

400-007 Dumps

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

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NEW QUESTION 1

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 2

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 3

Drag and drop the QoS technologies from the left onto the correct capabilities on the right

low latency queuing	allows you to buffer traffic so that it adheres to the bandwidth provided by the service provider
CB-WFQ	used for scavenger traffic when it exceeds a specified limit
policing	allows you to prioritize traffic
traffic shaping	allows you to reserve bandwidth

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

low latency queuing	traffic shaping
CB-WFQ	policing
policing	low latency queuing
traffic shaping	CB-WFQ

NEW QUESTION 4

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. GRE

- B. L2TPv3
- C. VXLAN
- D. EoMPLS

Answer: B

NEW QUESTION 5

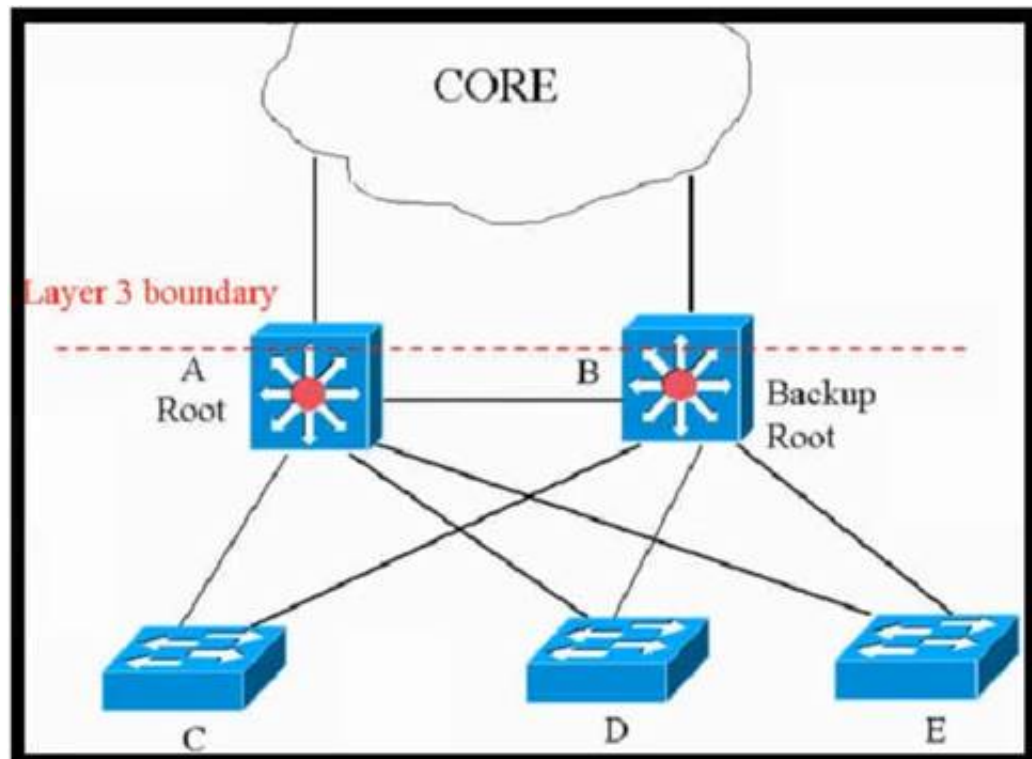
According to the CIA triad principles for network security design, which principle should be priority for a Zero Trust network?

- 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 6

Refer to the exhibit.



This network is running legacy STP 802.1d. Assuming "hello_timer" is fixed to 2 seconds, which parameters can be modified to speed up convergence times after single link/node failure?

- A. The transit_delay=5 and dpdu_delay=20 are recommended values, considering helto_timer=2 and specified
- B. Only the maximum_transmission_halt_delay and diameter parameters are configurable parameters in 802.1d to speed up STP convergence process
- C. The max_age and forward delay parameters can be adjusted to speed up STP convergence process.
- D. Only the transit_delay and bpdu_delay timers are configurable parameters in 802.1d to speed up STP convergence process.

Answer: C

NEW QUESTION 7

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 8

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 9

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 10

Which issue poses a challenge for security architects who want end-to-end visibility of their networks?

- A. too many overlapping controls
- B. too many disparate solutions and technology silos
- C. an overabundance of manual processes
- D. a network security skills shortage

Answer: B

NEW QUESTION 10

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 15

Which design consideration is valid when you contrast fabricPath and trill?

- A. FabricPath uses IS-IS, but TRILL uses VxLAN
- B. FabricPath permits active-active FHRP and TRILL support anycast gateway.
- C. FabricPath Permits ECMP, but TRILL does not
- D. FabricPath permits active-active mode, but TRILL supports only active-standby mode.

Answer: B

NEW QUESTION 18

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 be used in the routing policy design so that the rest of the network is not affected by the flapping issue?

- A. Use route dampening on LA router for the 10.1.5.0/24 network so that it does not get propagated when it flaps up and down
- B. Use route filtering on Chicago router to block the 10.1.5.0/24 network from coming in from the LA router
- C. Use route filtering on LA router to block the 10.1.5.0/24 network from getting propagated toward Chicago and New York
- D. Use route aggregation on LA router 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

Answer: D

NEW QUESTION 23

Which architecture does not require an explicit multicast signaling protocol, such as PIM or P2MP, to signal the multicast state hop-by-hop, but instead uses a link state protocol to advertise the multicast forwarding state?

- A. Binary indexed explicit routing
- B. Binary intermediate enhanced routing
- C. Bit indexed explicit replication
- D. Bi-directional implicit replication

Answer: C

NEW QUESTION 25

Company XYZ network runs IPv4 and IPv6 and they want to introduce a multidomain, multicast-based network. The new design should use a flavor of PIM that forwards traffic using SPT. Which technology meets this requirement?

- A. PIM-DM
- B. PIM-SM

- C. PIM-SSM
- D. BIDIR-PIM

Answer: C

NEW QUESTION 27

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 32

Company XYZ uses an office model where the employees can use any open desk and plug their laptops in. They want to authenticate the end users using their domain username and password before allowing them access to the network. The design must also accommodate the ability of controlling traffic within the same group or subnet if a macro (or micro) segmentation-based model is adopted in the future. Which protocol can be recommended for this design to authenticate end users?

- A. LDAP
- B. EAP
- C. TACACS+
- D. RADIUS

Answer: D

Explanation:

<https://www.networkstraining.com/what-is-cisco-ise/>

NEW QUESTION 37

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 40

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

Answer: D

NEW QUESTION 43

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 47

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 50

You were tasked to enhance the security of a network with these characteristics:

- A pool of servers is accessed by numerous data centers and remote sites
- The servers are accessed via a cluster of firewalls
- The firewalls are configured properly and are not dropping traffic
- The firewalls occasionally cause asymmetric routing of traffic within the server data center.

Which technology should you recommend to enhance security by limiting traffic that could originate from a hacker compromising a workstation and redirecting flows at the servers?

- A. Poison certain subnets by adding static routes to Null0 on the core switches connected to the pool of servers.
- B. Deploy uRPF strict mode.
- C. Limit sources of traffic that exit the server-facing interface of the firewall cluster with ACLs.
- D. Deploy uRPF loose mode

Answer: C

NEW QUESTION 54

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 57

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 59

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 63

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 68

Which two statements describe the hierarchical LAN design model? (Choose two)

- A. It is a well-understood architecture that provides scalability
- B. It is the best design for modern data centers
- C. It is the most optimal design but is highly complex
- D. It provides a simplified design
- E. Changes, upgrades, and new services can be introduced in a controlled and staged manner

Answer: AE

NEW QUESTION 70

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 72

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 75

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: B

NEW QUESTION 76

The network designer needs to use GLOP IP addresses in order to make them unique within their ASN Which multicast address range should be used?

- A. 232.0.0.0 to 232 255.255.255
- B. H233.0.0 0 to 233.255.255 255
- C. 239000 to 239255255.255
- D. 224000 to 2240.0 255

Answer: B

NEW QUESTION 78

A business wants to centralize services via VDI technology and to replace remote WAN desktop PCs with thin client-type machines to reduce operating costs Which consideration supports the new business requirement?

- A. VDI servers should be contained centrally within a DMZ
- B. The thin client traffic should be placed in a WAN QoS priority queue
- C. VDI servers should be contained within dedicated VLANs in each branch location
- D. The WAN should offer low latency and be resized

Answer: D

NEW QUESTION 82

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 85

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 86

Company XYZ wants to redesign the Layer 2 part of their network and wants to use all available uplinks for increased performance. They also want to have end host reachability supporting conversational learning. However, due to design constraints, they cannot implement port-channel on the uplinks. Which other technique can be used to make sure the uplinks are in active/active state?

- A. TRILL
- B. LISP
- C. MSTP
- D. switch stack

Answer: B

NEW QUESTION 88

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: C

NEW QUESTION 91

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 95

An enterprise organization currently provides WAN connectivity to their branch sites using MPLS technology, and the enterprise network team is considering rolling out SD-WAN services for all sites.

With regards to the deployment planning, drag and drop the actions from the left onto the corresponding steps on the right.

Select deployment models between virtual server software and hardware-based SD-WAN appliances.	step 1
Conduct a pilot test to observe and record unexpected issues.	step 2
Make an assessment of running protocols and application usage in the network.	step 3
Evaluate existing circuits and performance to get details of connectivity cost and reliability.	step 4
Layout transport plan based on business prioritizes traffic and the unique bandwidth requirements of each specific application.	step 5
Understand the traffic monitoring requirements and capabilities.	step 6

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

Table Description automatically generated with medium confidence

NEW QUESTION 96

Company XYZ is revisiting the security design for their data center because they now have a requirement to control traffic within a subnet and implement deep packet inspection Which technology meets the updated requirements and can be incorporated into the design?

- A. routed firewall
B. VLAN ACLs on the switch
C. transparent firewall
D. zone-based firewall on the Layer 3 device

Answer: C

NEW QUESTION 100

You have been asked to design a high-density wireless network for a university campus. Which two principles would you apply in order to maximize the wireless network capacity? (Choose two.)

- A. Implement a four-channel design on 2.4 GHz to increase the number of available channels
B. Choose a high minimum data rate to reduce the duty cycle.
C. increases the number of SSIDs to load-balance the client traffic.
D. Make use of the 5-GHz band to reduce the spectrum utilization on 2.4 GHz when dual-band clients are used.
E. Enable 802.11n channel bonding on both 2.4 GHz and 5 GHz to increase the maximum aggregated cell throughput.

Answer: BD

NEW QUESTION 104

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

NEW QUESTION 105

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 109

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 112

In an OSPF network with routers connected together with Ethernet cabling, which topology typically takes the longest to converge?

- A. partial mesh
- B. full mesh
- C. ring
- D. squared
- E. triangulated

Answer: B

NEW QUESTION 113

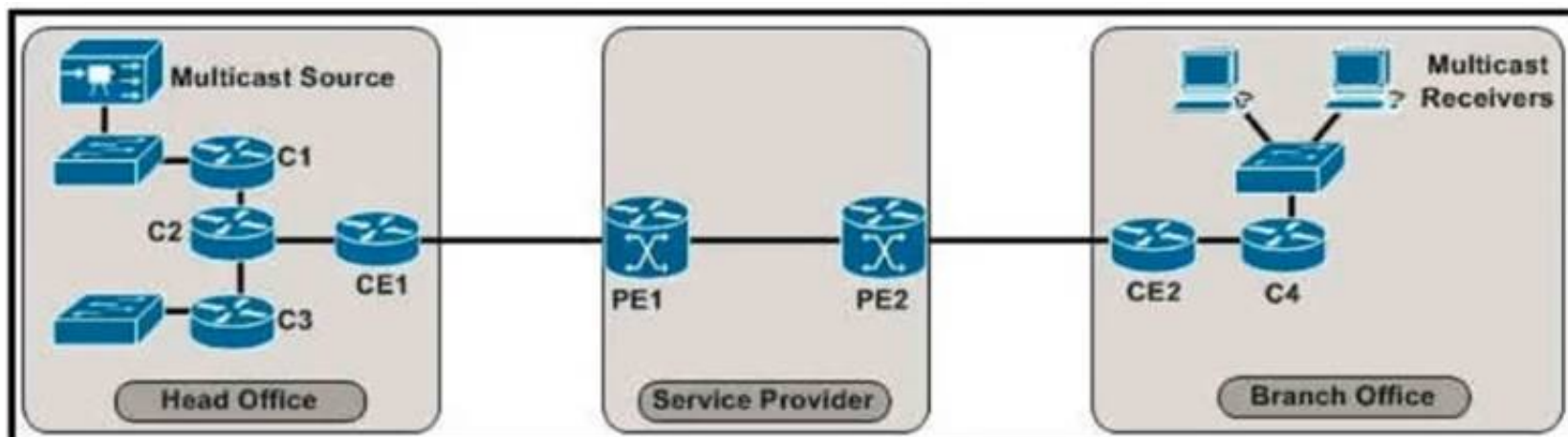
A network design includes a long signaling delay in notifying the Layer 3 control plane that an interface has failed Which two of these actions would reduce that delay? (Choose two.)

- 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 114

Refer to the exhibit.



The enterprise customer wants to stream one-way video from their head office to eight branch offices using multicast. Their current service provider provides a Layer3 VPN solution and manages the CE routers, but they do not currently support multicast. Which solution quickly allows this multicast traffic to go through while allowing for future scalability?

- A. Enable a GRE tunnel between nodes CE1 and CE2
- B. Enable a GRE tunnel between nodes C2 and C4
- C. Enable a GRE tunnel between nodes C1 and C4
- D. Implement hub and spoke MPLS VPN over DMVPN (also known as 2547o DMVPN) between CE1 and CE2
- E. The service provider must provide a Draft Rosen solution to enable a GRE tunnel between nodes PE1 and PE2

Answer: B

NEW QUESTION 117

Refer to the exhibit.

	Equipment Cost	ISP Cost	Licenses Cost
SD-WAN over L3VPN	\$\$	\$\$	\$\$\$
SD-WAN over L2VPN	\$\$	\$	\$\$\$
Managed SD-WAN	\$	\$\$\$	-
DMVPN over L3VPN	\$\$	\$\$	\$

The WAN network of the General Bank of Greece has experienced several outages It takes too long to activate a new branch site The networking department of the bank plans to upgrade the legacy end-of-life WAN network with a new flexible manageable, and scalable in-house solution The number of branches will increase exponentially in the next fiscal year The CTO states that the bank's mam goal is OPEX reduction The network engineering team prepares a table to evaluate the available options Which WAN technology can be used for the solution?

- A. DMVPN over L3VPN

- B. Managed SD-WAN
- C. SD-WAN over L3VPN
- D. SD-WAN over L2VPN

Answer: B

NEW QUESTION 118

Which two data plane hardening techniques are true? (Choose two)

- A. warning banners
- B. redundant AAA servers
- C. Control Plane Policing
- D. SNMPv3
- E. infrastructure ACLs
- F. disable unused services
- G. routing protocol authentication

Answer: EF

NEW QUESTION 122

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 125

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 130

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 134

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 139

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 140

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 142

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 143

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 147

An engineer is designing a DMVPN network where OSPF has been chosen as the routing protocol A spoke-to-spoke 'J<ita propagation model must be set up Which two design considerations must be taken into account? (Choose two)

- A. Configure all the sites as network type broadcast
- B. The network type on all sites should be point-to-multipoint
- C. The network type should be point-to-multipoint for the hub and point-to-point for the spokes.
- D. The hub should be set as the DR by specifying the priority to 255.
- E. The hub should be the DR by changing the priority of the spokes to 0.

Answer: AE

NEW QUESTION 148

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 150

A multicast network is sing 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 administration 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 152

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 157

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 161

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.

NEW QUESTION 164

A company plans to use BFD between its routers to detect a connectivity problem inside the switched network. An IPS is transparently installed between the switches. Which packets shold the IPS forward for BFD to work under all circumstances?

- A. Fragmented packet with the do-not-fragment bit set
- B. IP packets with broadcast IP source addresses
- C. IP packets with the multicast IP source address
- D. IP packet with the multicast IP destination address
- E. IP packets with identical source and destination IP addresses
- F. IP packets with the destination IP address 0.0.0.0.

Answer: E

NEW QUESTION 168

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 171

A business requirement is supplied to an architect from a car manufacturer stating their business model is changing to just-in-time manufacturing and a new network is required, the manufacturer does not produce all of the specific components m-house. which area should the architect focus on initially?

- A. Automation
- B. Zero Trust Networking
- C. Low Latency Infrastructure
- D. Modularity

Answer: D

NEW QUESTION 174

Software-defined networking architecture is used for cost-effective, adaptable, and easily manageable applications. In which two software-defined networks is SDN commonly used? (Choose two.)

- A. wide area network
- B. mobile network
- C. metro network
- D. application network
- E. control network

Answer: AE

NEW QUESTION 178

Which component of the SDN architecture automatically ensures that application traffic is routed according to policies established by network administrators?

- A. packet forwarding engine
- B. northbound API
- C. southbound API
- D. SDN controller

Answer: D

NEW QUESTION 180

IPFIX data collection via standalone IPFIX probes is an alternative to flow collection from routers and switches. Which use case is suitable for using IPFIX probes?

- A. performance monitoring
- B. security
- C. observation of critical links
- D. capacity planning

Answer: A

NEW QUESTION 185

Your network operations team is deploying Access Control Lists (ACLs) across your Internet gateways They wish to place an ACL inbound on the Internet gateway interface facing the core network (the "trusted" interface). Which IP address would the ACL need for traffic sourced from the inside interface, to match the source address of the traffic?

- A. inside global
- B. outside global
- C. inside local
- D. outside local

Answer: C

NEW QUESTION 190

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 195

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 197

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 199

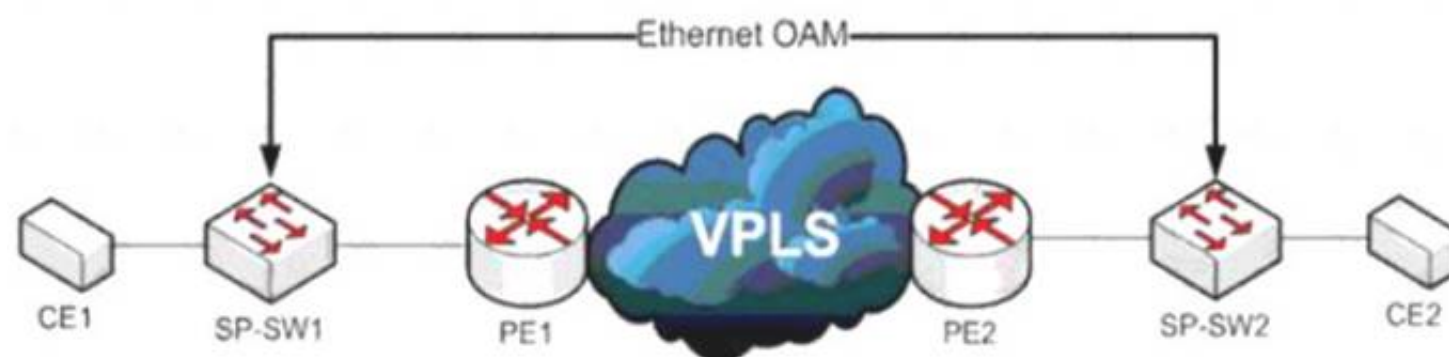
Company XYZ wants to secure the data plane of their network. Which two technologies can be included in the security design? (Choose two)

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

Answer: AB

NEW QUESTION 202

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 206

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 208

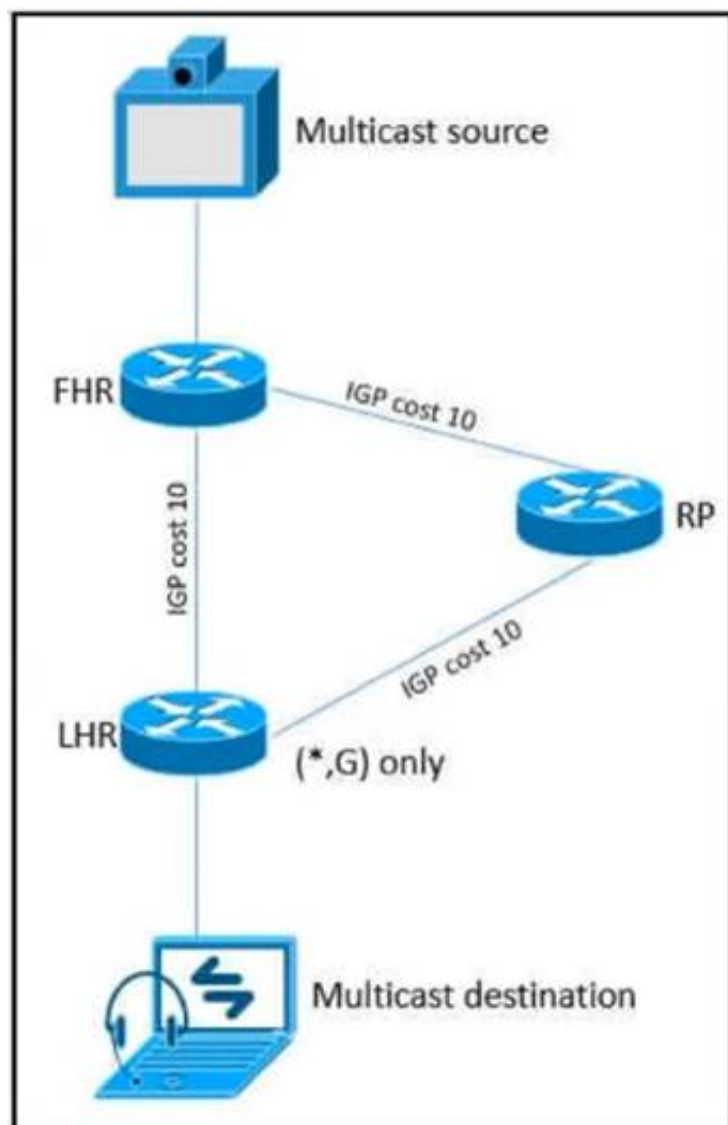
You have been tasked with designing a data center interconnect as part of business continuity. You want to use FCoE over this DCI to support synchronous replication. Which two technologies allow for FCoE via lossless Ethernet or data center bridging? (Choose two.)

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

Answer: AC

NEW QUESTION 211

Refer to the exhibit.



As part of a redesign project, you must predict multicast behavior. What happens to the multicast traffic received on the shared tree (*,G), if it is received on the LHR interface indicated*?

- A. It is dropped due to an unsuccessful RPF check against the multicast source
- B. It is switched given that no RPF check is performed
- C. It is switched due to a successful RPF check against the routing table
- D. It is dropped due to an unsuccessful RPF check against the multicast receiver.

Answer: A

Explanation:

<https://www.cisco.com/c/en/us/support/docs/ip/ip-multicast/16450-mcastguide0.html>

When a multicast packet arrives on an interface, the RPF process checks to ensure that this incoming interface is the outgoing interface used by unicast routing in order to reach the source of the multicast packet. This RPF check process prevents loops. Multicast routing does not forward a packet unless the source of the packet passes a RPF check. Once a packet passes this RPF check, multicast routing forwards the packet based only upon the destination address.

NEW QUESTION 212

What are two examples of components that are part of an SDN architecture? (Choose two.)

- A. software plane
- B. control plane
- C. application plane
- D. management plane
- E. network plane

Answer: BD

NEW QUESTION 215

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

- A. Feature sharing
- B. CPU resource allocation
- C. Congestion control
- D. Security

E. Bandwidth allocation

Answer: A

NEW QUESTION 219

Which main IoT migration aspect should be reviewed for a manufacturing plant?

- A. Sensors
- B. Security
- C. Applications
- D. Wi-Fi Infrastructure
- E. Ethernet Switches

Answer: A

NEW QUESTION 220

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

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

Answer: ABC

NEW QUESTION 221

What are two advantages of controller-based networks versus traditional networks? (Choose two.)

- A. the ability to have forwarding tables at each device
- B. more flexible configuration per device
- C. more consistent device configuration
- D. programmatic APIs that are available per device
- E. the ability to configure the features for the network rather than per device

Answer: CE

NEW QUESTION 224

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 227

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 229

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

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

Answer: C

NEW QUESTION 231

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 233

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 237

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 241

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 246

Which two actions must be taken when assessing an existing wireless network implementation for its readiness to support voice traffic? (Choose two.)

- A. Check for high roaming delay.
- B. Check for uniform radio coverage across the floors.
- C. Check for high channel utilization.
- D. Check for latency over wireless.
- E. Identify frequent TX power changes.

Answer: AC

Explanation:

<https://community.cisco.com/t5/wireless/channel-utilization/td-p/2716667>

NEW QUESTION 248

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 250

A consultant needs to evaluate project management methodologies for a new service deployment on the existing network of a customer. The customer wants to be involved in the end-to-end project progress and be provided with frequent updates. The customer also wants the ability to change the requirements if needed, as the project progresses. Which project management methodology should be used?

- A. three principles
- B. phased
- C. Agile
- D. Waterfall

Answer: C

NEW QUESTION 253

Company XYZ must design a strategy to protect their routers from DoS attacks, such as traffic destined to the router's own route processor, using separate control plane categories. Which two capabilities can be used to achieve this requirement? (Choose two.)

- A. Control Plane Protection using queue thresholding on the transit subinterface
- B. Control Plane Protection using port filtering on the transit subinterface
- C. Control Plane Protection using port filtering on the main interface
- D. Control Plane Protection using queue thresholding on the host subinterface
- E. Control Plane Protection using port filtering on the host subinterface

Answer: DE

NEW QUESTION 255

While reviewing an existing network design, you are discussing the characteristics of different STP versions. Which protocol minimizes unicast flooding during a Topology Change Notification in a Layer 2 switched network with many VLANs?

- A. PVRSTP
- B. MST
- C. STP
- D. PVSTP+

Answer: A

NEW QUESTION 259

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 260

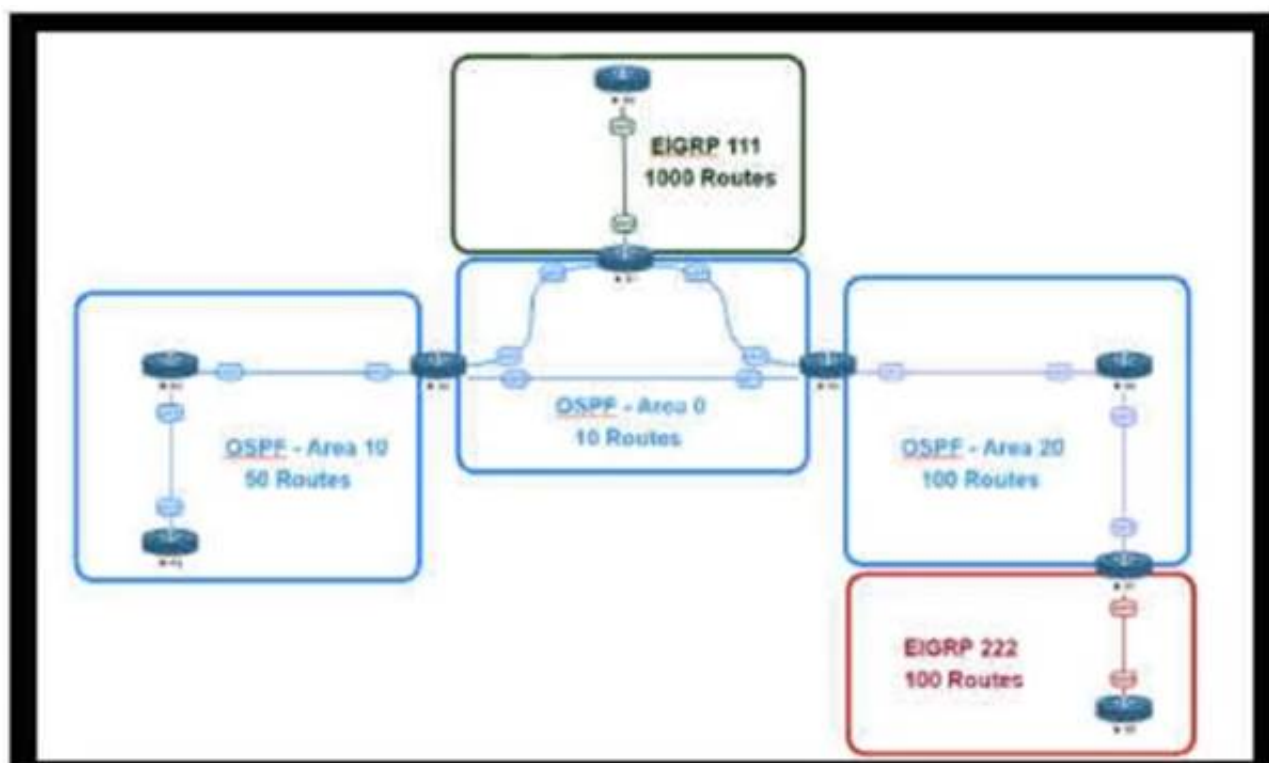
When designing a WAN that will be carrying real-time traffic, what are two important reasons to consider serialization delay? (Choose two)

- A. Serialization delays are invariable because they depend only on the line rate of the interface
- B. Serialization delays are variable because they depend on the line rate of the interface and on the type of the packet being serialized.
- C. Serialization delay is the time required to transmit the packet on the physical media.
- D. Serialization delays are variable because they depend only on the size of the packet being serialized
- E. Serialization delay depends not only on the line rate of the interface but also on the size of the packet

Answer: BD

NEW QUESTION 261

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 How 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 a
- C. area 20 as a NSSA area
- D. type 3 LSA filtering on the ABR between area 0 area 20

Answer: C

NEW QUESTION 262

What are two common approaches to analyzing and designing networks? (Choose two.)

- A. bottom-up approach
- B. high-low security approach
- C. top-down approach
- D. left-right approach
- E. three-tier approach

Answer: AC

NEW QUESTION 267

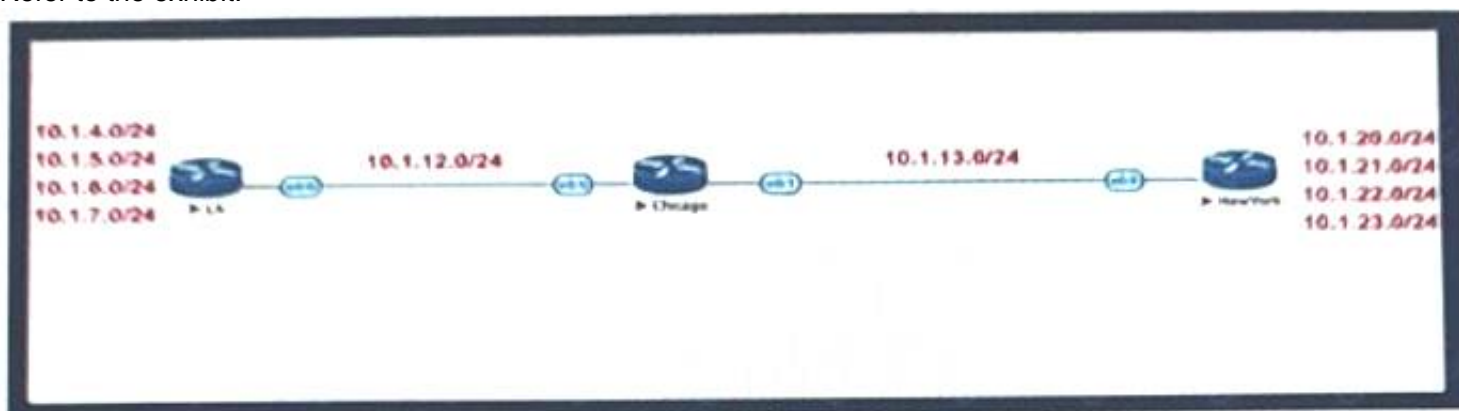
Which tool automates network implementation activities and shortens the implementation lifecycle?

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

Answer: D

NEW QUESTION 270

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 274

Company XYZ asks for design recommendations for Layer 2 redundancy. The company wants to prioritize fast convergence and resiliency elements. In the design. Which two technologies are recommended? (Choose two.)

- A. Design MLAG/MC-LAG into the network wherever possible.
- B. Configure DHCP snooping on the switches.
- C. Use root guard.
- D. Use BPDU guard.
- E. Use UniDirectional Link Detection.

Answer: AE

NEW QUESTION 278

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 279

During evaluation of migrating current on premises infrastructure to add cloud-based infrastructure, a network planning team must meet three core requirements as they make recommendations on which cloud strategy to adopt going forward

- Technology is changing rapidly, therefore the enterprise must be open to adopting new ways of doing things, and be ready to invest CapEx-funds in the next three years
- Network bandwidth capacity requirements are dynamic and are expected to change over the next year
- If new technologies are to be introduced, operational expenses must be kept at a minimum.

Which cloud strategy meets these requirements?

- A. private
- B. hybrid
- C. public
- D. multicloud

Answer: D

NEW QUESTION 282

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 284

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. Kubernetes
- C. Ansible
- D. Terraform

Answer: B

NEW QUESTION 286

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 290

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 292

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 293

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 297

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 it slower than the carrier delay down detection
- D. when the switch hardware is faster than the debounce timer down detection

Answer: B

NEW QUESTION 300

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

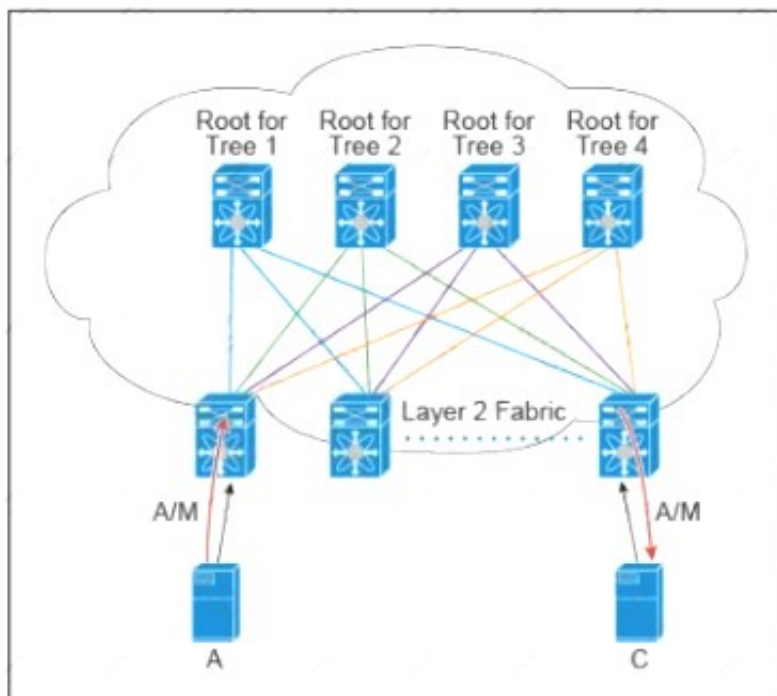
Answer: A

Explanation:

Table Description automatically generated

NEW QUESTION 301

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 306

A business wants to refresh its legacy Frame Relay WAN. It currently has product specialists in each of its 200 branches but plans to reduce and consolidate resources. The goal is to have product specialists available via video link when customers visit the nationwide branch offices. Which technology should be used to meet this objective?

- A. DMVPN phase 1 network over the Internet
- B. Layer 3 MPLS VPN hub and spoke
- C. Layer2VPLS
- D. Layer 3 MPLS VPN full mesh

Answer: D

NEW QUESTION 307

What is an architectural framework created by ETSI that defines standards to decouple network functions from proprietary hardware-based appliances and have them run in software on standard x86 servers?

- A. NPIV
- B. NFVIS
- C. NFV
- D. VNF

Answer: C

NEW QUESTION 311

Which two aspects are considered when designing a dual hub dual DMVPN cloud topology? (Choose two)

- A. will only work with single-tier headend architecture
- B. hub sites must connect to both DMVPN clouds
- C. recommended for high availability
- D. spoke-to-spoke traffic will transit the hub unless spokes exchange dynamic routing directly
- E. requires all sites to have dual Internet connections

Answer: AC

NEW QUESTION 313

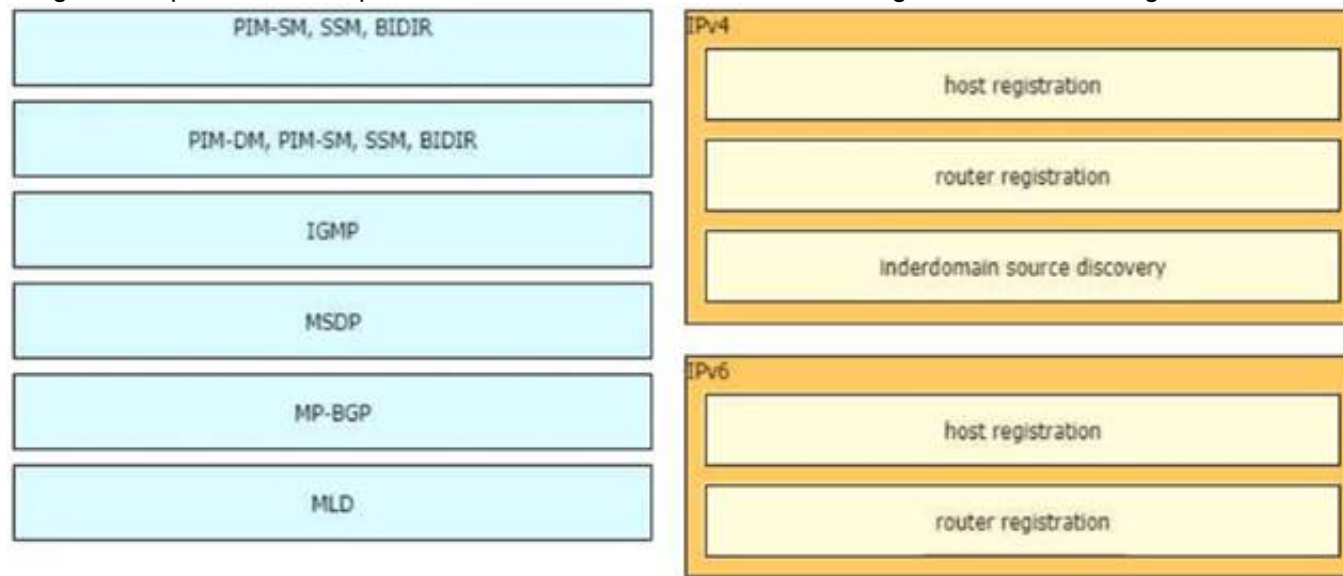
An existing wireless network was designed to support data traffic only. You must now install context Aware services for location tracking changes must be applied to the existing wireless network to increase the location accuracy? (Chose two)

- A. Add access points along the perimeter of the coverage area.
- B. Increase the access point density to create an average inter-access point distance of less than 40 feet or 12.2 meters
- C. Use directional antennas to provide more cell overlapping
- D. Install additional access points in monitor mode where the co-channel interference would otherwise be affected
- E. Fine tune the radio configuration of the access point to have a higher average transmission power to achieve better coverage

Answer: BE

NEW QUESTION 318

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:

A picture containing table Description automatically generated

NEW QUESTION 323

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 328

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

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

Answer: A

NEW QUESTION 331

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 336

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 337

Which two statements describe the functionality of OSPF packet-pacing timers? (Choose two) The group-pacing timer controls the interval that is used for group and individual LSA refreshment

- A. OSPF flood-pacing timers allow dynamic control of the OSPF transmission queue size
- B. OSPF retransmission-pacing timers allow control of interpacket spacing between consecutive link-state update packets in the OSPF retransmission queue.
- C. OSPF retransmission-pacing timers allow control of packet interleaving between nonconsecutive link-state update packets in the OSPF retransmission queue.

D. OSPF flood-pacing timers allow control of interpacket spacing between consecutive link-state update packets in the OSPF transmission queue

Answer: BD

NEW QUESTION 342

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 346

A banking customer determines that it is operating POS and POI terminals that are noncompliant with PCI DSS requirements, as it is running TLSv1.0. The customer plans to migrate the terminals to TLSv1.2. What are two requirements to complete the migration? (Choose two.)

- A. Ensure that strong cryptography is applied for users who have administrative access through networks
- B. Apply strong cryptography and security protocols to safeguard sensitive cardholder data.
- C. Apply strong encryption for transmission of cardholder data across public networks.
- D. Protect all user systems against malware and frequently update antivirus software
- E. Maintain a policy that addresses information security for employees and third parties.

Answer: CE

NEW QUESTION 351

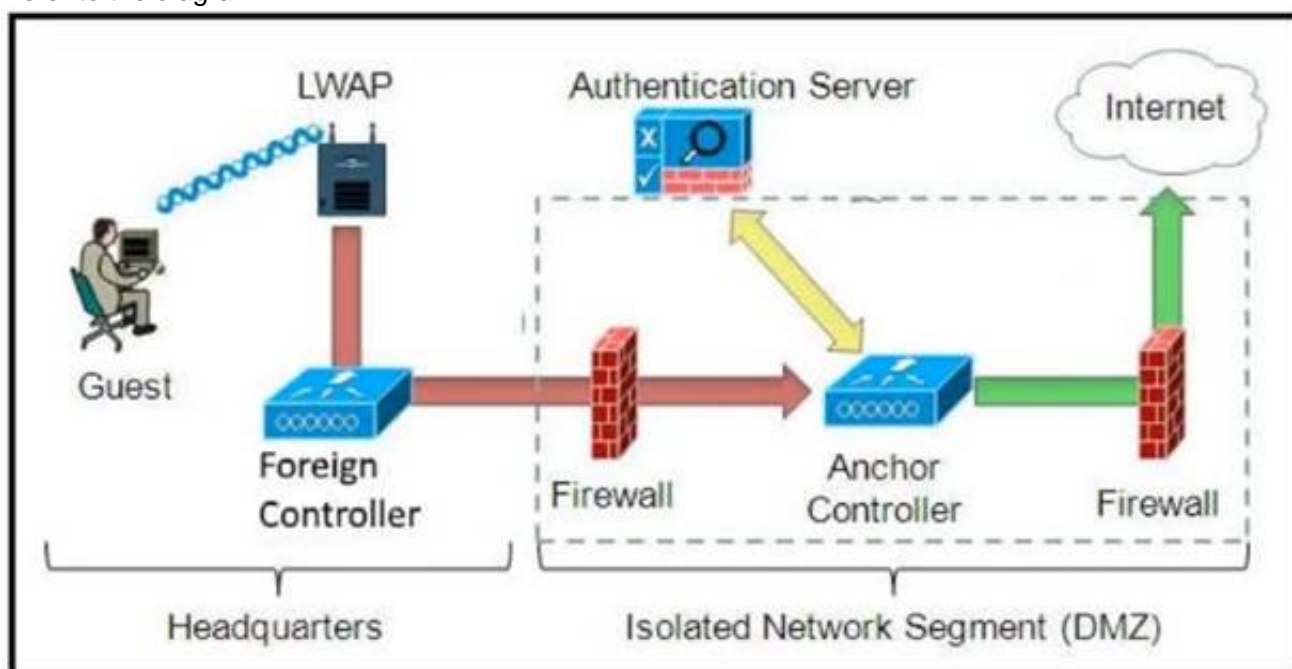
Which mechanism enables small, unmanaged switches to plug into ports of access switches without risking switch loops?

- A. PortFast
- B. UDLD
- C. Root guard
- D. BPDU guard

Answer: D

NEW QUESTION 356

Refer to the diagram.



Which solution must be used to send traffic from the foreign wireless LAN controller to the anchor wireless LAN controller?

- A. Send packets from the foreign controller to the anchor controller via Layer 3 MPLS VPN or VRF-Lite
- B. Send packets without encapsulation to the anchor controller over the routed network.
- C. Encapsulate packets into an EoIP tunnel and send them to the anchor controller.
- D. Send packets from the foreign controller to the anchor controller via IPinIP or IPsec tunnel.

Answer: C

NEW QUESTION 361

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

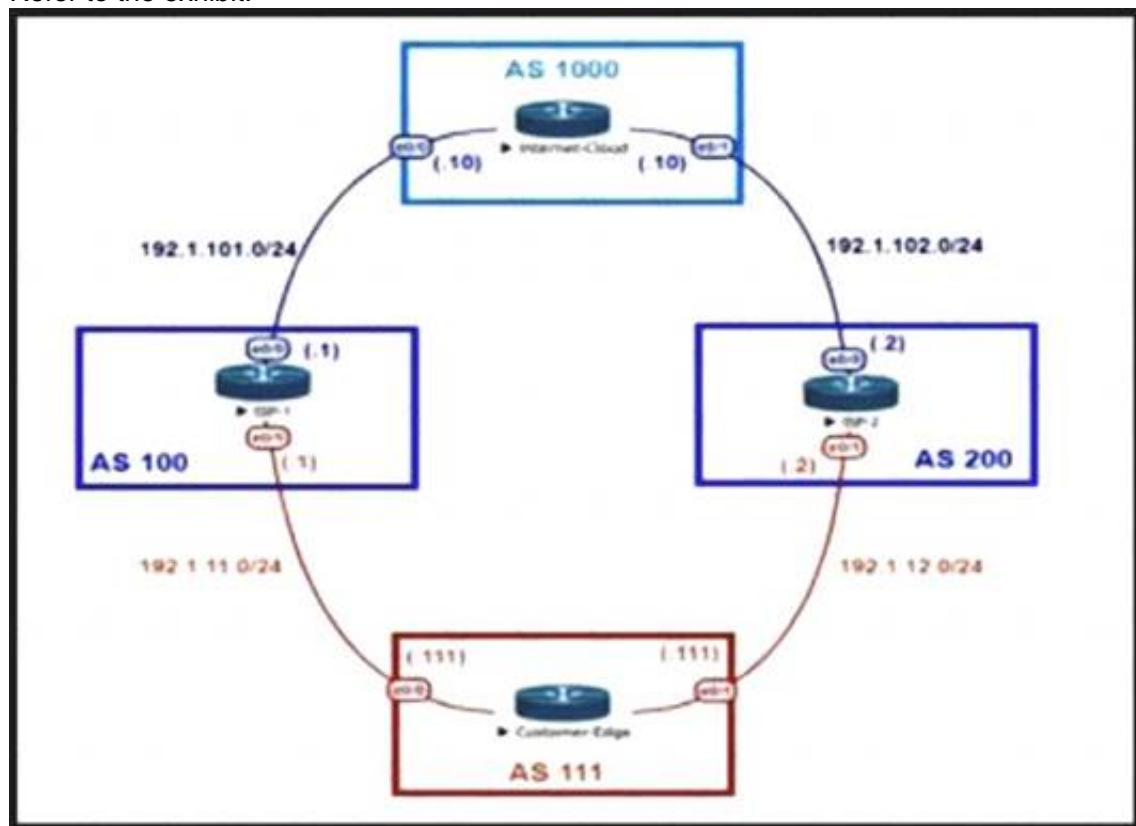
Answer: C

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 362

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 367

What is a description of a control plane action?

- A. de-encapsulating and re-encapsulating a packet in a data-link frame
- B. matching the destination MAC address of an Ethernet frame to the MAC address table
- C. matching the destination IP address of an IP packet to the IP routing table
- D. hosts locating routers that reside on attached links using the IPv6 Neighbor Discover Protocol

Answer: D

NEW QUESTION 371

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 374

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 378

Which service abstracts away the management of the operating system, middleware, and runtime?

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

Answer: B

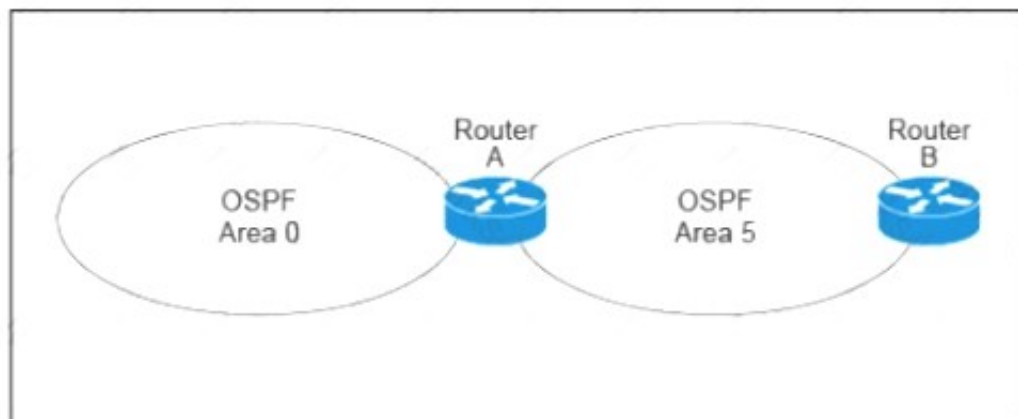
Explanation:

IaaS, PaaS, and SaaS each offer a progressive layer of abstraction after that. IaaS abstracts away the physical compute, network, storage, and the technology needed to virtualize those resources. PaaS goes a step further and abstracts away the management of the operating system, middleware, and runtime.

<https://www.ibm.com/topics/iaas#:~:text=IaaS%20abstracts%20away%20the%20physical,system%2C%20midd>

NEW QUESTION 379

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 382

Company XYZ is in the process of identifying which transport mechanism(s) to use as their WAN technology. Their main two requirements are.

- a technology that could offer DPI, SLA, secure tunnels, privacy, QoS, scalability, reliability, and ease of management
- a technology that is cost-effective

Which WAN technology(ies) should be included in the design of company XYZ?

- A. Software-defined WAN should be the preferred choice because it complements both technologies, covers all the required features, and it is the most cost-effective solution.
- B. Internet should be the preferred option because it is cost effective and supports BFD, IP SL
- C. and IPsec for secure transport over the public Internet.
- D. Both technologies should be used
- E. Each should be used to back up the other one; where the primary links are MPLS, the internet should be used as a backup link with IPsec (and vice versa).
- F. MPLS meets all these requirements and it is more reliable than using the Internet
- G. It is widely used with defined best practices and an industry standard.

Answer: A

NEW QUESTION 385

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 external 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 386

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

Answer: A

NEW QUESTION 387

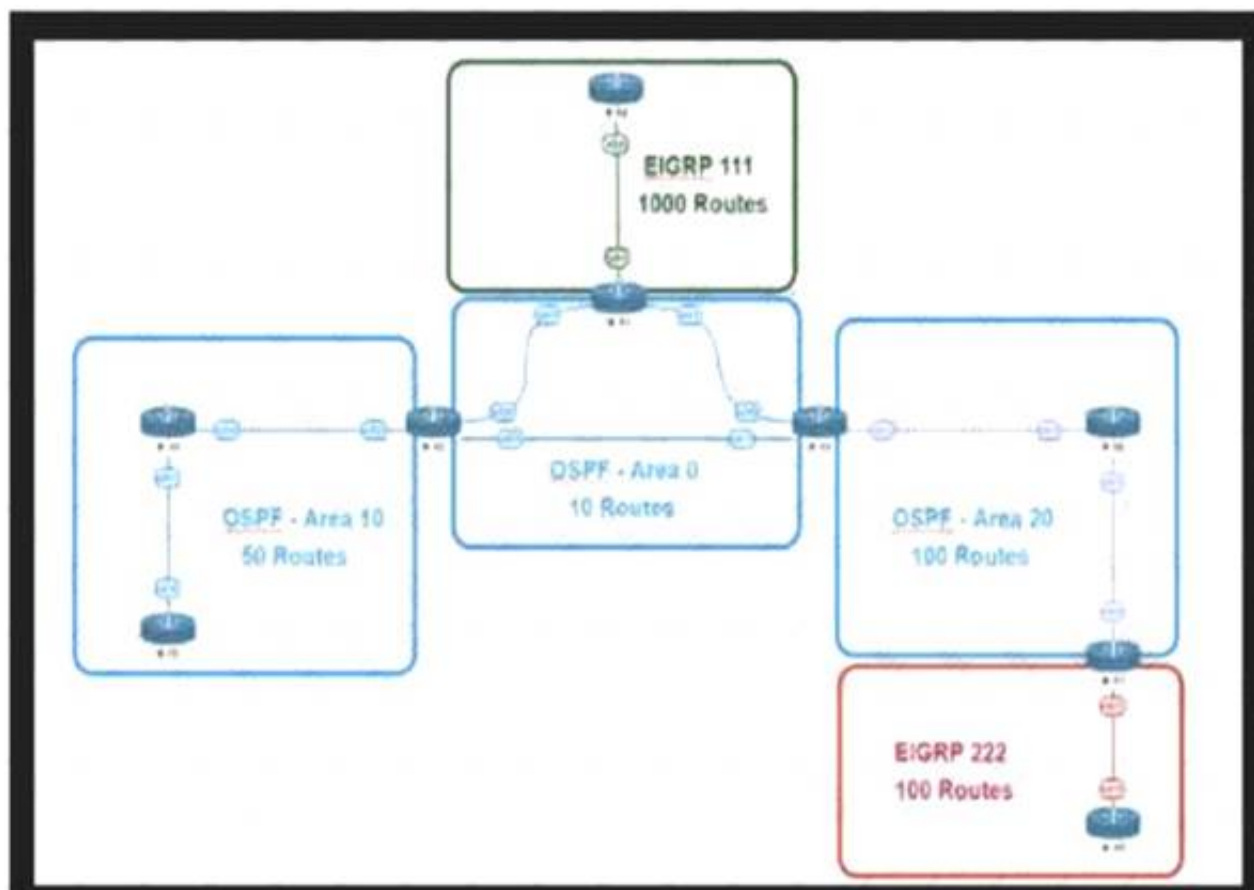
The controller has a global view of the network, and it can easily ensure that the network is in a consistent and optimal configuration. Which two statements describe a centralized SDN control path? (Choose two.)

- 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 391

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 394

How must the queue sizes be designed to ensure that an application functions correctly?

- A. Each individual device queuing delay in the chain must be less than or equal to the application required delay.
- B. The queuing delay on every device in the chain must be exactly the same to the application required delay.
- C. The default queue sizes are good for any deployment as it compensates the serialization delay.
- D. The sum of the queuing delay of all devices plus serialization delay in the chain must be less than or equal to the application required delay.

Answer: D

NEW QUESTION 395

Which development model is closely associated with traditional project management?

- A. static model
- B. Agile model
- C. evolutionary delivery model
- D. lifecycle model

Answer: D

NEW QUESTION 397

The Company XYZ network is experiencing attacks against their router. Which type of Control Plane Protection must be used on the router to protect all control plane IP traffic that is destined directly for one of the router interfaces?

- A. Control Plane Protection host subinterface

- B. Control Plane Protection main interface
- C. Control Plane Protection transit subinterface
- D. Control Plane Protection CEF-exception subinterface

Answer: A

NEW QUESTION 401

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: A

NEW QUESTION 405

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