

## Exam Questions 400-007

Cisco Certified Design Expert (CCDE v3.0) Written Exam

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#### NEW QUESTION 1

Which two characteristics apply to firewall transparent mode operations in a firewall solution design? (Choose two.)

- A. Changes in the existing IP addressing and subnets are required
- B. The firewall can participate actively on spanning tree.
- C. Multicast traffic can traverse the firewall.
- D. OSPF adjacencies can be established through the firewall
- E. The firewall acts like a router hop in the network.

**Answer:** CD

#### NEW QUESTION 2

An architect receives a functional requirement for a NAC system from a customer security policy stating that if a corporate Wi-Fi device does not meet current AV definitions, then it cannot access the corporate network until the definitions are updated. Which component should be built into the NAC design?

- A. posture assessment with remediation VLAN
- B. quarantine SGTs
- C. dACLs with SGTs
- D. quarantine VLAN

**Answer:** A

#### NEW QUESTION 3

Which best practice ensures data security in the private cloud?

- A. Use IPsec for communication between unsecured network connection
- B. Encrypt data at rest and in transition.
- C. Use the same vendor for consistent encryption.
- D. Anonymize data ownership to comply with privacy rules.

**Answer:** B

#### NEW QUESTION 4

As part of workspace digitization, a large enterprise has migrated all their users to Desktop as a Service (DaaS), by hosting the backend system in their on-premises data center. Some of the branches have started to experience disconnections to the DaaS at periodic intervals, however, local users in the data center and head office do not experience this behavior. Which technology can be used to mitigate this issue?

- A. tail drop
- B. traffic shaping
- C. WRED
- D. traffic policing

**Answer:** B

#### Explanation:

Traffic Shaping does help with congestion and better bandwidth utilization over the WAN.

#### NEW QUESTION 5

An enterprise has identified these causes for inefficient CAPEX spending:

- CAPEX planning is driven by technology and not by business objectives.
- The CAPEX planning team lacks the data it needs to perform due diligence tasks.
- The organizational structure lacks sufficient accountability and incentives.

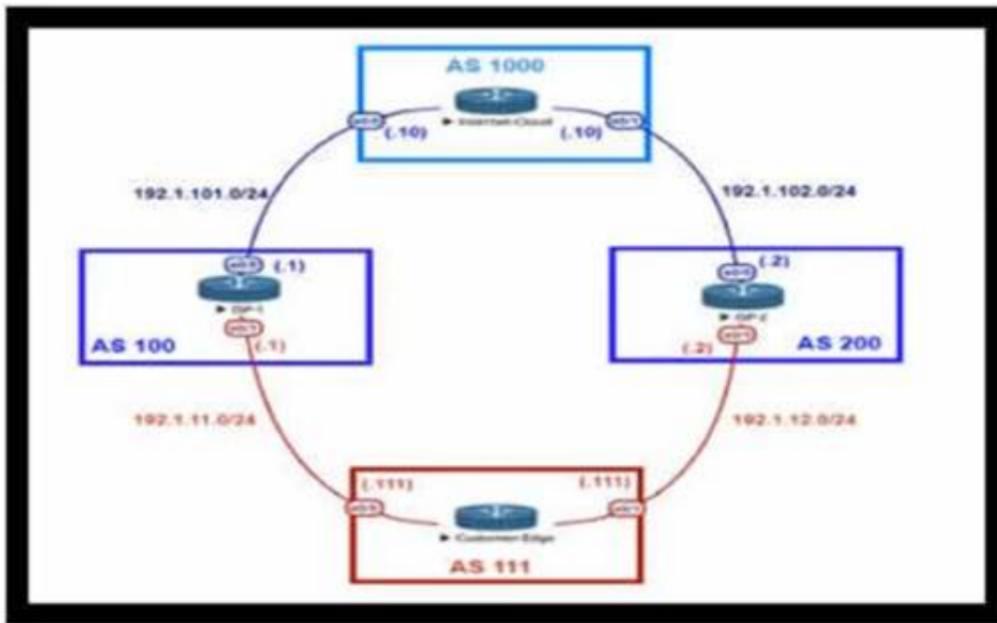
Which corporate cultural change contributes to improving the effectiveness of CAPEX spending?

- A. Build a financial control function that delivers high-quality reports on operational expenses for business insight and financial reporting.
- B. CxO-level staff must have a full technical understanding but they should not trust their technical leaders fully.
- C. Adopt new organizational models that promote real accountability for RO
- D. not just revenue
- E. EBITDA, and cash.
- F. Marketing and product management divisions must reduce their CAPEX budgets significantly to drive the change.

**Answer:** C

#### NEW QUESTION 6

Refer to the exhibit.



An engineer is designing the traffic flow for AS 111. Traffic from AS 111 should be preferred via AS 100 for all external routes. A method must be used that only affects AS 111. Which BGP attributes are best suited to control outbound traffic?

- A. community
- B. MED
- C. local preference
- D. As path

Answer: C

**NEW QUESTION 7**

Which SDN architecture component is used by the application layer to communicate with the control plane layer to provide instructions about the resources required by applications?

- A. southbound APIs
- B. northbound APIs
- C. orchestration layer
- D. SDN controller

Answer: B

**NEW QUESTION 8**

Which two features are advantages of SD-WAN compared to MPLS-based connectivity? (Choose two.)

- A. uses FEC constructs for traffic forwarding, thereby improving efficiency
- B. separates infrastructure and policy
- C. uses policy-based forwarding of real-time traffic with less complexity
- D. unifies the WAN backbone
- E. manages failures through backup links

Answer: CD

**NEW QUESTION 9**

Which solution component helps to achieve rapid migration to the cloud for SaaS and public cloud leveraging SD-WAN capabilities?

- A. service-oriented cloud architecture
- B. Cloud onramp
- C. cloud registry
- D. microservices in the cloud

Answer: B

**NEW QUESTION 10**

What statement describes the application layer as defined in the software-defined networking architecture?

- A. This layer is responsible for collecting the network status such as network usage and topology.
- B. This layer contains programs that communicate their desired network behavior to controllers.
- C. This layer is responsible for handling packets based on the rules provided by the controller.
- D. This layer processes the instructions and requirements sent by networking components.

Answer: B

**NEW QUESTION 10**

Which management category is not part of FCAPS framework?

- A. Configuration
- B. Security
- C. Performance

- D. Authentication
- E. Fault-management

**Answer:** D

#### NEW QUESTION 15

Which two pain points are the most common for container technology adoption? (Choose two)

- A. Performance
- B. Security
- C. Cost
- D. Container deployment
- E. Skilled staff
- F. Compliance

**Answer:** DE

#### NEW QUESTION 17

Which purpose of a dynamically created tunnel interface on the design of IPv6 multicast services is true?

- A. first-hop router registration to the RP
- B. multicast client registration to the RP
- C. multicast source registration to the RP
- D. transport of all IPv6 multicast traffic

**Answer:** D

#### NEW QUESTION 19

Which two characteristics are associated with 802.1s? (Choose two)

- A. 802.1s supports up to 1024 instances of 802.1
- B. 802.1s is a Cisco enhancement to 802.1w.
- C. 802.1s provides for faster convergence over 802.1D and PVST+.
- D. CPU and memory requirements are the highest of all spanning-tree STP implementations.
- E. 802.1s maps multiple VLANs to the same spanning-tree instance

**Answer:** CE

#### NEW QUESTION 24

What are two design constraints in a standard spine and leaf architecture? (Choose two.)

- A. Spine switches can connect to each other.
- B. Each spine switch must connect to every leaf switch.
- C. Leaf switches must connect to each other.
- D. Endpoints connect only to the spine switches.
- E. Each leaf switch must connect to every spine switch.

**Answer:** BE

#### NEW QUESTION 28

A network design includes a long signaling delay in notifying the Layer 3 control plane that an interface has failed. Which two of these actions would reduce that delay? (Choose two.)

- A. Increase network stability.
- B. Reduce the time for the network to reconverge.
- C. Increase the notification of interface flaps.
- D. Enable lower data link layer recovery systems to have an opportunity to restore the interface

**Answer:** BD

#### NEW QUESTION 30

You are tasked with the design of a high available network. Which two features provide fail closed environments? (Choose two.)

- A. EIGRP
- B. RPVST+
- C. MST
- D. L2MP

**Answer:** AB

#### NEW QUESTION 33

A financial company requires that a custom TCP-based stock-trading application be prioritized over all other traffic for the business due to the associated revenue. The company also requires that VoIP be prioritized for manual trades. Which directive should be followed when a QoS strategy is developed for the business?

- A. Allow VoIP and the custom application to share the same priority queue,

- B. The custom application and VoIP must be assigned their own separate priority queue.
- C. Interleave the custom application with other TCP applications in the same CBWR
- D. Avoid placing the custom application in a CBWFQ queue that contains other

Answer: C

**NEW QUESTION 35**

How can EIGRP topologies be designed to converge as fast as possible in the event of a point-to-point link failure?

- A. Limit the query domain by use of distribute lists.
- B. Build neighbor adjacencies in a triangulated fashion.
- C. Build neighbor adjacencies in squared fashion.
- D. Limit the query domain by use of summarization.
- E. Limit the query domain by use of default routes.

Answer: D

**NEW QUESTION 39**

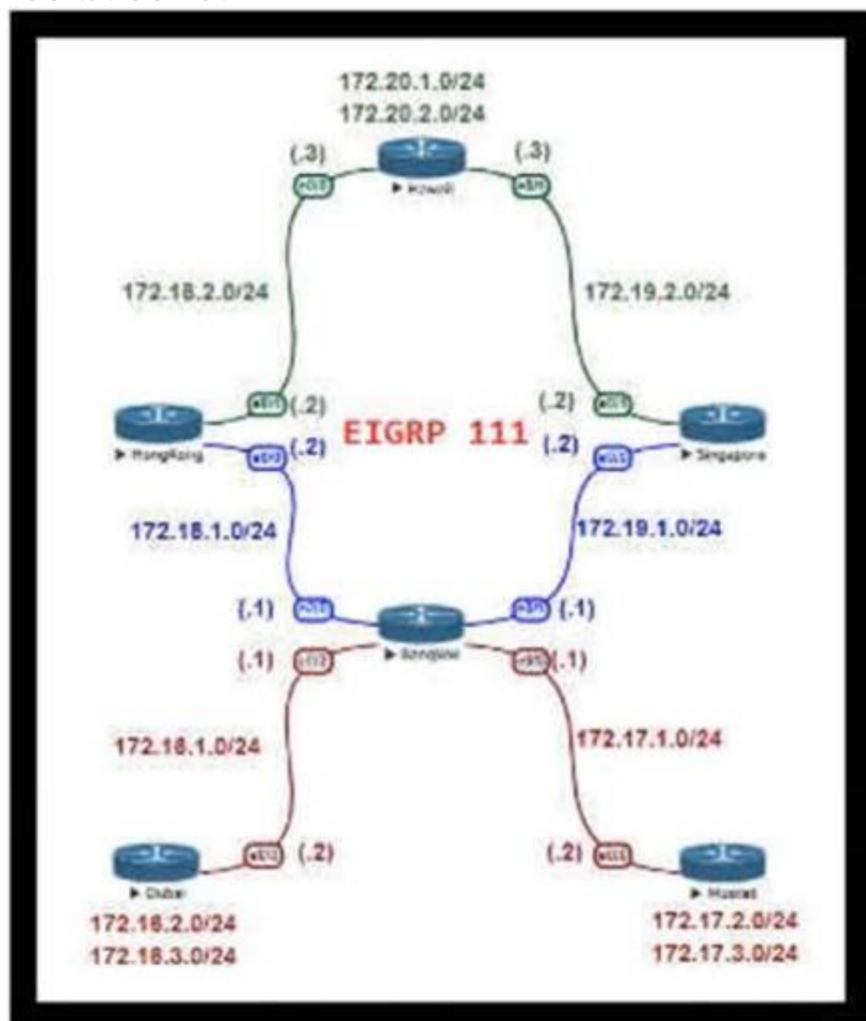
Which BGP feature provides fast convergence?

- A. BGP PIC |
- B. BGP-EVPN
- C. BGP FlowSpec
- D. BGP-LS

Answer: A

**NEW QUESTION 44**

Refer to the exhibit.



For Company XYZ Bangkok is using ECMP to reach the 172 20 2 0/24 network The company wants a design that would allow them to forward traffic from 172 16 2 0/24 toward 172 20 2 0/24 via the Singapore router as the preferred route The rest of the traffic should continue to use ECMP Which technology fulfills this design requirement?

- A. policy-based routing
- B. route summarization
- C. unequal-cost load balancing using variance
- D. LFA

Answer: A

**NEW QUESTION 45**

Drag and drop the multicast protocols from the left onto the current design situation on the right.

PIM-SM, SSM, BIDIR	IPv4 Group Management
PIM-DM, PIM-SM, SSM, BIDIR	IPv4 Forwarding
IGMP	IPv4 Interdomain Source Discovery
MSDP	IPv6 Group Management
MLD	IPv6 Forwarding

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

A picture containing table Description automatically generated

IPv4:

Host Registration - IGMP

Router Registration - PIM-DM, PIM-SM, SSM, BIDIR Inter-Domain Source Discovery - MSDP

IPv6:

Host Registration - MLD

Router Registration - PIM-SM, SSM, BIDIR

**NEW QUESTION 49**

A company uses equipment from multiple vendors in a data center fabric to deliver SDN, enable maximum flexibility, and provide the best return on investment. Which YANG data model should be adopted for comprehensive features to simplify and streamline automation for the SDN fabric?

- A. proprietary
- B. OpenConfig
- C. native
- D. IETF

**Answer:** B

**NEW QUESTION 51**

What best describes the difference between Automation and Orchestration?

- A. Automation refers to an automatic process for completing a single task and Orchestration refers to assembling and coordinating a set of tasks and conditions.
- B. Automation describes a hands-off configuration process while Orchestration refers to sets of automation tasks that require the network administrator to coordinate
- C. Automation refers to an automatic process for completing multiple tasks with conditions and Orchestration refers to executing tasks in parallel.
- D. Automation refers to scripting languages (Pytho
- E. Ansible etc.) and Orchestration refers to commercial products that control configuration deployment

**Answer:** A

**NEW QUESTION 52**

An architect designs a multi-controller network architecture with these requirements:

- > Achieve fast failover to control traffic when controllers fail.
- > Reduce connectivity loss and enable smart recovery to improve the SDN survivability.
- > Improve connectivity by adding path diversity and capacity awareness for controllers.

Which control plane component of the multi-controller must be built to meet the requirements?

- A. control node reliability
- B. controller stale consistency
- C. control path reliability
- D. controller clustering

**Answer:** B

**NEW QUESTION 53**

Which technology supports antispoofing and does not have any impact on encryption performance regardless of packet size?

- A. MACsec
- B. IP source guard
- C. DHCP snooping with DAI
- D. IPsec

Answer: A

**NEW QUESTION 55**

An engineer is designing the QoS strategy for Company XYZ. Based on initial analysis, a lot of scavenger type of traffic is traversing the network's 20Mb Internet link toward the service provider. The new design must use a QoS technique that limits scavenger traffic to 2 Mbps, which helps avoid oversubscription of the link during times of congestion. Which QoS technique can be used to facilitate this requirement?

- A. class-based traffic policing
- B. LLQ
- C. CBWFQ
- D. class-based traffic shaping

Answer: C

**NEW QUESTION 57**

Identity and access management between multiple users and multiple applications has become a mandatory requirement for Company XYZ to fight against ever increasing cybersecurity threats. To achieve this, federated identity services have been deployed in the Company XYZ network to provide single sign-on and Multi-Factor Authentication for the applications and services. Which protocol can be used by Company XYZ to provide authentication and authorization services?

- A. OAuth2
- B. OpenID Connect
- C. OpenID
- D. SAML2.0

Answer: D

**NEW QUESTION 60**

Hybrid cloud computing allows organizations to take advantage of public and private cloud models. Which best practice should organizations follow to ensure data security in the private cloud?

- A. Use standard protocols for data transmission over the network.
- B. Encrypt data when it is at rest and in motion
- C. Communicate all data security risks to customers and end users.
- D. Use standard network protocols for data communication between unsecured network connections.

Answer: B

**NEW QUESTION 65**

Sometimes SDN leverages various overlay networking technologies to create layer(s) of network abstraction. What describes an overlay network?

- A. It transmits packets that traverse over network devices like switches and routers
- B. It encapsulates packets at source and destination, which incurs additional overhead
- C. Packet delivery and reliability occurs at Layer 3 and Layer 4
- D. It is responsible for the delivery of packets; NAT- or VRF-based segregation is required

Answer: B

**NEW QUESTION 68**

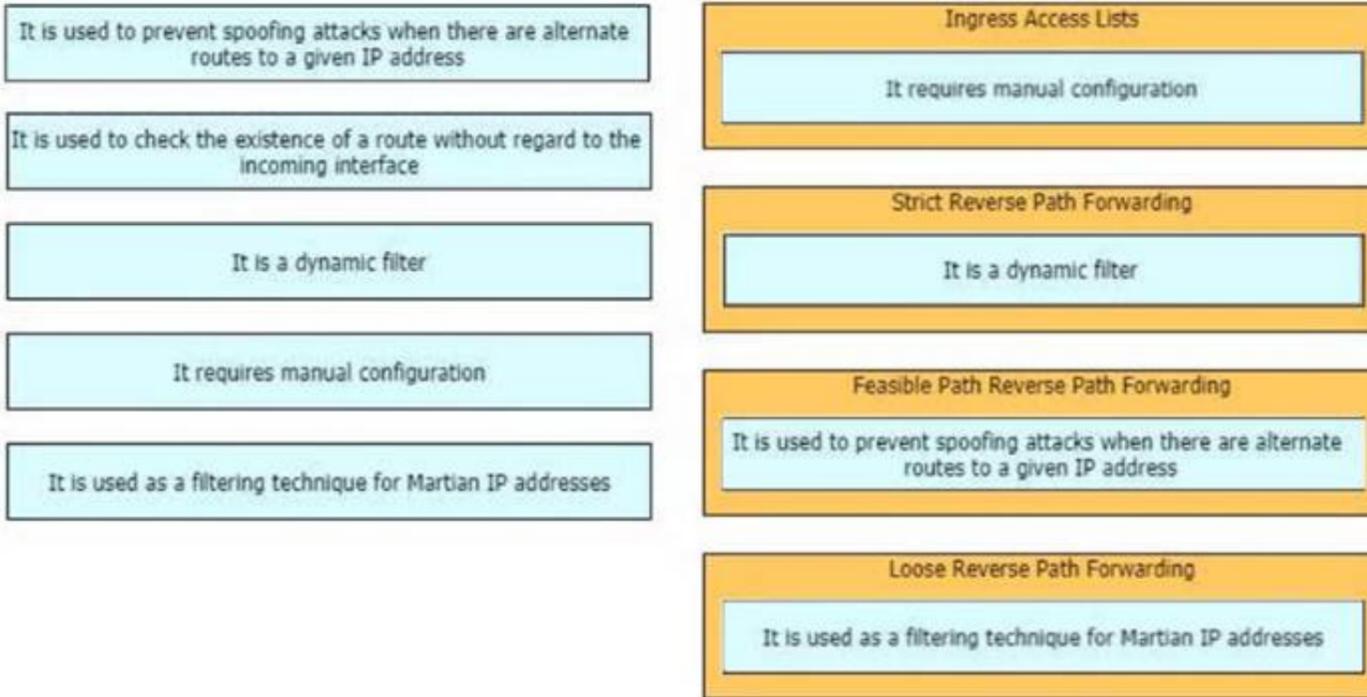
Drag and drop the design characteristics from the left onto the correct network filter techniques on the right. Not all options are used.

It is used to prevent spoofing attacks when there are alternate routes to a given IP address	Ingress Access Lists target 1
It is used to check the existence of a route without regard to the incoming interface	Strict Reverse Path Forwarding target 2
It is a dynamic filter	Feasible Path Reverse Path Forwarding target 3
It requires manual configuration	Loose Reverse Path Forwarding target 4
It is used as a filtering technique for Martian IP addresses	

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**



**NEW QUESTION 69**

Which feature must be part of the network design to wait a predetermined amount of time before notifying the routing protocol of a change in the path in the network?

- A. Transmit delay
- B. Throttle timer
- C. SPF hold time
- D. Interface dampening

**Answer:** B

**NEW QUESTION 70**

In the case of outsourced IT services, the RTO is defined within the SLA. Which two support terms are often included in the SLA by IT and other service providers? (Choose two.)

- A. network size and cost
- B. support availability
- C. network sustainability
- D. network reliability
- E. resolution time

**Answer:** BE

**NEW QUESTION 73**

Which three elements help network designers to construct secure systems that protect information and resources (such as devices, communication, and data) from unauthorized access, modification, inspection, or destruction? (Choose three.)

- A. confidential
- B. serviceability
- C. reliability
- D. availability
- E. integrity
- F. scalability

**Answer:** ADE

**NEW QUESTION 74**

An architect receives a business requirement from a CTO that states the RTO and RPO for a new system should be as close as possible to zero. Which replication method and data center technology should be used?

- A. asynchronous replication over dual data centers via DWDM
- B. synchronous replication over geographically dispersed dual data centers via MPLS
- C. synchronous replication over dual data centers via Metro Ethernet
- D. asynchronous replication over geographically dispersed dual data centers via CWDM

**Answer:** B

**Explanation:**

RTO and RPO are measures of how quickly and accurately a system can be recovered after a disaster or failure. RTO refers to the amount of time it takes to restore a system to its normal operation after a failure, while RPO refers to the amount of data that can be lost as a result of a failure. In synchronous replication, data is written to both the primary and secondary systems at the same time. This ensures that the data on the secondary system is always up-to-date and ready for use in the event of a disaster or failure. Geographically dispersed dual data centers refer to two data centers that are located in different geographical locations, which can help to reduce the risk of a disaster or failure impacting both data centers at the same time.

**NEW QUESTION 78**

Which design principal improves network resiliency?

- A. Added load-balancing
- B. Added redundancy
- C. Added confidentiality
- D. Added reliability

**Answer: B**

**NEW QUESTION 81**

A healthcare customer requested that SNMP traps must be sent over the MPLS Layer 3 VPN service. Which protocol must be enabled?

- A. SNMPv3
- B. Syslog
- C. Syslog TLS
- D. SNMPv2
- E. SSH

**Answer: A**

**NEW QUESTION 85**

Company ABC uses IPv4-only. Recently they started deploying new endpoint devices. For operational reasons, IPv6 cannot be disabled on these new endpoint devices. Which security measure prevents the new endpoint from learning an IPv6 prefix from an attacker?

- A. Source Guard and Prefix Guard
- B. Router Advertisement Guard
- C. Prefix Guard
- D. Secure Neighbor Discovery

**Answer: B**

**NEW QUESTION 89**

You are designing an Out of Band Cisco Network Admission Control. Layer 3 Real-IP Gateway deployment for a customer Which VLAN must be trunked back to the Clean Access Server from the access switch?

- A. authentication VLAN
- B. user VLAN
- C. untrusted VLAN
- D. management VLAN

**Answer: D**

**NEW QUESTION 91**

An international media provider is an early adopter of Docker and micro services and is using an open-source homegrown container orchestration system. A few years ago, they migrated from on-premises data centers to the cloud Now they are faced with challenges related to management of the deployed services with their current homegrown orchestration system.

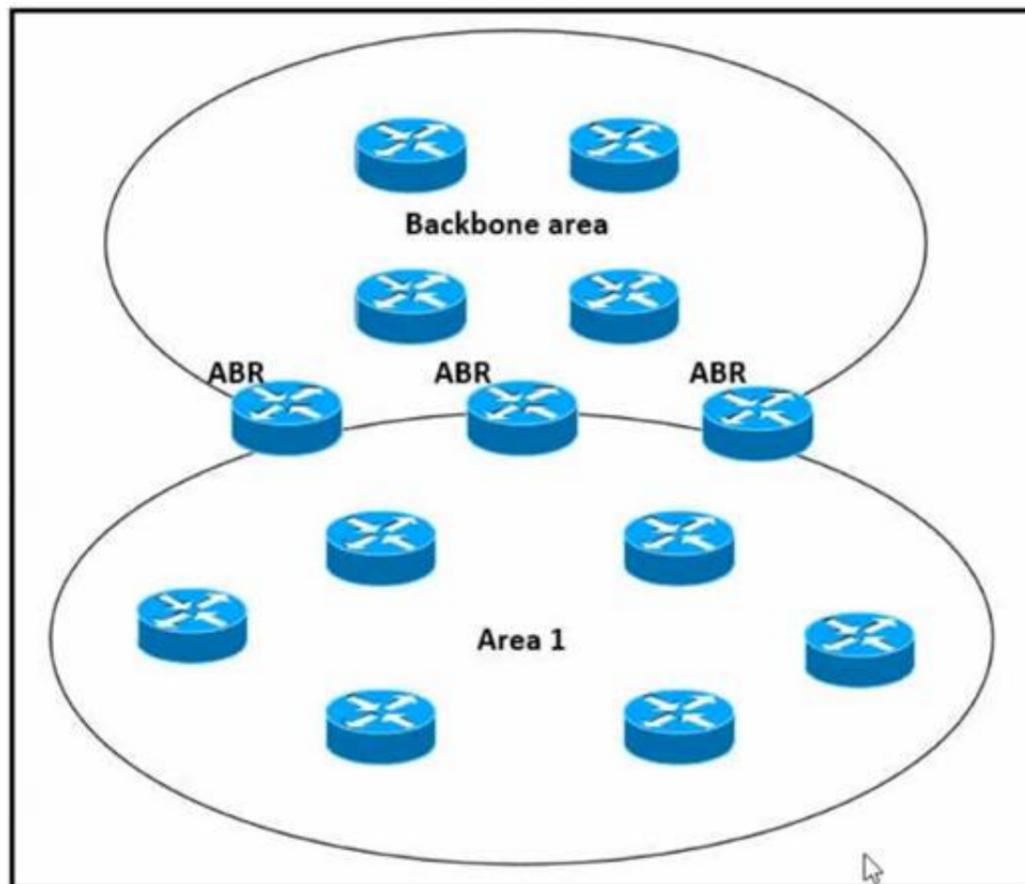
Which platform is well-suited as a state-aware orchestration system?

- A. Puppet
- B. Kubemetes
- C. Ansible
- D. Terraform

**Answer: B**

**NEW QUESTION 95**

Refer to the exhibit.



Which impact of using three or more ABRs between the backbone area and area 1 is true?

- A. In a large-scale network LSA replication by all ABRs can cause serious scalability issues
- B. Multiple ABRs reduce the CPU processing on each ABR due to splitting prefix advertisement
- C. In a large-scale network multiple ABRs can create microloops.
- D. Prefixes from the non-backbone area are advertised by one ABR to the backbone

Answer: A

**NEW QUESTION 100**

You are designing the QoS policy for a company that is running many TCP-based applications. The company is experiencing tail drops for these applications. The company wants to use a congestion avoidance technique for these applications. Which QoS strategy can be used to fulfill the requirement?

- A. weighted fair queuing
- B. weighted random early detection
- C. low-latency queuing
- D. first-in first-out

Answer: C

**NEW QUESTION 102**

Which two statements explain the operation of BFD asynchronous mode? (Choose two )

- A. BFD asynchronous mode with echo packets combines the control packets and echo packets into a single packet.
- B. BFD asynchronous mode without echo packets uses control packets, and BFD asynchronous mode with echo packets does not.
- C. BFD asynchronous mode with and without echo packets use control packets.
- D. BFD asynchronous without echo packets has control packets sent back to the originating router, which echoes the control packet to detect failures.
- E. BFD asynchronous mode with echo packets uses separate control packets and echo packets.

Answer: CE

**NEW QUESTION 106**

An enterprise plans to evolve from a traditional WAN network to a software-defined WAN network. The existing devices have limited capability when it comes to virtualization. As the migration is carried out, enterprise applications and services must not experience any traffic impact. Which implementation plan can be used to accommodate this during the migration phase?

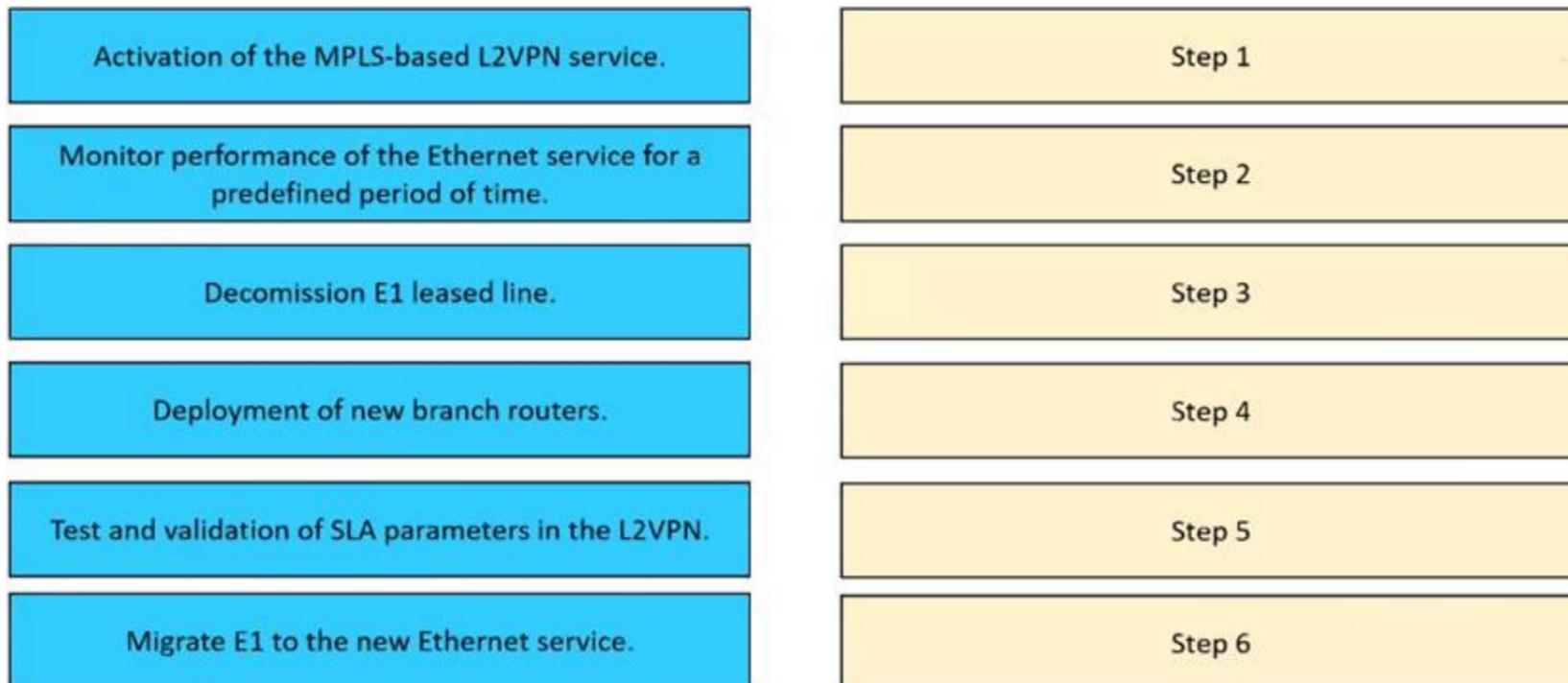
- A. Deploy controllers, deploy SD-WAN edge router
- B. In the data center, and migrate branch sites.
- C. Migrate data center WAN routers, migrate branch sites, and deploy SD-WAN edge routers.
- D. Migrate branch sites, migrate data center WAN routers, and deploy controllers.
- E. Deploy SD-WAN edge routers in the data center, deploy controllers, and migrate branch sites

Answer: A

**NEW QUESTION 107**

The network team in XYZ Corp wants to modernize their infrastructure and is evaluating an implementation and migration plan to allow integration MPLS-based, Layer 2 Ethernet services managed by a service provider to connect branches and remote offices. To decrease OpEx and improve response times when network components fail, XYZ Corp decided to acquire and deploy new routers. The network currently is operated over E1 leased lines (2 Mbps) with a managed CE service provided by the telco.

Drag and drop the implementation steps from the left onto the corresponding targets on the right in the correct order.



- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Table Description automatically generated

**NEW QUESTION 110**

A European government passport agency considers upgrading its IT systems to increase performance and workload flexibility in response to constantly changing requirements. The budget manager wants to reduce capital expenses and IT staff and must adopt the lowest-cost technology. Which technology choice is suitable?

- A. on premises
- B. private cloud
- C. public cloud
- D. hybrid cloud

Answer: B

**NEW QUESTION 113**

Company XYZ wants to use the FCAPS ISO standard for network management design. The focus of the design should be to monitor and keep track of any performance issues by continuously collecting and analyzing statistical information to monitor, correct, and optimize any reduced responsiveness across the network. Which layer accomplishes this design requirement?

- A. fault management
- B. accounting management
- C. performance management
- D. security management

Answer: C

**NEW QUESTION 118**

A European national bank considers migrating its on-premises systems to a private cloud offering in a non-European location to significantly reduce IT costs. What is a primary factor prior to migration?

- A. data governance
- B. additional latency
- C. security
- D. cloud connectivity

Answer: A

**NEW QUESTION 122**

Company XYZ, a global content provider, owns data centers on different continents. Their data center design involves a standard three-layer design with a Layer 3-only core. HSRP is used as the FHRP. They require VLAN extension across access switches in all data centers, and they plan to purchase a Layer 2 interconnection between two of their data centers in Europe. In the absence of other business or technical constraints, which termination point is optimal for the Layer 2 interconnection?

- A. at the core layer, to offer the possibility to isolate STP domains
- B. at the aggregation layer because it is the Layer 2 to Layer 3 demarcation point
- C. at the access layer because the STP root bridge does not need to align with the HSRP active node.
- D. at the core layer because all external connections must terminate there for security reasons

Answer: B

#### NEW QUESTION 124

While designing a switched topology, in which two options is UplinkFast recommended? (Choose two )

- A. when switches of different spanning-tree types are connected (for example)
- B. 802.1d connecting to 802.1w)
- C. on distribution layer switches
- D. when hello timers are changed to more aggressive values
- E. on access layer switches
- F. on the core switches

**Answer:** AD

#### NEW QUESTION 128

Which two protocols are used by SDN controllers to communicate with switches and routers? (Choose two )

- A. OpenFlash
- B. OpenFlow
- C. NetFlash
- D. Open vSwitch Database
- E. NetFlow

**Answer:** BD

#### NEW QUESTION 133

In search of a system capable of hosting, monitoring compiling, and testing code in an automated way, what can be recommended to the organization?

- A. Jenkins
- B. Ansible
- C. Perl
- D. Chef

**Answer:** A

#### NEW QUESTION 138

An external edge router provides connectivity from a service provider to an enterprise Which two Internet edge best practices meet compliance regulations'? (Choose two )

- A. Implement filtering to control traffic that is sourced from the infrastructure IP space.
- B. Enable and use only secure protocols.
- C. Send logs to a centralized logging collection server.
- D. Implement EBGP to advertise all owned IP blocks.
- E. Use login banners and interface access lists to restrict administrative access to the system

**Answer:** BE

#### NEW QUESTION 139

What is a web-based model in which a third-party provider hosts applications that are available to customers over the Internet?

- A. PaaS
- B. SaaS
- C. IaaS
- D. WaaS

**Answer:** B

#### NEW QUESTION 143

When an SDN-based model is used to transmit multimedia traffic, which aspect should an architect consider while designing the network?

- A. QoS estimation
- B. security
- C. traffic patterns
- D. flow forwarding

**Answer:** A

#### NEW QUESTION 144

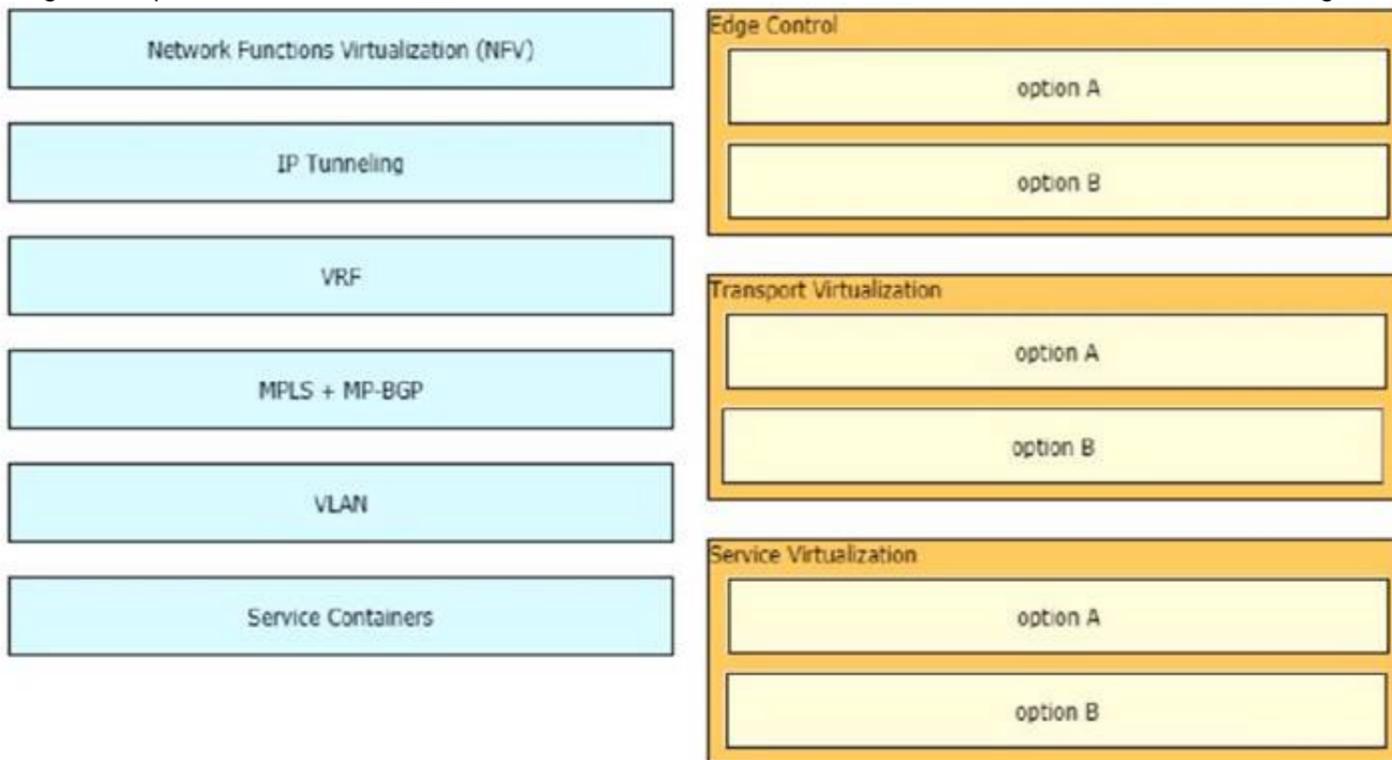
As a network designer you need to support an enterprise with hundreds of remote sites connected over a single WAN network that carries different types of traffic, including VoIP, video, and data applications which of following design considerations will not impact design decision?

- A. Focus on the solution instead of the problem, which helps to reduce downtime duration
- B. The location of the data collection
- C. What direction the data or flows should be metered
- D. Identify traffic types and top talkers over this link

**Answer:** A

**NEW QUESTION 146**

Drag and drop the end-to-end network virtualization elements from the left onto the correct network areas on the right.



- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface Description automatically generated with medium confidence

**NEW QUESTION 149**

Which two statements describe the usage of the IS-IS overload bit technique? (Choose two )

- A. If overload-bit is set on a Level 2 intermediate system, the other Level 2 intermediate systems in the topology will stop using the overloaded IS to forward Level 2 traffic. However, the intermediate system can still forward Level 1 traffic.
- B. It can be set in intermediate systems (IS-IS routers) to prioritize control plane CSNP packets.
- C. It can be used to automatically synchronize the link-state database between Level 1 intermediate systems.
- D. It can be set in intermediate systems (IS-IS routers) to avoid traffic black holes until routing protocols are fully converged after a reload operation.
- E. It can be set in intermediate systems (IS-IS routers) to attract transit traffic from other intermediate systems.

**Answer:** AD

**NEW QUESTION 152**

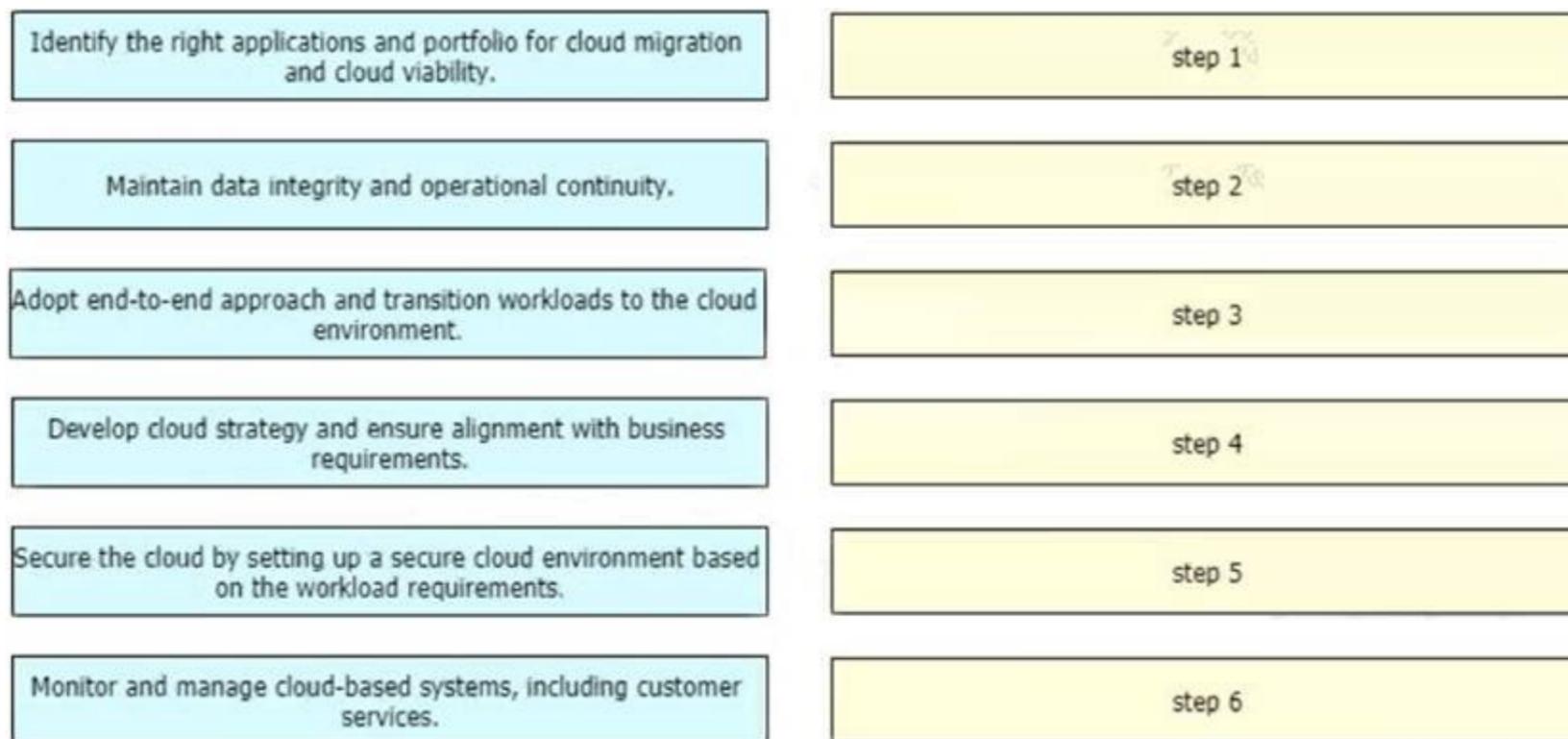
A customer has a functional requirement that states HR systems within a data center should be segmented from other systems that reside in the same data center and same VLAN. The systems run legacy applications by using hard-coded IP addresses. Which segmentation method is suitable and scalable for the customer?

- A. data center perimeter firewalling
- B. VACLs on data center switches
- C. transparent firewalling
- D. routed firewalls

**Answer:** B

**NEW QUESTION 156**

An enterprise wants to migrate an on-premises network to a cloud network, and the design team is finalizing the overall migration process. Drag and drop the options from the left into the correct order on the right.



- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Table Description automatically generated

**NEW QUESTION 160**

A business invests in SDN and develops its own SDN controller that, due to budget constraints, runs on a single controller. The controller actively places an exclusive lock on the configuration of the devices to ensure it is the only source of changes to the environment. What is the result if the controller fails?

- A. All device configurations are in read-only mode until the controller is restored.
- B. The control plane is unavailable until the controller is restored.
- C. If a device fails, the configuration backup is unavailable
- D. Manual changes are only possible until the controller is restored

Answer: B

**NEW QUESTION 163**

Which action must be taken before new VoIP systems are implemented on a network to ensure that the network is ready to handle the traffic?

- A. Evaluate bandwidth utilization and connection quality
- B. Enable special requirements such as direct DID lines on pickup
- C. Make recommendations to limit the size of the half-open session table on routers
- D. Check if anomaly detection is enabled for SIP and H.323 on Layer 3 devices

Answer: B

**NEW QUESTION 168**

Which two benefits can software defined networks provide to businesses? (Choose two.)

- A. provides additional redundancy
- B. decentralized management
- C. reduced latency
- D. enables innovation
- E. reduction of OpEx/CapEx
- F. meets high traffic demands

Answer: DE

**NEW QUESTION 170**

Which design solution reduces the amount of IGMP state in the network?

- A. IGMP filtering
- B. IGMPv3 with PIM-SSM
- C. multiple multicast domains
- D. one multicast group address thorough network regardless of IGMP version

Answer: A

**NEW QUESTION 174**

A customer migrates from a traditional Layer 2 data center network into a new SDN-based, spine-and-leaf VXLAN EVPN data center within the same location. The networks are joined to enable host migration at Layer 2 Which activity should be completed each time a legacy network is migrated?

- A. The migrated VLAN should be pruned from the Layer 2 interconnects.
- B. The migrated network should have a VXLAN VNID configured within the new network.
- C. The migrated network should be advertised to the EVPN network as a Type 2 network.
- D. The migrated network should be added to the EVPN BGP routing.

Answer: C

**NEW QUESTION 179**

A senior network designer suggests that you should improve network convergence times by reducing BGP timers between your CE router and the PE router of the service provider. Which two factors should you consider to adjust the timer values? (Choose two.)

- A. service provider agreement to support tuned timers
- B. manual updates to the peer groups
- C. service provider scheduling of changes to the PE
- D. number of routes on the CE router
- E. number of VRFs on the PE router

Answer: AD

**NEW QUESTION 180**

Which function is performed at the access layer of the three-layer hierarchical network design model?

- A. fault isolation
- B. QoS classification and marking boundary
- C. reliability
- D. fast transport
- E. redundancy and load balancing

Answer: B

**NEW QUESTION 183**

What are two key design principles when using a hierarchical core-distribution-access network model? (Choose two )

- A. A hierarchical network design model aids fault isolation
- B. The core layer is designed first, followed by the distribution layer and then the access layer
- C. The core layer provides server access in a small campus.
- D. A hierarchical network design facilitates changes
- E. The core layer controls access to resources for security

Answer: AD

**NEW QUESTION 187**

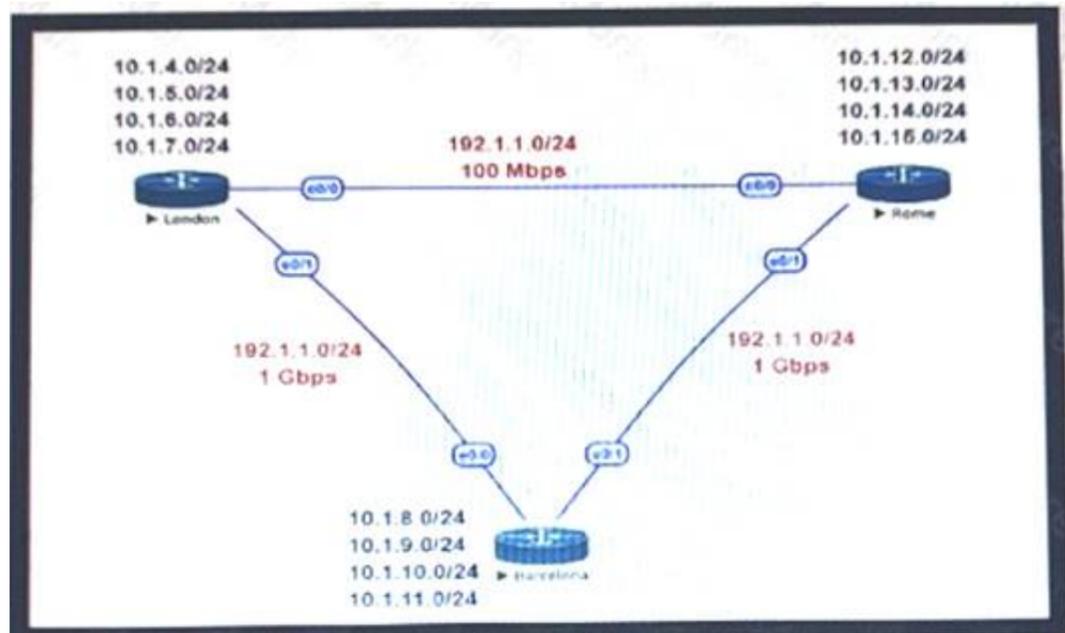
A company requires an RPO of less than 10 seconds to ensure business continuity. Which technology should be deployed?

- A. geographically dispersed data centers with asynchronous replication
- B. a single data center with duplicated infrastructure, dual PSUs, and a UPS
- C. geographically dispersed data centers with synchronous replication
- D. a single data center with duplicated infrastructure and dual PSUs

Answer: C

**NEW QUESTION 190**

Refer to the exhibit.



This network is running OSPF as the routing protocol. The internal networks are being advertised in OSPF London and Rome are using the direct link to reach each other although the transfer rates are better via Barcelona Which OSPF design change allows OSPF to calculate the proper costs?

- A. Change the OSPF reference bandwidth to accommodate faster links.
- B. Filter the routes on the link between London and Rome
- C. Change the interface bandwidth on all the links.
- D. Implement OSPF summarisation to fix the issue

**Answer:** A

#### NEW QUESTION 194

A product manufacturing organization is integrating cloud services into their IT solution. The IT team is working on the preparation phase of the implementation approach, which includes the Define Strategy step. This step defines the scope of IT, the application, and the service. What is one topic that should be considered in the Define Strategy step?

- A. financial and governance models
- B. innovate and align with business according to volume
- C. due diligence and financial scenarios
- D. contingency exit strategy steps

**Answer:** D

#### NEW QUESTION 195

A service provider hires you to design its new managed CE offering to meet these requirements:

- The CEs cannot run a routing protocol with the PE
- Provide the ability for equal or unequal ingress load balancing in dual-homed CE scenarios.
- Provide support for IPv6 customer routes
- Scale up to 250,000 CE devices per customer.
- Provide low operational management to scale customer growth.
- Utilize low-end (inexpensive) routing platforms for CE functionality. Which tunneling technology do you recommend?

- A. FlexVPN
- B. point-to-point GRE
- C. DMVPN
- D. LISP

**Answer:** D

#### NEW QUESTION 196

Company XYZ is redesigning their QoS policy. Some of the applications used by the company are real-time applications. The QoS design must give these applications preference in terms of transmission. Which QoS strategy can be used to fulfill the requirement?

- A. weighted fair queuing
- B. weighted random early detection
- C. low-latency queuing
- D. first-in first-out

**Answer:** C

#### NEW QUESTION 197

You are tasked to design a QoS policy for a service provider so they can include it in the design of their MPLS core network. If the design must support an MPLS network with six classes, and CEs will be managed by the service provider, which QoS policy should be recommended?

- A. map IP CoS bits into the IP Precedence field
- B. map flow-label bits into the Exp field
- C. map IP precedence bits into the DSCP field
- D. map DSCP bits into the Exp field

**Answer:** D

#### NEW QUESTION 199

Which design benefit of bridge assurance is true?

- A. It supposes a spanning-tree topology change upon connecting and disconnecting a station on a port.
- B. It prevents switched traffic from traversing suboptimal paths on the network.
- C. It allows small, unmanaged switches to be plugged into ports of access switches without the risk of switch loops.
- D. It prevents switch loops caused by unidirectional point-to-point link condition on Rapid PVST+ and MST.

**Answer:** D

#### NEW QUESTION 202

You have been tasked with designing a data center interconnect as part of business continuity. You want to use FCoE over this DCI to support synchronous replication. Which two technologies allow for FCoE via lossless Ethernet or data center bridging? (Choose two.)

- A. DWDM
- B. EoMPLS
- C. SONET/SDH
- D. Multichassis EtherChannel over Pseudowire
- E. VPLS

Answer: AC

**NEW QUESTION 203**

An MPLS service provider is offering a standard EoMPLS-based VPLS service to Customer A, providing Layer 2 connectivity between a central site and approximately 100 remote sites. Customer A wants to use the VPLS network to carry its internal multicast video feeds which are sourced at the central site and consist of 20 groups at Mbps each. Which service provider recommendation offers the most scalability?

- A. EoMPLS-based VPLS can carry multicast traffic in a scalable manner
- B. Use a mesh of GRE tunnels to carry the streams between sites
- C. Enable snooping mechanisms on the provider PE routers.
- D. Replace VPLS with a Layer 3 MVPN solution to carry the streams between sites

Answer: D

**NEW QUESTION 205**

A network architect in an enterprise is designing a network policy for certain database applications. The goal of the policy is to allow these applications to access the internet directly, whereas other user and network applications that communicate with systems or users outside their own network must be routed through the data center. The focus is on achieving higher availability and a better user experience for the database applications, but switching between different network paths based on performance characteristics must be supported.

Which solution meets these requirements?

- A. MPLS L3VPN with QoS
- B. Cloud onRamp for IaaS
- C. Cloud onRamp for SaaS
- D. MPLS direct connect

Answer: C

**Explanation:**

<https://www.cisco.com/c/en/us/solutions/collateral/enterprise-networks/sd-wan/nb-06-cloud-onramp-saas-faq-ct>

**NEW QUESTION 207**

Which parameter is the most important factor to consider when deciding service placement in a cloud solution?

- A. data replication cost
- B. application structure
- C. security framework Implementation time
- D. data confidentiality rules

Answer: D

**NEW QUESTION 210**

Drag and drop the optical technology design characteristics on the left to the correct optical technologies on the right. Not all options are used

suited for short-haul and long-haul distances	<b>CWDM (Coarse Wavelength Division Multiplexing)</b> target 1 target 2 target 3
number of channels can be 40 or more	
large channel spacing (2500 GHz)	
small channel spacing (100 or 50 GHz)	<b>DWDM (Dense Wavelength Division Multiplexing)</b> target 4 target 5 target 6
suited for short-haul, typically limited to Metropolitan networks	
maximum of 16 channels	
only suitable for ring or dual-ring topology	

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

- 1 - target 4
- 2 - target 5
- 3 - target 1

- 4 - target 6
- 5 - target 2
- 6 - target 3

#### NEW QUESTION 215

Which DCI technology utilizes a “flood and learn” technique to populate the Layer2 forwarding table?

- A. LISP
- B. OTV
- C. VPLS
- D. EVPN

**Answer: C**

#### NEW QUESTION 218

Which two factors must be considered for high availability in campus LAN designs to mitigate concerns about unavailability of network resources? (Choose two.)

- A. device resiliency
- B. device type
- C. network type
- D. network resiliency
- E. network size

**Answer: AD**

#### NEW QUESTION 222

Which two features describe controller-based networking solutions compared to traditional networking solutions? (Choose two.)

- A. inflate licensing costs
- B. reduce network configuration complexity
- C. provide centralization of primary IT functions
- D. allow for fewer network failures
- E. increase network bandwidth usage

**Answer: BC**

#### NEW QUESTION 225

Which two types of planning approaches are used to develop business-driven network designs and to facilitate the design decisions? (Choose two)

- A. cost optimization approach
- B. strategic planning approach
- C. modular approach
- D. tactical planning approach
- E. business optimization approach

**Answer: BD**

#### NEW QUESTION 229

What is a characteristic of a secure cloud architecture model?

- A. limited access to job function
- B. dedicated and restricted workstations
- C. multi-factor authentication
- D. software-defined network segmentation

**Answer: D**

#### NEW QUESTION 232

According to the CIA triad principles for network security design, which principle should be priority for a Zero Trust network?

- A. requirement for data-in-motion encryption and 2FA authentication
- B. requirement for data-at-rest encryption for user identification within the VPN termination hardware
- C. categorization of systems, data, and enterprise BYOD assets that are connected to network zones based on individual privacy needs
- D. ensuring that authorized users have high-availability system access from defined zones to defined systems or zones

**Answer: A**

#### NEW QUESTION 233

An enterprise campus is adopting a network virtualization design solution with these requirements

- It must include the ability to virtualize the data plane and control plane by using VLANs and VRFs
- It must maintain end-to-end logical path transport separation across the network
- resources available grouped at the access edge

Which two primary models can this network virtualization design be categorized? (Choose two)

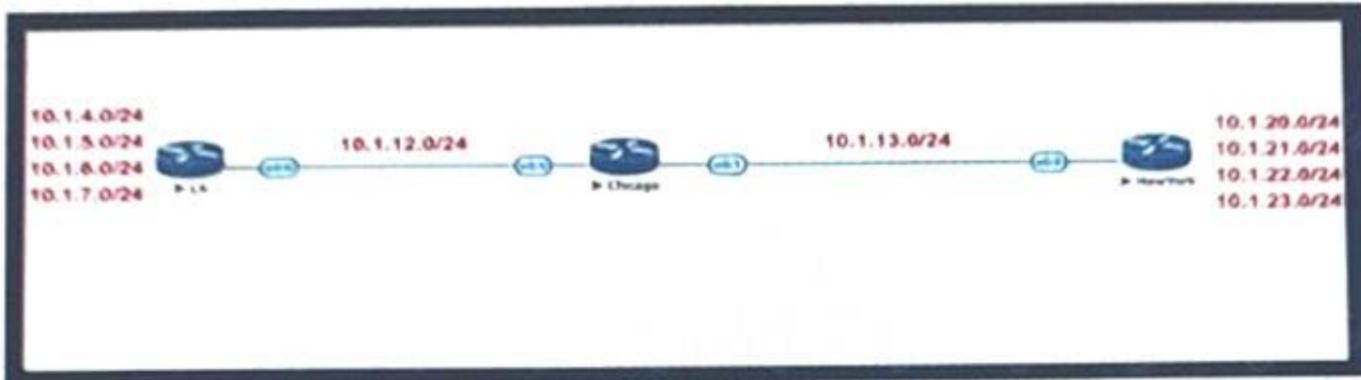
- A. Path isolation

- B. Session isolation
- C. Group virtualization
- D. Services virtualization
- E. Edge isolation

Answer: AD

**NEW QUESTION 237**

Refer to the exhibit.



Company XYZ BGP topology is as shown in the diagram. The interface on the LA router connected toward the 10.1.5.0/24 network is faulty and is going up and down, which affects the entire routing domain. Which routing technique can the network administrator use so that the rest of the network is not affected by the flapping issue?

- A. The LA administrator should use route aggregation to summarize the 10.1.4.0/24, 10.1.5.0/24, 10.1.6.0/24, and 10.1.7.0/24 networks toward Chicago
- B. The LA administrator should use route dampening for the 10.1.5.0/24 network so that it does not get propagated when it flaps up and down.
- C. The LA administrator should use route filtering to block the 10.1.5.0/24 network from getting propagated toward Chicago and New York.
- D. The Chicago administrator should use route filtering to block the 10.1.5.0/24 network from coming in from the LA router.

Answer: B

**NEW QUESTION 241**

A legacy enterprise is using a Service Provider MPLS network to connect its head office and branches. Recently, they added a new branch to their network. Due to physical security concerns, they want to extend their existing IP CCTV network of the head office to the new branch, without any routing changes in the network. They are also under some time constraints. What is the best approach to extend the existing IP CCTV network to the new branch, without incurring any IP address changes?

- A. L2TPv3
- B. VXLAN
- C. EoMPLS

Answer: B

**NEW QUESTION 244**

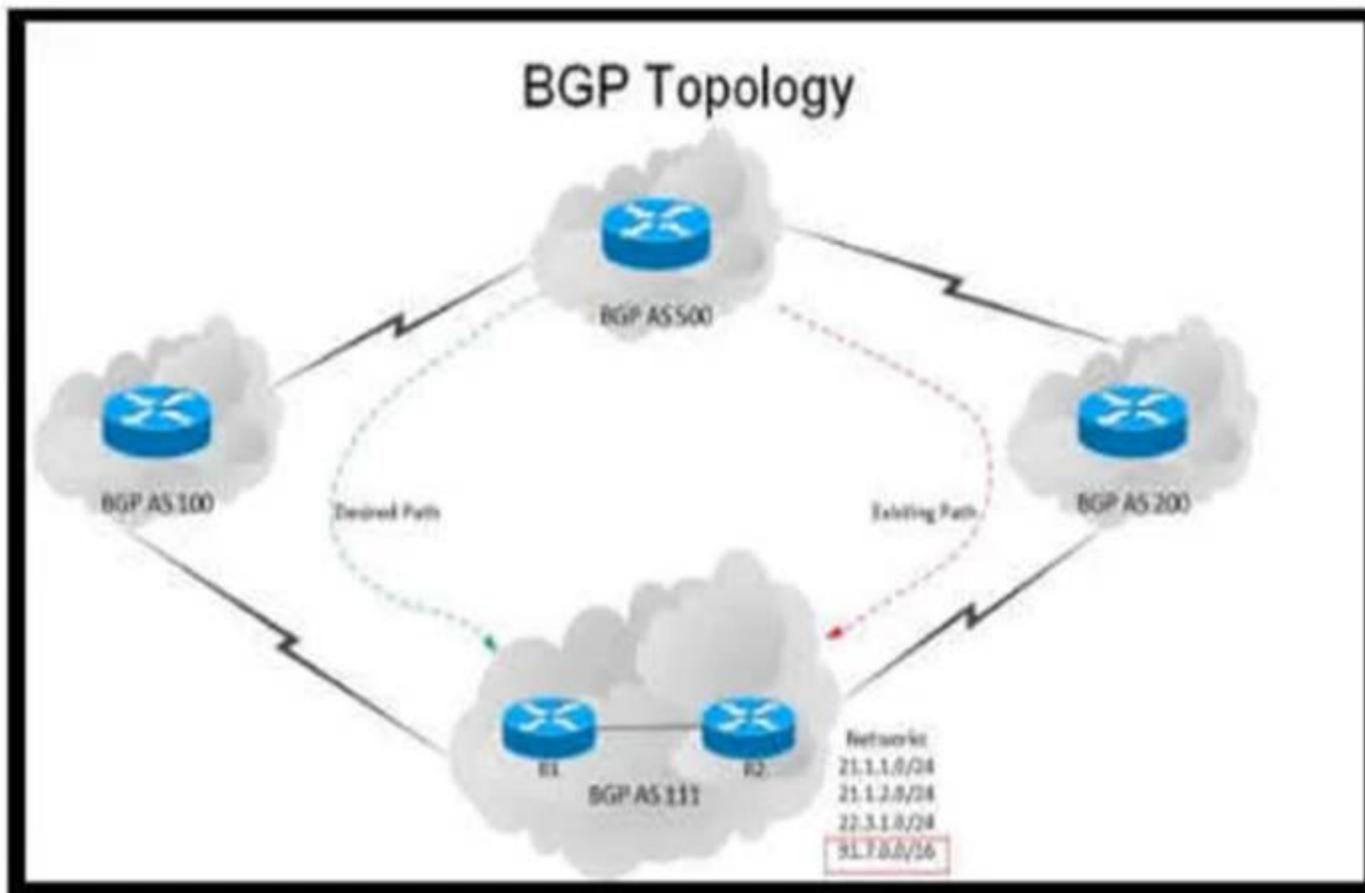
Which two conditions must be met for EIGRP to maintain an alternate loop-free path to a remote network? (Choose two.)

- A. The Reported Distance from a successor is lower than the local Feasible Distance.
- B. The Reported Distance from a successor is higher than the local Feasible Distance.
- C. The feasibility condition does not need to be met.
- D. The Feasible Distance from a successor is lower than the local Reported Distance.
- E. A feasible successor must be present.

Answer: AE

**NEW QUESTION 247**

Refer to the exhibit.



An engineer has been asked to redesign the traffic flow toward AS 111 coming from AS 500. Traffic destined to AS 111 network 91.7.0.0/16 should come in via AS 100, while traffic destined to all other networks in AS 111 should continue to use the existing path. Which BGP attributes are best suited to control this inbound traffic coming from BGP AS 500 into the 91.7.0.0/16 network?

- A. Prepend AS path for the 91.7.0.0/16 network and set it for neighbor in AS 200.
- B. Use extended community for the 91.7.0.0/16 network, not advertising it to the bi-lateral peer.
- C. Use local preference on R1 for the networks that AS 500 advertises to AS 111.
- D. Set higher MED for neighbor in AS 100 to influence incoming traffic for the 91.7.0.0/16 network.

Answer: A

**NEW QUESTION 250**

Which optimal use of interface dampening on a fast convergence network design is true?

- A. When occasional flaps of long duration occur
- B. when numerous adjacent flaps of very short duration occur
- C. when the router hardware is slower than the carrier delay down detection
- D. when the switch hardware is faster than the debounce timer down detection

Answer: B

**NEW QUESTION 253**

Company XYZ was not satisfied with the reconvergence time OSPF is taking. BFD was implemented to try to reduce the reconvergence time, but the network is still experiencing delays when having to reconverge. Which technology will improve the design?

- A. BFD echo
- B. Change the protocol to BGP
- C. Change the OSPF hello and dead intervals

Answer: B

**NEW QUESTION 254**

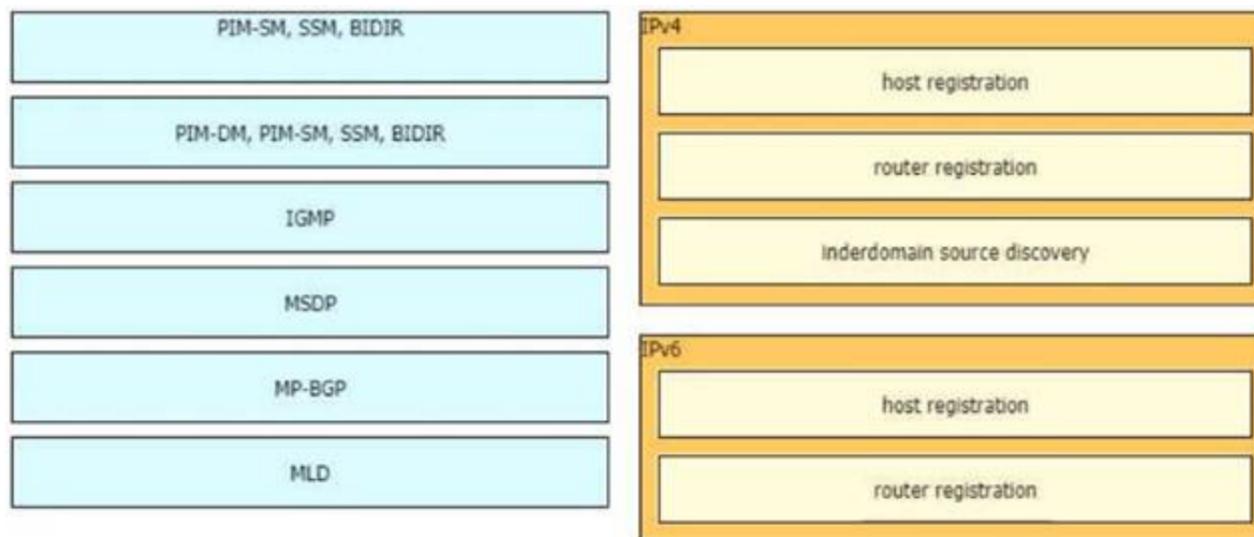
A network engineering team is in the process of designing a lab network for a customer demonstration. The design engineer wants to show that the resiliency of the MPLS traffic Engineering Fast Reroute solution has the same failover/failback times as a traditional SONET/SDH network (around 50MSEC). In order to address both link failure and node failure within the lab topology network, which type of the MPLS TE tunnels must be considered for this demonstration?

- A. TE backup tunnel
- B. Next-hop (NHop) tunnel
- C. FRR Backup tunnel
- D. next-next-hop (NNHop) tunnel

Answer: D

**NEW QUESTION 257**

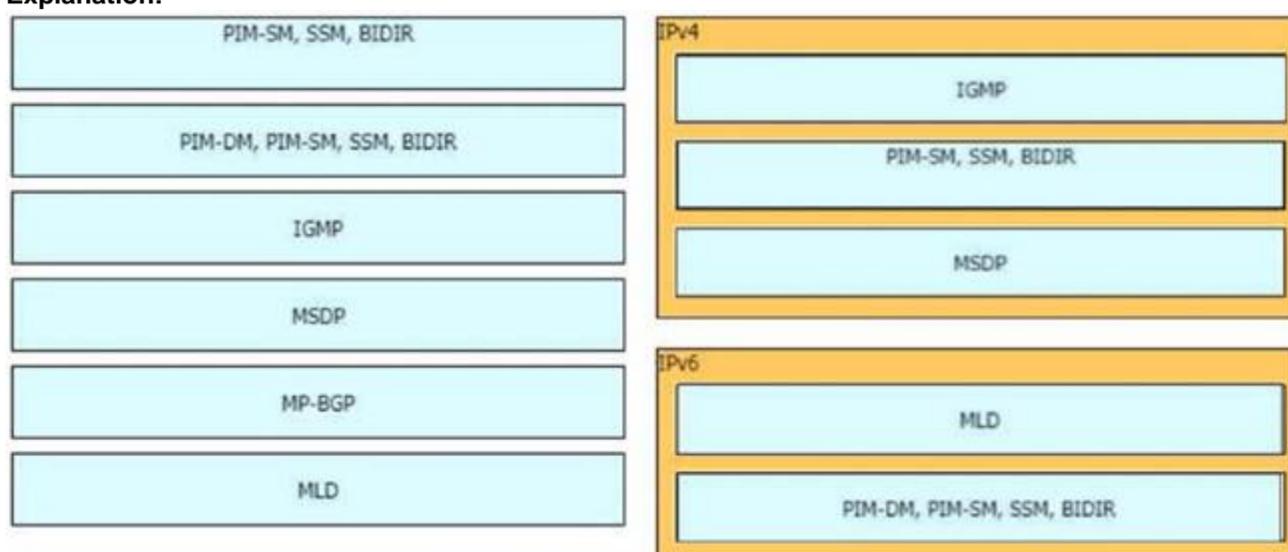
Drag and drop the multicast protocols from the left onto the current design situation on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



**NEW QUESTION 261**

Company XYZ has two routing domains in their network, EIGRP and OSPF. The company wants to provide full reachability between the two domains by implementing redistribution on a router running both protocols. They need to design the redistribution in a way that the OSPF routers will see link costs added to external routes. How must the redistribution strategy be designed for this network?

- A. Redistribute using metric type 2 into OSPF.
- B. Redistribute using metric type 1 into OSPF.
- C. Redistribute using metric type 1 into EIGRP.
- D. Redistribute using metric type 2 into EIGRP.

Answer: B

Explanation:

<https://www.ciscopress.com/articles/article.asp?p=27573&seqNum=4#:~:text=Routes%20are%20redistributed%>

**NEW QUESTION 264**

An enterprise wants to provide low-cost delivery of network systems that can be scaled on business demand, followed by an initiative to reduce capital expenses for new IT equipment. Which technology meets these goals'?

- A. IaaS within a private cloud
- B. IaaS within an on-premises location
- C. PaaS within a public cloud
- D. SaaS within an on-premises location

Answer: C

**NEW QUESTION 269**

A customer asks you to perform a high level review of their upcoming WAN refresh for remote sites. The review is specially focused on their retail store operations consisting of 500+ locations connected via multipoint IPsec VPN solution. Which routing protocol would be valid but would also be the most restrictive for the expansion of this deployment model?

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

Answer: B

#### NEW QUESTION 272

An enterprise solution team is performing an analysis of multilayer architecture and multicontroller SDN solutions for multisite deployments. The analysis focuses on the ability to run tasks on any controller via a standardized interface. Which requirement addresses this ability on a multicontroller platform?

- A. Deploy a root controller to gather a complete network-level view.
- B. Use the East-West API to facilitate replication between controllers within a cluster.
- C. Build direct physical connectivity between different controllers.
- D. Use OpenFlow to implement and adapt new protocols.

Answer: D

#### NEW QUESTION 273

Which two actions must merchants do to be compliant with the Payment Card Industry Data Security Standard? (Choose two.)

- A. conduct risk analyses
- B. install firewalls
- C. use antivirus software
- D. establish monitoring policies
- E. establish risk management policies

Answer: BC

#### NEW QUESTION 274

The Layer 3 control plane is the intelligence over the network that steers traffic toward its intended destination. Which two techniques can be used in service provider-style networks to offer a more dynamic, flexible, controlled, and secure control plane design? (Choose two.)

- A. access control lists
- B. firewalls
- C. QoS policy propagation with BGP
- D. remote black-holing trigger
- E. prefix lists

Answer: DE

#### NEW QUESTION 277

Company XYZ has a hub-and-spoke topology over an SP-managed infrastructure. To measure traffic performance metrics, they implemented IP SLA senders on all spoke CE routers and an IP SLA responder on the hub CE router. What must they monitor to have visibility on the potential performance impact due to the constantly increasing number of spoke sites?

- A. CPU and memory usage on the spoke routers
- B. memory usage on the hub router
- C. CPU usage on the hub router
- D. interface buffers on the hub and spoke routers

Answer: C

#### NEW QUESTION 278

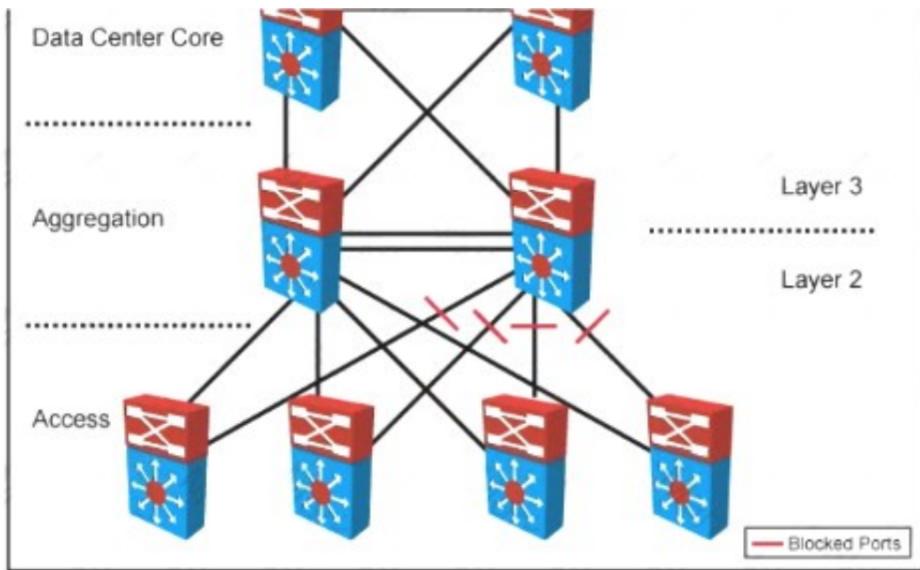
SD-WAN can be used to provide secure connectivity to remote offices, branch offices, campus networks, data centers, and the cloud over any type of IP-based underlay transport network. Which two statements describe SD WAN solutions? (Choose two.)

- A. SD-WAN networks are inherently protected against slow performance.
- B. Control and data forwarding planes are kept separate.
- C. Improved operational efficiencies result in cost savings.
- D. Solutions include centralized orchestration, control, and zero-touch provisioning.
- E. Solutions allow for variations of commodity and specialized switching hardware.

Answer: BD

#### NEW QUESTION 280

Refer to the exhibit.



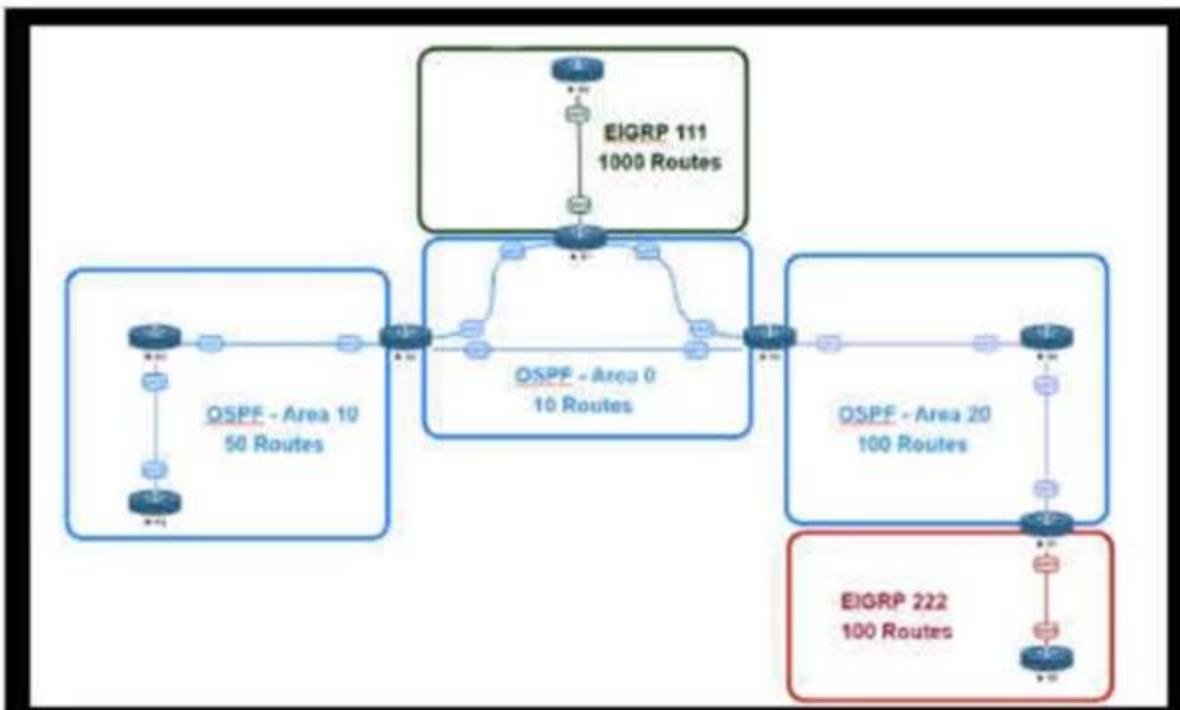
Your company designed a network to allow server VLANs to span all access switches in a data center. In the design, Layer 3 VLAN interfaces and HSRP are configured on the aggregation switches. Which two features improve STP stability within the network design? (Choose two.)

- A. BPDU guard on access ports
- B. BPDU guard on the aggregation switch downlinks toward access switches
- C. root guard on the aggregation switch downlinks toward access switches
- D. root guard on access ports
- E. edge port on access ports
- F. access switch pairs explicitly determined to be root and backup root bridges

**Answer: AE**

**NEW QUESTION 283**

Refer to the exhibit.



An engineer is designing a multiarea OSPF network for a client who also has a large EIGRP domain. EIGRP routes are getting redistributed into OSPF. OSPF area 20 has routers with limited memory and CPU resources. The engineer wants to block routes from EIGRP 111 from propagating into area 20 and allow EIGRP 222 routes to flow. In which OSPF area type fulfills this design requirement?

- A. area 20 as a stub area
- B. type 5 LSA filtering on the ASBR between EIGRP 111 and area 20
- C. area 20 as a NSSA area
- D. type 3 LSA filtering on the ABR between area 0 and area 20

**Answer: C**

**NEW QUESTION 287**

Agile and Waterfall are two popular methods for organizing projects. What describes any Agile network design development process?

- A. working design over comprehensive documentation
- B. contract negotiation over customer collaboration
- C. following a plan over responding to change
- D. processes and tools over individuals and interactions over time

**Answer: A**

**NEW QUESTION 292**

A business customer deploys workloads in the public cloud. Now the customer network faces governance issues with the flow of IT traffic and must ensure the security of data and intellectual property. Which action helps to identify the issue for further resolution?

- A. Set up a secure tunnel from customer routers to ensure that traffic is protected as it travels to the cloud service providers.

- B. Send IPFIX telemetry data from customer routers to a centralized collector to identify traffic to cloud service providers
- C. Build a zone-based firewall policy on Internet edge firewalls that collects statistics on traffic sent to cloud service providers
- D. Apply workload policies that dictate the security requirements to the workloads that are placed in the cloud.

**Answer:** B

#### NEW QUESTION 296

Which two mechanisms avoid suboptimal routing in a network with dynamic mutual redistribution between multiple OSPFv2 and EIGRP boundaries? (Choose two.)

- A. AD manipulation
- B. matching OSPF external routes
- C. route tagging
- D. route tagging
- E. route filtering
- F. matching EIGRP process ID

**Answer:** DE

#### Explanation:

<https://www.cisco.com/c/en/us/support/docs/ip/enhanced-interior-gateway-routing-protocol-eigrp/8606-redist.ht>

#### NEW QUESTION 301

Which two factors provide multifactor authentication for secure access to applications and data, no matter where the users are or which devices they are on? (Choose two.)

- A. persona-based
- B. power-based
- C. push-based
- D. possession-based
- E. pull-based

**Answer:** CD

#### NEW QUESTION 306

What are two examples of business goals to be considered when a network design is built? (Choose two.)

- A. standardize resiliency
- B. minimize operational costs
- C. integrate endpoint posture
- D. ensure faster obsolescence
- E. reduce complexity

**Answer:** BE

#### NEW QUESTION 311

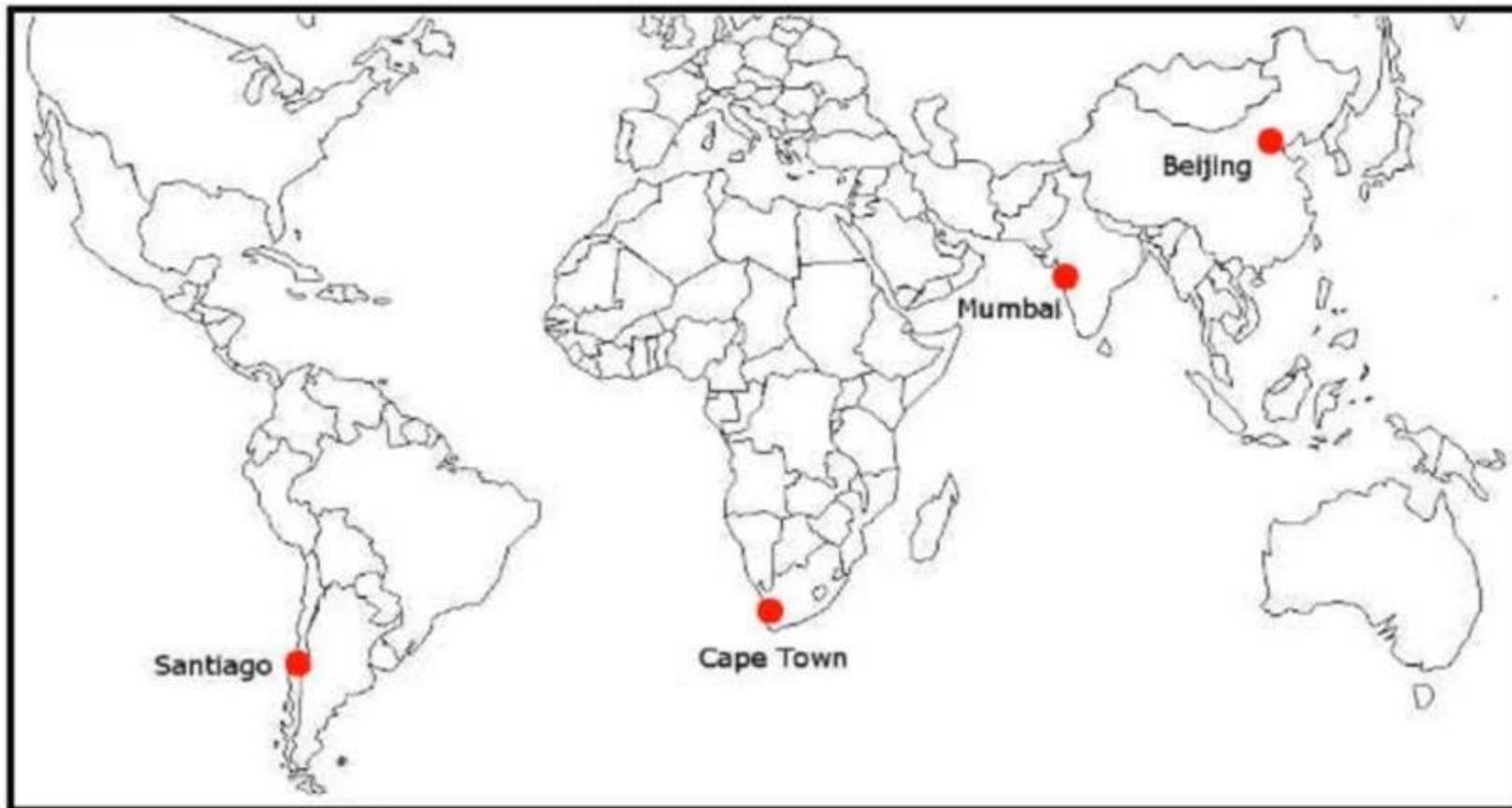
Which two points must network designers consider when designing a new network design or when evaluating an existing network design to help them understand the high-level design direction with regards to the security aspects? (Choose two)

- A. Consider Business objectives and goals
- B. Consider organization's security policy standards
- C. Consider for only multi-site networks
- D. Consider for only new network technologies and components

**Answer:** AB

#### NEW QUESTION 312

Refer to the exhibit.



ACME Mining has four data centers in Santiago, Cape Town, Mumbai, and Beijing, full-mesh connected via a 400 Mb/s EVP-LAN. They want to deploy a new mission-critical application with these requirements:

- > cluster heartbeat 2 Mb/s continuous (250 KB/s)
- > cluster heartbeat one-way maximum latency 100 ms

These are the current ping test results between the four data centers:

	Santiago	Cape Town	Mumbai	Beijing
Santiago	-	280 ms	378 ms	409 ms
Cape Town	280 ms	-	185 ms	445 ms
Mumbai	383 ms	176 ms	-	443 ms
Beijing	430 ms	448 ms	442 ms	-

Which hosting data center pair can host the new application?

- A. Mumbai and Beijing
- B. Santiago and Cape Town
- C. Santiago and Mumbai
- D. Cape Town and Mumbai
- E. Cape Town and Beijing
- F. Santiago and Beijing

Answer: D

**NEW QUESTION 313**

As network designer, which option is your main concern with regards to virtualizing multiple network zones into a single hardware device?

- A. Fate sharing
- B. CPU resource allocation
- C. Congestion control
- D. Security
- E. Bandwidth allocation

Answer: A

**NEW QUESTION 317**

The administrator of a small branch office wants to implement the Layer 2 network without running STP. The office has some redundant paths. Which mechanism can the administrator use to allow redundancy without creating Layer 2 loops?

- A. Use double-sided VPC on both switches
- B. Use two port channels as Flex links
- C. Use fabric path with ECMP
- D. Use 802.3ad link bundling.

Answer: B

**NEW QUESTION 320**

Which two foundational aspects of IoT are still evolving and being worked on by the industry at large? (Choose two)

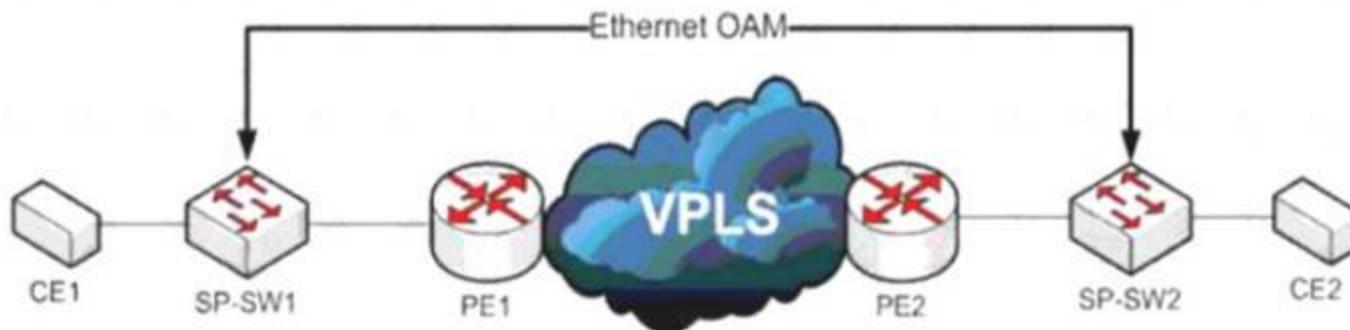
- A. WiFi protocols

- B. Regulatory domains
- C. Low energy Bluetooth sensors
- D. IoT consortia
- E. Standards

Answer: AC

**NEW QUESTION 321**

Refer to the exhibit



A service provider has a requirement to use Ethernet OAM to detect end-to-end connectivity failures between SP-SW1 and SP-SW2. Which two ways to design this solution are true? (Choose two)

- A. Enable unicast heartbeat messages to be periodically exchanged between MEPs
- B. Enable Connectivity Fault Management on the SP switches
- C. Use upward maintenance endpoints on the SP switches
- D. Forward E-LMI PDUs over VPLS
- E. Forward LLD PDUs over the VPLS

Answer: BC

**NEW QUESTION 325**

Company XYZ is running BGP as their routing protocol. An external design consultant recommends that TCP path MTU discovery be enabled. Which effect will this have on the network?

- A. It will enhance the performance of TCP-based applications.
- B. It will increase the convergence time.
- C. It will improve the convergence time.
- D. It will create a loop free path.

Answer: A

**NEW QUESTION 329**

Which three Cisco products are used in conjunction with Red Hat to provide an NFVi solution? (Choose three.)

- A. Cisco Prime Service Catalog
- B. Cisco Open Virtual Switch
- C. Cisco Nexus switches
- D. Cisco UCS
- E. Cisco Open Container Platform
- F. Cisco Virtual Network Function

Answer: CDF

**NEW QUESTION 334**

Router R1 is a BGP speaker with one peering neighbor over link "A". When the R1 link/interface "A" fails, routing announcements are terminated, which results in the tearing down of the state for all BGP routes at each end of the link. What is this a good example of?

- A. fault isolation
- B. resiliency
- C. redundancy
- D. fate sharing

Answer: D

**NEW QUESTION 335**

Company XYZ runs OSPF in their network. A design engineer decides to implement hot-potato routing architecture. How can this implementation be achieved?

- A. Enable iBGP and apply prepend to ensure all prefixes will have the same length of the AS path attribute value.
- B. Redistribute the external prefixes onto OSPF and ensure the total metric calculation includes only the ext value and the value is the same in all ASBRs.
- C. Enable OSPF load-balancing over unequal cost path.
- D. Redistribute the external prefixes onto OSPF and ensure that the total metric calculation includes external internal values.

Answer: D

**NEW QUESTION 339**

Company XYZ is designing the network for IPv6 security and they have these design requirements:

- > A switch or router must deny access to traffic from sources with addresses that are correct, but are topologically incorrect
  - > Devices must block Neighbor Discovery Protocol resolution for destination addresses that are not found in the binding table.
- Which two IPv4 security features are recommended for this company? (Choose two)

- A. IPv6 DHCP Guard
- B. IPv6 Source Guard
- C. IPv6 Destination Guard
- D. IPv6 Prefix Guard
- E. IPv6 RA Guard

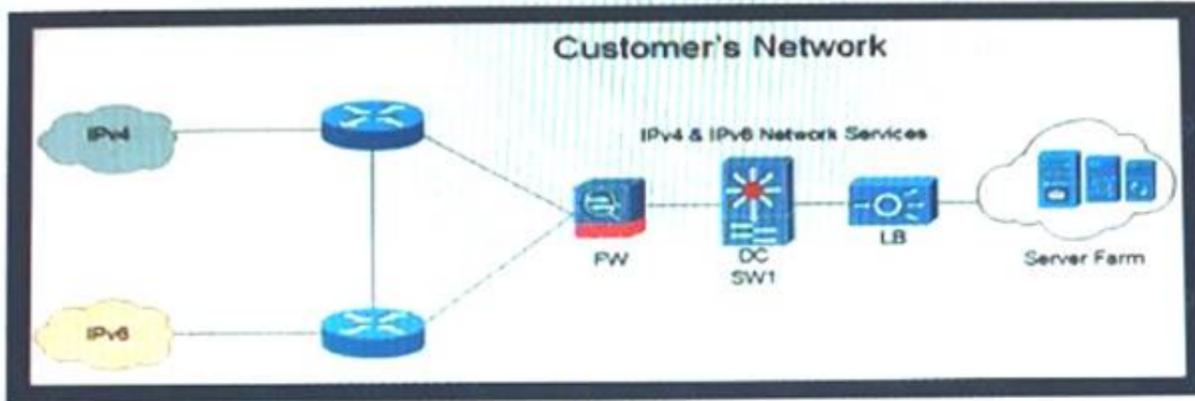
**Answer:** CD

**Explanation:**

[https://www.cisco.com/c/dam/global/ja\\_jp/td/docs/ios-xml/ios/ipv6\\_fhsec/configuration/xe-16/ip6f-xe-16-book](https://www.cisco.com/c/dam/global/ja_jp/td/docs/ios-xml/ios/ipv6_fhsec/configuration/xe-16/ip6f-xe-16-book).

**NEW QUESTION 340**

Refer to the exhibit.



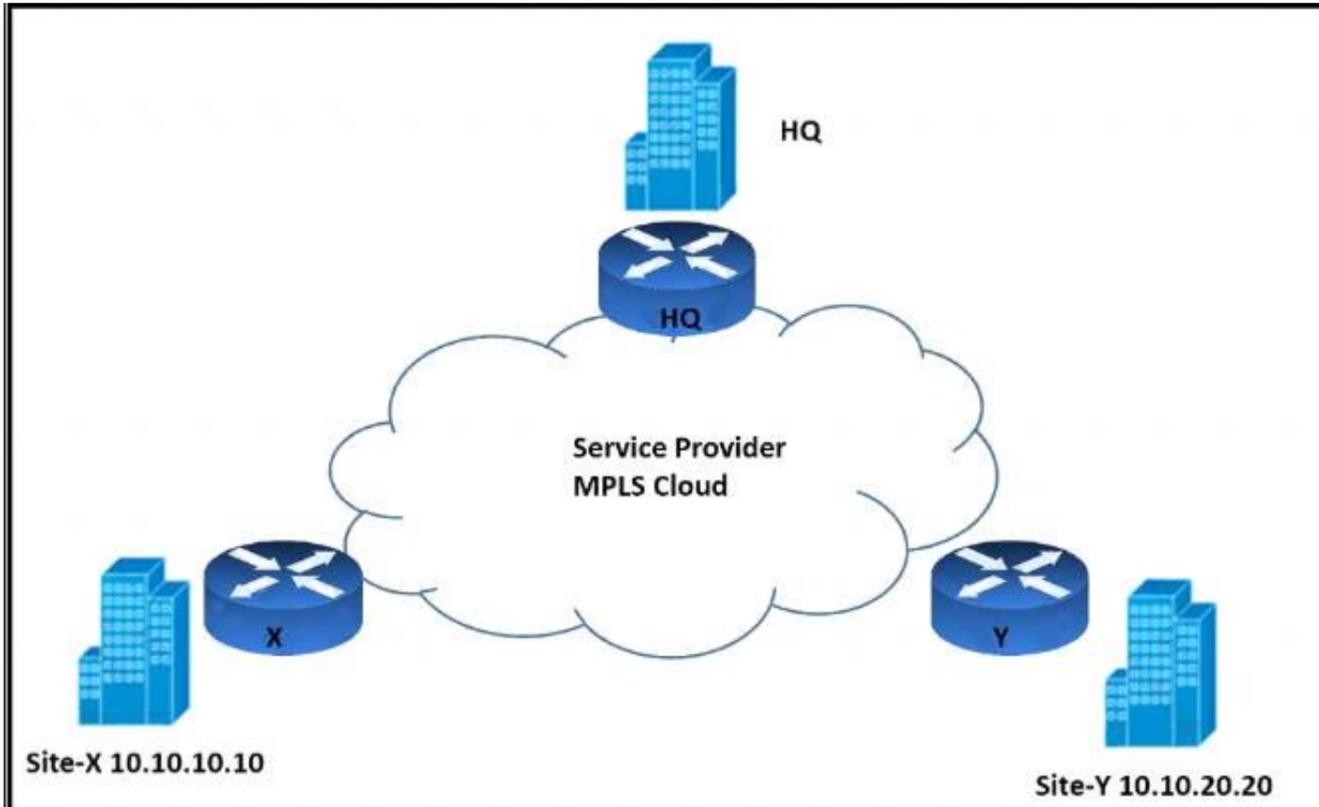
Company XYZ is currently running IPv4 but has decided to start the transition into IPv6. The initial objective is to allow communication based on IPv6 wherever possible, and there should still be support in place for devices that only support IPv4. These devices must be able to communicate to IPv6 devices as well. Which solution must be part of the design?

- A. address family translation
- B. dual stack
- C. host-to-host tunneling
- D. 6rd tunneling

**Answer:** B

**NEW QUESTION 343**

Refer to the exhibit.



An architect must design an enterprise WAN that connects the headquarters with 22 branch offices. The number of remote sites is expected to triple in the next three years. The final solution must comply with these requirements:

- > Only the loopback address of each of the enterprise CE X and Y routers must be advertised to the interconnecting service provider cloud network.
- > The transport layer must carry the VPNv4 label and VPN payload over the MP-BGP control plane.
- > The transport layer must not be under service provider control.

Which enterprise WAN transport virtualization technique meets the requirements?

- A. EIGRP Over the Top
- B. MPLS over BGP over multipoint GRE
- C. DMVPN per VRF
- D. point-to-point GRE per VRF

Answer: B

#### NEW QUESTION 347

Company XYZ wants to deploy OSPF. The design plan requires that two OSPF networks be mutually redistributed at multiple locations and ensure end-to-end connectivity to all of the company's networks. Which technology can be used to fulfill the requirements while avoiding the creation of routing loops?

- A. Create a virtual link between ASBRs.
- B. Change the router ID for both ASBRs.
- C. Redistribute routes as external type 2 routes.
- D. Use route maps on ASBRs to filter routes with tags so they are not redistributed.

Answer: D

#### Explanation:

<https://www.cisco.com/c/en/us/support/docs/ip/open-shortest-path-first-ospf/4170-ospfprocesses.html>

#### NEW QUESTION 348

A key to maintaining a highly available network is building in the appropriate redundancy to protect against failure. This redundancy is carefully balanced with the inherent complexity of redundant systems. Which design consideration is relevant for enterprise WAN use cases when it comes to resiliency?

- A. Design in a way that expects outages and attacks on the network and its protected resources
- B. The design approach should consider simple and centralized management aspect
- C. Design in a way that it simplifies and improves ease of deployment
- D. Design automation tools wherever it is appropriate for greater visibility

Answer: A

#### NEW QUESTION 349

Which two statements describe network automation and network orchestration? (Choose two.)

- A. Network automation does not provide governance or policy management.
- B. Network automation spans multiple network services, vendors, and environments.
- C. Network orchestration is done through programmatic REST APIs enabling automation across devices and management platforms.
- D. Provisioning network services is an example of network automation.
- E. Network orchestration is used to run single, low-level tasks without human intervention

Answer: AC

#### NEW QUESTION 350

A service provider recently migrated to an SD-WAN solution for delivering WAN connections to its customers. One of the main challenges with the SD-WAN deployment is that branch site volume increases every year, which causes management complexity. Which action resolves the issue?

- A. Implement a scalable network management system to manage all sites.
- B. Adopt a well-structured SD-WAN service management lifecycle model
- C. Build a service orchestration platform on top of the network controller
- D. Set up a dedicated team to monitor and provision new customers

Answer: C

#### NEW QUESTION 353

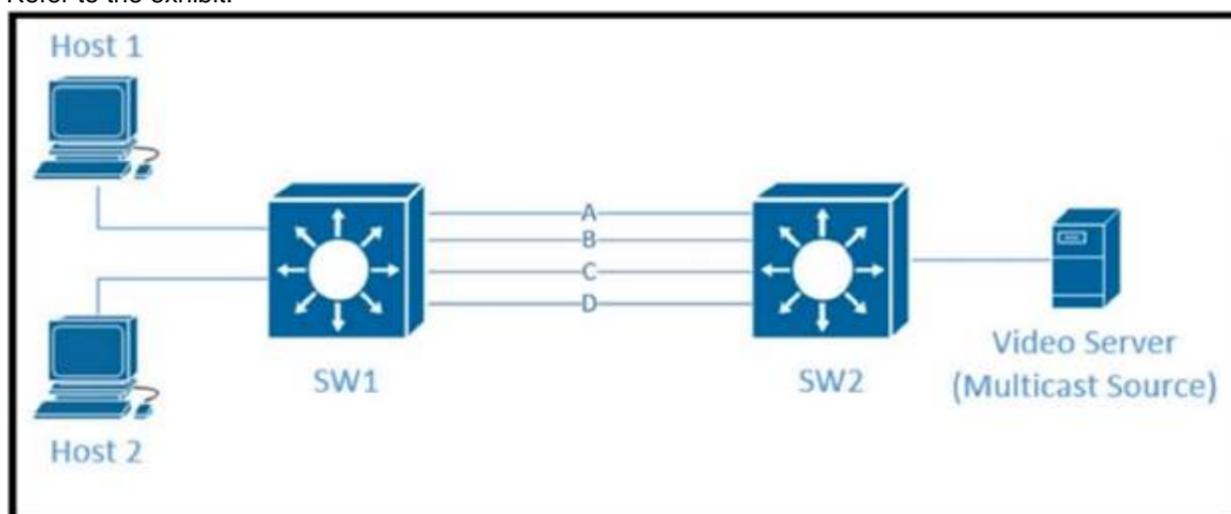
What advantage of placing the IS-IS layer 2 flooding domain boundary at the core Layer in a three-layer hierarchical network is true?

- A. The Layer 1 and Layer 2 domains can easily overlap
- B. It reduces the complexity of the Layer 1 domains
- C. It can be applied to any kind of topology
- D. The Layer 2 domain is contained and more stable

Answer: D

#### NEW QUESTION 356

Refer to the exhibit.



Traffic was equally balanced between Layer 3 links on core switches SW1 and SW2 before an introduction of the new video server in the network. This video server uses multicast to send video streams to hosts and now one of the links between core switches is over utilized Which design solution solves this issue?

- A. Add more links between core switches.
- B. Aggregate links Layer 2 link aggregation.
- C. Apply a more granular load- balancing method on SW1.
- D. Apply a more granular load-balancing method on SW2.
- E. Filter IGMP joins on an over -utilized link.

**Answer: B**

#### NEW QUESTION 358

An enterprise requires MPLS connected branches to access cloud-based Microsoft 365 services over an SD-WAN solution. Internet access is available only at dual regional hub sites that are connected to the MPLS network. Which connectivity method provides an optimum access method to the cloud-based services if one ISP suffers loss or latency?

- A. Cloud onRamp gateway site
- B. Cloud onRamp SWG
- C. Cloud onRamp
- D. Cloud onRamp SaaS

**Answer: D**

#### Explanation:

<https://www.cisco.com/c/en/us/td/docs/routers/sdwan/configuration/cloudonramp/vedge-20-x/cloud-onramp-boo>

#### NEW QUESTION 361

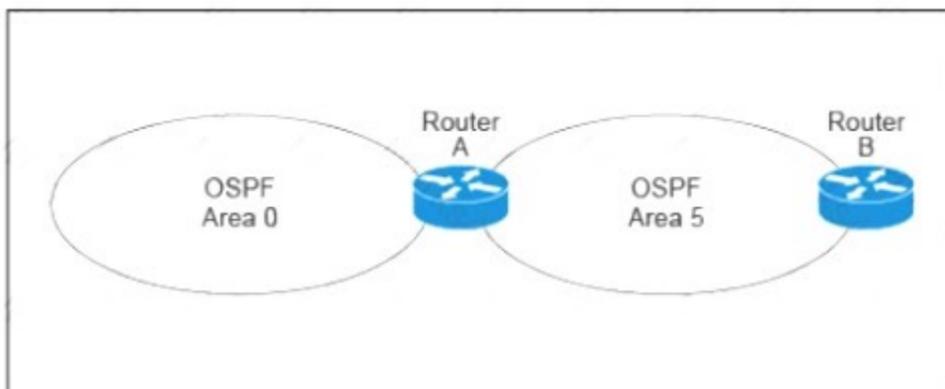
A BGP route reflector in the network is taking longer than expected to coverage during large network changes. Troubleshooting shows that the router cannot handle all the TCP acknowledgements during route updates. Which action can be performed to tune the device performance?

- A. Increase the size of the hold queue.
- B. Increase the size of the large buffers.
- C. Decrease the size of the small buffers.
- D. Increase the keepalive timers for each BGP neighbor.

**Answer: A**

#### NEW QUESTION 363

Refer to the exhibit.



A customer runs OSPF with Area 5 between its aggregation router and an internal router. When a network change occurs in the backbone, Area 5 starts having connectivity issues due to the SPF algorithm recalculating an abnormal number of times in Area 5. You are tasked to redesign this network to increase resiliency on the customer network with the caveat that Router B does not support the stub area. How can you accomplish this task\*?

- A. Increase the bandwidth on the connection between Router A and Router B
- B. Implement LSA filtering on the ABR, allowing summary routes and preventing more specific routes into Area 5
- C. Create a virtual link to Area 0 from Router B to the ABR
- D. Turn on LSA throttling on all devices in Area 5
- E. Set Area 5 to stubby at the ABR anyway

**Answer: B**

#### NEW QUESTION 366

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