Cisco

Exam Questions 400-007

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

NEW QUESTION 1
An enterprise network has two core routers that connect to 200 distribution routers and uses full-mesh IBGP peering between these routers as its routing method. The distribution routers are experiencing high CPU utilization due to the BGP process. Which design solution is the most cost effective?

A. Implement route reflectors on the two core routers
B. Increase the memory on the core routers
C. Implement e BGP between the core and distribution routers
D. Increase the memory on the distribution routers
E. Increase bandwidth between the core routers

Answer: A

NEW QUESTION 2
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
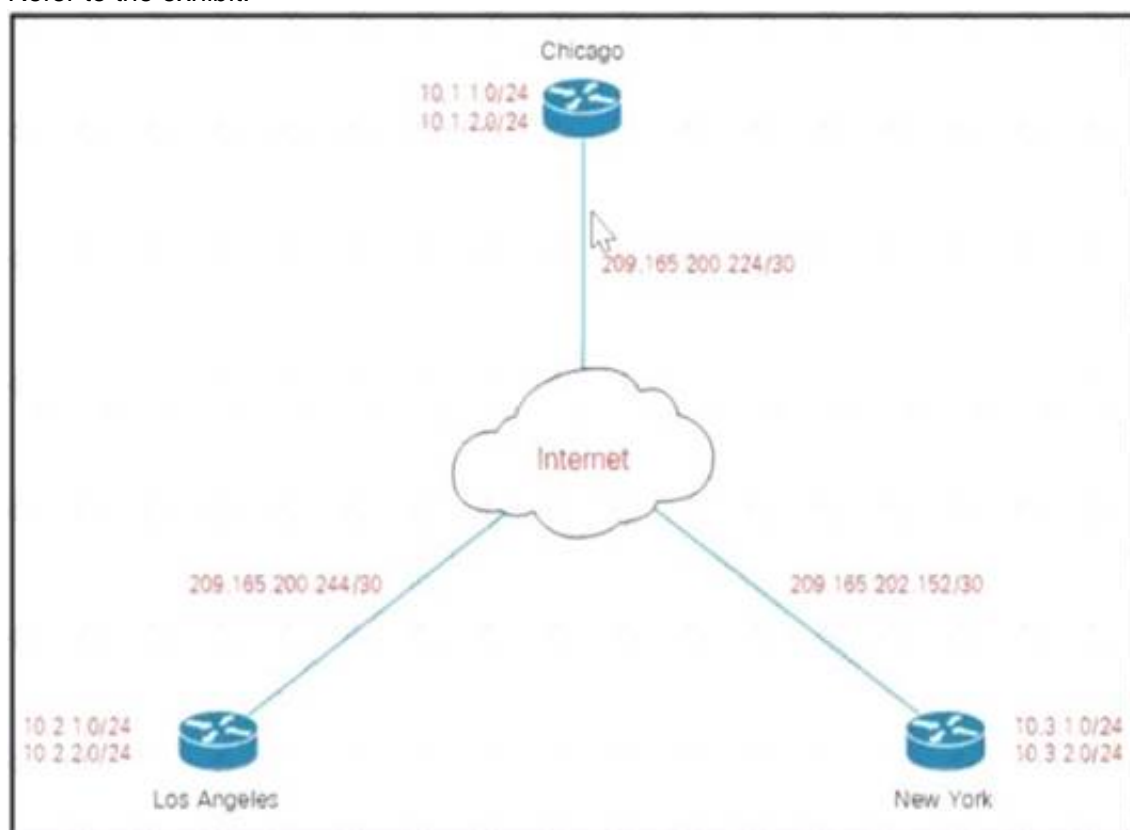D. SASE architecture

Answer: D

NEW QUESTION 3
When consumers that leverage laaS reach 100% resource capacity, what can be used to redirect the overflow of traffic to the public cloud so there is no disruption to service?

A. cloud policing
B. cloud spill
C. cloud bursting
D. cloud shaping

Answer: C

NEW QUESTION 4
Refer to the exhibit.

Company XYZ must design a DMVPN tunnel between the three sites Chicago is going to act as the NHS and the company wants DMVPN to detect peer endpoint failures Which technology should be used m the design?

A. VPLS
B. IP SLA
C. GRE
D. L2TPv3

Answer: B

NEW QUESTION 5
Which management category is not part of FCAPS framework?

A. Configuration
B. Security
C. Performance
D. Authentication
E. Fault-management

Answer: D

NEW QUESTION 6
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 7
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 8
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 9
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 10
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 10
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 13
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 16
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 17
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 22
Company ABC wants to minimize the risk of users plugging unauthorized switches and hubs into the network Which two features can be used on the LAN access ports to support this design requirement? (Choose two.)

A. Loop Guard
B. PortFast
C. DTF
D. Root Guard
E. BPDU Guard

Answer: BE

NEW QUESTION 26
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 29
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 33
Refer to the exhibit.
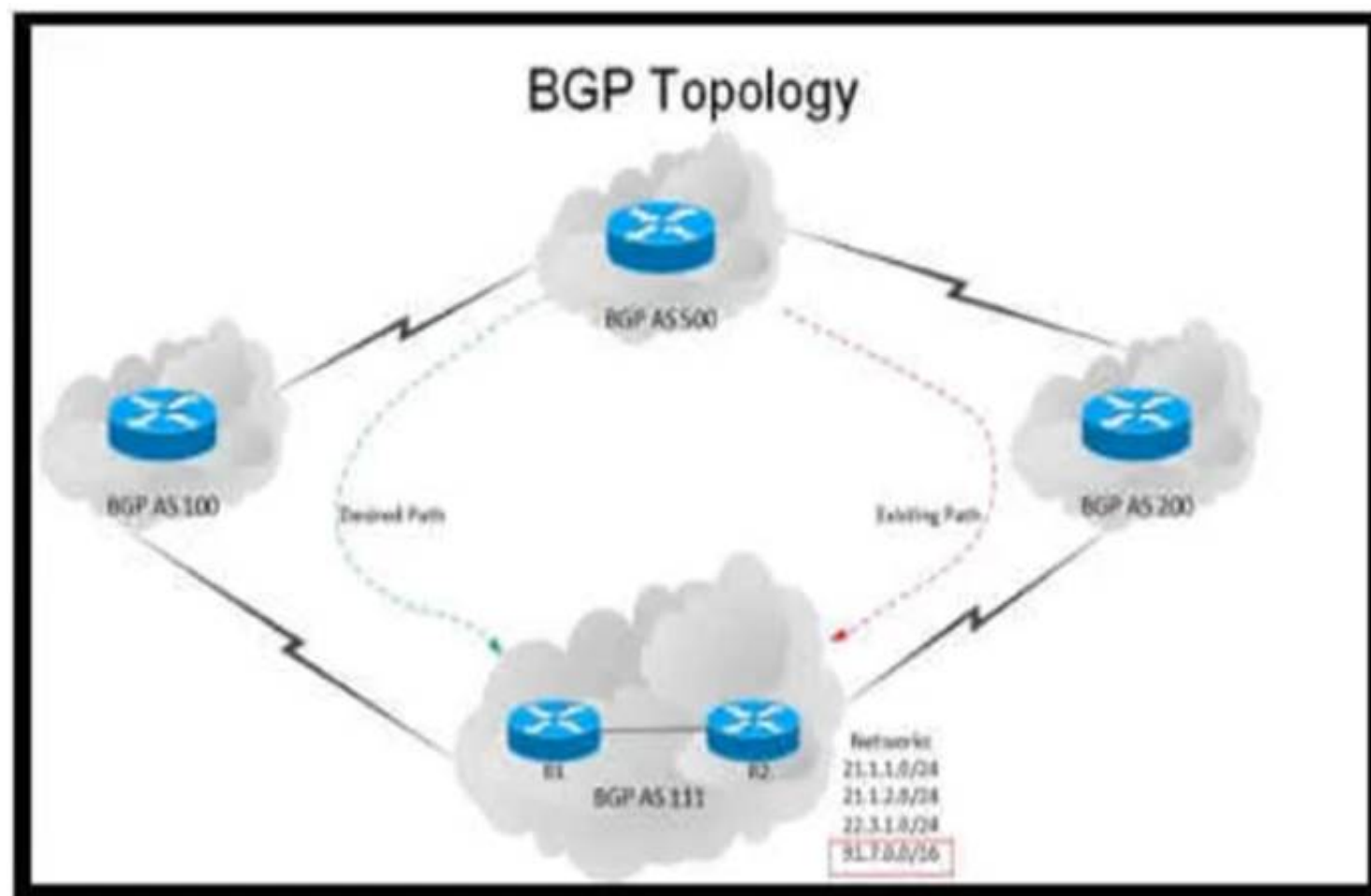
An engineer has been asked to redesign the traffic flow toward AS 111 coming from AS 500.Traffic destined to AS 111 network 91 7 0.0/16 should come in via AS 100. while traffic destined to all other networks in AS 111 should continue to use the existing path Which BGP attributes are best suited to control 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 38
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 39
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 mutlipoint 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 40
The administrator of a small branch office wants to implement the Layer 2 network without running STP The office has some redundant paths Which mechanism can the administrator use to allow redundancy without creating Layer 2 loops?

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

Answer: B

NEW QUESTION 42
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,
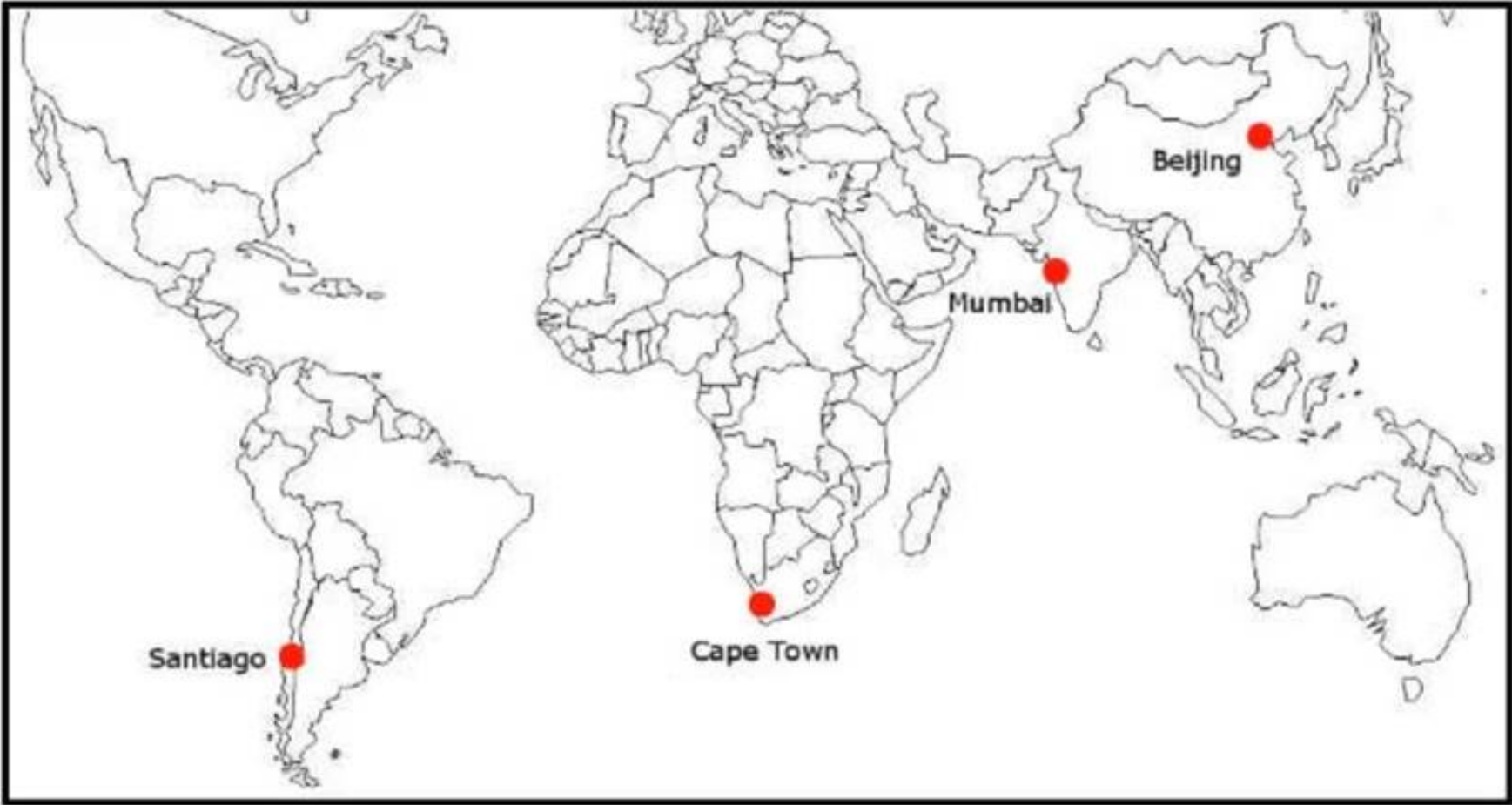B. The custom application and VoIP must be assigned their own separate priority queue.

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 45
Refer to the exhibit.

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

» cluster heartbeat 2 Mb/s continuous (250 KB/s)

» cluster heartbeat one-way maximum latency 100 ms

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

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

Which hosting data center pair can host the new application?

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

Answer: D

NEW QUESTION 46
Which two protocols are used bv 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 49
Drag and drop the FCAPS network management reference models from the left onto the correct definitions on the right.

Fault Management		ensures that network transit quality remains at acceptable levels	
Configuration Management		gathers usage statistics for users and business units	
Accounting Management		gathers and stores configuration code from network devices	
Performance Management		recognizes, isolates, corrects, and logs events that occur in the network	
Security Management		controls access to assets in the network	

A. Mastered
B. Not Mastered

Answer: A

Explanation:

Fault Management = Recognize, isolates, corrects, and logs events that occur in the network

Configuration Management = Gathers and stores configration code from network devices

Performance Management = ensures that network transit quality remains at acceptable laevels

Security Management = Controls access to assets in the network

Accounting Management = gathers usage statistics for users and business units

NEW QUESTION 52
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 57
A network attacker exploits application flaws to compromise critical systems in the organization with these objectives:
• Obtain sensitive data and export the data out of the network.
• Compromise developer and administrator credentials to potentially
What is the next step after application discovery is completed in Zero Trust networkings

A. Establish visibility and behavior modeling
B. Enforce policies and microsegmentation.
C. Assess real-time security health.
D. Ensure trustworthiness of systems.

Answer: A

Explanation:
https://www.cisco.com/c/en/us/solutions/collateral/enterprise/design-zone-security/zt-arch-guide.html

NEW QUESTION 61
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 64
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 65
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 66
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 69
Company XYZ wants to prevent switch loops caused by unidirectional point-point-link condition on Rapid FVST + and MST. Which technology can be used in the design to meet this requirement?

A. STPBPDU guard
B. STP bridge assurance
C. MSTP
D. TRILL

Answer: B

NEW QUESTION 73
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 77
Company XYZ is running SNMPv1 in their network and understands that it has some flaws. They want to change the security design to implement SNMPv3 in the network Which network threat is SNMPv3 effective against?

A. man-in-the-middle attack
B. masquerade threats
C. DDoS attack
D. brute force dictionary attack

Answer: D

NEW QUESTION 80
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 81
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. fate sharing
C. OSPF LFA
D. BFD
E. flex links

Answer: D

NEW QUESTION 85
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 86
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 88
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 91
Which two features describe controller-based networking solutions compared to traditional networking solutions? (Choose two.)

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

Answer: BC

NEW QUESTION 95
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 99
Which feature is supported by NETCONF but is not supported by SNMP?

A. distinguishing between configuration data and operational data
B. taking administrative actions
C. collecting the status of specific fields

D. changing the configuration of specific fields

Answer: A

NEW QUESTION 100
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: C

NEW QUESTION 101
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 106
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 111
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 114
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 116
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 119
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 124
While designing a switched topology, in which two options is UplinkFast recommended? (Choose two)

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

Answer: AD

NEW QUESTION 128
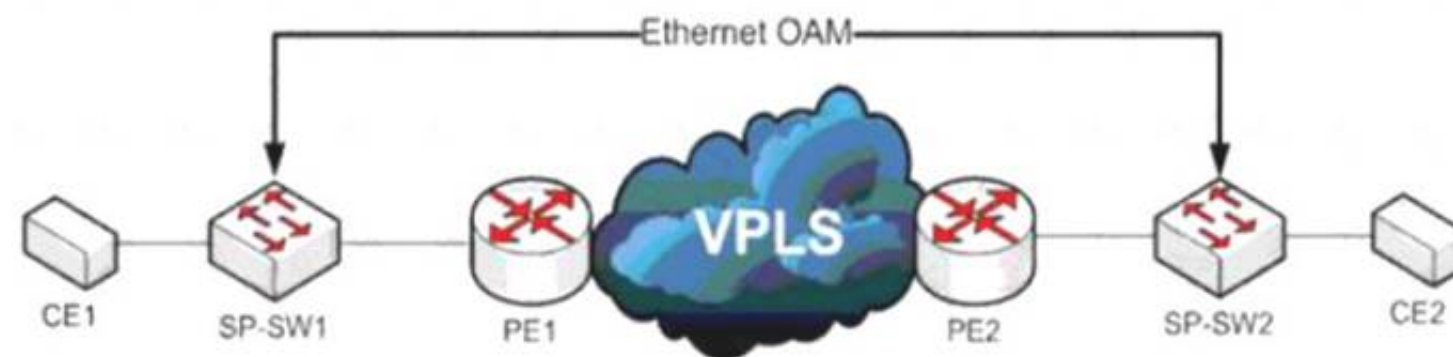Company XYZ wants to secure the data plane of their network. Which two technologies can be included in the security design? (Choose two)

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

Answer: AB

NEW QUESTION 130
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 133
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 136
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 139
Which two characteristics apply to firewall transparent mode operations in a firewall solution design? (Choose two.)

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

Answer: CD

NEW QUESTION 141
As network designer, which option is your main concern with regards to virtualizing multiple network zones into a single hardware device?

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

Answer: A

NEW QUESTION 143
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 146
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 150
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 154
The Agile Manifesto is a document that defines the key values and principles behind the Agile philosophy and helps development teams work more efficiently and sustainably Each of the four key values is split into two sections a left-hand side and a right-hand side In other words, though there is value in the items on the right we value the items on the left more What is one of the key values of the Agile Manifesto?

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

Answer: C

NEW QUESTION 159
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 162
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 167
An architect receives a functional requirement for a NAC system from a customer security policy stating that if a corporate Wi-Fi device does not meet current AV definitions, then it cannot access the corporate network until the definitions are updated. Which component should be built into the NAC design?

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

Answer: A

NEW QUESTION 170
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 174
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.

A. Mastered
B. Not Mastered

Answer: A

Explanation:

NEW QUESTION 179
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 181
The SD-WAN architecture is composed of separate orchestration management, control, and data planes Which activity happens at the orchestration plane?

A. automatic onboarding of the SD-WAN routers into the SD-WAN overlay
B. decision-making process on where traffic flows
C. packet forwarding
D. central configuration and monitoring

Answer: D

NEW QUESTION 185
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 186
The Layer 3 control plane is the intelligence over the network that steers traffic toward its intended destination. Which two techniques can be used in service provider-style networks to offer a more dynamic, flexible, controlled, and secure control plane design? (Choose two.)

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

Answer: DE

NEW QUESTION 187
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 worn 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.
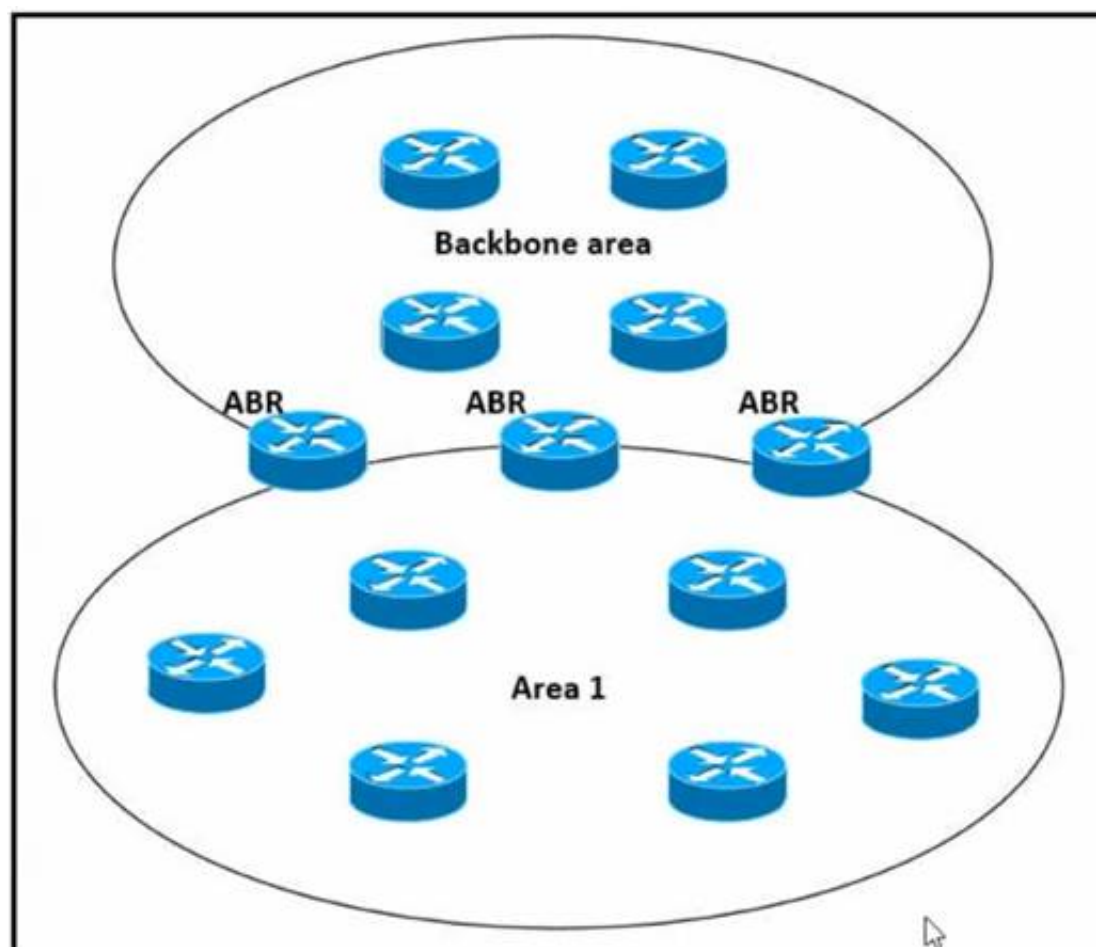

NEW QUESTION 188
Which two factors must be considered for high availability in campus LAN designs to mitigate concerns about unavailability of network resources? (Choose two.)

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

Answer: AD

NEW QUESTION 193
Refer to the exhibit.

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

A. In a large-scale network LSA replication by all ABRs can cause serious scalability issues
B. Multiple ABRs reduce the CPU processing on each A6R due to splitting prefix advertisement
C. In a large-scale network multiple ABRs can create microloops.
D. Prefixes from the non-backbone area are advertised by one ABR to the backbone

Answer: A

NEW QUESTION 195
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 200
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 201
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 205
A network engineering team is in the process of designing a lab network for a customer demonstration. The design engineer wants to show that the resiliency of the MPLS traffic Engineering Fast Reroute solution has the same failover/failback times as a traditional SONET/SDH network (around 50MSEC). In order to address both link failure and node failure within the lab typology network, which type of the MPLS TE tunnels must be considered for this demonstration?

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

Answer: D

NEW QUESTION 206
Company XYZ has a multicast domain that spans across multiple autonomous systems. The company wants to choose a technology that provides simplified and controlled approach to interconnecting the multicast domains. Which technology is the best fit for this purpose?

A. MSDP
B. PIM SSM
C. MPLS
D. PIM sparse mode

Answer: A

NEW QUESTION 211
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 213
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 215
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: D

NEW QUESTION 220
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 224
Which tool automates network implementation activities and shortens the implementation lifecycle?

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

Answer: D

NEW QUESTION 229
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 232
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 234
An architect designs a multi-controller network architecture with these requirements:

➢ Achieve fast failover to control traffic when controllers fail.

➢ Reduce connectivity loss and enable smart recovery to improve the SDN survivability.

➢ Improve connectivity by adding path diversity and capacity awareness for controllers.
Which control plane component of the multi-controller must be built to meet the requirements?

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

Answer: B

NEW QUESTION 237
An international media provider is an early adopter of Docker and micro services and is using an open-source homegrown container orchestration system. A few years ago, they migrated from on-premises data centers to the cloud Now they are faced with challenges related to management of the deployed services with their current homegrown orchestration system.
Which platform is well-suited as a state-aware orchestration system?

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

Answer: B

NEW QUESTION 238
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 242
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
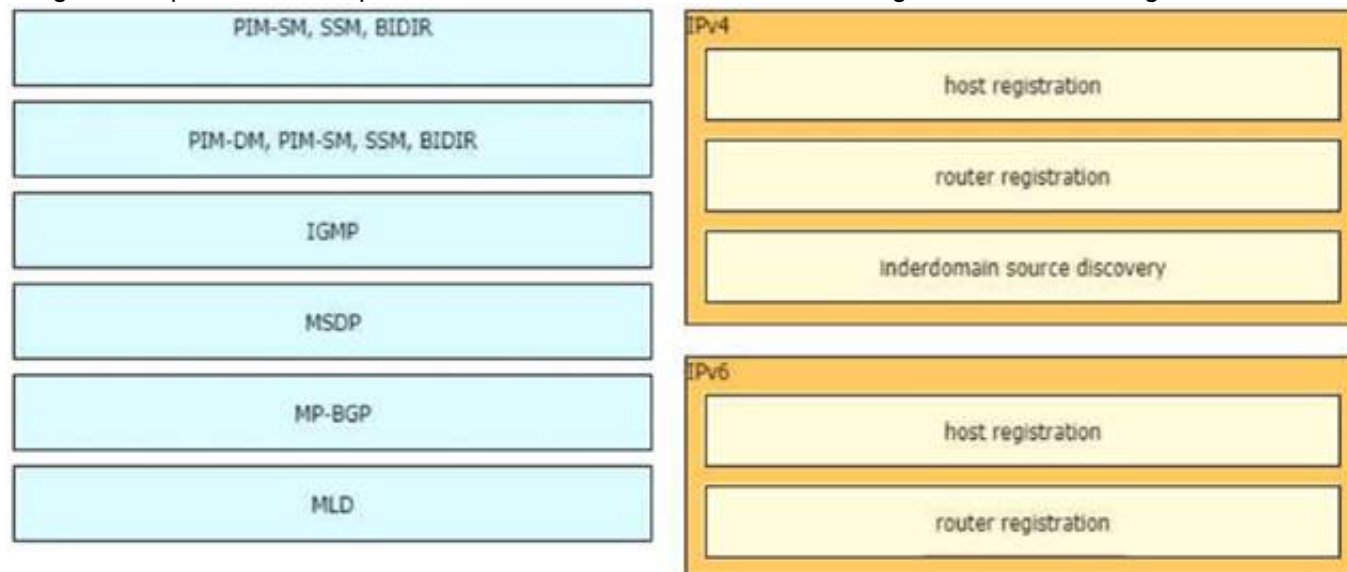C. NFV
D. VNF

Answer: C

NEW QUESTION 243
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 244
Drag and drop the multicast protocols from the left onto the current design situation on the right.

PIM-SM, SSM, BIDIR
PIM-DM, PIM-SM, SSM, BIDIR
IGMP
MSDP
MP-BGP
MLD

IPv4
host registration
router registration
inderdomain source discovery

IPv6
host registration
router registration

A. Mastered
B. Not Mastered

Answer: A

Explanation:
A picture containing table Description automatically generated

NEW QUESTION 247
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 248
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 249
Organizations that embrace Zero Trust initiatives ranging from business policies to technology infrastructure can reap business and security benefits. Which two domains should be covered under Zero Trust initiatives? (Choose two)

A. workload
B. work domain
C. workplace
D. workgroup
E. workspace

Answer: AC

NEW QUESTION 253
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 255
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 258
You are designing a network running both IPv4 and IPv6 to deploy QoS Which consideration is correct about the QoS for IPv4 and IPv6?

A. IPv4 and IPv6 traffic types can use use queuing mechanisms such as LLQ, PQ and CQ.
B. IPv6 packet classification is only available with process switching, whereas IPv4 packet classification is available with both process switching and CEF.
C. IPv6 and IB/4 traffic types can use a single QoS policy to match both protocols
D. Different congestion management mechanisms need to be used for IPv4 and IPv6 traffic types

Answer: C

NEW QUESTION 262
Which solution component helps to achieve rapid migration to the cloud for SaaS and public cloud leveraging SD-WAN capabilities?

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

Answer: B

NEW QUESTION 263
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 266
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 270
Refer to the exhibit.
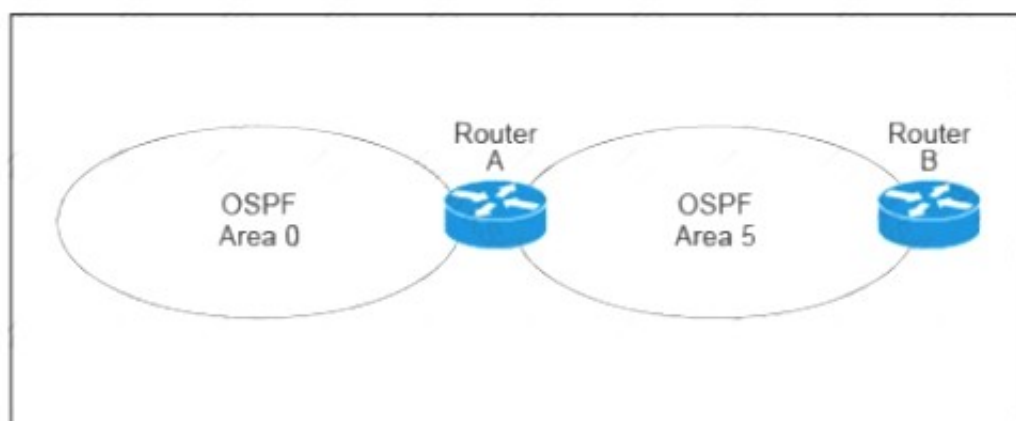
A customer runs OSPF with Area 5 between its aggregation router and an internal router When a network change occurs in the backbone. Area 5 starts having connectivity issues due to the SPF algorithm recalculating an abnormal number of times in Area 5 You are tasked to redesign this network to increase 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 ontheAB, 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 272
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 277
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 280
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 285
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 288
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 291
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 293
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