

Cisco

Exam Questions 400-007

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



NEW QUESTION 1

When consumers that leverage IaaS 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 2

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 3

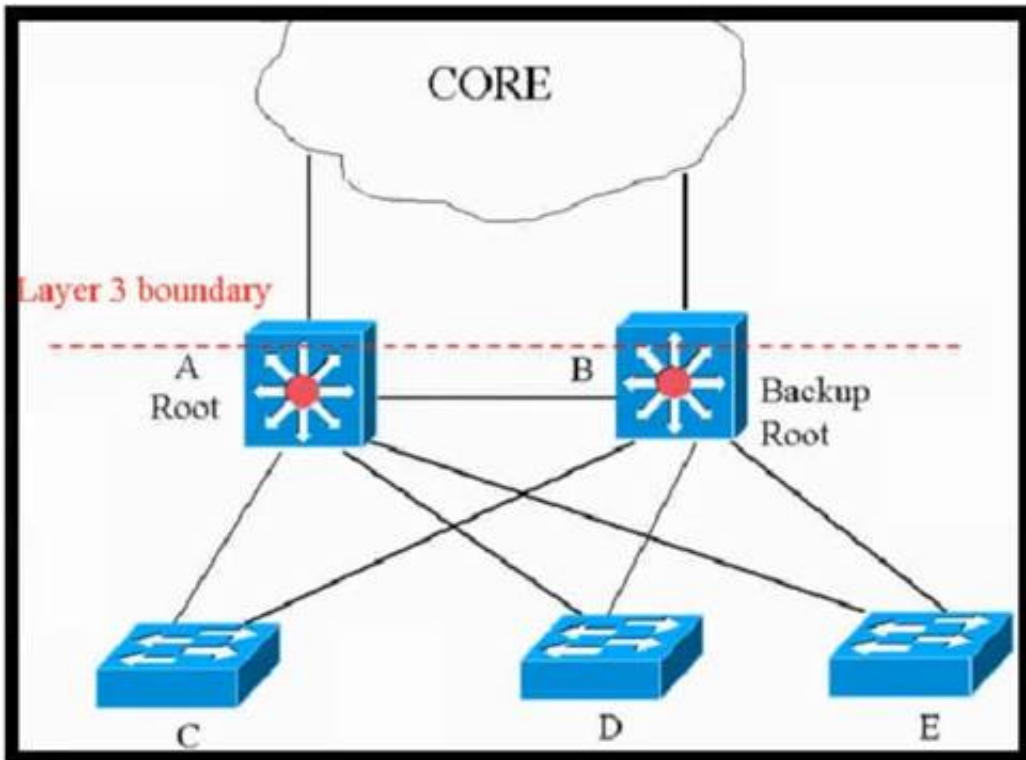
Which management category is not part of FCAPS framework?

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

Answer: D

NEW QUESTION 4

Refer to the exhibit.



This network is running legacy STP 802.1 d. 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. 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 5

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 6

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

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

Answer: CE

NEW QUESTION 7

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 8

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

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

Answer: A

NEW QUESTION 9

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 10

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 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 14

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

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

Answer: A

NEW QUESTION 18

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

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

Answer: BE

NEW QUESTION 21

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 25

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.

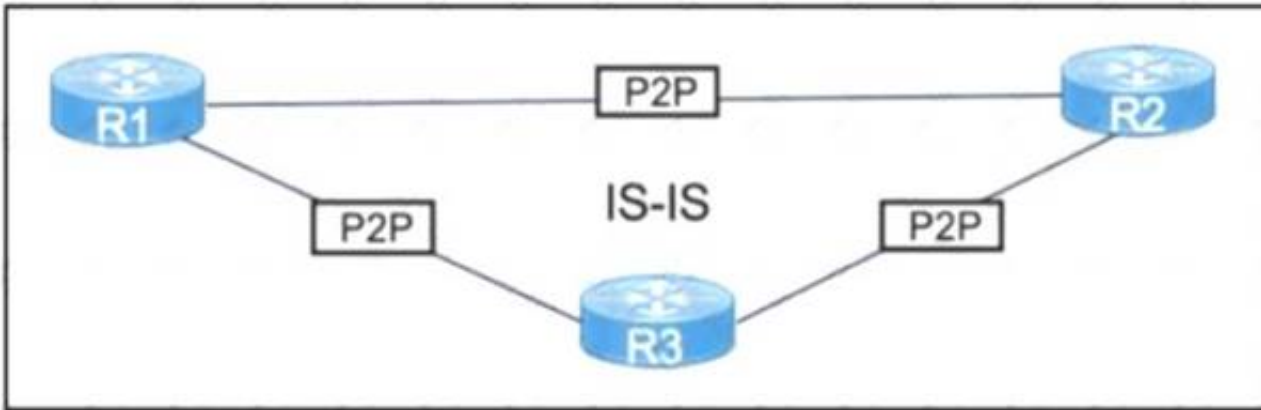
Which technology should you recommend to enhance security by limiting traffic that could originate from a hacker compromising a workstation and redirecting flows at the servers?

- 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 27

Refer to the exhibit.



After a network audit a network engineer must optimize the current network convergence time The proposed solution must consider link layer and control plane failures. Which solution meets the requirements?

- A. Configure debounce timers
- B. Increase fast hello timers
- C. Implement BFD
- D. Enable LSP fast flood

Answer: C

NEW QUESTION 32

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 36

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 40

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 42

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

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

Answer: AE

NEW QUESTION 46

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

- A. Use switch clustering in the access layer.

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

Answer: B

NEW QUESTION 50

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

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

Answer: CDF

NEW QUESTION 51

Which two control plane policer designs must be considered to achieve high availability? (Choose two.)

- A. Control plane policers are enforced in hardware to protect the software path, but they are hardware platform dependent in terms of classification ability.
- B. Control plane policers are really needed only on externally facing devices.
- C. Control plane policers can cause the network management systems to create false alarms.
- D. Control plane policers must be processed before a forwarding decision is made.
- E. Control plane policers require that adequate protocols overhead are factored in to allow protocol convergence.

Answer: AD

NEW QUESTION 56

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

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

Answer: B

NEW QUESTION 57

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 62

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 66

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 configuration code from network devices
Performance Management	= ensures that network transit quality remains at acceptable levels
Security Management	= Controls access to assets in the network
Accounting Management	= gathers usage statistics for users and business units

NEW QUESTION 68

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

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

Answer: D

NEW QUESTION 73

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

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

Answer: BE

NEW QUESTION 76

An enterprise has identified these causes for inefficient CAPEX spending:

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

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

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

Answer: C

NEW QUESTION 78

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 80

Which two technologies enable multilayer segmentation? (Choose two.)

- A. policy-based routing
- B. segment routing
- C. data plane markings
- D. firewalls
- E. filter lists

Answer: AD

NEW QUESTION 84

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

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

Answer: C

NEW QUESTION 85

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

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

Answer: CD

Explanation:

synchronous data replication must be used to meet the business requirements, is incorrect. As described above, asynchronous replication would be a better choice in this scenario due to the distance between the data center sites and the target RPO/RTO requirements.

asynchronous data replication should be used in this scenario to avoid performance impact in the primary site, is correct. Asynchronous replication would allow Company XYZ to meet the target RPO/RTO requirements while avoiding the performance impact of synchronous replication.

NEW QUESTION 89

An IT service provider is upgrading network infrastructure to comply with PCI security standards. The network team finds that 802.1X and VPN authentication based on locally-significant certificates are not available on some legacy phones.

Which workaround solution meets the requirement?

- A. Replace legacy phones with new phones because the legacy phones will lose trust if the certificate is renewed.
- B. Enable phone VPN authentication based on end-user username and password.
- C. Temporarily allow fallback to TLS 1.0 when using certificates and then upgrade the software on legacy phones.
- D. Use authentication-based clear text password with no EAP-MD5 on the legacy phones.

Answer: B

NEW QUESTION 94

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 97

Which design benefit of bridge assurance is true?

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

Answer: D

NEW QUESTION 100

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 102

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 106

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 110

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 114

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 115

Which design principal improves network resiliency?

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

Answer: B

NEW QUESTION 119

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

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

Answer: C

NEW QUESTION 121

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 122

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 in-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 123

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

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

Answer: A

NEW QUESTION 124

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 125

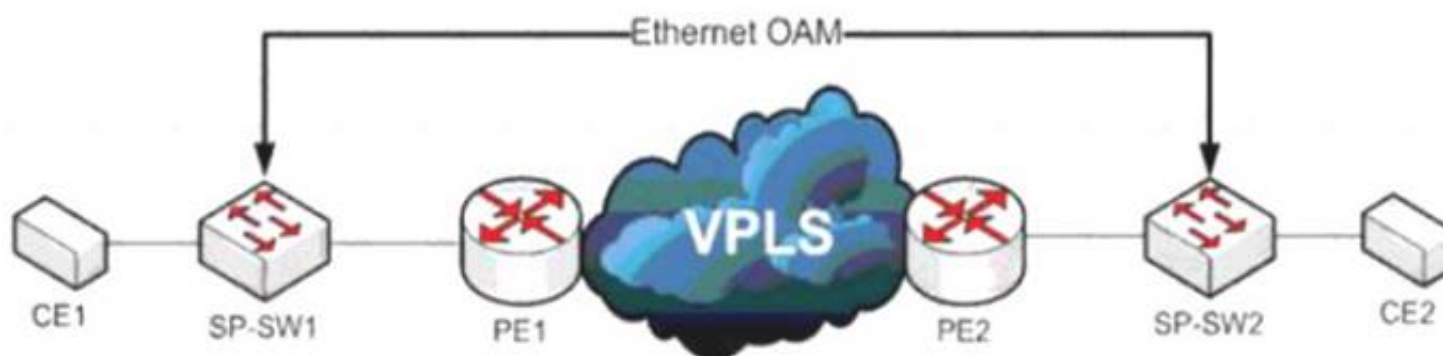
IPFIX data collection via standalone IPFIX probes is an alternative to flow collection from routers and switches. Which use case is suitable for using IPFIX probes?

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

Answer: A

NEW QUESTION 126

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 131

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 135

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 137

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 138

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

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

Answer: AC

NEW QUESTION 141

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 145

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 149

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 153

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 155

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 160

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 163

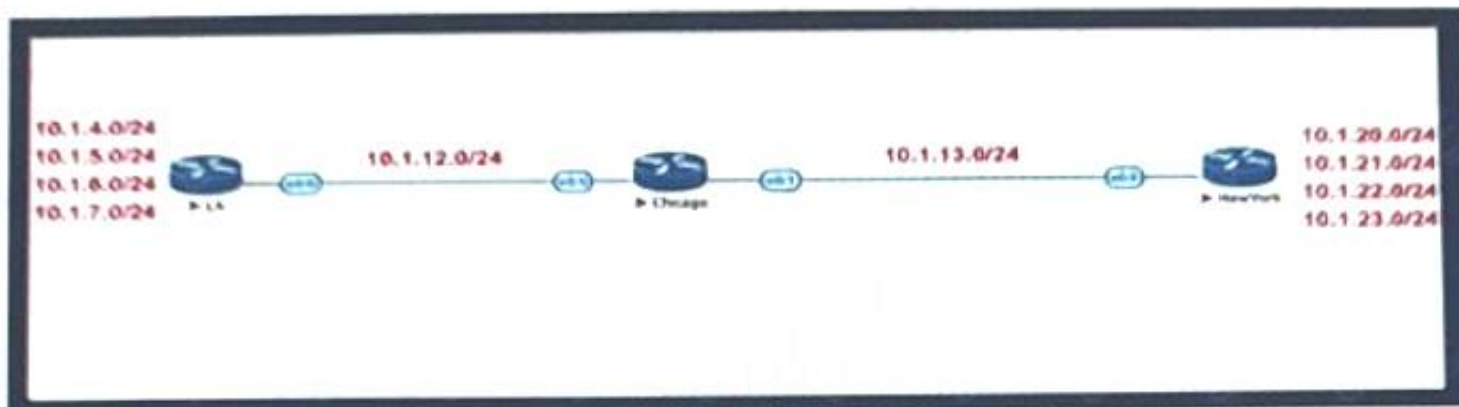
Which function is performed at the access layer of the three-layer hierarchical network design model?

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

Answer: B

NEW QUESTION 165

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 170

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

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

Answer: B

NEW QUESTION 174

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 179

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 181

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

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

Answer: B

NEW QUESTION 184

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 187

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

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

Answer: D

NEW QUESTION 190

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 194

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 198

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

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

Answer: AD

NEW QUESTION 200

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 202

Refer to the table.

CONNECTIVITY	CAPEX	OPEX ANNUAL	INSTALLATION FEE	TERM
DWDM over dark fiber	\$200,000	\$100,000	\$30,000	12 months
CWDM over dark fiber	\$150,000	\$100,000	\$25,000	18 months
MPLS wires only	\$50,000	\$180,000	\$5,000	12 months
Metro Ethernet	\$65,000	\$100,000	\$5,000	36 months

A customer investigates connectivity options for a DCI between two production data centers to aid a large-scale migration project. The migration is estimated to take 20 months to complete but might extend an additional 10 months if issues arise. All connectivity options meet the requirements to migrate workloads. Which transport technology provides the best ROI based on cost and flexibility?

- A. CWDM over dark fiber
- B. MPLS
- C. DWDM over dark fiber
- D. Metro Ethernet

Answer: D

NEW QUESTION 203

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

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

Answer: B

NEW QUESTION 204

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 207

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 211

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

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

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

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

Answer: AD

NEW QUESTION 215

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 219

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 224

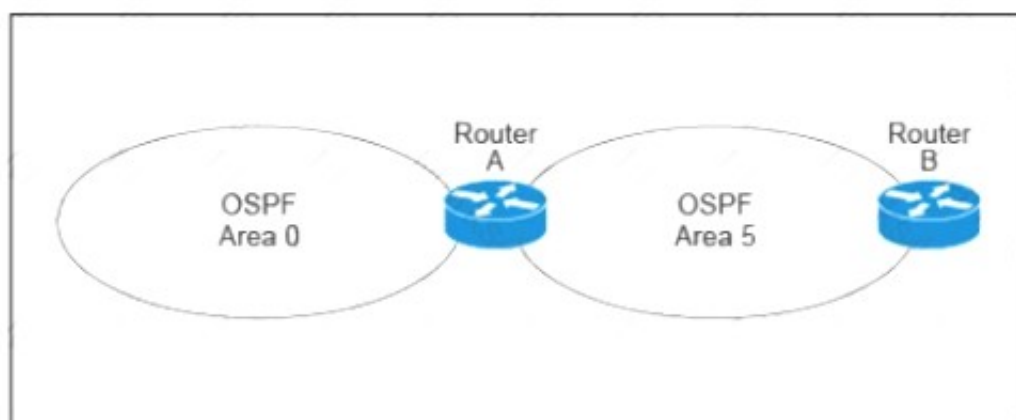
What is a description of a control plane action?

- 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 228

Refer to the exhibit.



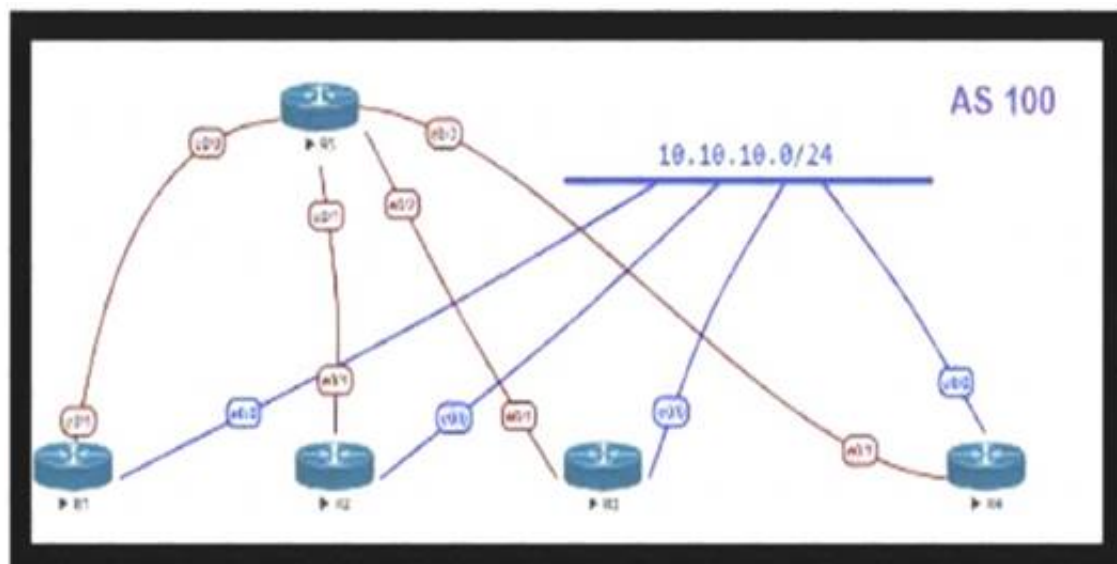
A customer runs OSPF with Area 5 between its aggregation router and an internal router. When a network change occurs in the backbone, Area 5 starts having connectivity issues due to the SPF algorithm recalculating an abnormal number of times in Area 5. You are tasked to redesign this network to increase 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 232

Refer to the exhibit.



OSPF is running as the IGP to provide reachability to all AS100 networks. R3 and R4 are the current ABRs at the boundary of OSPF Area 0 and Area 1. Now BGP must be deployed within AS 100 because it will be receiving Internet routes from its eBGP peers (the service provider) connected to R1 and R2. What is an optimal

solution for this deployment to configure BGP relationships and redistribute BGP learned routes into OSPF?

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

Answer: C

NEW QUESTION 235

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

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

Answer: A

NEW QUESTION 236

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

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

Answer: D

NEW QUESTION 239

What best describes the difference between Automation and Orchestration?

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

Answer: A

NEW QUESTION 243

SDN emerged as a technology trend that attracted many industries to move from traditional networks to SDN. Which challenge is solved by SDN for cloud service providers?

- A. need for intelligent traffic monitoring
- B. exponential growth of resource-intensive application
- C. complex and distributed management flow
- D. higher operating expense and capital expenditure

Answer: B

NEW QUESTION 247

If the desire is to connect virtual network functions together to accommodate different types of network service connectivity what must be deployed?

- A. bridging
- B. service chaining
- C. linking
- D. daisy chaining
- E. switching

Answer: B

Explanation:

Service chaining is the technique of connecting virtual network functions together to provide different types of network service connectivity. Service chaining uses software-defined networking (SDN) programmability to create a chain of connected network services, such as firewalls, load balancers, NAT, and intrusion protection. Service chaining can automate the provisioning of network applications that have different characteristics and requirements, such as security, latency, or quality of service (QoS). Service chaining can also optimize the use of network resources and improve application performance by using SDN analytics and performance tools to select the best available network paths and avoid network congestion. Service chaining is being used in many SDN and network functions virtualization (NFV) use cases and deployments, such as data centers, carrier networks, and virtual customer edge123. References:

- 1: What is Network Service Chaining or Service Function Chaining - SDxCentral
- 2: On service chaining using Virtual Network Functions in Network-enabled Cloud systems | IEEE Conference Publication | IEEE Xplore

➤ 3: Service function chaining - Gini5

NEW QUESTION 251

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 256

The Company XYZ network requires OSPF dead neighbor detection in a subsecond manner. However, the company network does not support BFD. Which other feature can be used to fulfill the design requirement?

- A. STP
- B. fast hello
- C. LFA
- D. DPD

Answer: B

NEW QUESTION 259

A small organization of 20 employees is looking to deliver a network design service for modernizing customer networks to support advanced solutions.

- Project scope and weekly progress should be visualized by the management.
- Always consider feedback and make changes accordingly during the project.
- Should consider flexibility to change scope at the point of time.

Which project methodology meets the requirements and have the least impact on the outcome?

- A. Scrum
- B. LEAN
- C. Kanban
- D. Six-Sigma

Answer: A

Explanation:

<https://firebrand.training/uk/blog/scrum-vs-six-sigma-which-one-is-right-for-you>

NEW QUESTION 264

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 268

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 272

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