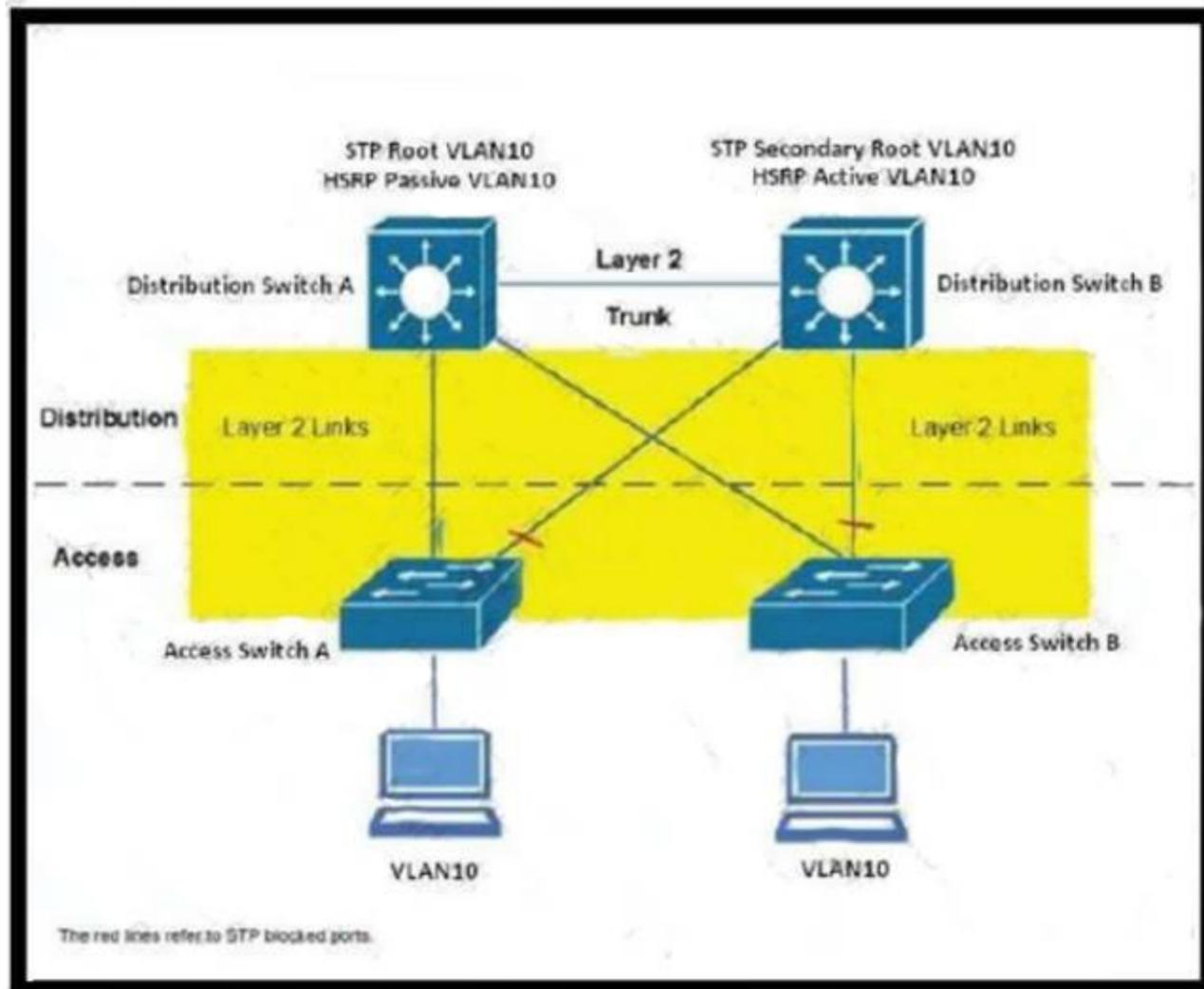
Which two actions can improve network performance? (Choose two)

- A. Reconfigure QoS based on the IntServ model
- B. Configure selective packet discard to drop noncritical network traffic
- C. Implement higher-speed uplink interfaces
- D. Bundle additional uplinks into logical Ether-Channels
- E. Utilize random early detection to manage queues

Answer: CD

NEW QUESTION 582

What changes you should make in the design to optimize traffic?



- A. Choose distribution switch A as HSRP active
- B. Add a Layer2 link between access switches
- C. Add a Layer3 point-to-point link between distribution switches
- D. Configure an EtherChannel between distribution switches

Answer: A

NEW QUESTION 586

Which option is correct when using Virtual Switching System?

- A. Both control planes forward traffic simultaneously
- B. Only the active switch forward traffic
- C. Both data planes forward traffic simultaneously
- D. Only the active switch handles the control plane

Answer: C

Explanation: Definitely C – again Chapter 1 of CiscoPress CCDP fourth edition Distribution-to Distribution Interconnect with the Virtual Switch Model
The virtual switch system operates differently at different planes. From a control plane point of view, the VSS peers (switches) operate in active standby redundancy mode. The switch in active redundancy mode will maintain the single configuration file for the VSS and sync it to the standby switch, and only the console interface on the active switch is accessible
VSS1440 (in the book) A VSS1440 refers to the VSS formed by two Cisco Catalyst 6500 Series Switches with the Virtual Switching Supervisor 720-10GE. In a VSS, the data plane and switch fabric with capacity of 720 Gbps of supervisor engine in each chassis are active at the same time on both chassis, combining for an active 1400- Gbps switching capacity per VSS. Only one of the virtual switch members has the active control plane. Both chassis are kept in sync with the inter-chassis Stateful Switchover (SSO) mechanism along with Nonstop Forwarding (NSF) to provide nonstop communication even in the event of failure of one of the member supervisor engines or chassis.
https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-6500-virtual-switchingsystem-1440/prod_gas0900aecd806ed74b.html In my opinion C & D are correct.

NEW QUESTION 588

How does stub routing affect transit route in EIGRP?

- A. Transit routes are passed from a stub network to a hub network
- B. It prevents the hub router from advertising networks learned from the spoke
- C. Transit routes are filtered from stub networks to the network hub
- D. It's designed to prevent the distribution of external routes

Answer: C

NEW QUESTION 593

about IPv4 and IPv6 on the same router (dual stack) with IS-IS

- A. ...
- B. IS-IS
- C. ...
- D. ...

Answer: B

Explanation: - Cisco added multitopology support for IS-IS to increase flexibility within dual-stack environment.

- Two TLVs added:

- IPv6 reachability TLV
- IPv6 interface address TLV

- Multi topology IS-IS:

- A separate topology is kept for both IPv4 and IPv6 (some links may not be able to carry IPv6 --> Avoid traffic black-holed)
- This mode removes the restriction that all interfaces on which IS-IS is configured must support the identical set of network address families.
- A separate SFP per address family.
- Wide metric must be used.

- Single-topology IS-IS:

- One SPF instance for both IPv4 and IPv6.
- Easier to administer but network must be homogeneous.
- Due to consistency checks, a router running IS-IS for both IPv4 and IPv6 does not form an adjacency with a router running IS-IS for IPv4 or IPv6 only. Disable consistency checks to maintain adjacencies active in heterogeneous environments. For L1 links, this is primarily done during transition.
- As in any IS-IS design, L2 routers must be contiguous. IPv6 adjacency checks are not done on L2 links.

NEW QUESTION 595

Two technologies that can be used to connect data centers over an IP network and provide layer 2 LAN extension

- A. IS-IS
- B. VXLAN
- C. TRILL
- D. Fabric Path
- E. OTV

Answer: BE

NEW QUESTION 597

Which option is an advantage of using PIM sparse mode instead of PIM dense mode?

- A. No RP is required
- B. There is reduced congestion in the network
- C. IGMP is not required
- D. It floods all multicast traffic throughout the network

Answer: B

NEW QUESTION 601

Which technology allows multiple instances of a routing table to coexist on the same router simultaneously?

- A. VRF
- B. Cisco virtual router
- C. Instanced virtuer router
- D. IS-IS

Answer: A

NEW QUESTION 602

Which NAC design model matches the following definitions?

- NAS is deployed centrally in the core or distribution layer.
- Users are multiple hops away from the Cisco NAS.
- After authentication and posture assessment the client traffic no longer passes through the Cisco NAS.
- PBR is needed to direct the user traffic appropriately

- A. Layer 3 in-band virtual gateway
- B. Layer 3 out-of-band with addressing
- C. Layer 2 in-band virtual gateway
- D. Layer 2 out-of-band virtual gateway

Answer: B

NEW QUESTION 604

Which technology can block interfaces and provide a loop-free topology?

- A. STP
- B. VSS
- C. VLAN
- D. vPC

Answer: A

NEW QUESTION 608

Which of the following is a result when designing multiple EIGRP autonomous systems within the Enterprise Campus network?

- A. Improves scalability by dividing the network using summary routes at AS boundaries
- B. Decreases complexity since EIGRP redistribution is automatically handled in the background
- C. Reduces the volume of EIGRP queries by limiting them to one EIGRP AS
- D. Scaling is improved when a unique AS is run at the Access, Distribution, and Core layers of the network

Answer: A

Explanation: Chapter 2 of CiscoPress CCDP fourth edition clearly says (there is even a test at the end of the chapter) that introducing additional ASes won't reduce the volume of EIGRP queries as these will be forwarded across the ASes.

NEW QUESTION 609

An engineer wants to have a resilient access layer in the Data Centre so that access layer switches have separate physical connections to a pair of redundant distribution switches. Which technology achieves this goal?

- A. PaGP
- B. LACP
- C. VSL
- D. EVPC
- E. VSS
- F. ECMP

Answer: E

NEW QUESTION 612

What location are security policies enforced in ACI?

- A. End Point
- B. Spine
- C. Leaf
- D. APIC

Answer: C

NEW QUESTION 617

A company security policy states that their data center network must be segmented from the layer 3 perspective. The segmentation must separate various network security zones so that they do not exchange routing information and their traffic path must be completely segregated. which technology achieves this goal?

- A. VPC
- B. VXLAN
- C. VRF
- D. VDC

Answer: C

NEW QUESTION 620

Which two options describe how Taboo contracts differ from regular contracts in Cisco ACI? (Choose two)

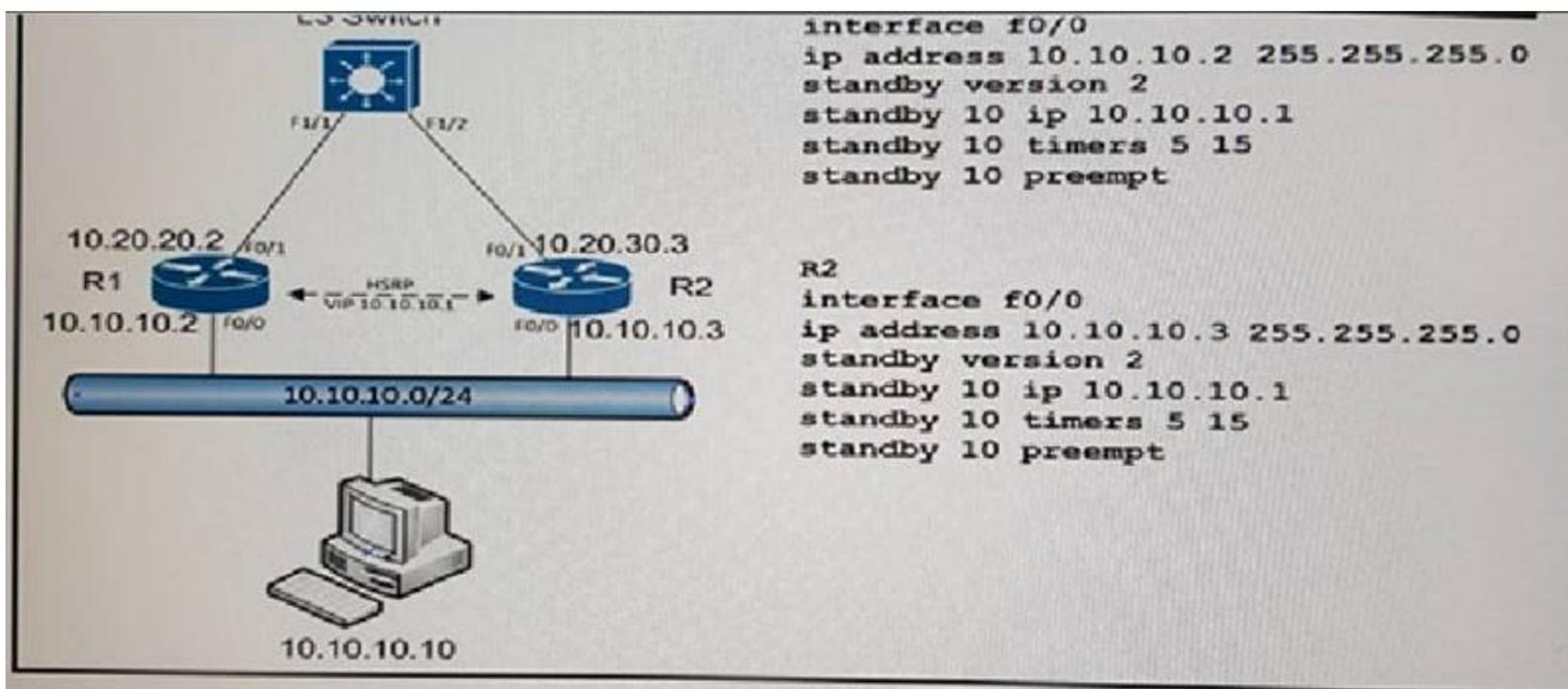
- A. Taboo contract entries are looked up with higher priority than entries in regular contracts
- B. Taboo contract entries are looked up with lower priority than entries in regular contracts.
- C. They are not associated with one EPG
- D. They are associated with one EPG
- E. Taboo contract entries are looked up based on administrator configured priority
- F. They are associated with pair of EPGs

Answer: AF

Explanation: There may be times when the ACI administrator might need to deny traffic that is allowed by another contract. Taboos are a special type of contract that an ACI administrator can use to deny specific traffic that would otherwise be allowed by another contract. Taboos can be used to drop traffic matching a pattern (any EPG, a specific EPG, matching a filter, and so forth). Taboo rules are applied in the hardware before the rules of regular contracts are applied. Taboo contracts are not recommended as part of the ACI best practices but they can be used to transition from traditional networking to ACI. To imitate the traditional networking concepts, an "allow-all-traffic" contract can be applied, with taboo contracts configured to restrict certain types of traffic." EPG – End-Point Groups

NEW QUESTION 624

Refer to the exhibit.



A customer discovers router R1 remains active even when the R1 uplink (F0/1) is down.
Which two commands can be applied to R1 to allow R2 to take over as the HSRP active? (Choose two)

- A. track 50 ip route 10.10.10.0/24 reachability
- B. track 50 interface Fa0/1 ip routing
- C. standby 10 track 50 decrement 20
- D. standby 10 track 50 shutdown
- E. standby 10 track 50

Answer: BC

NEW QUESTION 627

When APIC is down on cluster device ... What is the minimum number of APICs requirement for a production ACI Fabric to continue to operate?

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

Answer: C

NEW QUESTION 629

What is the physical topology of ACI?

- A. spine & leaf
- B. point to point
- C. hub & spoke
- D. spoke to spoke

Answer: A

NEW QUESTION 630

Which two statements about 802.1X are true? (Choose three)

- A. It is Cisco standard
- B. It can allow and deny port access based on device identity
- C. It works only with wired devices
- D. It can allow and deny port access based on user identity
- E. EAP messages in Ethernet frames and don't use PPP
- F. EAP messages in Ethernet frames and use PPP

Answer: BDE

NEW QUESTION 635

A network consultant is designing an enterprise network that includes an IPsec headend termination device. Which two capabilities are the most important to consider when assessing the headend device's scalability? (Choose two)

- A. Packets per second processing capability
- B. CPU capabilities
- C. Number of tunnels that can be aggregated
- D. Bandwidth capabilities
- E. Memory capabilities

Answer: AB

NEW QUESTION 638

Which configuration represents resiliency at the hardware and software layers?

- A. multiple connections and FHRP
- B. HSRP and GLBP
- C. redundant supervisor and power supplies
- D. dual uplinks and switches

Answer: C

NEW QUESTION 640

Which technology extends Layer 2 LANs over any network that supports IP?

- A. OTV
- B. VSS
- C. vPC
- D. VLAN

Answer: A

NEW QUESTION 645

An engineer chose to design an architecture where distribution switches are in VSS and are connected to access switches using Multichassis Etherchannel. What is the resulting topology?

- A. Looped
- B. Ring
- C. Hybrid
- D. Star

Answer: D

NEW QUESTION 647

A dual-homed office is opposed to using path optimization by flows. Which feature helps with application resiliency?

- A. PfR
- B. ATM
- C. CEF
- D. MLPPP

Answer: AD

NEW QUESTION 648

While designing quality of service policies, which two types of traffic must be prioritized as management traffic? (Choose two)

- A. SCP
- B. ICMP
- C. RADIUS
- D. HTTPS
- E. SSH

Answer: DE

NEW QUESTION 652

An engineer is integrate a recently acquired company's network that has overlapping IP address space Users of the new acquisition must have access to corporate applications. Which action is the most efficient way to provide this access?

- A. Build Mo-1 NAT translation for users that need access
- B. Re-IP overlapping address space in the acquired company
- C. Use a single IP address to create overload NAT.
- D. Create NAT translation by utilizing a pool of NAT IP addresses

Answer: D

NEW QUESTION 655

A company is building a large data center. About 80% of its traffic will be north to South and the other 20% will be east to West. The company is also expecting a significant amount of data center growth over the next 5-10 years but wants to keep the cost of growth low. Which data center design is best suited to meet these goals'?

- A. a spine and leaf design with Layer 2/3 termination on the leaf nodes
- B. a two-tier design with the Layer 2 termination on data center core
- C. a three user design with a Layer 3 termination on the data center core
- D. a spine and leaf design with Layer 2/3 termination on the some nodes

Answer: B

NEW QUESTION 656

Which mechanism is enabled by default in the OTV technology to conserve bandwidth?

- A. Control plane traffic is prevented from traversing the OTV link
- B. Unknown unicast flooding is suppressed over the OTV link.
- C. BPDUs are allowed to traverse the OTV link
- D. Data plane traffic is prevented from traversing the OTV link.

Answer: B

NEW QUESTION 660

An engineer must deploy a corporate QoS design in the shortest time possible. Which model accomplishes this goal?

- A. DiffServ
- B. intServ
- C. WRED
- D. Auto-QoS

Answer: D

NEW QUESTION 664

An engineer is considering time of convergence in a new Layer 3 environment design. Which two attribute must be considered? (Choose two.)

- A. OSPF database updates
- B. addition of a valid forwarding path
- C. forwarding table updates
- D. loss of a valid forwarding path
- E. SPT timer updates

Answer: CD

NEW QUESTION 669

An engineer is seeking to improve access layer convergence. Which two actions accomplish this goal? (Choose two.)

- A. Prune unused VLANs to switches.
- B. Implement MST.
- C. Propagate all VLANs to switches
- D. Configure storm control.
- E. Utilize Rapid PVST+

Answer: AE

NEW QUESTION 671

An engineer has been requested to utilize a method in an ACI network that will ensure only permitted communications are transmitted between each End Point Group tier in a three tier application. Which element would be utilized to accomplish this within the fabric?

- A. Contract
- B. Subject
- C. Label
- D. Filter

Answer: A

NEW QUESTION 672

An engineer has been asked to design a LAN topology with high Availability and the loop-free features of STP. It must also support Etherchannel between multiple chassis and a separate control plane for each switch terminating these multiple connections. Which technology should the engineer recommend to be deployment on the upstream switches?

- A. StackWise
- B. FEX
- C. VSS
- D. VPC

Answer: D

NEW QUESTION 676

What are the two main elements used by RBAC to provide secure access within an Enterprise? (Choose two)

- A. User Locales
- B. User Roles
- C. User Domains
- D. User Profile
- E. User Privileges

Answer: AE

NEW QUESTION 680

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