ATMIC NETWORKS
YOUR GUIDE TO GLOBAL CERTIFIATION

"Please note that these files may not be up to date. However, the questions will help you understand the exam format and typical question patterns."

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Question: 1

Which solution allows overlay VNs to communicate with each other in an SD-WAN Architecture?

A. External fusion routers can be used to map VNs to VRFs and selectively route traffic between VRFs.

B. GRE tunneling can be configured between fabric edges to connect one VN to another.

C. SGTs can be used to permit traffic from one VN to another.

D. Route leaking can be used on the fabric border nodes to inject routes from one VN to another.

Answer: B

Explanation:

Question: 2

An engineer must design a VPN solution for a company that has multiple branches connecting to a main office. What are two advantages of using DMVPN instead of IPsec tunnels to accomplish this task? (Choose two.)

A. support for AES 256-bit encryption

B. greater scalability

C. support for anycast gateway

D. lower traffic overhead

E. dynamic spoke-to-spoke tunnels

Answer: B E

Explanation:

Question: 3

Which NETCONF operation creates filtering that is specific to the session notifications?

A. <create-subscription>

B. <commit>

C. <notification>

D. <logging>

Answer: A

Explanation:

Question: 4

An enterprise customer has these requirements:

end-to-end QoS for the business-critical applications and VoIP services based on CoS marking.

flexibility to offer services such as IPv6 and multicast without any reliance on the service provider.

support for full-mesh connectivity at Layer 2.

Which WAN connectivity option meets these requirements?

A. VPWS

B. MPLS VPN

C. DMVPN

D. VPLS

Answer: D

Explanation:

Question: 5

What is a benefit of using VRRPv3 as compared to VRRPv2?

A. VRRPv3 supports IPv4 and IPv6

B. VRRPv3 supports authentication

C. VRRPv3 supports preemption

D. VRRPv3 supports stateful switchover

Answer: A

Explanation:

Question:

A customer is discussing QoS requirements with a network consultant. The customer has specified that end-to-end path verification is a requirement. Which QoS solution meets this requirement?

A. IntServ model with RSVP to support the traffic flows

B. DiffServ model with PHB to support the traffic flows

C. marking traffic at the access layer with DSCP to support the traffic flows

D. marking traffic at the access layer with CoS to support the traffic flows

Answer: A

Explanation:

Question: 7

Which nonproprietary mechanism can be used to automate rendezvous point distribution in a large PIM domain?

A. Embedded RP

B. BSR

C. Auto-RP

D. Static RP

Answer: B

Explanation:

Question: 8

Which QoS feature responds to network congestion by dropping lower priority packets?

A. CBWFQ

B. tail drop

C. WRED

D. strict priority

Answer: C

Explanation:

Question: 9

Which two BGP features will result in successful route exchanges between eBGP neighbors sharing the same

AS number? (Choose two.)

A. advertise-best-external

B. bestpath as-path ignore

C. client-to-client reflection

D. as-override

E. allow-as-in

Answer: D E

Explanation:

Question: 10

A company is running BGP on a single router, which has two connections to the same ISP. Which BGP feature ensures traffic is load balanced across the two links to the ISP?

A. Multihop

B. Multipath Load Sharing

C. Next-Hop Address Tracking

D. AS-Path Prepending

Answer: B

Explanation:

Question: 11

Which design consideration should be observed when EIGRP is configured on Data Center switches?

A. Perform manual summarization on all Layer 3 interfaces to minimize the size of the routing table.

B. Prevent unnecessary EIGRP neighborships from forming across switch virtual interfaces.

C. Lower EIGRP hello and hold timers to their minimum settings to ensure rapid route reconvergence.

D. Configure multiple EIGRP autonomous systems to segment Data Center services and applications.

Answer: A

Explanation:

Question: 12

Which design consideration must be made when using IPv6 overlay tunnels?

A. Overlay tunnels that connect isolated IPv6 networks can be considered a final IPv6 network architecture.

B. Overlay tunnels should only be considered as a transition technique toward a permanent solution.

C. Overlay tunnels can be configured only between border devices and require only the IPv6 protocol stack.

D. Overlay tunneling encapsulates IPv4 packets in IPv6 packets for delivery across an IPv6 infrastructure.

Answer: B

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/interface/configuration/xe-3s/ir-xe-3s-book/ip6-ip4-gre-tunls-xe.pdf

"The use of overlay tunnels should be considered as a transition technique toward a network that supports both the IPv4 and IPv6 protocol stacks or just the IPv6 protocol stack."

Question: 13

When a network is designed using IS-IS protocol, which two circuit types are supported? (Choose two.)

A. nonbroadcast multiaccess

B. multiaccess

C. point-to-multipoint

D. nonbroadcast

E. point-to-point

Answer: BE

Explanation:

Question: 14

What is an advantage of designing an out-of-band network management solution?

A. In the event of a production network outage, network devices can still be managed.

B. There is no separation between the production network and the management network.

C. In the event of a production network outage, it can be used as a backup network path.

D. It is less expensive than an in-band management solution

Answer: A

Explanation:

Question: 15

Which consideration must be taken into account when using the DHCP relay feature in a Cisco SD- Access Architecture?

A. DHCP-relay must be enabled on fabric edge nodes to provide the correct mapping of DHCP scope to

the local anycast gateway.

B. A DHCP server must be enabled on the border nodes to allow subnets to span multiple fabric edges.

C. DHCP servers must support Cisco SD-Access extensions to correctly assign IPs to endpoints in an SD-Access fabric with anycast gateway.

D. DHCP Option-82 must be enabled to map the circuit IP option to the access fabric node where the DHCP discover originated.

Answer: D

Explanation:

https://www.cisco.com/c/en/us/td/docs/cloud-systems-management/network-automation-and-management/dna-center/tech_notes/sda_dhcp/b_cisco_sda_dhcp.html

Question: 16

Which feature must be incorporated into the campus LAN design to enable Wake on LAN?

A. dynamic ARP Inspection Snooping on layer 2 devices

B. directed broadcasts on layer 3 devices

C. proxy ARP on layer 3 devices

D. DHCP Snooping on layer 2 devices

Answer: B

Explanation:

Question: 17

Which function are fabric intermediate nodes responsible for in an SD-Access Architecture?

A. mapping EIDs to RLOCs

B. encapsulating user traffic in a VXLAN header including the SGT

C. registering new endpoints in the HTDB

D. transporting IP packets between edge nodes and border nodes

Answer: D

Explanation:

Question: 18

An engineer is designing a QoS policy that queues excess packets for later transmission. Which mechanism must be included in the design?

A. shaping

B. WRED

C. policing

D. RED

Answer: A

Explanation:

Question: 19

An organization is designing a detailed QoS plan that limits bandwidth to specific rates. Which two parameters are supported be the traffic policing feature? (Choose two.)

A. violating
B. marking
C. shaping
D. bursting
E. conforming

Answer: AE

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/qos_plcshp/configuration/xe-3s/qos-plcshp-xe- 3s-book/qos-plcshp-class-plc.html

Question: 20

An engineer is looking for a standards-driven YANG model to manage a multivendor network environment. Which model must the engineer choose?

A. Native
B. OpenConfig
C. IETF

D. IEEE NETCONF

Answer: C

Explanation:

Question: 21

What are two benefits of designing an SD-WAN network fabric with direct Internet access implemented at

every site? (Choose two.)

A. It decreases latency to applications hosted by public cloud service provider.

B. It decreases latency on Internet circuits.

C. It increases the speed of delivery of site deployments through zero-touch provisioning.

D. It increases the total available bandwidth on Internet circuits.

E. It alleviates network traffic on MPLS circuits.

Answer: A E

Explanation:

Question: 22

Which routes does the overlay management protocol advertise in an SD-WAN overlay?

A. underlay, MPLS, and overlay

B. primary, backup, and load-balanced

C. prefix, TLOC, and service

D. Internet, MPLS, and backup

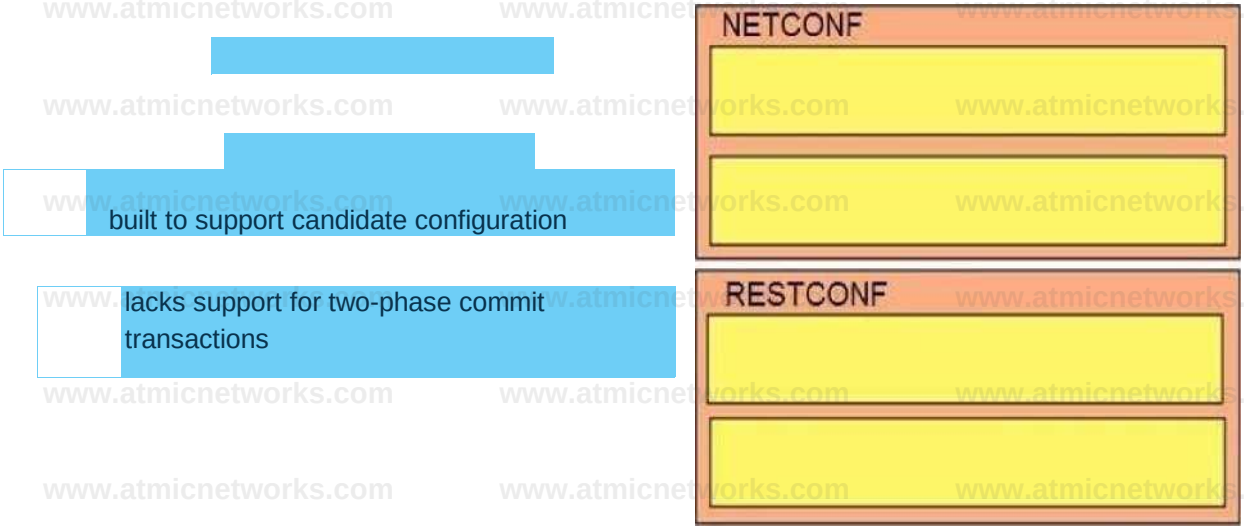
Answer: C

Explanation:

Question: 23

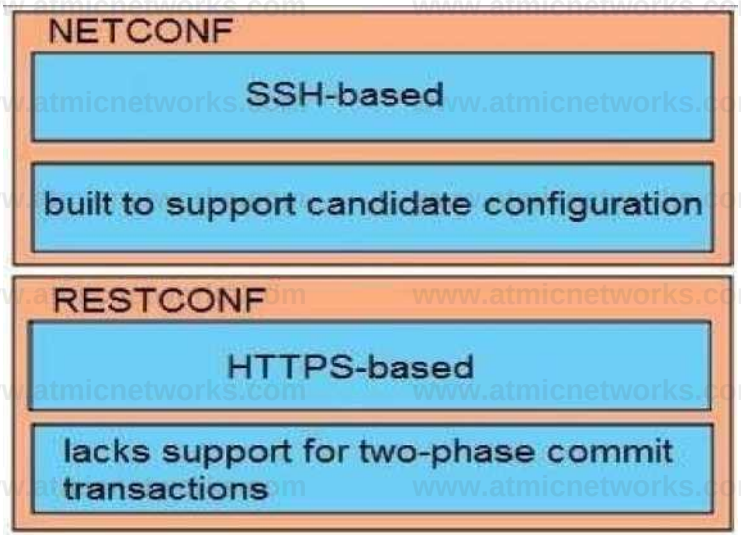
DRAG DROP

Drag and drop the properties from the left onto the protocols they describe on the right.



Answer:

Explanation:



Reference:

https://www.cisco.com/c/en/us/td/docs/ios- xml/ios/prog/configuration/166/b_166_programmability_cg/b_166_programmability_cg_chapter_01011.html

https://www.cisco.com/c/en/us/td/docs/ios- xml/ios/prog/configuration/169/b_169_programmability_cg/configuring_yang_datamodel.html

Question: 24

A network solution is being designed for a company that connects to multiple Internet service providers. Which Cisco proprietary BGP path attribute will influence outbound traffic flow?

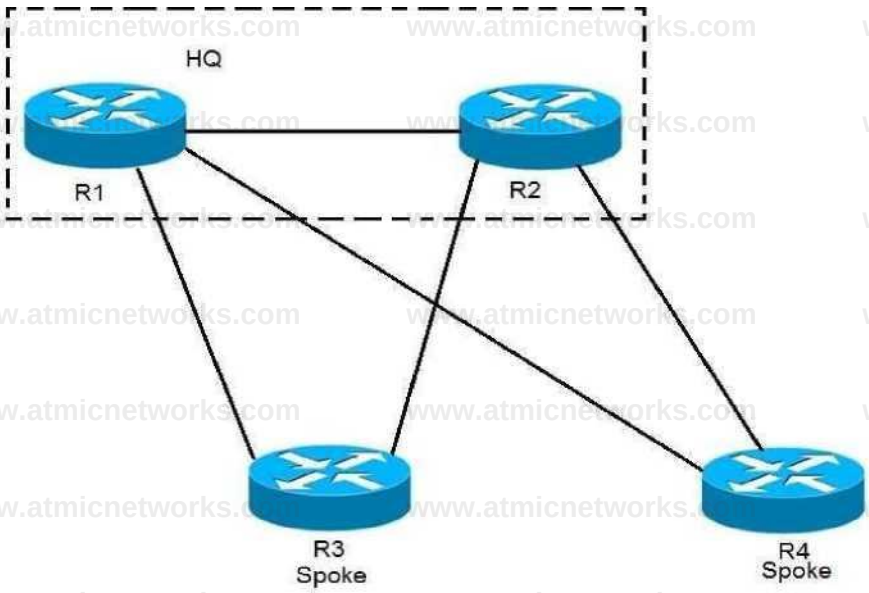
A. Local Preference
B. MED
C. Weight
D. AS Path
E. Community

Answer: C

Explanation:

Question: 25

Refer to the exhibit.



EIGRP has been configured on all links. The spoke nodes have been configured as EIGRP stubs, and the WAN links to R3 have higher bandwidth and lower delay than the links to R4. When a link failure occurs at the R1-R2 link, what happens to traffic on R1 that is destined for a subnet attached to R2?

A. R1 has no route to R2 and drops the traffic

B. R1 load-balances across the paths through R3 and R4 to reach R2

C. R1 forwards the traffic to R3, but R3 drops the traffic

D. R1 forwards the traffic to R3 in order to reach R2

Answer: A

Explanation:

The EIGRP stub routing feature will prevent the remote device from advertising core routes back to the distribution

devices. Routes learned by the remote device from Distribution 1 will not be advertised to Distribution 2. Therefore, Distribution 2 will not use the remote device as a transit for traffic destined to the network core https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_eigrp/configuration/15-mt/ire-15-mt-book/ire-eigrp-stub-rtg.html

Question: 26

A company is using OSPF between its HQ location and a branch office. HQ is assigned area 0 and the branch office is assigned area 1. The company purchases a second branch office, but due to circuit delays to HQ, it decides to connect the new branch office to the creating branch office as a temporary measure. The new branch office is assigned area 2. Which OSPF configuration enables all three locations to exchange routes?

A. The existing branch office must be configured as a stub area

B. A virtual link must be configured between the new branch office and HQ

C. A sham link must be configured between the new branch office and HQ

D. The new branch office must be configured as a stub area

Answer: B

Explanation:

Question: 27

An engineer must design a multicast network for a financial application. Most of the multicast sources also receive multicast traffic (many-to-many deployment model). To better scale routing tables, the design must not use source trees. Which multicast protocol satisfies these requirements?

A. PIM-SSM

B. PIM-SM

C. MSDP

D. BIDIR-PIM

Answer: D

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipmulti_pim/configuration/xe-16/imc-pim-xe-16-book/imc-tech-oview.html

Bidir-PIM is designed to be used for many-to-many applications within individual PIM domains. Multicast groups in bidirectional PIM mode can scale to an arbitrary number of sources without incurring overhead due to the number of sources.

Question: 28

An engineer is working for a large cable TV provider that requires multiple sources streaming video on different channels using multicast with no rendezvous point. Which multicast protocol meets these requirements?

A. PIM-SM

B. PIM-SSM

C. any-source multicast

D. BIDIR-PIM

Answer: B

Explanation:

PIM-SSM is suitable for when well-known sources exist within the local PIM domain and for broadcast applications. Also, PIM-SSM eliminates the RPs and shared trees

Question: 29

What is one function of the vSmart controller in an SD-WAN deployment?

A. orchestrates vEdge and cEdge connectivity

B. responsible for the centralized control plane of the SD-WAN network

C. provides centralized network management and a GUI to monitor and operate the SD-WAN overlay

D. provides a data-plane at branch offices to pass traffic through the SD-WAN network

Answer: B

Explanation:

Question: 30

When IPsec VPNs are designed, what is a unique requirement if support for IP Multicast is required?

A. encapsulation of traffic with GRE or VTI

B. IPsec forwarding using transport mode

C. additional bandwidth for headend

D. IPsec forwarding using tunnel mode

Answer: A

Explanation:

Question: 31

How do endpoints inside an SD-Access network reach resources outside the fabric?

A. a VRF fusion router is used to map resources in one VN to another VN

B. Fabric borders use VRFs to map VNs to VRFs

C. SD-Access transit links are used to transport encapsulated traffic from one fabric to another

D. A fabric edge is used to de-encapsulate VXLAN traffic to normal IP traffic then transported over the outside network

Answer: B

Explanation:

https://www.cisco.com/c/en/us/td/docs/solutions/CVD/Campus/cisco-sda-design-guide.html

"Packets and frames sourced from inside the fabric and destined outside of the fabric are deencapsulated by the border node"(not the edge node)

Question: 32

When vEdge router redundancy is designed, which FHRP is supported?

A. HSRP

B. OMP

C. GLBP

D. VRRP

Answer: D

Explanation:

Question: 33

Which feature is required for graceful restart to recover from a processor failure?

A. Cisco Express Forwarding

B. Virtual Switch System

C. Stateful Switchover

D. Bidirectional Forwarding Detection

Answer: C

Explanation:

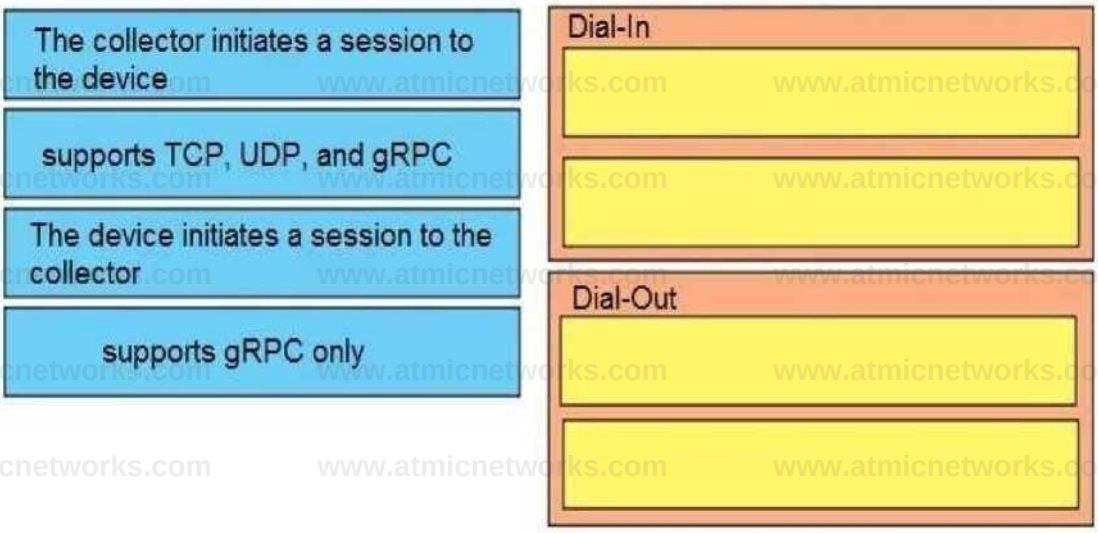
https://archive.nanog.org/meetings/nanog42/presentations/Weissner_SSO.pdf

The Stateful Switchover (SSO) feature works with Nonstop Forwarding (NSF) in Cisco software to minimize the amount of time a network is unavailable to its users following a switchover. The primary objective of SSO is to improve the availability of networks constructed with Cisco routers.

Question: 34

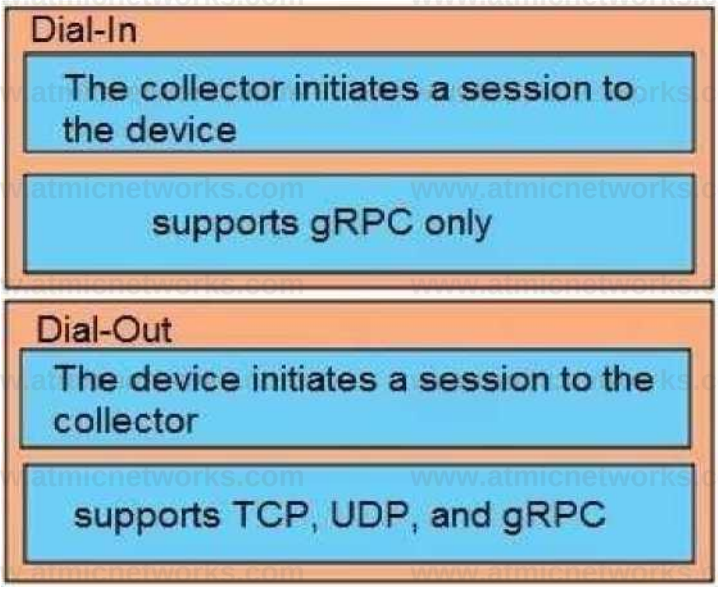
DRAG DROP

Drag and drop the characteristics from the left onto the correct telemetry mode on the right.



Answer:

Explanation:



In a dial-in mode, the destination initiates a session to the router and subscribes to data to be streamed. Dialin mode is supported over gRPC in only 64-bit platforms

In a dial-out mode, the router initiates a session to the destinations based on the subscription. All 64- bit IOS XR platforms (except for NCS 6000 series routers) support gRPC and TCP protocols. All 32-bit IOS XR platforms support only TCP.

Reference:

https://www.cisco.com/c/en/us/td/docs/iosxr/asr9000/telemetry/b-telemetry-cg-asr9000-61x/b-telemetry-cgasr9000-

61x_chapter_010.html#id_36445

Question: 35

Which method will filter routes between EIGRP neighbors within the same autonomous system?

A. distribute-list

B. policy-based routing

C. leak-map

D. route tagging

Answer: A

Explanation:

Question: 36

An infrastructure team is concerned about the shared memory utilization of a device, and for this reason, they need to monitor the device state. Which solution limits impact on the device and provides the required data?

A. IPFIX

B. static telemetry

C. on-change subscription

D. periodic subscription

Answer: C

Explanation:

There are two types of subscriptions: periodic and on-change. With periodic subscription, data is streamed out to the destination at the configured interval. It continuously sends data for the lifetime of that subscription. With on-change, data is published only when a change in the data occurs such as when an interface or OSPF neighbor goes down. https://developer.cisco.com/docs/ios- xe/#!streaming-telemetry-quick-start-guide/streaming-telemetry

Question: 37

What are two valid scaling techniques when an EIGRP network is designed that consists of more than 1000 routers? (Choose two.)

A. Use structured hierarchical topology with route summarization

B. Used sub-second timers

C. Use the distribute-list command to filter routes

D. Modify delay parameters on the links

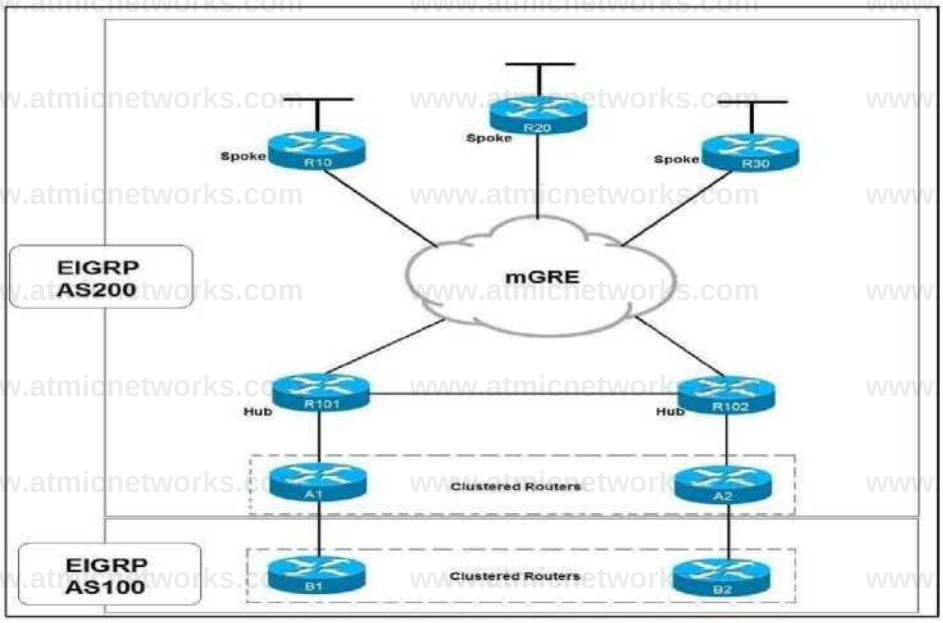
E. Implement multiple EIGRP autonomous systems

Answer: A E

Explanation:

Question: 38

Refer to the exhibit.



Which solution decreases the EIGRP convergence time?

A. Enable subsecond timers

B. Increase the hold time value

C. Increase the dead timer value

D. Enable stub routing on the spokes

Answer: D

Explanation:

Question: 39

A router running ISIS is showing high CPU and bandwidth utilization. An engineer discovers that the router is configured as L1/L2 and has L1 and L2 neighbors. Which step optimizes the design to address the issue?

A. Make this router a DIS for each of the interfaces

B. Disable the default behavior of advertising the default route on the L1/L2 router

C. Configure the router to be either L1 or L2

D. Configure each interface as either L1 or L2 circuit type

Answer: D

Explanation:

Question: 40

A network engineer must connect two sites across a public network using a secure tunneling technology that supports multicast traffic. Which technology must be chosen?

A. IPsec

B. GRE

C. PPTP

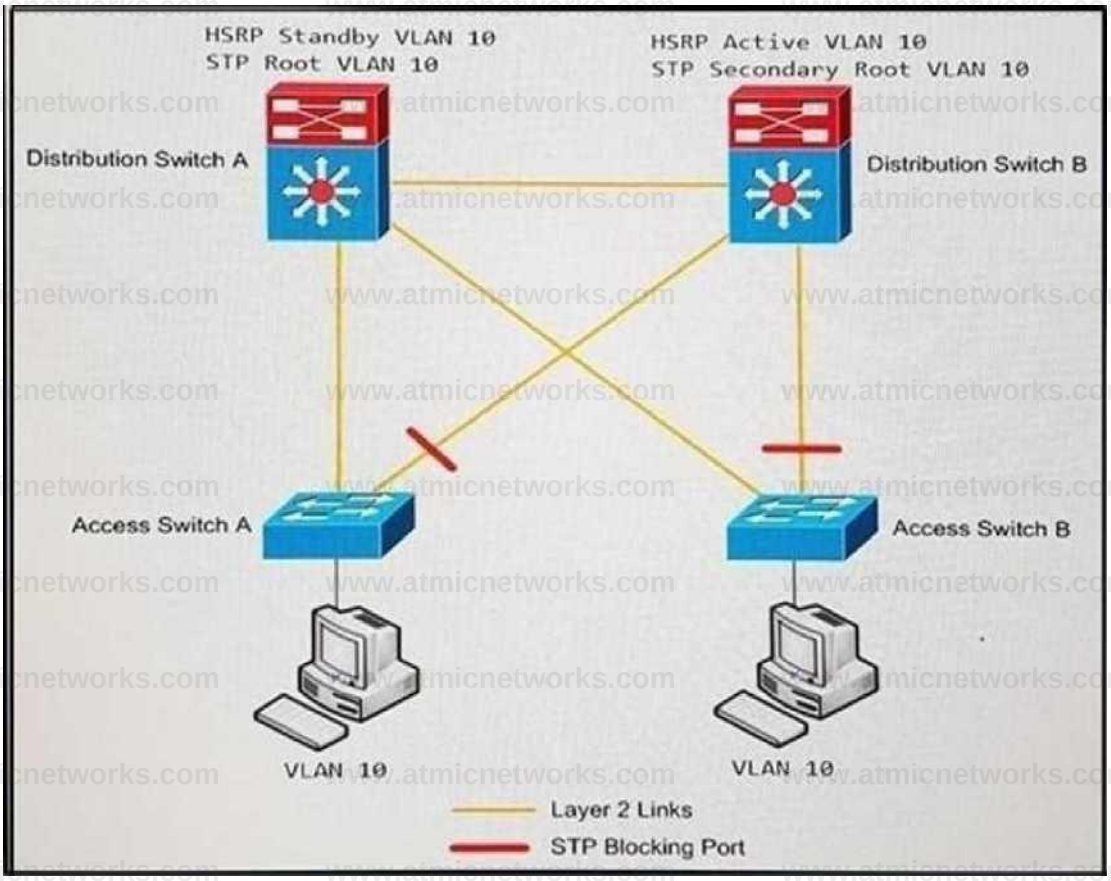
D. GRE over IPsec

Answer: D

Explanation:

Question: 41

Refer to the exhibit.



An engineer must optimize the traffic flow of the network. Which change provides a more efficient design between the access and the distribution layer?

A. Add a link between access switch A and access switch B

B. Reconfigure the distribution switch A to become the HSRP Active

C. Change the link between distribution switch A and distribution switch B to be a routed link

D. Create an EtherChannel link between distribution switch A and distribution switch B

Answer: B

Explanation:

Question: 42

When a first hop redundancy solution is designed, which protocol ensures that load balancing occurs over multiple routers using a single virtual IP address and multiple virtual MAC addresses?

A. GLBP
B. IRDP
C. VRRP
D. HSRP

Answer: A

Explanation:

Question: 43

Which two routing protocols allow for unequal cost load balancing? (Choose two.)

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

Answer: A C

Explanation:

Question: 44

Which two steps can be taken to improve convergence in an OSPF network? (Choose two.)

A. Use Bidirectional Forwarding Detection

B. Merge all the areas into one backbone area

C. Tune OSPF parameters

D. Make all non-backbone areas stub areas

E. Span the same IP network across multiple areas.

Answer: A C

Explanation:

Question: 45

An engineer is designing an enterprise campus network. The LAN infrastructure consists of switches from multiple vendors, and Spanning Tree must be used as a Layer 2 loop prevention mechanism. All configured VLANs must be grouped in two SIP instances. Which standards-based Spanning Tree technology supports this design solution?

A. MSTP

B. RSTP

C. Rapid PVST

D. STP

Answer: A

Explanation:

Question: 46

Which control-plane technology allows the same subnet to exist across multiple network locations?

A. LISP

B. VXLAN

C. FabricPath

D. ISE mobility services

Answer: A

Explanation:

https://www.cisco.com/c/en/us/td/docs/solutions/CVD/Campus/cisco-sda-design-guide.html

Question: 47

Which two statements describe source trees in a multicast environment? (Choose two.)

A. Source trees guarantee the minimum amount of network latency for forwarding multicast traffic

B. Source trees create an optimal path between the source and the receivers

C. Source trees use a single common root placed at some chosen point in the network

D. Source trees can introduce latency in packet delivery

E. Source trees can create suboptimal paths between the source and the receivers

Answer: A B

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipmulti_pim/configuration/xe-16-5/imc-pim-xe-16-5-book/imc-tech-oview.html

Question: 48

A customer with an IPv4 only network topology wants to enable IPv6 connectivity while preserving the IPv4 topology services. The customer plans to migrate IPv4 services to the IPv6 topology, then decommission the IPv4 topology. Which topology supports these requirements?

A. dual stack

B. 6VPE

C. 6to4

D. NAT64

Answer: A

Explanation:

Question: 49

A company with multiple service providers wants to speed up BGP convergence time in the event a failure occurs with their primary link. Which approach achieves this goal and does not impact router CPU utilization?

A. Utilize BFD and tune the multiplier to 50

B. Lower the BGP hello interval

C. Decrease the BGP keepalive timer

D. Utilize BFD and keep the default BGP timers

Answer: D

Explanation:

Question: 50

An engineer is working with NETCONF and Cisco NX-OS based devices. The engineer needs a YANG model that supports a specific feature relevant only to Cisco NX-OS. Which model must the engineer choose?

A. Native

B. IEEE

C. OpenConfig

D. IETF

Answer: A

Explanation:

https://github.com/YangModels/yang/tree/master/vendor/cisco

https://blogs.cisco.com/developer/which-yang-model-to-use

Question: 51

What is the purpose of an edge node in an SD-Access network fabric?

A. Edge nodes identify and authenticate endpoints and register endpoint information with control plane nodes.

B. Edge nodes track endpoint IDs to location mappings, along with IPv4, IPv6, or MAC addresses.

C. Edge nodes are the gateway between the fabric domain and network outside of the fabric.

D. Edge nodes resolve lookup requests from edge and border nodes to locate destination endpoint IDs.

Answer: A

Explanation:

Question: 52

Which OSPF area blocks LSA Type 3, 4 and 5, but allows a default summary route?

A. normal

B. stub

C. NSSA

D. totally stubby

Answer: D

Explanation:

Question: 53

When designing interdomain multicast, which two protocols are deployed to achieve communication between multicast sources and receivers? (Choose two.)

A. IGMPv2

B. BIDIR-PIM

C. MP-BGP

D. MSDP

E. MLD

Answer: C D

Explanation:

Question: 54

A branch office has a primary L3VPN MPLS connection back to the main office and an IPSEC VPN tunnel that serves as backup. Which design ensures that data is sent over the backup connection only if the primary MPLS circuit is down?

Use EIGRP to establish a neighbor relationship with the main office via

L3VPN MPLS and the IPSEC VPN tunnel.

Use BGP with the multipath feature enabled to force traffic via the primary path when available.

Use static routes tied to an IP SLA to prefer the primary path while a floating static route points to the backup connection.

Use OSPF with a passive-interface command on the backup connection.

Answer: D

Explanation:

Question: 55

Company A recently acquired another company. Users of the newly acquired company must be able to access a server that exists on Company A's network, both companies use overlapping IP address ranges. Which action conserves IP address space and provides access to the server?

A. Use a single IP address to create overload NAT

B. Use a single IP address to create a static NAT entry

C. Build one-to-one NAT translation for every user that needs access

D. Re-IP overlapping address space in the acquired company

Answer: A

Explanation:

Question: 56

In an SD-WAN architecture, which methods are used to bootstrap a vEdge router?

A. DHCP options or manual configuration

B. vManage or DNS records

C. ZTP or manual configuration

D. DNS records or DHCP options

Answer: C

Explanation:

Question: 57

An engineer must propose a QoS architecture model that allows an application to inform the network of its traffic profile and to request a particular type of service to support its bandwidth and delay requirements. The application requires consistent and dedicated bandwidth end to end. Which QoS architecture model meets these requirements?

A. DiffServ

B. LLQ

C. WRED

D. IntServ

Answer: D

Explanation:

Question: 58

Which two statements about VRRP advertisements are true? (Choose two.)

A. They are sent from the master router and standby routers.
B. They include VRRP timer information.
C. They are sent only from the master router.
D. They include priority information.
E. They are sent every three seconds by default.

Answer: C D

Explanation:

Question: 59

Which two statements about VRRP object tracking are true? (Choose two)

A. The priority of a VRRP device can change in accordance with the up or down status of a VRRP object
B. The VRRP interface priority must be manually configured by the administrator
C. A VRRP group can track only one object at a time
D. VRRP can track the status of interfaces and routes
E. VRRP supports only interface tracking

Answer: A D

Explanation:

https://www.ciscolive.com/c/dam/r/ciscolive/emea/docs/2019/pdf/BRKCRS-2821.pdf

Question: 60

Which common issue causes intermittent DMVPN tunnel flaps?

A. a routing neighbor reachability issue
B. a suboptimal routing table
C. interface bandwidth congestion
D. that the GRE tunnel to hub router is not encrypted

Answer: A

Explanation:

Question: 61

Which two best practices must be followed when designing an out-of-band management network? (Choose two.)

A. Enforce access control
B. Facilitate network integration
C. Back up data using the management network
D. Ensure that the management network is a backup to the data network
E. Ensure network isolation

Answer: A E

Explanation:
https://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Security/SAFE_RG/SAFE_rg/chap9.ht ml

Question: 62

A network administrator is troubleshooting a DMVPN setup between the hub and the spoke. Which action should the administrator take before troubleshooting the IPsec configuration?

A. Verify the GRE tunnels.

B. Verify ISAKMP.
C. Verify NHRP.
D. Verify crypto maps.

Answer: A

Explanation:

Question: 63

Which two options can you use to configure an EIGRP stub router? (Choose two)

A. summary-only
B. receive-only
C. external
D. summary
E. totally-stubby
F. not-so-stubby

Answer: B D

Explanation:

Question: 64

At which layer does Cisco Express Forwarding use adjacency tables to populate addressing information?

A. Layer4
B. Layer 2
C. Layer 1
D. Layer 3

Answer: B

Explanation:

Question: 65

DRAG DROP

An engineer must design an addressing plan for a small business using a single /24 network. Each department must have its own subnet. Drag and drop the subnets from the left onto the departments requirements that they fulfill on the right. Not all options are used.

Answer:

Explanation:

Question: 66

A customer has several remote sites connected with their headquarters through microwave links. An engineer must propose a backup WAN solution based on these conditions:

* A physical WAN solution 15 not Macle for most of the sites
- The customer has a limited budget and a short timeframe lor implement on
- The backup Hi will have low bandwidth requirements
- Users will tolerate a WAN Outage of up to 2 hours

Which backup WAN link type the engineer recommend?

A. LTE

B. 802.16 WiMAX

C. Laser link

D. 802.15.1 Bluetooth

Answer: A

Explanation:

Question: 67

How is internet access provided to a WAN edge router that is connected to a MPLS transport link?

A. OMP advertises a default route from a WAN Edge router that is connected to the MPLS and internet transport networks

B. Internet access must be provided at the WAN Edge router through either a 4G/5G link or local Internet circuit

C. An extranet must be provided in the MPLS transport network to allow private traffic to reach the public internet

D. TLOC extensions are used to route traffic to a WAN Edge router that is connected to the Internet transport network

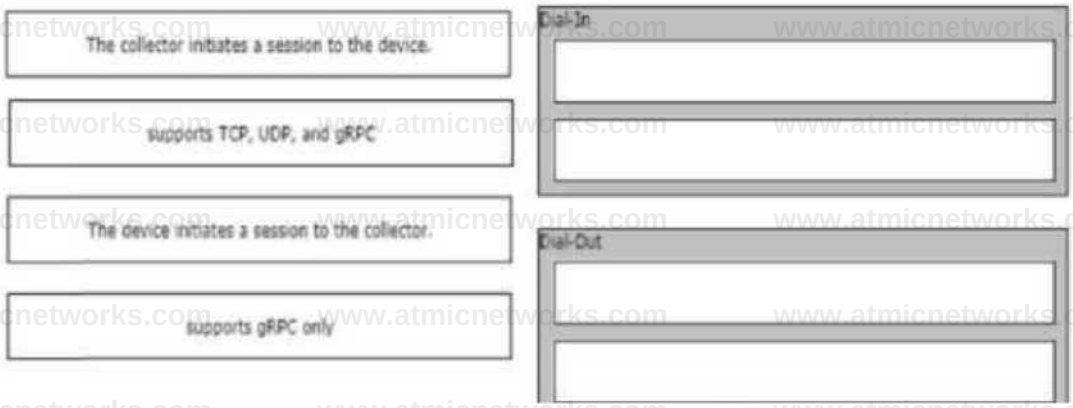
Answer: D

Explanation:

Question: 68

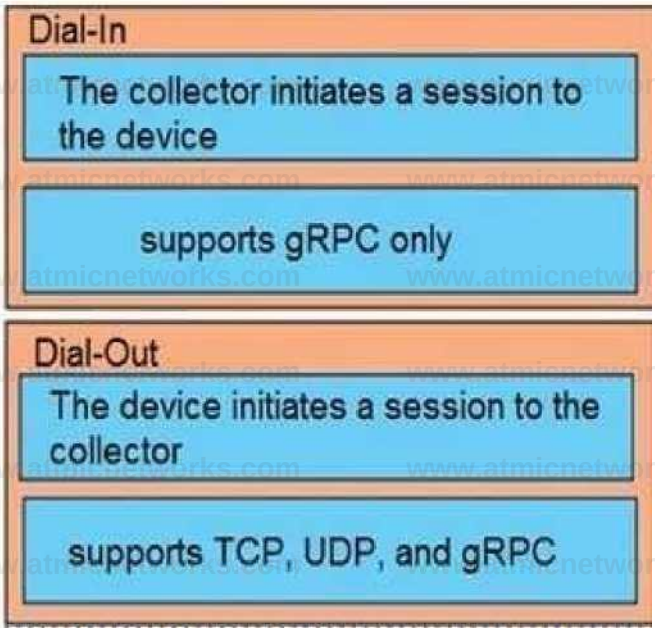
DRAG DROP

Drag and drop the characteristics from the left onto the telemetry mode they apply to on the right.



Answer:

Explanation:



Question: 69

A network engineer must segregate three interconnected campus networks using IS-IS routing. A two-layer hierarchy must be used to support large routing domains and to avoid more specific routes from each campus network being advertised to other campus network routers automatically. Which two actions does the engineer take to accomplish this segregation? (Choose two.)

Designate two IS-IS routers as BDR routers at the edge of each campus, and configure one BDR for all Level 1 routers and one BDR for all Level 2 routers.

Designate two IS-IS routers from each campus to act as Level 1/Level 2 backbone routers at the edge of each campus network.

Assign the same IS-IS NET value for each campus, and configure internal campus routers with Level 1/ Level 2 routing.

Utilize different MTU values for each campus network segment. Level 2 backbone routers must utilize a larger MTU size of 9216.

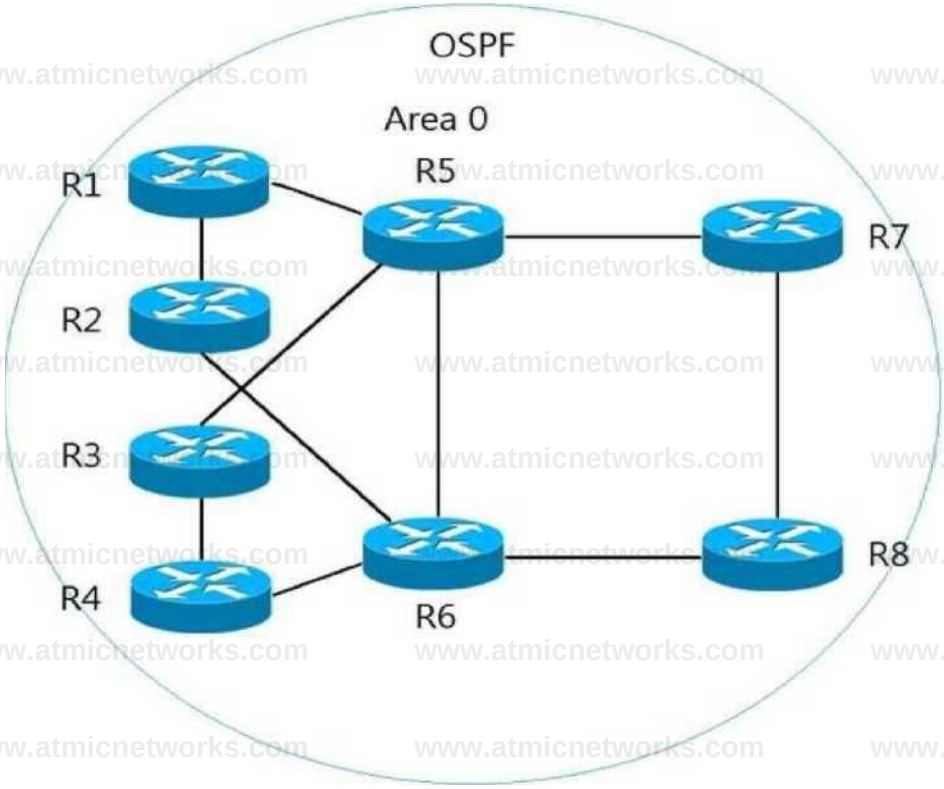
Assign a unique IS-IS NET value for each campus, and configure internal campus routers with Level 1 routing.

Answer: B E

Explanation:

Question: 70

Refer to the exhibit.



Refer to the exhibit. All routers currently reside in OSPF area 0. The network manager recently used R1 and R2 as aggregation routers for remote branch locations and R3 and R4 for aggregation routers for remote office locations. The network has since been suffering from outages, which are causing frequent SPF runs. To enhance stability and introduce areas to the OSPF network with the minimal number of ABRs possible, which two solutions should the network manager recommend? (Choose two.)

A. a new OSPF area for R1 and R2 connections, with R1 and R2 as

B. a new OSPF area for R3 and R4 connections, with R5 and R6 as ABRs

C. a new OSPF area for R3 and R4 connections, with R3 and R4 as

D. a new OSPF area for R1, R2, R3, and R4 connections, with R1, R2, R3, and R4 as ABRs

E. a new OSPF area for R1 and R2 connections, with R5 and R6 as ABRs

Answer: B E

Explanation:

Question: 71

Which component of Cisco SD-Access integrates with Cisco DNA Center to perform policy segmentation and enforcement through the use of security group access control lists and security group tags?

Cisco Application Policy Infrastructure Controller Enterprise Module

Cisco Network Data Platform

Cisco Identity Services Engine

Cisco TrustSec

Answer: D

Explanation:

Question: 72

What is the role of a control-plane node in a Cisco SD-Access architecture?

fabric device that connects wired endpoints to the SD-Access fabric

map system that manages endpoint to device relationships

fabric device that connects APs and wireless endpoints to the SD-Access fabric

map system that manages External Layer 3 networks

Answer: B

Explanation:

Reference: https://netaavi.com/my-blog-1/f/overview-of-sda-fabric-solution

Question: 73

How is end-to-end microsegmentation enforced in a Cisco SD-Access architecture?

VLANs are used to segment traffic at Layer 2.

5-tuples and ACLs are used to permit or deny traffic.

SGTs and SGTACLs are used to control access to various resources.

VRFs are used to segment traffic at Layer 3.

Answer: C

Explanation:

Question: 74

Which two border nodes are available in the Cisco SD-Access architecture? (Choose two.)

extended border

edge border

internal border

anywhere border

intermediate border

Answer: C D

Explanation:

There are 3 types of border nodes in SD-Access:

External. Default exit from fabric with no specific routes injection

Internal. Gateway only for a set of networks, such as shared services prefixes

Anywhere. Combination of external and internal functionality

Question: 75

An engineer is upgrading a company's main site to include a connection to a second ISP. The company will receive full Internet routing tables from both ISPs via BGP. The engineer must ensure that the company does not become a transit autonomous system. Which solution should be included in this design?

A. Tag incoming routes from both ISPs with BGP community no-export.

B. Lower the MED for updates sent to the secondary ISP.

C. Use a route-map to prevent all prefixes from being advertised to either ISP.

D. Modify the local-preference for routes incoming from the primary ISP.

Answer: A

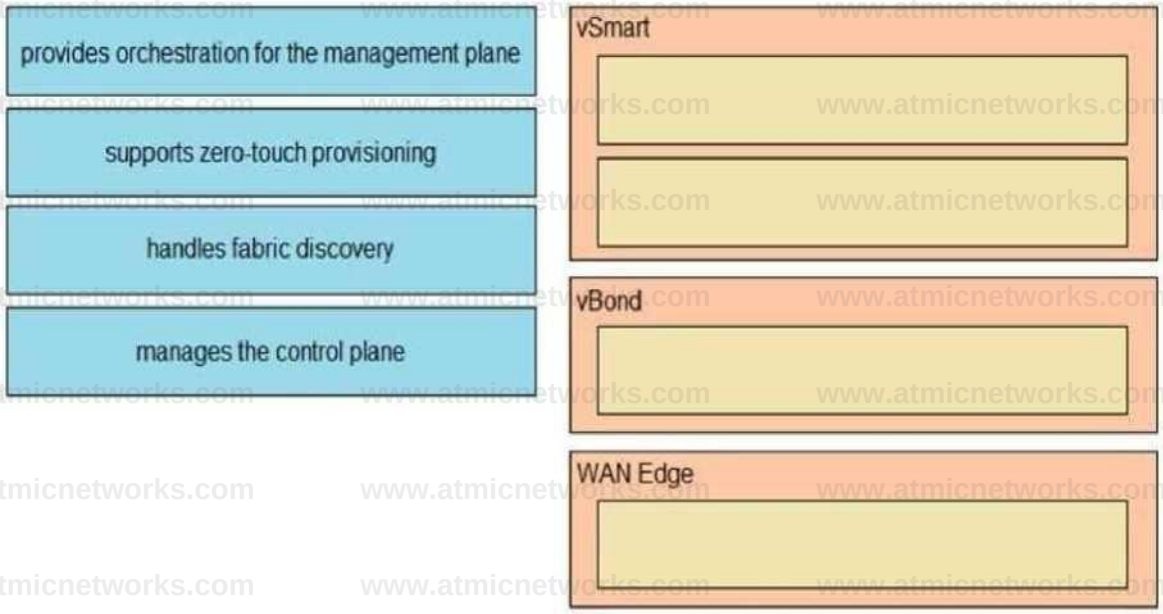
Explanation:

Question: 76

DRAG DROP

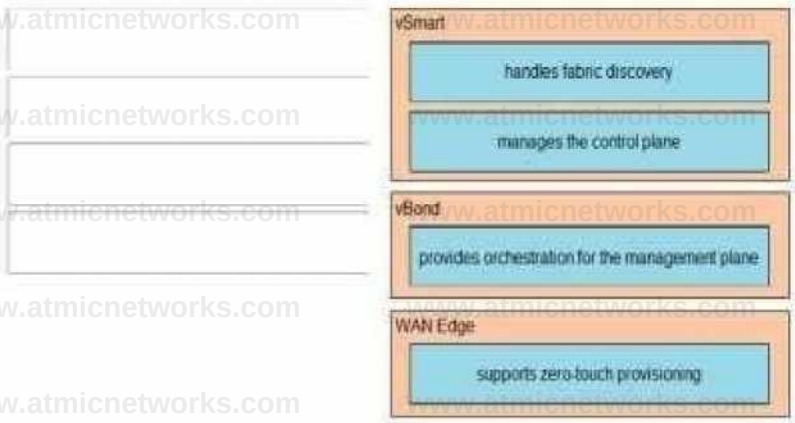
Drag and drop the properties from the left onto the Cisco SD-WAN components that perform them on the right.

Answer Area



Answer:

Explanation:



Question: 77

Which two functions are provided by the Cisco SD-WAN orchestration plane? (Choose two.)

centralized provisioning

primary authentication point

NAT traversal facilitation

Zero Touch Provisioning

troubleshooting and monitoring

Answer: B C

Explanation:

Question: 78

A large chain of stores currently uses MPLS-based T1 lines to connect their stores to their data center. An architect must design a new solution to improve availability and reduce costs while keeping these considerations in mind:

» The company uses multicast to deliver training to the stores.

» The company uses dynamic routing protocols and has implemented QoS.

» To simplify deployments, tunnels should be created dynamically on the hub when additional stores open.

Which solution should be included in this design?

VPLS

GET VPN

DMVPN

IPsec

Answer: C

Explanation:

Question: 79

DRAG DROP

Drag and drop the descriptions from the left onto the Cisco SD-WAN component they describe on the right.

distributes routes and policy information via OMP	Cisco WAN Edge router
enables the communication of devices that sit behind NAT	Cisco vSmart Controller
enables centralized provisioning and simplifies network changes	Cisco vManage
is responsible for traffic forwardinn securitv encrvntinn	Cisco vBond Orchestrator

Answer:

Explanation:

Answer Area

	is responsible for traffic forwarding, security, encryption, QoS,and routing protocols
	distributes routes and policy information via OMP
	enables centralized provisioning and simplifies network changes
	enables the communication of devices that sit behind NAT

Reference: https://www.cisco.eom/c/en/us/td/docs/solutions/CVD/SDWAN/cisco-sdwan-design- guide.html

Question: 80

Which two techniques improve the application experience in a Cisco SD-WAN design? (Choose two.)

utilizing forward error correction

implementing a stateful application firewall

implementing AMP

utilizing quality of service

implementing Cisco Umbrella

Answer: A D

Explanation:

Reference: https://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise-networks/sd- wan/nb-06-cisco-sd-wan-ebook-cte-en.pdf slide 33

Question: 81

How is redundancy achieved among Cisco vBond Orchestrators in a Cisco SD-WAN deployment?

The IP addresses of all Orchestrators are mapped to a single DNS name.

The closest Orchestrator to each Cisco WAN Edge router is selected.

Cisco WAN Edge routers are configured with all Orchestrators using their IP addresses and priority.

A single Cisco Orchestrator is deployed in each network.

Answer: A

Explanation:

Reference: https://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise-networks/sd- wan/nb-06-cisco-sd-wan-ebook-cte-en.pdf page 25

Question: 82

Which PIM mode uses a shared tree only?

A. bidirectional

B. sparse

C. dense

D. source-specific

Answer: B

Explanation:

The PIM mode that uses a shared tree only is the sparse mode. In sparse mode, PIM routers build a shared tree for multicast traffic, which is shared among all of the routers in the multicast domain. The shared tree is

built from the source routers to the rendezvous point (RP) and then from the RP to the receivers. The advantage of sparse mode is that it requires less state information on the routers.

Question: 83

Which design element should an engineer consider when multicast is included in a Cisco SD-Access architecture?

A. PIM SSM must run in the underlay.

B. Multicast clients reside in the underlay, and the multicast source is outside the fabric or in the overlay.

C. Rendezvous points must be used in a PIM SSM deployment.

D. Multicast traffic is transported in the overlay and the EID space for wired and wireless clients.

Answer: D

Explanation:

Multicast traffic is transported in the overlay, in the EID space, for both wired and wireless clients
https://www.ciscolive.com/c/dam/r/ciscolive/us/docs/2018/pdf/BRKEWN-2020.pdf

https://www.cisco.com/c/dam/en/us/td/docs/cloud-systems-management/network-automation- and-management/dna-center/deploy-guide/cisco-dna-center-sd-access-wl-dg.pdf

Question: 84

What is the function of the multicast Reverse Path Forwarding check?

It allows for a loop-free distribution tree from the source to receivers.

It serves as an Auto RP Mapping agent.

It prevents bootstrap messages from reaching all routers.

It is used to discover and announce RP-set information.

Answer: A

Explanation:

Question: 85

A client is moving to Model-Driven Telemetry and requires periodic updates. What must the network architect consider with this design?

A. Updates that contain changes within the data are sent only when changes occur.

B. Empty data subscriptions do not generate empty update notifications.

C. Periodic updates include a full copy of the data that is subscribed to.

D. The primary push update is sent immediately and cannot be delayed.

Answer: C

Explanation:

Periodic updates contain a full copy of the subscribed data element or table for all supported transport protocols
https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/prog/configuration/166/b_166_programmability_cg/model_driven_telemetry.html

Question: 86

An architect is designing a multicast solution for a network that contains over 100 routers. The architect plans to create several multicast domains and balance the PIM-SM traffic within the network. Which technology should the architect include in the design?

DVMRP

IGMP

MOSPF

MSDP

Answer: D

Explanation:

Question: 87

An architect is designing a network that will utilize the spanning tree protocol to ensure a loop-free topology. The network will support an engineering environment where it is necessary for end users to connect their own network switches for testing purposes. Which feature should the architect include in the design to ensure the spanning tree topology is not affected by these rogue switches?

BPDU Skew Detection

BPDU guard

loop guard

root guard

Answer: D

Explanation:

Question: 88

An engineer is designing a Layer 3 campus network running EIGRP between the core, aggregation, and access layers. The access layer switches will be connected to the aggregation layer using Layer 3 copper connections. The engineer wants to improve convergence time for access layer switch failures. Which technique must the design include?

enabling BFD for EIGRP on the access layer uplinks

reducing the EIGRP Hello / Hold timer values

EIGRP summarization from core to aggregation layer

EIGRP summarization from access to aggregation layer

Answer: A

Explanation:

Question: 89

An engineer must design a solution to provide backup connectivity between two sites. The engineer plans to use an Internet connection but company policy requires the connection to be encrypted.
Additionally, there are several applications that utilize multicast to deliver video streams between

the sites. Which technology should the design include?

GRE over IPsec

IPsec direct encapsulation

GETVPN

DMVPN

Answer: A

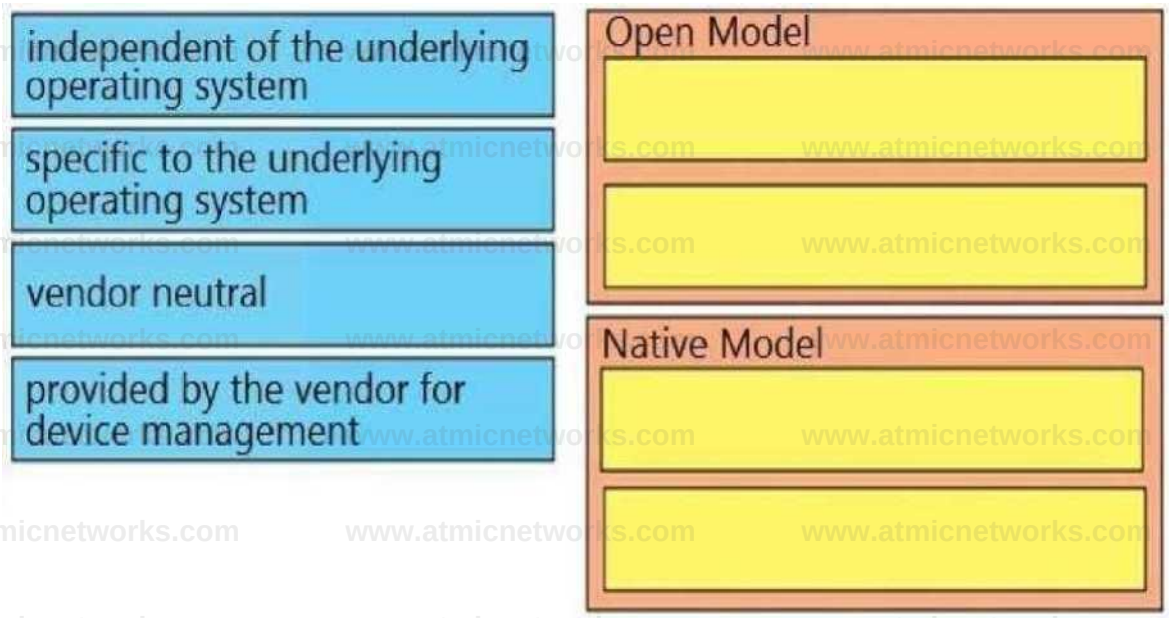
Explanation:

Question: 90

DRAG DROP

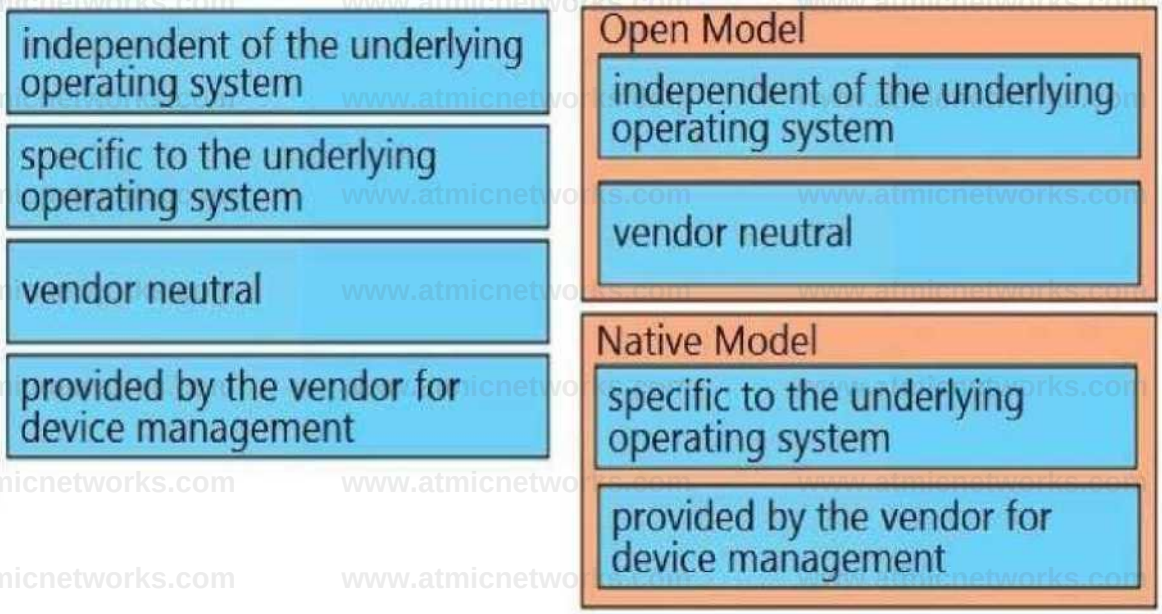
Drag and drop the characteristics from the left onto the Yang model they describe on the right.

Select and Place:



Answer:

Explanation:



Question: 91

An existing network solution is using BFD in echo mode. Several of the network devices are experiencing high CPU utilization which an engineer has determined is related to the BFD feature. Which solution should the engineer leverage to reduce the CPU load?

A. Implement slow timers between peers with low CPU resources.

B. Implement BED asynchronous mode between peers with low CPU resources.

C. Enable BFD multi-hop on the devices with low CPU resources.

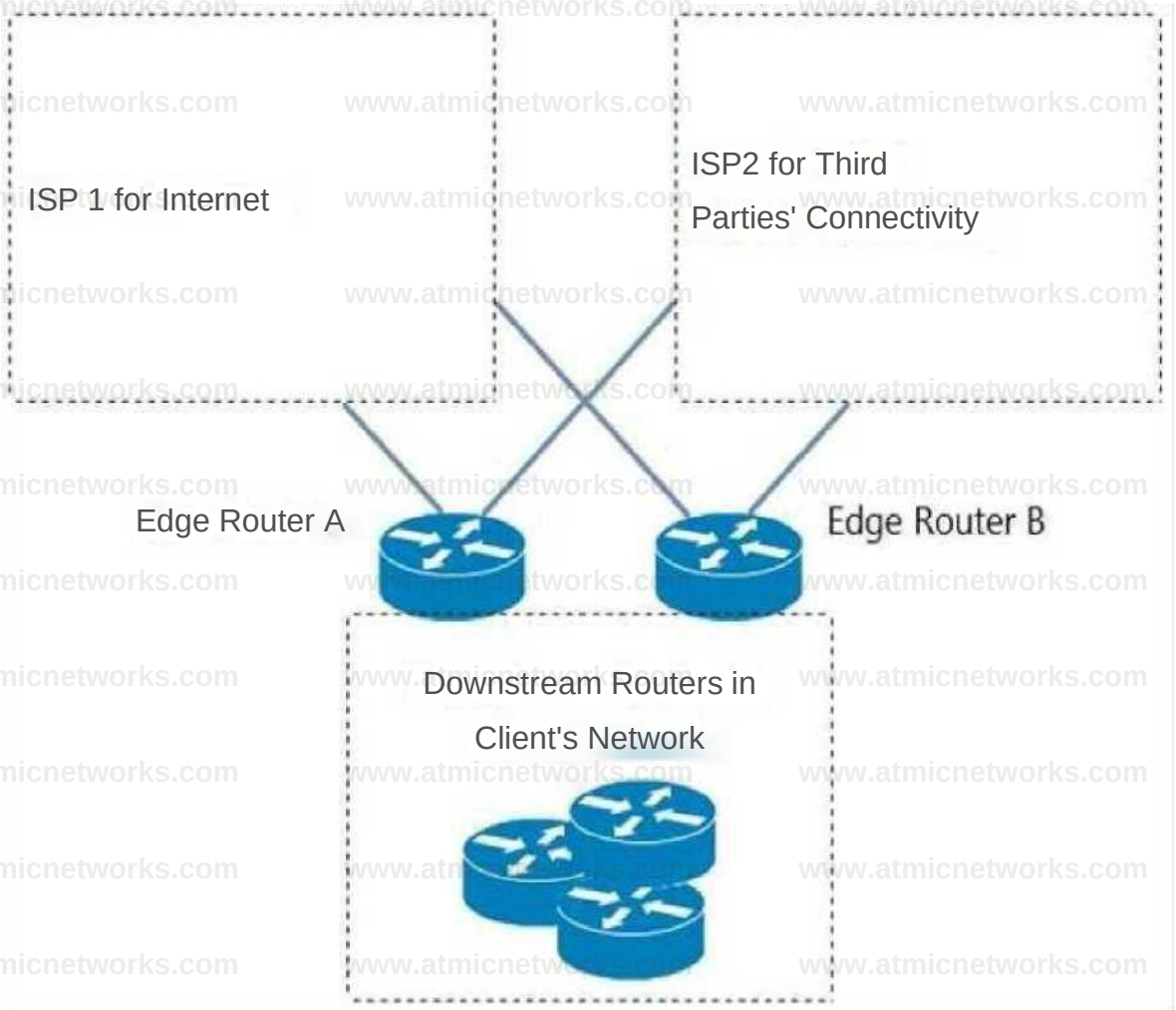
D. Utilize carrier delay on all routers in the network.

Answer: A

Explanation:

Question: 92

Refer to the exhibit.



Refer to the exhibit. An engineer is designing a BGP solution for a client that peers with ISP1 for full Internet connectivity and with ISP2 for direct exchange of routes for several third parties. Which action, when implemented on the edge routers, enables the client network to reach the Internet through ISP1?

Run an eBGP session within different VRFs for each ISP.

Advertise a default route for downstream routers within the client network.

Apply the AS-path prepend feature for ISP2.

Apply route filtering such that the client advertises only routes originated from its own AS.

Answer: B

Explanation:

Question: 93

An architect is working on a design to connect a company's main site to several small to medium-sized remote branches. The solution must include redundant WAN links, but the customer has a limited budget and wants the ability to increase the link speed easily in the future. QoS will not on the branch routers so there is no need for consistent end-to-end QoS. Which solution does the architect propose?

A. dual-homed WAN MPLS with single edge router

B. dual-homed Internet with a single edge router running a site-to-site VPN topology

C. dual-homed WAN MPLS and Internet links via dual edge routers

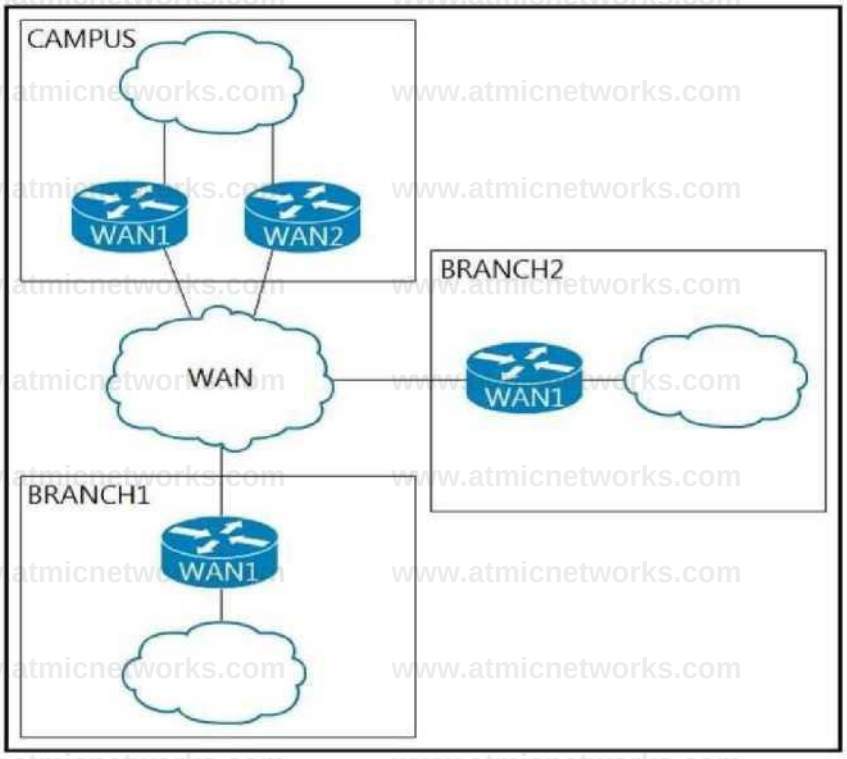
D. dual-homed Internet with dual edge routers running a hub-and-spoke VPN topology

Answer: B

Explanation:

Question: 94

Refer to the exhibit.



Refer to the exhibit. An architect must design an IP addressing scheme for a multisite network

connected via a WAN transit. The campus site must accommodate 12,000 devices and the branch sites must accommodate 1,000 devices. Which address scheme optimizes network device resources, contains convergence events to the different blocks of the network, and ensures future growth of the network?

A. Campus: 10.0.0.0/18

- Branch1: 10.0.192.0/21
- Branch2: 10.0.200.0/21

B. • Campus: 10.0.0.0/16

- Branchi: 10.255.0.0/20
- Branch2: 10.255.16.0/20

C. • Campus: 10.0.0.0/10

- Branch1: 10.64.0.0/10
- Branch2: 10.128.0.0/10

D. • Campus: 10.0.0.0/20

- Branch1: 10.0.64.0/21

Branch2: 10.0.128.0/21

Answer: A

Explanation:

Question: 95

An engineer must design a solution to connect a customer to the Internet. The solution will include a Layer 3 circuit with a CIR of 50 Mbps from the service provider. The hand-off from the provider's switch to the customer's router is 1Gbps. Which solution should the engineer include to prevent potential issues with choppy voice traffic?

Reduce the bandwidth of the connection to the router.

Implement hierarchical QoS with a parent policing policy.

Implement hierarchical QoS with a parent shaping policy.

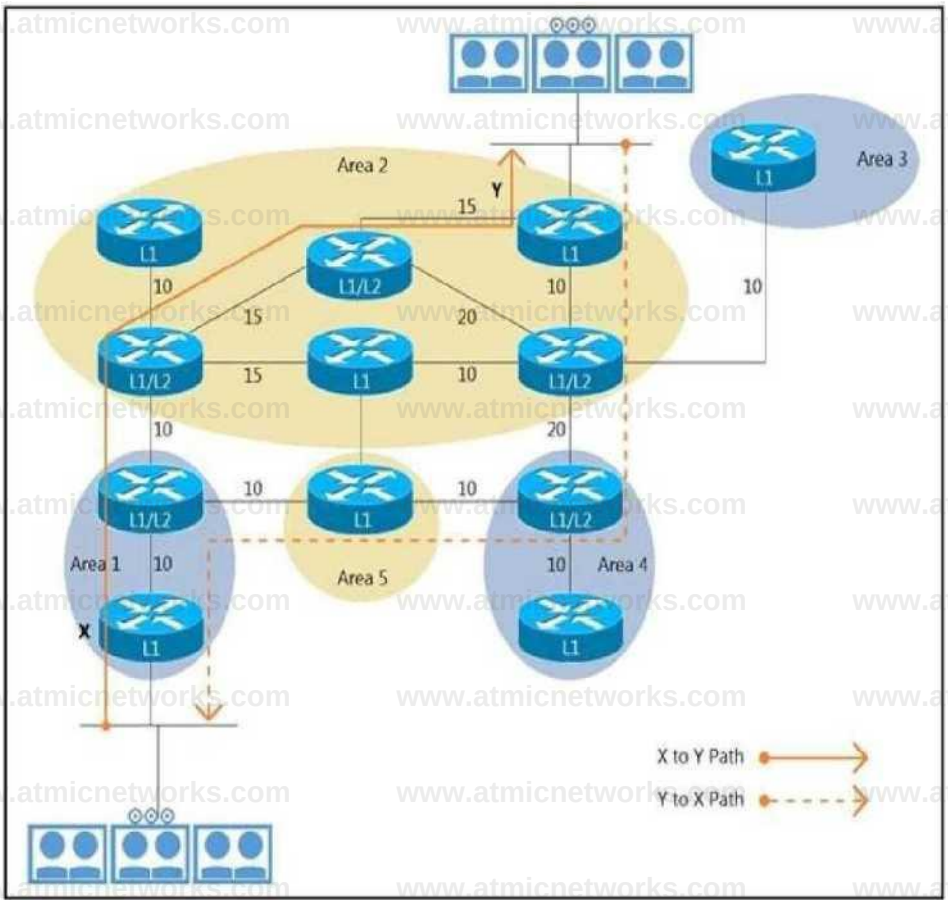
Add a bandwidth statement to the router interface.

Answer: C

Explanation:

Question: 96

Refer to the exhibit.



Refer to the exhibit. Customers report low video quality and delays when having point-to-point telepresence video calls between the two locations. An architect must optimize a design so that traffic follows the same path for egress and ingress traffic flows. Which technique optimizes the design?

Configure route leaking on the router in area 2.

Configure route leaking on the router in area 1.

Configure the high metric on the router in area 4.

Configure route filter on the router in area 4.

Answer: C

Explanation:

Question: 97

An engineer must design a scalable QoS architecture that allows the separation of the traffic into classes on predefined business requirements. The design must also utilize the differentiated services code points as the QoS priority descriptor value and support at least 10 levels of classification. Which QoS technology should the engineer include in the design?

A. RSVP

B. Diffserv

C. Best effort

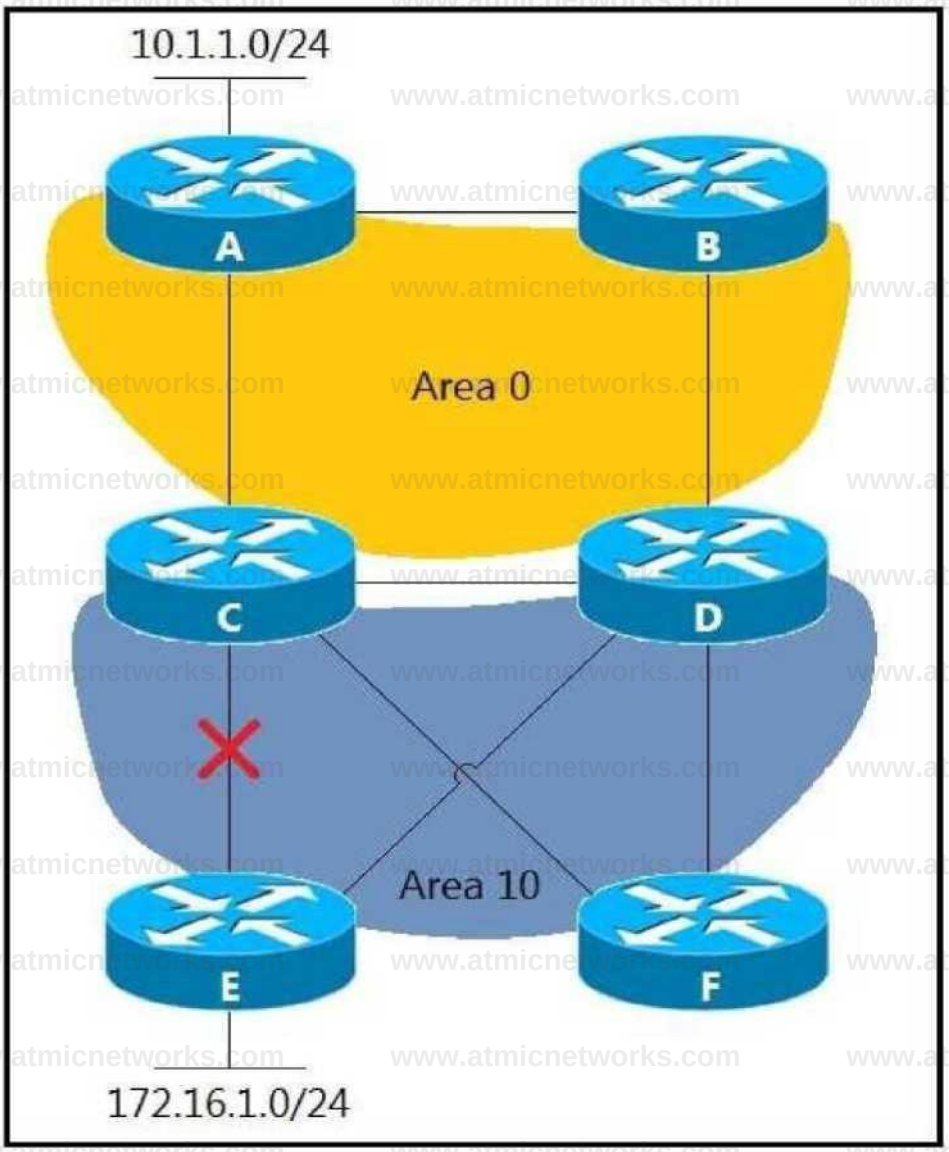
D. Interserv

Answer: B

Explanation:

Question: 98

Refer to the exhibit.



Refer to the exhibit. Area 10 is a regular OSPF area and networks 10.1.1.0/24 and 172.16.1.0/24 are internal. Which design provides optimal routing between both networks when the link between routers C and E fails?

Move the link between routers C and D to area 10.

Create an OSPF virtual link between routers E and F.

Create a tunnel between routers E and F in area 10.

Make area 10 a not-so-stubby area.

Answer: A

Explanation:

Question: 99

An architect is creating a migration strategy for a large organization in which the choice made by the application between IPv6 and IPv4 is based on the DNS request. Which migration strategy does the architect choose?

AFT for public web presence

host-initiated tunnels

dual stack

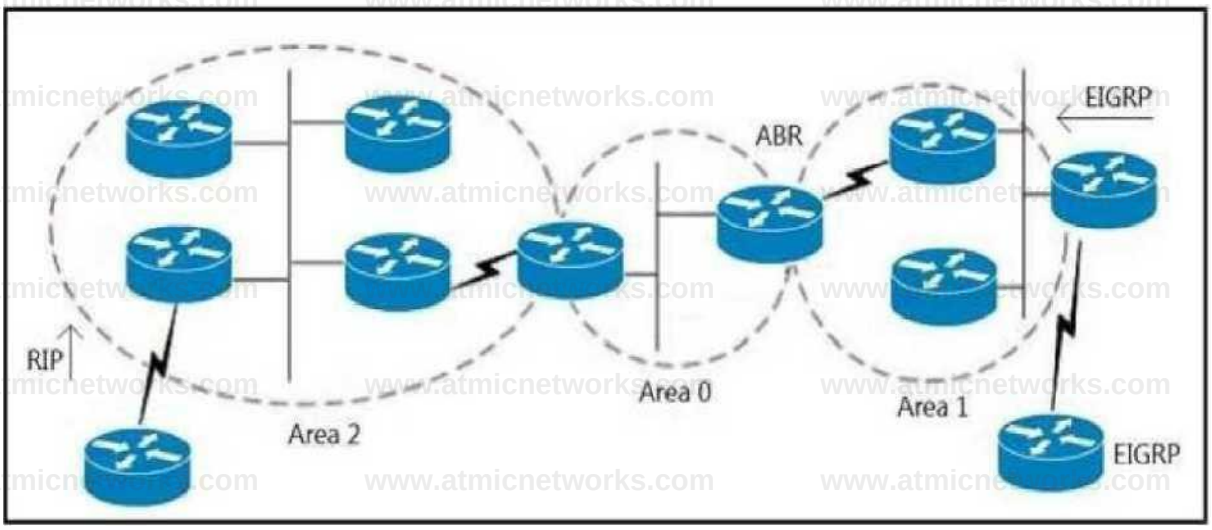
site-to-site IPv6 over IPv4 tunnels

Answer: C

Explanation:

Question: 100

Refer to the exhibit.



Refer to the exhibit. An engineer is designing an OSPF network for a client. Requirements dictate that the routers in Area 1 should receive all routes belonging to the network, including EIGRP, except the ones originated in the RIP domain. Which action should the engineer take?

A. Make area 1 a NSSA.

B. Make area 1 a stub.

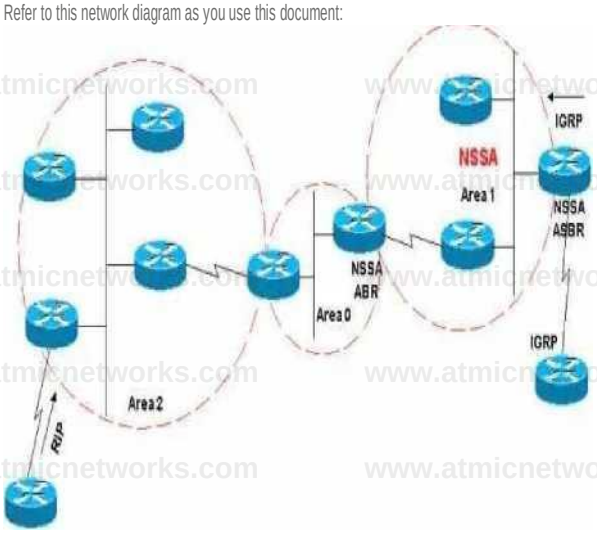
C. Make area 1 a standard OSPF area.

D. Make the area 1 routers part of area 0.

Answer: A

Explanation:

Refer to this network diagram as you use this document:



In the network diagram, Area 1 is defined as a stub area. IGRP routes cannot be propagated into the OSPF domain because redistribution is not allowed in the stub area. However, if we define Area 1 as NSSA, we nan inject IGRP routes into the OSPF NSSA domain with the creation of type: 7 LSAs. Redistributed RIP routes are not allowed in Area 1 because NSSA is an extension to the stub area. The .stub area characteristics still exist, which Includes no type 5 LSAs allowed.

Question: 101

An engineer must propose a solution for a campus network that includes the capability to create multiple Layer 3 virtual networks. Each network must have its own addressing structure and routing table for data forwarding. The solution must be scalable to support hundreds of virtual networks and allow simple configuration and management with minimal administrative overhead. Which solution does the engineer recommend?

hop-by-hop EVN

multihop MPLS core

multihop IPsec tunneling

hop-by-hop VRF-Lite

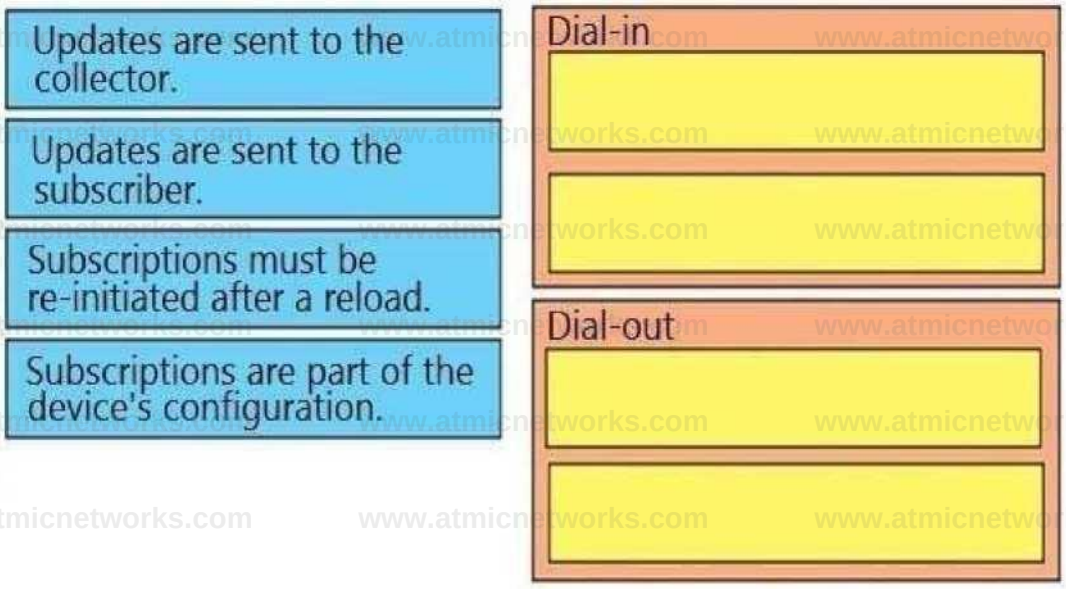
Answer: A

Explanation:

Question: 102

DRAG DROP

Drag and drop the model driven telemetry characteristics from the left onto the mode they belong to on the right.



Answer:

Explanation:

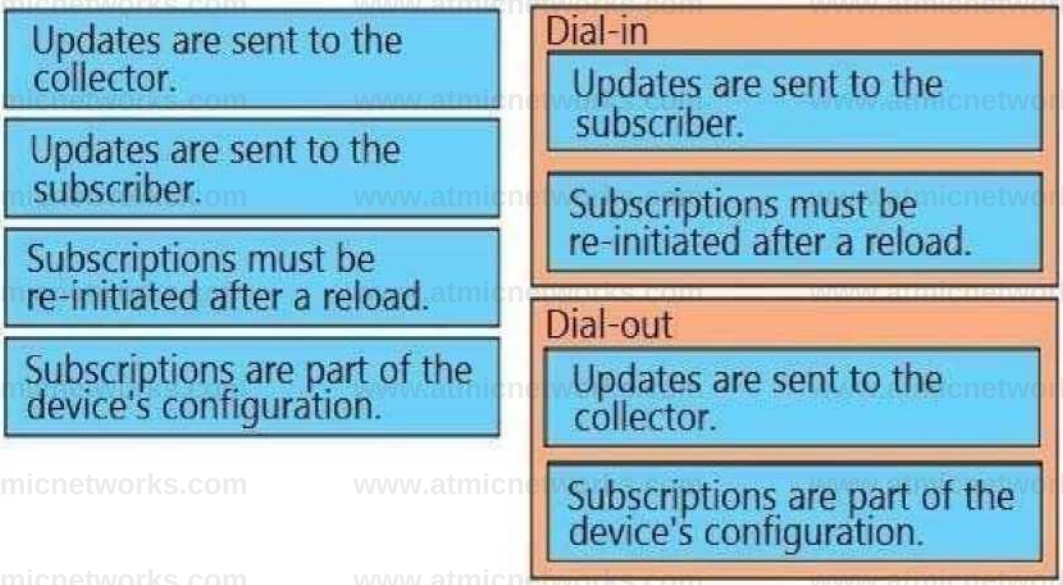
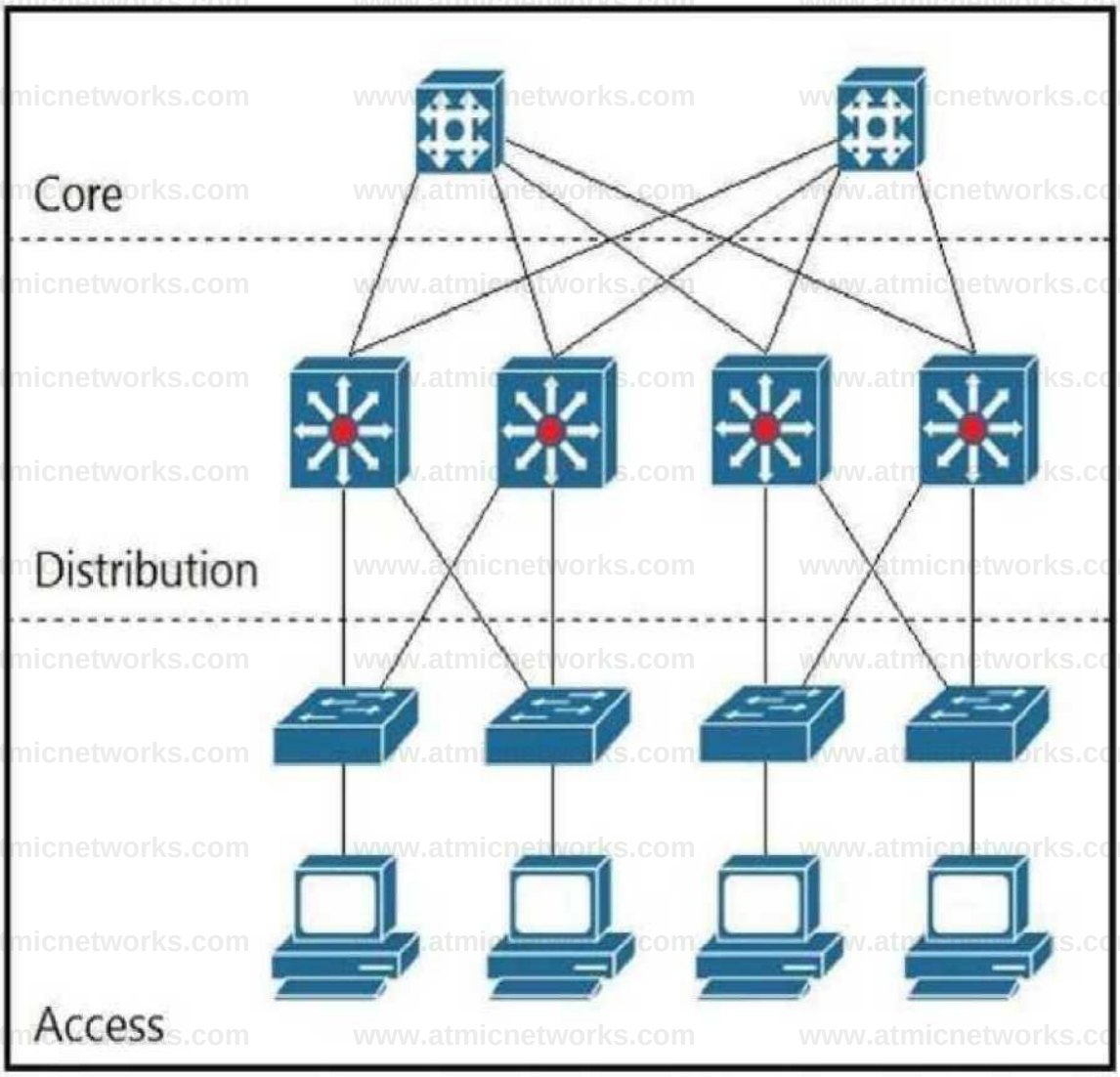


Table 2. Dial-in and Dial-Out Model-Driven Telemetry

Dial-In (Dynamic)	Dial-Out (Static or Configured)
Telemetry updates are sent to the initiator or subscriber.	Telemetry updates are sent to the specified receiver or collector.
Life of the subscription is tied to the connection (session) that created it, and over which telemetry updates are sent. No change is observed in the running configuration.	Subscription is created as part of the running configuration; it remains as the device configuration till the configuration is removed.
Dial-in subscriptions need to be reinitiated after a reload, because established connections or sessions are killed during stateful switchover.	Dial-out subscriptions are created as part of the device configuration, and they automatically reconnect to the receiver after a stateful switchover.
Subscription ID is dynamically generated upon successful establishment of a subscription.	Subscription ID is fixed and configured on the device as part of the configuration.

Question: 103

Refer to the exhibit.



Refer to the exhibit. Which two solutions maximize the use of the links between the core and distribution layers? (Choose two.)

use multiple equal-cost links

use an IGP

use HSRP

use R-PVSTP+

use multiple unequal-cost links

Answer: A B

Explanation:

Question: 104

An engineer is tasked with designing a dual BGP peering solution with a service provider. The design must meet these

conditions:

The routers will not learn any prefix with a subnet mask greater than /24.

The routers will determine the routes to include in the routing table based on the length of the mask alone.

The routers will make this selection regardless of the service provider configuration.

Which solution should the engineer include in the design?

Use a route map and access list to block the desired networks, and apply the route map to BGP neighbors inbound.

Use a route map and prefix list to block the desired networks, and apply the route map to BGP neighbors outbound.

Use an IP prefix list to block the desired networks and apply the IP prefix list to BGP neighbors outbound.

Use an IP prefix list to block the desired networks and apply the IP prefix list to BGP neighbors inbound.

Answer: D

Explanation:

Question: 105

An engineer is designing an EIGRP network for a small branch site where there is only one Layer 3 router. The engineer wants the router to advertise the local LAN network to remote EIGRP neighbors without sending any unnecessary multicast messages on the local LAN. Which action should the engineer take?

Use a static default route for this site instead of EIGRP

Advertise the local LAN using the network command and the passive-interface feature

Redistribute the local LAN network using the redistribute connected command

Advertise the local LAN subnet as a stub network

Answer: B

Explanation:

Question: 106

A network engineer is redesigning a company's QoS solution. The company is currently using IP Precedence, but the engineer plans to move to DiffServ. It is important that the new solution provide backward compatibility with the current solution. Which technology should the design include?

A. expedited forwarding

B. assured forwarding

C. class selector code points

D. default per hop behavior

Answer: C

Explanation:

Question: 107

A customer's current Layer 2 infrastructure is running Spanning Tree 802.1d, and all configuration changes are manually implemented on each switch. An architect must redesign the Layer 2 domain to achieve these goals:

reduce the impact of topology changes

reduce the time spent on network administration

reduce manual configuration errors

Which two solutions should the architect include in the new design? (Choose two.)

Implement Rapid PVST+ instead of STP.

Implement MST instead of STP.

Use VTP to propagate VLAN information and to prune unused VLANs.

Configure broadcast and multicast storm control on all switches.

Configure dynamic trunking protocol to propagate VLAN information.

Answer: A C

Explanation:

Question: 108

How is sub-second failure of a transport link detected in a Cisco SD-WAN network?

Hellos are sent between the WAN Edge routers and the vSmart controller.

BFD runs on the IPsec tunnels between WAN Edge routers.

BGP is used between WAN Edge routers and the vSmart controller.

Link state change messages are sent between vSmart controllers.

Answer: B

Explanation:

Question: 109

A customer's environment includes hosts that support IPv6-only. Several of these hosts must communicate with a public web server that has only IPv4 domain name resolution. Which solution should the customer use in this environment?

A. utilize NAT64 to translate the addresses

B. Implement NAT44 at the edge of the customer network

C. use 6to4 and a tunnel to translate the addresses

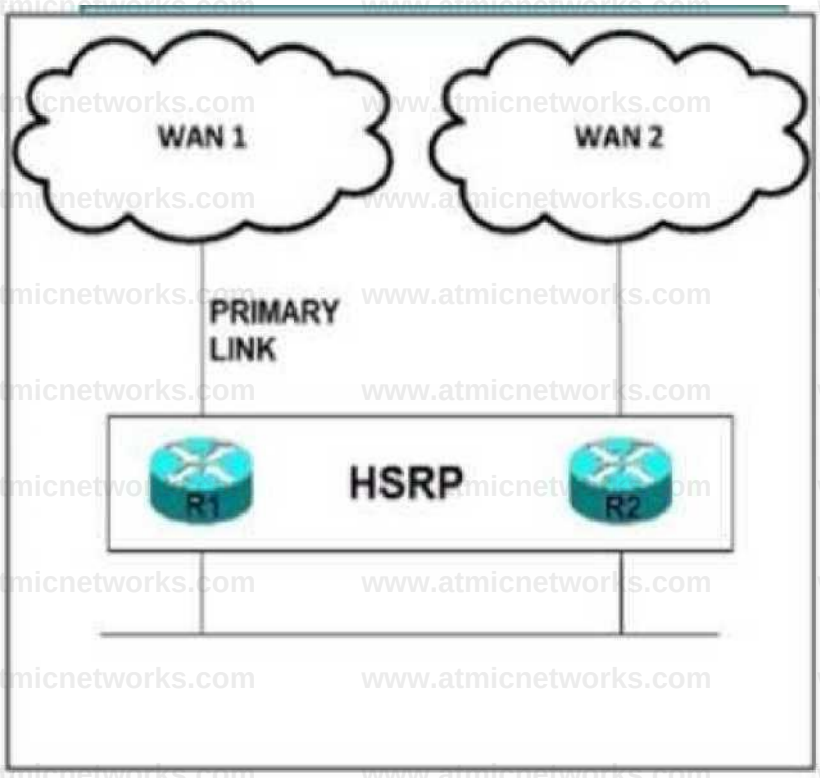
D. implement 6PE to resolve hostname resolution

Answer: A

Explanation:

Question: 110

Refer to the exhibit.



Refer to the exhibit. An engineer must design an automatic failover solution. The solution should allow HSRP to detect a WAN 1 failure and initiate an automatic failover, making router R2 the active HSRP router. Which two solutions should the engineer choose? (Choose two.)

A. Implement Enhanced Object Tracking on router R1

B. use a floating static route

C. Implement IP SLA on router R1

D. Implement PBR on router R1

E. use IP source routing

Answer: A C

Explanation:

Question: 111

An architect must address sustained congestion on the access and distribution uplink of network.
QoS has already been implemented and optimized, but it is no longer effective in ensuring optimal

network performance. Which two solutions should the architect use to improver network performance? (Choose two)

A. Reconfigure QoS based on the IntServ model

B. Utilize random early detection to manage queues

C. Implement higher-speed uplink interfaces

D. Bundle additional uplinks into logical EtherChannels

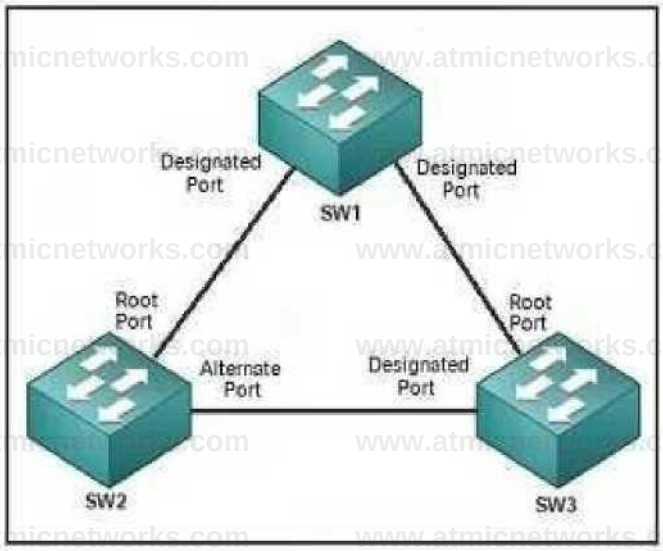
E. Configure selective packet discard to drop noncritical network traffic.

Answer: B E

Explanation:

Question: 112

Refer to the exhibit.



Refer to the exhibit. The connection between SW2 and SW3 is fiber and occasionally experiences unidirectional link failure. An architect must optimize the network to reduce the change of layer2 forwarding loops when the link fails. Which solution should the architect include?

A. Utilize 8PDU filter on SW3.

B. Utilize loop guard on SW2

C. Utilize BPDU guard on SW1

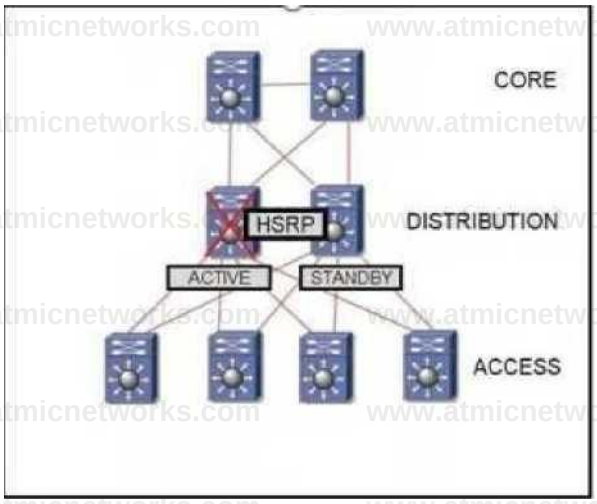
D. Utilize root guard on SW1.

Answer: B

Explanation:

Question: 113

Refer to the exhibit.



Refer to the exhibit. The distribution switches serve as the layer 3 boundary. HSRP preemption is enabled. When the primary switch comes back after a failure, traffic is initially dropped. Which solution must be implemented to improve the design?

A. Increase the hello timers on both HSRP devices

B. Use the preempt delay feature on the primary HSRP device.

C. Use the preempt delay feature on the backup HSRP device

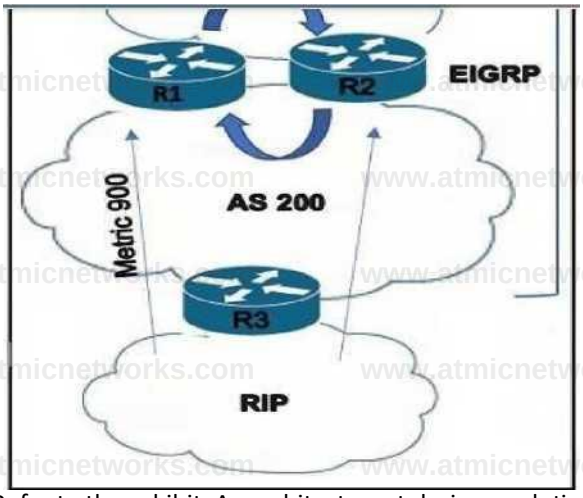
D. Configure a higher mac-refresh interval on both HSRP devices

Answer: B

Explanation:

Question: 114

Refer to the exhibit.



Refer to the exhibit. An architect must design a solution to connect the network behind R3 with the EIGRP network. Which mechanism should be included to avoid routing loops?

A. split-horizon

B. summarization

C. down bit

D. route tags

Answer: D

Explanation:

Question: 115

Refer to the exhibit.

```
Cia» MIO3IUW-VKI I I^ML
    bandwidth percent 26
    random-detect dscp-based class BULK
    bandwidth percent 5
    random-detect dscp-based class SCAVENGER bandwidth percent 1 class ciass-defautl bandwidth percent 24
    random-detect

class-map match-all BULK match ip dscp ant aH2 class-map match-all VIDEO match ip dscp af41 aM2 class-map match-
any ROUTING match ip dscp cs6
class map match-all MISSION-CRITICAL match Ip dscp at21 a122
class-map match-any SIGNALLING match Ip dscp cs3 match Ip dscp al3i class-map match-all VOICE match ip dscp el
class-map match-air SCAVENGER match Ip dscp cs1

interface Gtgab<tEtnemeto/2 description Link_to_DC service-policy output WAN-DC-LINK
```

Refer to the exhibit. A customer needs to apply QoS to the network management traffic passing through the

GigabitEthernet0/2 interface. All eight queuing classes are in use, so the new requirement must be integrated into the existing policy. Which solution must the customer choose?

A. Mark traffic to DSCP CS5 and assign it to the SIGNALLING class. Then, baseline existing queue sizes to determine if additional bandwidth can be provisioned to the SIGNALLING class.

B. Mark the traffic to DSCP CS4 and assign it to the SIGNALLING class. Then, prioritize traffic within the class.

C. Mark the traffic to DSCP CS6 and assign it to the ROUTING class Then, prioritize traffic within the class.

D. Mark the traffic to DSCP CS2 and assign it to the ROUTING class Then, baseline existing queue sizes to determine if additional bandwidth can be provisioned to the ROUTING class

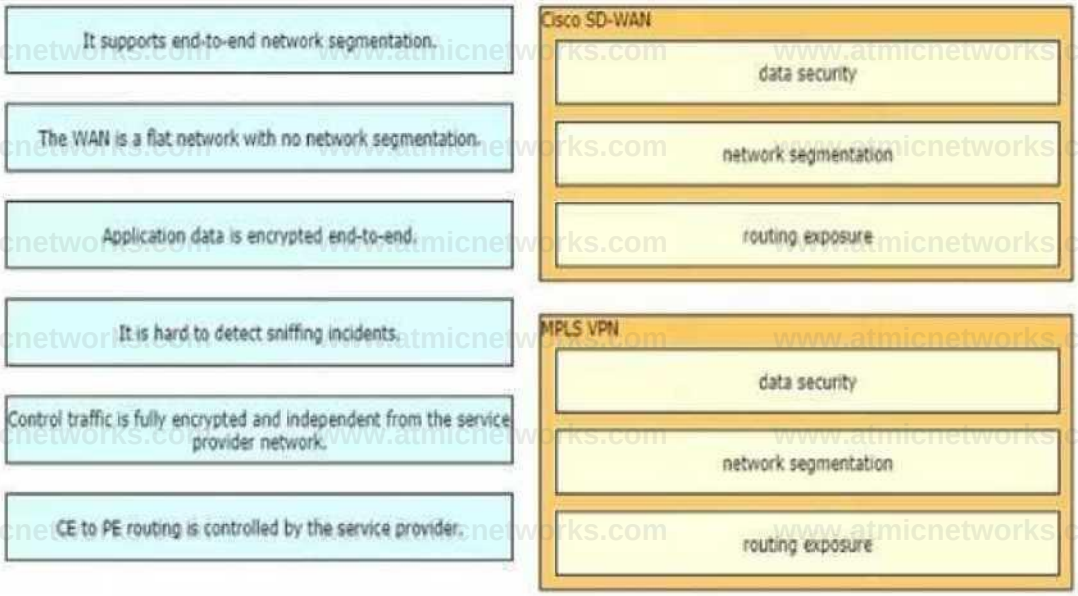
Answer: D

Explanation:

Question: 116

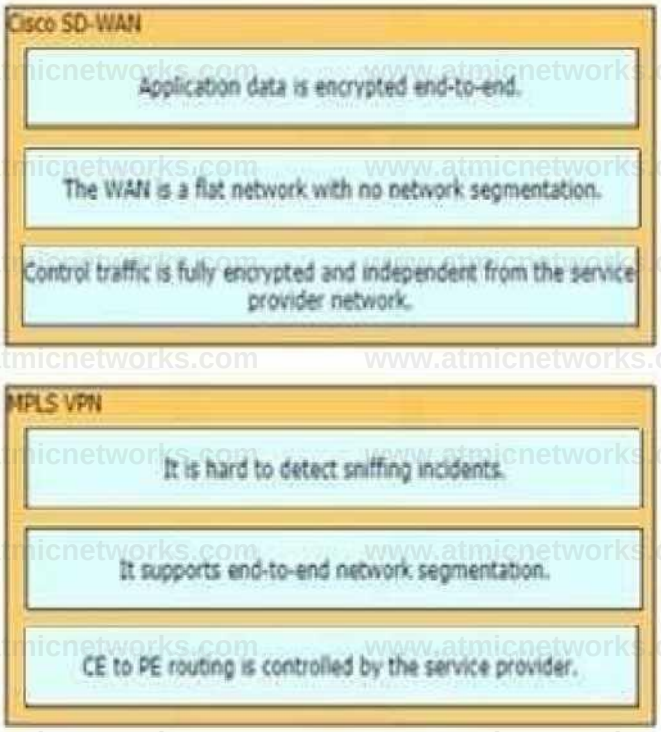
DRAG DROP

Drag and drop the description from the left onto the corresponding WAN connectivity types and categories on the right.



Answer:

Explanation:



Question: 117

A customer requests a VPN solution to connect multiple sites with the company headquarters. All the

sites use the same IP subnet. The engineer plans to use VPLS. Which solutions must the engineer include in the design?

A. 802.1Q connectivity on the LAN side of the CE

B. route exchange with the service provider

C. address translation to hide overlapping subnets

D. different VLANs on each site

Answer: A

Explanation:

Question: 118

What is the purpose of a Cisco SD-Access underlay network?

A. to abstract IP-based connectivity from physical connectivity

B. to emulate LAN segments to transport Layer 2 frames over a Layer 3 network

C. to establish physical connectivity between switches and routers

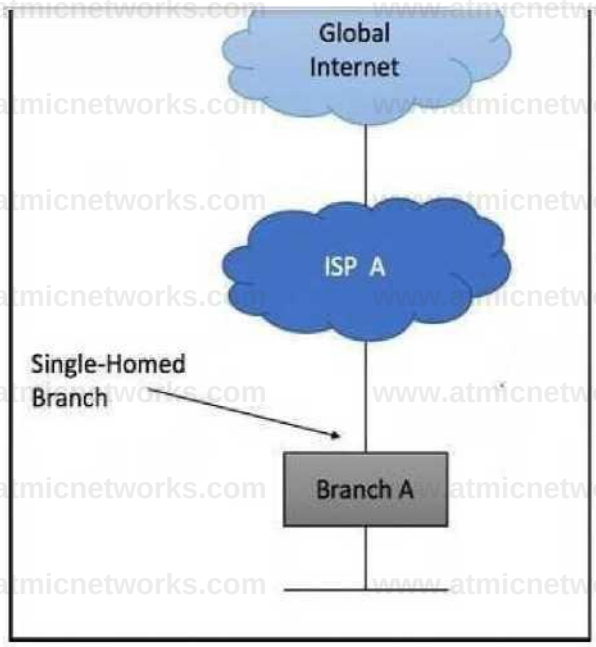
D. to provide virtualization by encapsulating network traffic over IP tunnels

Answer: C

Explanation:

Question: 119

Refer to the exhibit.



Refer to the exhibit. An architect is designing a BGP solution to connect a remote branch to a service provider. There are several prefixes within the branch that the company does not want to be advertised to the internet. Which solution should the architect use to accomplish this?

A. Set the BGP Internet community for all prefixes.

B. Implement the NOPEER community.

C. Use the BGP No-Advertise community for the prefixes to exclude.

D. Attach the No-Export community with the prefixes to exclude

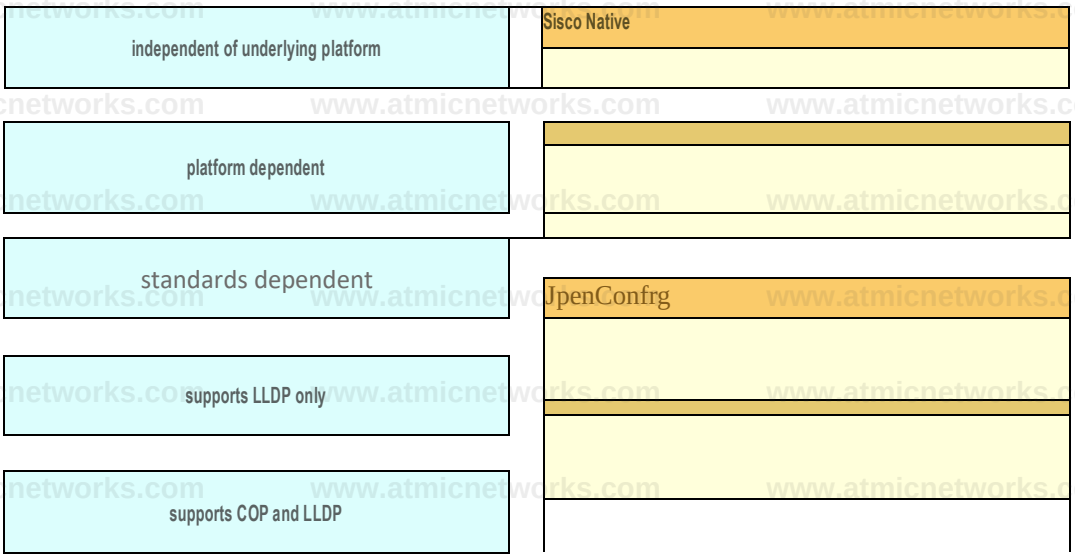
Answer: D

Explanation:

Question: 120

DRAG DROP

Drag and drop the characteristics from the left onto the YANG modules they describe on the right.
Not all options are used.



Answer:

Explanation:

Question: 121

An engineer must design an in-band management solution for a customer with branch sites. The solution must allow remote management of the branch sites using management protocols over an MPLS WAN.

Queueing is implemented at the remote sites using these classes:

- **Classi equals voice traffic**
- **Class2 equals mission-critical traffic**
- **Class3 equals default traffic**

How must the solution prioritize the management traffic over the WAN?

A. Mark the traffic with DSCP CS1 and map into Class2 with a minimum bandwidth assigned by reducing the bandwidth available to Class3.

B. Mark the traffic with DSCP CS6 and map into Class1 with a minimum bandwidth assigned by reducing the bandwidth available to Class2

C. Mark the traffic with DSCP EF and map into Class1 with a minimum bandwidth assigned by reducing the bandwidth available to Class2.

D. Mark the traffic with DSCP CS2 and map into Class2 with a minimum bandwidth assigned by reducing the bandwidth available to Class3

Answer: D

Explanation:

Question: 122

How are wireless endpoints registered in the HTDB in a Cisco SD-Access architecture?

A. Fabric edge nodes update the HTDB based on CAPPWAP messaging from the AP

B. Fabric WLCs update the HTDB as new clients connect to the wireless network

C. Border nodes first register endpoints and then update the HTDB

D. Fabric APs update the HTDB with the clients' EID and RLOC

Answer: B

Explanation:

Fabric WLC

Both fabric WLCs and non-fabric WLCs provide AP image and configuration management, client session management, and mobility services Fabric WLCs provide additional services for fabric integration such as registering MAC addresses of wireless clients into the host tracking database of the fabric control plane nodes during wireless client join events and supplying fabric edge node RLOC-association updates to the HTDB during client roam events

Question: 123

Which type of rendezvous point deployment is standards-based and support dynamic RP discovery?

A. Auto-RP

B. Anycast-RP

C. bootstrap router

D. static RP

Answer: C

Explanation:

Question: 124

What is the purpose of a control plane node in a Cisco SD-Access network fabric?

A. to maintain the endpoint database and mapping between endpoints and edge nodes

B. to detect endpoints in the fabric and inform the host tracking database of EID-to-fabric-edge node bindings

C. to identify and authenticate endpoints within the network fabric

D. to act as the network gateway between the network fabric and outside networks

Answer: B

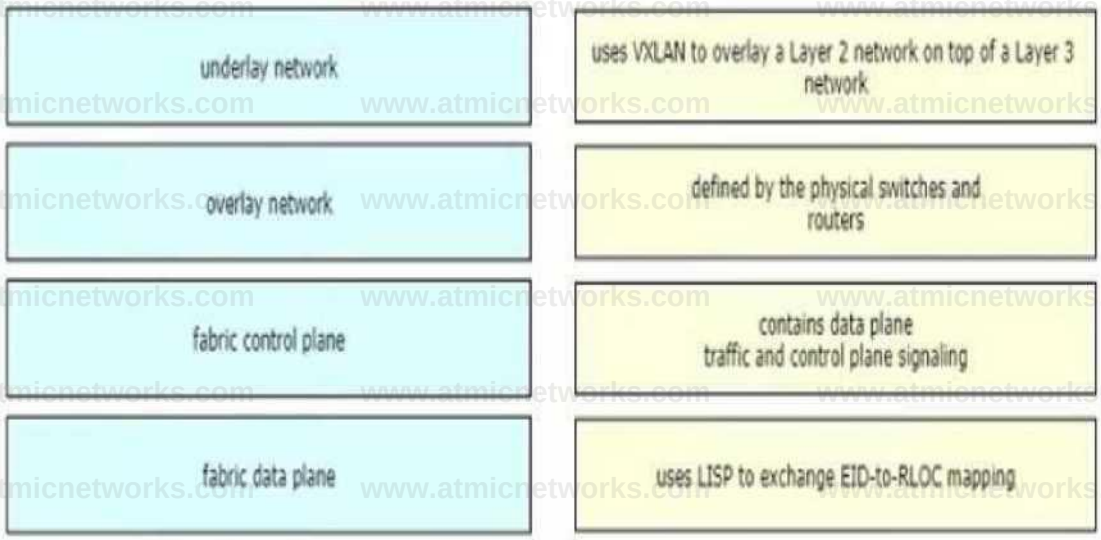
Explanation:

https://www.cisco.com/c/en/us/td/docs/solutions/CVD/Campus/cisco-sda-design-guide.html

Question: 125

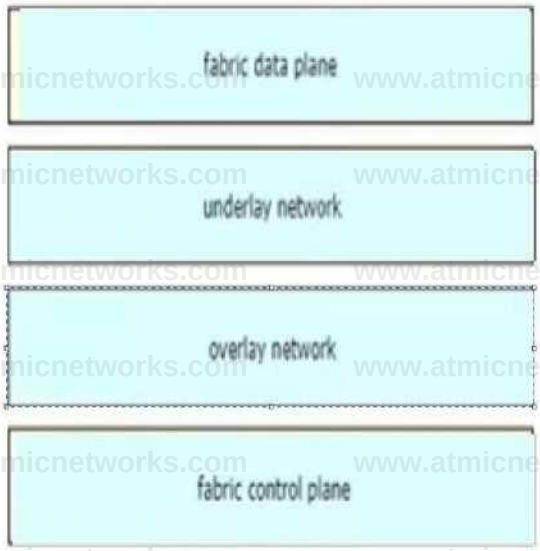
DRAG DROP

Drag and drop the components in a Cisco SD-Access architecture from the left onto their descriptions on the right.



Answer:

Explanation:



Question: 126

A company must automate a set of complex changes aligned with DR testing in the network. These changes are specific, and the DR playbook will be adjusted in the future. The playbook has diverse routing and switching assets in scope as well as multiple vendor and hardware platforms. A developer will create a thin, web front-end microservice and integrate with an Open daylight controller to push changes to the network. Which YANG model should be used?

A. Use a single native vendor YANG model to minimize development time

B. Use an open YANG model to allow the reuse of code and standardize the implementation across platforms

C. Use multiple native vendor YANG models to provide code consistency.

D. Develop an individualized YANG model to minimize development resources and time to market.

Answer: B

Explanation:

Question: 127

An engineer uses Postman and YANG to configure a router with:

- OSPF process ID 100
- network 10.10 10.0'28 enabled for Area 0

Which get-config replay verifies that the model set was designed correctly?

<pJWgeW:rt^O^WMWW#s-lm^pa^^ w
^j^i^^
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<w# # w w
w HJ

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A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

Explanation:

Question: 128

A global organization with several branches hired a network architect to design an overlay VPN solution. The branches communicate with each other frequently. The customer expects to add more branches in the future. To meet the customer's security requirements, the architect plans to provide traffic protection using dynamic IPsec tunnels. Which solution should the architect choose?

A. DMVPN

B. EasyVPN

C. GETVPN

D. L2TP

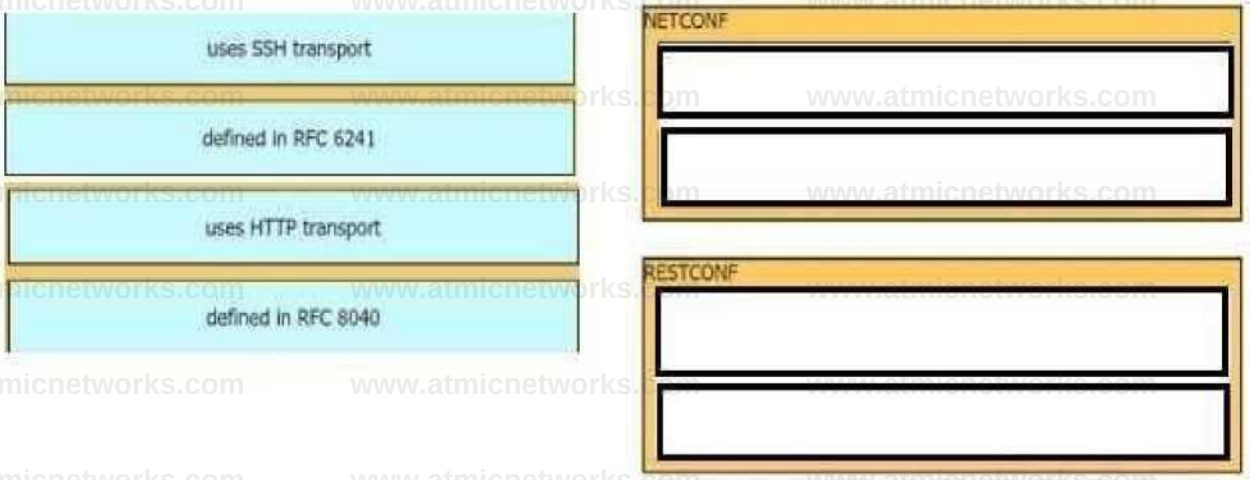
Answer: A

Explanation:

Question: 129

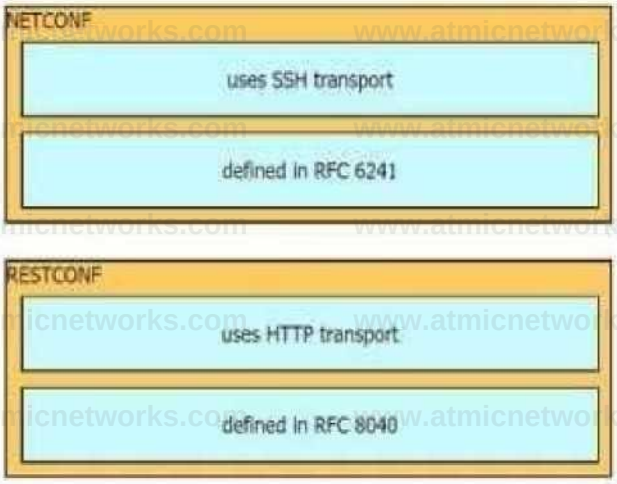
DRAG DROP

Drag and drop the characteristics from the left onto the configuration protocols they describe on the right.



Answer:

Explanation:



https://www.ipspace.net/kb/CiscoAutomation/070-netconf.html#:~:text=NETCONF%20provides%20mechanisms%20to%20install,on%20top%20of%20HTTP%2FHTTPS.

Question: 130

An engineer is creating a design to enable IPv6 to run on an existing IPv4 IS-IS network. The IPv4 and IPv6 topologies will match exactly, and the engineer plans to use the same router levels for each protocol per interface. Which IS-IS design is required?

A. single topology without enabling transition feature

B. single topology with transition feature enabled

C. multi topology with transition feature enabled

D. multi topology without enabling transition feature

Answer: B

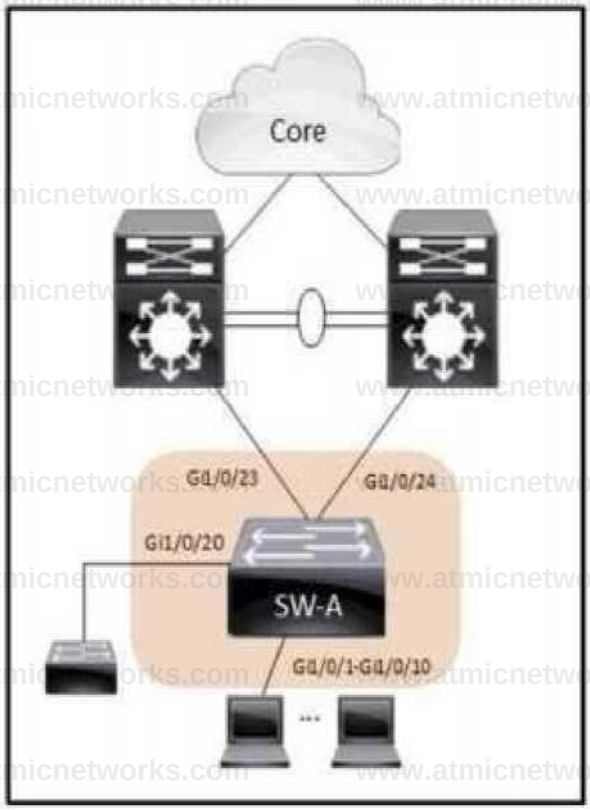
Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_isis/configuration/xe-3s/irs-xe-3s- book/ip6-route-isis-xe.html#GUID-04990BCF-8228-459E-AFAA-9FAF1E2136E9

For single-topology IS-IS IPv6, routers must be configured to run the same set of address families. ISIS performs consistency checks on hello packets and will reject hello packets that do not have the same set of configured address families. For example, a router running IS-IS for both IPv4 and IPv6 will not form an adjacency with a router running IS-IS for IPv4 or IPv6 only. In order to allow adjacency to be formed in mismatched address-families network, the adjacency-check command in IPv6 address family configuration mode must be disabled.

Question: 131

Refer to the exhibit.



Refer to the exhibit. An architect reviews the low-level design of a company's enterprise network and advises optimizing the STP convergence time. Which functionality must be to Gi1/0/1-10 to follow the architect's recommendation?

A. PortFast

B. root guard

C. UplinkFast

D. BPDU guard

Answer: A

Explanation:

Question: 132

Which method does Cisco SD-WAN use to avoid fragmentation issues?

A. PMTUD is used.

B. Traffic is marked with the DF bit set.

C. Jumbo frames are enabled.

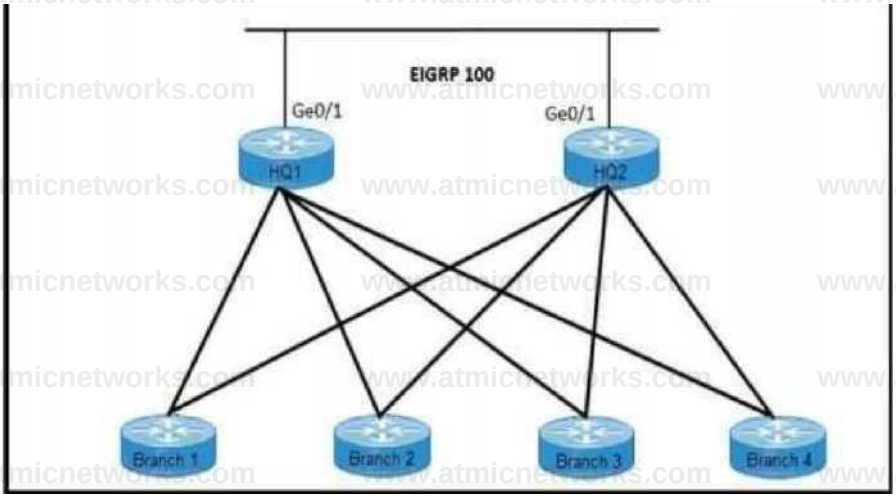
D. Access circuits are configured with 1600 byte MTU settings.

Answer: A

Explanation:

https://www.cisco.com/c/dam/en/us/solutions/collateral/enterprise-networks/sd-wan/nb-06-cisco- sd-wan-ebook-cte-en.pdf

Question: 133



Refer to the exhibit. An architect must create a stable and scalable EIGRP solution for a customer. The design must:

- conserve bandwidth, memory, and CPU processing
- prevent suboptimal routing
- avoid any unnecessary queries

Which two solutions must the architect select? (Choose two.)

A. route summarization

B. prefix lists

C. distribute lists

D. stub routing

E. static redistribution

Answer: AD

Explanation:

Question: 134

An engineer must design a large Layer 2 domain that contains hundreds of switches and VLANs. The engineer's primary goals are to:

- Efficiently utilize the bandwidth of all links
- Avoid Layer 2 loops
- Cause minimal impact on switch CPU and memory

Which technology should the engineer include in the design?

A. PVST+

B. Rapid PVST+

C. MST

D. RSTP

Answer: C

Explanation:

Question: 135

An engineer is designing a multicast network for a financial application Most of the multicast sources also receive multicast traffic (many-to-many deployment model). To better routing tables, the design must not use source trees. Which multicast protocol satisfies these requirements?

A. BIRDIR-PIM

B. PIM-SM

C. MSDP

D. PIM-SSM

Answer: A

Explanation:

Question: 136

An organization plans to deploy multicast across two different autonomous systems. Their solution must allow RPs to:

- discover active sources outside their domain
- use the underlying routing information for connectivity with other RPs
- announce sources joining the group

Which solution supports these requirements?

A. MSDP

B. SSM

C. PIM-SM

D. PIM-DM

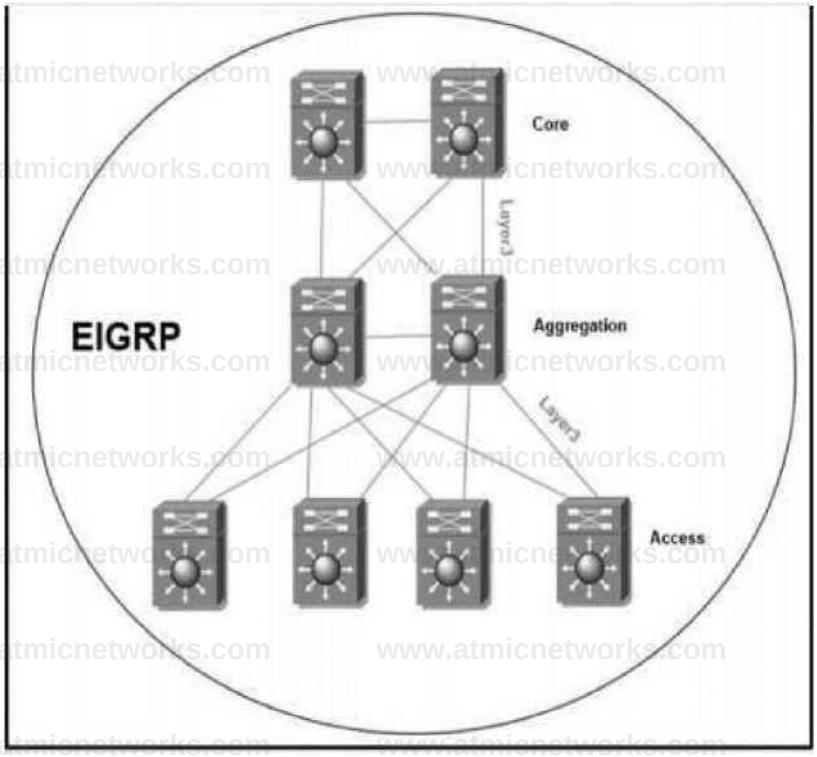
Answer: A

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipmulti_pim/configuration/xe-3s/asr903/imc-pim-xe-3s-asr903-book/imc_msdp.pdf

Question: 137

Refer to the exhibit.



Refer to the exhibit. The full EIGRP routing table is advertised throughout the network. Currently, users experience data loss when any one link in the network fails. An architect optimizes the network to reduce the impact when a link fails. Which solution should the architect include in the design?

A. Run BFD on the inter links between EIGRP neighbors.

B. Summarize the access layer networks from each access layer switch toward the aggregation layer.

C. Reduce the default EIGRP hello interval and hold time.

D. Summarize the access layer networks from the aggregation layer toward the core layer.

Answer: A

Explanation:

Question: 138

The customer solution requires QoS to support streaming multimedia over a WAN. An architect chooses to use Per-Hop Behavior. Which solution should the engineer use to of mark traffic traveling between branch sites?

A. LLQ with DSCP EF

B. CBWFQ with DSCP AF3

C. CBWFQ with DSCP AF2

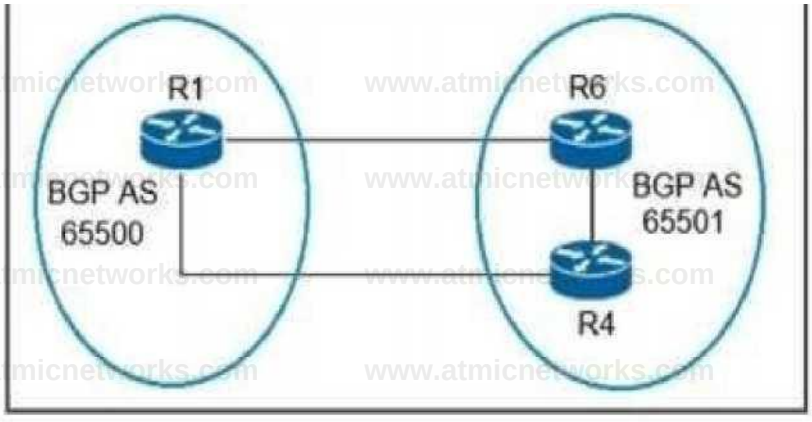
D. LLQ with DSCP AF4

Answer: B

Explanation:

Question: 139

Refer to the exhibit.



Refer to the exhibit. An architect must design a solution to connect the two ASs. To optimize bandwidth, the design will implement load sharing between router R6 and router R4. Which solution should the design include?

A. Use update-source to specify the Loopback interface.

B. Use next-hop-serf attributes only for routes that are learned from eBGP peers.

C. Configure the eBGP TTL to support eBGP multihop.

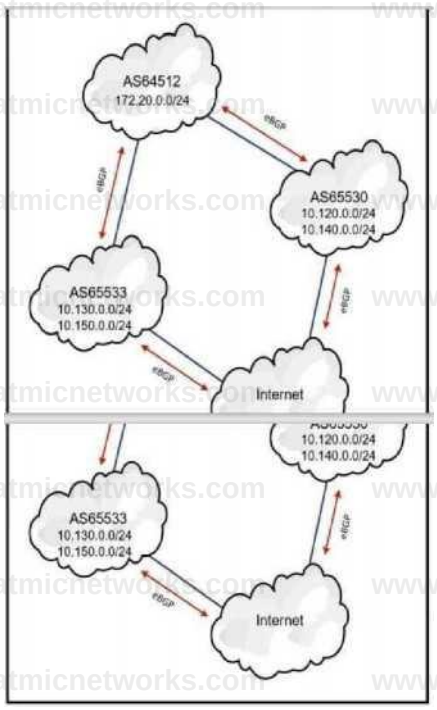
D. Use maximum-paths to install multiple paths in the routing table.

Answer: D

Explanation:

Question: 140

Refer to the exhibit.



Refer to the exhibit. AS65533 and AS65530 are announcing a partial Internet routing table as well as their IP subnets. An architect must create a design that ensures AS64512 become a transit AS. Which filtering solution must the architect choose?

A. Maximum-prefix

B. No-advertise

C. Next-hop

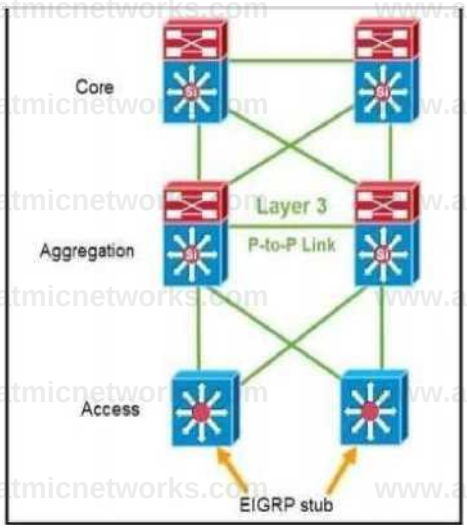
D. No Export

Answer: D

Explanation:

Question: 141

Refer to the exhibit.



Refer to the exhibit. Where must an architect plan for route summarization for the topology?

A. from the core toward the aggregation and the access toward the aggregation

B. from the core toward the aggregation and the aggregation toward the core

C. from the aggregation toward the access and the access toward the aggregation

D. from the aggregation toward the core and the aggregation toward the access

Answer: D

Explanation:

Question: 142

An engineer must design a QoS solution for a customer that is connected to an ISP over a 1Gbps link with a 100Mbps CIR. The ISP aggressively drops all traffic received over which is causing numerous TCP retransmissions. The customer is not using any RTP applications but wants to maximize bandwidth usage up to the CIR. Which QoS solution engineer choose?

A. Policing

B. Traffic shaping

C. Policer with markdown

D. Queuing

Answer: B

Explanation:

https://www.cisco.com/c/en/us/support/docs/quality-of-service-qos/qos-policing/19645-policevsshape.html

Traffic shaping limits the rate of traffic that is sent or received over a network connection by buffering and delaying the flow of data packets. This will help to ensure that the customer is not exceeding the 100Mbps CIR that the ISP has set and also prevent the aggressive dropping of traffic. Traffic shaping will also help to maximize the bandwidth usage while still staying within the limits of the CIR.

Question: 143

An engineer is designing a multicast network for a company specializing in VoD content. Receivers are across the Internet, and for performance reasons, the multicast framework close to the receivers within each AS. For high availability, if the sources in one AS are no longer available, the receivers of that AS must be able to receive the VoD content from sources in another AS. Which feature must the design include?

A. Bidirectional PIM

B. SSM

C. Anycast RP

D. MSDP

Answer: C

Explanation:

https://learningnetwork.cisco.com/s/question/0D53i00000KsrGrCAJ/rendezvous-point-high- availability-mechanisms

Question: 144

A company is planning to open two new branches and allocate the 2a01:c30:16:7009::3800/118 IPv6 network for the region. Each branch should have the capacity to accommodate maximum of 200 hosts. Which two networks should the company use? (Choose two.)

A. 2a01:0c30:0016:7009::3a00/120

B. 2a01:0c30:0016:7009::3b00/121

C. 2a01:0c30:0016:7009::3a80/121

D. 2a01:0c30:0016:7009::3b00/120

E. 2a01:0c30:0016:7009::3c00/120

Answer: A D

Explanation:

Question: 145

An engineer must connect a new remote site to an existing OSPF network. The new site consists of two low-end routers, one for WAN, and one for LAN. There is no demand for traffic to pass through this are

a. Which area type does the engineer choose to provide minimal router resources utilization, while still allowing for full connectivity to the rest of the network?

A. not so stubby

B. totally not so stubby

C. totally stubby area

D. stubby area

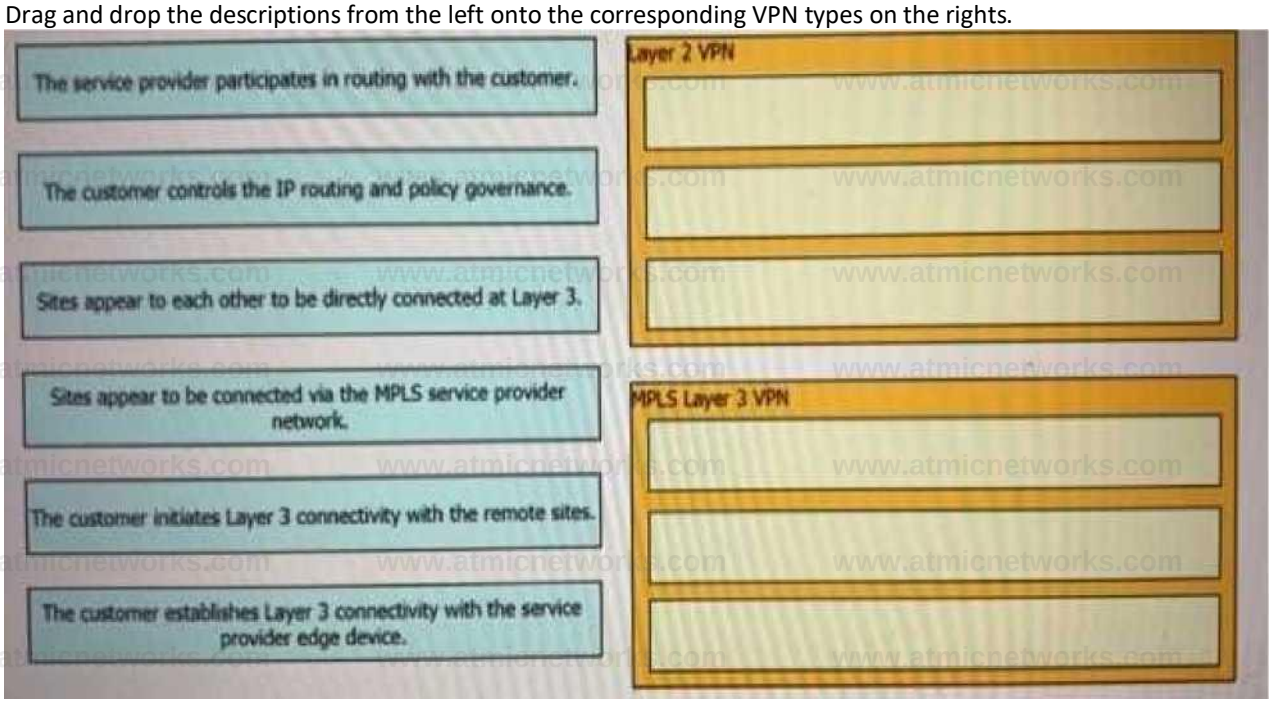
Answer: C

Explanation:

Question: 146

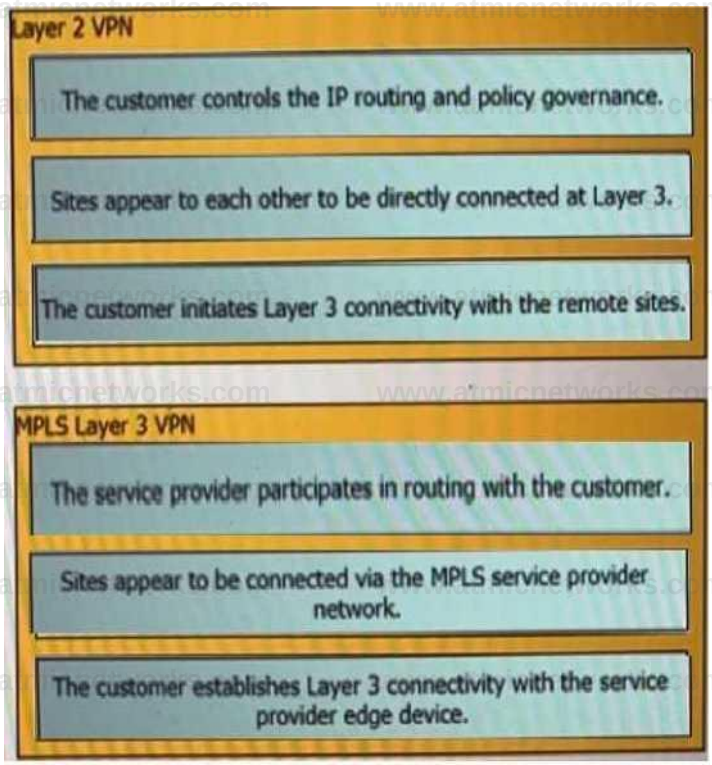
DRAG DROP

Drag and drop the descriptions from the left onto the corresponding VPN types on the rights.



Answer:

Explanation:



Question: 147

Which component is part of the Cisco SD-Access overlay architecture?

A. border node

B. spine node

C. leaf node

D. Cisco DNA Center

Answer: D

Explanation:

Question: 148

Which design consideration must be made when dual WAN Edge routers are deployed at a branch site?

A. Use BGP AS-path prepending to influence egress traffic and use MED to influence ingress traffic from the branch.

B. HSRP priorities must match the OMP routing policy to prefer one WAN Edge over the other.

C. Traffic must be symmetrical as it egresses the WAN Edges and returns from remote sites for DPI to function properly.

D. Configure BFD between WAN Edge routers to detect sub-second link failures.

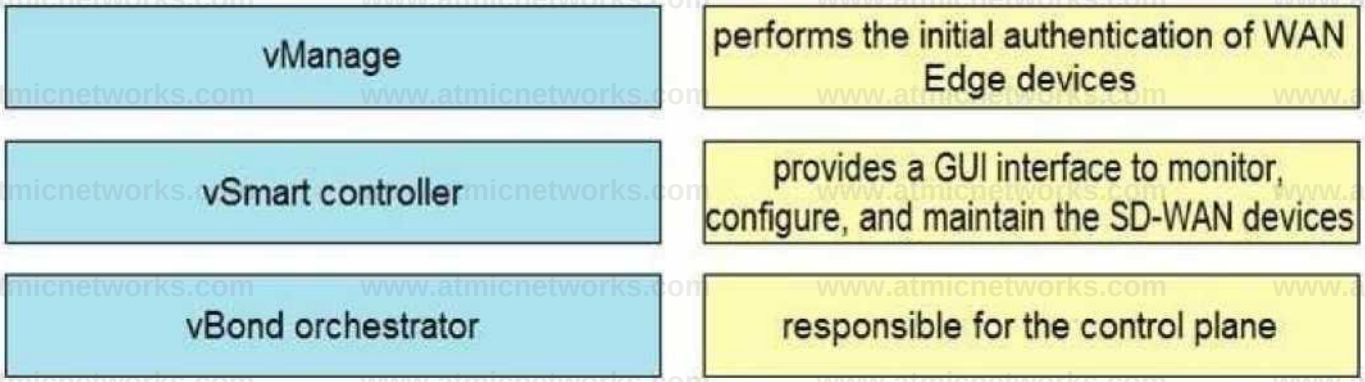
Answer: A

Explanation:

Question: 149

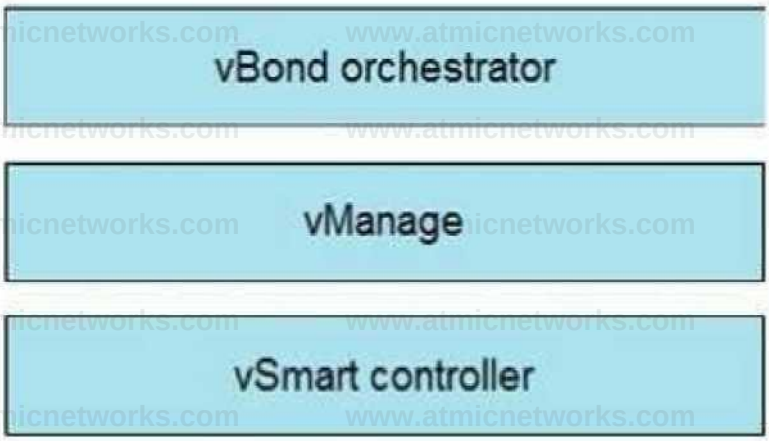
DRAG DROP

Drag and drop the elements from the left onto the functions they perform in the Cisco SD-WAN architecture on the right.



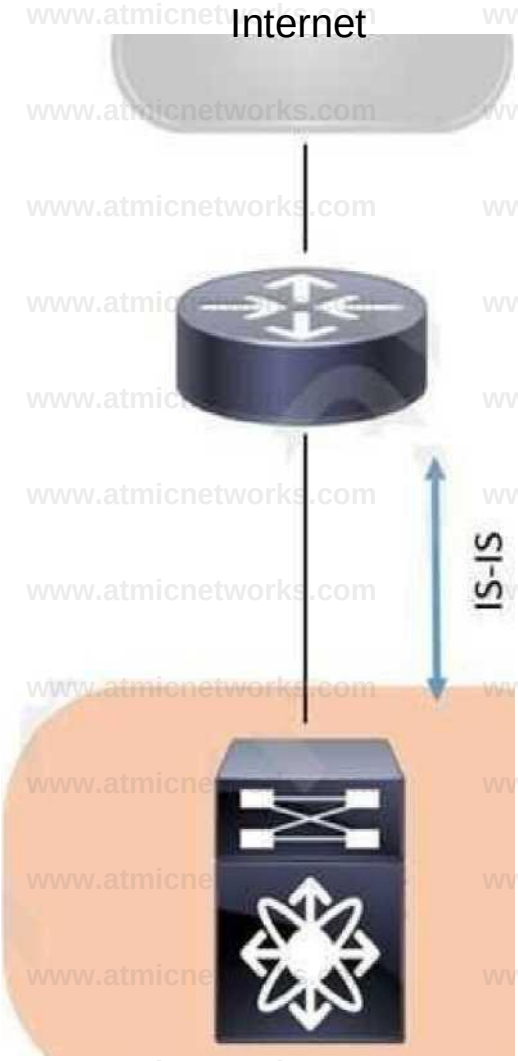
Answer:

Explanation:



Question: 150

Refer to the exhibit.



A network engineer must improve the current IS-IS environment. The Catalyst switch is equipped with dual supervisors. Each time a stateful switchover occurs, the network experiences unnecessary route recomputation. Which solution addresses this issue if the upstream router does not understand graceful restart messaging?

A. Enable IS-IS remote LFA FRR on both devices.

B. Enable NSR on the switch.

C. Enable NSF on the switch.

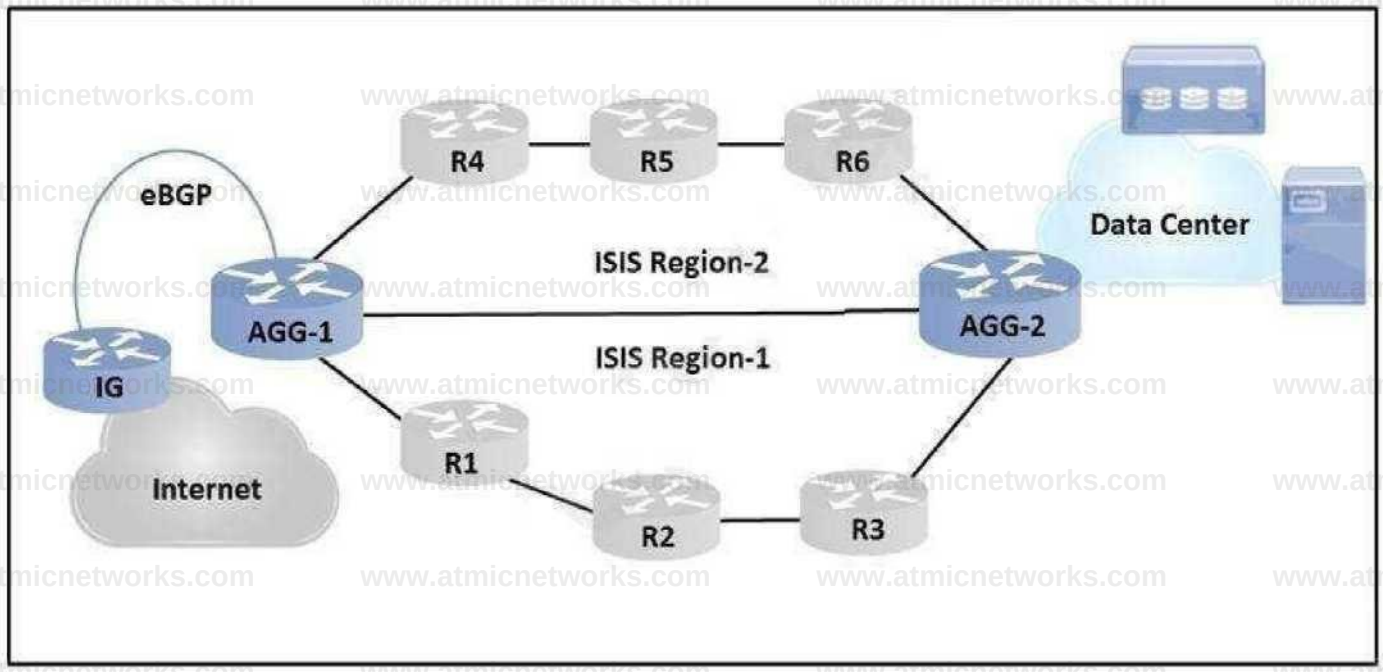
D. Configure ISIS aggressive timers on both devices.

Answer: C

Explanation:

Question: 151

Refer to the exhibit.



An architect must design an IGP solution for an enterprise customer. The design must support:

Physical link flaps should have minimal impact.

Access routers should converge quickly after a link failure.

Which two ISIS solutions should the architect include in the design? (Choose two.)

A. Use BGP to IS-IS redistribution to advertise all Internet routes in the Level 1 area.

B. Advertise the IS-IS interface and loopback IP address toward the Internet and data center.

C. Reduce SPF and PRC intervals to improve convergence time.

D. Configure all access and aggregate routers to establish Level 1 / Level 2 adjacencies across the network.

E. Configure access routers to establish a Level 1 adjacency and aggregate routers to establish a Level 1 / Level 2 adjacency.

Answer: CD

Explanation:

Question: 152

Refer to the exhibit.

An engineer is designing a routing solution for a customer. The design must ensure that a failure of network

10.1. 0.0/24, 10.1.2.0/24, 10.2.1.0/24, or 10.2.3.0/24 does not impact the core. It also requires fast convergence

time during any link failover in the core or access networks. Which solution must the engineer select?

A. Add aggregation layer between core and access networks.

B. Enable graceful restart on routers A and C.

C. Enable FRR for the connected networks of routers A and C.

D. Enable summarization on routers A and C.

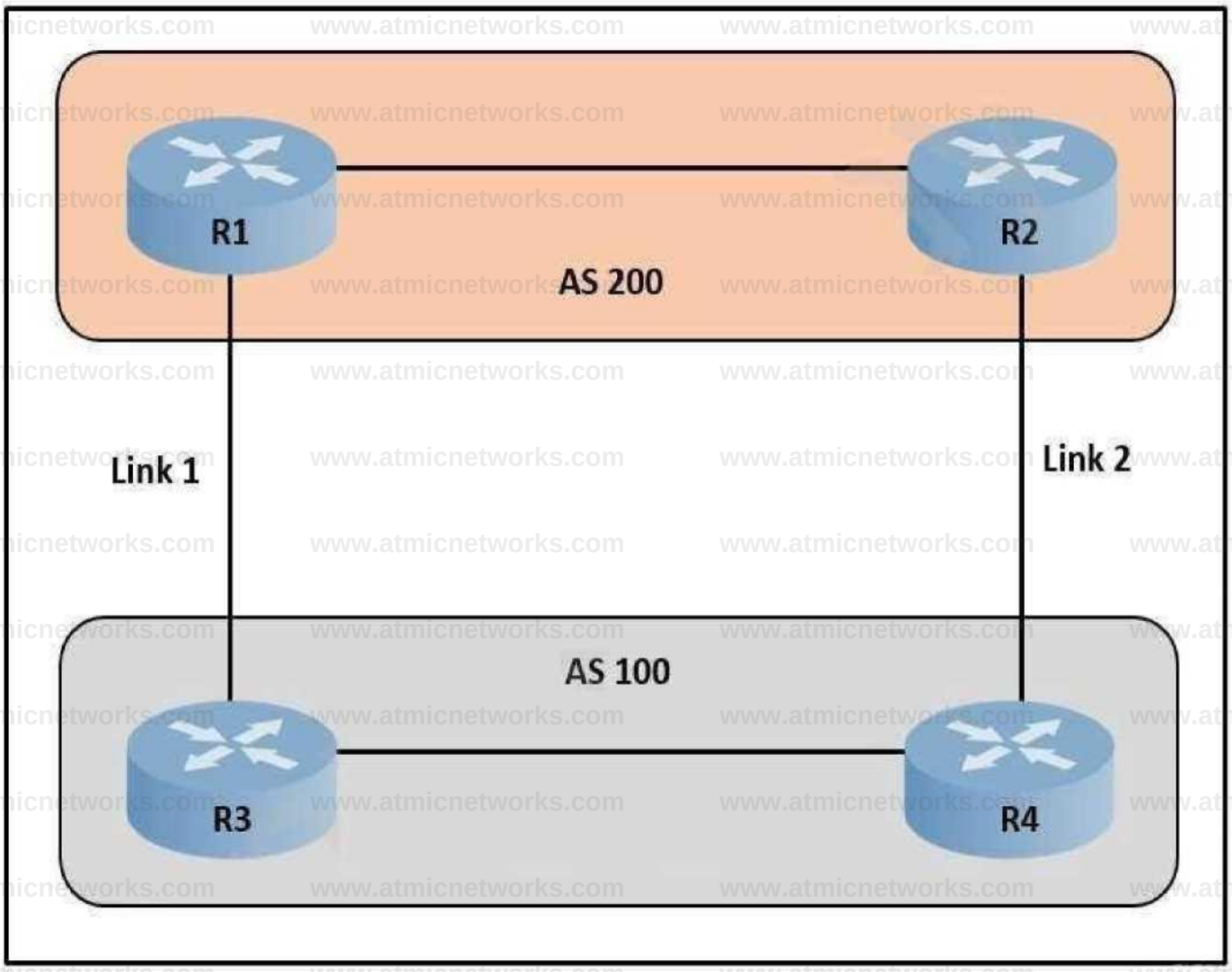
Answer:
D

Explanation:

Question: 153

Refer to the exhibit.

C0FD9F48



C9ACDC725EA850EC2476EE1
E

A network engineer is designing a network for AS100. The design should ensure that all traffic enters AS100 via link 1 unless there is a network failure. In the event of a failure, link 2 should function as the path for incoming traffic. Which solution should the design include?

A. Modify the next-hop attribute on R3.

B. Use AS-Path prepending on R3.

C. Modify the next-hop attribute on R4.

D. Use AS-Path prepending on R4.

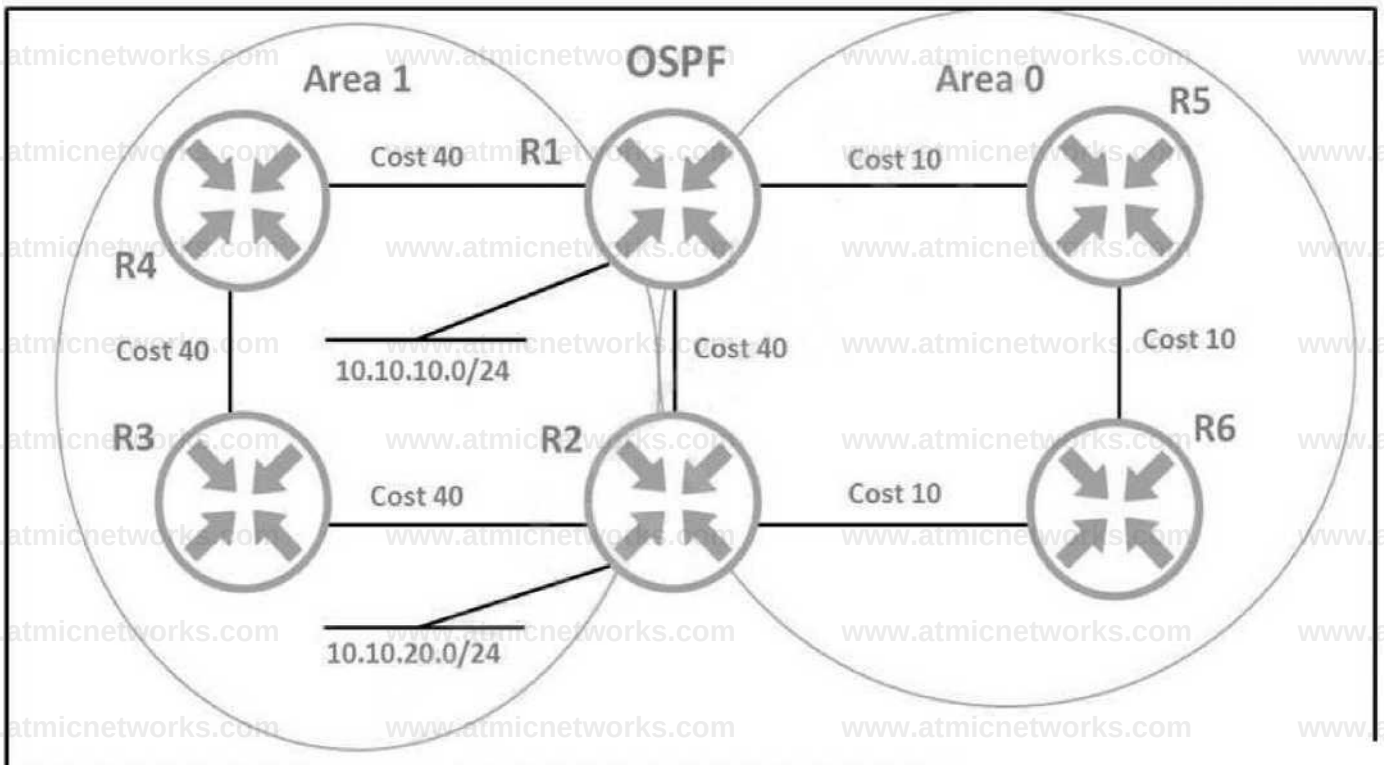
Answer: D

Explanation:

Question: 154

Refer to the exhibit.

C0FD9



F48C9ACDC725EA850EC2476EE1E

An architect must design a solution that uses the direct link between R1 and R2 for traffic from 10.10.10.0/24 toward network 10.10.20.0/24. Which solution should the architect include in the design?

A. Configure the OSPF cost of the link to a value lower than 30.

B. Lower the Administrative Distance for OSPF area 0.

C. Place the link into area 2 and install a new link between R1 and R2 in area 0.

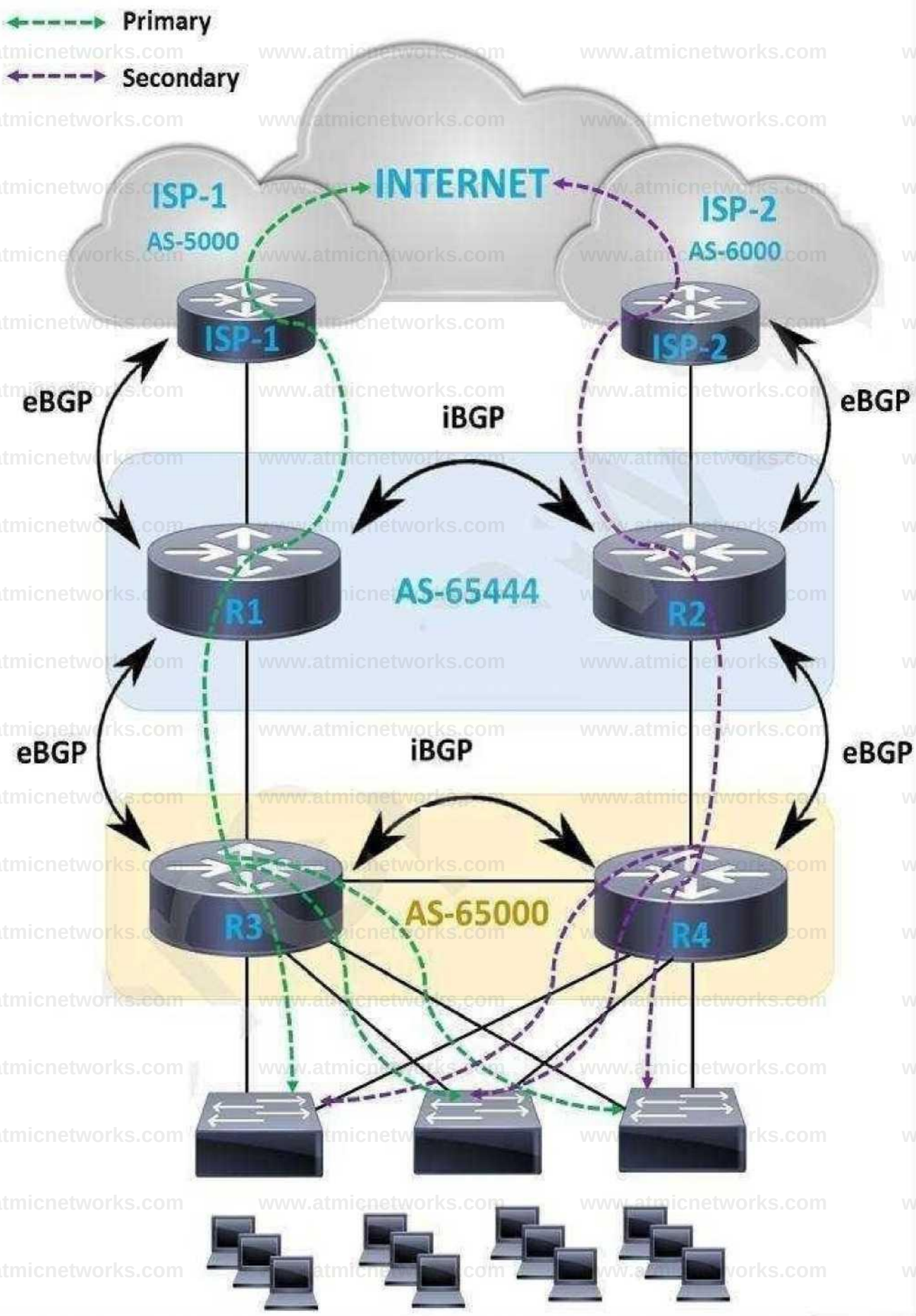
D. Configure the link to provide multiarea adjacency.

Answer: A

Explanation:

Question: 155

Refer to the exhibit.



An engineer must design a WAN solution so that ISP-1 is always preferred over ISP-2. The path via ISP-2 is considered as a backup and must be used only when the path to ISP-1 is down. Which solution must the engineer choose?

A. R1:

- Routes advertised to ISP-1: 0x AS-path prepend
- Routes received from ISP-1: HIGH local-preference
- Routes advertised to R2: no action
- Routes received from R2: community NO-EXPORT

R2:

- Routes advertised to ISP-2:5x AS-path prepend
- Routes received from ISP-2: LOW local-preference
- Routes advertised to R1: community NO-ADVERTISE
- Routes received from R1: no action

B. R1:

- Routes advertised to ISP-1: 0x AS-path prepend
- Routes received from ISP-1: HIGH local-preference
- Routes advertised to R2: community NO-EXPORT
- Routes received from R2: no action

R2:

- Routes advertised to ISP-2: 5x AS-path prepend
- Routes received from ISP-2: LOW local-preference
- Routes advertised to R1: no action
- Routes received from R1: no action

C. R1:

- Routes advertised to ISP-1: 0x AS-path prepend
- Routes received from ISP-1: LOW local-preference
- Routes advertised to R2: community NO-ADVERTISE
- Routes received from R2: no action

R2:

- Routes advertised to ISP-2: 5x AS-path prepend
- Routes received from ISP-2: HIGH local-preference
- Routes advertised to R1: no action
- Routes received from R1: community NO-ADVERTISE

D. R1:

- Routes advertised to ISP-1: 5x AS-path prepend
- Routes received from ISP-1: LOW local-preference
- Routes advertised to R2: community NO-ADVERTISE
- Routes received from R2: no action

R2:

- Routes advertised to ISP-2: 0x AS-path prepend
- Routes received from ISP-2: HIGH local-preference
- Routes advertised to R1: community NO-EXPORT
- Routes received from R1: no action

Answer: B

Explanation:

Question: 156

Which topology within a network underlay eliminates the need for first hop redundancy protocols while

improving fault tolerance, increasing resiliency, and simplifying the network?

A. virtualized topology

B. routed access topology

C. Layer 2 topology

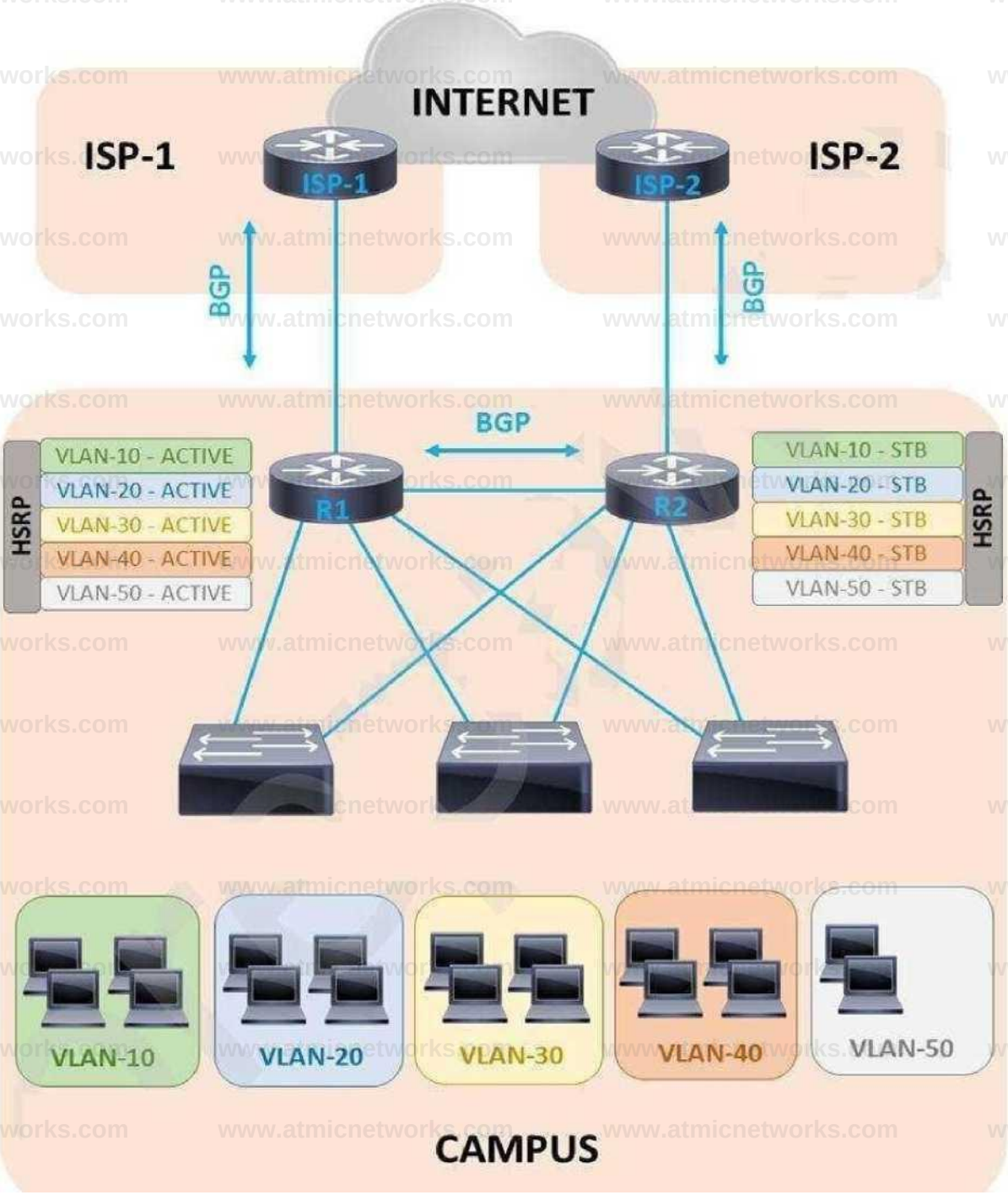
D. logical fabric topology

Answer: D

Explanation:

Question: 157

Refer to the exhibit.



A customer is running HSRP on the core routers. Over time the company has grown and requires more network capacity. In the current environment, some of the downstream interfaces are almost fully utilized, but others are not. Which solution improves the situation?

A. Make router R2 active for half of the VLANs.

B. Add more interfaces to R1 and R2.

C. Configure port channel toward downstream switches.

D. Enable RSTP on the downstream switches.

Answer: A

Explanation:

Question: 158

An architect must develop a campus network solution that includes:

logically segmented and isolated networks

ability to communicate between network segments when required

support for overlapping IP addresses

widely available technologies to avoid purchasing specialized equipment

Which solution must the architect select?

A. VSS with IGP

B. 802.1Q with HSRP

C. vPC with HSRP

D. VRF-Lite with OSPF

Answer: D

Explanation:

Question: 159

Which feature is used to optimize WAN bandwidth of IGMP network traffic among WAN Edge routers in the same VPN?

A. IGMPv2

B. multicast RP

C. multicast-replicator

D. multicast service routes

Answer: C

Explanation:

Question: 160

Which consideration must be made when designing a Cisco SD-Access fabric underlay?

A. Subnets must be reduced to decrease latency.

B. Up to six control planes are supported.

C. The default MTU should be increased.

D. A unified policy must be used.

Answer: C

Explanation:

Look under "Underlay Network Design". Its the second bullet point.

https://www.cisco.com/c/en/us/td/docs/solutions/CVD/Campus/cisco-sda-design-guide.html#Underlay_Network_Design

Question: 161

Which two functions does the control plane node provide in a Cisco SD-Access architecture? (Choose two.)

A. LISP proxy ETR

B. host tracking database

C. policy mapping

D. map server

E. endpoint registration

Answer: BD

Explanation:

Question: 162

An ISP provides Layer 3 VPN service over MPLS to a customer with four branches and multiple CE routers at each branch. To exchange the routes that are learned from the CE routers, which BGP address family should the ISP activate among the PE routers?

A. address-family multicast

B. L2VPN EVPN

C. VPNv4 unicast

D. IPv4 unicast

Answer: C

Explanation:

Question: 163

In the SD-WAN underlay network, which WAN Edge VPN ID is defined as the transport VPN and is used to carry control traffic?

A. VPN 0

B. VPN 512

C. VPN 128

D. VPN 256

Answer: A

Explanation:

Question: 164

A company's security policy requires that all connections between sites be encrypted in a manner that does not

require maintenance of permanent tunnels. The sites are connected through a private MPLS-based service that

uses a dynamically changing key and spoke-to-spoke communication. Which type of transport encryption must

be used in this environment?

A. GETVPN

B. DMVPN

C. GRE VPN

D. standard IPsec VPN

Answer: B

Explanation:

The type of transport encryption that must be used in this environment is DMVPN (Dynamic Multipoint VPN). DMVPN is a Cisco IOS Software-based solution that creates a secure network foundation and enables secure connectivity between sites by leveraging broadband connections

Question: 165

Which type of rendezvous point deployment is standards-based and supports dynamic RP discovery?

A. bootstrap router

B. Anycast-RP

C. Auto-RP

D. static RP

Answer: A

Explanation:

Question: 166

An engineer must design a QoS solution for a customer. The network currently supports data only, but the customer will roll out VoIP and IP video in conjunction with the new QoS solution. The engineer plans to use DiffServ. To ensure priority for voice services, which model must the design include?

A. 8-class model

B. 4-class model

C. 6-class model

D. 12-class model

Answer: A

Explanation:

Question: 167

An engineer must use YANG with an XML representation to configure a Cisco IOS XE switch with these specifications:

IP address 10.10.10.10/27 configured on the interface GigabitEthernet2/1/0

connectivity from a directly connected host 10.10.10.1/27

Which YANG data model set must the engineer choose?

A)

```
<interfaces xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces">
  <interface>
    <name>GigabitEthernet2/l/0</name>
    <type xmlns:ianaift="urn:ietf:params:xml:ns:yang:iana-if-type">ianaift:ethenetCsmacd</type>
    <enabled>false</enabled>
    <ipv4 xmlns="urn:ietf:params:xml:ns:yang:ietf-ip">
      <address>
        <ip>10.10.10.10</ip>
        <netmask>255.255.255.224</netmask>
      </address>
    </ipv4>
  </interface>
</interfaces>
```

B)

```
cinterfaces YANG="urn:ietf:params:xml:ns:yang:ietf-interfaces">
<interface>
  <name>GigabitEthernet2/l/0</name>
  <type YANG:ianaift="urn :ietf:params:xml:ns:yang:iana-if-type">ianaift:ethernetCsmacd</type>
  <enabled>true</enabled>
  <ipv4 YANG="urn:ietf:params:xml:ns:yang:ietf-ip">
    <address>
      <ip>10.10.10.10</ip>
      <netmask>255.255.255.224</netmask>
    <address>
  </ipv4>
</interface>
</interfaces>
```

C)

```
interfaces json="urn:ietf:params:json:ns:yang:ietf-interfaces">
  <interface>
    <name>GigabitEthermet2/l/0</name>
    <type json:ianaift="urn:ietf:params:json:ns:yang:iana-if-type">ianaift:ethernetCsmacd</type>
```

```
        <enabled>true</enabled>
        <ipv4 json="urn:ietf:params:json:ns:yang:ietf-ip">
          <address>
            <ip>10.10.10.10</ip>
            <netmask>255.255.255.224</netmask>
          </address>
        </ipv4>
      </interface>
    </interfaces>
```

D)

```
<interfaces xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces">
  <interface>
    <name>GigabitEthernet2/l/0</name>
    <type xmlns:ianaift="urn:ietf:params:xml:ns:yang:iana-if-type">ianaift:ethernetCsmacd</type>
    <enabled>true</enabled>
    <ipv4 xmlns-'urn:ietf:params:xml:ns:yang:ietf-ip">
      <address>
        <ip>10.10.10.10</ip>
        <netmask>255.255.255.224</netmask>
      </address>
    </ipv4>
  </interface>
</interfaces>
```

A. Option A

B. Option B

C. Option C

D. Option D

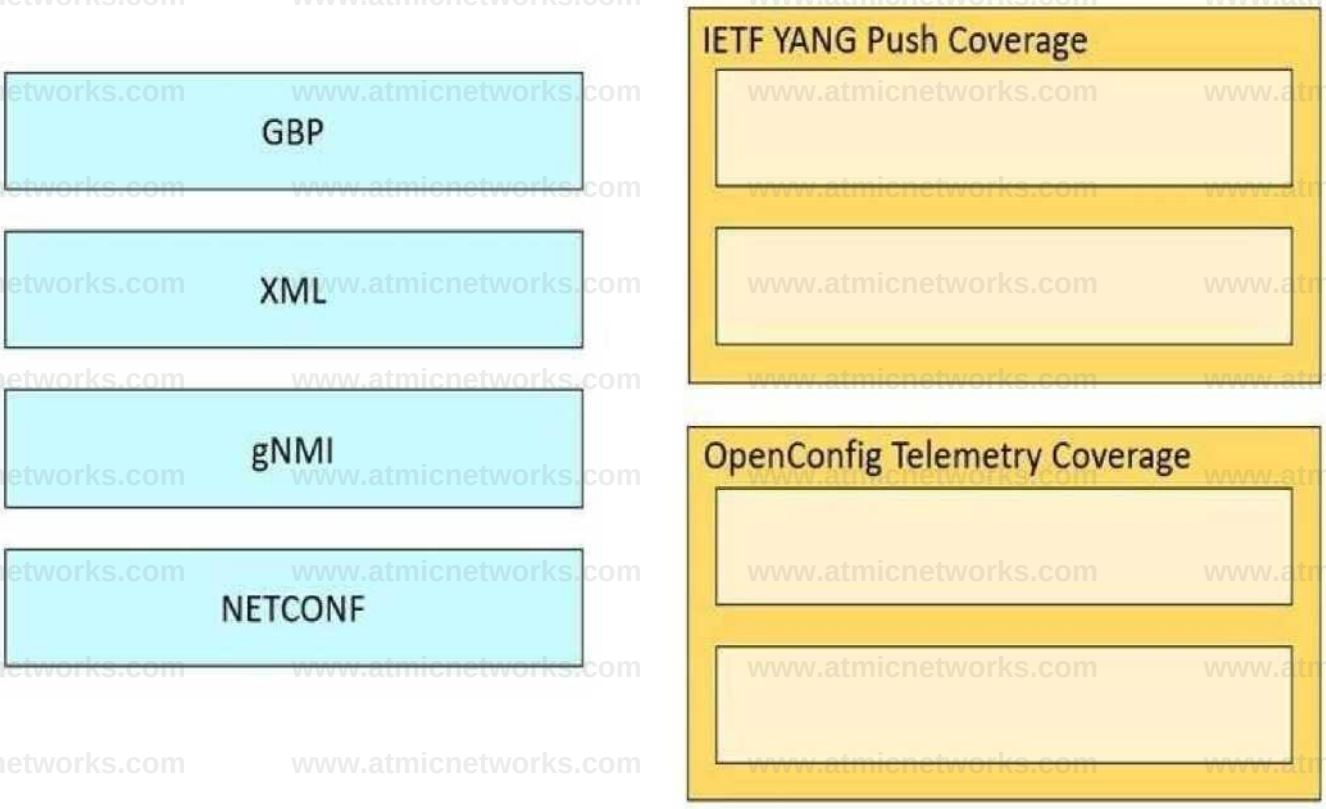
Answer: D

Explanation:

Question: 168

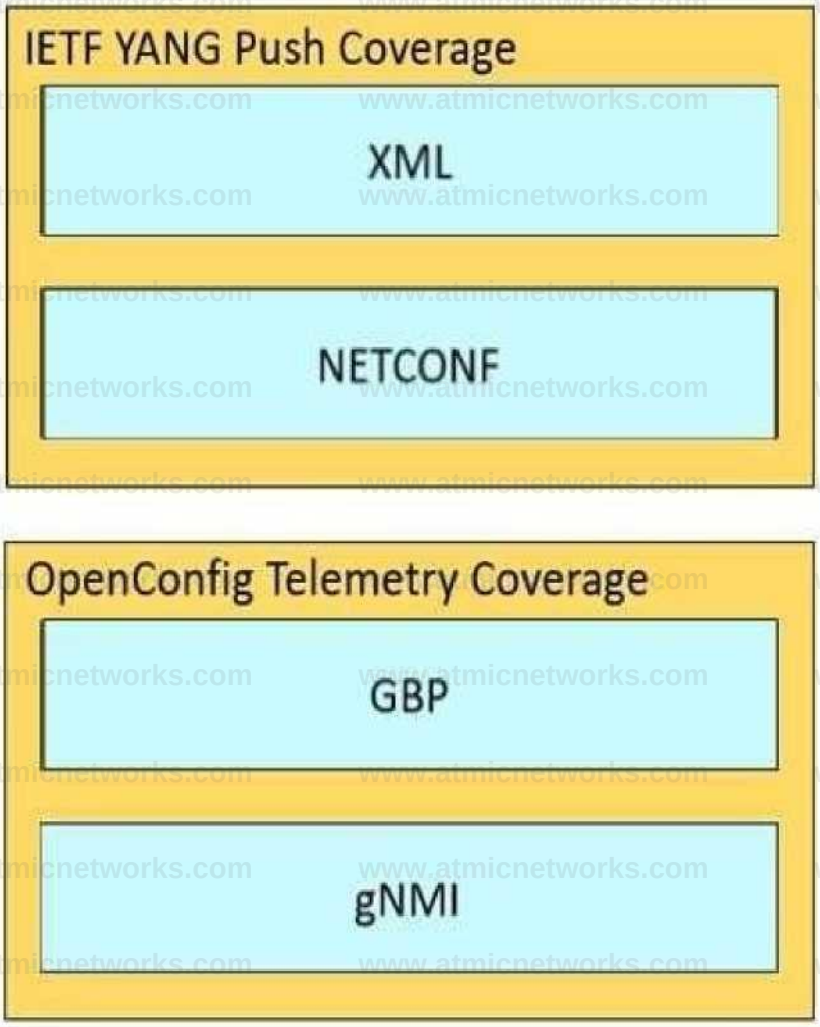
DRAG DROP

Drag and drop the elements from the left onto the YANG models where they and used on the right.



Answer:

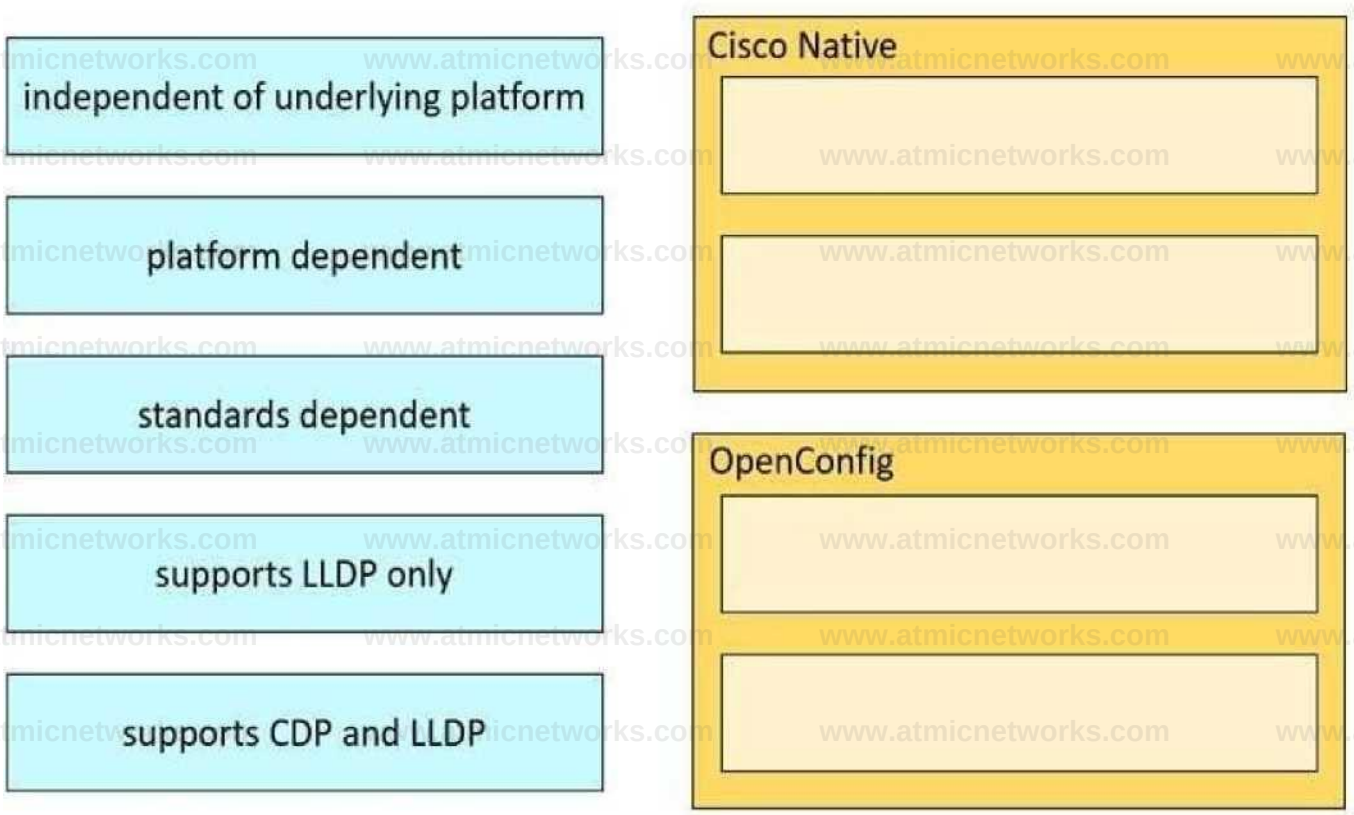
Explanation:



Question: 169

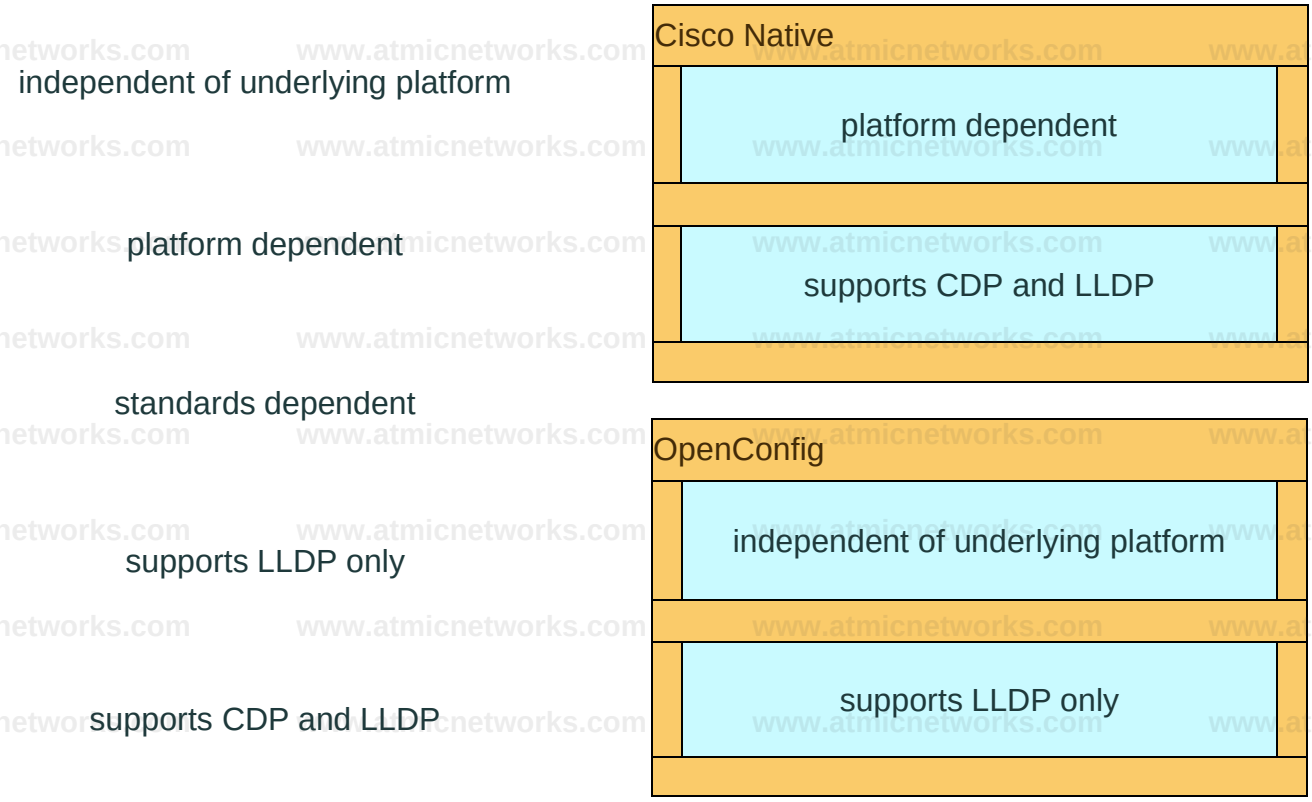
DRAG DROP

Drag and drop the characteristics from the left onto the YANG models they describe on the right. Not all options are used.



Answer:

Explanation:



Question: 170

An engineer uses Postman and YANG to configure a router with:

OSPF process ID 200

network 172.16.10.128/26 enabled for Area 0

Which get-config reply verifies that the model set was designed correctly?

A.

```
<rpc-reply message-id-'urn:uuid:lb3d05cd-8118-3e6a-6c05-411157936aaf" xmlns="urn.ietf:params:
xml:ns;netconf:base:1.0" xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0">
 <data>
  <native xmlns="http://cisco.com/ns/yang/ned/ios">
   <router>
    <ospf>
     <id>200</id>
     <network>
      <ip>172.16.10.128</ip>
      <mask>0.0.0.63</mask>
      <area>O</area>
     </network>
    </ospf>
   </router>
</native>
```

```
</data>
    </rpc-reply>
```

B.

```
<rpc-reply message-id="urn.uuid:lb3d05cd-8118-3e6a-6c05-012435678aaf"
xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns:nc="urn.ietf.params:xml:ns:netconf:base:1.0">
  <data>
    <native xmlns="http://cisco.com/ns/yang/ned/ios">
      <router>
        <ospf>
          <id>200</id>
          <network>
            <ip>172.16.10.128</ip>
            <mask>255.255.255.192</mask>
            <area>O</area>
          </network>
        </ospf>
      </router>
    </native>
  </data>
</rpc-reply>
```

C.

```
<rpc-reply message-id="urn:uuid:lb3d05cd-8118-3e6a-6c05-021345678aaf" xmlns="urn:ietf:params:
xml:ns:netconf:base:1.0" xmlns:nc="urn:ietf:params:xml:ns:netconf:base: 1.0">
  <data>
    <native xmlns="http://cisco.com/ns/yang/ned/ios">
      <router>
        <ospf>
          <id>200</id>
          <network>
            <ip>172.16.10.128</ip>
            <mask>0.0.0.192</mask>
            <area>O</area>
          </network>
        </ospf>
      </router>
    </native>
  </data>
</rpc-reply>
```

D.

```
<rpc-reply message-id="urn:uuid:lb3d05cd-8118-3e6a-6c05-012354678aaf" xmlns="urn:ietf:params
```

```
xml:ns:netconf:base:1.0" xmln$:nc="urn:ietf:params:json:ns:netconf:base:1.0">
 <data>
  <nativejson=" http://cisco.com/ns/yang/ned/ios">
   <router>
    <ospf>
     <id>200</id>
     <network>
      <ip>172.16.10.128</ip>
      <mask>0.0.0.63</mask>
      <area>O</area>
     </network>
    </ospf>
</router>
</native>
</data>
  </rpc-reply>
```

Answer: A

Explanation:

Question: 171

An engineer must use YANG with an XML representation to configure a Cisco IOS XE switch with these specifications:

IP address 10.10.10.10/27 configured on the interface GigabitEthernet2/1/0

connectivity from a directly connected host 10.10.10.1/27

Which YANG data model set must the engineer choose?

A.

```
<interfaces xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces">
 <interface>
  <name>GigabitEthernet2/l/0</name>
  <type xmlns:ianaift="urn:ietf:params:xml:ns:yang:iana-if-type">ianaift:ethenetCsmacd</type>
  <enabled>false</enabled>
  <ipv4 xmlns="urn:ietf:params:xinl:ns:yang:ietf-ip">
   <address>
    <ip>10.10.10.10</ip>
    <netmask>255.255.255.224</netmask>
   </address>
  </ipv4>
```

```
  </interface>
 </interfaces>
```

B.

```
<interfaces YANG="urn:ietf:params:xml:ns:yang:ietf-interfaces">
 <interface>
  <name>GigabitEthernet2/l/0</name>
  <type YANG:ianaift="urn:ietf:params:xml:ns:yang:iana-if-type">ianaift:ethernetCsmacd</type>
  <enabled>true</enabled>
  <ipv4 YANG="urn:ietf:params:xml:ns:yang:ietf-ip">
   <address>
    <ip>10.10.10.10</ip>
     <netmask>255.255.255.224</netmask>
   <address>
  </ipv4>
 </interface>
</interfaces>
```

C.

```
 <interfaces json="urn:ietf:params:json:ns:yang:ietf-interfaces">
  <interface>
   <name>GigabitEthermet2/l/0</name>
   <type json:ianaift="urn:ietf:params:json:ns:yang:iana-if-type">ianaift:ethernetCsmacd</type>
   <enabled>true</enabled>
   <ipv4 json="urn:ietf:params:json:ns:yang:ietf-ip">
    <address>
     <ip>10.10.10.10</ip>
      <netmask>255.255.255.224</netmask>
    </address>
   </ipv4>
  </interface>
 </interfaces>
```

D.

```
<interfaces xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces">
 <interface>
  <name>GigabitEthernet2/l/0</name>
  <type xmlns:ianaift="urn:ietf:params:xml:ns:yang:iana-if-type">ianaift:ethernetCsmacd</type>
  <enabled>true</enabled>
  <ipv4 xmlns="urn:ietf:params:xml:ns:yang:ietf-ip">
   <address>
    <ip>10.10.10.10</ip>
     <netmask>255.255.255.224</netmask>
   </address>
  </ipv4>
 </interface>
```

```
</interfaces>
```

Answer: D

Explanation:

Question: 172

An engineer uses Postman and YANG to configure a router with:

OSPF process ID 400

network 192.168.128.128/25 enabled for Area 0

Which get-config reply verifies that the model set was designed correctly?

A.

```
<rpc-reply message-id="urn:uuid:1b3d05cd-8118-3e6a-6c05-021345678aaf xmlns=“um:ietf:params.xml:ns netconf:base:1.0" xmlns
  <data>
   <native xmlns=”http://cisco_com/ns/yang/ned/ios.”>
    <router>
     <ospf>
      <id>400</id>
      <network>
       <ip>1192.168.128.128</ip>
       <mask>0.0.0.128</mask>
       <area>O</area>
      </network>
     </ospf>
    </router>
   </native>
  </data>
</rpc-reply>
```

B.

```
<rpc-reply message-id-"um:uuid:1b3d05cd-8118-3e6a-6c05-403478311aarxmlns=“urn:ietf:params:xml:ns:netconf;base:1.0"
xmlns:nc=”urn:ietf:pararr
  <data>
   <native xmlns="http://cisco.com/ns/yang/ned/ios">
    <router>
     <ospf>
      <id>400</id>
      <network>
       <ip>192.168 128.128<ip>
       <mask>0.0.0 127</mask>
       <area>0</area>
      </network>
     </ospf>
    </router>
   </native>
  </data>
</rpc-reply>
```

C.

```
<rpc-reply message-id="urn:uuid:1b3d05cd-8118-3e6a-6c05-012354678aaf' xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns:nc="ui
  <data>
   <native json="http://cisco.com/ns/yang/ned/ios''>
    <router>
     <ospf>
      <id>400</id>
      <network>
       <ip> 192.168.128.128</ip>
       <mask>0.0.0.127</mask>
       <area>O</area>
      </network>
     </ospf>
    </router>
   </native>
  </data>
</rpc-reply>
```

D.

```
<rpc-reply message-id='urn:uuid:1b3d05cd-8118-3e6a-6c05-012435678aaf xmlns="um ietf:params:xml:ns:netconf base 1.0" xmlns:nc="urn:ietf params:xml:ns:netconf:base:1.0">
  <data>
   <native xmlns='http://cisco.com/ns/yang/ned/ios">
    <router>
    <ospf>
     <id>400</id>
     <network>
      <ip>192.168.128 128</ip>
      <mask>255.255.255.128</mask>
      <area>O</area>
     </network>
    </ospf>
    </routep
   </native>
  </data>
</rpc-reply>
```

Answer: B

Explanation:

Question: 173

An architect must create a QoS solution for a customer to ensure that a 40 Mbps Internet connection is shared between four subnets based on these requirements:

* Each subnet must receive no less than 10 Mbps of download bandwidth during peak traffic times.

* A subnet can use up to 40 Mbps during nonpeak traffic times if the other subnets are idle.

* Download traffic must never experience a delay.

Which solution must the architect choose?

A. rate-limiting and shaping

B. bandwidth percentage and policing

C. shaping and policing

D. bandwidth percentage and rate-limiting

Answer: B

Explanation:

Selected Answer: B

Explanation:

"Download traffic must never experience a delay."

This means we shouldn't be using Shaping at any point (since that puts packets into a buffer and sends them out later on when congestion has been reduced)

Also: "Rate-limiting" is a bigger term and under it we have 2 things: "Policing" and "Shaping"

Question: 174

An engineer is designing a network for a customer running a wireless network with a common VLAN for all APs. The customer is experiencing unicast flooding in the Layer 2 network between the aggregation and access layers. The customer wants to reduce the flooding and improve convergence time. Which solution meets these requirements?

A. Migrate all APs to a common Layer 2 access layer switch and run Layer 3 from the aggregation layer to all remaining access layer switches.

B. Align HSRP primary and STP root bridges and reduce ARP timers to match CAM timers on the aggregation layer switches.

C. Migrate to a Layer 3 access campus design if the APs can run on separate VLANs.

D. Align HSRP primary and STP root bridges if the APs cannot run on separate VLANs.

Answer: D

Explanation:

Question: 175

Which node performs the LISP Map-Server and Map-Resolver functions in the Cisco SD-Access network architecture?

A. control plane node

B. fabric edge node

C. border node

D. intermediate node

Answer: A

Explanation:

Question: 176

An engineer must design a management network that enables SSH, NTP, FTP, and SNMP over the production network. The design requires the management of routers and switches that exist across different networks. Which feature must the design include?

A. Management Plane Protection

B. dedicated management console connection per device

C. terminal server

D. dedicated management VRF connection per device

Answer: D

Explanation:

Question: 177

A network engineer must design a multicast solution to prevent the spoofing of multicast streams and ensure efficient bandwidth utilization. The network will be merged with another multicast domain in the future, and the merge must require minimum effort. Which two solutions meet the customer requirements? (Choose two.)

A. PIM-SSM

B. IGMPv3

C. IGMPv2

D. PIM-SM

E. MSDP

Answer: DE

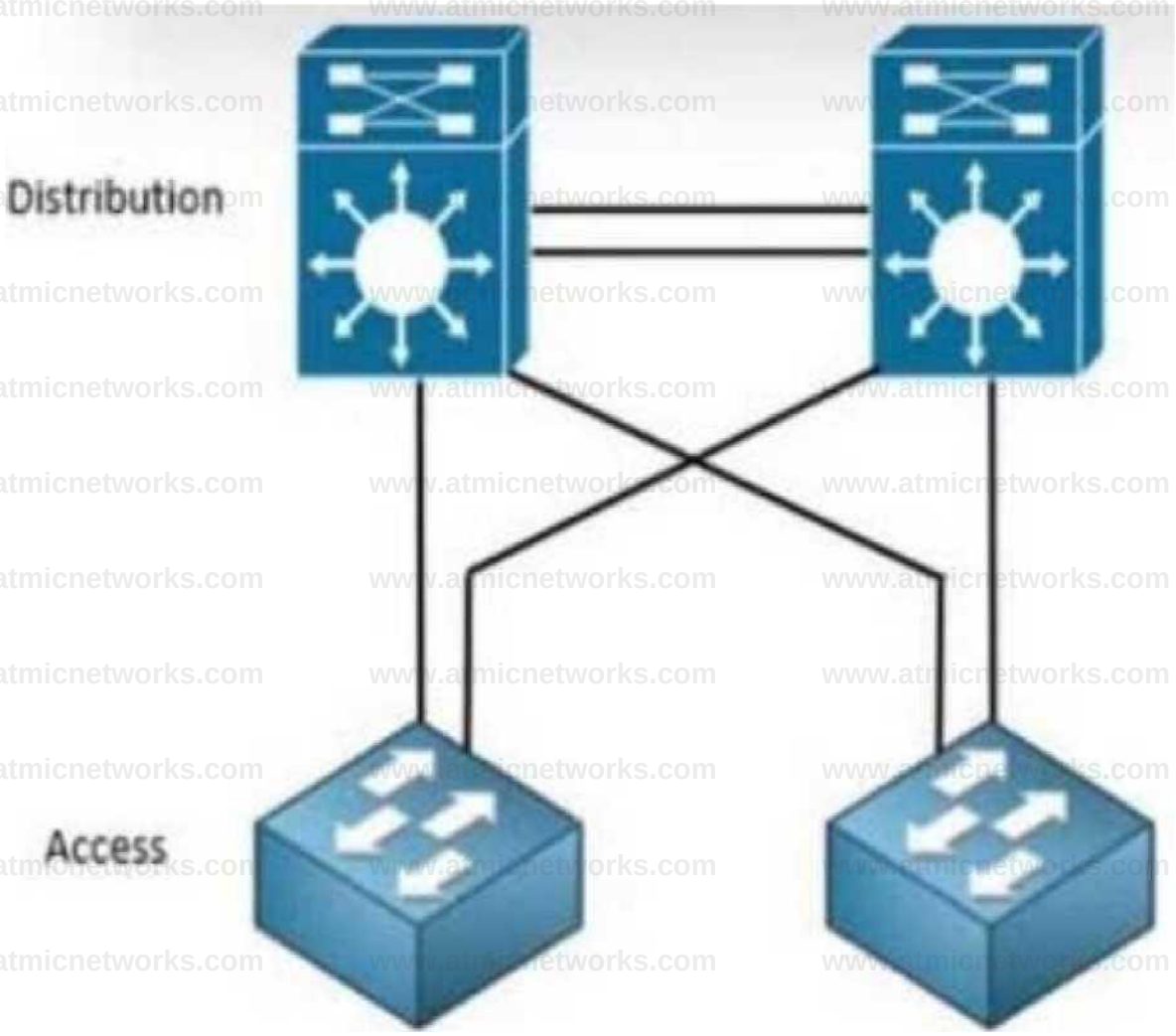
Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipmulti_pim/configuration/xe-16/imc-pim-xe- 16-book/imc-msdp-im-pim-sim.html#GUID-4B201DB3-2C27-4F98-977A-A1AE9DC39C21

MSDP is a mechanism to connect multiple PIM-SM domains. The purpose of MSDP is to discover multicast sources in other PIM domains. The main advantage of MSDP is that it reduces the complexity of interconnecting multiple PIM-SM domains by allowing PIM-SM domains to use an interdomain source tree (rather than a common shared tree).

Question: 178

Exhibit:



Refer to the exhibit. An engineer is designing a Layer 2 campus network. The design must support fast convergence and leverage as much bandwidth as possible between layers. Distribution switches do support VSS; unfortunately, not all routing protocols are available for use due to license limitations. Which solution must the engineer choose?

A. EtherChannel

B. MEC

C. RSTP

D. ECMP

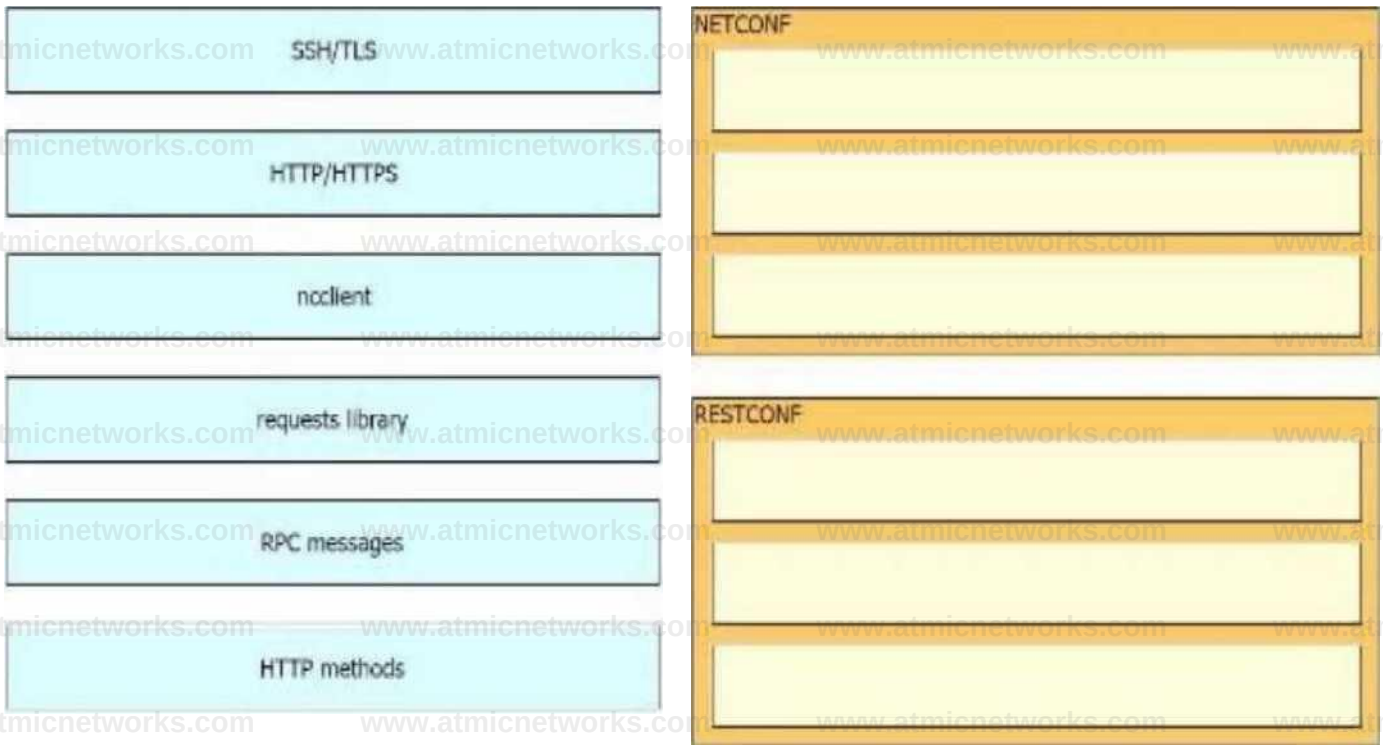
Answer: B

Explanation:

Question: 179

DRAG DROP

Drag and drop the elements from the left onto the protocols where they are used on the right.

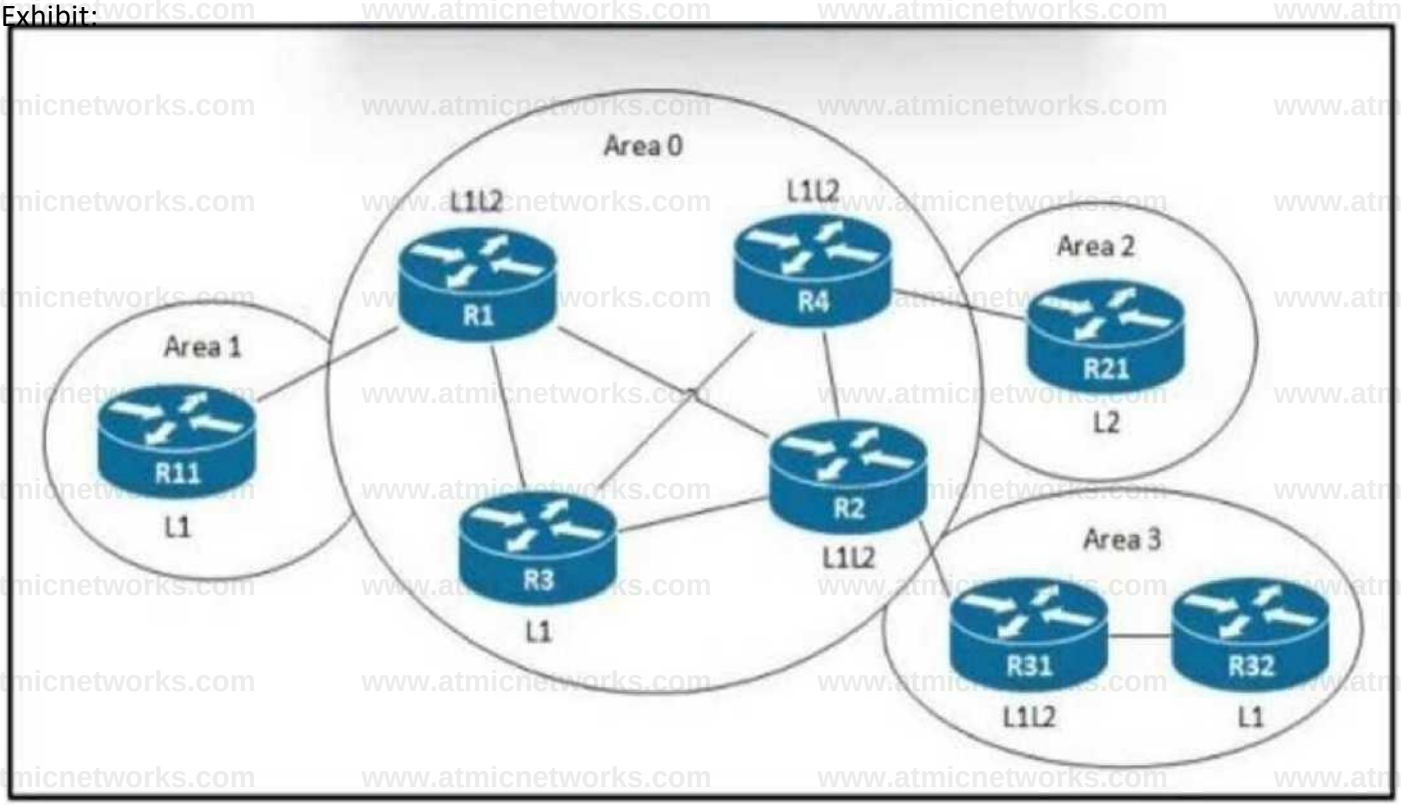


Answer:

Explanation:

Question:
180

Exhibit:



A. Make R3 an L1L2 router.

B. Make R31 an L1 router.

C. Make Area 0 L2-only.

D. Make R11 an L2 router.

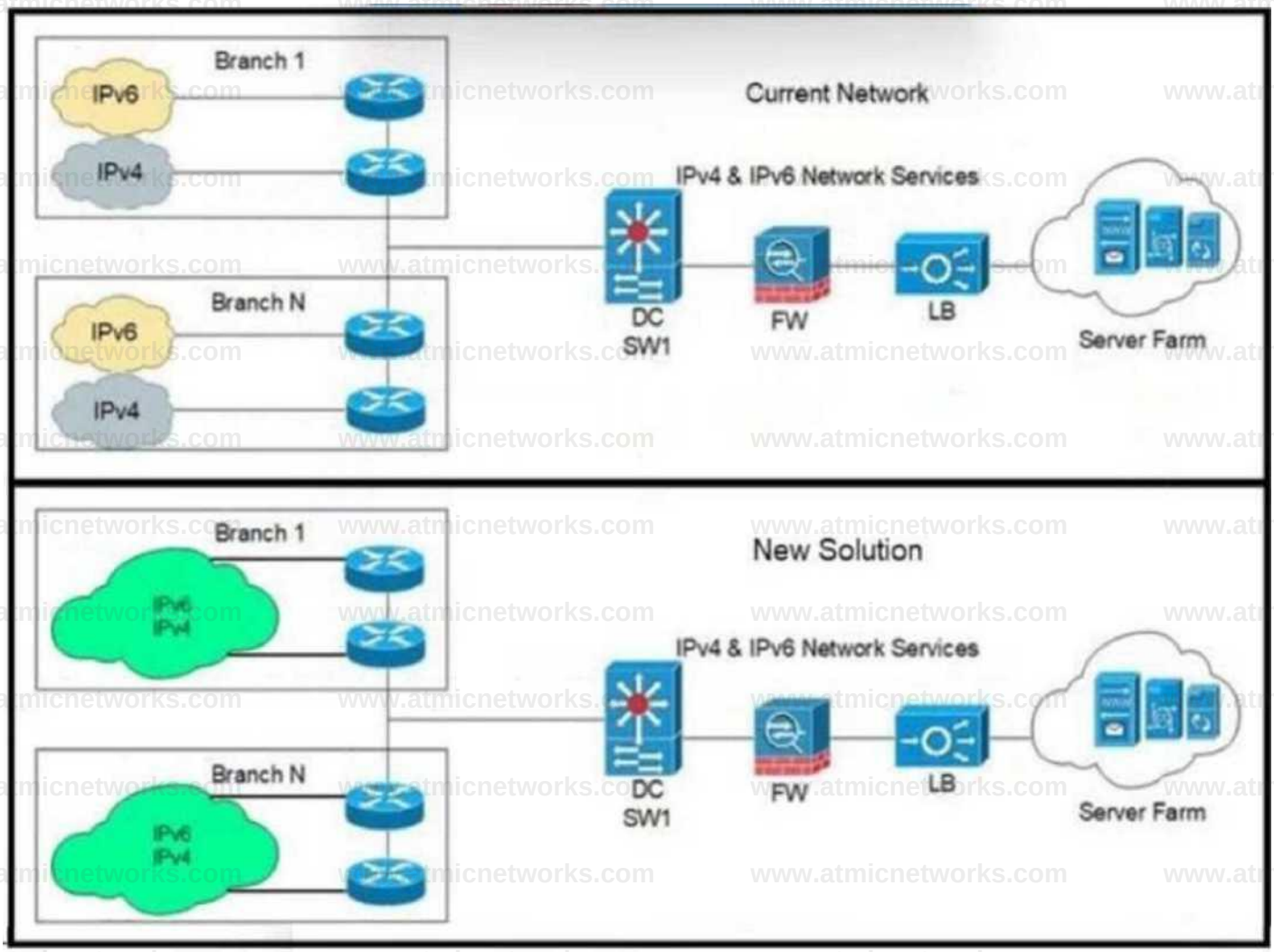
Answer: A

Explanation:

ENSLD 300-420 cert guide page 117. When creating a backbone there should never be L1 routers between (L2 only, or) L1/L2 routers.

Question: 181

Refer to the exhibit.



Refer to the exhibit. An architect is developing a solution to consolidate networks while retaining device redundancy. The routing protocol for the WAN routers must be open standard, ensure high availability, and provide the fastest convergence time. Which solution must the design include?

A. both routers running EIGRP

B. one router running OSPFv2 and other OSPF v3

C. one router running ISIS and other OSPF v3

D. both routers running OSPFv2

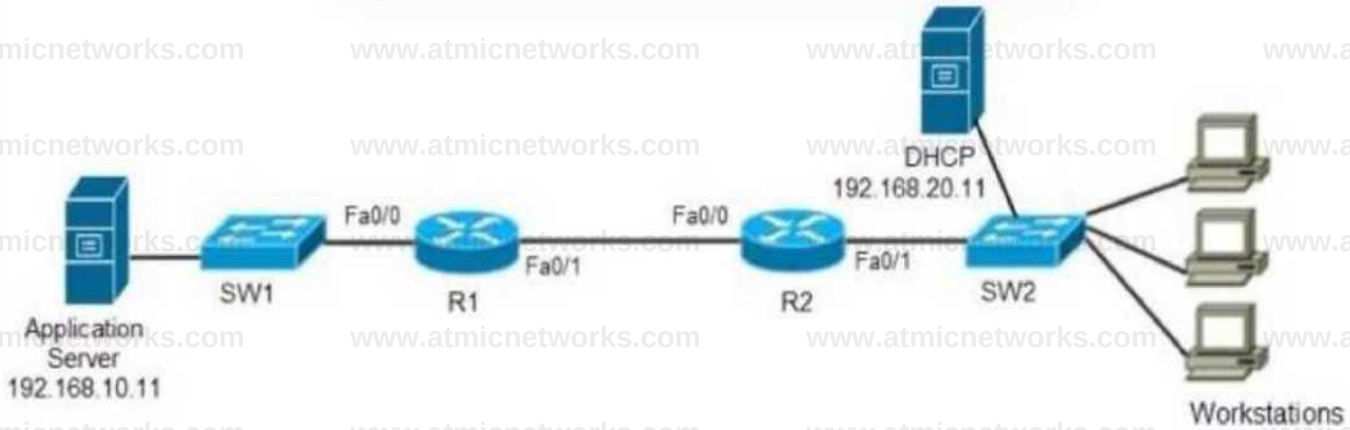
Answer: A

Explanation:

EIGRP has a function called "EIGRP Ipv6" (But that can still be called "EIGRP")

Question: 182

Refer to the exhibit.



An architect is designing a network for a customer supporting a Wake-on-LAN application. Which solution must the architect choose?

A. IP directed-broadcasts on R1

B. spanning-tree uplinkfast on SW1

C. spanning-tree uplinkfast on SW2

D. IP directed-broadcasts on R2

Answer: D

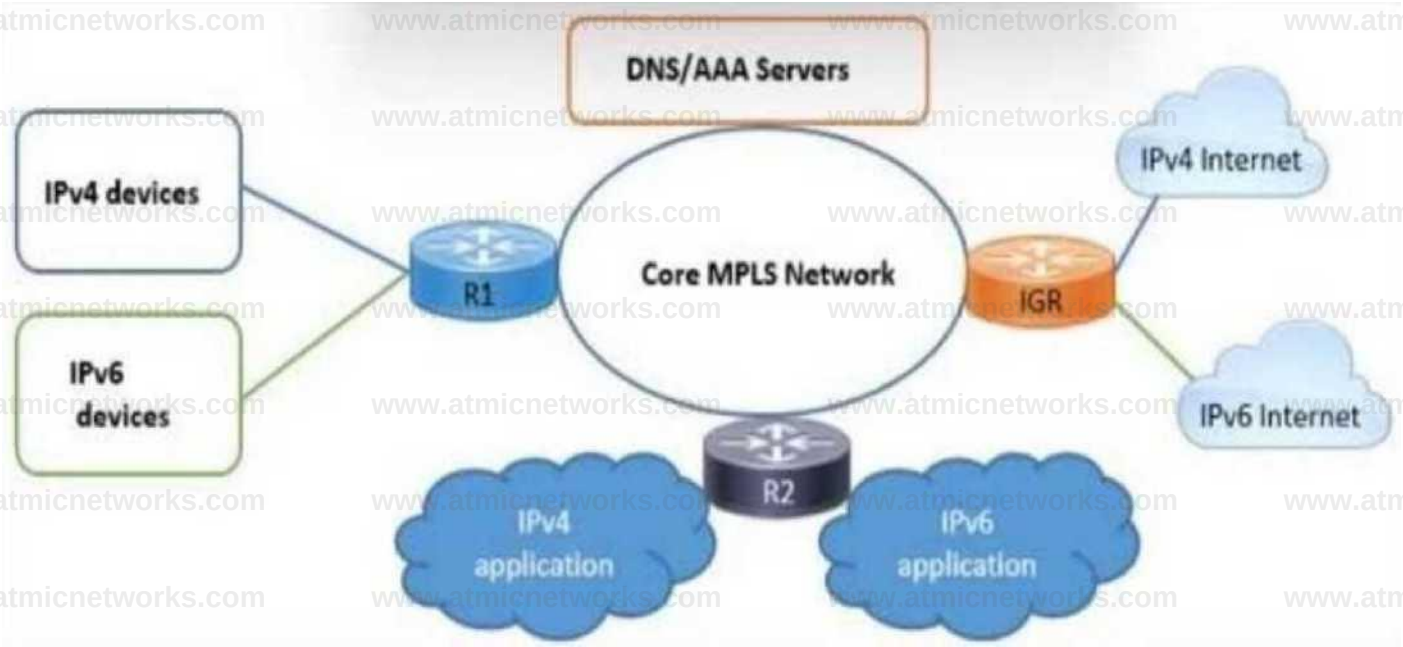
Explanation:

"IP directed broadcast" must be supported on the last router to the destination subnet. Since the sleeping PC's dont have IP adresses, the machines must be calles awake by broadcast that behaves like an unicast untill they reach the destination network. There the directed broadcast is handled like a proper broadcast to wake all WOL machines.

https://www.cisco.com/c/en/us/support/docs/switches/catalyst-3750-series-switches/91672-catl3- wol-vlans.html

Question: 183

Refer to the exhibit.



An architect must design an IPv6 migration solution for an enterprise customer to support these requirements:

* Clients will transition to the new IPv6 network, which provides NAT64 and IPv6 DNS resolution services, using the same DNS name that points to the IPv4 address.

* The service provider will create a client-facing IPv6 interface with a new IPv6 virtual address that points to the same IPv4 DNS server.

* The service provider will support clients that use global IPv6 addresses and encapsulate IPv4 packets into IPv6 tunnels.

Which two migration solutions must the architect choose? (Choose two.)

A. Use dual-stack lite from the MPLS network to the IGR.

B. Use IPv6 tunneling from the devices to the core MPLS network.

C. Use dual-stack lite from the devices to the core MPLS network.

D. Use NAT44/64 from the MPLS network to the IGR.

E. Use NAT44/64 from the devices to the core MPLS network.

Answer: CD

Explanation:

Question: 184

An engineer is designing an IPv4 addressing plan for an enterprise with 1000 branches. Each branch requires a prefix for data and a prefix for voice. Each prefix must accommodate up to 128 hosts, and prefixes must facilitate summarization at aggregation points in the network. The security team requires a simple method for identifying voce prefixes. Which allocation does the engineer recommend from the RFC1918 address space?

A. /24 prefixes for data from 10.0.0.0/15 and /24 prefixes for voice from 172.16.0.0/15

B. /24 prefixes for data from 10.0.0.0/8 and /24 prefixes for voice from the next contiguous /24 prefix per site

C. /25 prefixes for data from 10.0.0.0/8 end /25 prefixes for voice from the next contiguous /25 prefix per branch

D. /24 prefixes for data from 10.0.0.0/8 and /24 prefixes for voice from 172.16.0.0/12

Answer: B

Explanation:

For example:

Site 0001

Data:10.0.0.0/24

Voice: 10.0.1.0/24

summary route : 10.0.0.0/23

Site 0002

Data:10.0.2.0/24

Voice: 10.0.3.0/24

summary route: 10.0.2.0/23

...cont...

site 0129

Data:10.1.0.0/24

Voice: 10.1.1.0/24

summary route: 10.1.0.0/23

site 0130

Data:10.1.2.0/24

Voice: 10.1.3.0/24

summary route: 10.1.2.0/23

so 3rd octet is odd number assigned to voice, and even number assigned to data;

for security team to recongize voice prefix, use an ACL with wildcast to filter odd number on third octet, started from 10.0.1.0 0.0.254.255, 10.1.1.0 0.0.254.255 . , 10.1.1.0 0.0.254.255 etc; for 10.0.1.0 0.0.254.255, any IP in binary that started with 00001010.00000000.xxxxxxx1.xxxxxxxx will be matched (x = either 0 or 1), covert 3rd octet into dec, for example, 10000001 = 129 which is a voice VLAN.

Question: 185

An engineer is designing a PIM Anycast RP solution between two data centers. The design must ensure that RP1 in DC1 and RP2 in DC2 inform each other about specific sources that have joined locally. Which solution must the engineer choose?

A. Provision the RPs on the same IP subnet and extend the subnet at Layer 2 between data centers

B. Enable MSDP between RPs using separate unique loopback interfaces

C. Enable MSDP between RPs using the configured Anycast RP address

D. No action is required because PIM registers from the source will, by default, reach each RP

Answer: B

Explanation:

In Anycast RP, two or more RPs are configured with the same IP address on loopback interfaces. The Anycast RP loopback address should be configured with a 32-bit mask, making it a host address. All the downstream routers should be configured to "know" that the Anycast RP loopback address is the IP address of their local RP. IP routing automatically will select the topologically closest RP for each source and receiver.

MSDP used for Anycast RP is an intradomain feature that provides redundancy and load-sharing capabilities. Enterprise customers typically use Anycast RP for configuring a Protocol Independent Multicast sparse mode (PIM-SM) network to meet fault tolerance requirements within a single multicast domain.

https://www.cisco.com/c/en/us/td/docs/ios/solutions_docs/ip_multicast/White_papers/anycast.html#wp1029118

https://www.cisco.com/c/en/us/support/docs/ip/ip-multicast/115011-anycast-pim.html

" You need to have a loopback on each prospective RP router, which is different than the loopback that is being used as the RP address."

Question: 186

An engineer is designing a BGP network for a large customer. To permit efficient scaling, the BGP domain is split into clusters. Which peering solution should be used between the route reflectors in different clusters for the BGP routes to be propagated appropriately?

A. The route reflectors should be made dents of each other.

B. The route reflectors should be nonclients with regards to each other.

C. The route reflectors should not have any kind of BGP peering.

D. The route reflectors should have peering through another nonclient router.

Answer: B

Explanation:

When configure multi-cluster of BGP RRs, RRs should peer with each RR as non-client

according to CCIE routing TCP/IP volumn 2 @2001 page 127

- if the route was learned from nonclient IBGP peer, it is reflected to client only (here RR's route learnt from other RRs is able to reflect to its client)
- if the route was learned from a client, it is reflected to all nonclients and clients, except for the originating client. (routes learnt within the cluster can reflect to nonclient, RR)
- it the route was learnt from an EBGP peer, it is reflected to all nonclients and clients.

Question: 187

An architect must design an IPv6 migration solution for a corporation with remote offices to support:

* The customer has IPv4 peering with their service provider.
* IPv6 users need access to IPv4 and IPv6 resources.
* Existing content providers will migrate to IPv6 in the next two years.
* Users will be migrated in a phase-by-phase approach.

Which migration solution must the architect choose?

A. NAT46

B. tunneling

C. NAT64

D. dual-stack

Answer: D

Explanation:

Question: 188

A company uses cloud-based applications for voice and video calls, file sharing, content sharing, and messaging. During business hours, these applications randomly become slow and unresponsive. However, other applications work smoothly with the current applied QoS polices. Which solution must the company choose to resolve the issue?

A. Identify the applications with NBAR2 and allocate the required bandwidth accordingly.

B. Identify the port used by each application and apply a minimum bandwidth guarantee.

C. Identify the applications and reserve the required bandwidth on the perimeter routers.

D. Identify the application ports, create groupings, and rate-limit the required bandwidth.

Answer: A

Explanation:

using NBAR to identify application and bandwidth usage, then adjust existing QoS polices would be a more simple option. Of course, B is still ok if the network admin know all traffic and bandwidth consumption by other tools, say netflow.

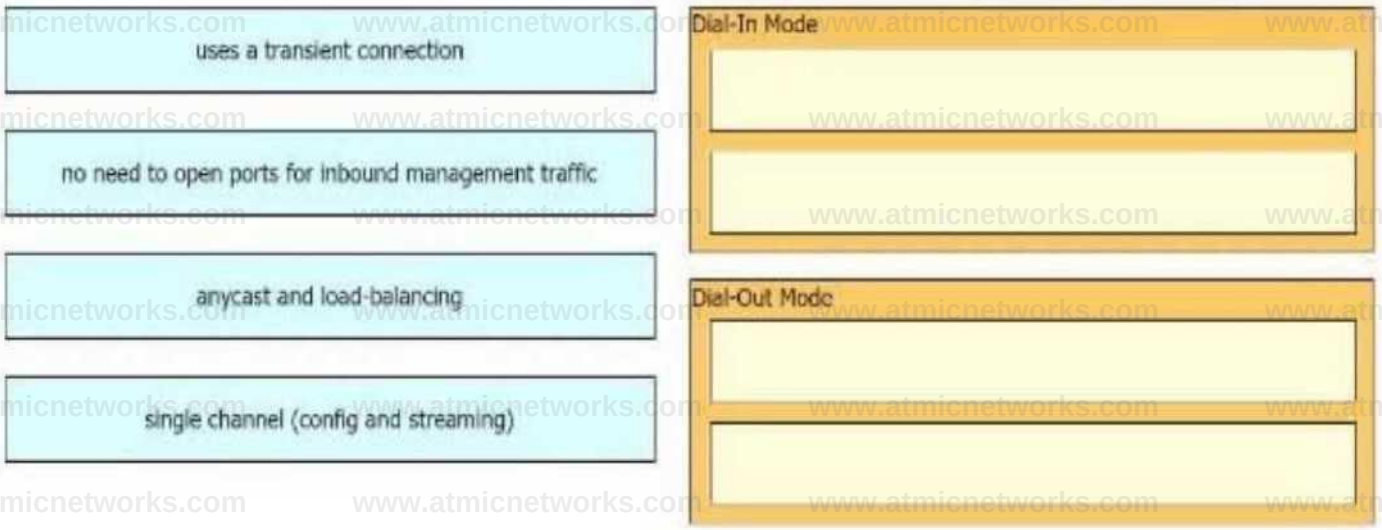
https://www.cisco.com/c/en/us/td/docs/ios- xml/ios/qos_nbar/configuration/15-mt/qos-nbar-15-mt-book/nbar-protocl-discvry.html#GUID- ED1AEDA1-AE69-45C3-A77E-2AF881CA9C36

https://www.cisco.com/c/en/us/products/ios-nx-os-software/network-based-application- recognition-nbar/index.html

Question: 189

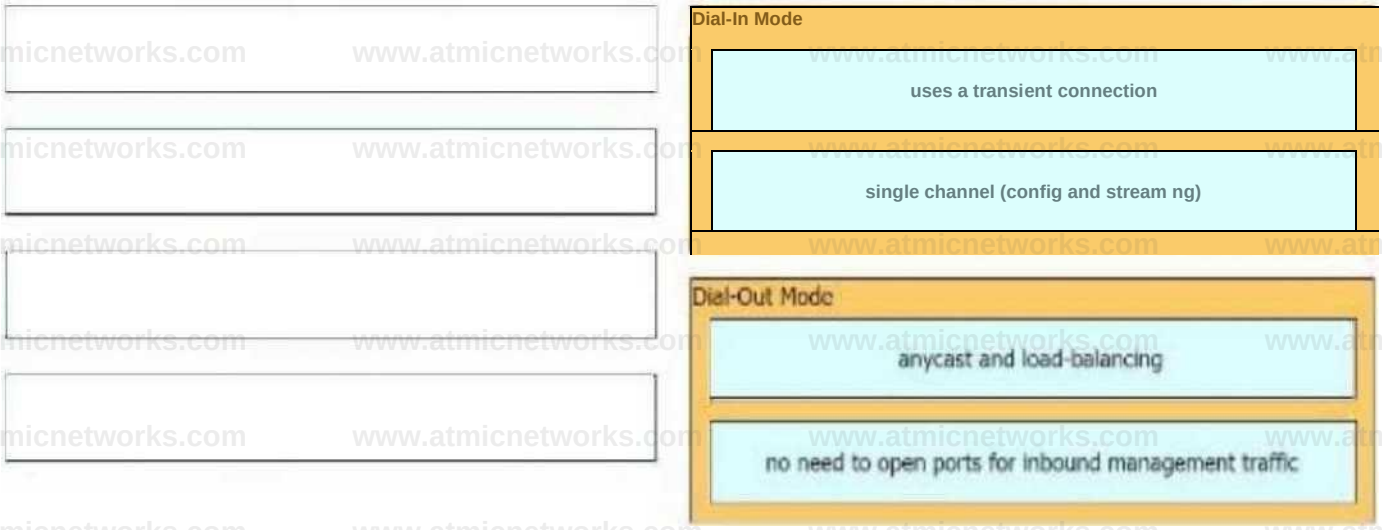
DRAG DROP

Drag and drop the model-driven telemetry considerations from the left onto the modes they apply to on the right.



Answer:

Explanation:



https://xrdocs.io/telemetry/blogs/2017-01-20-model-driven-telemetry-dial-in-or-dial-out/

Question: 190

Which design achieves SD-WAN control plane redundancy?

A. Configuring BFD on the WAN Edge routers

B. Using multiple instances of vManage in clusters

C. Deploying using a virtual platform like UCS or CSP

D. Managing the underlay network with OMP

Answer: B

Explanation:

Question: 191

A customer reports that each time a networking component fails, OSPF recalculates the backup path, with causes a short outage. Which solution must the customer implement to improve this situation?

A. Aggressive OSPF timers

B. LFA FRR

C. Incremental SPF

D. BFD

Answer: C

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/15-sy/iro-15-sy-book/iro-incre-spf.pdf

Question: 192

A network engineer must design an MSDP multicast solution to provide RP resilience in a network with two separate domains. Also, multicast sources and receivers must register with the local RP. Which solution must the engineer choose?

A. Configure the RP has value to 0, and traffic will route to the closest RP

B. Configure the RP loopback interface with the same IP address/32, and traffic will route to the closest RP

C. Configure the RP group ranges to split the multicast traffic, and traffic will route to the longest match

D. Configure the RP priority with the same value, and traffic will route to the closest RP

Answer: B

Explanation:

Both can be true and correct because if you check the link:
https://www.cisco.com/c/en/us/support/docs/ip/ip-multicast/115011-anycast-pim.html

Relevant running configurations

Nexus 1 relevant configuration:

ip pim rp-address 10.1.1.1 group-list 224.0.0.0/4

ip pim anycast-rp 10.1.1.1 192.168.1.1

ip pim anycast-rp 10.1.1.1 192.168.2.2
interface loopback1

ip address 192.168.1.1/32

ip router ospf 1 area 0.0.0.0

ip pim sparse-mode

interface loopback7

ip address 10.1.1.1/32

ip router ospf 1 area 0.0.0.0

ip pim sparse-mode

interface Ethernet9/2

ip address 10.7.7.1/24

ip router ospf 1 area 0.0.0.0

ip pim sparse-mode

interface Ethernet9/3

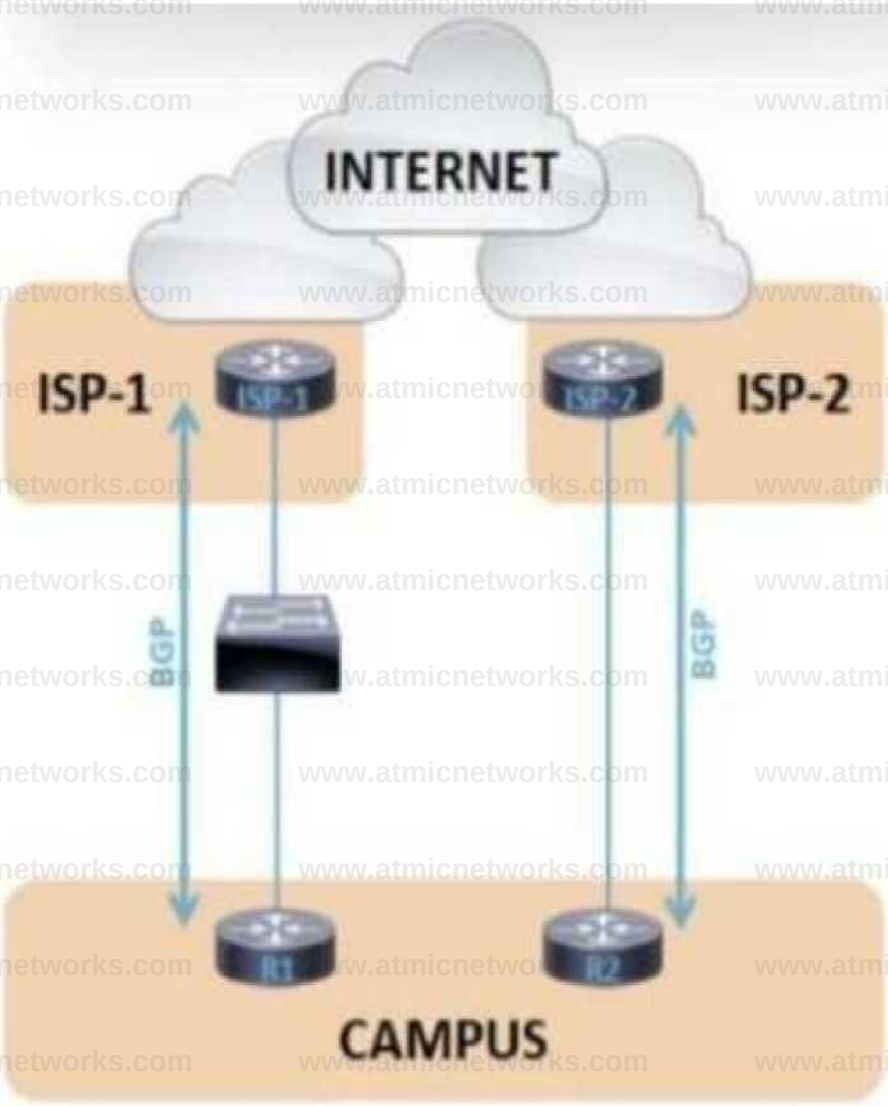
ip address 172.16.1.2/24

ip router ospf 1 area 0.0.0.0

ip pim sparse-mode

Question: 193

Refer to the exhibit.



The failover time of ISP-2 is significantly shorter than ISP-1 when an interface on the ISP router toward the campus network fails. Which solution minimizes the downtime to the sub-second?

A. Aggressive timers

B. Next-hop address tracking

C. Graceful-restart

D. BFD

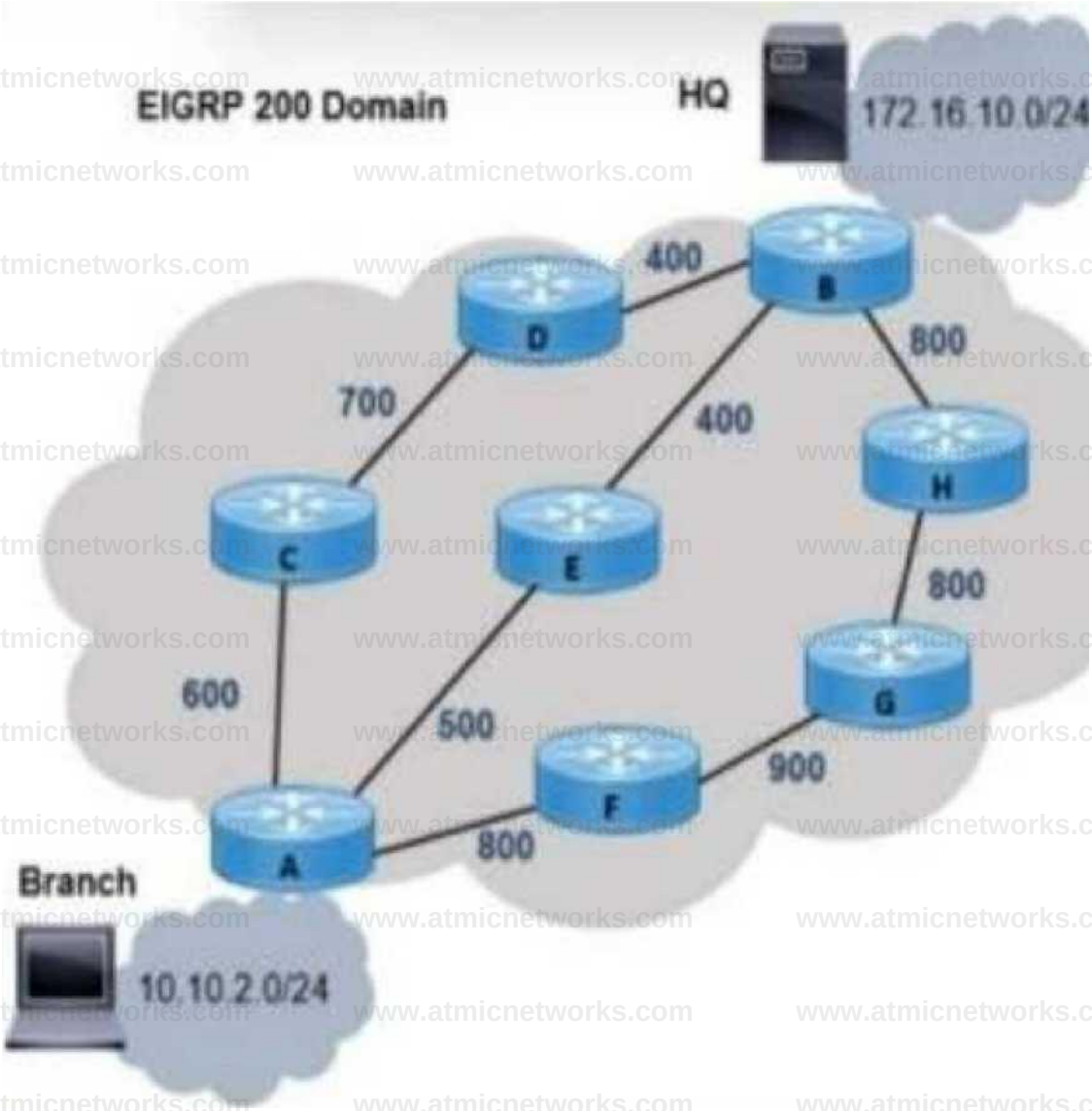
Answer: D

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios/12_2sb/feature/guide/sbbnhop.html

Question: 194

Refer to the exhibit.



An architect is designing an EIGRP solution based on these requirements:

* Traffic forwarding should use the best two paths while all links are available

* Single path failure must not impact traffic between branch and HQ

Which solution must the architect select?

A. Maximum-paths 2

B. Add-paths 2

C. Metric weights 010100

D. Variance 2

Answer: D

Explanation:

ENSLD cert guide page 113. shortest path = 900, next 1700 and finally 3300 for the worst path. Witch variance 2, all routes under 1800 (900x2) become active.

Question: 195

Which two overlay network design considerations must be made for a Cisco SD-Access network? (Choose two.)

A. LAN automation for deployment

B. Layer 3 to the access design

C. Reduce subnets and simplify DHCP management

D. Dedicated IGP process for the fabric

E. Avoid overlapping IP subnets

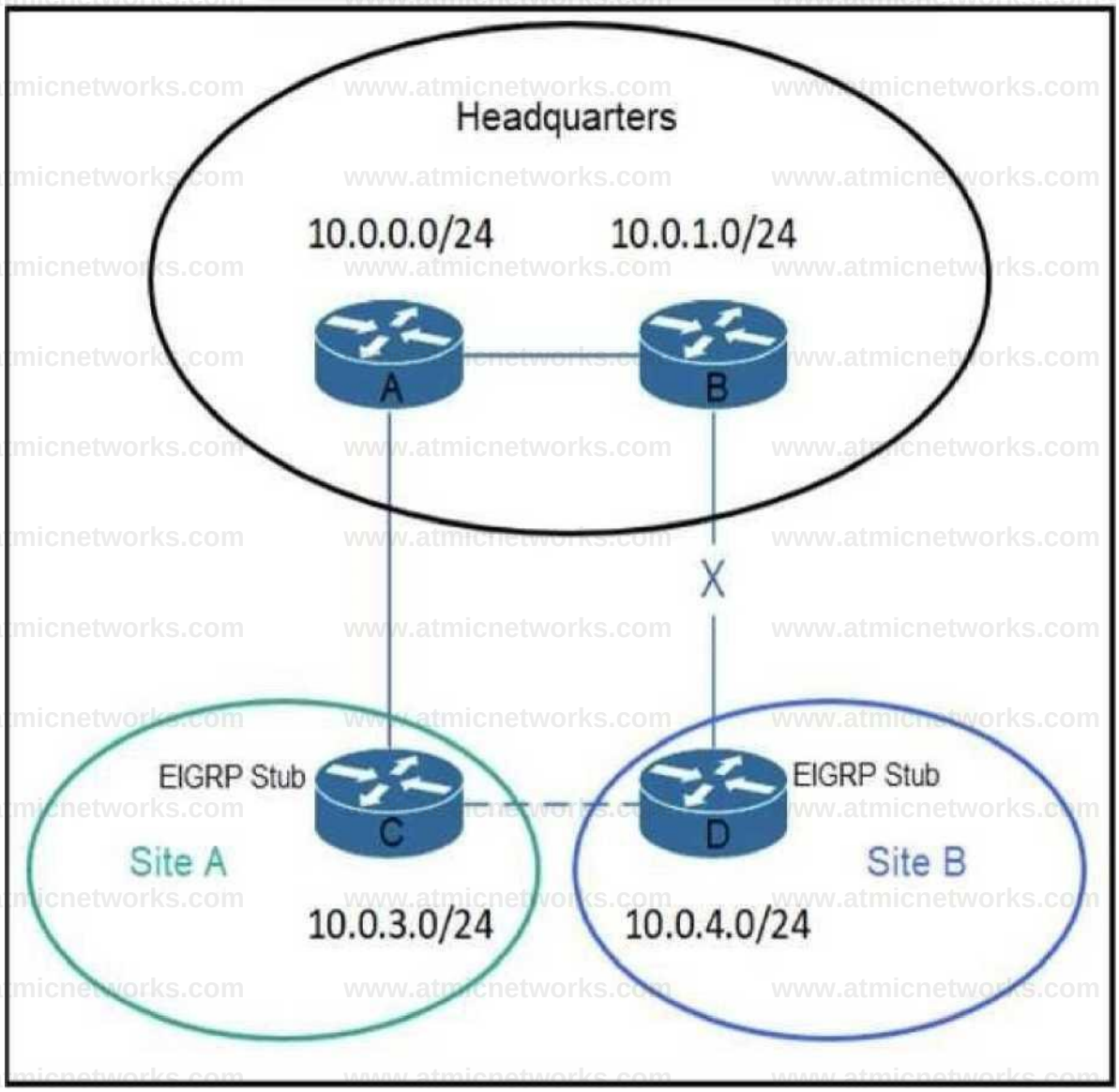
Answer: CE

Explanation:

https://www.cisco.com/c/en/us/td/docs/solutions/CVD/Campus/cisco-sda-design-guide.html#Overlay_Network_Design

Question: 196

Refer to the exhibit.



An architect is designing a routing solution for a company. The new design will add a circuit routers C and D to protect against loss of connectivity to 10.0.4.0/24 during a link failure between routers B and D. Which solution must the architect choose?

A. Stub connected

B. Stub redistributed

C. Stub receive-only

D. Stub leak-map

Answer: A

Explanation:

Question: 197

Which two functions is the Cisco SD-Access Edge Node responsible for? (Choose two.)

A. Act as anycast layer 3 gateway

B. Advertise EID subnets

C. Map users to virtual network

D. Act as LISP proxy tunnel router

E. Route and transport IP traffic

Answer: AC

Explanation:

https://www.cisco.com/c/en/us/td/docs/solutions/CVD/Campus/cisco-sda-design-guide.html#EdgeNode

Question: 198

A company needs to increase access port capacity on one floor of a building. They want to leverage the existing catalyst access switch. There is no problem with uplink bandwidth capacity. However, no additional uplinks can be added because no ports are available on the distribution switches. Which solution must the company choose to provide additional access ports?

A. VDC

B. VSS

C. Etherchannel

D. Stackwise

Answer: D

Explanation:

Question: 199

Which queuing structure is used on SD-WAN Edge routers?

A. FIFO

B. LLQ+WFQ

C. 1P-4Q-2T

D. Priority

Answer: B

Explanation:

It uses a combination of low latency queuing (LLQ) and weighted fair queuing (WFQ) to prioritize critical traffic while still guaranteeing bandwidth for other traffic types. The LLQ portion of the queuing structure is used to prioritize certain types of traffic, while the WFQ portion is used to ensure that all traffic is serviced fairly. This queuing structure is used to make sure that critical traffic is not delayed or dropped, while still allowing for other traffic types to be serviced.

Question: 200

Since installing a cisco TelePresence system, the company is experiencing other application having

response issues when the system in use. As a result, the company asked an architect to recommend a QoS solution. The customer is currently using a CBWFQ policy to manage traffic on an internet connection with a speed of 100 Mbps. Which link-capacity limit must the architect choose for strict- priority for the real-time traffic?

A. 25 Mbps

B. 50 Mbps

C. 33 Mbps

D. 75 Mbps

Answer: C

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/qos_conmgt/configuration/xe-3s/qos-conmgt- xe-3s-book/qos-conmgt-oview.html#GUID-48F6AF58-5CCC-44A0-B868-125AE453FF2A%20%20%20%20%20(75%20Mbps)

The sum of all bandwidth allocation on an interface cannot exceed 75 percent of the total available interface bandwidth. The remaining 25 percent is used for other overhead, including Layer 2 overhead, routing traffic, and best-effort traffic. Bandwidth for the CBWFQ class-default class, for instance, is taken from the remaining 25 percent.

Question: 201

A company plans to transition to IPv6. They will link their IPv4 addresses to the lowest significant bits of the new Ipv6 addresses. A network administrator with an employee id: 4264:42:116 is preparing a mapping schema for the new IPv6 addresses. Which address does the 172.16.10.0/24 network translate to?

A. 2001:db8:abcd::ac10:a00/120

B. 2001:db8:abcd:172:16:10::/96

C. 2001:db8:abcd:11d8:a00/120

D. 2001:db8:ac10:0a00::/64

Answer: B

Explanation:

Question: 202

An engineer must peer with an ISP for internet connectivity using BGP, initially, the engineer wants to receive only specific prefixes from the ISP and a default route. However, the solution must provide the flexibility to add prefixes in the future at short notice. The ISP has a two-week change process in place. Which route filtering solution must the engineer employ?

A. Request a limited internet routing table and a default route from the ISP and configure the BGP max-limit to 1 with an access list that permits only the specific internet prefixes and blocked networks

B. Request only the required prefixes and default route be advertised from the ISO with whitelisted networks

C. Request a full internet routing table and a default route from the ISP and configure inbound route filtering with a prefix list that permits the default route and required prefixes

D. Configure outbound route filtering on the enterprise and ISP so that the enterprise tell the ISP which prefixes are required

Answer: C

Explanation:

anychange on the prefix list, engineer only need to update the preifx list and restart the BGP peer to the ISP. soft-reconfiguration inbound could be used to reduce down time of reset BGP peer, but it require lots of memory and in this case, connection to ISP and tons of route learnt will not be apporitated.

Question: 203

DRAG DROP

Drag and drop the steps WAN Edge performs when on-boarded into the Cisco SD-WAN overlay from the left into the order they are completed on the right.

Answer Area

WAN Edge authenticates to vBond.	Step 1
WAN Edge establishes an OMP session to vSmart	Step 2
WAN Edge establishes a secure connection to vManage and vSmart.	Step 3
WAN Edge establishes IPsec connections to other TLOC locations.	Step 4

Answer:

Explanation:

Answer Area

WAN Edge authenticates to vBond.

WAN Edge establishes a secure connection to vManage and vSmart WAN Edge establishes an OMP session to vSmart.

WAN Edge establishes IPsec connections to other TLOC locations

Question: 204

In a cisco SD-Access brownfield deployment scenario, which configuration deployment must be taken with Cisco DNA center?

A. Subnet stretching

B. LAN automation

C. Automated UNDERLAY

D. Manual underlay

Answer: B

Explanation:

Question: 205

Refer to the exhibit.

A network engineer must design a multicast solution based on:

* Many-to-many communications between the users and sources

* Support of up to 50 multicast sources

* Users that must register for steams

Which multicast solution must the engineer select?

A. Any Source Multicast

B. Bidirectional PIM

C. Source-Specific Multicast

D. Multicast VPN

Answer: B

Explanation:

Question: 206

A customer plans to adopt distributed QoS in their enterprise WAN. The policy must allow for individual packet marking according to the type of treatment required and for forwarding based on hop-by-hop treatment locally defined on each device. Which technology must the customer select?

A. CBWFQ

B. LLQ

C. Diffserv

D. IntServ

Answer: C

Explanation:

Question: 207

Refer to the exhibit. A network engineer is designing an OSPF solution to connect a company's remote to a newly provisioned MPLS VPN backbone. Some of the branches have a direct dark fiber connection between each other. The engineer wants to ensure that the dark fibers are used only when the MPLS core is unavailable. Which solution must the engineer choose?

A. Stub area

B. Sham link

C. Virtual link

D. NSSA

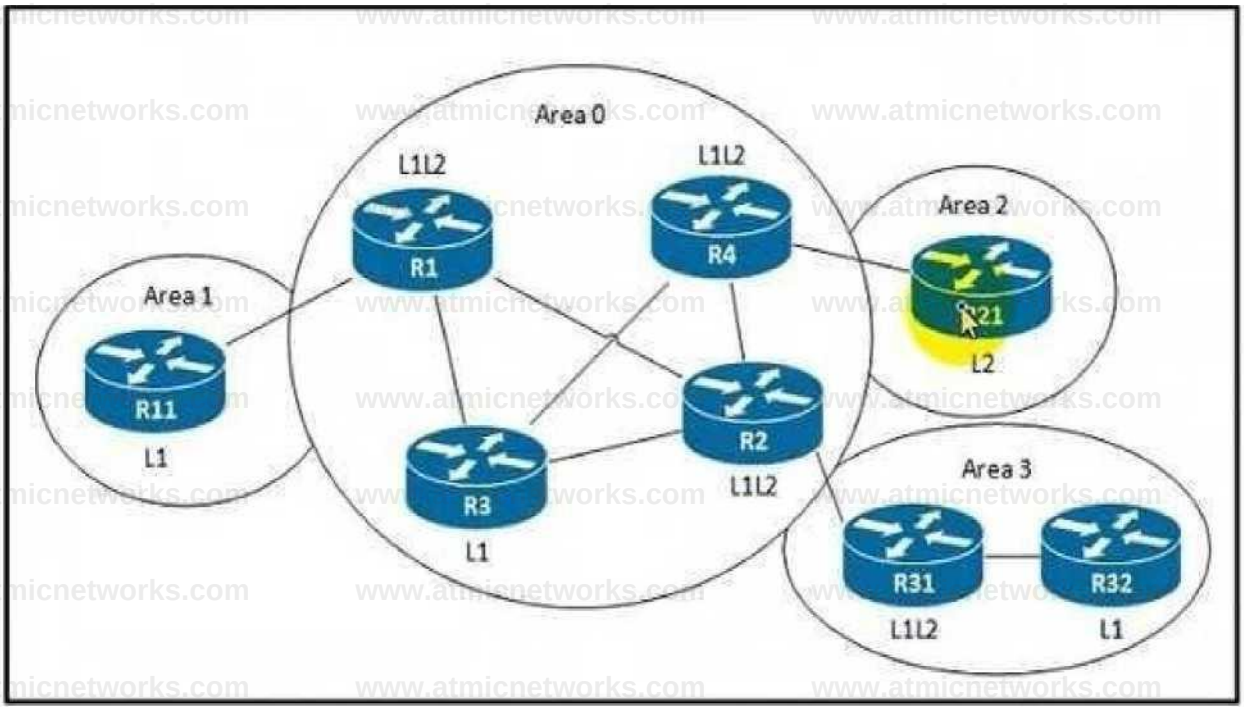
Answer: B

Explanation:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/iproute_ospf/configuration/xe-16/iro-xe-16- book/iro-sham-link.html

Question: 208

Refer to the exhibit.



Refer to the exhibit. A customer experienced an unexpected network outage when the link between R1 and R2 went down. An architect must design a solution to ensure network continuity in the event the link fails again. Which solution should the design include?

A. Make R31 an L1 router.

B. Make R3 an L1L2 router

C. Make Area 0 L2-only

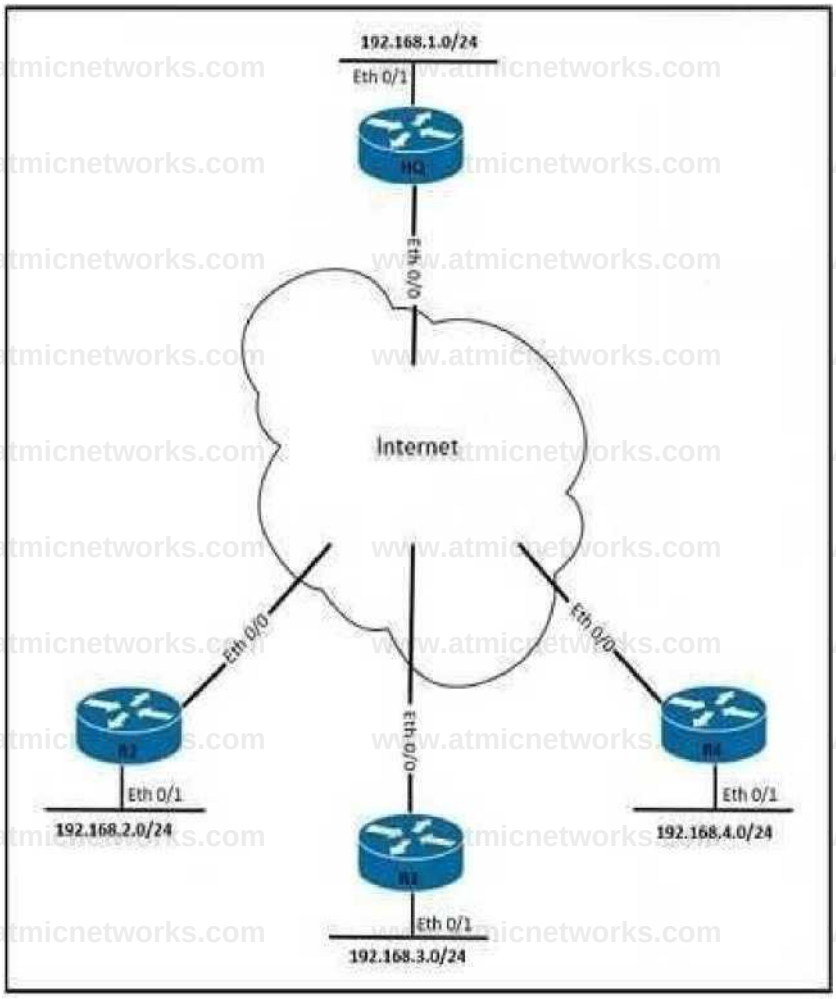
D. Make R11 an L2 router.

Answer: B

Explanation:

Question: 209

Refer to the exhibit.



Refer to the exhibit A customer wants to adopt a dynamic site-to-site VPN solution to secure communication for VoIP, video, and FTP traffic between the remote branches and the headquarters. The customer also wants the branches to communicate directly, thereby reducing traffic at the headquarters location. The solution must consider that the branch routers are limited in available memory. Which VPN solution meets these requirements?

A. DMVPN Phase 2 Hub and Spoke design

B. DMVPN Phase 3 Hub and Spoke design

C. DMVPN Phase 1 Hub and Spoke design

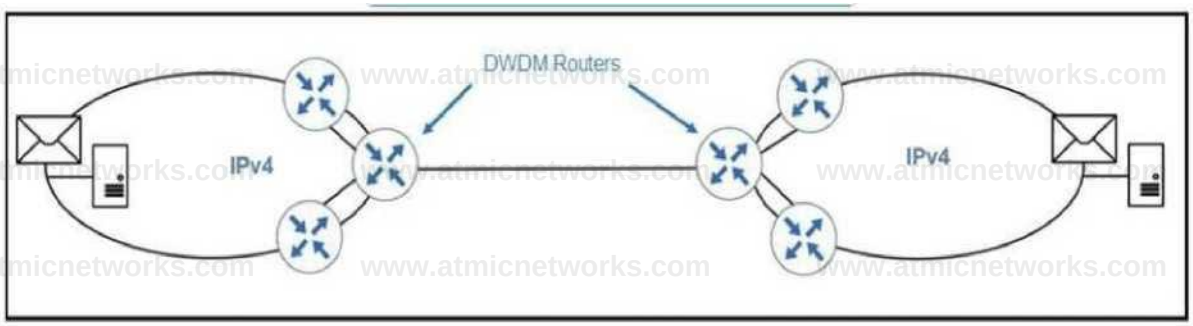
D. DMVPN Phase 3 Hierarchical design

Answer: B

Explanation:

Question: 210

Refer to the exhibit.



Refer to the exhibit. An engineer is planning an IPv4 to IPv6 migration solution for a customer. The routers in the network can support IPv4 and IPv6, except for the DWDM routers. The DWDM routers provide a Layer 2 link in which the routers peer directly with each other across a DWDM circuit. The circuit also provides connectivity between the mail servers. Which IPv6 migration technique must the engineer deploy?

A. dual-stack

B. 6to4

C. ISATAP

D. 6rd

Answer: D

Explanation:

Question: 211

An engineer must design a routing solution for a company that is single-homed to an ISP. The company's goal is to run BGP between the CE and the PE devices. To support running BGP, the company obtained a public AS number and IP subnet from ARIN. Which solution must the engineer select?

A. • The customer announces the public IP subnet to the ISP

• The ISP announces the default route to the customer.

B. • The customer announces the public IP subnet to the ISP

• The ISP announces the BGP table to the customer

C. • The ISP announces the customer public IP subnet.

• The ISP announces the partial BGP table to the customer.

D. • The customer announces the default route to the ISP

• The ISP announces the default route to the customer

Answer: C

Explanation:

Question: 212

Which function do reverse path forwarding mechanisms perform in a multicast deployment?

A. They notify the upstream router of multicast traffic.

B. They send PIM prune message toward multicast sources.

C. They eliminate overlapping multicast addresses

D. They prevent loops and duplicate packets.

Answer: D

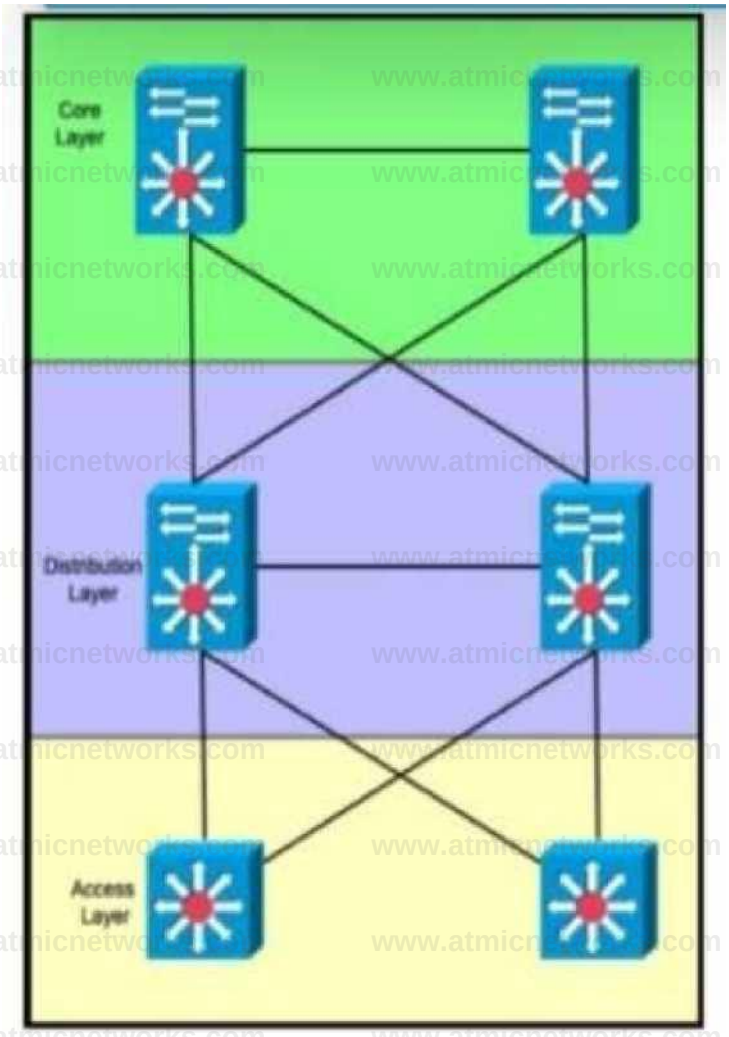
Explanation:

Reverse path forwarding (RPF) mechanisms are used to prevent loops and duplicate packets in

multicast deployments [1]. The RPF check verifies that all multicast traffic received on a router is sourced from the expected direction, ensuring that multicast traffic is not looped back in the network. The RPF check works by comparing the source IP address of a multicast packet with the routing table, and only forwarding it if it matches the expected entry.

Question: 213

Refer to the exhibit.



Refer to the exhibit. An engineer Is designing a multicampus Layer 3 Infrastructure using EIGRP as the routing protocol. The design must provide quick replies to queries In the event of a downlink, prevent unnecessary queries, and ensure that traffic does not unnecessarily transit the access layer. Which two actions must the engineer take for the network design? (Choose two.)

A. Configure core layer switches as stub routers.

B. Configure distribution layer switches to summarize routes to the core layer.

C. Configure access layer switches as stub routers.

D. Configure access layer and core layer switches as stub routers.

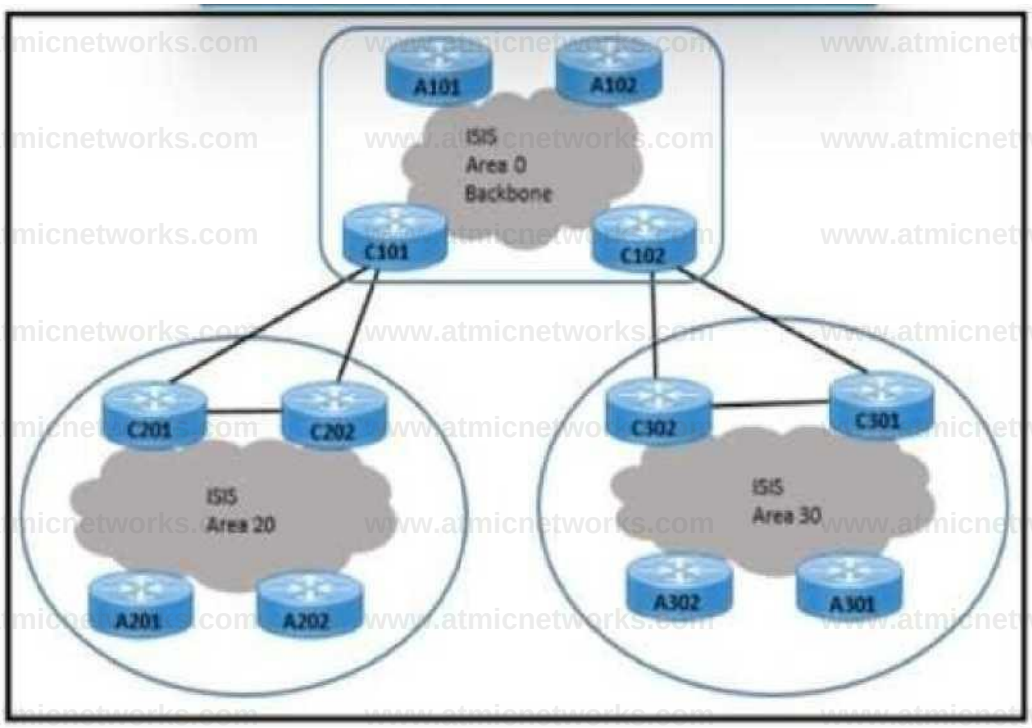
E. Configure access layer switches to summarize routes to the distribution layer.

Answer: B, C

Explanation:

Question: 214

Refer to the exhibit.



Refer to the exhibit. An architect is designing a hierarchical ISIS solution for a customer with these requirements:

Routers will double In all areas within the next 24 months.

Link flaps within areas 20 and 30 must not impact the backbone area.

Traffic originating from A201 and A302 routers must connect to application servers in the backbone.

Which design must the architect select?

A. C201 Level 1/2, A301 Level 1/2 and A102 Level 1/2

B. C101 Level 1/2. A201 Level 1, and A101 Level 2

C. C102 Level 2. A202 Level 2, and A102 Level 1

D. C302 Level 2. A302 Level 1/2. and A101 Level 2

Answer: A

Explanation:

Question: 215

Which WAN connectivity technology is optimal for edge computing compared to others and why?

A. Due to low latency, high bandwidth, and closest proximity to the user. 4G/5G connectivity is the optimal WAN technology for edge computing compared to L3 VPN MPLS connectivity, which offers native separation and security with close proximity to the data center.

B. Due to high bandwidth, separation and security, and proximity to the data center network. DWDM Is the optimal WAN technology lor edge computing compared to 4G/5G connectivity, which offers native separation and security with close proximity to the data center.

C. Due to low latency, high bandwidth, and closest proximity to the user, L3 VPN MPLS connectivity is the optimal WAN technology for edge computing compared to 4G/5G connectivity, which offers native separation and security with close proximity to the data center.

D. Due to low cost, high bandwidth, low latency, and closest proximity to the edge of the network, Mero Ethernet is the optimal WAN technology for edge computing compared to MPLS, which offers native separation and security with close proximity to the data center.

Answer: A

Explanation:

Question: 216

What is the purpose of a TLOC extension in a Cisco SD-WAN network fabric?

A. to facilitate WAN Edge router redundancy within a site

B. to identify the physical interface where a WAN Edge router connects to the WAN transport network

C. to expand the number of colors that are potentially applied to a network transport interface

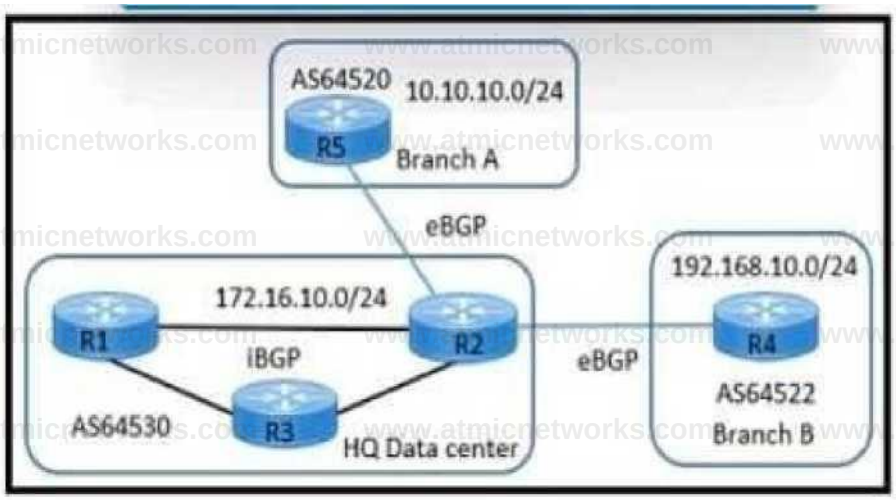
D. to aggregate multiple physical interfaces into a single logical Interface

Answer: A

Explanation:

Question: 217

Refer to the exhibit.



Refer to the exhibit. A network engineer with an employee ID: 4384:99:754 must design a BGP solution based on these conditions:

Traffic sessions occur between the branches and the data center.

Branch B has limited resources to process routing updates.

HQ must filter out all prefixes from branch A to R4.

Which outbound route filtering (ORF) solution must the engineer choose?

A. Use a prefix list with the 192.168.10.0/24 subnet for ORF on R4.

B. Use a prefix list with the 10.10.10.0/24 subnet for ORF on R2

C. Use a prefix list with the 10.10.10.0/24 subnet for ORF on R5.

D. Use a prefix list with the 192.168.10.0/24 subnet for ORF on R2.

Answer: B

Explanation:

Question: 218

Which information update is carried by OMP and enables the Cisco SD-WAN to build a secure overlay fabric on top of any public or private transport without regard for the actual link IP?

A. TLOC

B. RLOC

C. LISP PITR

D. DTLS

Answer: D

Explanation:

Question: 219

An engineer must design a management network for a customer's enterprise network. The design must:

provide the ability to grant and revoke access privileges

allow only protocols SSH, NTP, FTP, and SNMP

restrict access to management Interfaces

Which solution must the engineer choose to meet the requirements?

A. in-band

B. enterprise internal private

C. out-of-band

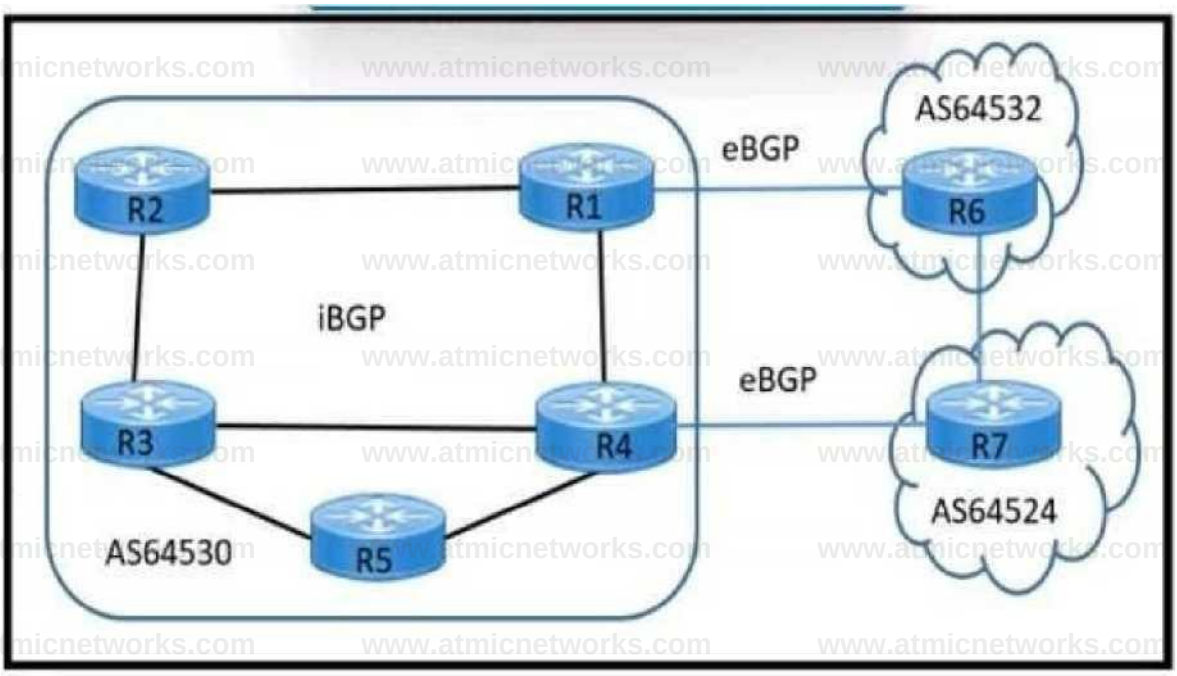
D. mGRE

Answer: C

Explanation:

Question: 220

Refer to the exhibit.



Refer to the exhibit. A network engineer must design a BGP solution based on:

The route reflector must have one or more direct physical connections to the core routers (R3 and R4).

The route reflector must have full redundancy and avoid a single point of failure.

R2 to R1 link utilization is 90%. and the remaining links are less than 50% utilized.

Which two solutions must the design Include? (Choose two.)

A. Configure R1to be aclient of R2 andR4.

B. Configure R2to be aclient of R1 andR4.

C. Configure R3to be aclient of R2 andR4.

D. Configure R4to be aclient of R1 andR3.

E. Configure R5to be aclient of R3 andR4.

Answer: B E

Explanation:

Question: 221

Which function does the Cisco SD-Access intermediate node perform?

A. Act as LISP proxy tunnel router.

B. Route and transport IP traffic.

C. Act as an anycast Layer 3 gateway.

D. Map users to a virtual network.

Answer: B

Explanation:

Question: 222

In a Cisco SD-Access fabric, which node facilities connectivity between the fabric and networks external to the fabric?

A. intermediate

B. edge

C. control plane

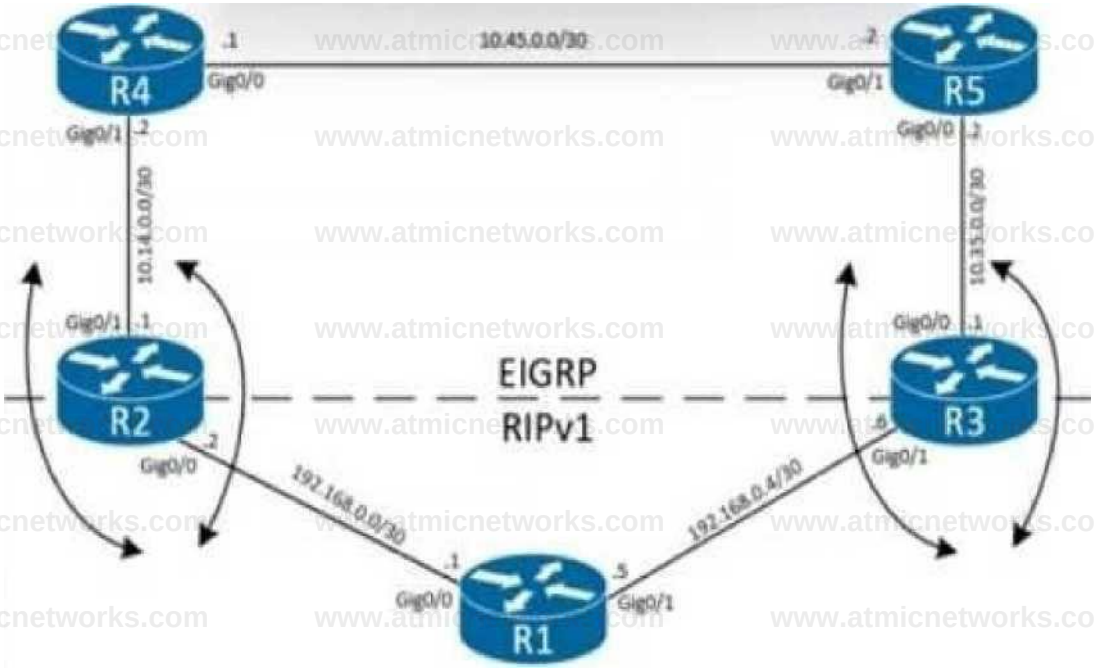
D. border

Answer: D

Explanation:

Question: 223

Refer to the exhibit.



Refer to the exhibit. An engineer Is designing a redistribution solution for a customer. The customer recently acquired another company and decided to integrate the new network running RIPv1 with the company's existing network. Which redistribution technique must the engineer select to ensure the multipoint two-way redistribution does not cause routing loops?

A. distribute-lists inbound under the EIGRP process denying RIPv1 learned prefixes

B. distribute-lists outbound under the EIGRP process denying RIPv1 learned prefixes

C. distribute-lists outbound under the RIPv1 process denying EIGRP learned prefixes

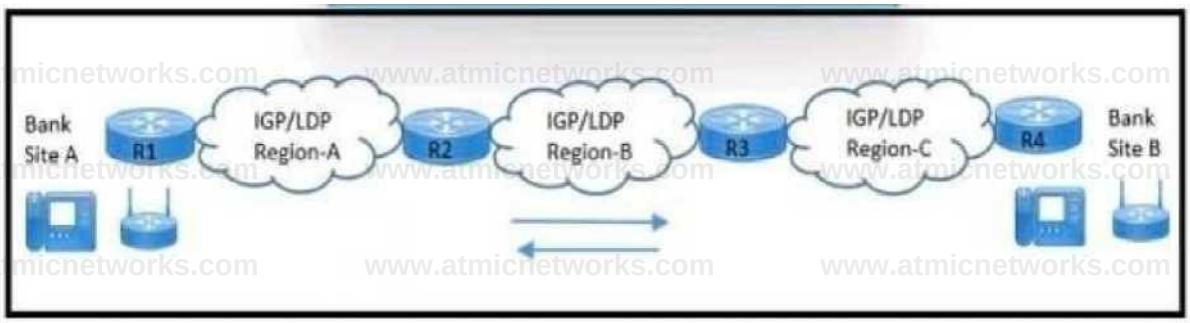
D. distribute-lists inbound under the RIPv1 process denying EIGRP learned prefixes

Answer: C

Explanation:

Question: 224

Refer to the exhibit.



Refer to the exhibit. An architect must design a solution to connect bank site A with bank site B and support:

network operation center monitoring end-to-end L3VPN and L2VPN traffic

company adding thousands of routes in the next two years

Which two BGP solutions must the design include? (Choose two.)

A. Establish full mesh IBGP peering with ail routers in different IGP domains.

B. Redistribute different IGP domain routes in a BGP IPv4 routing instance.

C. Transport site routes using a BGP VPNv4 address family on the PE routers.

D. Apply BGP policies on all routers to filter out ABR and PE loopback IP addresses.

E. Connect multiple IGP'LDP domains using a BGP IPv4 unicast family on the ABR.

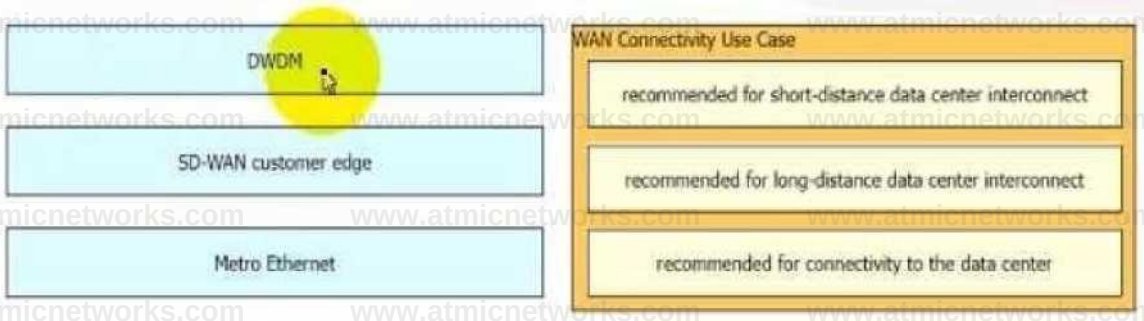
Answer: A C

Explanation:

Question: 225

DRAG DROP

Drag and drop the types of WAN connectivity from the left onto the connectivity use cases on the right.

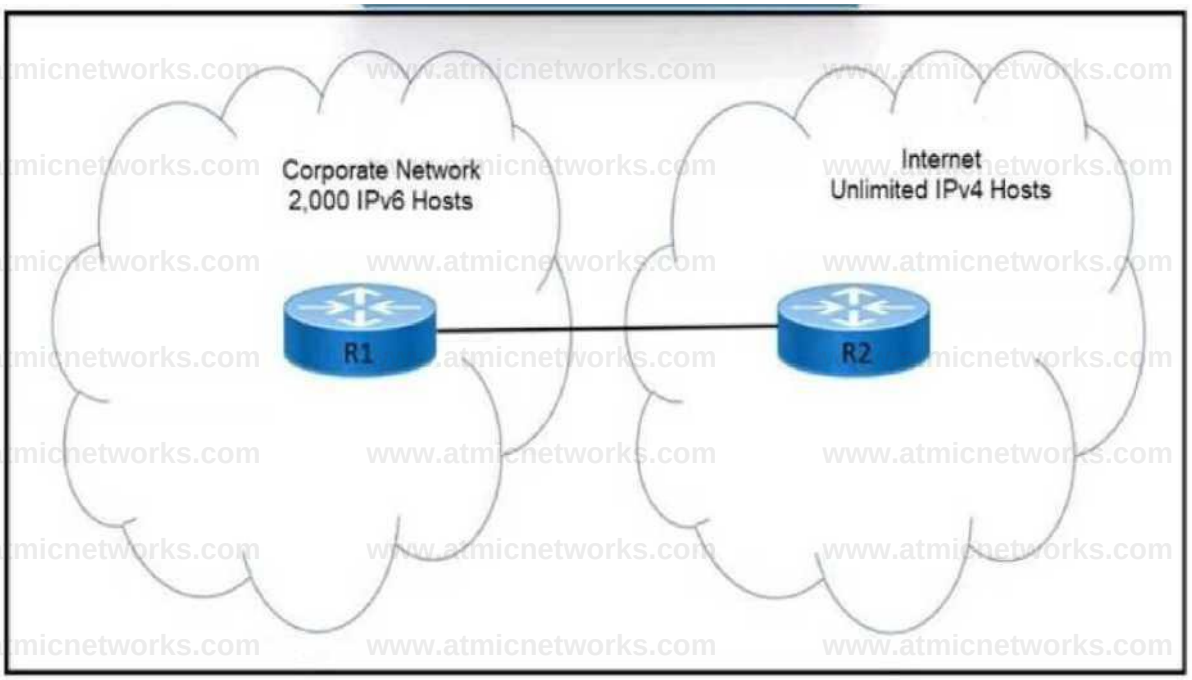


Answer:

Explanation:

Question: 226

Refer to the exhibit.



Refer to the exhibit. An engineer must design an address translation solution to provide Internet connectivity for the corporate network. The design Is restricted to the 172.16.168.0/22 subnet.

Which solution must the engineer choose?

A. stateful NAT64

B. stateless NAT64

C. stateful NAT66

D. stateless NAT66

Answer: A

Explanation:

Question: 227

In a multicast network, which condition must be met for an RPF check to be performed on the RP address'?

A. The PIM DM device receives a multicast packet and has no directly connected members

B. The PIM router or multilayer switch has a shared-tree state

C. The PIM router or multilayer switch has a source-tree state

D. The PIM DM device receives a multicast packet and has no directly connected PIM neighbor

Answer: B

Explanation:

Question: 228

Which feature provides the capability for intra-VN traffic filtering and control within the Cisco SO-Access architecture?

A. scalable groups

B. MAC ACL

C. prefix list

D. service policy

Answer: A

Explanation:

Question: 229

How does a model-driven telemetry dial-out approach function?

A. The device initiates a session to the collector based on the subscription.

B. The collector initiates a session to the device and subscribes to data to be streamed.

C. The collector Initiates a session to the device and gets the data of a previously defined subscription.

D. The device initiates a session to the collector and negotiates a subscription.

Answer: D

Explanation:

Question: 230

Prior to establishing full-mesh iPsec tunnels in a typical Cisco SD-WAN deployment, which mechanism do WAN Edge routers use to exchange Key information for data plane encryption?

A. They use vSmart controllers as key exchange servers.

B. They use vManage as a key exchange server.

C. They use IKEv2 when exchanging keys with each other.

D. They use vBond as a key exchange server.

Answer: A

Explanation:

Question: 231

Which control plane protocol is responsible for EID-to-RLOC mapping concerning SO-Access Architecture?

A. GBAC

B. LISP

C. CEF

D. VXLAN

Answer: B

Explanation:

Question: 232

Which feature minimizes HOC connections and reduces strain on the vSmart controller m an SO-WAN architecture?

A. control-connections

B. corrtroWirection

C. color

D. affinity

Answer: D

Explanation:

Question: 233

How do IETF. OpenConfig and Cisco nativo YANG models differ when used to configuro the same feature on an infrastructure device?

A. OpenConfig models are more comprehensive than IETF.

B. Cisco native models are less comprehensive than OpenConfig.

C. Cisco native models are less comprehensive than IETF.

D. IETF models are more comprehensive than OpenConfig.

Answer: A

Explanation:

Question: 234

Which protocol is deployed through LAN automation to build node-to-node underlay adjacencies in SDA?

A. IS-IS

B. OLISP

C. OSPF

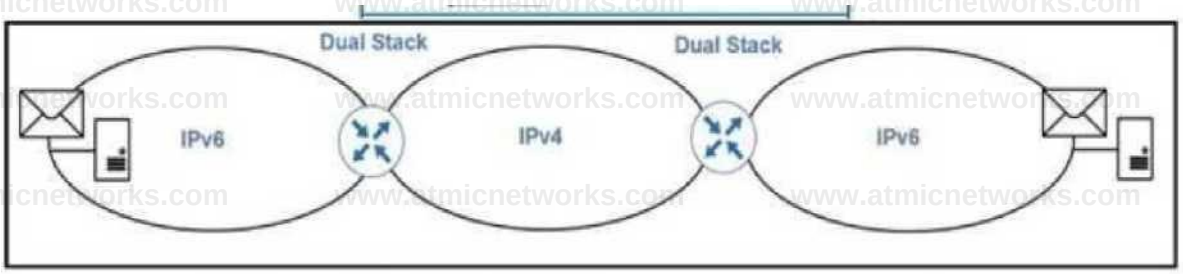
D. VXLAN

Answer: A

Explanation:

Question: 235

Refer to the exhibit.



Refer to the exhibit. Which method must an architect use to provide connectivity between the mail servers?

A. ISATAP

B. 6to4

C. IPv4 compaliDie

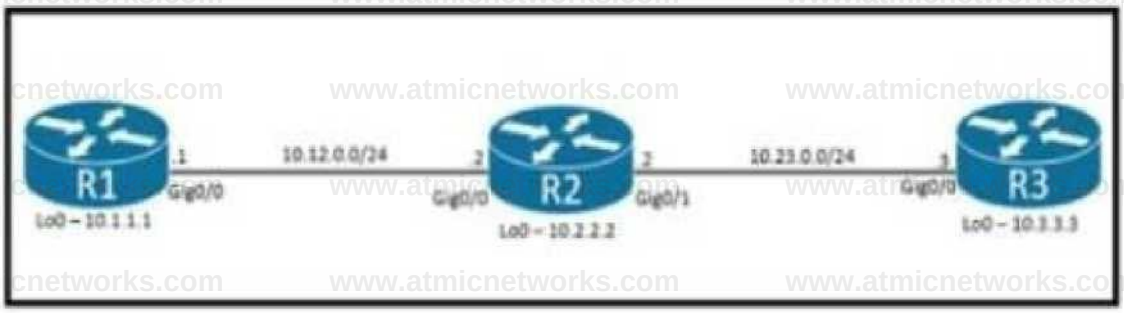
D. 6rd

Answer: C

Explanation:

Question: 236

Refer to the exhibit.



Refer to the exhibit A customer requires maximum uptime for the data plane between R1 and R3 running OSPF Which solution must the design include for high availability if the routing process on R2 requires maintenance?

A. BFD on all routers

B. nonstop forwarding on R1 and R3

C. nonstop forwarding on R3 only

D. graceful restart on all routers

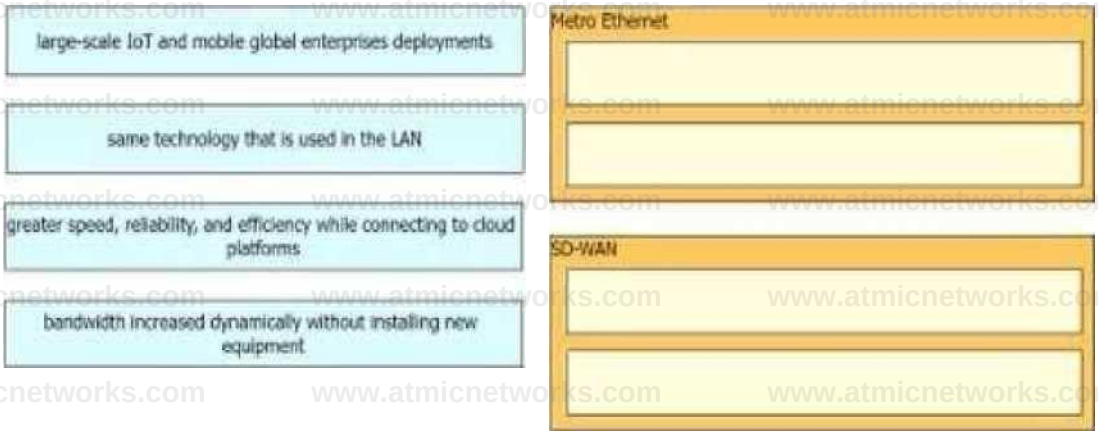
Answer: B

Explanation:

Question: 237

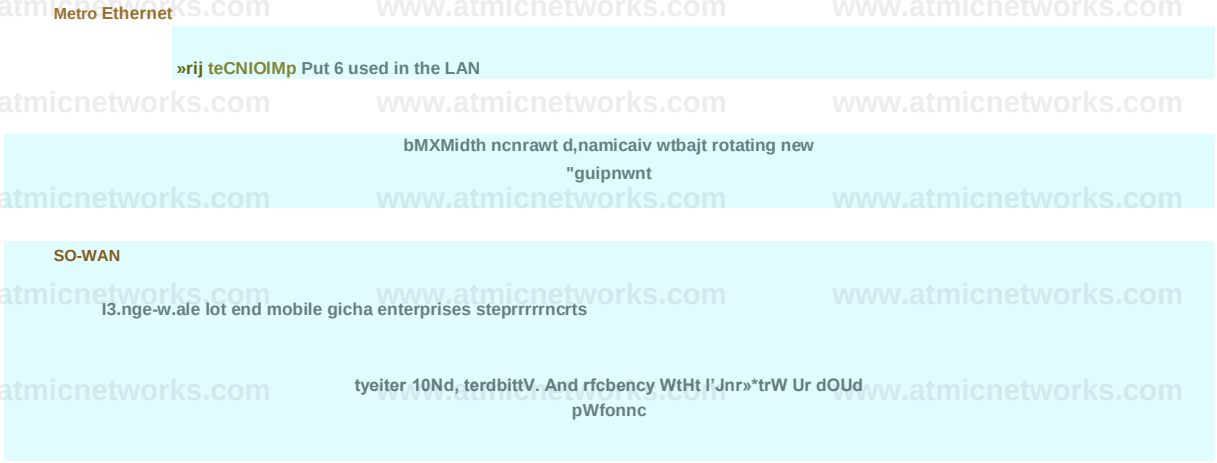
DRAG DROP

Drag and drop the descriptions from the left onto the categories they apply to on the right.



Answer:

Explanation:



Question: 238

A network engineer must optimize a campus OSPF deployment Currently each time a type 1 or type 2 LSA is generated within an area, the OSPF process must recompute the entire SPT Which solution improves the recomputation process?

A. iSPF

B. BFD

C. SPF

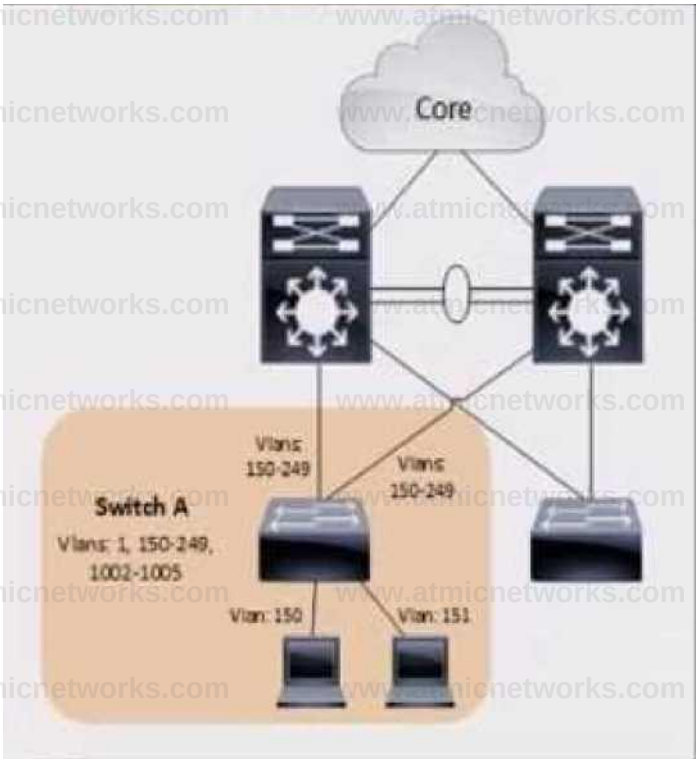
D. PRC

Answer: B

Explanation:

Question: 239

Refer to the exhibit.



Refer to the exhibit An engineer working for a telecommunication company with an employee ID 4449:30 959 Is calculating STP scalability for switches to ensure that the numbers are below the maximum supported value for STP logical ports How many logical interfaces are active for switch A?

A. 4

B. 307

C. 202

D. 100

Answer: C

Explanation:

Question: 240

An engineer is designing a WAN solution for a customer with teams in different branch locations that need to communicate The teams also need to access enterprise applications hosted in the data center and the cloud The customer also must provide guests with connectivity to the internet only, and the internet gateway is located in the data center Which solution must the engineer choose?

A. WAN connectivity from a different service provider for guests

B. firewall placed in data center that fitters any traffic from guests

C. MPLS Layer 3 VPN with one VRF for corporate access and a separate VRF for guests

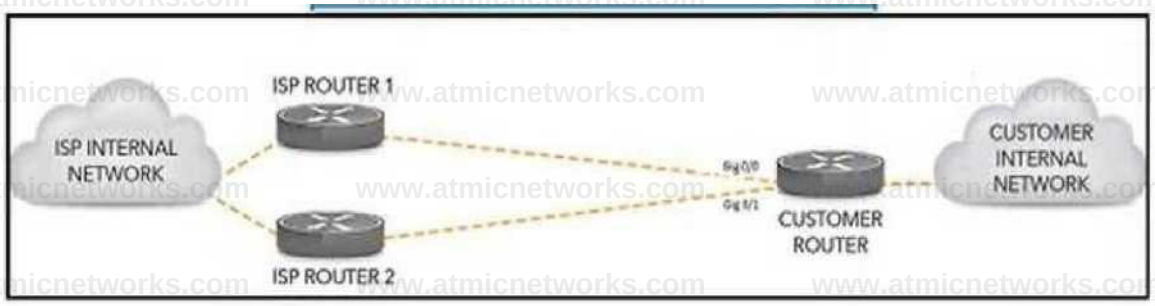
D. MPLS Layer 3 VPN with a separate VRF for each branch location

Answer: C

Explanation:

Question: 241

Refer to the exhibit.



Refer to the exhibit. A customer has two eBGP peerings from a single CE router toward two service providers. The customer has hired an architect to design a solution to ensure certain traffic enters the customer's network through interface gig0/0. Which solution must the architect include in the design?

A. Advertise a lower MED value toward the less preferred service provider.

B. Prepend additional AS on the AS path toward the preferred service provider.

C. Break aggregated routes into longer prefixes and advertise to the preferred service provider.

D. Set a higher local preference to the preferred service provider path.

Answer: A

Explanation:

Question: 242

An engineer is designing a campus network with Cisco Catalyst 95CO switches in the aggression layer. The design requires running nonblocking Layer 2 MEC from the aggregation layer to the access layer. The Catalyst switches are located on different campus floors for availability reasons, and each access switch veil contam a single VLAN. Which technology must the engineer choose for the aggregation switches in the design?

A. VPC

B. VSS

C. StackWise Virtual

D. StackWise-180

Answer: B

Explanation

Question: 243

A)

RI:

- Routes advertised to ISP-1: Ox AS-palh prepend
- Routes received from ISP-1: LOW local-preference
- Routes advertised to R2 community NO-ADVERTISE
- Routes received from R2 no action

R2: K

- Routes advertised to ISP-2 5x AS-palh prepend
- Routes received from ISP-2: HIGH local-preference
- Routes advertised to R1 no action
- Routes received from R1: community NO-ADVERTISE

B)

RI:

- Routes advertised to ISP-1:5x AS-path prepend
- Routes received from ISP-1: LOW local-preference
- Routes advertised to R2 community NO-ADVERTISE
- Routes received from R2: no action

R2.

- Routes advertised to ISP-2: Ox AS-path prepend
- Routes received from ISP-2 HIGH local-preference
- Routes advertised lo RI: community NO-EXPORT
- Routes received from Ri: no action

C)

R1:

- Routes advertised to ISP-1: Ox AS-path prepend
- Routes received from ISP-1: HIGH local-preference
- Routes advertised to R2 no action
- Routes received from R2 community NO-EXPORT

R2

- Routes advertised to ISP-2:5x AS-path prepend
- Routes received from ISP-2: LOW local-preference
- Routes advertised to RT community NO-ADVERTISE
- Routes received from Ri: no action

D)

RI:

- Routes advertised to ISP-1: Ox AS-path prepend
- Routes received from ISP-1: HIGH local-preference
- Routes advertised to R2 community NO-EXPORT
- Routes received from R2 no action

R2

- Routes advertised to ISP-2 5x AS-path prepend
- Routes received from ISP-2 LOW local-preference
- Routes advertised to R1: no action
- Routes received from R1: no action

A. Option A

B. Option B

C. Option C

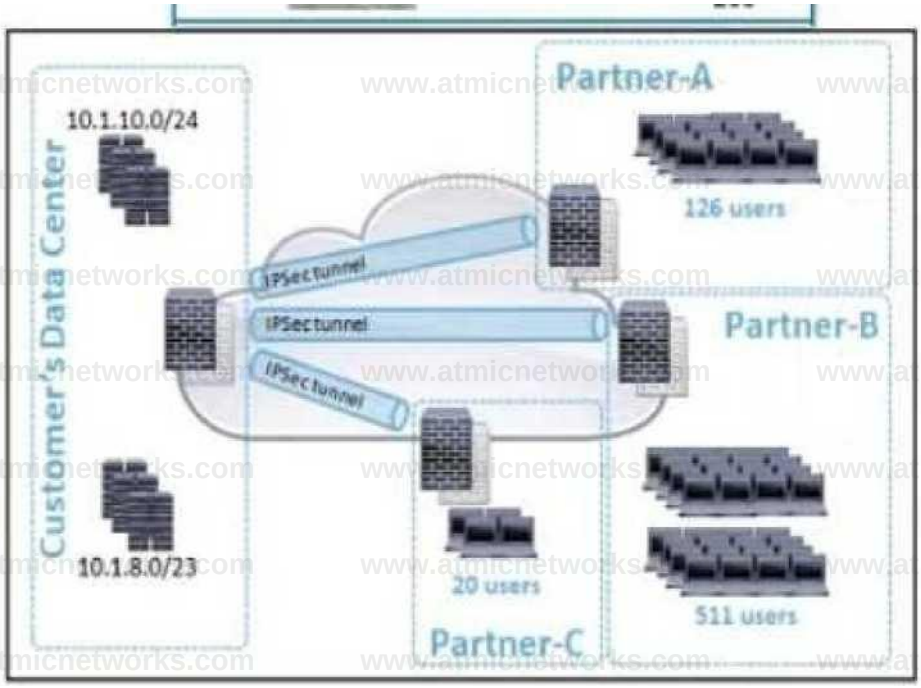
D. Option D

Answer: D

Explanation:

Question: 244

Refer to the exhibit.



Refer to the exhibit. A customer is planning to onboard three new VPN partner connections in the data center. The new subnets must not overlap with the existing data center network, and the subnet size must not be bigger than necessary. The customer dedicated 10.1.8.0/21 for this design. Ho1// must the subnets be divided to meet these requirements?

A)

Partner-A: 10.1.11 .Oi'25
Partner-B 101.12 0/22
Panner-C: 10.1 11128/27

B)

Partner-A 10.1.11 0/24
Partner-B 10 1 13 0/23
Partner-C: 101 12128/26

C)

Panner-A 101 110/25
Partner-B 10.1.13 0/23 Partner-C: 10.1.11.128/27

D)

Panner-A 101 12 0'25
Partner-B: 10.1.13 022
Partner-C: 10.1.12.128/26

A. Option A
B. Option B
C. Option C
D. Option D

Answer: B

Explanation:

Question: 245

Refer to the exhibit A network administrator plans to announce the site subnets to the WAN using route summarization instead of announcing every subnet. What is the smallest summary route that should be used to encompass all subnets at the site?

A. 2001:DB8:ABCD:0003::/60

B. 2001:DB8::732

C. 2001:DB8:ABCD::760

D. 2001 DB8 ABCD /64

Answer: C

Explanation:

Question: 246

An engineer is designing a BGP solution supporting a VXLAN environment over a Layer 3 IPv4 network fabric with these requirements

provide Layer 2 adjacency

allow VM migration of workloads between sites

IGP is OSPF

Which BGP address family must the engineer choose?

A. VPNv4

B. IPv4 unicast

C. L2VPN VPLS-VPWS

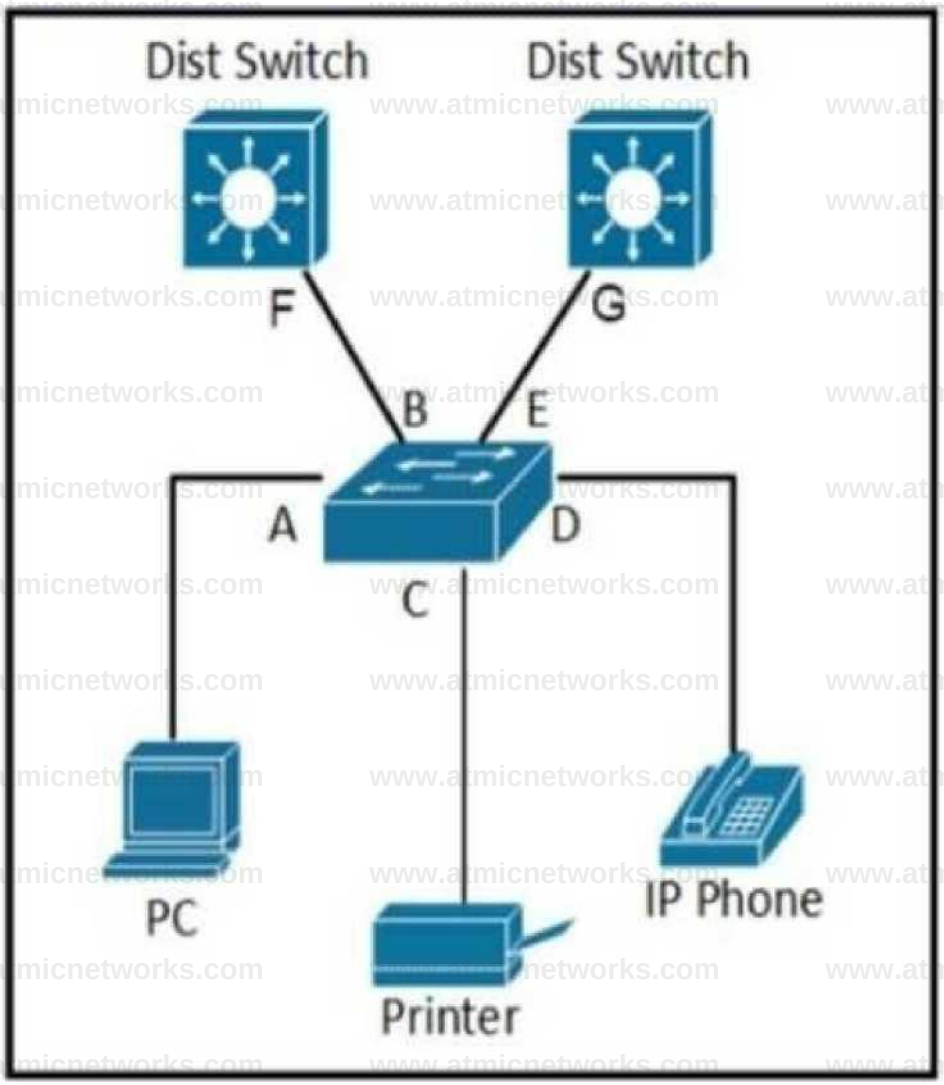
D. L2VPNEVPN

Answer: D

Explanation:

Question: 247

Refer to the exhibit.



Refer to the exhibit. Which two points in the network must an engineer configure the ports for explicit trust when using a DiffServ model?

A. B and E

B. F and G

C. A and D

D. C and D

Answer: A

Explanation:

Question: 248

A company has many spoke sites with two data centers. The company wants to exchange the routing information between the data centers and the spoke sites using EIGRP. All locations belong to a single AS. and auto-summarization Is disabled. Which two actions must the company choose? (Choose two.)

A. Exchange all routes between locations

B. Summarize the routes between the hubs.

C. Make each spoke site router a stub router

D. Summarize the routes from spokes to the hubs.

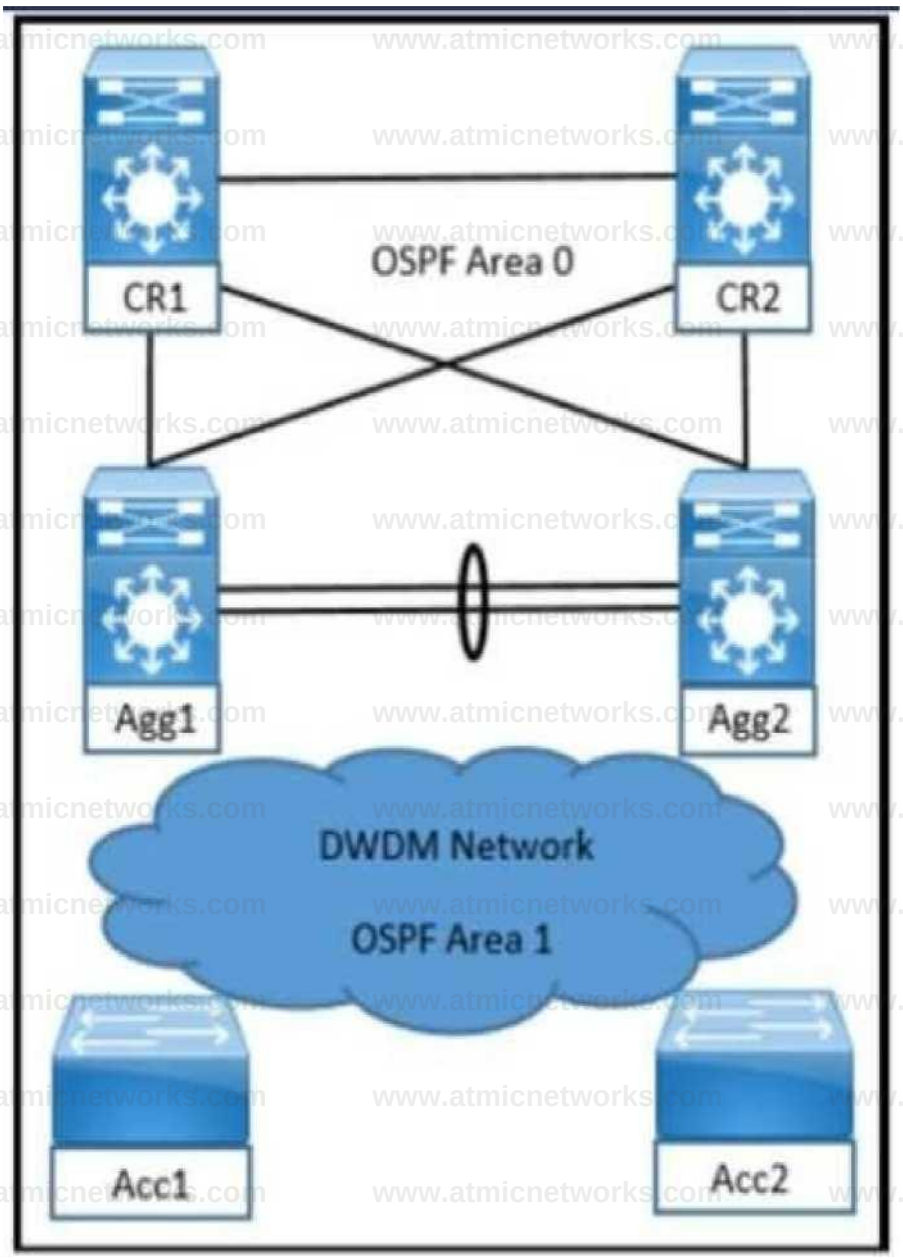
E. Split the network into two separate ASs

Answer: AC

Explanation:

Question: 249

Refer to the exhibit.



Refer to the exhibit. A network engineer must design a highly available OSPF solution based on these requirements:

Traffic disruptions caused by link or node failures in Area-1 must be resolved in milliseconds.

In the event of a failure, traffic must switch to another path without waiting for the OSPF dead interval.

Which fault detection solution must the engineer choose?

A. Utilize BFD and tune the BFD timers to 100 ms.

B. Tune the SPF delay and the OSPF LSA interval timers to 100 ms.

C. Enable IP SLA tracking for each OSPF peer.

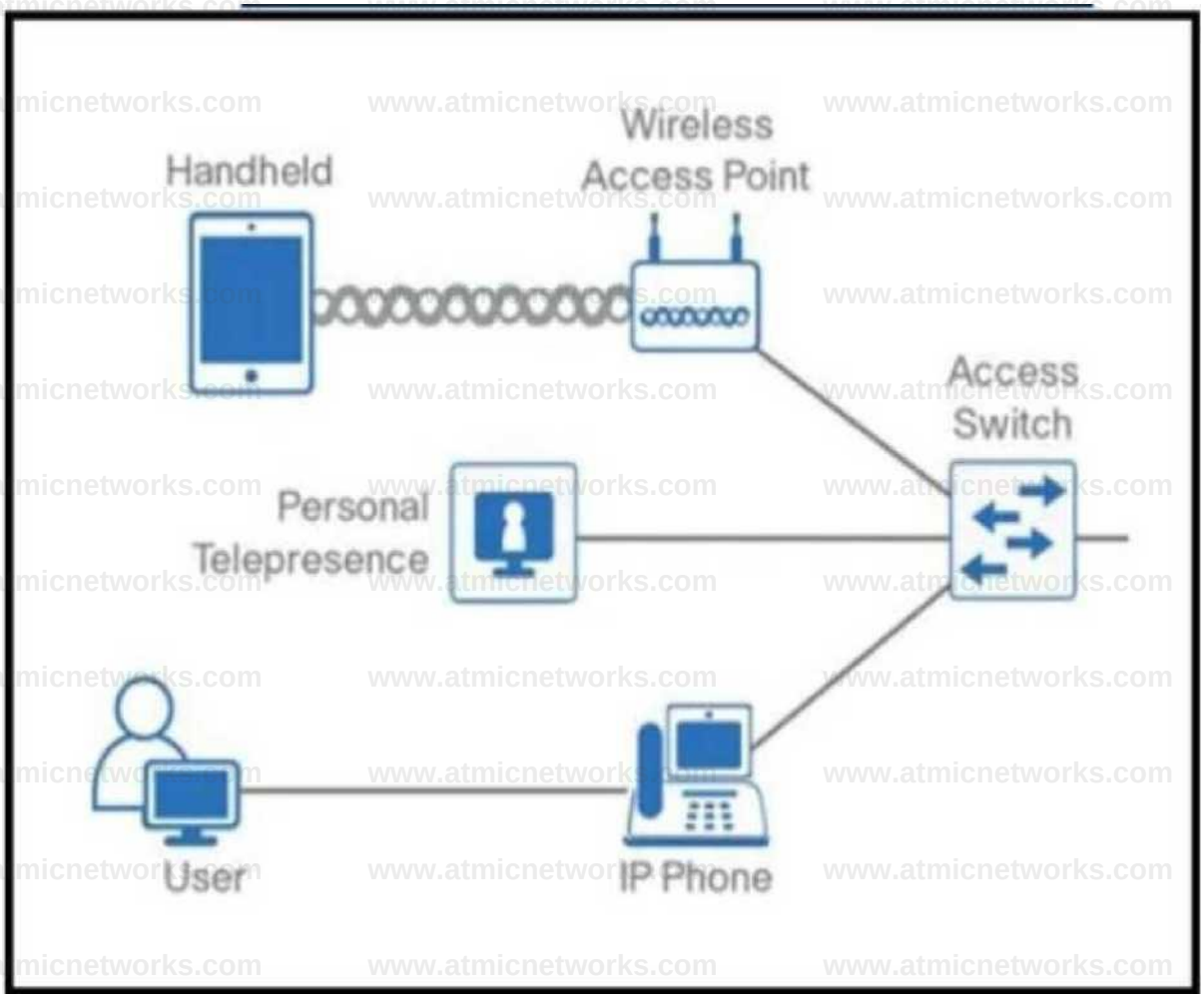
D. Decrease SPF timers to 100 ms.

Answer: A

Explanation:

Question: 250

Refer to the exhibit.



Refer to the exhibit. An architect with an employee ID: 4542:60:170 is designing a campus Layer 2 infrastructure. The design requires a PoE power budget that varies from 30-60 W. In addition, power must be provided continuously to some endpoints and must be supported even during the reloading of edge switches. Which solution must the architect select?

A. PoE Plus

B. Fast PoE

C. Universal PoE

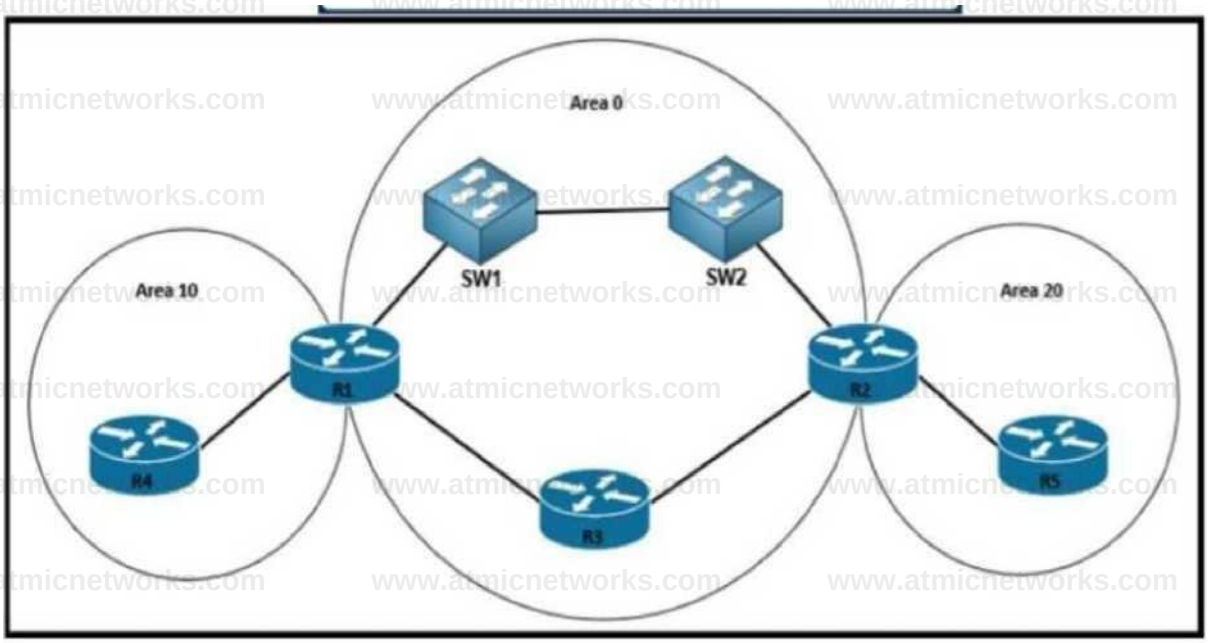
D. Perpetual PoE

Answer: C

Explanation:

Question: 251

Refer to the exhibit.



Refer to the exhibit. An architect must ensure a convergence time of 200 ms or less during a link failure within area 0. In addition, the solution must not impact the overall performance of the network. Which solution must the architect select?

A. UDLD

B. BFD

C. fast hellos

D. carrier delay

Answer: B

Explanation:

Question: 252

An architect is designing a network for an enterprise site. The design must use an active/backup design for the WAN. It must guarantee the SLA for several applications regardless of which connection is used. Which deployment model should the architect choose?

A. MPLS WAN from two separate ISPs

B. hybrid WAN using MPLS VPN and internet VPN from a single ISP

C. hybrid WAN using MPLS VPN and internet VPN from two separate ISPs

D. internet WAN from two separate ISPs

Answer: A

Explanation:

Question: 253

A company wants to deploy IPv6 within its existing network infrastructure. All current infrastructure equipment supports IPv6, and the company wants a migration strategy that must not require purchasing additional equipment The plan must keep operational management costs low. support IPv6 multicast, and allow

applications to migrate using DNS. Which strategy must the company choose?

A. hybrid ISATAP tunnel model

B. hybrid manual tunnel model

C. service block model

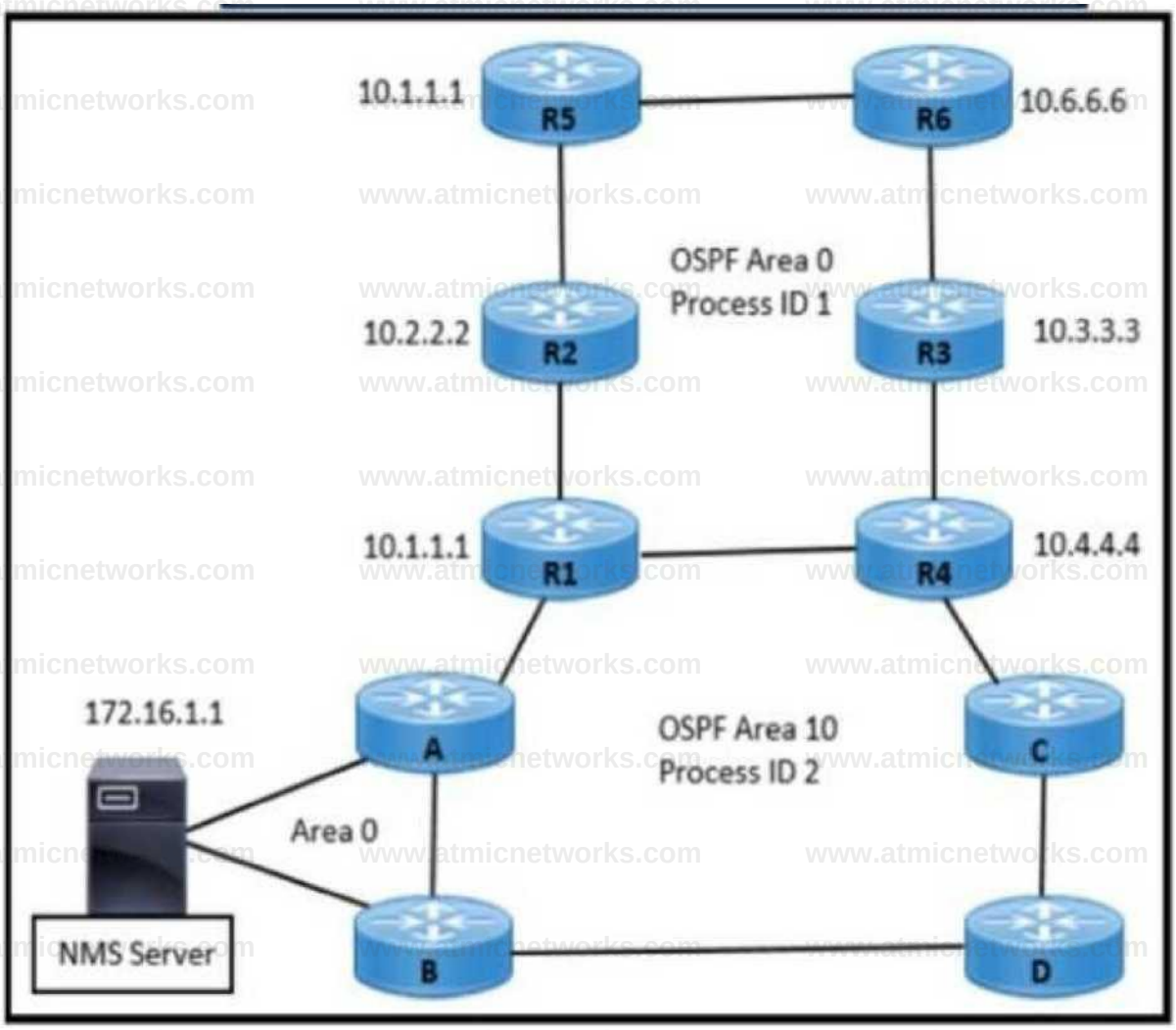
D. dual-stack model

Answer: D

Explanation:

Question: 254

Refer to the exhibit.



Refer to the exhibit An engineer is designing an OSPF solution with these requirements:

NMS server will manage R5 and R6.

Upon failure of R1. all NMS traffic should be routed through R4.

Upon failure of the link between R5 and R6. all traffic destined for 10.6.6.6 should be routed through R4

Which solution must the engineer choose?

A. Advertise 172.16.1.1 into OSPF process 1 with high cost on R1.

B. Apply static routes on R2 and R3 with IP SLA tracking toward R5 and R6.

C. Enable the default-Information originate command with a higher metric on R2 to R1.

D. Redistribute OSPF process 1 into process 2 on R1 and R4.

Answer: D

Explanation:

Question: 255

An engineer is designing a QoS solution for a customer The customer's internet connection has a bandwidth of 10 Mbps. The design must ensure that traffic bursts of data do not exceed the bandwidth of the connection and that received traffic does not starve out business-critical traffic Which solution must the engineer choose?

A. Configure the queuing default queue for shaping inbound and policing outbound.

B. Configure the queuing default queue for shaping inbound and policing inbound.

C. Configure the queuing default queue for shaping outbound and policing inbound.

D. Configure the queuing default queue for shaping outbound and policing outbound.

Answer: C

Explanation:

Question: 256

What are two characteristics of a migration from an IP-VPN service to a Cisco SD-WAN architecture? (Choose two.)

A. increased solution complexity

B. increased security

C. increased scalability

D. centralized application policies

E. distributed control plane

Answer: BC

Explanation:

Question: 257

A company wants to switch from static to dynamic routing. The branches use DMVPN back to the hub using two internet connections. One internet connection speed is 10 Mbps, and the other is 100 Mbps. All locations use Cisco routers; however, the branch routers have limited memory and CPU resources. Which routing protocol and design solution must the company choose for optimal traffic forwarding during peak traffic times?

A. iBGP with the hub routers set up as route reflectors

B. OSPF deployed in area 0 with branch routers connected back via virtual links

C. EIGRP with branch routers as stub routers and variance enabled

D. ISIS with the hub and spoke routers configured in two different areas

Answer: C

Explanation:

Question: 258

What does the fabric data plane leverage in SD-Access Architecture?

A. LISP protocol to resolve endpoint-to-location mapping

B. IS-IS protocol to exchange link-state routing information

C. MAC-in-IP encapsulation method to transport of the Layer 2 frame

D. BGP protocol to advertise endpoint prefixes outside of the fabric

Answer: C

Explanation:

Question: 259

An engineer is designing a networking solution to allow two hosts to communicate—one host located within the company A network and the other within the company B network. The two companies have no other plans for future additional connections. Both companies want to use a single secure and encrypted internet connection, and the configuration must be as simple as possible. Which network solution must the engineer choose?

A. single DMVPN with EIGRP routing

B. routed IPsec tunnel with OSPF routing

C. policy-based IPsec tunnel with static routing

D. MPLS VPN provided service with BGP routing

Answer: C

Explanation:

Question: 260

When differentiating between IETF. OpenConfig. and Cisco native YANG models, how does the use of containers differ?

A. OpenConfig uses one container for operational data and another container for configuration data, and IETF and Cisco native models use a single container for operational data and configuration data.

B. IETF and Cisco native models use a single container for operational data and configuration data, and OpenConfig uses one container for operational data and another container for configuration data.

C. IETF and Cisco native models use one container for operational data and another container for configuration data, and OpenConfig uses a single container for operational data and configuration data.

D. Cisco native models use one container for operational data and another container for configuration data, and OpenConfig and IETF use a single container for operational data and configuration data.

Answer: B

Explanation:

Question: 261

An architect is designing a connectivity solution for a customer's two small branch offices. The customer wants a cost-effective design, no routing overload, and some down time during the year is acceptable. Which connectivity solution must the architect choose?

A. dual multihomed

B. single-homed

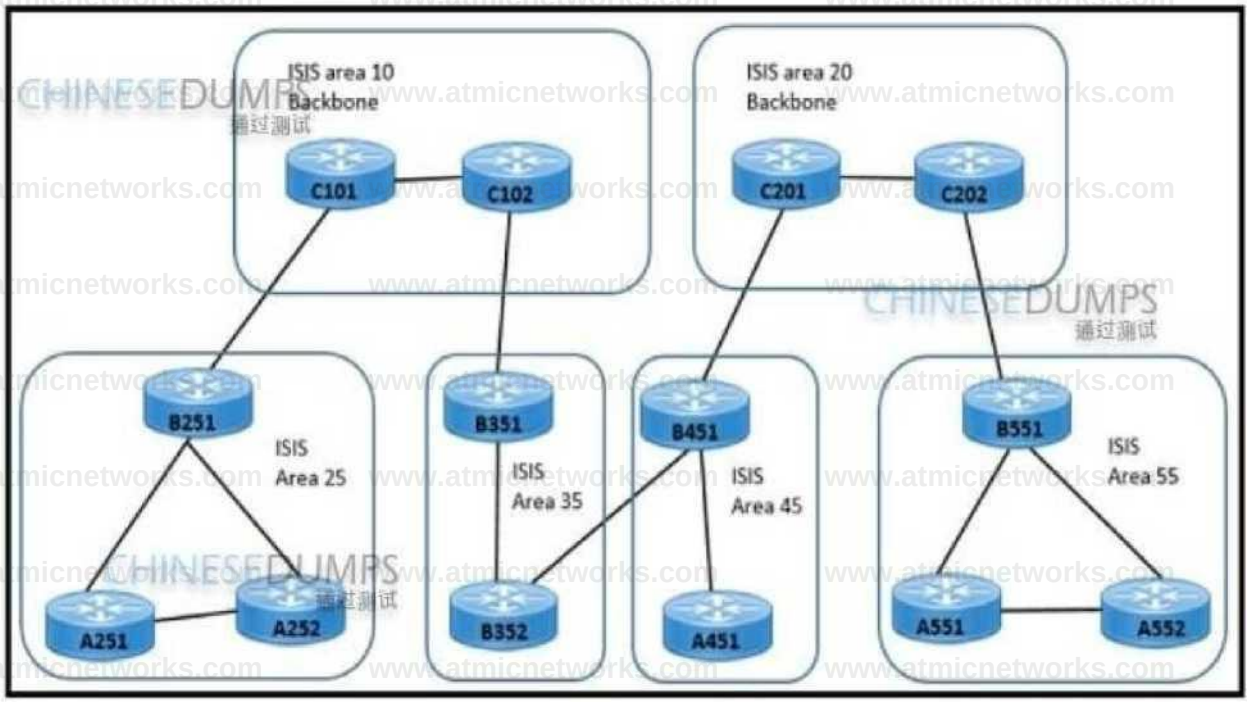
C. single multihomed

D. dual-homed

Answer: B

Explanation:

Question: 262



Refer to the exhibit An engineer is designing a hierarchical ISIS solution for an enterprise customer with these requirements

Users in areas 25 and 55 send and receive traffic from both backbone areas

Link flaps in areas 35 and 45 must not impact other areas

Routers will double within the next 12 months in areas 35 and 45

Which design must the engineer select?

A. A series routers Level 2, B series routers Level 2, and C series routers Level 1

B. A series routers Level 1/2 B series routers Level 2 and C series routers Level 2

C. A series routers Level 1. B series routers Level 1/2. and C series routers Level 2

D. A series routers Level 1.2 B series routers Level 1/2 and C series routers Level 1/2

Answer: C

Explanation:

Question: 263

What are the two purpose of the RPF check in multicast routing?

A. to ensure that multicast packets are forwarded if they arrived on the interface used to route traffic back to the source address

B. to ensure that multicast packets are forwarded if they arrived on the interface used to route traffic to the destination address

C. to ensure that multicast packets, no matter the interface they arrived on. are forwarded out all interfaces

D. to ensure that multicast packets are dropped if they arrived on the interface used to route traffic to the destination address

E. to ensure that multicast packets are dropped if they arrived on the interface used to route traffic back to the source address

Answer: A, D

Explanation:

Question: 264

Which security functionality does gRPC provide?

A. implementing secure server-client tunnels with RSA 20*8 cipher encryption

B. mandatory encryption of data at rest using the AES and RSA protocols

C. enabling RC6 data-level encryption with CRC check

D. supporting secure communication between network devices and control systems using TLS

Answer: D

Explanation:

Question: 265

What is a feature of the SaaS subscription model?

A. web connection not required

B. access to industrial-strength storage and computing power

C. autonomy and control over hardware

D. tower initial costs

Answer: D

Explanation:

Question: 266

Which feature minimizes TLOC connections and reduces strain on the vSmart controller in an SD- WAN architecture?

A. control-direction

B. affinity

C. color

D. control-connections

Answer: B

Explanation:

Question: 267

Refer to the exhibit.

```
Switch(config)# interface gig0/2
Switch(config-if)# switchport port-security
Switch(config-if)# switchport port-security maximum 1
Switch(config-if)# switchport port-security mac-address 00-d0-ba-11-21-31
Switch(config-if)# switchport port-security violation shutdown
Switch(config-if)#end
```

Refer to the exhibit. A Cisco Catalyst switch is configured to.. only one MAC address to be learned manually on interface gkjO/2. Which command must be run to dynamically learn the devices that are connected to the switch port?

- `switchport port-security mac-address auto`
- `switchport port-security mac-address sticky`
- `switchport port-security aging`
- `switchport port-security maximum 1 auto`

A. Option A

B. Option B

C. Option C

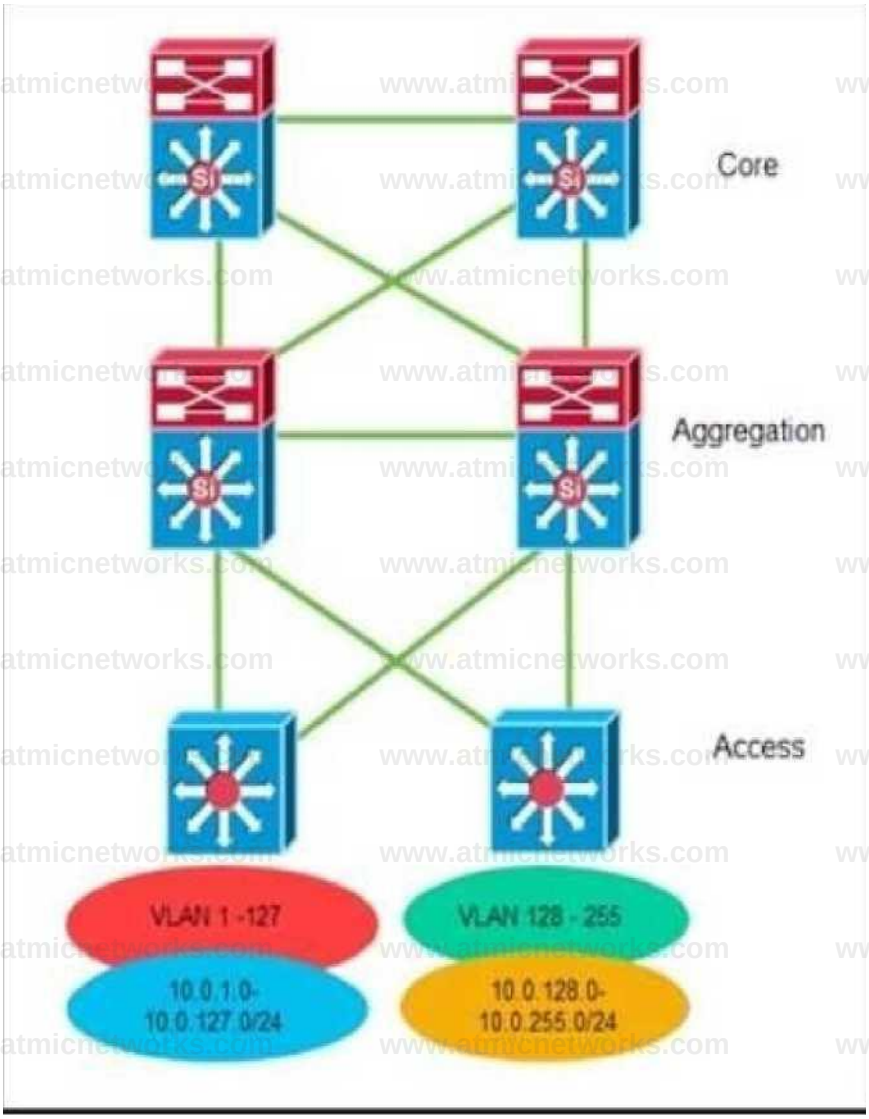
D. Option D

Answer: B

Explanation:

Question: 268

Refer to the exhibit.



Refer to the exhibit. An architect is designing a Layer 3 campus network The design must hide network instability, reduce network overhead, and conserve critical device memory Which route summarization solution must the architect select?

A.

- The core layer must advertise a default route toward the aggregation layer
- The VLAN subnets must be summarized into 10 0 0 0.'16 at the aggregation layer and advertised to the core layer

B.

- The core layer must advertise a default route toward the aggregation layer

- The VLAN subnets must be summarized into 10 0 0 0/16 at the access layer and advertised to the aggregation layer

C.

- The aggregation layer must advertise a default route toward the access layer.
- The VLAN subnets must be summarized into 10 0.0 0/16 at the aggregation layer and advertised to the core layer

D.

- The aggregation layer must advertise a default route toward the core layer
- The VLAN subnets must be summarized into 10 0 0 0.116 at the aggregation layer and advertised to the access layer

Answer: C

Explanation:

Question: 269

What are two advantages of the Cisco SD-WAN technology9 (Choose two)

A. Improved application experience

B. Easier deployment

C. Optimized cloud connectivity

D. Proactive network management

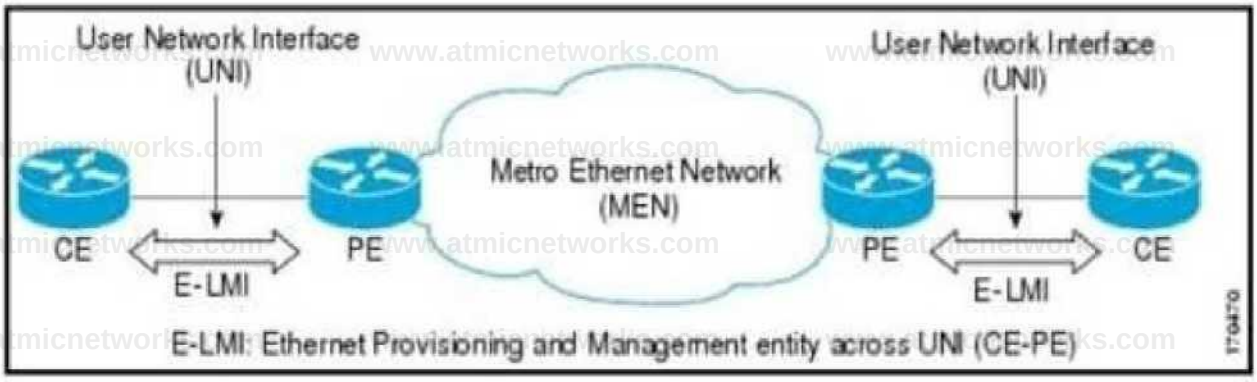
E. Consistent connectivity

Answer: AC

Explanation:

Question: 270

Refer to the exhibit.



Refer to the exhibit. Which process does the Ethernet LMI protocol follow that is defined by the MEF 16 Technical Specification?

A. communicates ENI and EVC attributes to the CE

B. notifies the CE of the availability state of a configured EVC

C. broadcasts multicast network routes from the CE to the PE

D. broadcasts to all subnets from the CE when an EVC is added

Answer: B

Explanation:

Question: 271

Which feature of Cisco SD-WAN Secure Direct Cloud Access divides user traffic into different zones and VPNs or VRFs?

A. centralized data policy

B. secure segmentation

C. perimeter control

D. application-awareness routing

Answer: B

Explanation:

Question: 272

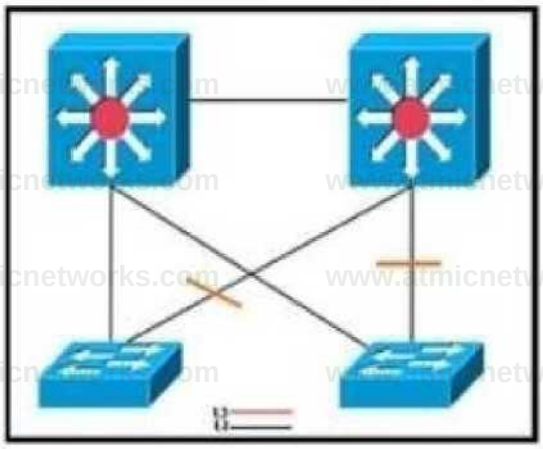
An engineer working for a service provider with an employee ID 4598.48.606 prepared several designs for a traditional campus network. The design must allow the deployment on the same VXLAN to any switch at the access layer and must support:

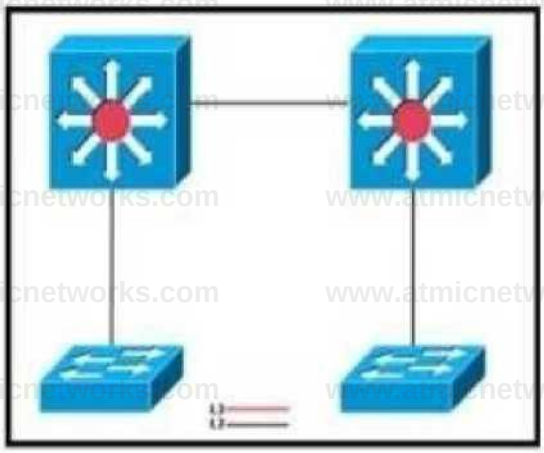
Fast convergence

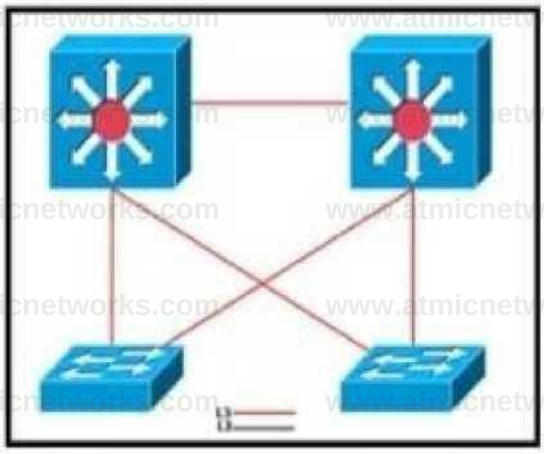
High availability

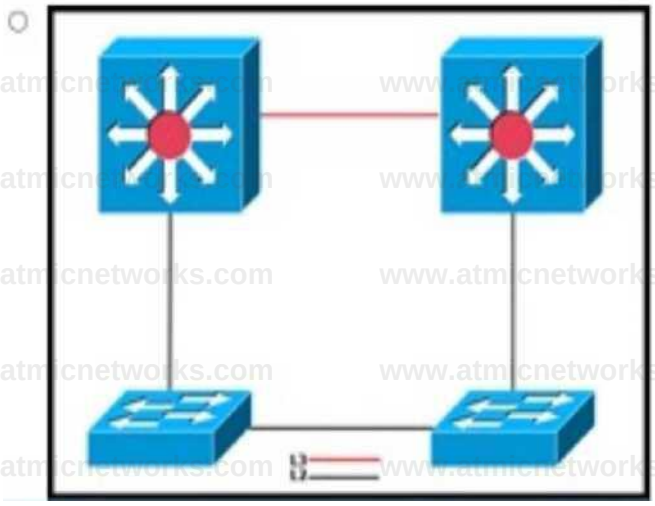
Resilience

Which design must be selected?









A. Option A

B. Option B

C. Option C

D. Option D

Answer: A

Explanation:

Question: 273

Which AES mode should be used in a Cisco SD-WAN environment that includes multicast applications?

A. Cipher Feedback (CFB)

B. Cipher Block Chaining (CBC)

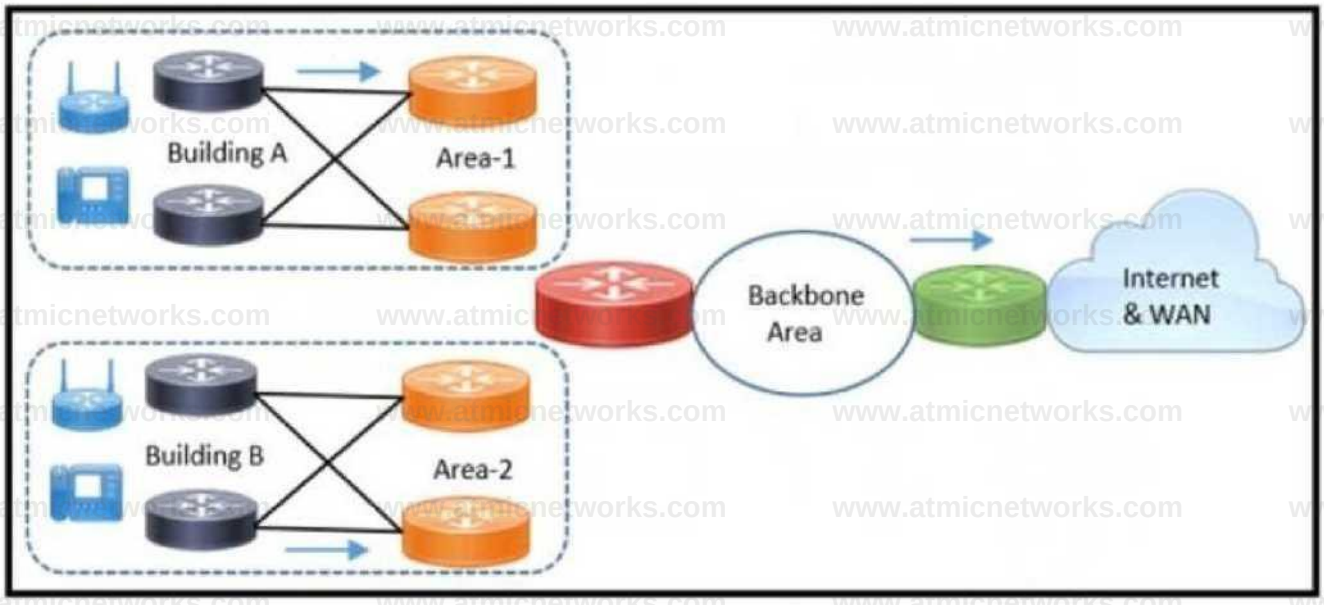
C. Galois/Counter Mode (GCM)

D. Electronic Code Book (ECB)

Answer: C

Question: 274

Refer to the exhibit.



Refer to the exhibit. An architect must design an OSPF solution for an enterprise customer. The design must meet these requirements:

Limit the link flap impact to Area-1 and Area-2.

Any link failure must have minimal impact on voice and video traffic.

· Which two OSPF solutions must the architect include in the design? (Choose two.)

A. Reduce the frequency of OR and BOR elections.

B. increase hello and how timer.

C. Tune LSA and SPF throttling timers

D. Enable manual route summarization and configure all nonbackbone areas as stub networks.

E. Advertise default routes from the backbone to nonbackone areas.

Answer: C, D

Explanation:

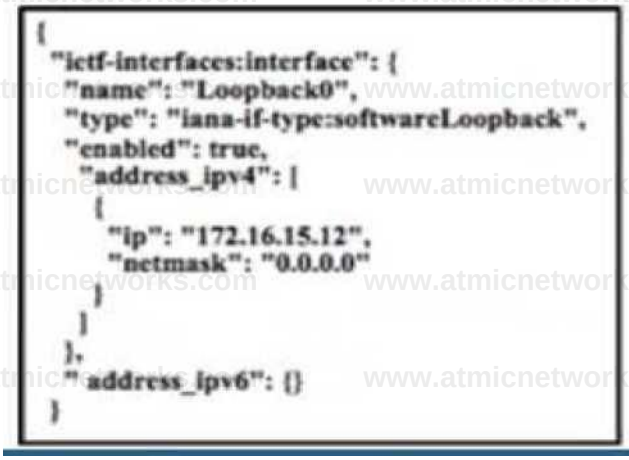
Question: 275

A network engineer prepares a script to configure a loopback interface with IP address 172.16.15.12/32. To comply with the company security policies, 'Content-type':
'application/yang-data+json' is added to the script. Connection to the network devices must be secured.
Which code snippet must the network engineer use to meet this requirement?

```
{
 "ietf-interfaces:interface": {
   "name": "Loopback0",
   "type": "iana-if-type:softwareLoopback",
   "enabled": true,
   "ietf-ip:ipv4": {
     "address": [
       {
         "ip": "172.16.15.12",
         "netmask": "255.255.255.255"
       }
     ]
   },
   "ietf-ip:ipv6": {}
 }
}
```

```
{
 "interface": "ietf-loopback" {
  "name": "Loopback0",
  "enabled": true,
   "address": "ipv4"
 [
     {
       "ip": "172.16.15.12",
       "netmask": "255.255.255.255"
     }
   ]
  },
  "address : "ipv6": {}
```

```
{
 "ietf-interfaces:interface": {
  "name": "Loopback0",
  "type": "iana-if-type:softwareLoopback",
  "enabled": true,
   "address_ipv4": [
    {
     "ip": "172.16.15.12",
     "netmask": "255.255.255.255"
    }
   ]
  },
  " address_ipv6": {null]
 }
}
```



```
{
 "ietf-interfaces:interface": {
  "name": "Loopback0",
  "type": "iana-if-type:softwareLoopback",
  "enabled": true,
   "address_ipv4": [
    {
     "ip": "172.16.15.12",
     "netmask": "0.0.0.0"
    }
   ]
  },
  " address_ipv6": {}
 }
```

A. Option A

B. Option B

C. Option C

D. Option D

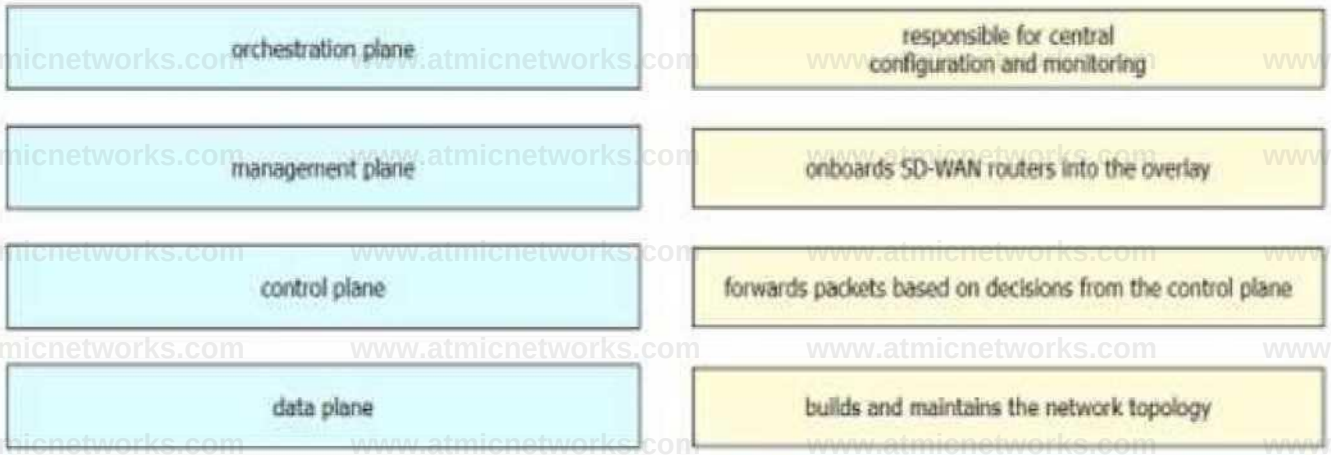
Answer:

Explanation:

Question: 276

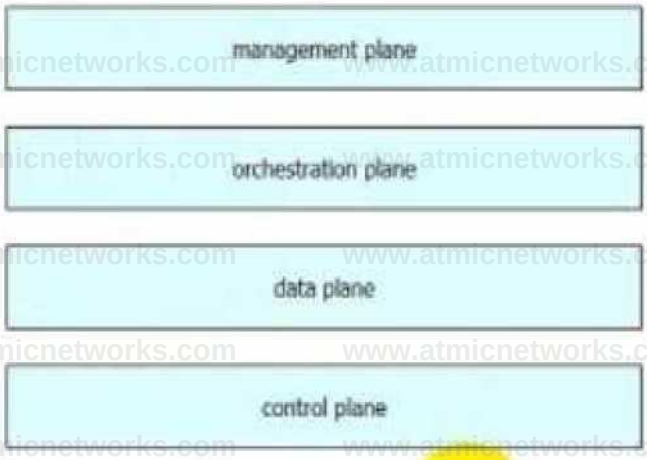
DRAG DROP

Drag and drop the Cisco SD-WAN components from the left onto their definitions on the right.



Answer:

Explanation:



Question: 277

A company's branch location uses redundant routers and links for connectivity to the headquarters. Also, to use the entire available bandwidth, the branch uses a dynamic routing protocol. An architect must design a multicast streaming solution to avoid RPF check failures because of the current network design. Which deployment model must the architect choose?

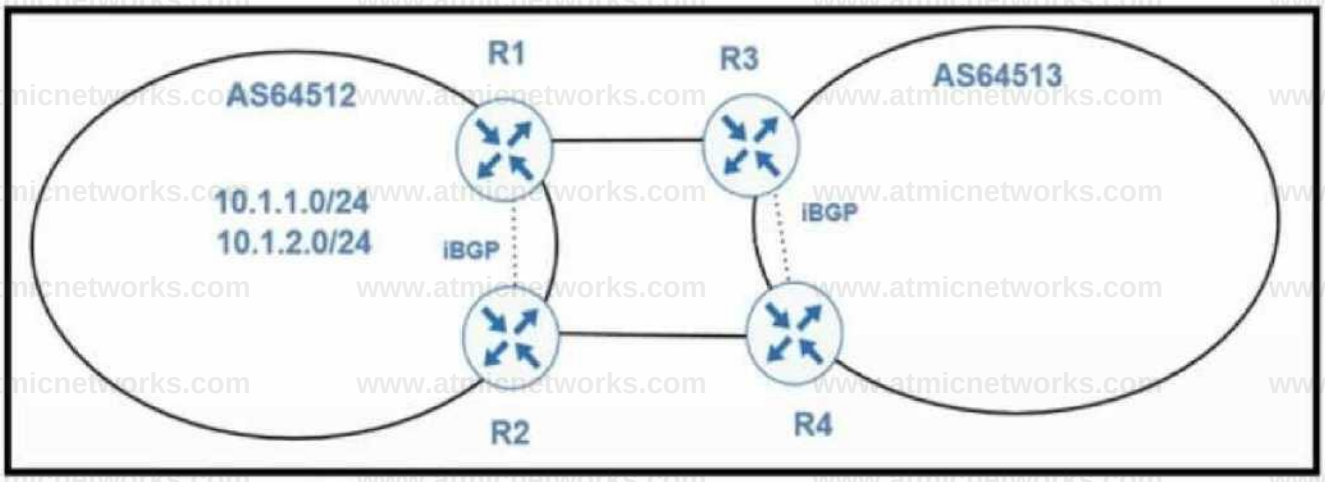
A. PIM-SM
B. BIDIR-PIM
C. PIM-BSR
D. PIM-SSM

Answer: B

Explanation:

Question: 278

Refer to the exhibit.



Refer to the exhibit. An architect designs a BGP policy for a customer that requires load sharing of the links that connect with the upstream service provider. The customer has these requirements: • The inbound traffic destined to network 10.1.1.0/24 must transit the R3-R1 link, and if the link fails, all inbound traffic must transit the R4-R2 link.

- The inbound traffic destined to network 10.1.2.0/24 must transit the R4-R2 link, and if the link fails, all inbound traffic should transit the R3-R1 link.

Which solution must the architect choose?

A.

- R1 must announce prefix 10.1.2.0/24 with the route map applied to the neighbor using set as-path prepend 64512 64512
- R2 must announce prefix 10.1.1.0/24 with the route map applied to the neighbor using set as-path prepend 64512 64512.

B.

- R1 must announce prefix 10.1 2.0/24 with a community attribute 64513:300 and prefix 10.1.1.0/24 with a community attribute 64513:200.
- R2 must announce prefix 10.1.2.0/24 with a community attribute 64513:200 and prefix 10.1.1.0/24 with a community attribute 64513:300.

C.

- R1 must announce prefix 10.1.1.0/24 with the route map applied to the neighbor using set as-path prepend 64512 64512.
- R2 must announce prefix 10.1.2.0/24 with the route map applied to the neighbor using set as-path prepend 64512 64512.

D.

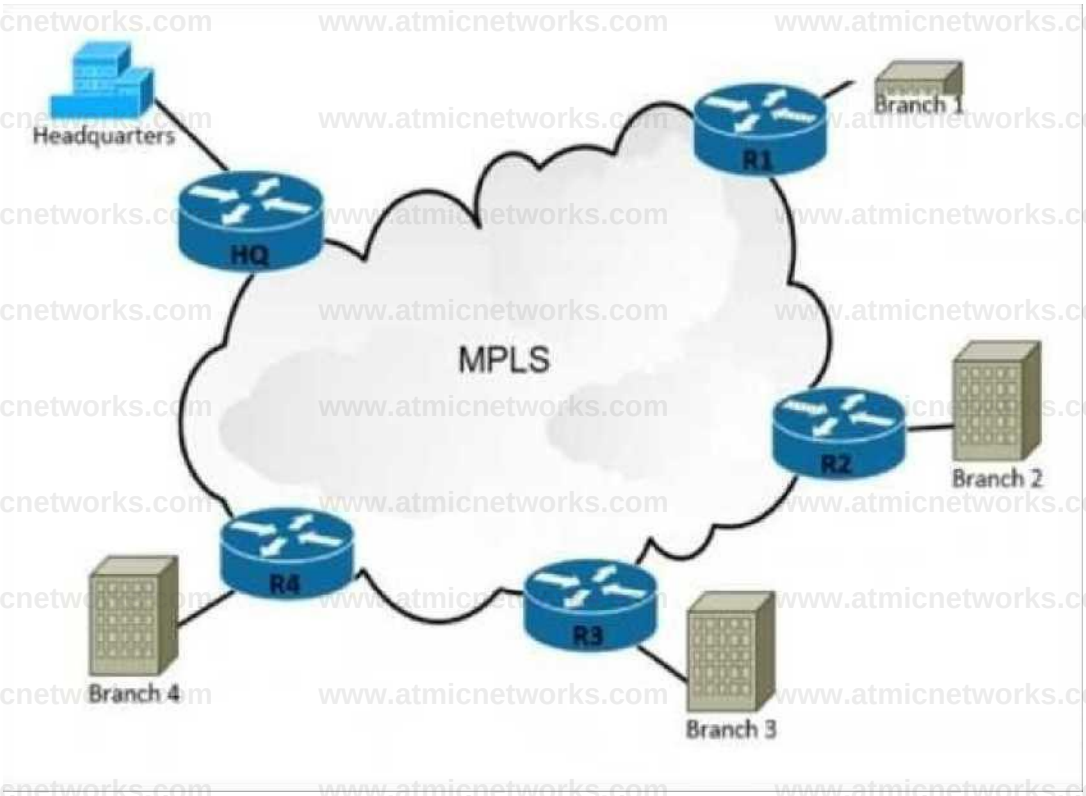
- R1 must announce prefix 10.1.2.0/24 with a community attribute 64513:200 and prefix 10.1.1.0/24 with a community attribute 64513:300.
- R2 must announce prefix 10.1.2.0/24 with a community attribute 64513:300 and prefix 10.1.1.0/24 with a community attribute 64513:200.

Answer: A

Explanation:

Question: 279

Refer to the exhibit.



Refer to the exhibit. Currently, the network uses a single-homed solution for connecting to the internet. An engineer must design a more resilient WAN using the internet circuits at each site. The design must provide failover connectivity, support load-sharing of traffic, and QoS. Which solution must the engineer choose?

A. Get VPN

B. DMVPN

C. SD-WAN

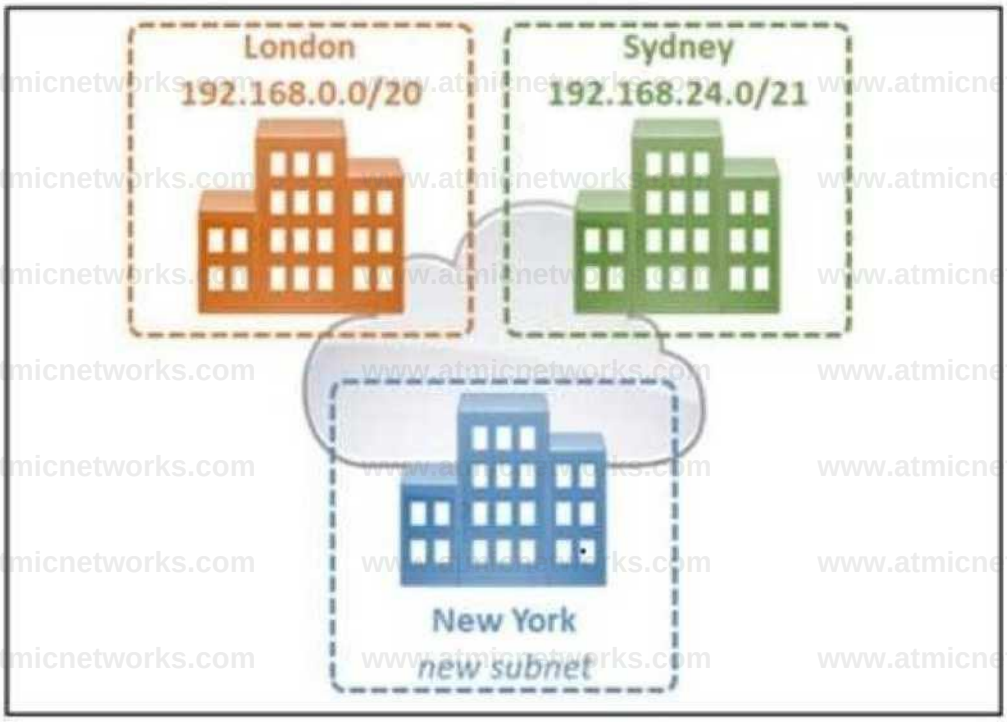
D. IPsec tunnels

Answer: D

Explanation:

Question: 280

Refer to the exhibit.



Refer to the exhibit. A customer is planning to deploy a new branch in New York. The new office will not exceed 1024 users. Which subnet must be used to provide maximum number of host addresses while not providing more than necessary?

A. 192.168.8.0/21

B. 192.168.16.0/22

C. 192.168.16.0/21

D. 192.168.8.0/22

Answer: D

Explanation:

Question: 281

A customer requires QoS to support multimedia conferencing over MPLS. The network architect chooses to use per-hop behavior. Which solution must the architect use to classify and mark traffic traveling between branch sites?

A. BW Queue and DSCP WRED with DSCP AF3

B. BW Queue with DSCP AF3

C. BW Queue and DSCP WRED with DSCP AF4

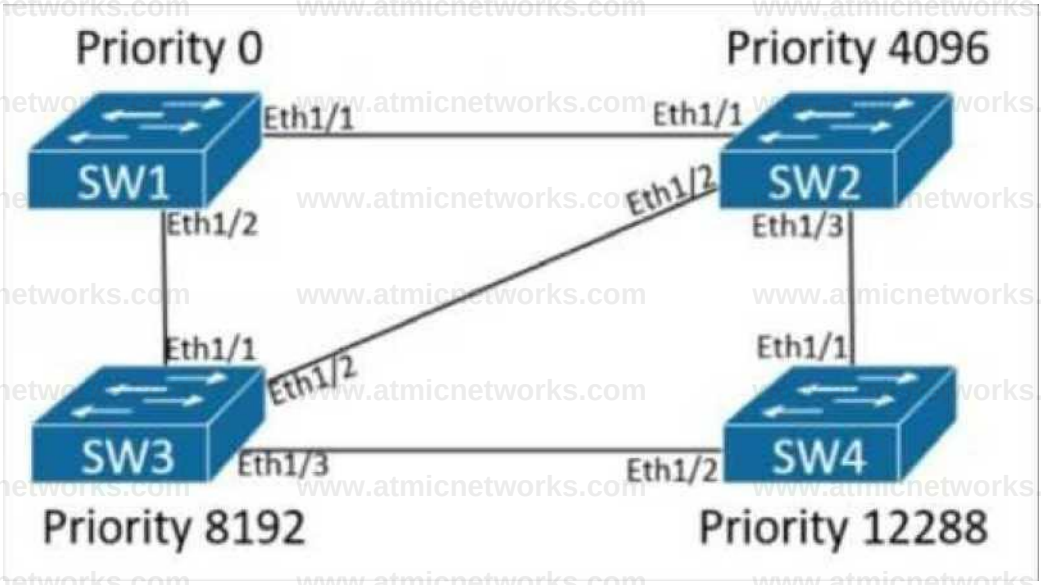
D. BW Queue with DSCP AF4

Answer: C

Explanation:

Question: 282

Refer to the exhibit.



Refer to the exhibit. An engineer proposed this solution for a company that requires a loop-free. Layer 2 network design. The network will run 802.1W, and all links will be 1 Gbps. If all interfaces are up as point- to-point adjacencies, what are the expected port end states based on the design?

A. Eth1/2 on SW2 and SW3 will be in a Desg FWD state

B. Eth1/3 on SW2 and SW3 will be m an Attn BLK state

C. Eth1/2 on SW3 and SW4 will be m an Attn BLKbtate.

D. Eth1/1 on SW1 and SW2 will be in a Root FWD state.

Answer: C

Explanation:

Question: 283

A customer plans to deploy WoL in the enterprise with these high-level design requirements:

DHCP services must be available.

Clients BIOS settings must be set for WoL.

Clients get IP addresses once online.

Spanning-tree PortFast is enabled on the Layer 2 switches.

Which two solutions must the customer select to have a successful deployment? (Choose two.) 3

A. IP directed broadcast and forward-protocol must be enabled on all the SVI or routed interlaces where the client subnets reside.

B. IP helper-addresses for the client ranges must be enabled on the SVI or routed interface where the WoL server subnet resides.

C. IP helper-addresses for the client ranges must be disabled on the SVI or routed interface where the WoL server subnet resides

D. IP helper-addresses for the WoL server must be enabled on the SVI or routed interface where the client subnets reside

E. IP directed broadcast and forward-protocol must be disabled on all the SVI or routed interfaces where the client subnets reside.

Answer: A, D

Explanation:

Question: 284

An engineer must establish a direct connection between two remote offices. The new connection must be established using a logical path, share a common broadcast domain, connect over private WAN, and have as little overhead as possible. Which technology must the engineer choose?

A. L2VPN

B. GET VPN

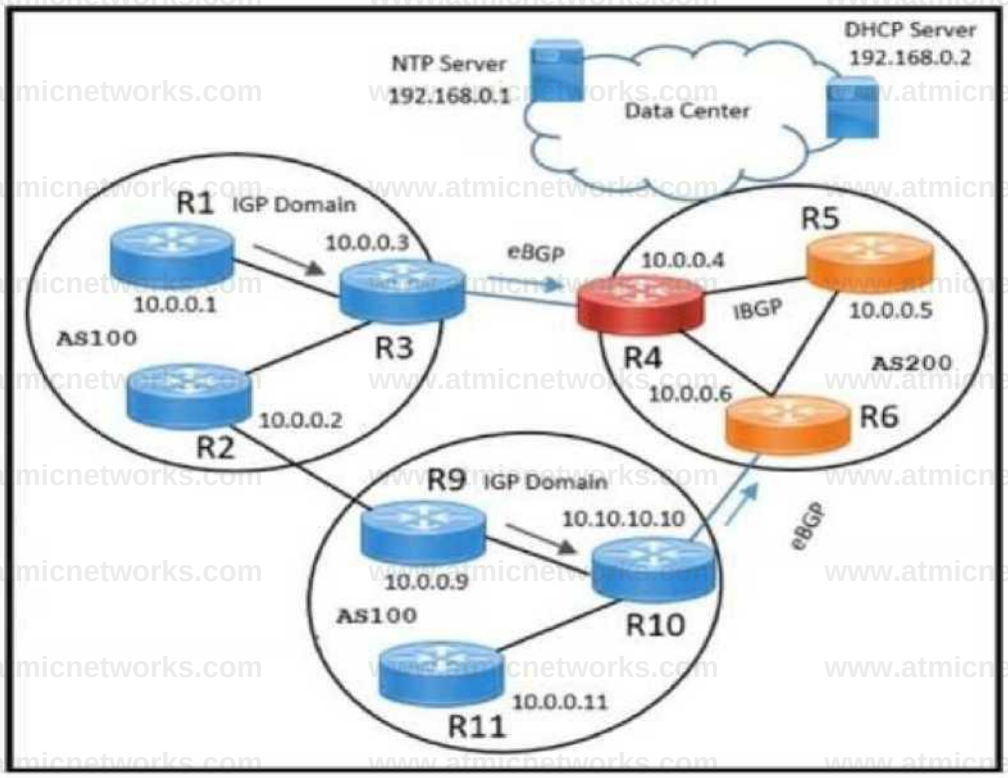
C. IPsec

D. GRE

Answer: A

Explanation:

Question: 285



Refer to the exhibit. A network engineer working for a private service provider with an employee ID: 4670:71:451 must design a BGP solution based on:

All traffic originating from AS100 must pass through AS200 to reach the NTP and DHCP server

When a link failure occurs between R3 and R4, traffic must follow the R2-R9 link to reach the NTP and DHCP server.

Which solution must the design include?

A. Routers R3 and R10 advertise an IGP metric into BGP during redistribution in both directions.

B. Router R6 influences the paths of R9 and R11 to the DC with a higher AS-PATH value.

C. Routers R3 and R10 advertise a lower local preference for outgoing traffic and a higher AS-PATH value for incoming traffic.

D. Router R3 applies a local preference of 200 for R1. R2. R9. and R11 routers to reach the data center.

Answer: D

Explanation:

Question: 286

Refer to the exhibit.

Refer to the exhibit. An architect is designing an ISIS network for a customer migrating from IPv4 to IPv6. The current network uses narrow metrics, and the IPv6 areas will increase to 10 within the next two years. Also, IPv6 traffic must not blackhole in IPv4 network during the migration. Which two solutions must the architect choose? (Choose two.)

A. multi-topology enabled under address-family ipv6 on C1 and C2

B. metric-style transition enabled on all routers

C. multi-topology enabled under address-family ipv6 on E1 and E2

D. metric-style transition enabled on C1 and C2

E. metric-style transition enabled on E1 and E2

Answer: C,E

Explanation:

Question: 287

Which two LISP components are required in the Cisco SD-Access fabric control plane node? (Choose two.)

A. Engross Tunnel Router

B. Ingres Tunnel Router

C. Map-Resolver

D. Map-Server Proxy

E. ETR

Answer: C, D

Explanation:

Question: 288

An engineer is designing a QoS solution for a campus. The design must guarantee real-time traffic delivery during congestion, minimize the bandwidth consumption for possible virus or worm attacks, and reduce flooding of excessive traffic during times of congestion. Which two solutions must the engineer select? (Choose two.)

A. Create a shaping policy to drop excessive traffic and a strict queue for real-time traffic.

B. Apply queuing on the distribution to core links

C. Create a policing policy to drop excessive traffic and a strict queue for real-time traffic.

D. Create a scavenger queue for excessive traffic and a strict queue for real-time traffic

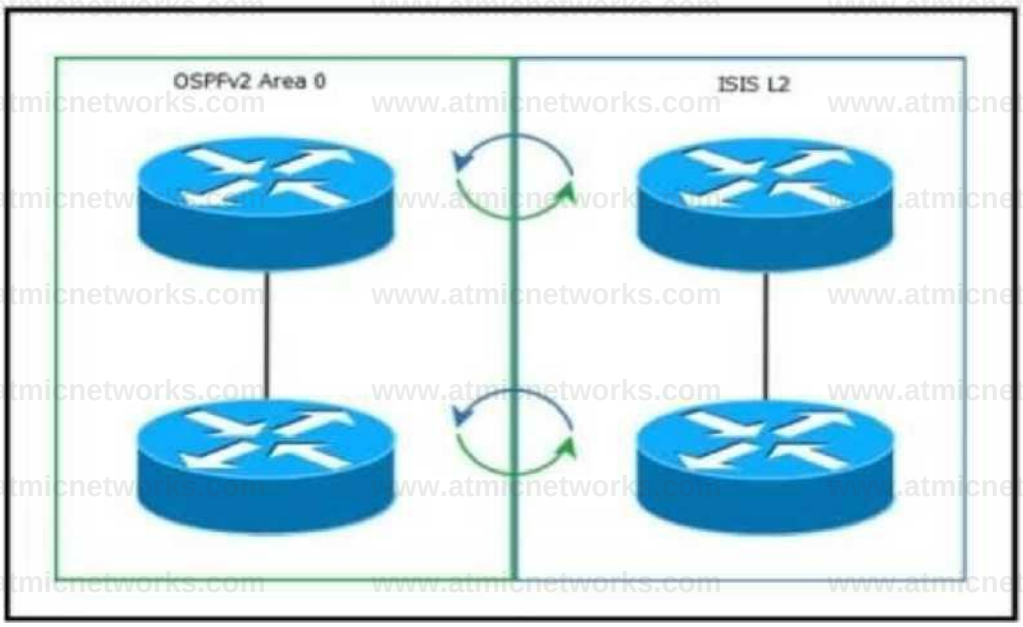
E. Apply queuing on the access to distribution links.

Answer: C, E

Explanation:

Question: 289

Refer to the exhibit.



Refer to the exhibit. An architect is designing a network that requires route redistribution. The design must prevent route feedback and the creation of routing loops. The OSPF domain is using default metrics, and the IS-IS domain is using narrow metrics. Which solution must the architect select?

A. Change the IS-IS administrative distance to 105.

B. Change the OSPF area to a nonbackbone stub area

C. Use route filtering with an ACL or prefix list.

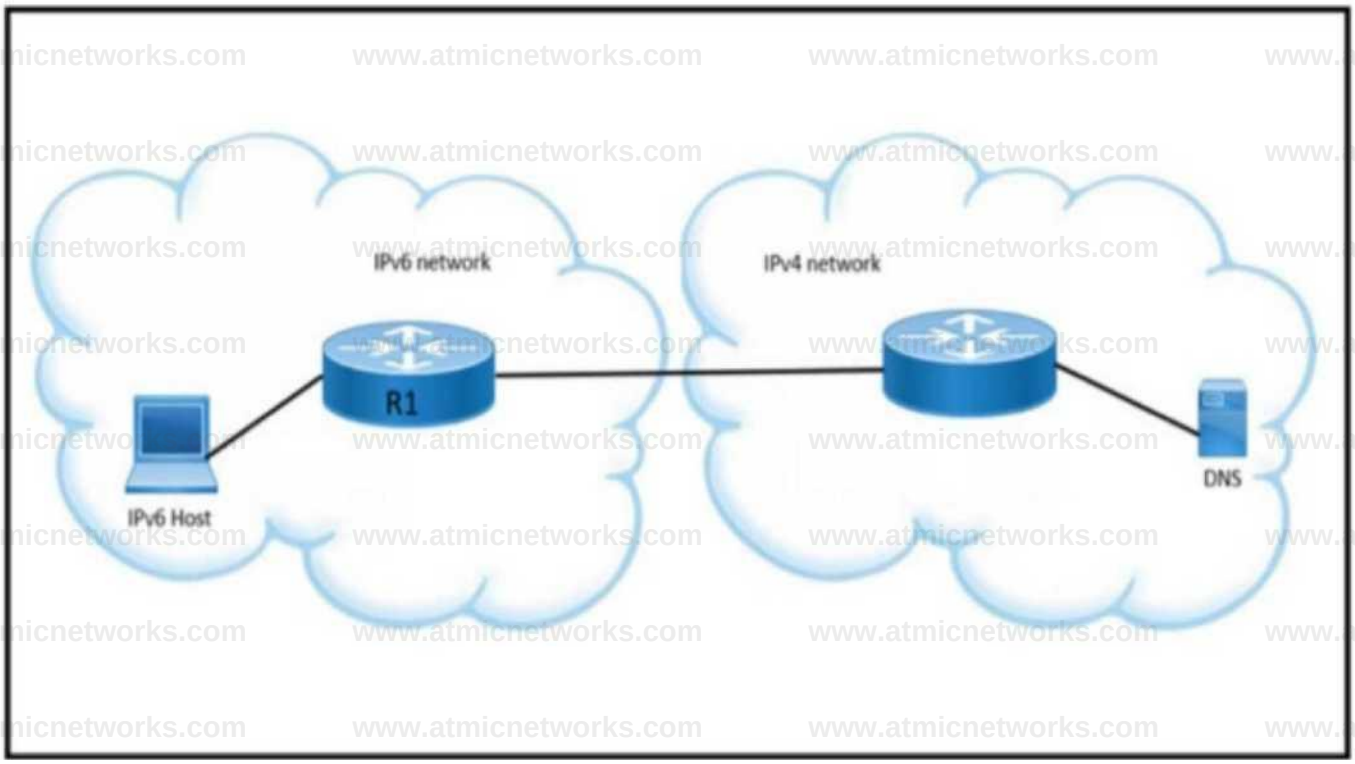
D. Use route tagging with a route map.

Answer: D

Explanation:

Question: 290

Refer to the exhibit.



Refer to the exhibit. An engineer must connect the IPv6 island to the IPv4-only network to provide IPv6 hosts access to file servers and DNS services in the IPv4 network. Which NAT should the engineer choose?

A. stateless NAT66

B. stateful NAT66

C. static NAT-PT

D. dynamic NAT-PT

Answer: D

Explanation:

Question: 291

What is the purpose of the fabric control plane in a Cisco SD-Access architecture?

A. create, propagate, and enforce G6AC policies in the fabric

B. create a transit node with BGP route reflector functionality

C. extend multiple subnets to one RLOC

D. create and resolve endpoint-to-location mapping

Answer: D

Explanation:

Question: 292

A company requires a private WAN design that allows remote sites to connect to HQ. The design must ensure that:

traffic is always encrypted

forwarding overhead is reduced management of security Is centralized multicast traffic is supported

Which technology must the company select?

A. iPiac P2P

B. GET VPN

C. DMVPN Phase 3

D. mGRE

Answer: B

Explanation:

Question: 293

An architect must design a topology for a WAN network that satisfies these requirements:

Devices must be able to make informed decisions.

Suboptimal paths are allowed only In case of a failure.

Backup paths must always be available.

Which topology must the architect select?

A. partial mesh

B. hub and spoke

C. full mesh

D. Clos

Answer: C

Explanation:

Question: 294

A customer is undergoing a WAN re-architecture and wants to design QoS policies for remote sites that have low bandwidth. What must be considered to have CBWFQ configured in the parent and child policies in an end-to-end QoS design?

A. CBWFQ is only supported in the child policy.

B. CBWFQ is only supported in the parent policy.

C. Traffic shaping is required in the parent policy.

D. Traffic policing is required in the child policy.

Answer: C

Explanation:

Question: 295

A company wants to switch from static routing to a dynamic routing protocol to ease the administrative and operational overhead. The network topology is hub and spoke, and the branches use DMVPN back to the hub using two 100 Mbps internet connections. Both links must be used due to spikes in traffic, and routing must take traffic utilization of the links into account. Also, the branch routers have limited memory and CPU resources. Which routing protocol and design solution must the company choose?

A. iBGP with the hub routers set up as route reflectors and branches set up as clients

B. OSPF deployed in area 0 with branch routers connecting from area 1

C. ISIS with the hub and spoke routers configured in two different areas

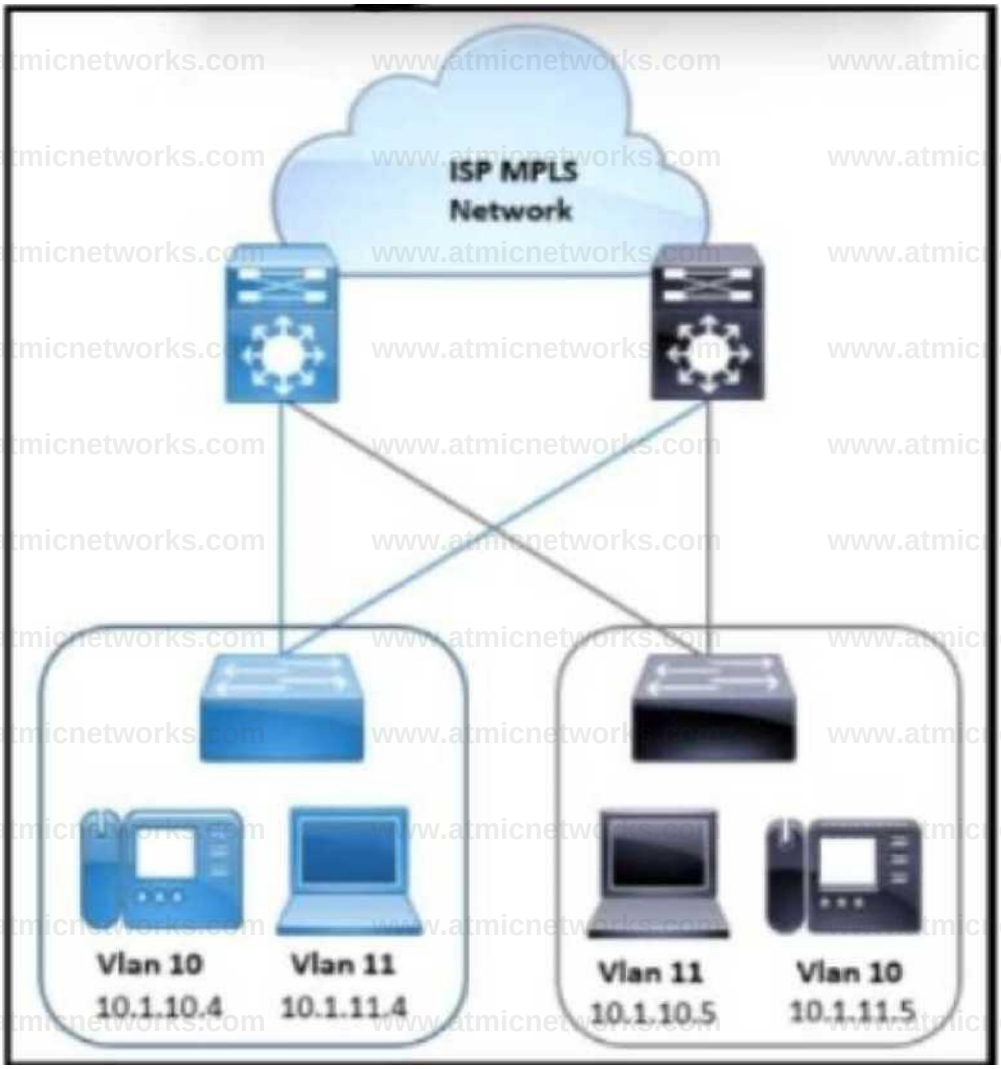
D. EIGRP with branch routers as stub routers using ECMP

Answer: D

Explanation:

Question: 296

Refer to the exhibit.



Refer to the exhibit. An architect must design a resilient gateway solution based on these requirements:

VLAN 10 and VLAN 11 support voice and video applications.

Link and node failures must have minimal impact on traffic.

Provide protection against false hello packets.

Support IPv6.

Which solution must the architect choose?

A. GLBP with IP SLA tracking

B. VRRP version 2 with authentication

C. HSRP version 2 with MD5 authentication

D. VRRP version 2 with object tracking

Answer: C

Explanation:

Question: 297

In a Cisco SD-Access fabric, switch node Is equivalent to an access layer switch In a traditional three- tier campus network design?

A. edge node

B. border node

C. intermediate node

D. control plane node

Answer: A

Explanation:

Question: 298

An architect must design a QoS model for a business-critical application that Is delay-sensitive and requires high bandwidth. The company's head office hosts the application, and DMVPN tunnels protected with IPsec provide connectivity between the head office and branches. Which solution must the architect choose?

A. RSVP

B. IntServ

C. WRED

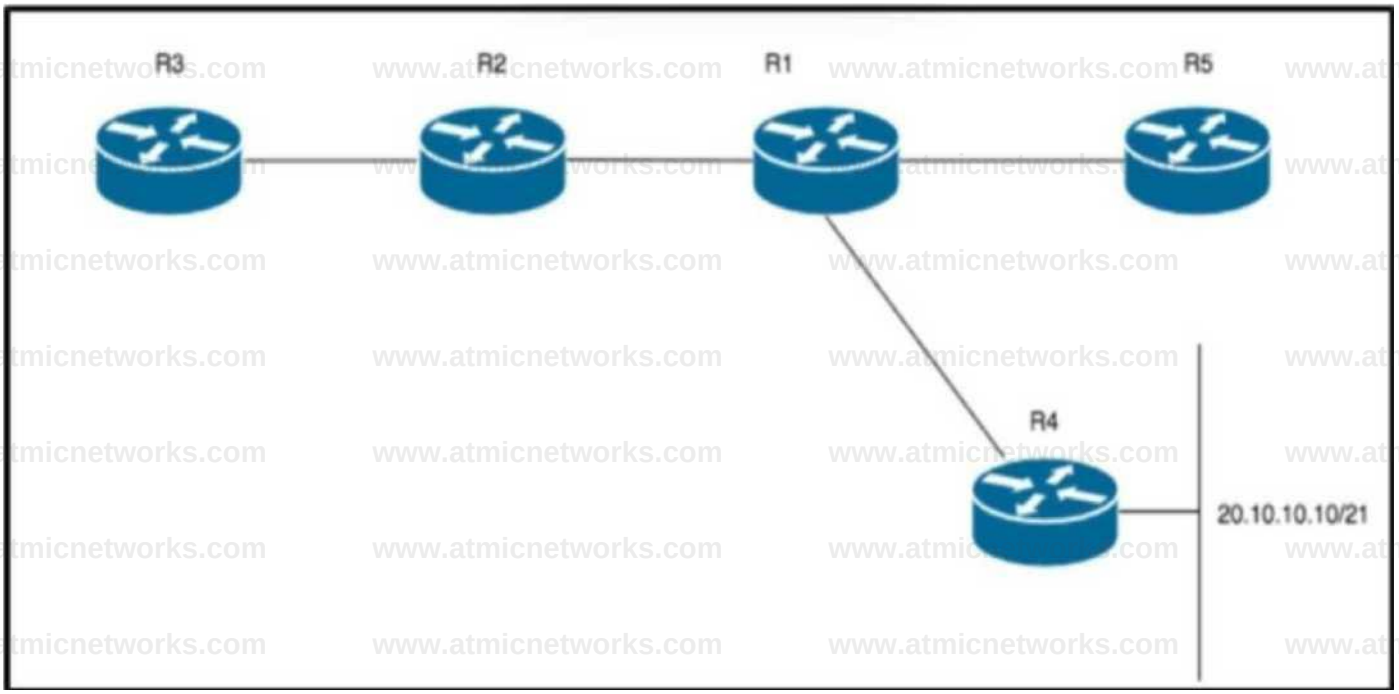
D. DiffServ

Answer: D

Explanation:

Question: 299

Refer to the exhibit.



Refer to the exhibit. A network architect is preparing a network design based on the EIGRR Routers are connected using a cat6a cable type and the inter-router connection speed is limited to 10 Mbps due to distance. During the pilot phase, a DUAL-3-SIA error message is visible. Which action must the engineer take to create a stable design?

A. Enable poison reverse on R4.

B. Configure STUB area on R4.

C. Create a summary route on R2.

D. Disable split horizon on R1.

Answer: B

Explanation:

Question: 300

A network engineer must design a multicast solution based on these requirements: interactive

communication must not use source trees users must register

100 multicast sources

Which solution must the company choose?

A. MSDP

B. PIM-DM

C. any-source multicast

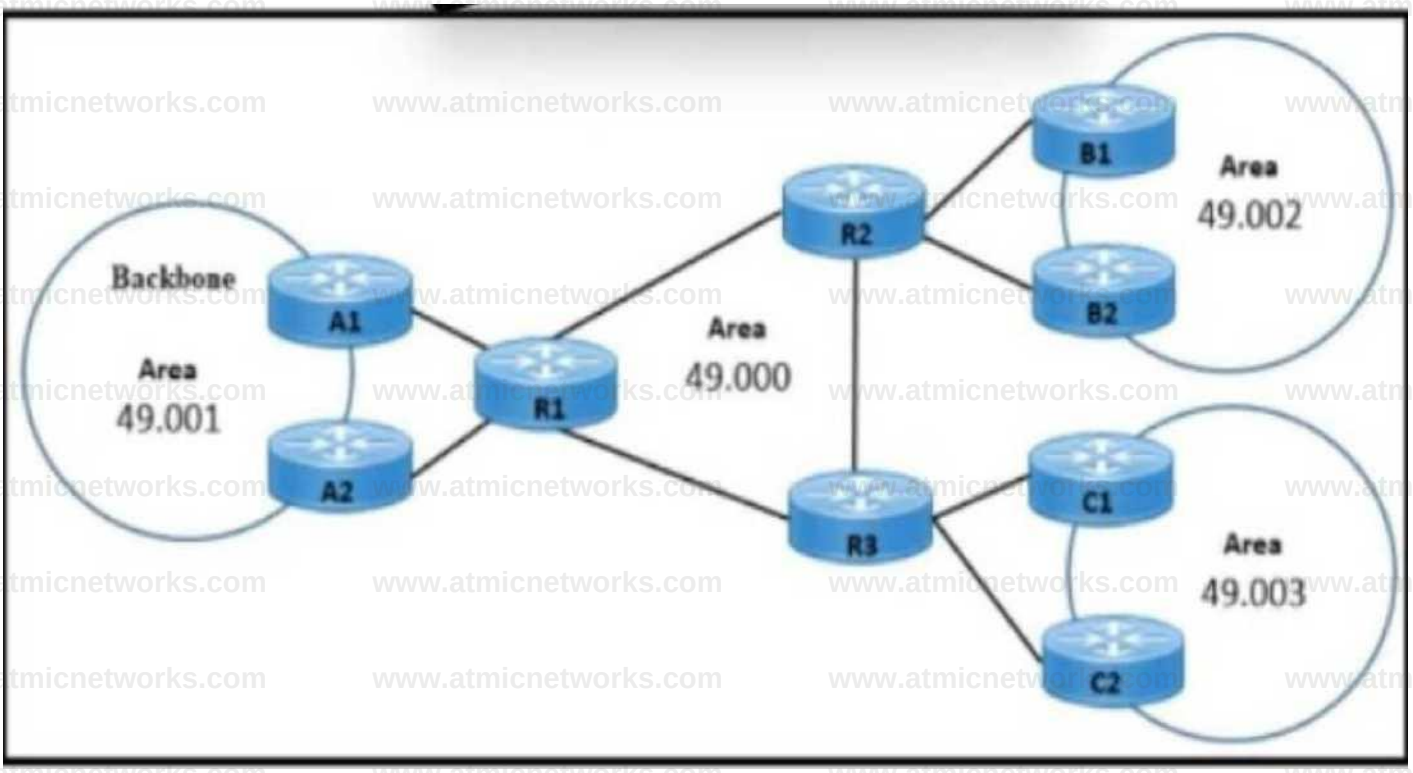
D. BIDIR PIM

Answer: D

Explanation:

Question: 301

Refer to the exhibit.



Refer to the exhibit. An architect is designing an ISIS solution with these requirements:

The backbone area will grow to 50 routers in the next 12 months.

Routers A1 and A2 must avoid suboptimal routing.

Summarization and route-leaking should be allowed in areas 49.002 and 49.003.

Which solution must the architect select?

A. area 49.000 L1, area 49.001 L2, area 49.002 L2, and area 49.003 L2

B. area 49.000 L1, area 49.001 L1, area 49.002 L2, and area 49.003 L2

C. area 49.000 L2. area 49.001 L1, area 49.002 L1, and area 49.003 L1

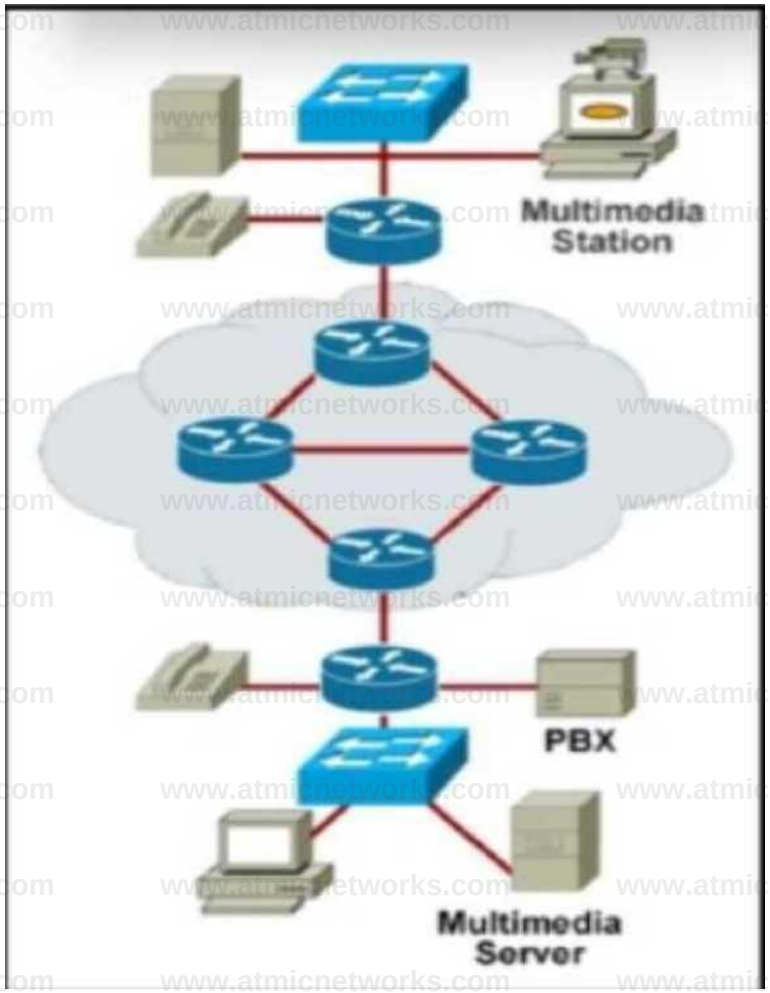
D. area 49.000 L2. area 49.001 L2, area 49.002 L1, and area 49.003 L1

Answer: C

Explanation:

Question: 302

Refer to the exhibit.



Refer to the exhibit. An engineer must ensure that the QoS design guarantees bandwidth for the applications, and an application can request a particular type of service to support its delay requirements.

Which solution must the engineer select?

A. Diffserv with RSVP

B. IntServ with RSVP

C. Diffserv with DSCP

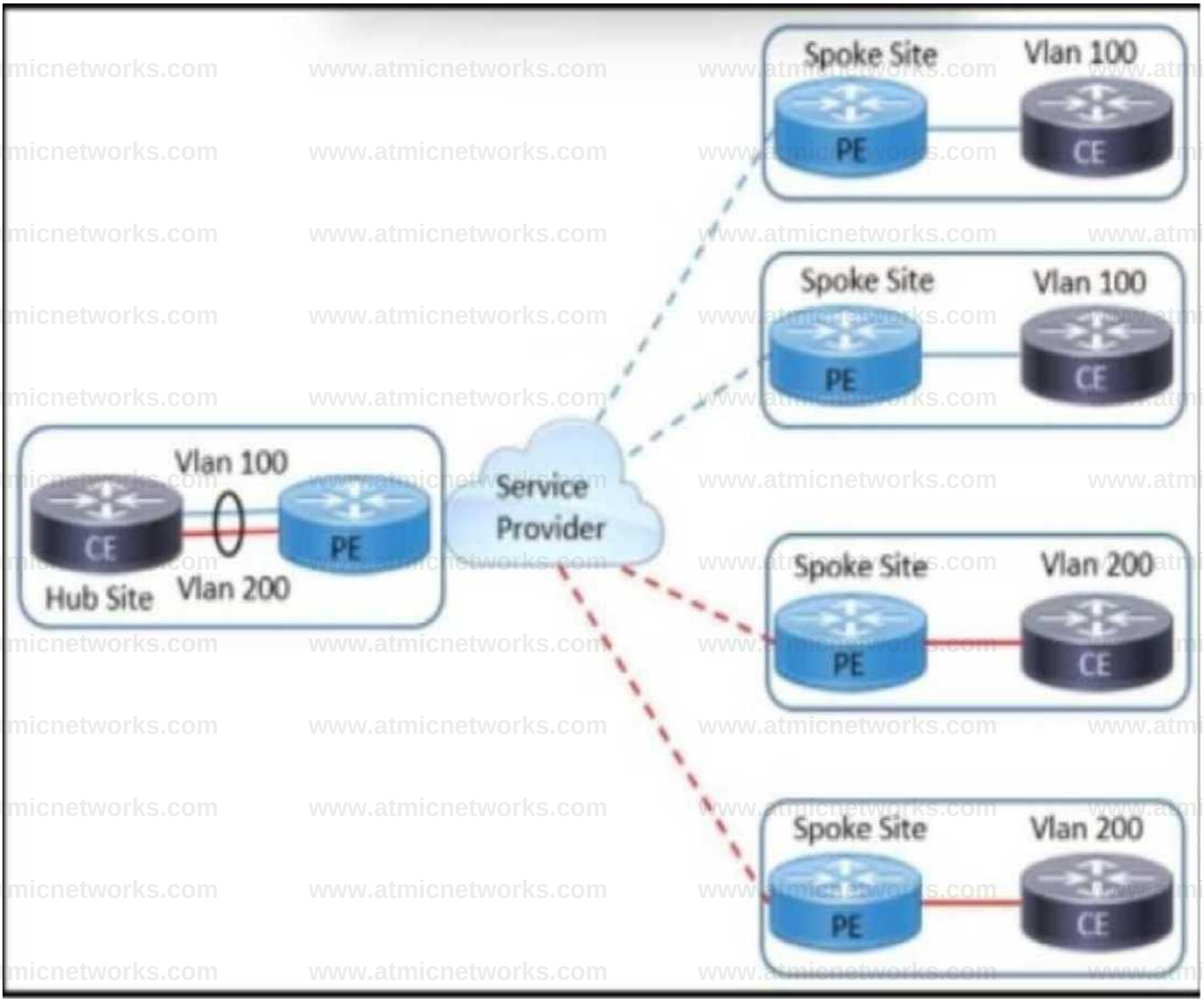
D. IntServ with DSCP

Answer:
B

Explanation:

Question: 303

Refer to the exhibit.



Refer to the exhibit. An architect working for a service provider with an employee ID: 4763:44:876

must design a Layer 2 VPN solution that supports:

transparency of service provider devices

direct communication between CE routers attached to the same VLAN

Which solution must the design include?

A. multiple VPWS

B. single VPLS

C. single VPWS

D. multiple VPLS

Answer: B

Explanation:

Question: 304

In Cisco SD-Access. virtual networks create segmentation that allows for separation of users and resources.
How is this type of segmentation described?

A. macro

B. inter-VN

C. micro

D. stretctied

Answer: A

Explanation:

Question: 305

What is the purpose of service routes in OMP updates?

A. specify routes toward a centralized orchestration plane

B. describe underlay transport Information

C. define the remote management Information

D. indicate services that are enabled for service insertion

Answer: D

Explanation:

Question: 306

What is a logical topology in a Cisco SD-Access architecture considered to be when it is used to virtually connect devices that are built on an arbitrary physical network?

A. data plane

B. control plane

C. underlay

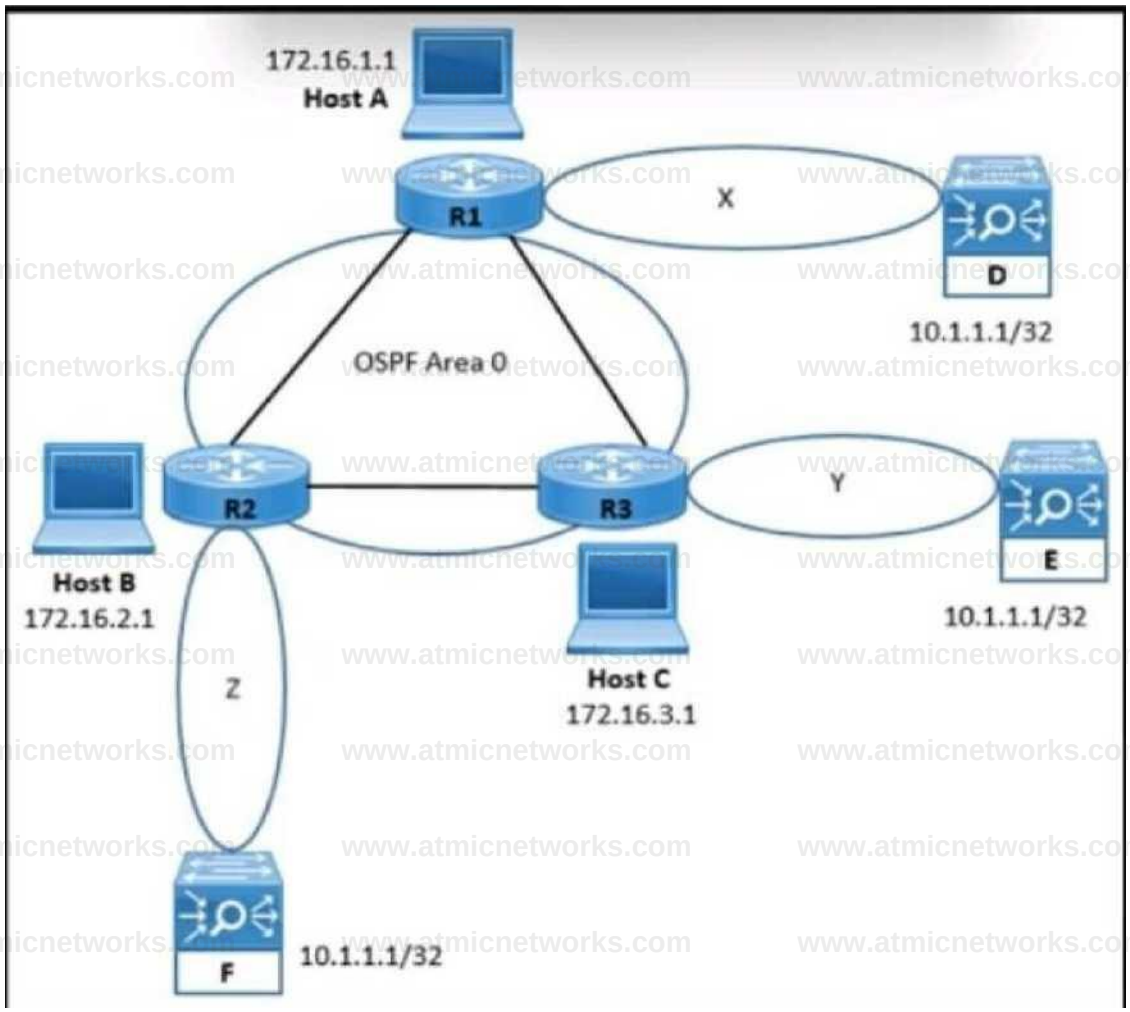
D. overlay

Answer: D

Explanation:

Question: 307

Refer to the exhibit.



Refer to the exhibit. An engineer is designing an OSPF solution for a customer. The design must take into consideration:

Application load balancers D. E. and F are in different geographical locations and are OSPF-enabled.
Hosts A, B. and C connect to an application through the load balancers using IP address 10.1.1.1/32.

In the event of a failure of one of the load balancers, hosts must still have access to the application.

Which solution must the engineer choose?

A. All load balancers to be co-located in area 0.

B. X, Y, and Z to be configured as different areas

C. At least one load balancer to be in area 0.

D. X, Y and Z to be configured as the same area

Answer: A

Explanation:

Question: 308

What is the purpose of a border node in a Cisco SD-Access fabric?

A. connect devices to a network

B. perform traffic encapsulation and de-encapsulation

C. perform network virtualization

D. expand a network

Answer: A

Explanation:

Question: 309

Which element in a Cisco SD-WAN architecture maintains a centralized routing table?

A. WAN Edge router

B. vSmart Controller

C. vManage NMS

D. vBond Orchestrator

Answer: B

Explanation:

Question: 310

A company requested that an architect propose a new IPv4 and IPv6 deployment strategy. The company wants a solution that is straightforward, with no information hiding or forwarding overhead. Which solution meets these requirements?

A. LISP

B. NAT64

C. dual-stack

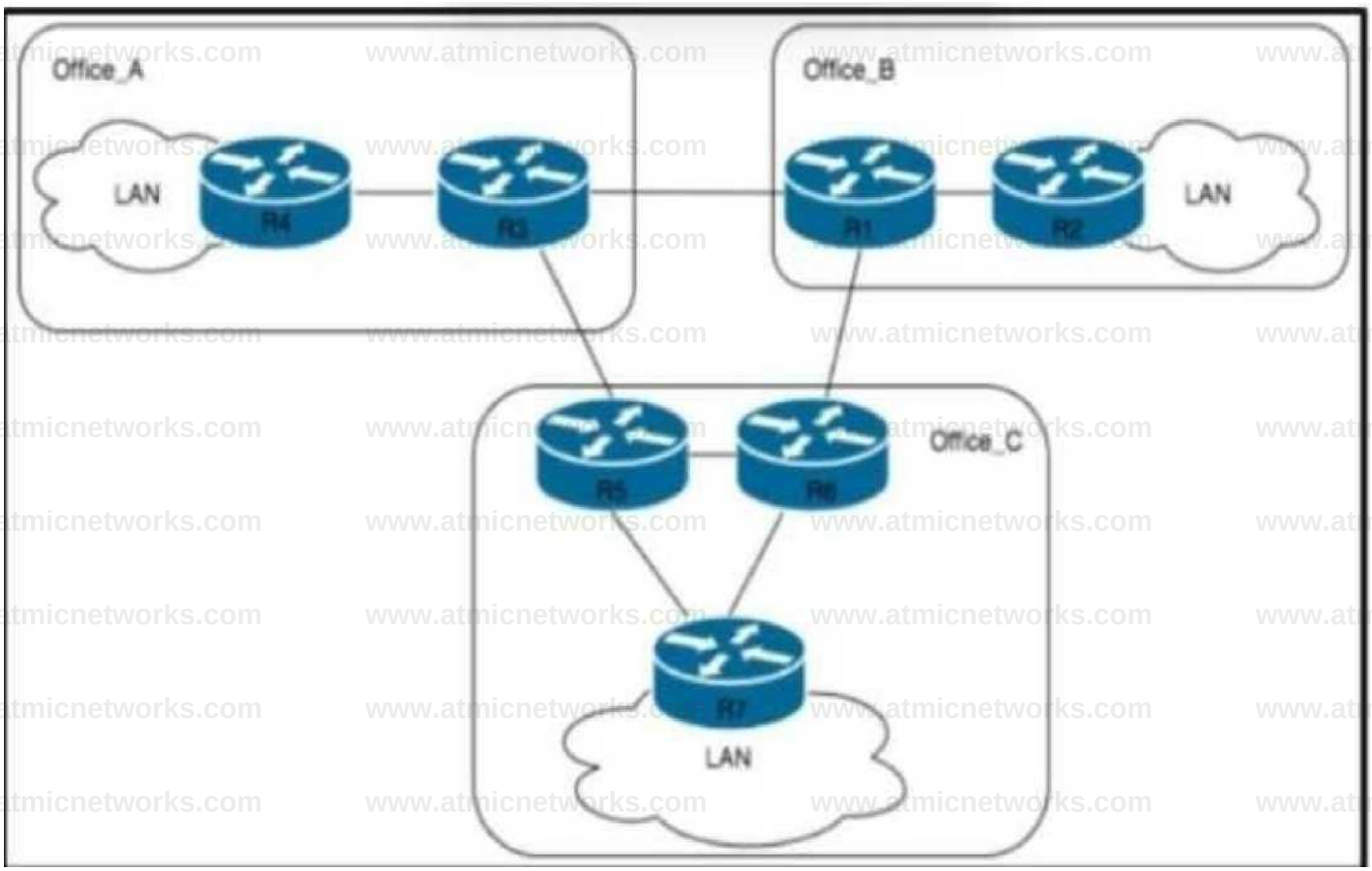
D. GRE tunnels

Answer: C

Explanation:

Question: 311

Refer to the exhibit.



Refer to the exhibit. A company has some offices that are connected via dark fiber in New York. A network architect must optimize the network design based on the EIGRP routing protocol. The network has hierarchical addressing between 10 and 12 routers in each office. Routing convergence time must be at the minimum. What must the network architect do to reduce the query range?

A. Configure stub areas on non-edge routers.

B. Implement network summarization on edge routers.

C. Use different EIGRP processes on edge routers.

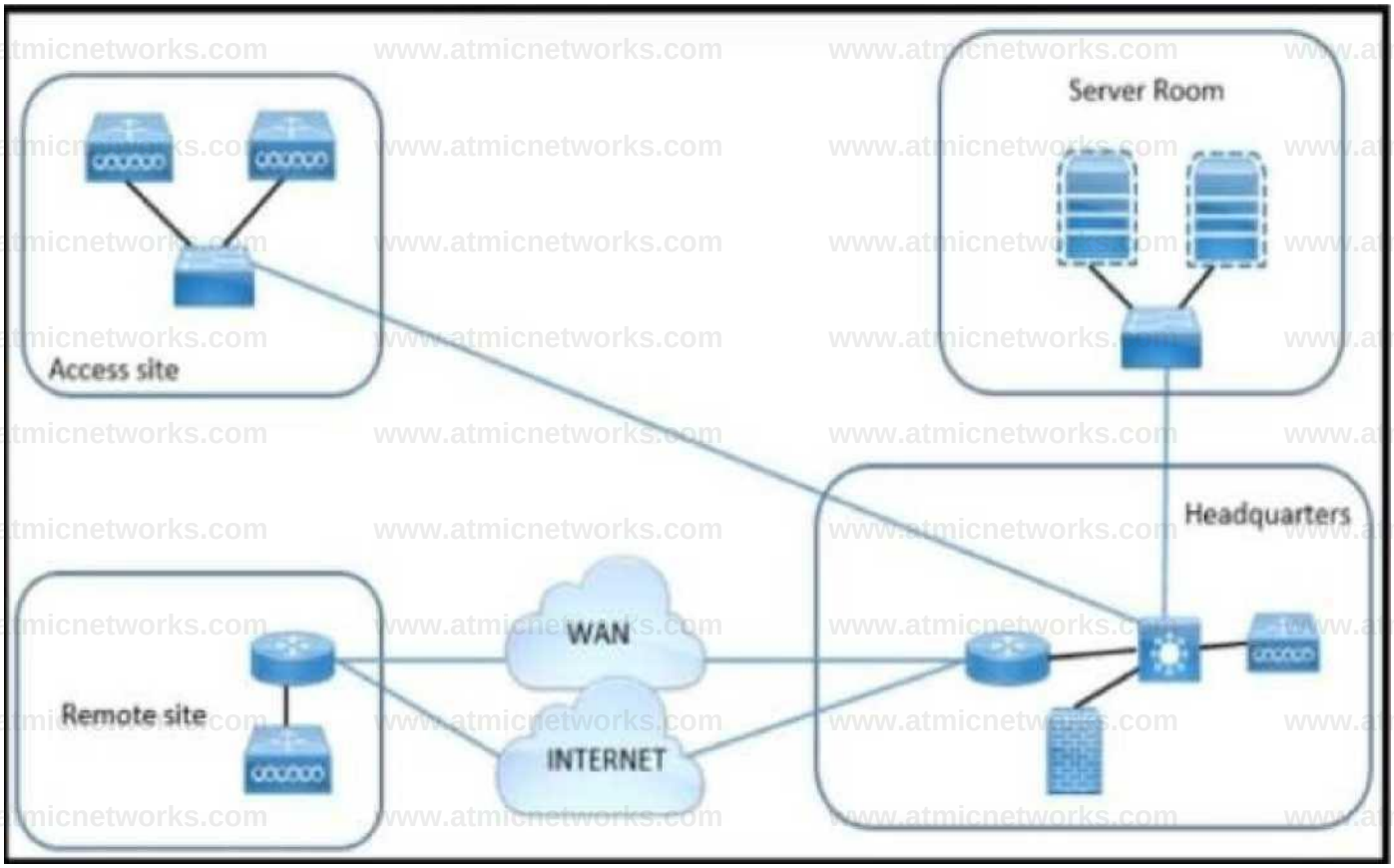
D. Configure route filtering on non-edge routers.

Answer: B

Explanation:

Question: 312

Refer to the exhibit.



Refer to the exhibit. An architect is designing an IPv4 plan using the 172.16.0.0/16. The design must maximize the number of subnets while meeting these requirements:

500 hosts within the server room

100 hosts at the remote site

25 hosts at the access site

Which plan must the architect choose?

A)

- Server room 172.16.2.0/23
- Remote site 172 16 4 64/26
- Access site 17216.5.16/28

B)

- Server room 172.16 2.0/23
- Remote site 172.164.128/25
- Access site 172 16.5.32/27

C)

- Server room 172 16 4.0/22
- Remote site 172.16.9.0/24
- Access site 172 16.9 64/26

D)

- Server room 172.16 8.0/21
- Remote site 172.1610/23
- Access site 172 16.10.128/25

A. Option A

B. Option B

C. Option C

D. Option D

Answer: B

Explanation:

Question: 313

A company wants to switch from static routing to a dynamic routing protocol to ease the administrative and operational overhead. The network topology is hub and spoke, and the branches use DM VPN back to the hub with two 10-Mbps internet connections. The branch routers are multivendor and have limited memory and CPU resources. Which routing protocol and design solution meets the requirements?

A. eBGP with the hub routers set up as route reflectors

B. ISIS with the hub and spoke routers configured in two different areas

C. EIGRP with branch routers as stub routers and variance enabled

D. OSPF with the hub in area 0 and branch routers in stub areas with ECMP

Answer: D

Explanation:

Question: 314

An architect is designing how the company will manage the infrastructure of a large data center. The company wants to group device types for security reasons and mitigate DoS attacks. The company also wants to ensure that access to the rest of the production network is not possible if one device is compromised on the management plane. Which solution must the architect choose?

A. in-band dial-up circuit

B. in-band Ethernet

C. out-of-band Ethernet

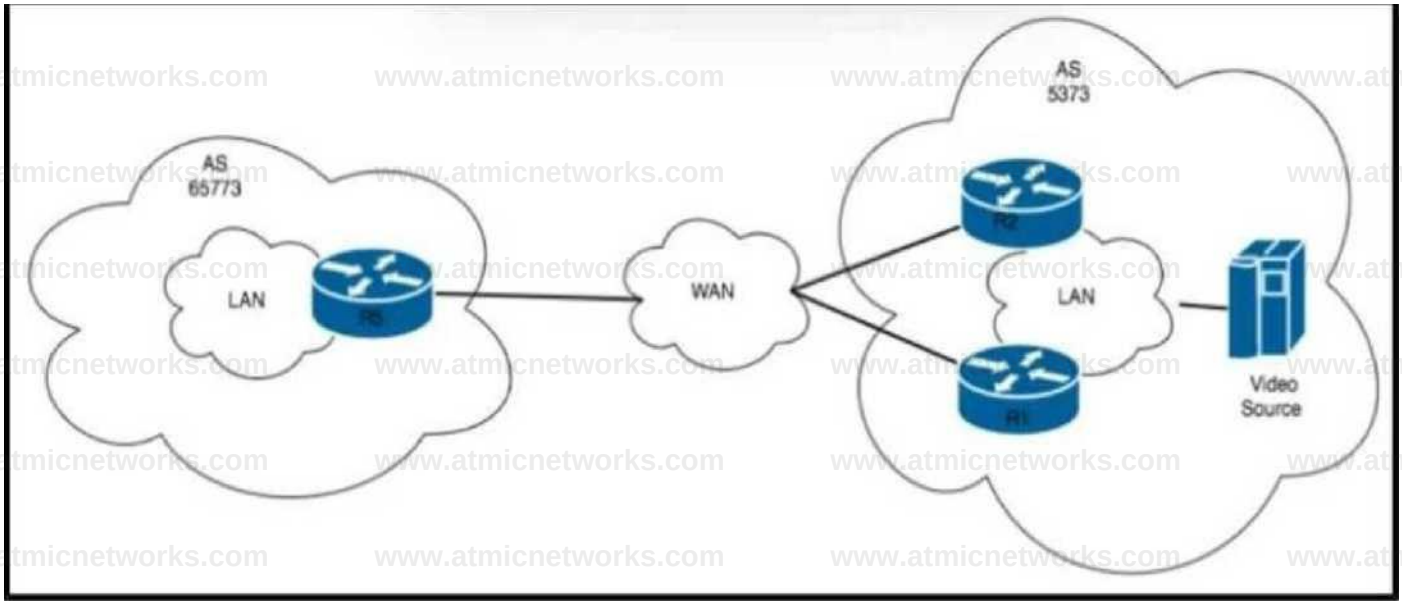
D. out-of-band dial-up circuit

Answer: C

Explanation:

Question: 315

Refer to the exhibit.



Refer to the exhibit. A company specializing in VoD content creation has two offices in a separate multicast domain connected by a WAN link. BGP communication has been established between the offices. Clients are inside the LAN in each office. In AS5373. R2 has been selected as RP. What must the network architect design to deliver VoD content to clients in AS65773?

A. MSDP

B. PIM ASM with Auto-RP

C. PIM SSM

D. PIM ASM with BSR

Answer: A

Explanation:

Question: 316

An engineer working for a service provider with an employee ID: 4863:43:939 must design a solution to provide remote connectivity over the public internet. The design must:

securely connect multiple remote sites to the central site

provide redundant paths to the central site

allow auto path selection based on failure and connection quality

support IP multicast

minimal configuration at remote sites

Which solution must the engineer choose?

A. MPLS provided service with BGP

B. dual DMVPN with EIGRP routing

C. full mesh OSPF with IPsec tunnels

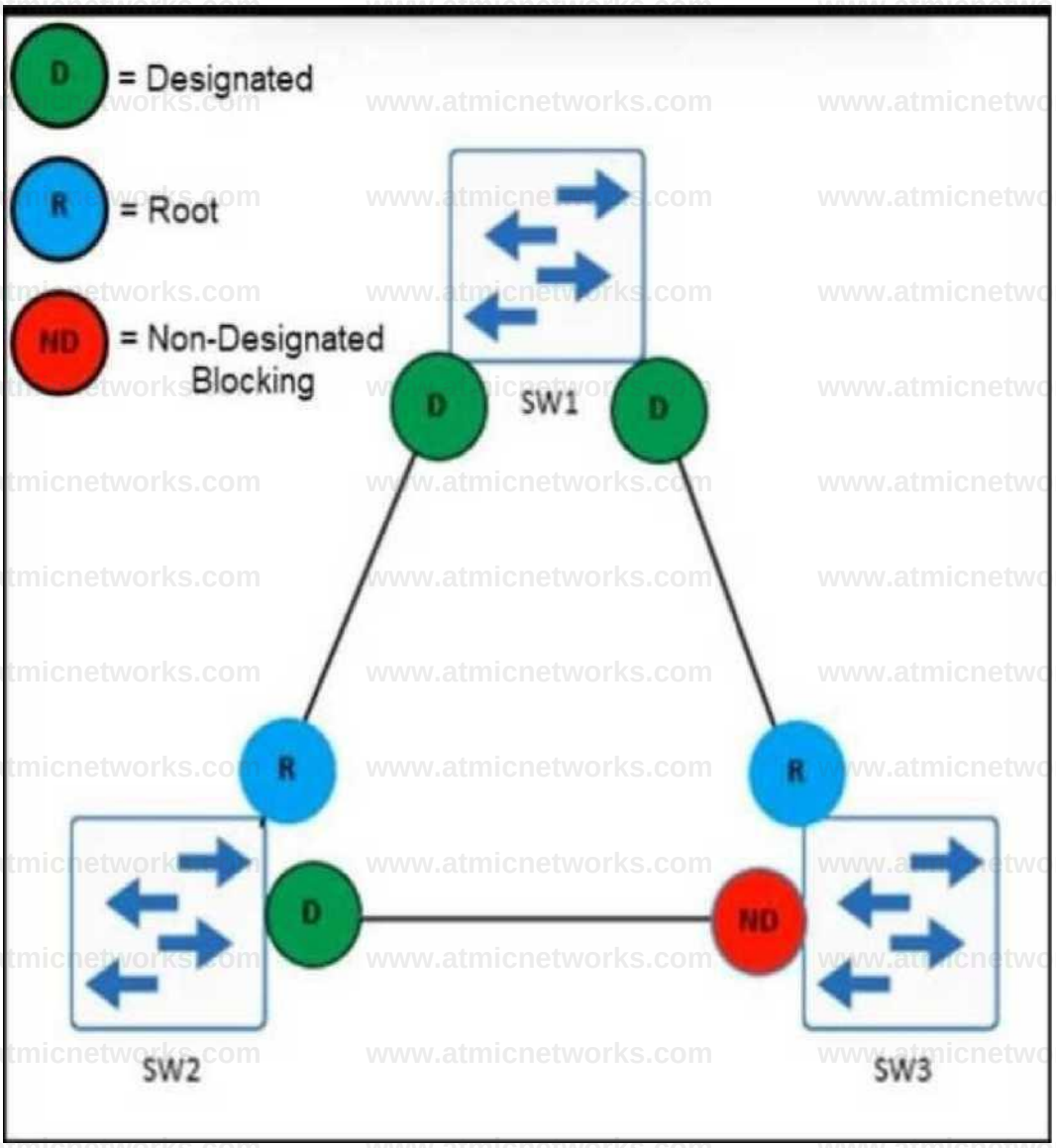
D. full mesh ISIS with GRE tunnels and IPsec

Answer: B

Explanation:

Question: 317

Refer to the exhibit.



Refer to the exhibit. An architect is designing a Layer 2 network for a customer. The network will use the spanning-tree protocol. During a link failure between SW1 and SW2, the fastest possible convergence time is desired. Which solution must the architect select?

A. Loop Guard

B. UplinkFast

C. PortFast

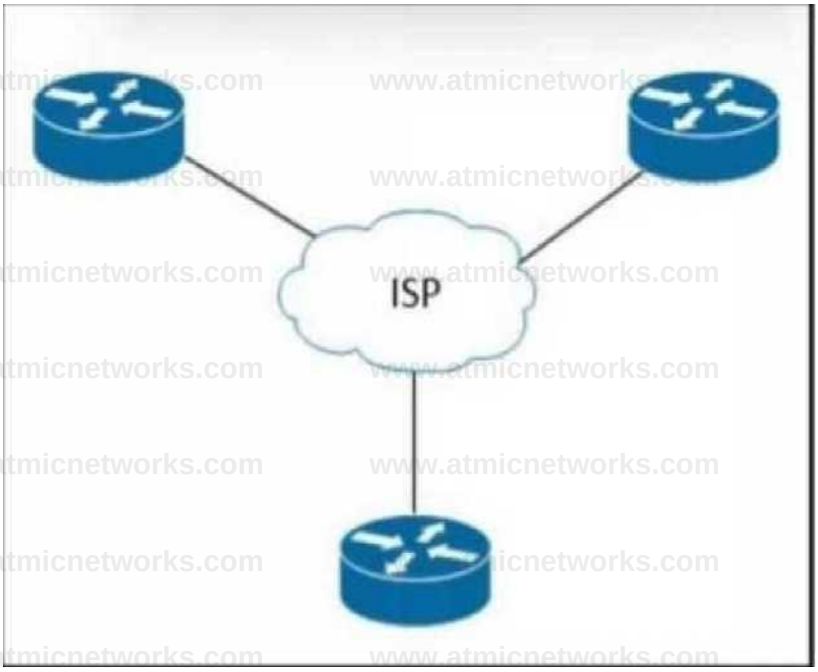
D. BackboneFast

Answer: B

Explanation:

Question: 318

Refer to the exhibit.



Refer to the exhibit. Due to budget constraints, a customer decided to purchase WAN routers with one LAN and one WAN interface per device. There is a requirement to connect the three sites to ensure high availability without buying additional WAN links. Which design deployment must the customer choose?

A. single-homed full mesh

B. single-homed hub-and-spoke

C. dual-homed hub-and-spoke

D. dual-homed full mesh

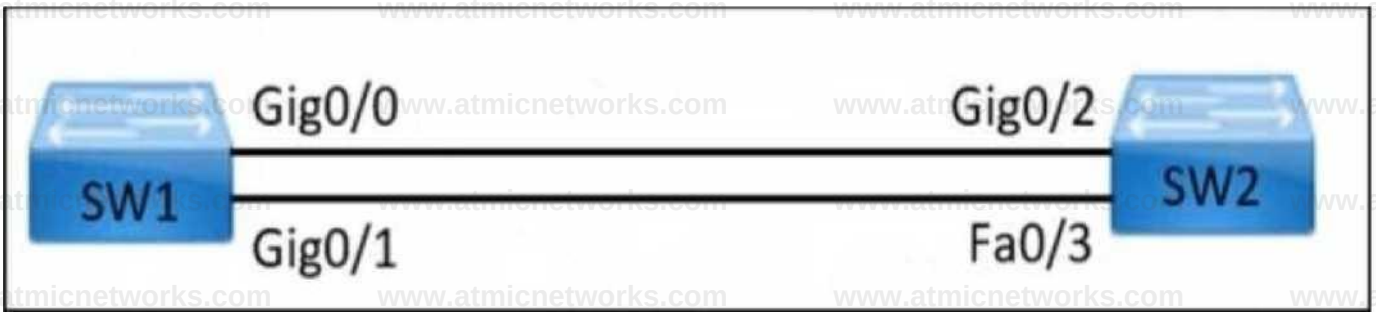
Answer: B

Explanation:

Question: 319

Refer to the exhibit.

```
SW2#show spanning-tree vlan 1

VLAN0001
  Spanning tree enabled protocol ieee
  Root ID     Priority    24577
              Address     0011.0022.0033
              Cost        4
              Port        3 (FastEthernet0/3)
              Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID   Priority    32769  (priority 32768 sys-id-ext 1)
              Address     0011.00bb.00cc
              Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
              Aging Time 15

Interface           Role Sts Cost      Prio.Nbr Type
------------------- ---- --- --------- -------- --------------------------------
Fa0/3               Root FWD 4         128.3    P2p
Gig0/2              Altn BLK 4         128.4    P2p

SW2#show run interface Gig0/2
Building configuration...
!
Interface GigabitEthernet0/2
 switchport mode dynamic desirable

SW2#show run interface Fa0/3
Building configuration...

Current configuration : 102 bytes
!
Interface FastEthernet0/3
 switchport mode dynamic desirable
 spanning-tree cost 4
```



Refer to the exhibits. An engineer is troubleshooting an issue in which the Gig0/2 interface on a Cisco switch named SW2 fails to become the root port. Which two commands must be run on SW2 to resolve this issue? (Choose two.)

A)

```
SW2(config)# interface Fa0/3
```

B)

```
SW2(config-if)# no spanning-tree cost 4
```

C)

```
SW2(config)# interface Gig0/2
```

D)

```
SW2(config-if)# spanning-tree cost 4
```

E)

```
SW2(config-if)# spanning-tree cost 5
```

A. Option A

B. Option B

C. Option C

D. Option D

E. Option E

Answer: C, D

Explanation:

Question: 320

What is an advantage of using model-driven telemetry in the network?

A. It uses interrupt-driven polling to pull data at regular intervals.

B. It uses JSON encoding and is compatible with a wide variety of tools on the market.

C. It uses MIB models to structure the data that are well known In the industry.

D. Telemetry obtains data by parsing the CLI output from show commands.

Answer: B

Explanation:

Question: 321

A network architect Is enabling TV services In the LAN. The source will be streaming to the 239.1.1.1 group IP address. Dense mode Is not allowed In the network. Multicast has already been enabled on all network devices In the LAN segment. Which action must the architect take to finalize the design?

A. Enable PIM SSM.

B. Enable PIM Auto-RP.

C. Enable PIM Anycast RP

D. Enable PIM BSR.

Answer: A

Explanation:

Question: 322

When is it advisable to provide dedicated control plane nodes within a Cisco SD-Access design?

A. in a small deployment where border nodes are not required

B. in a design where fabric edge nodes are unable to provide control plane functionality

C. in designs without Cisco DNA Center

D. when there is a requirement for frequent roaming of endpoints across fabric edge nodes

Answer: D

Explanation:

Question: 323

What is the purpose of the fabric management plane in a Cisco SD-Access architecture?

A. create LISP-based EID for the end-to-end solution that is offered by SD-Access

B. enable EID-to-RLOC mapping that is based on the BGP protocol

C. create an underlay network that is based on the IS-IS routing protocol

D. enable automation techniques for device deployments and configurations

Answer: A

Explanation:

Question: 324

Which two considerations must be made regarding the overlay network for a Cisco SD-Access architecture? (Choose two.)

A. Virtual networks should be used for microsegmentation

B. SGTs should be used for data plane isolation and microsegmentation

C. Virtual networks should be used for data plane isolation only

D. Overlapping IP addresses across different overlay networks should be used to conserve IP addresses

E. Overlapping IP addresses across different overlay networks should be avoided for operational simplicity

Answer: B, E

Explanation:

Question: 325

Which integration capability does gRPC provide?

A. leveraging the LDAP protocol for authentication and directory services ensuring secure access control in RPC communications

B. leveraging the XMPP protocol for real-time messaging and collaboration between client and server applications

C. leveraging protocol buffers to provide efficient serialization and deserialization of structured data over

the network

D. leveraging GRAPH-API for network monitoring and management providing comprehensive visibility into RPC-related metrics and performance statistics

Answer: C

Explanation:

Question: 326

A company wants to enable several third-party video conferencing networks based on multicast services. The video conferencing platform can accommodate numerous and dispersed senders and receivers in third-party networks The interior routing protocol is OSPF and the exterior routing protocol is BGP Which multicast mode must be selected to achieve this goal?

A. Enable MP-BGP

B. Enable BIDIR-PIM

C. Configure MSDP

D. Set IGMPv2.

Answer: B

Explanation:

Question: 327

When expanding an existing Cisco SD-Access network, in addition to the control plane, which two device roles are needed to create an additional fabric site? (Choose two.)

A. leaf

B. cEdge

C. WLC

D. edge

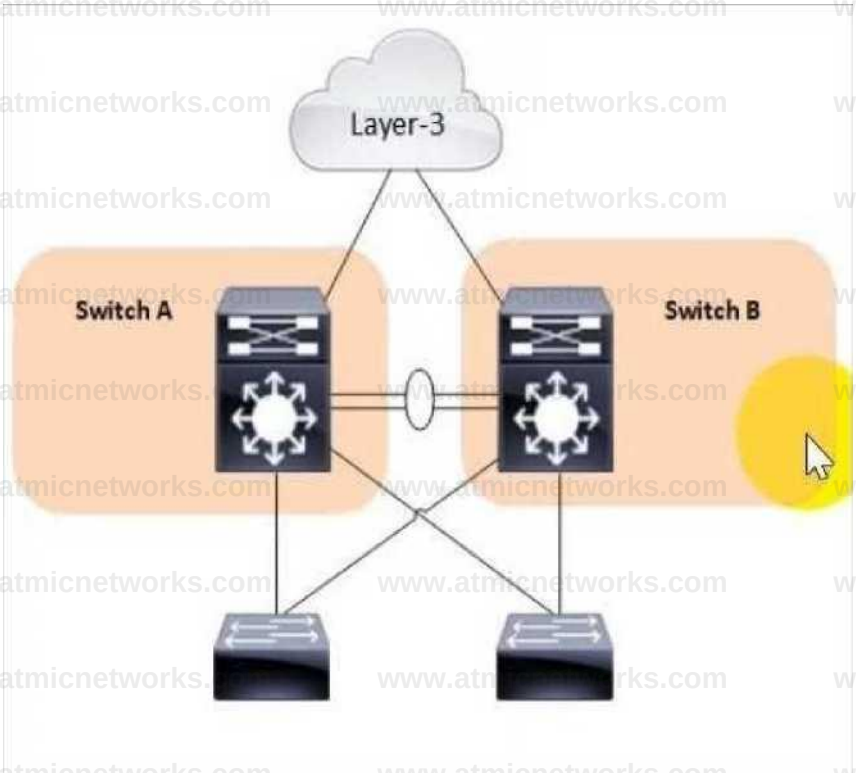
E. border

Answer: D, E

Explanation:

Question: 328

Refer to the exhibit.



Refer to the exhibit A customer requires a Layer 2 network designed to support:

500 active logical ports

trunking of 30 VLANs

convergence of less than 1 second

Which Spanning Tree Protocol must be selected?

A. RPVST+

B. MSTP

C. CST

D. PVST+

Answer: A

Explanation:

Question: 329

What is a challenge of the SaaS model?

A. higher initial costs

B. lack of application and infrastructure control

C. requires upgrades to individual computers to meet performance requirements

D. higher application and data integration complexity

Answer: B

Explanation:

Question: 330

Currently, inter-VRF routing between the global routing table and VRF-A is accomplished on the client firewall, but the customer wants to do this on the core network layer. The customer does not want to run BGP, VRF-Lite: or static routing Which mechanism meets the requirements?

A. policy-based routing with the global set statement in a route map

B. route map that matches access lists and prefix lists with the import feature

C. inter-VRF can only be used on an external device with a link in each VRF

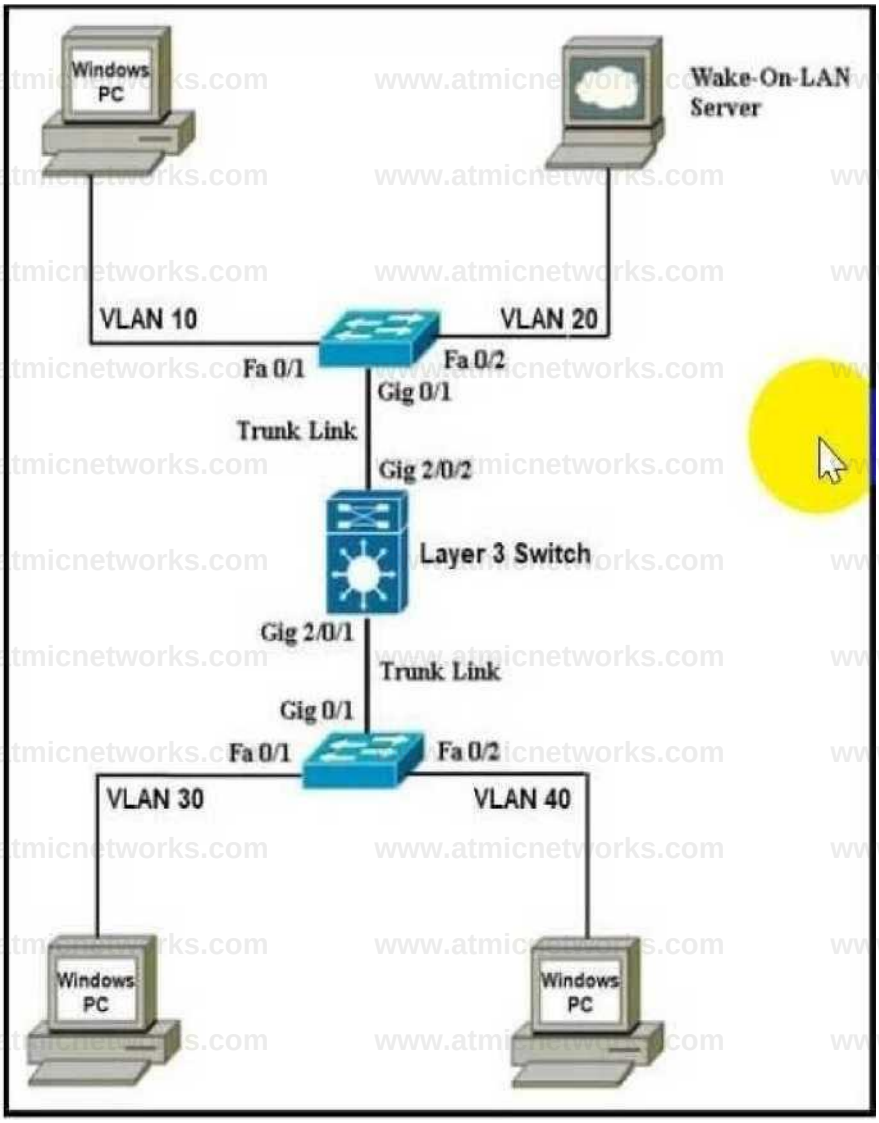
D. VRF receive feature under the global routing interfaces

Answer: D

Explanation:

Question: 331

Refer to the exhibit.



Refer to the exhibit An engineer with an employee ID: 1234 56:789 must design a WoL deployment for a client, and the design must ensure that the Windows PCs are responsive to the WoL magic packets with no delays when the server-side initiates the instruction Which action must the engineer choose?

A. Spanning-tree PortFast must be enabled on all interfaces where clients reside.

B. WoL must be enabled on the networking card and disabled in the Windows PCs BIOS.

C. IP-directed broadcast must be disabled on all interfaces where clients reside.

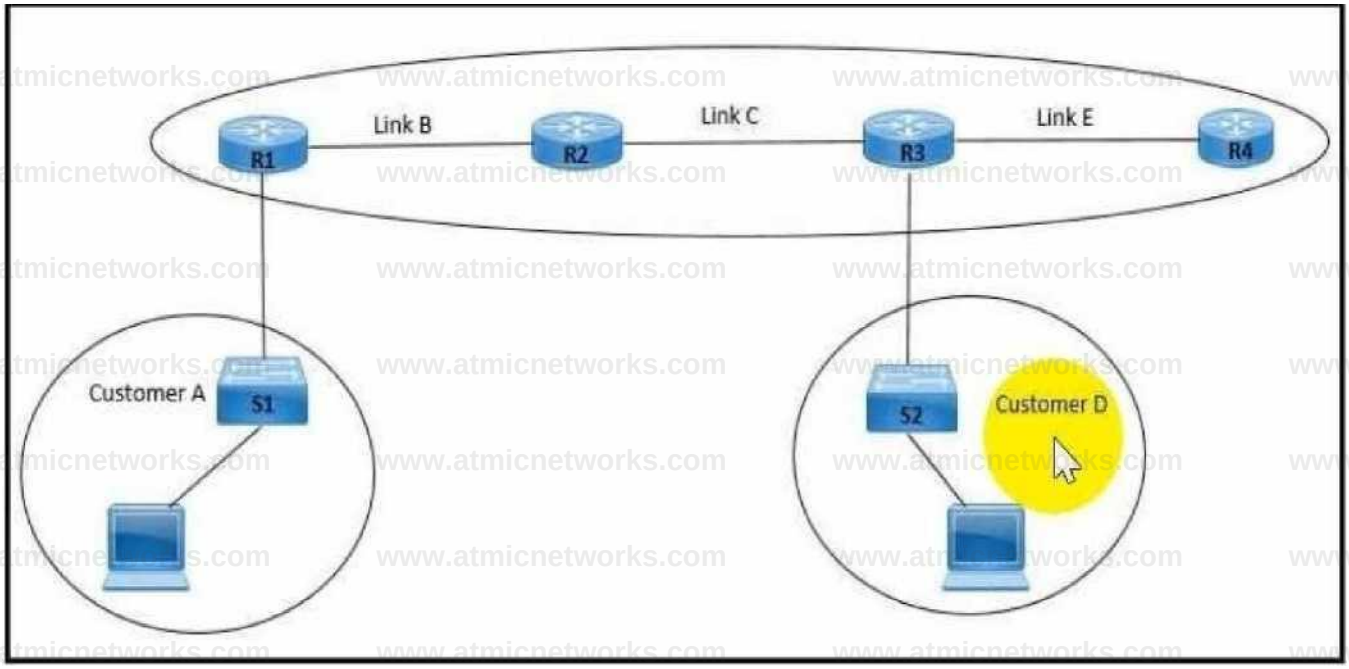
D. IP forward protocol must be disabled on all interfaces where clients reside

Answer: B

Explanation:

Question: 332

Refer to the exhibit.



Refer to the exhibit An architect is designing an IPv4 plan using the 172 20 0.0/16 network The design must maximize the number of subnets and minimize the number of wasted IP addresses In addition, the plan must allocate a subnet to these customers and links

Customer A, which supports 125 hosts

Customer D, which supports 62 hosts

Links B C. and E

Which two configuration sets meet these requirements'? (Choose two)

A)

Customer A - 172.20 0 128/25
Customer D - 172 20 1.0 26

B)

Link B- 172.20.1 70/30
Link C- 172.20.1 74/30
Link E- 172.20.1 78/30

C)

Customer A - 172 20 1 0/24
Customer D - 172 20 2 64/26

D)

Link B - 172 20.1 68/30
Link C- 172 20 1 72/30
Link E-172.20.1 76/30

E)

Link B- 172.20 2 132/30
Link C - 172 20.2 136/30
Link E - 172 20 2 140/30

A. Option A

B. Option B

C. Option C

D. Option D

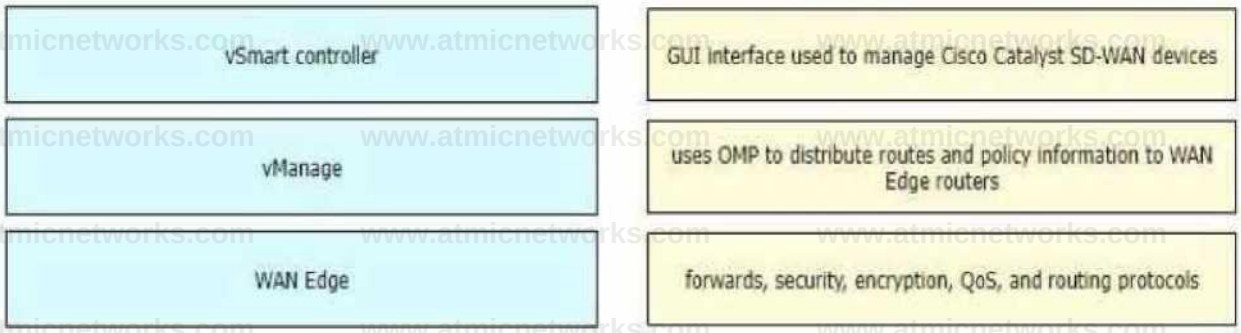
Answer: A, C

Explanation:

Question: 333

DRAG DROP

Drag and drop the Cisco Catalyst SD-WAN components from the left to their definitions on the nght



Answer:

Explanation:

Question: 334

What is the purpose of Cisco vBond as a Session Traversal Utilities for NAT server?

A. allow Cisco Catalyst SD-WAN routers to locate their own mapped IP addresses

B. integrate Cisco SD-Access Wireless into the fabric

C. secure data traffic between Cisco Catalyst SD-WAN edge routers that use IPsec

D. provide Zero-Touch Provisioning to Cisco Catalyst SD-WAN vEdge devices

Answer: D

Explanation:

Question: 335

What is the main purpose of the Cisco SD-Access underlay design?

A. to enable automated network provisioning and configuration

B. to support advanced firewall and IPS features

C. to optimize network traffic routing and load-balancing

D. to provide network segmentation and isolation for security

Answer: D

Explanation:

Question: 336

A customer requested that a guaranteed service line be enabled for a manufacturing business in different countries. On the customer side, the QoS-aware application is used to process large data chunks. The application cannot tolerate drops and latency should be as low as possible. Which QoS model must an engineer employ to use the minimum required resources on the ISP network nodes?

A. Implement a group-based QoS strategy with FECs enabled

B. Enable a flow-based QoS strategy with queuing elements.

C. Implement an end-to-end QoS strategy with SLA.

D. Configure a domain-based QoS strategy with PHB behavior.

Answer: C

Explanation:

Question: 337

An enterprise needs to enhance its WAN availability after a recent outage with its only MPLS provider. The proposed solution must have a quick deployment, be affordable, be reliable, and work as a backup for the enterprise's primary MPLS connection. Which solution meets these requirements?

A. Contract an internet connection and deploy DMVPN.

B. Deploy BFD echo mode and probe provider PE

C. Deploy an additional WAN router and use a floating static route

D. Contract another MPLS provider and deploy GET VPN.

Answer: A

Explanation:

Question: 338

In PIM sparse mode, if an RPF check is successful on a multicast-enabled device, what happens to the multicast packet?

A. It is forwarded to all interfaces within the OIL.

B. It is forwarded to all interfaces except for the receiving interface.

C. Forwarded packets are dropped to prevent looping.

D. It is forwarded to all PIM-enabled interfaces.

Answer: A

Explanation:

Question: 339

An architect is designing a network solution for a customer The network is IPv6-only with 1000 hosts. The design must provide external access to up to 10 concurrent IPv6 hosts to allow communication with legacy IPv4 devices on an adjacent network. The customer set aside 10 IPv4 addresses to allow for one-to-one communication between hosts. Which solution must the architect select?

A. stateful NAT64

B. static NAT-PT

C. dynamic NPTv6

D. dynamic NAT-PT

Answer: A

Explanation: