

# Cisco

## Exam Questions 400-007

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



#### NEW QUESTION 1

An enterprise that runs numerous proprietary applications has major issues with its on-premises server estate hardware, to the point where business-critical functions are compromised. The enterprise accelerates plans to migrate services to the cloud. Which cloud service should be used if the enterprise wants to avoid hardware issues yet have control of its applications and operating system?

- A. SaaS
- B. PaaS
- C. IaaS
- D. hybrid cloud

**Answer: C**

#### NEW QUESTION 2

SDWAN networks capitalize the usage of broadband Internet links over traditional MPLS links to offer more cost benefits to enterprise customers. However, due to the insecure nature of the public Internet, it is mandatory to use encryption of traffic between any two SDWAN edge devices installed behind NAT gateways. Which overlay method can provide optimal transport over unreliable underlay networks that are behind NAT gateways?

- A. TLS
- B. DTLS
- C. IPsec
- D. GRE

**Answer: C**

#### NEW QUESTION 3

Various teams in different organizations within an enterprise are preparing low-level design documents to capture network parameters using a Waterfall project model:

- hardware sizing and power consumption
- Layer 2 and layer 3 services parameters
- configuration of all control plane protocols

Input from relevant stakeholders was captured at the start of the project, and the project scope has been defined based on the parameters above. What impact will it have on documentation and project deliverables if the stakeholders ask to have changes carried out in the network before the information has been captured?

- A. This provides more opportunity to think outside the box.
- B. Rework is expected before the delivery.
- C. Significant effort and time are required.
- D. This provides a flexible approach to incorporate changes.

**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

Which three items do you recommend for control plane hardening of an infrastructure device? (Choose three.)

- A. redundant AAA servers
- B. Control Plane Policing
- C. warning banners
- D. to enable unused .services
- E. SNMPv3
- F. routing protocol authentication

**Answer: BEF**

#### NEW QUESTION 6

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 7

Company XYZ wants to improve the security design of their network to include protection from reconnaissance and DoS attacks on their sub interfaces destined toward next hop routers. Which technology can be used to prevent these types of attacks?

- A. MPP
- B. CPPr
- C. CoPP
- D. DPP

Answer: B

#### Explanation:

<https://learningnetwork.cisco.com/s/question/0D53i00000KsuyvCAB/copp-vs-cppr>

#### 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

A Service Provider is designing a solution for a managed CE service to a number of local customers using a single CE platform and wants to have logical separation on the CE platform using Virtual Routing and Forwarding (VRF) based on IP address ranges or packet length. Which is the most scalable solution to provide this type of VRF Selection process on the CE edge device?

- A. Static Routes for Route Leaking
- B. Policy Based Routing
- C. OSPF per VRF Instance
- D. Multi-Protocol BGP

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

- A. 802.1s supports up to 1024 instances of 802.1
- B. 802.1 s 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 13

Company XYZ connects its sites over a private WAN. Their overlay network is running a DMVPN setup where the headquarters site is the hub. The company is planning on implementing multicast routing on the network. What should be used in the multicast routing design?

- A. PIM dense mode with RP located at the hub
- B. PIM sparse mode with RP located at each remote site
- C. PIM sparse mode with RP located at the hub
- D. PIM dense mode with RP located at each remote site

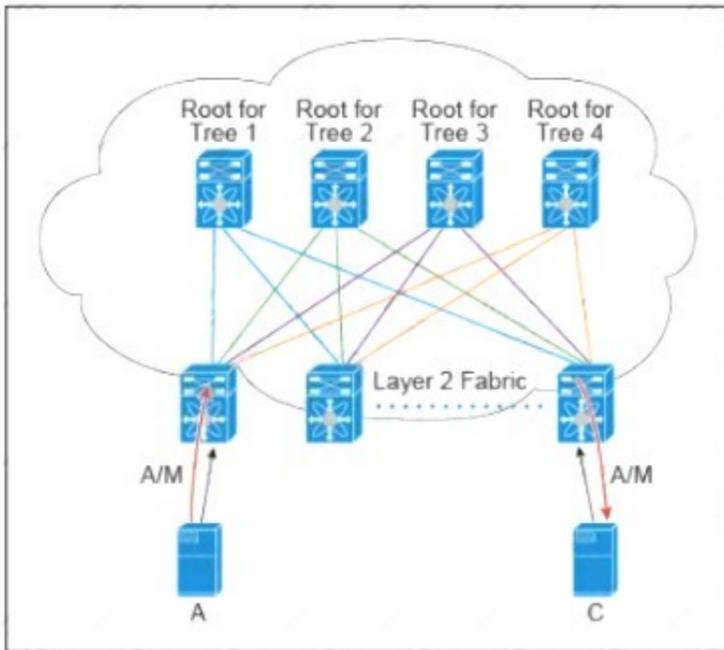
Answer: C

#### Explanation:

<https://www.ccexpert.us/routing-switching-2/dynamic-multipoint-vpn.html>

#### NEW QUESTION 16

Refer to the exhibit.



There are multiple trees in the Cisco FabricPath. All switches in the Layer 2 fabric share the same view of each tree. Which two concepts describe how the multicast traffic is load-balanced across this topology? (Choose two)

- A. A specific (S,G) traffic is not load-balanced
- B. All trees are utilized at the same level of the traffic rate
- C. Every leaf node assigns the specific (S,G) to the same tree.
- D. A specific (S,G) multicast traffic is load-balanced across all trees due to better link utilization efficiency.
- E. The multicast traffic is generally load-balanced across all trees

**Answer:** BD

**NEW QUESTION 17**

Which relationship between iBGP and the underlying physical topology is true?

- A. iBGP full mesh requirement does not dictate any specific network topology.
- B. iBGP can work only on a ring network topology with a link-state protocol like OSPF or IS-IS
- C. iBGP full mesh requires an underlying fully meshed network topology.
- D. iBGP does not work on a ring network topology even with an underlying IGP.

**Answer:** A

**Explanation:**

iBGP peers can be multiple hops away. not like eBGP that needs direct connection (or ebgp-multihop defined). thus, only IP connectivity between two peers is required for an adjacency to form.

**NEW QUESTION 21**

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 25**

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 28**

Which BGP feature provides fast convergence?

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

**Answer:** A

**NEW QUESTION 31**

Company XYZ has a new network based on IPv6. Some of the subnets that they are planning to use will be confidential and need an addressing scheme that confines them to the local campus network. Which type of IPv6 addresses can be used for these networks in the IPv6 addressing design?

- A. local addresses
- B. private addresses
- C. link-local addresses
- D. unique local addresses

**Answer: D**

**NEW QUESTION 36**

What are two descriptions of network optimization? (Choose two.)

- A. maintain high availability
- B. proactive network management
- C. network redesign
- D. network health maintenance
- E. identify network requirements

**Answer: AD**

**NEW QUESTION 41**

You are designing a network for a branch office. In order to improve convergence time, you are required to use the BFD feature. Which four routing protocols can you use to facilitate this? (Choose four.)

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

**Answer: ABDE**

**NEW QUESTION 45**

Which three components are part of the foundational information security principles of the CIA triad? (Choose three.)

- A. cryptography
- B. confidentiality
- C. authorization
- D. identification
- E. integrity
- F. availability

**Answer: BEF**

**NEW QUESTION 46**

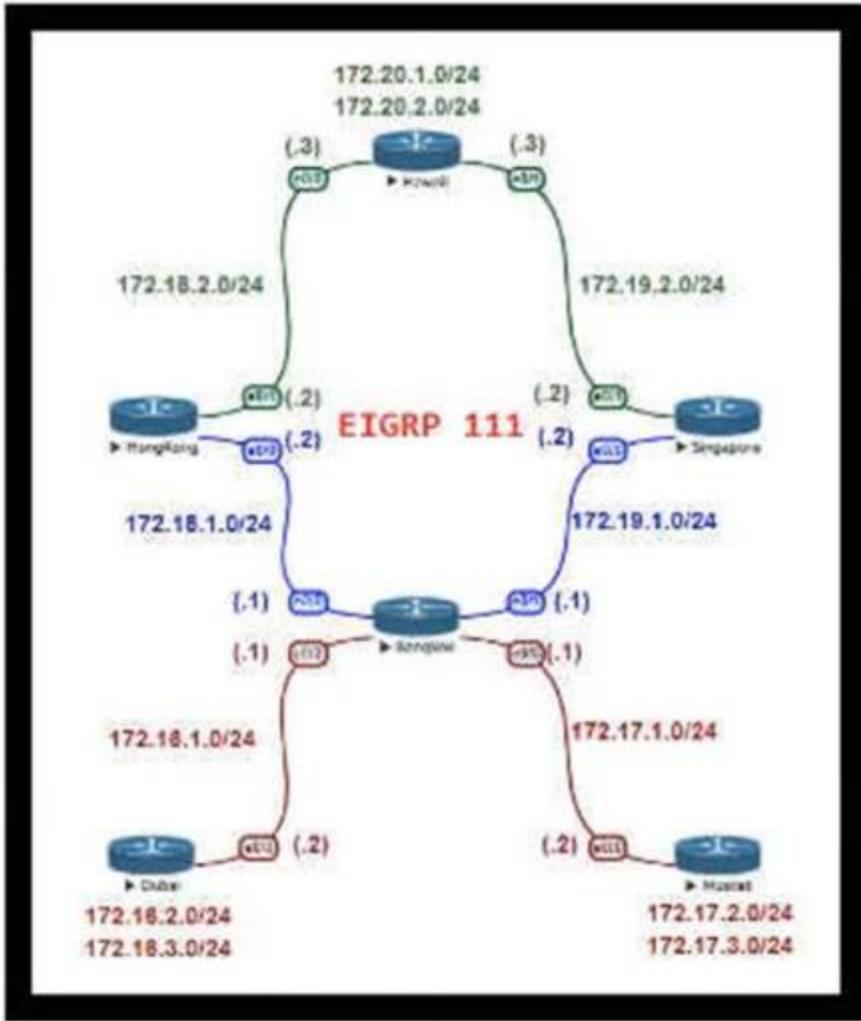
Which extensions to GRE tunneling provide session tracking and in-order packet delivery in exchange for additional state stored in tunnel endpoints?

- A. GRE Protocol Type and Checksum extension fields.
- B. GRE Version and Reserved0 extension fields.
- C. No extension fields are available in the GRE header to track session data and packet sequences.
- D. GRE Key and Sequence number extensions.

**Answer: D**

**NEW QUESTION 47**

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 49**

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 53**

Which solution component helps to achieve comprehensive threat protection and compliance for migration to multicloud SDX architectures?

- A. system-oriented architecture
- B. OSASE architecture
- C. platform-oriented architecture
- D. SASE architecture

**Answer:** D

#### NEW QUESTION 58

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 (Python
- E. Ansible etc.) and Orchestration refers to commercial products that control configuration deployment

**Answer:** A

#### NEW QUESTION 59

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 state consistency
- C. control path reliability
- D. controller clustering

**Answer:** B

#### NEW QUESTION 60

A multicast network is using Bidirectional PIM. Which two combined actions achieve high availability so that two RPs within the same network can act in a redundant manner? (Choose two)

- A. Use two phantom RP addresses
- B. Manipulate the administrative distance of the unicast routes to the two RPs
- C. Manipulate the multicast routing table by creating static mroutes to the two RPs
- D. Advertise the two RP addresses in the routing protocol
- E. Use anycast RP based on MSDP peering between the two RPs
- F. Control routing to the two RPs through a longest match prefix

**Answer:** AF

#### Explanation:

<https://community.cisco.com/t5/networking-knowledge-base/rp-redundancy-with-pim-bidir-phantom-rp/ta-p/31>

#### NEW QUESTION 62

Which actions are performed at the distribution layer of the three-layer hierarchical network design model? (Choose two)

- A. Fast transport
- B. Reliability
- C. QoS classification and marking boundary
- D. Fault isolation
- E. Redundancy and load balancing

**Answer:** DE

#### NEW QUESTION 66

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 67

A business requirement stating that failure of WAN access for dual circuits into an MPLS provider for a Data Centre cannot happen due to related service credits that would need to be paid has led to diversely routed circuits to different points of presence on the providers network? What should a network designer also consider as part of the requirement?

- A. Provision of an additional MPLS provider

- B. Out of band access to the MPLS routers
- C. Ensuring all related remote branches are dual homed to the MPLS network
- D. Dual PSUs & Supervisors on each MPLS router

**Answer:** A

#### **NEW QUESTION 72**

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 75**

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 76**

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 79**

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 83**

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 88**

Company XYZ has designed their network to run GRE over IPsec on their Internet-based VPN to connect two sites. Which IPsec tunneling feature can they enable to optimize the data flow while ensuring that the headers contain no duplicate IP addresses?

- A. Transport Mode in IPsec Phase I
- B. Transport Mode in IPsec Phase II
- C. Tunnel Mode in IPsec Phase II
- D. Tunnel Mode in IPsec Phase I

**Answer:** B

#### **NEW QUESTION 90**

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 91**

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 92**

Which two impacts of adding the IP event dampening feature to a network design are true? (Choose two.)

- A. It protects against routing loops.
- B. It switches traffic immediately after a link failure.
- C. It speeds up link failure detection.
- D. It reduces the utilization of system processing resources.
- E. It improves overall network stability.

**Answer: DE**

**NEW QUESTION 97**

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 101**

Refer to the table.

CONNECTIVITY	CAPEX	OPEX ANNUAL	INSTALLATION FEE	TERM
DWDM over dark fiber	\$250,000	\$100,000	\$30,000	60 months
CWDM over dark fiber	\$150,000	\$100,000	\$25,000	60 months
MPLS	\$50,000	\$150,000	\$75,000	12 months
Metro Ethernet	\$45,000	\$125,000	\$5,000	36 months

A customer investigates connectivity options for a DCI between two production data centers. The solution must provide dual 10G connections between locations with no single points of failure for Day 1 operations. It must also include an option to scale for up to 20 resilient connections in the second year to accommodate isolated SAN over IP and isolated, dedicated replication IP circuits. All connectivity methods are duplex 10 Gbps. Which transport technology costs the least over two years, in the scenario?

- A. Metro Ethernet
- B. DWDM
- C. CWDM
- D. MPLS

**Answer: B**

**NEW QUESTION 102**

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 103**

The controller has a global view of the network, and it can easily ensure that the network is in a consistent and optimal configuration. Which two statements describe a centralized SDN control path? (Choose two.)

- A. Scaling of the centralized controller cluster is challenging for services like DHCP and load-balancing.
- B. It is highly-available by design with no single-point-of-failure risks present.
- C. Integrating smart NIC capabilities on the local host level is made easier through rest APIs.
- D. It significantly improves the latency when performing reactive handling of PACKET\_IN events.
- E. It centralized controller can support all southbound APIs, which allows for easy integration with legacy equipment.

**Answer:** AE

**NEW QUESTION 106**

Which tool automates network implementation activities and shortens the implementation lifecycle?

- A. LISP
- B. Java
- C. Conclusion
- D. Python

**Answer:** D

**NEW QUESTION 111**

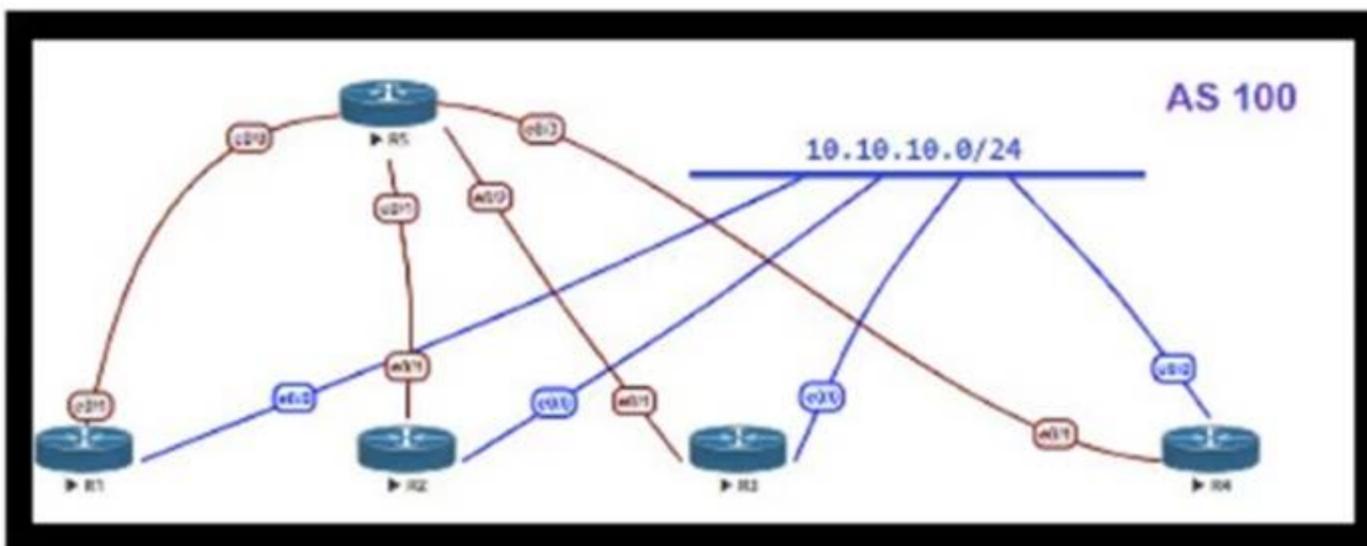
You have been tasked with designing a data center interconnect to provide business continuity You want to encrypt the traffic over the DCI using IEEE 802.1AE MACsec to prevent the deployment of any firewall or IPS. Which two interconnect technologies support MACsec? (Choose two.)

- A. EoMPLS
- B. MPLS Layer 3 VPN
- C. DMVPN
- D. GET VPN
- E. KVPLS

**Answer:** AE

**NEW QUESTION 116**

Refer to the exhibit.



OSPF is running as the IGP to provide reachability to all AS100 networks R3 and R4 are the current ABRs at the boundary of OSPF Area0 and Areal Now BGP must be deployed within AS 100 because it will be receiving Internet routes from its eBGP peers (the service provider) connected to R1 and R2 What is an optimal solution for this deployment to configure BGP relationships and redistribute BGP learned routes into OSPF?

- A. R5 should be configured as a route reflector for R1, R2, R3 and R4. BGP routes must be redistributed at R1 and R2 into OSPF.
- B. Configuration should be set up with R1 and R2, and R3 in one sub AS, with and R4 in another, and redistribution at R1 and R2.
- C. A full mesh should be deployed between all the routers with mutual redistribution to take place at R1 and R2.
- D. R1, R2, R3 and R4 must be set up with a neighbor relationship with R5 only must not be a routereflector.

**Answer:** C

**NEW QUESTION 119**

A network security team uses a purpose-built tool to actively monitor the campus network, applications, and user activity. The team also analyzes enterprise telemetry data from IPFIX data records that are received from devices in the campus network. Which action can be taken based on the augmented data?

- A. reduction in time to detect and respond to threats

- B. integration with an incident response plan
- C. adoption and improvement of threat-detection response
- D. asset identification and grouping decisions

**Answer:** A

**NEW QUESTION 124**

Company XYZ is planning to deploy primary and secondary (disaster recovery) data center sites. Each of these sites will have redundant SAN fabrics and data protection is expected between the data center sites. The sites are 100 miles (160 km) apart and target RPO/RTO are 3 hrs and 24 hrs, respectively. Which two considerations must Company XYZ bear in mind when deploying replication in their scenario? (Choose two.)

- A. Target RPO/RTO requirements cannot be met due to the one-way delay introduced by the distance between sites.
- B. VSANs must be routed between sites to isolate fault domains and increase overall availability.
- C. Synchronous data replication must be used to meet the business requirements
- D. Asynchronous data replication should be used in this scenario to avoid performance impact in the primary site.
- E. VSANs must be extended from the primary to the secondary site to improve performance and availability.

**Answer:** CD

**Explanation:**

synchronous data replication must be used to meet the business requirements, is incorrect. As described above, asynchronous replication would be a better choice in this scenario due to the distance between the data center sites and the target RPO/RTO requirements.  
 asynchronous data replication should be used in this scenario to avoid performance impact in the primary site, is correct. Asynchronous replication would allow Company XYZ to meet the target RPO/RTO requirements while avoiding the performance impact of synchronous replication.

**NEW QUESTION 127**

A Tier-3 Service Provider is evolving into a Tier-2 Service Provider due to the amount of Enterprise business it is receiving The network engineers are re-evaluating their IP/MPLS design considerations in order to support duplicate/overlapping IP addressing from their Enterprise customers within each Layer3 VPN. Which concept would need to be reviewed to ensure stability in their network?

- A. Assigning unique Route Distinguishers
- B. Assigning unique Route Target ID'S
- C. Assigning unique IP address space for the Enterprise NAT/Firewalls
- D. Assigning unique VRF ID's to each L3VPN

**Answer:** A

**NEW QUESTION 132**

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.

Activation of the MPLS-based L2VPN service.	Step 1
Monitor performance of the Ethernet service for a predefined period of time.	Step 2
Decomission E1 leased line.	Step 3
Deployment of new branch routers.	Step 4
Test and validation of SLA parameters in the L2VPN.	Step 5
Migrate E1 to the new Ethernet service.	Step 6

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Table Description automatically generated

**NEW QUESTION 135**

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 136**

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 141**

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, 802.1d connecting to 802.1w)
- 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 145**

A healthcare provider discovers that protected health information of patients was altered without patient consent. The healthcare provider is subject to HIPAA compliance and is required to protect PHI data. Which type of security safeguard should be implemented to resolve this issue?

- A. technical and physical access control
- B. administrative security management processes
- C. physical device and media control
- D. technical integrity and transmission security

**Answer:** D

**Explanation:**

[https://www.cisco.com/en/US/docs/solutions/Enterprise/Compliance/HIPAA/HIP\\_AppC.html#wp1085353](https://www.cisco.com/en/US/docs/solutions/Enterprise/Compliance/HIPAA/HIP_AppC.html#wp1085353)

**NEW QUESTION 146**

Company XYZ is running a redundant private WAN network using OSPF as the underlay protocol. The current design accommodates for redundancy in the network, but it is taking over 30 seconds for the network to reconverge upon failure. Which technique can be implemented in the design to detect such a failure in a subsecond?

- A. STP
- B. fast hello
- C. OSPF LFA
- D. BFD
- E. flex links

**Answer:** D

**NEW QUESTION 151**

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

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

**Answer:** BD

**NEW QUESTION 156**

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 160**

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 165**

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 168**

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

Network Functions Virtualization (NFV)	Edge Control	option A
IP Tunneling		option B
VRF	Transport Virtualization	option A
MPLS + MP-BGP		option B
VLAN	Service Virtualization	option A
Service Containers		option B

- A. Mastered
- B. Not Mastered

**Answer: A**

**Explanation:**

Graphical user interface Description automatically generated with medium confidence

**NEW QUESTION 173**

An architect prepares a network design for a startup company. The design must be able to meet business requirements while the business grows and divests due to rapidly changing markets. What is the highest priority in this design?

- A. The network should be hierarchical
- B. The network should be modular.
- C. The network should be scalable.
- D. The network should have a dedicated core.

**Answer: A**

**NEW QUESTION 175**

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 180**

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.

Identify the right applications and portfolio for cloud migration and cloud viability.	step 1
Maintain data integrity and operational continuity.	step 2
Adopt end-to-end approach and transition workloads to the cloud environment.	step 3
Develop cloud strategy and ensure alignment with business requirements.	step 4
Secure the cloud by setting up a secure cloud environment based on the workload requirements.	step 5
Monitor and manage cloud-based systems, including customer services.	step 6

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Table Description automatically generated

**NEW QUESTION 181**

Which two actions ensure voice quality in a branch location with a low-speed, high-latency WAN connection? (Choose two.)

- A. Increase WAN bandwidth
- B. Increase memory branch switch.
- C. Fragment data packets.
- D. Replace any electrical links with optical links
- E. Prioritize voice packets

Answer: CE

**NEW QUESTION 184**

A network architect must redesign a service provider edge, where multiservice and multitenant PEs are currently present. Which design feature should be minimized in the new design to achieve reliability?

- A. bridging
- B. fate sharing
- C. redundancy
- D. unicast overlay routing

Answer: B

**NEW QUESTION 187**

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 190**

Which two application requirements are mandatory for traffic to receive proper treatment when placed in the priority queue? (Choose two.)

- A. small transactions (HTTP-like behavior)
- B. WRED drop treatment

- C. tolerance to packet loss
- D. intolerance to jitter
- E. TCP-based application

**Answer:** AD

**NEW QUESTION 193**

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 195**

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 199**

Which effect of using ingress filtering to prevent spoofed addresses on a network design is true?

- A. It reduces the effectiveness of DDoS attacks when associated with DSCP remarking to Scavenger.
- B. It protects the network Infrastructure against spoofed DDoS attacks.
- C. It Classifies bogon traffic and remarks it with DSCP bulk.
- D. It filters RFC 1918 IP addresses.

**Answer:** B

**NEW QUESTION 203**

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 204**

Company XYZ is designing their network using the three-layer hierarchical model. At which layer must the QoS design classify or mark the traffic?

- A. access
- B. core
- C. collapsed core
- D. distribution

**Answer:** A

**NEW QUESTION 206**

You are using iSCSI to transfer files between a 10 Gigabit Ethernet storage system and a 1 Gigabit Ethernet server The performance is only approximately 700 Mbps and output drops are occurring on the server switch port. Which action will improve performance in a cost-effective manner?

- A. Change the protocol to CIFS.
- B. Increase the queue to at least 1 GB
- C. Use a WRED random drop policy
- D. Enable the TCP Nagle algorithm on the receiver

**Answer:** A

**NEW QUESTION 208**

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 213**

You are designing a large-scale DMVPN network with more than 500 spokes using EIGRP as the IGP protocol Which design option eliminates potential tunnel down events on the spoke routers due to the holding time expiration?

- A. Increase the hold queue on the physical interface of the hub router.
- B. Increase the hold queue on the tunnel interface of the spoke routers
- C. Increase the hold queue on the tunnel interface of the hub router
- D. Apply QoS for pak\_priority class
- E. Increase the hold queue on the physical interface of the spoke routers.

**Answer:** C

**NEW QUESTION 215**

Company XYZ branch offices connect to the headquarter sites using two links, MPLS and Internet. The company wants to design the traffic flow so that voice traffic goes through the MPLS link and all other traffic uses either the MPLS link or the Internet link. Which technique can the company use in their design to ensure that the traffic is not process switched?

- A. policy-based routing
- B. virtual links
- C. visualization
- D. floating static route

**Answer:** A

**NEW QUESTION 218**

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 219**

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 223**

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 227**

Which mechanism provides Layer 2 fault isolation between data centers?

- A. fabric path
- B. OTL
- C. advanced VPLS
- D. LISP
- E. TRILL

Answer: D

#### NEW QUESTION 231

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 232

Two routers R1 and R2 are directly connected through an Ethernet link. Both routers are running OSPF over the Ethernet link and OSPF has been registered with BFD. R1 has been set up to transmit BFD at a 50 ms interval, but R2 can receive only at a 100 ms rate due to platform limitations. What does this mean?

- A. After the initial timer exchange
- B. R2 sets its transmission rate to the R1 Desired Min TX interval
- C. After the initial timer exchange
- D. R1 sets its transmission rate to the R2 Required Min RX interval
- E. Timers renegotiate indefinitely, so the timer exchange phase never converges
- F. R2 sets the P-bit on all BFD control packets until R2 sends a packet with the F-bit set

Answer: B

#### NEW QUESTION 236

Company XYZ wants to secure the data plane of their network. Which two technologies can be included in the security design? (Choose two)

- A. DAI
- B. IP Source Guard
- C. BEEP
- D. CPPr
- E. MPP

Answer: AB

#### NEW QUESTION 241

Which network management framework can be used to develop a network architecture that contains business requirements analysis, gap analysis, and network diagrams as artifacts to be used for design and implementation later?

- A. TOG
- B. ITIL
- C. FCAPS
- D. Cobit

Answer: C

#### NEW QUESTION 245

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 249

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 251

You are designing the routing design for two merging companies that have overlapping IP address space. Which of these must you consider when developing the routing and NAT design?

- A. Local to global NAT translation is done after routing
- B. Global to local NAT translation is done before routing.
- C. Local to global NAT translation is done before policy-based routing
- D. Global to local NAT translation is done after policy-based routing.

**Answer: B**

#### NEW QUESTION 252

Customer XYZ network consists of an MPLS core. IS-IS running as IGP a pair of BGP route reflectors for route propagation, and a few dozens of MPLS-TE tunnels for specific tactical traffic engineering requirements. The customer's engineering department has some questions about the use of the Overload Bit in the IS-IS networks and how it could be used to improve their current network design. Which two concepts about the Overload Bit are true? (Choose two.)

- A. It can be set on a router during the startup process for a fixed period of time
- B. Networks advertised within the LSPs of the respective node will become unreachable
- C. It forces the midpoint MPLS-TE node to reoptimize the primary tunnels going through the OL node.
- D. It can be set on a router until other interacting protocols have signaled convergence.
- E. It is not recommended on BGP Route Reflectors

**Answer: AD**

#### NEW QUESTION 253

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 256

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 258

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

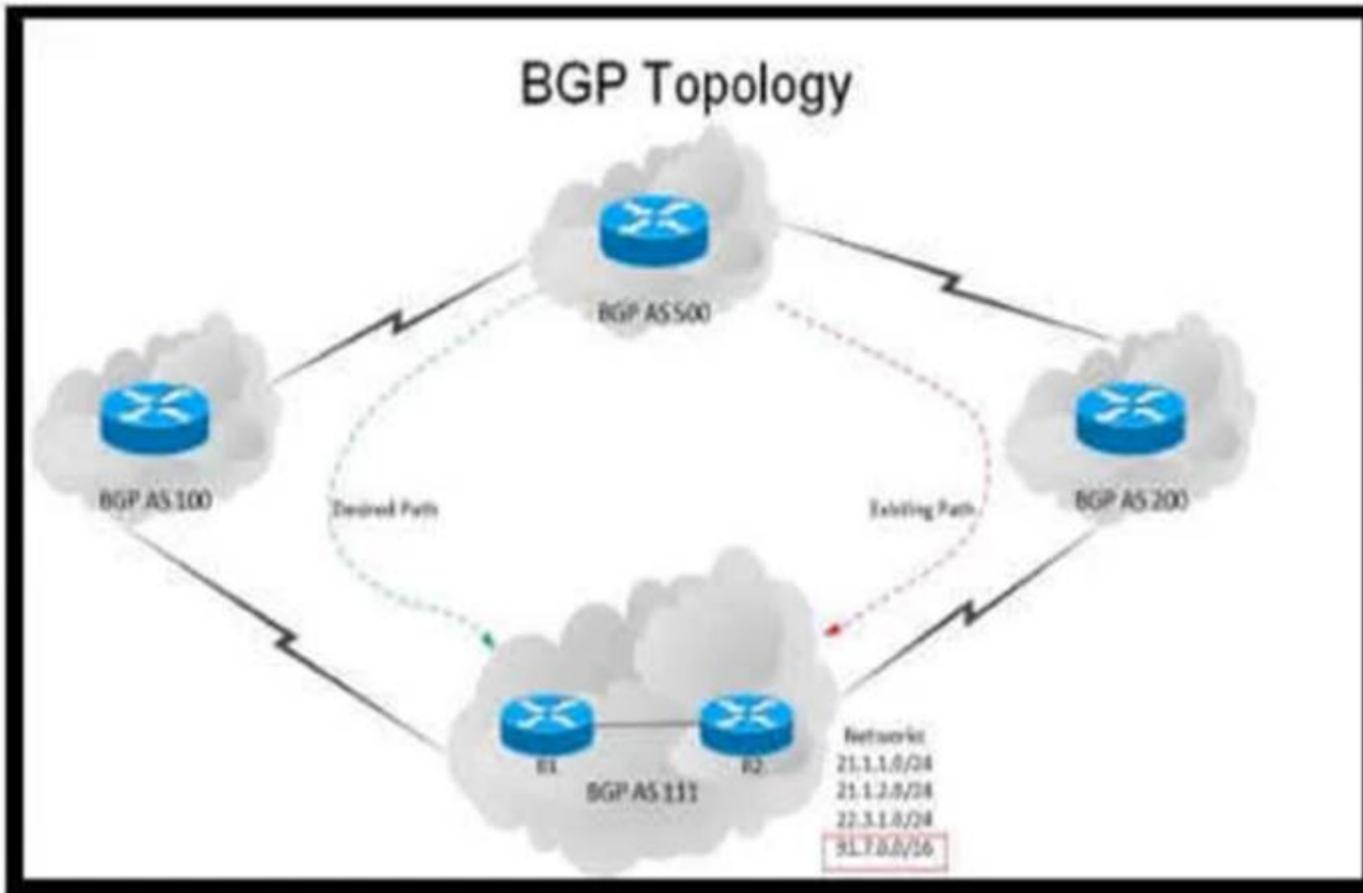
Which two primary models can this network virtualization design be categorized? (Choose two)

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

**Answer: AD**

#### NEW QUESTION 259

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 262**

Company XYZ wants to use the FCAPS ISO standard for network management design. The focus of the design should be to minimize network outages by employing a set of procedures and activities to detect and isolate network issues and the appropriate corrective actions to overcome current issues and prevent them from occurring again. Which layer accomplishes this design requirement?

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

**Answer: A**

**NEW QUESTION 265**

How many fully established neighbour relationships exist on an Ethernet with five routers running OSPF as network type broadcast?

- A. 5
- B. 6
- C. 7
- D. 10
- E. 20

**Answer: C**

**Explanation:**

Assuming routers R1-R5, R1 is elected DR, R2 BDR. Fully established neighborships only occur to DR and BDR, all other neighbors are in 2Way DR other state.  
 DR|BDRFull relationships:  
 R2-R1 R3-R1 R3-R2 R4-R1 R4-R2 R5-R1  
 R5-R2

**NEW QUESTION 266**

Company XYZ needs advice in redesigning their legacy Layer 2 infrastructure. Which technology should be included in the design to minimize or avoid convergence delays due to STP or FHRP and provide a loop-free topology?

- A. Use switch clustering in the access layer.
- B. Use switch clustering in the core/distribution layer.
- C. Use spanning-tree PortFast.
- D. Use BFD.

**Answer: B**

**NEW QUESTION 267**

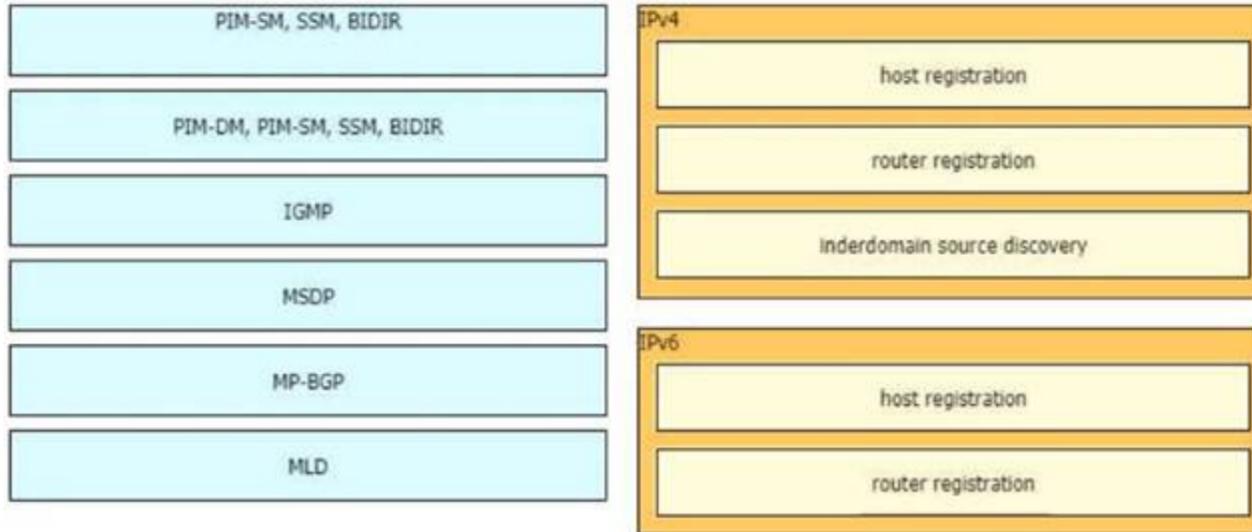
Company XYZ was not satisfied with the reconvergence time OSPF is taking. BFD was implemented to try to reduce the reconvergence time, but the network is still experiencing delays when having to reconverge. Which technology will improve the design?

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

**Answer: B**

**NEW QUESTION 269**

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 270**

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

**NEW QUESTION 275**

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 276**

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 279**

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 284**

Which two features control multicast traffic in a VLAN environment? (Choose two)

- A. IGMP snooping
- B. MLD snooping
- C. RGMP
- D. PIM snooping
- E. pruning

Answer: AB

**NEW QUESTION 288**

Drag and drop the characteristics from the left onto the corresponding network management options on the right.

protocol based on HTTP for configuring data defined in YANG and supports operations such as GET, PUT, POST, PATCH, and DELETE	NETCONF
provides mechanisms to install, manipulate, and delete the configuration of network devices; uses XML for data encoding and the operation is realized as RPC	RESTCONF
application program interface that uses HTTP requests to GET, PUT, POST, and DELETE data	ANSIBLE
open-source software provisioning, configuration management, and application-deployment tool	YANG
data modeling language used to model configuration data, state data, remote procedure calls, and notifications for network management protocols	REST API

- A. Mastered
- B. Not Mastered

Answer: A

**Explanation:**

Text Description automatically generated

**NEW QUESTION 293**

Company XYZ has implemented policy-based routing in their network. Which potential problem must be kept in mind about network reconvergence and PBR?

- A. It can limit network scalability

- B. It can create microloops during reconvergence
- C. It increases convergence time.
- D. It reduces convergence time.

**Answer: B**

**NEW QUESTION 296**

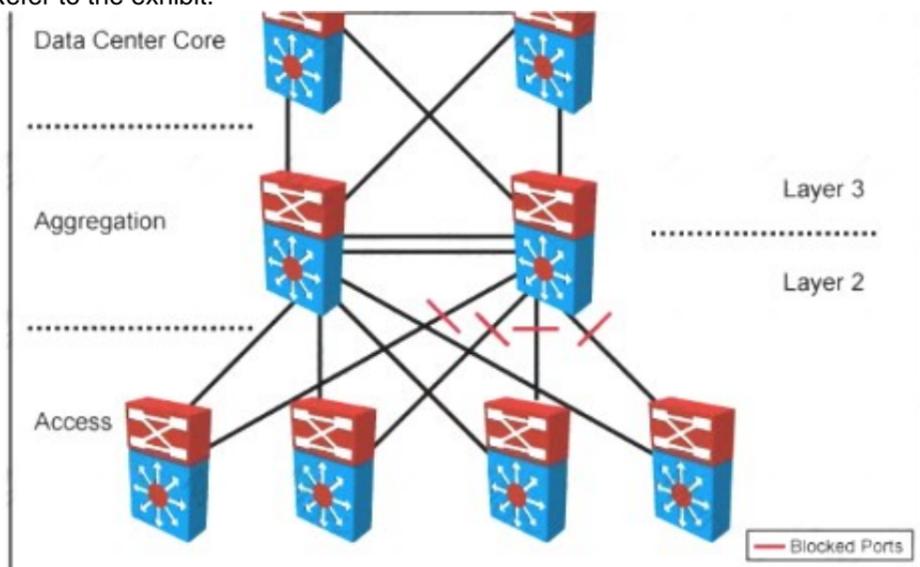
SD-WAN can be used to provide secure connectivity to remote offices, branch offices, campus networks, data centers, and the cloud over any type of IP-based underlay transport network. Which two statements describe SD WAN solutions? (Choose two.)

- 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 301**

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 306**

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 309**

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 314**

What is the most important operational driver in building a resilient and secure modular network design?

- A. Dependencies on hardware or software that is difficult to scale
- B. Minimize app downtime
- C. Reduce the frequency of failures requiring human intervention
- D. Increase time spent on developing new features

**Answer: B**

**NEW QUESTION 315**

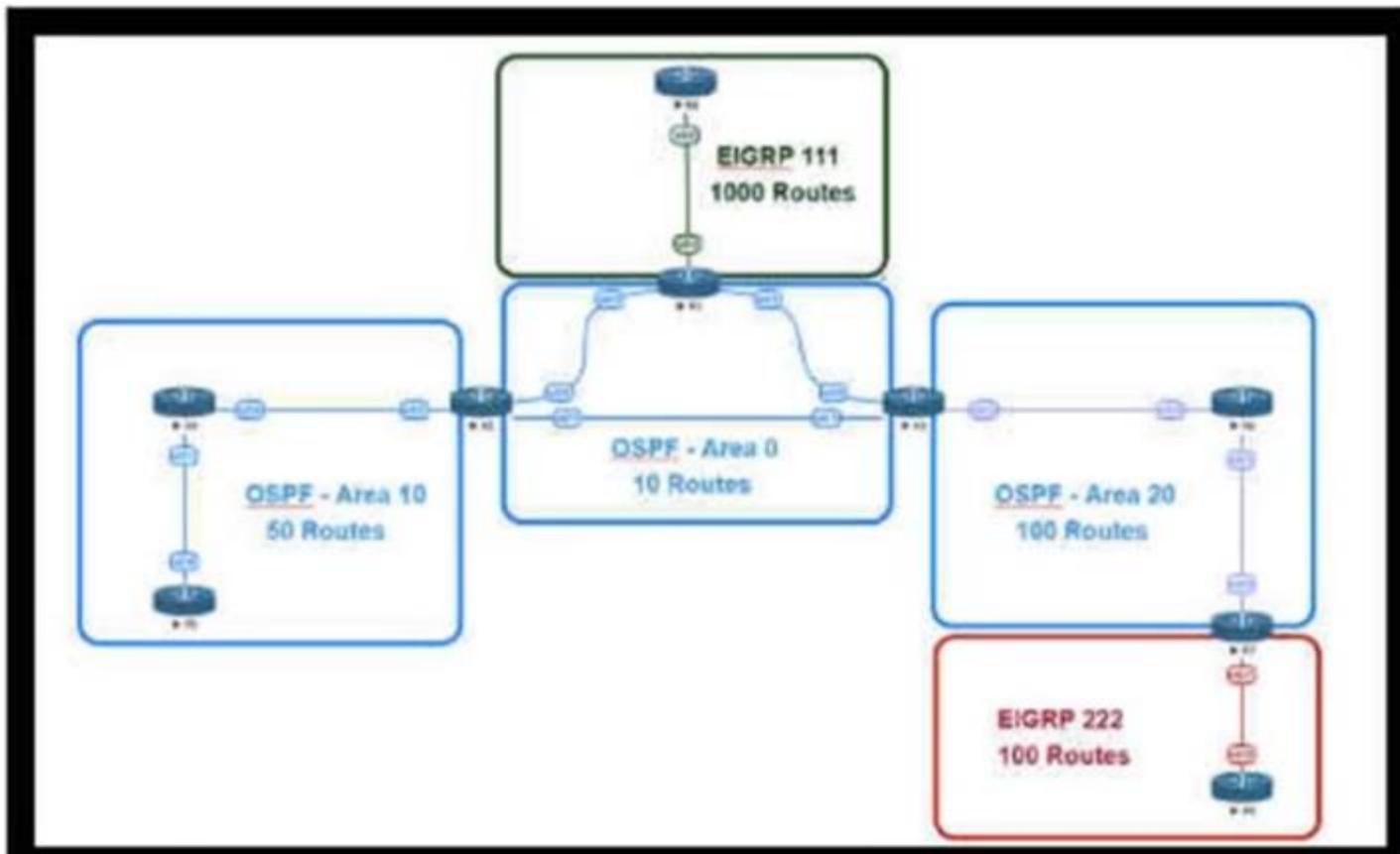
Which three tools are used for ongoing monitoring and maintenance of a voice and video environment? (Choose three.)

- A. flow-based analysis to measure bandwidth mix of applications and their flows
- B. call management analysis to identify network convergence-related failures
- C. call management analysis to identify CAC failures and call quality issues
- D. active monitoring via synthetic probes to measure loss, latency, and jitter
- E. passive monitoring via synthetic probes to measure loss, latency, and jitter
- F. flow-based analysis with PTP time-stamping to measure loss, latency, and jitter

**Answer: ACD**

**NEW QUESTION 319**

Refer to the exhibit.



This network is running OSPF and EIGRP as the routing protocols. Mutual redistribution of the routing protocols has been configured on the appropriate ASBRs. The OSPF network must be designed so that flapping routes in EIGRP domains do not affect the SPF runs within OSPF. The design solution must not affect the way EIGRP routes are propagated into the EIGRP domains. Which technique accomplishes the requirement?

- A. route summarization on the ASBR interfaces facing the OSPF domain
- B. route summarization on the appropriate ASBRs.
- C. route summarization on the appropriate ASBRs.
- D. route summarization on EIGRP routers connecting toward the ASBR

**Answer: B**

**NEW QUESTION 320**

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 324**

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 325

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 328

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 331

Which two advantages of using DWDM over traditional optical networks are true? (Choose two.)

- A. inherent topology flexibility and service protection provided without penalty through intelligent oversubscription of bandwidth reservation
- B. ability to expand bandwidth over existing optical Infrastructure
- C. inherent topology flexibility with built-in service protection
- D. inherent topology flexibility with intelligent chromatic dispersion
- E. inherent topology flexibility with a service protection provided through a direct integration with an upper layer protocol

Answer: BC

#### NEW QUESTION 335

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 337

Your company wants to deploy a new data center infrastructure Based on the requirements you have chosen VXLAN as encapsulation technology The customer is concerned about miss-configuration of Layer 2 devices and DC wide outages caused by Layer 2 loops What do you answer?

- A. VXLAN offers native loop avoidance mechanism
- B. Storm Control should be enabled on all ports
- C. VPC+ could prevent L2 loop on access ports
- D. BPDU Guard should be enabled on all VTEP access ports

Answer: D

#### NEW QUESTION 338

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 340

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

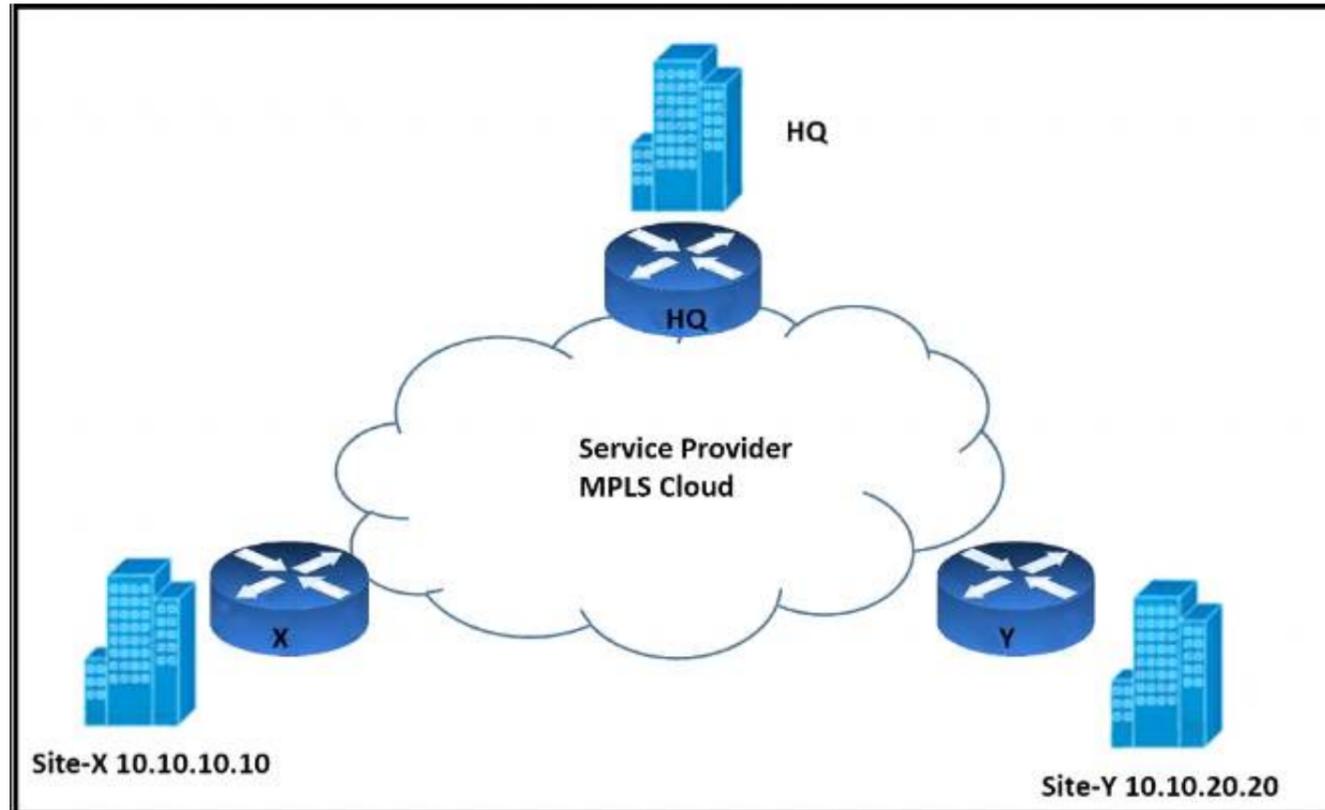
**Answer:** CD

**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 344**

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 345**

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 349**

Drag and drop the design use cases from the left onto the correct uRPF techniques used to prevent spoofing attacks Not all options are used.

to check whether a route to a given IP address exists without regard to its incoming interface	strict mode
to filter Bogon IP addresses	feasible mode
to ensure the incoming interface is the best reverse path to a given IP address	loose mode
when there are alternate routes to a given IP address	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

to check whether a route to a given IP address exists without regard to its incoming interface	to ensure the incoming interface is the best reverse path to a given IP address
to filter Bogon IP addresses	when there are alternate routes to a given IP address
to ensure the incoming interface is the best reverse path to a given IP address	to filter Bogon IP addresses
when there are alternate routes to a given IP address	

**NEW QUESTION 352**

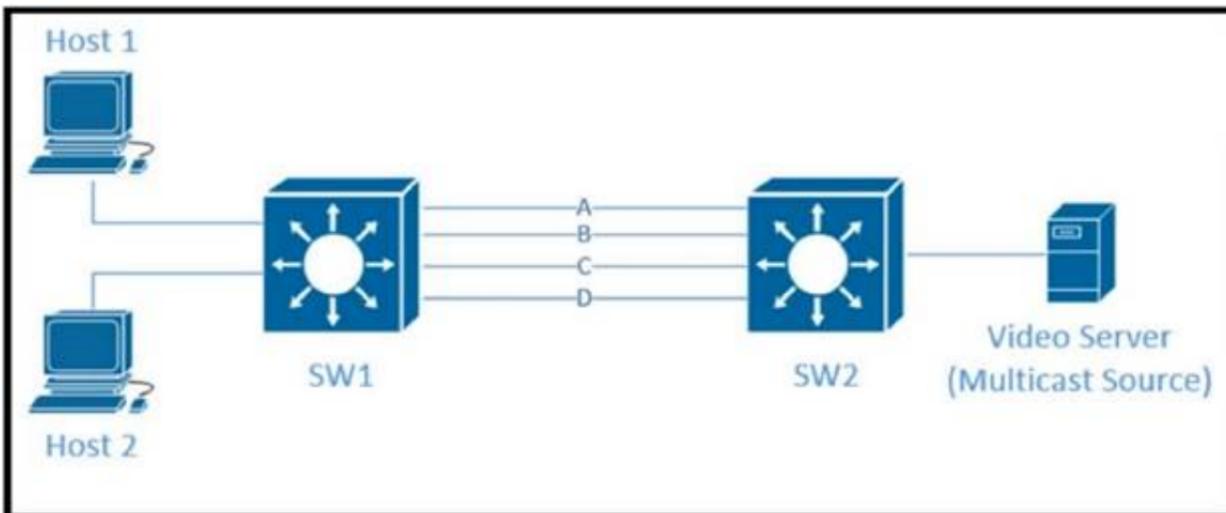
What advantage of placing the IS-IS layer 2 flooding domain boundary at the core Layer in a three-layer hierarchical network is true?

- 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 357**

Refer to the exhibit.



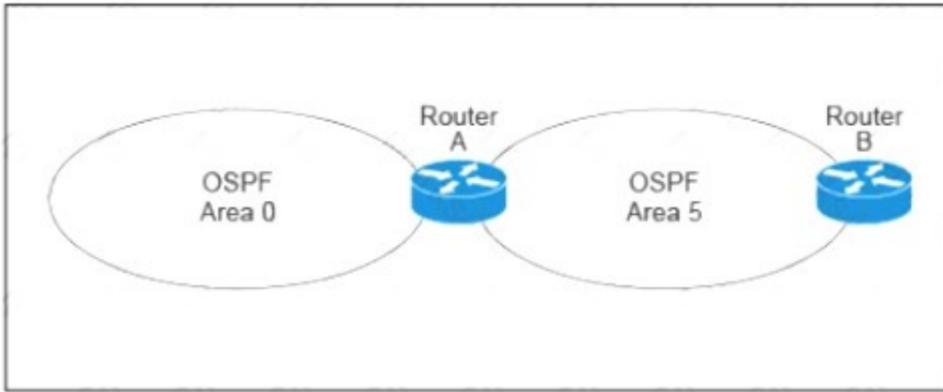
Traffic was equally balanced between Layer 3 links on core switches SW1 and SW2 before an introduction of the new video server in the network. This video server uses multicast to send video streams to hosts and now one of the links between core switches is over utilized Which design solution solves this 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 361**

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 363**

Company XYZ is designing the IS-IS deployment strategy for their multiarea IS-IS domain. They want IS-IS neighbour relationships to be minimized on each network segment and want to optimize the size of the IS-IS LSDB on each router. Which design can be used to meet these requirements?

- A. Design all routers as Level 2 routers
- B. Set the links between the routers as Level 1 with the area
- C. Design the network so that the routers connecting to other areas are Level 2 routers and internal routers are Level 1
- D. Design the network so that all routers are Level 1 routers
- E. Design the network so that the routers connecting to other areas are Level 1/Level 2 routers and internal routers are Level 1

**Answer: D**

**NEW QUESTION 368**

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