

Cisco.300-420.vMar-2025.by.Uman.148q

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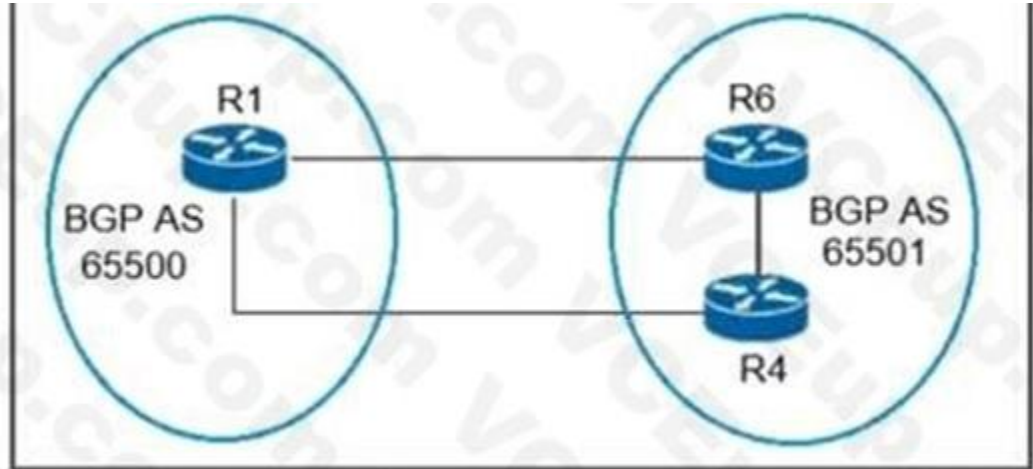
Exam Code: 300-420
Exam Name: Designing Cisco Enterprise Networks (ENSLD)



Exam A

QUESTION 1

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-self 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.

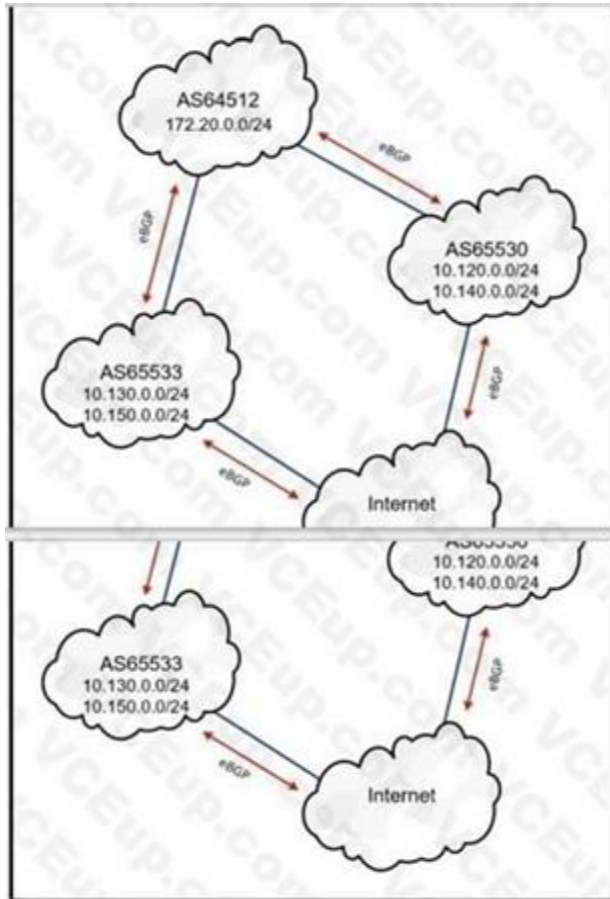
Correct Answer: D

Section:

QUESTION 2

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?

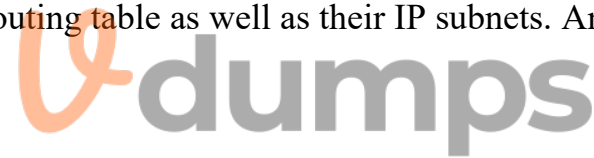
- A. Maximum-prefix
- B. No-advertise
- C. Next-hop
- D. No Export

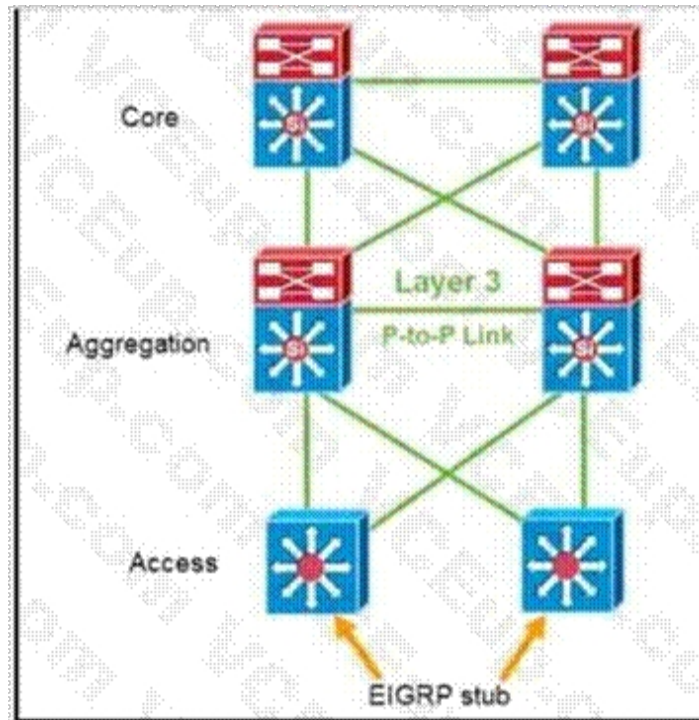
Correct Answer: A

Section:

QUESTION 3

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

Correct Answer: D

Section:

QUESTION 4

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

Correct Answer: B

Section:

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 5

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

Correct Answer: C

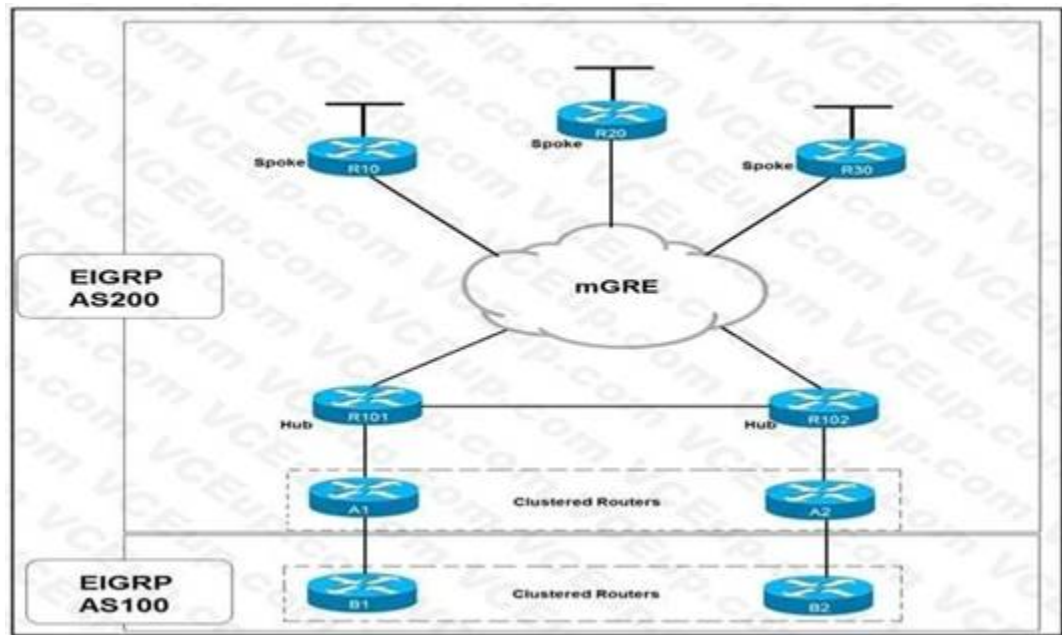
Section:

Explanation:

<https://learningnetwork.cisco.com/s/question/0D53i00000KsrGrCAJ/rendezvous-point-highavailability-mechanisms>

QUESTION 6

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

Correct Answer: D

Section:

QUESTION 7

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

Correct Answer: D

Section:



QUESTION 8

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?

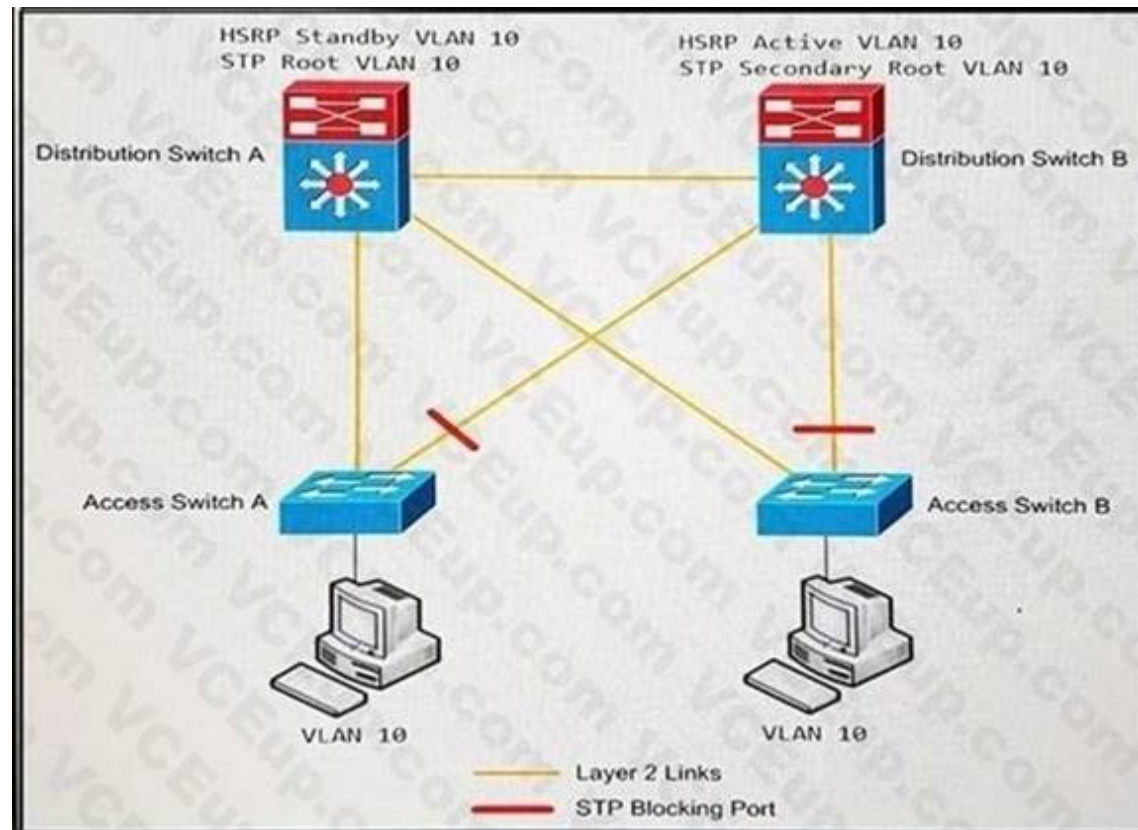
- A. IPsec
- B. GRE
- C. PPTP
- D. GRE over IPsec

Correct Answer: D

Section:

QUESTION 9

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

Correct Answer: B

Section:

QUESTION 10

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

Correct Answer: A

Section:

QUESTION 11

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

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

Correct Answer: A, C

Section:

QUESTION 12

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.



Correct Answer: A, C

Section:

QUESTION 13

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

Correct Answer: A

Section:

QUESTION 14

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

- A. LISP

- B. VXLAN
- C. FabricPath
- D. ISE mobility services

Correct Answer: A

Section:

Explanation:

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

QUESTION 15

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

Correct Answer: A, B

Section:

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 16

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

Correct Answer: A

Section:

QUESTION 17

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

Correct Answer: D

Section:

QUESTION 18

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

Correct Answer: A

Section:

Explanation:

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

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

QUESTION 19

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.

Correct Answer: A

Section:

QUESTION 20

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

Correct Answer: D

Section:

QUESTION 21

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

Correct Answer: C, D

Section:

QUESTION 22



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?

- A. Use EIGRP to establish a neighbor relationship with the main office via L3VPN MPLS and the IPSEC VPN tunnel.
- B. Use BGP with the multipath feature enabled to force traffic via the primary path when available.
- C. Use static routes tied to an IP SLA to prefer the primary path while a floating static route points to the backup connection.
- D. Use OSPF with a passive-interface command on the backup connection.

Correct Answer: D

Section:

QUESTION 23

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

Correct Answer: A

Section:

QUESTION 24

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

Correct Answer: C

Section:

QUESTION 25

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

Correct Answer: D

Section:

QUESTION 26

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.

Correct Answer: C, D

Section:

QUESTION 27

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

Correct Answer: A, D

Section:

Explanation:

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



QUESTION 28

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

Correct Answer: A

Section:

QUESTION 29

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

Correct Answer: A, E

Section:

Explanation:

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

QUESTION 30

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.

Correct Answer: A

Section:

QUESTION 31

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

Correct Answer: B, D

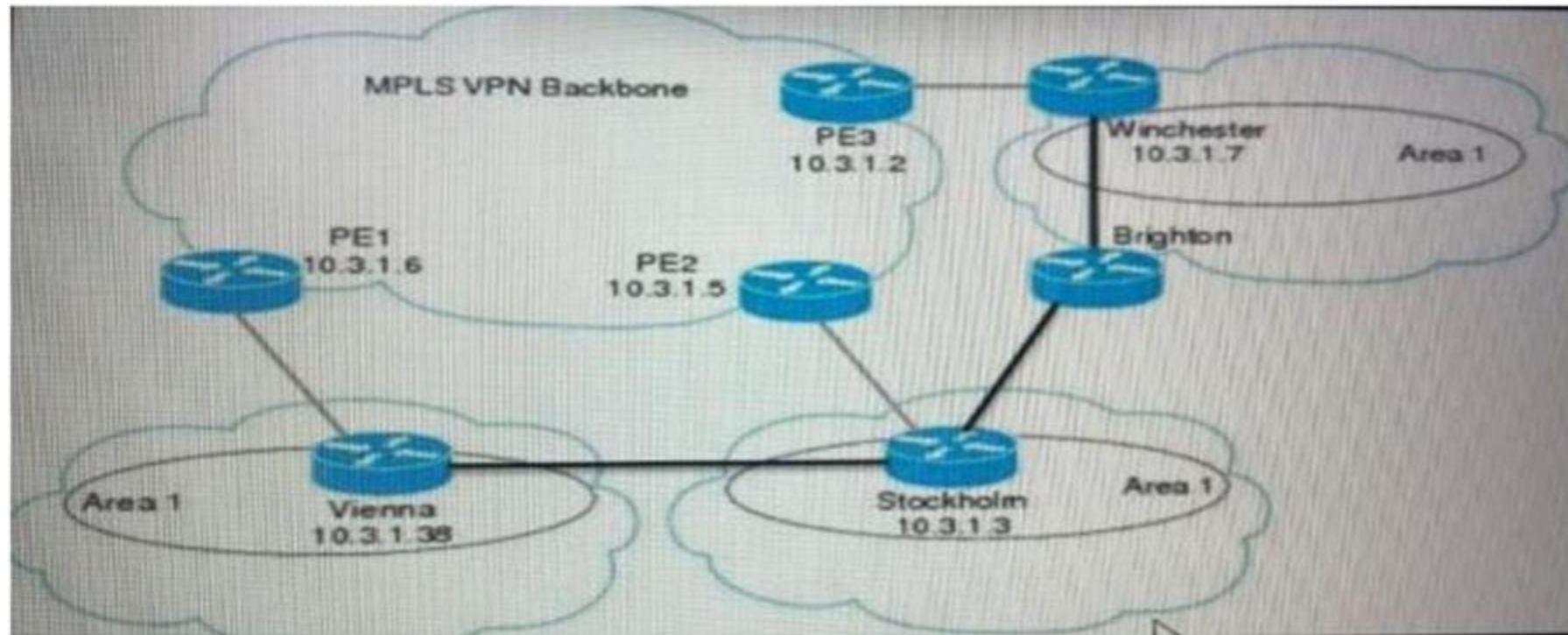
Section:

QUESTION 32



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 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

Correct Answer: B

Section:

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 33

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:1b3d05cd-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>0</area>
          </network>
        </ospf>
      </router>
    </native>
  </data>
</rpc-reply>
```

B.




```
<rpc-reply message-id="urn:uuid:1b3d05cd-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>0</area>
</network>
</ospf>
</router>
</native>
</data>
</rpc-reply>
```

C.

```
<rpc-reply message-id="urn:uuid:1b3d05cd-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>0</area>
</network>
</ospf>
</router>
</native>
</data>
</rpc-reply>
```

D.

```
<rpc-reply message-id="urn:uuid:1b3d05cd-8118-3e6a-6c05-012354678aaf" xmlns="urn:ietf:params:
xml:ns:netconf:base:1.0" xmlns:nc="urn:ietf:params:json:ns:netconf:base:1.0">
<data>
<native json="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>0</area>
</network>
</ospf>
</router>
</native>
</data>
</rpc-reply>
```

 **Vdumps**

Correct Answer: A

Section:

QUESTION 34

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>GigabitEthernet2/1/0</name>
    <type xmlns:ianaift="urn:ietf:params:xml:ns:yang:iana-if-type">ianaift:ethernetCsmacd</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.

```
<interfaces YANG="urn:ietf:params:xml:ns:yang:ietf-interfaces">
  <interface>
    <name>GigabitEthernet2/1/0</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>GigabitEthermet2/1/0</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>GigabitEthernet2/1/0</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>
```

Correct Answer: D

Section:

QUESTION 35



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="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns:
<data>
<native xmlns="http://cisco.com/ns/yang/ietf:ios">
<router>
<ospf>
<id>400</id>
<network>
<ip>1192.168.128.128</ip>
<mask>0.0.0.128</mask>
<area>0</area>
</network>
</ospf>
</router>
</native>
</data>
</rpc-reply>
```

B.

```
<rpc-reply message-id="urn:uuid:1b3d05cd-8118-3e6a-6c05-403478311aaf" xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns:nc="urn:ietf:paran
<data>
<native xmlns="http://cisco.com/ns/yang/ietf: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="u
<data>
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<router>
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<ip>192.168.128.128</ip>
<mask>0.0.0.127</mask>
<area>0</area>
</network>
</ospf>
</router>
</native>
</data>
</rpc-reply>
```

D.

```
<rpc-reply message-id="urn:uuid:1b3d05cd-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/ietf:ios">
<router>
<ospf>
<id>400</id>
<network>
<ip>192.168.128.128</ip>
<mask>255.255.255.128</mask>
<area>0</area>
</network>
</ospf>
</router>
</native>
</data>
</rpc-reply>
```

Correct Answer: B

Section:

QUESTION 36

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

Correct Answer: B

Section:

QUESTION 37

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 is not available for most of the sites.
- The customer has a limited budget and a short timeframe for implementation.
- The backup link 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

Correct Answer: A

Section:

QUESTION 38

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

Correct Answer: D

Section:

QUESTION 39

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.)

- A. 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.
- B. Designate two IS-IS routers from each campus to act as Level 1/Level 2 backbone routers at the edge of each campus network.
- C. Assign the same IS-IS NET value for each campus, and configure internal campus routers with Level 1/ Level 2 routing.



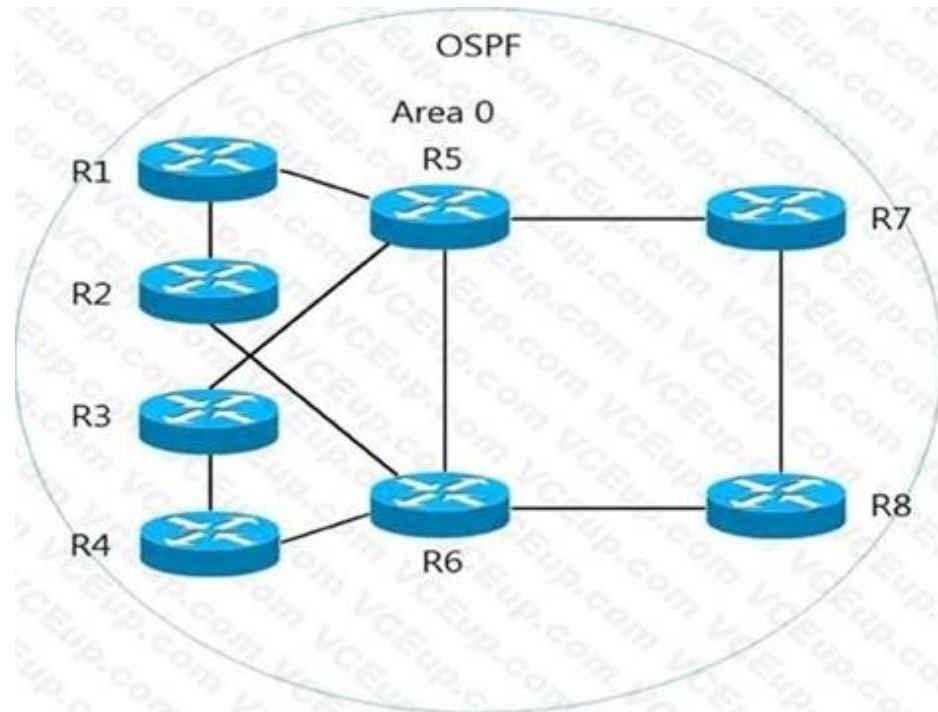
- D. Utilize different MTU values for each campus network segment. Level 2 backbone routers must utilize a larger MTU size of 9216.
- E. Assign a unique IS-IS NET value for each campus, and configure internal campus routers with Level 1 routing.

Correct Answer: B, E

Section:

QUESTION 40

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 ABRs
- 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 ABRs
- 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

Correct Answer: B, E

Section:

QUESTION 41

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?

- A. Cisco Application Policy Infrastructure Controller Enterprise Module
- B. Cisco Network Data Platform
- C. Cisco Identity Services Engine
- D. Cisco TrustSec

Correct Answer: D

Section:

QUESTION 42

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

- A. fabric device that connects wired endpoints to the SD-Access fabric
- B. map system that manages endpoint to device relationships
- C. fabric device that connects APs and wireless endpoints to the SD-Access fabric
- D. map system that manages External Layer 3 networks

Correct Answer: B

Section:

Explanation:

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

QUESTION 43

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

- A. VLANs are used to segment traffic at Layer 2.
- B. 5-tuples and ACLs are used to permit or deny traffic.
- C. SGTs and SGTACLs are used to control access to various resources.
- D. VRFs are used to segment traffic at Layer 3.

Correct Answer: C

Section:



QUESTION 44

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 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

Correct Answer: B

Section:

QUESTION 45

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

Correct Answer: A, D

Section:

QUESTION 46

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 area. 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

Correct Answer: C

Section:

QUESTION 47

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

- A. border node
- B. spine node
- C. leaf node
- D. Cisco DNA Center

Correct Answer: D

Section:



QUESTION 48

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

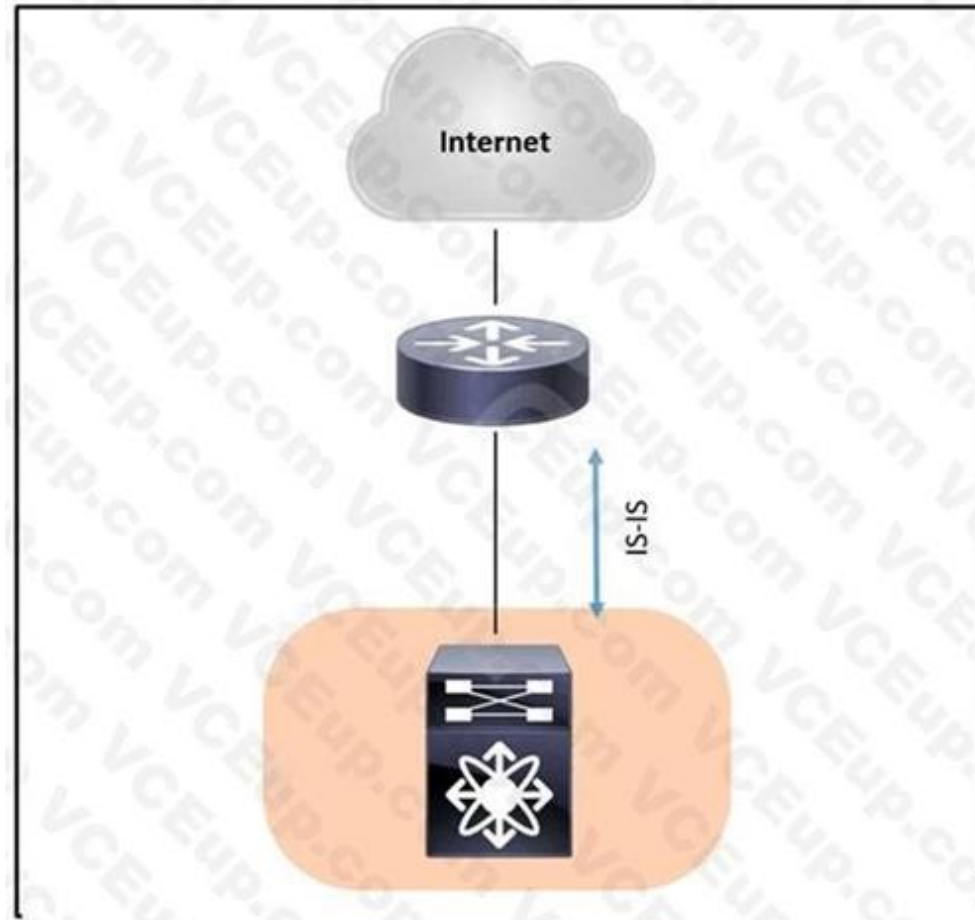
- A. Use BGP AS-path prepending to influence egress traffic and use MED to influence ingress traffic from the branch.
- B. HSRP priorities must match the OMP routing policy to prefer one WAN Edge over the other.
- C. Traffic must be symmetrical as it egresses the WAN Edges and returns from remote sites for DPI to function properly.
- D. Configure BFD between WAN Edge routers to detect sub-second link failures.

Correct Answer: A

Section:

QUESTION 49

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?

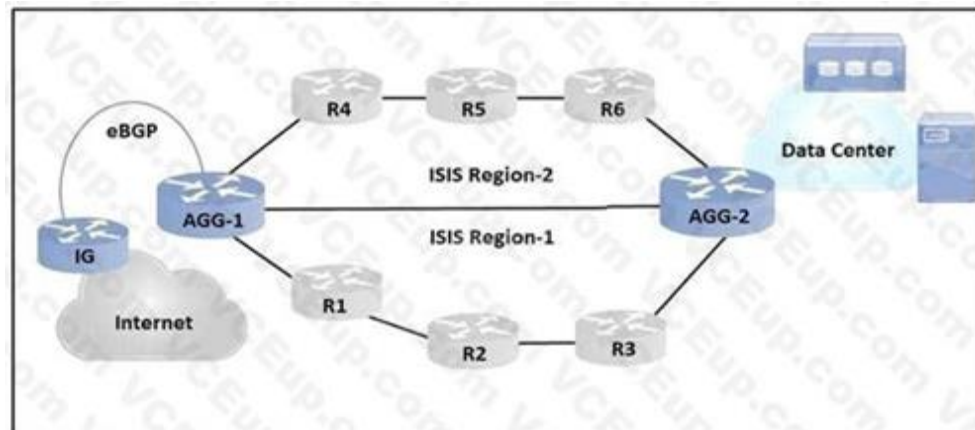
- A. Enable IS-IS remote LFA FRR on both devices.
- B. Enable NSR on the switch.
- C. Enable NSF on the switch.
- D. Configure ISIS aggressive timers on both devices.

Correct Answer: C

Section:

QUESTION 50

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.)

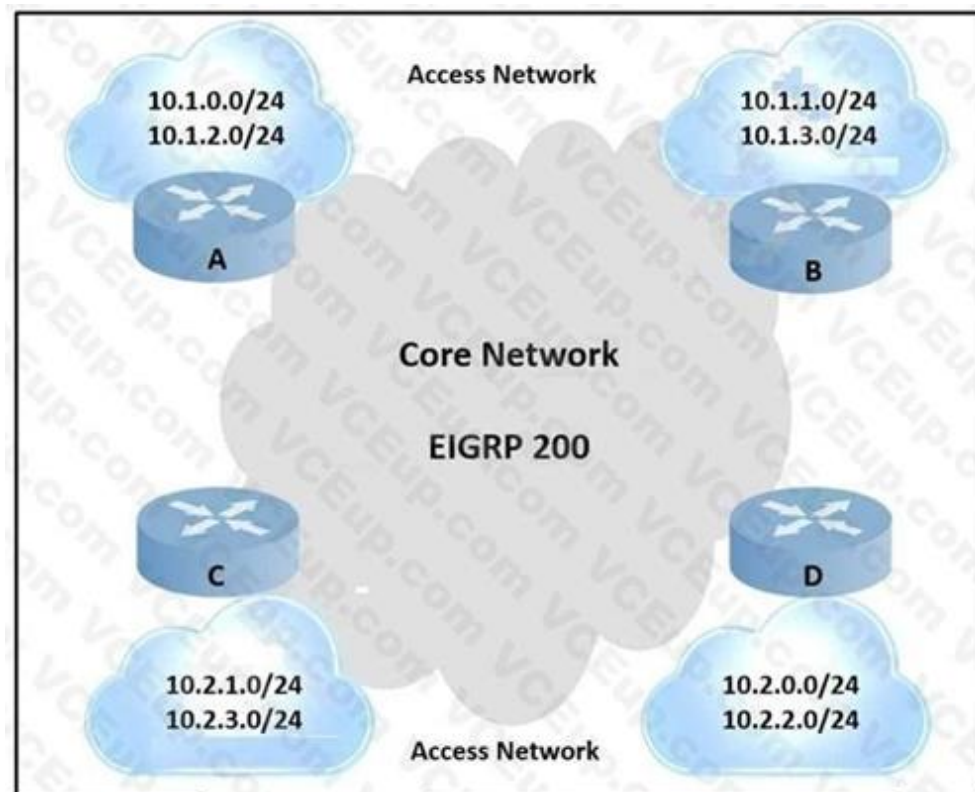
- A. Use BGP to IS-IS redistribution to advertise all Internet routes in the Level 1 area.
- B. Advertise the IS-IS interface and loopback IP address toward the Internet and data center.
- C. Reduce SPF and PRC intervals to improve convergence time.
- D. Configure all access and aggregate routers to 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.

Correct Answer: C, D

Section:

QUESTION 51

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?

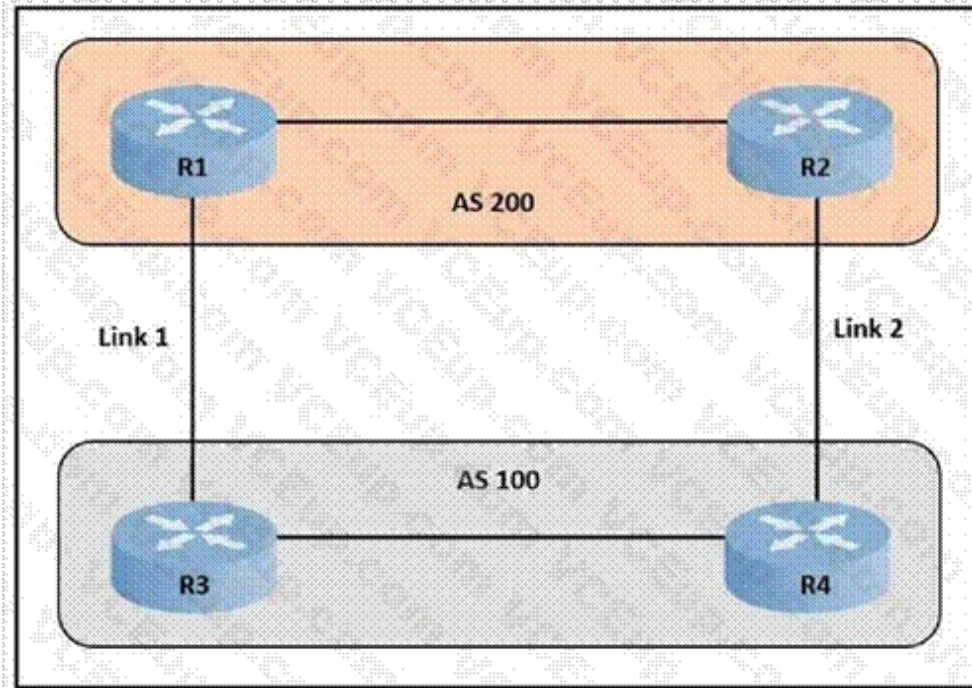
- A. Add aggregation layer between core and access networks.
- B. Enable graceful restart on routers A and C.
- C. Enable FRR for the connected networks of routers A and C.
- D. Enable summarization on routers A and C.

Correct Answer: D

Section:

QUESTION 52

Refer to the exhibit.



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?

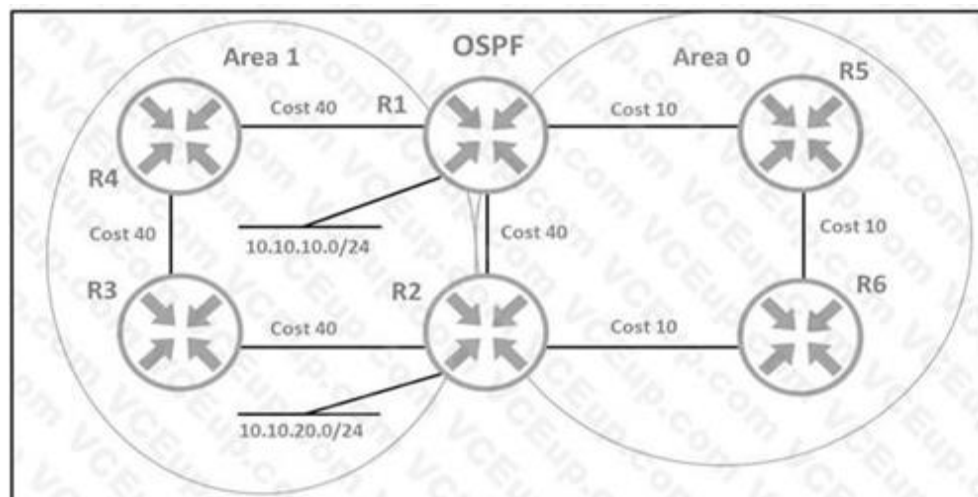
- A. Modify the next-hop attribute on R3.
- B. Use AS-Path prepending on R3.
- C. Modify the next-hop attribute on R4.
- D. Use AS-Path prepending on R4.

Correct Answer: D

Section:

QUESTION 53

Refer to the exhibit.



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.



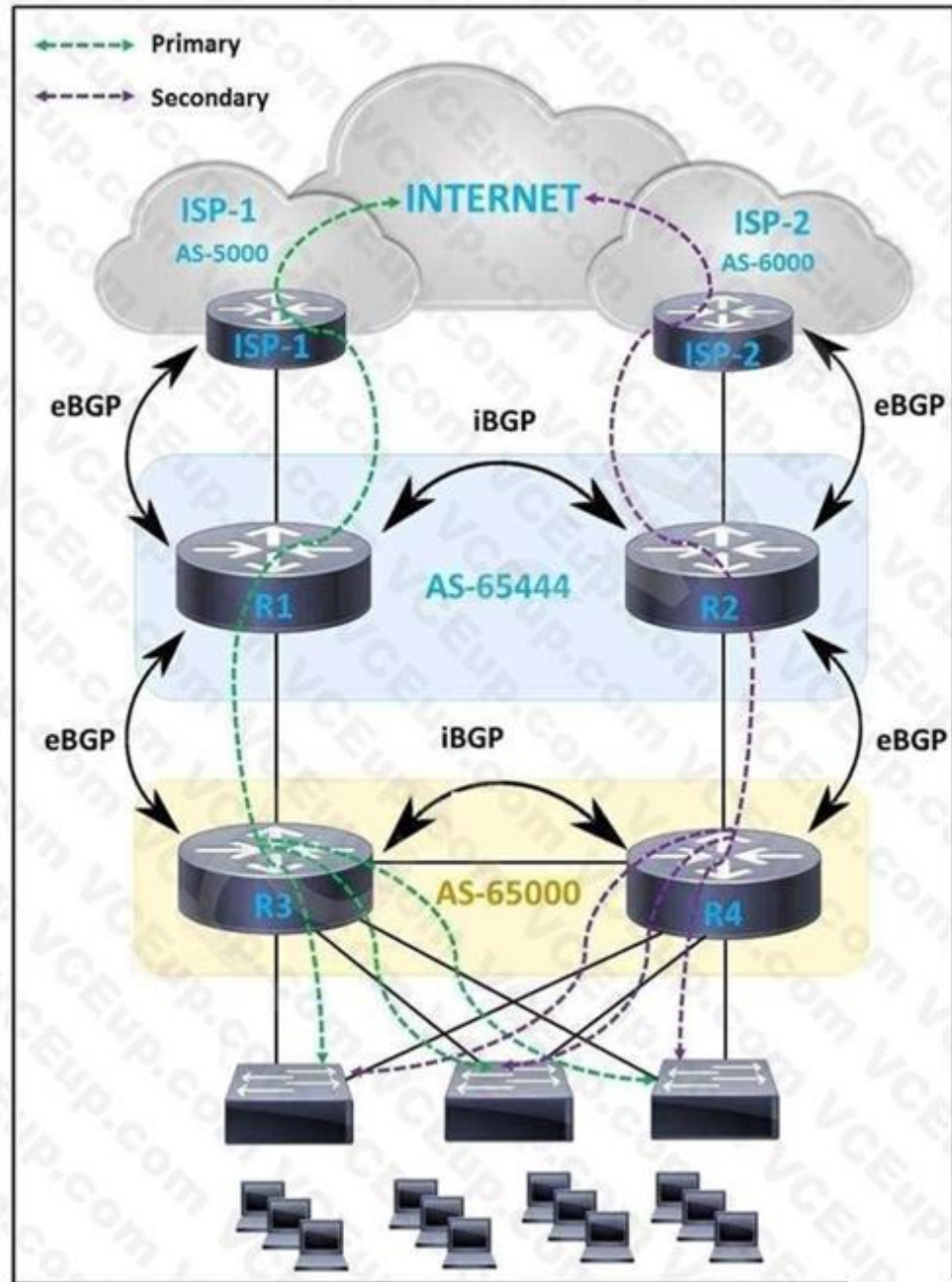
D. Configure the link to provide multiarea adjacency.

Correct Answer: A

Section:

QUESTION 54

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

A. 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

B. 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

C. 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

Correct Answer: B

Section:

QUESTION 55

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

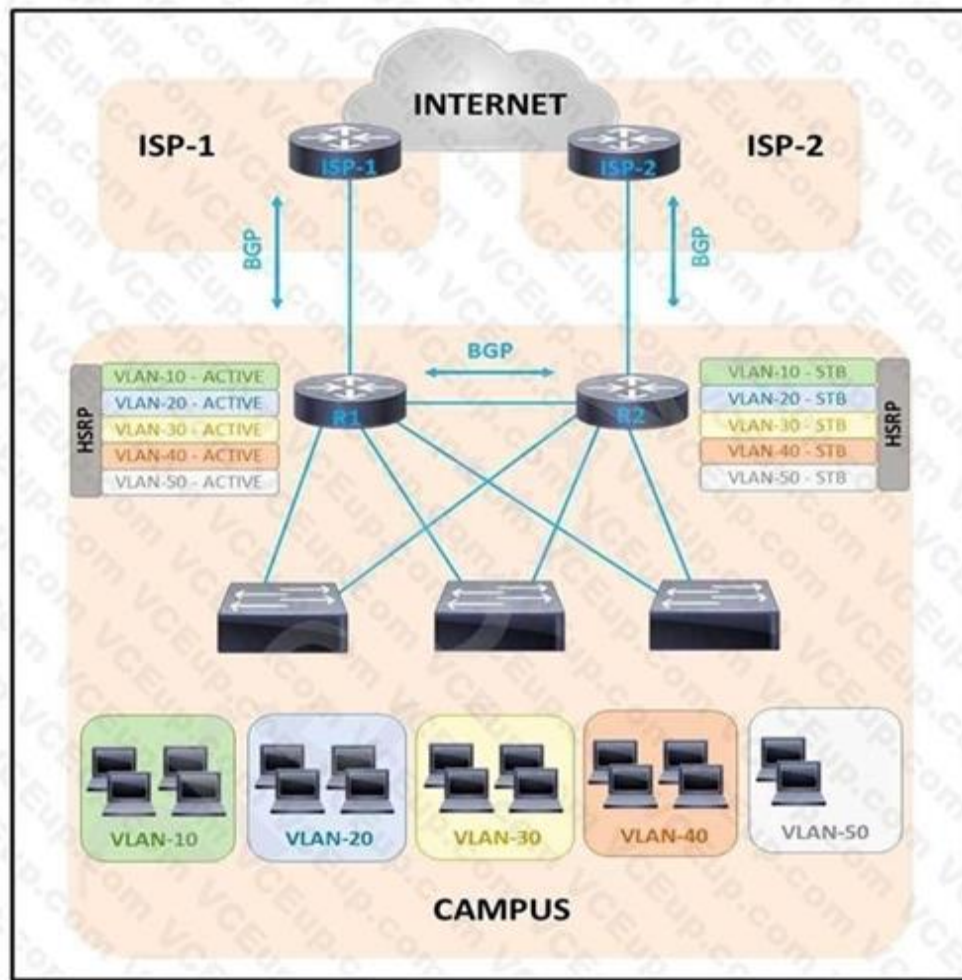
Correct Answer: D

Section:

QUESTION 56

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.

Correct Answer: A

Section:

QUESTION 57

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

Correct Answer: D

Section:

QUESTION 58

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

Correct Answer: C

Section:

QUESTION 59

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.

Correct Answer: C

Section:

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 60

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

Correct Answer: B, D

Section:

QUESTION 61

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

Correct Answer: C

Section:

QUESTION 62

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

Correct Answer: A

Section:

QUESTION 63

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

Correct Answer: B

Section:

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 64

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

Correct Answer: A

Section:

QUESTION 65

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

Correct Answer: A

Section:

QUESTION 66

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>GigabitEthernet2/1/0</name>
    <type xmlns:ianaift="urn:ietf:params:xml:ns:yang:iana-if-type">ianaift:ethernetCsmacd</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.

```
<interfaces YANG="urn:ietf:params:xml:ns:yang:ietf-interfaces">
  <interface>
    <name>GigabitEthernet2/1/0</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>GigabitEthermet2/1/0</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.

The logo for Vdumps.com, featuring a stylized orange 'V' followed by the word 'dumps' in a grey, sans-serif font.

```
<interfaces xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces">
  <interface>
    <name>GigabitEthernet2/1/0</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>
```

Correct Answer: D

Section:

QUESTION 67

DRAG DROP

An engineer is designing 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 requirements of the department they fulfill on the right. Not all options are used.

Select and Place:

Answer Area

10.1.1.16/27	5 hosts for Human Resources
10.1.1.96/26	18 hosts for Facilities
10.1.1.96/28	32 hosts for Engineering
10.1.1.112/29	12 hosts for Finance
10.1.1.8/28	
10.1.1.0/26	
10.1.1.64/27	

Correct Answer:



Answer Area

10.1.1.16/27	10.1.1.112/29
10.1.1.96/26	10.1.1.64/27
	10.1.1.0/26
	10.1.1.96/28
10.1.1.8/28	

Section:

Explanation:

QUESTION 68

DRAG DROP

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

Select and Place:



Answer Area

provides orchestration for the management plane

supports zero-touch provisioning

handles fabric discovery

manages the control plane

vSmart

vBond

WAN Edge

Correct Answer:

Answer Area

vSmart

- handles fabric discovery
- manages the control plane

vBond

- provides orchestration for the management plane

WAN Edge

- supports zero-touch provisioning

Section:

Explanation:

QUESTION 69

DRAG DROP

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

Select and Place:

Answer Area

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 forwarding, security, encryption, QoS, and routing protocols	Cisco vBond Orchestrator

Correct Answer:

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

Section:

Explanation:

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

QUESTION 70

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

Correct Answer: B

Section:

QUESTION 71

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

Correct Answer: A

Section:

QUESTION 72

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.

Correct Answer: D

Section:

QUESTION 73

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.

Correct Answer: A

Section:

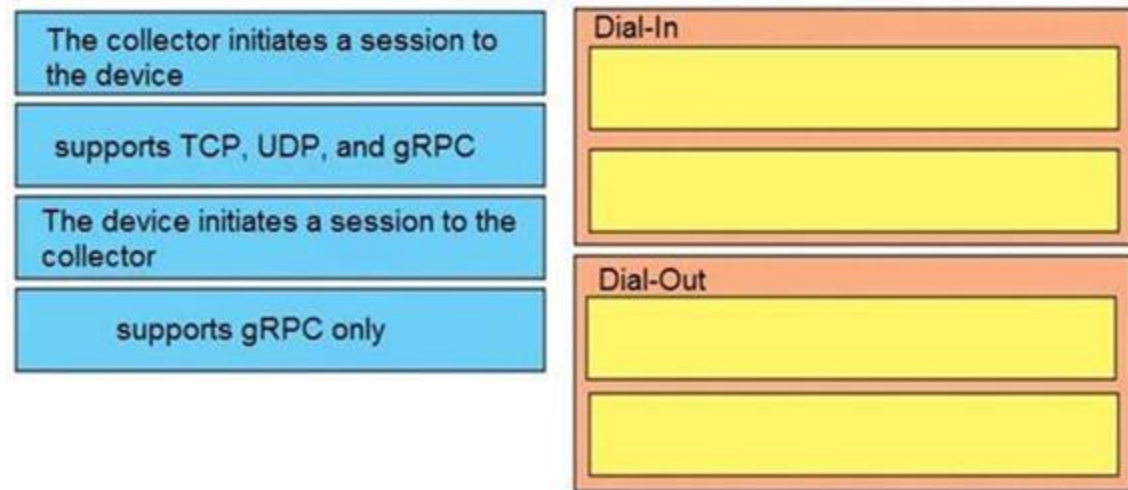
QUESTION 74

DRAG DROP

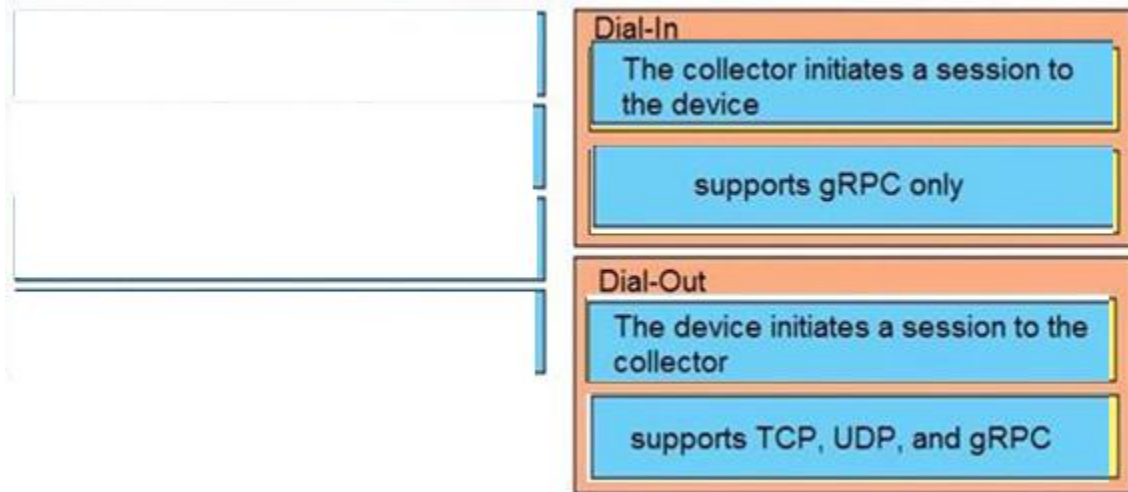
Drag and drop the characteristics from the left onto the correct telemetry mode on the right.

Select and Place:





Correct Answer:



Section:

Explanation:

In a dial-in mode, the destination initiates a session to the router and subscribes to data to be streamed. Dial-in 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-cg-asr9000-61x_chapter_010.html#id_36445

QUESTION 75

DRAG DROP

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

Select and Place:

HTTPS-based	NETCONF
SSH-based	
built to support candidate configuration	
lacks support for two-phase commit transactions	RESTCONF

Correct Answer:

	NETCONF
	SSH-based
	built to support candidate configuration
	RESTCONF
	HTTPS-based
	lacks support for two-phase commit transactions



Section:

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 76

DRAG DROP

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

Select and Place:

independent of the underlying operating system	Open Model
specific to the underlying operating system	
vendor neutral	Native Model
provided by the vendor for device management	

Correct Answer:

	Open Model
	independent of the underlying operating system
	vendor neutral
	Native Model
	specific to the underlying operating system
	provided by the vendor for device management



Section:

Explanation:

QUESTION 77

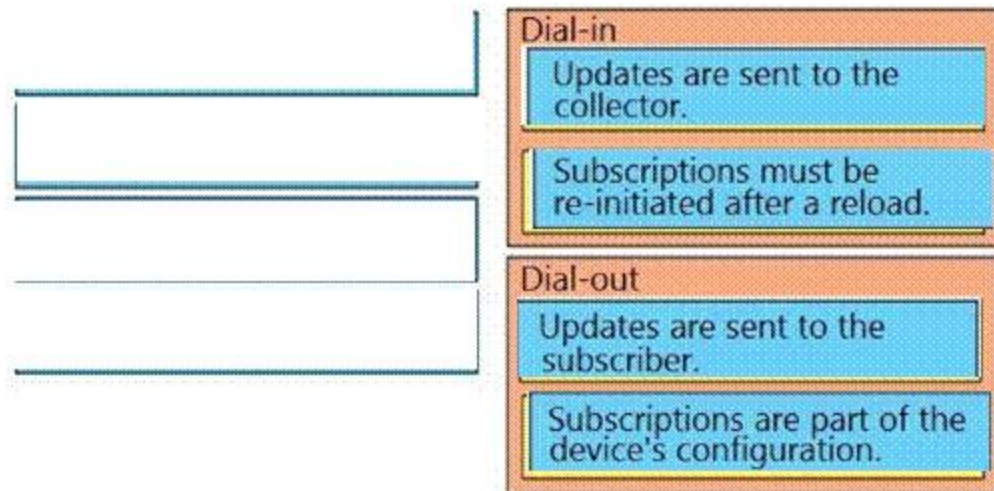
DRAG DROP

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

Select and Place:

Updates are sent to the collector.	Dial-in
Updates are sent to the subscriber.	
Subscriptions must be re-initiated after a reload.	Dial-out
Subscriptions are part of the device's configuration.	

Correct Answer:



Section:

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 78

DRAG DROP

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



Select and Place:

Answer Area

underlay network	uses VXLAN to overlay a Layer 2 network on top of a Layer 3 network
overlay network	defined by the physical switches and routers
fabric control plane	contains data plane traffic and control plane signaling
fabric data plane	uses LISP to exchange EID-to-RLOC mapping

Correct Answer:

Answer Area

	overlay network
	underlay network
	fabric data plane
	fabric control plane

Section:

Explanation:

QUESTION 79

DRAG DROP

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

Select and Place:

Answer Area

vManage	performs the initial authentication of WAN Edge devices
vSmart controller	provides a GUI interface to monitor, configure, and maintain the SD-WAN devices
vBond orchestrator	responsible for the control plane

Correct Answer:



Answer Area

	vBond orchestrator
	vManage
	vSmart controller

Section:

Explanation:

QUESTION 80

DRAG DROP

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

Select and Place:

Answer Area

It supports end-to-end network segmentation.	Cisco SD-WAN data security network segmentation routing exposure
The WAN is a flat network with no network segmentation.	
Application data is encrypted end-to-end.	
It is hard to detect sniffing incidents.	MPLS VPN data security network segmentation routing exposure
Control traffic is fully encrypted and independent from the service provider network.	
CE to PE routing is controlled by the service provider.	

Correct Answer:

Answer Area

Cisco SD-WAN
Application data is encrypted end-to-end.
It supports end-to-end network segmentation.
Control traffic is fully encrypted and independent from the service provider network.
MPLS VPN
It is hard to detect sniffing incidents.
The WAN is a flat network with no network segmentation.
CE to PE routing is controlled by the service provider.

Section:

Explanation:

QUESTION 81

DRAG DROP

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

Select and Place:



Answer Area

The service provider participates in routing with the customer.

The customer controls the IP routing and policy governance.

Sites appear to each other to be directly connected at Layer 3.

Sites appear to be connected via the MPLS service provider network.

The customer initiates Layer 3 connectivity with the remote sites.

The customer establishes Layer 3 connectivity with the service provider edge device.

Layer 2 VPN

[Empty yellow box]

[Empty yellow box]

[Empty yellow box]

MPLS Layer 3 VPN

[Empty yellow box]

[Empty yellow box]

[Empty yellow box]



Correct Answer:

Answer Area

Layer 2 VPN
The customer controls the IP routing and policy governance.
Sites appear to each other to be directly connected at Layer 3.
The customer initiates Layer 3 connectivity with the remote sites.
MPLS Layer 3 VPN
The service provider participates in routing with the customer.
Sites appear to be connected via the MPLS service provider network.
The customer establishes Layer 3 connectivity with the service provider edge device.

Section:
Explanation:

QUESTION 82
DRAG DROP
Drag and drop the characteristics from the left onto the configuration protocols they describe on the right.

Select and Place:

Answer Area

uses HTTP transport	NETCONF
uses SSH transport	
defined in RFC 6241	
defined in RFC 8040	RESTCONF

Correct Answer:

Answer Area

	NETCONF
	uses SSH transport
	defined in RFC 6241
	RESTCONF
	uses HTTP transport
	defined in RFC 8040

Section:

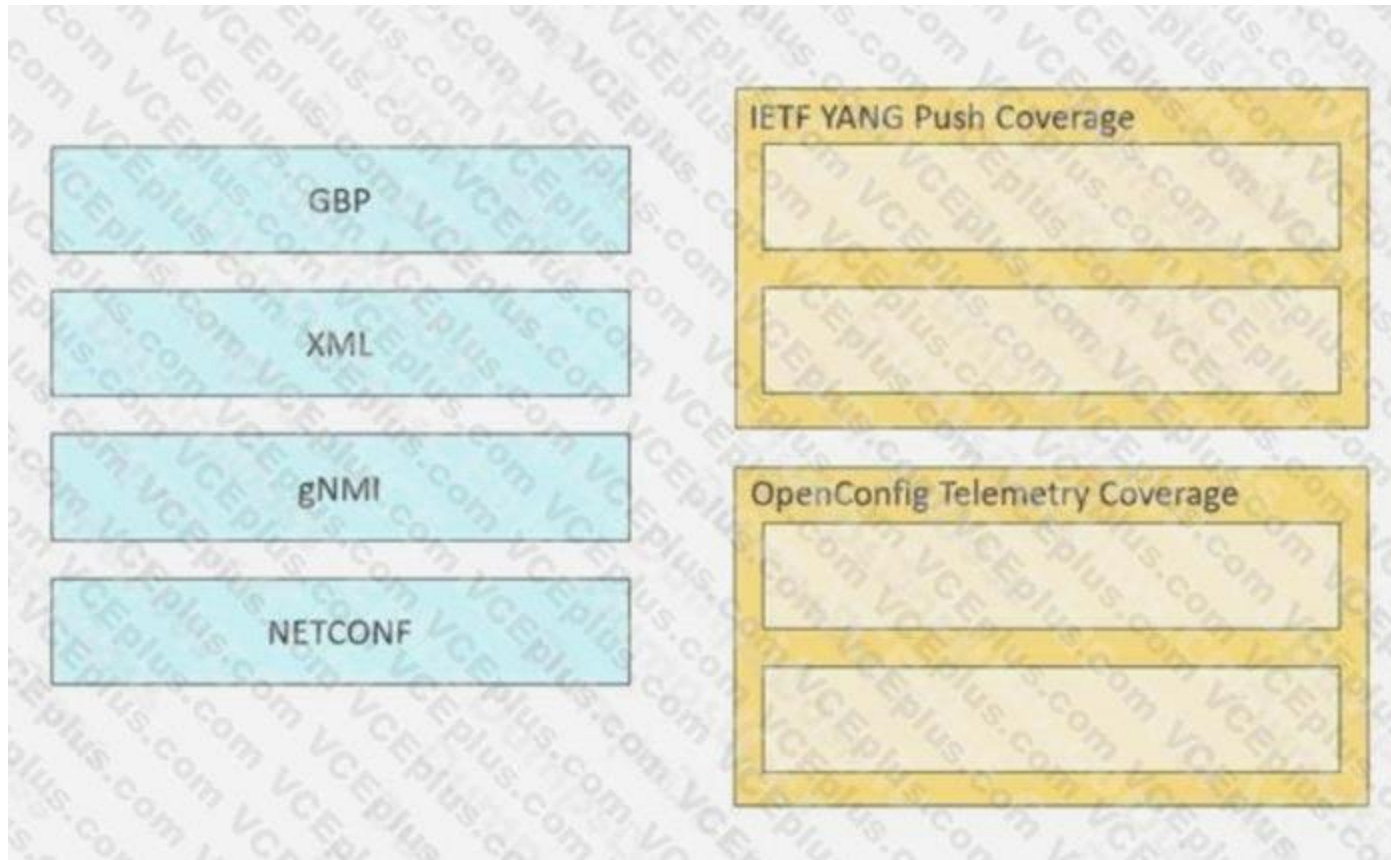
Explanation:

QUESTION 83

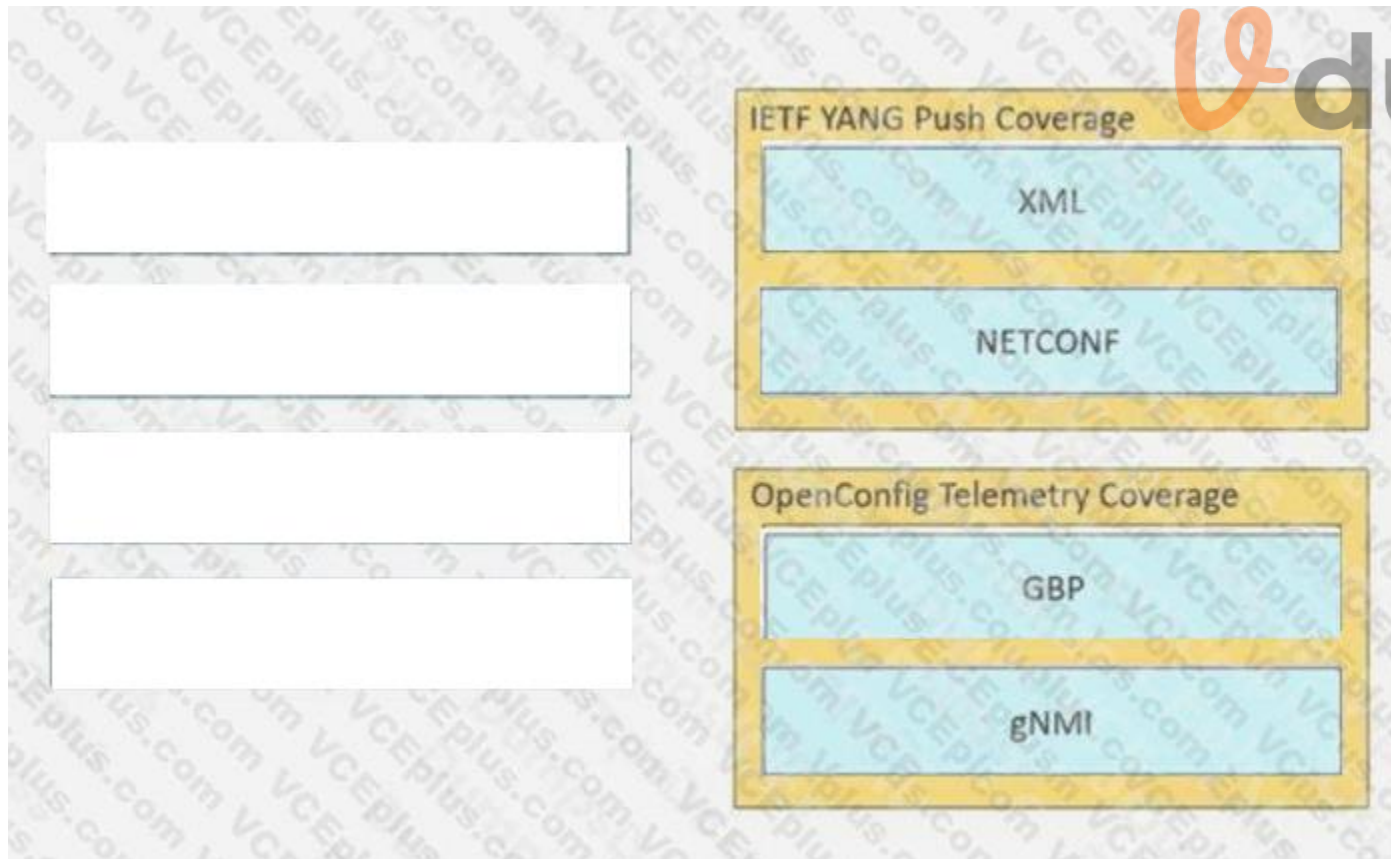
DRAG DROP

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

Select and Place:



Correct Answer:



Section:

Explanation:

QUESTION 84

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

Correct Answer: B

Section:

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 85

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.

Correct Answer: D

Section:

QUESTION 86

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

Correct Answer: A

Section:

QUESTION 87

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

Correct Answer: D

Section:

QUESTION 88

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

Correct Answer: D, E

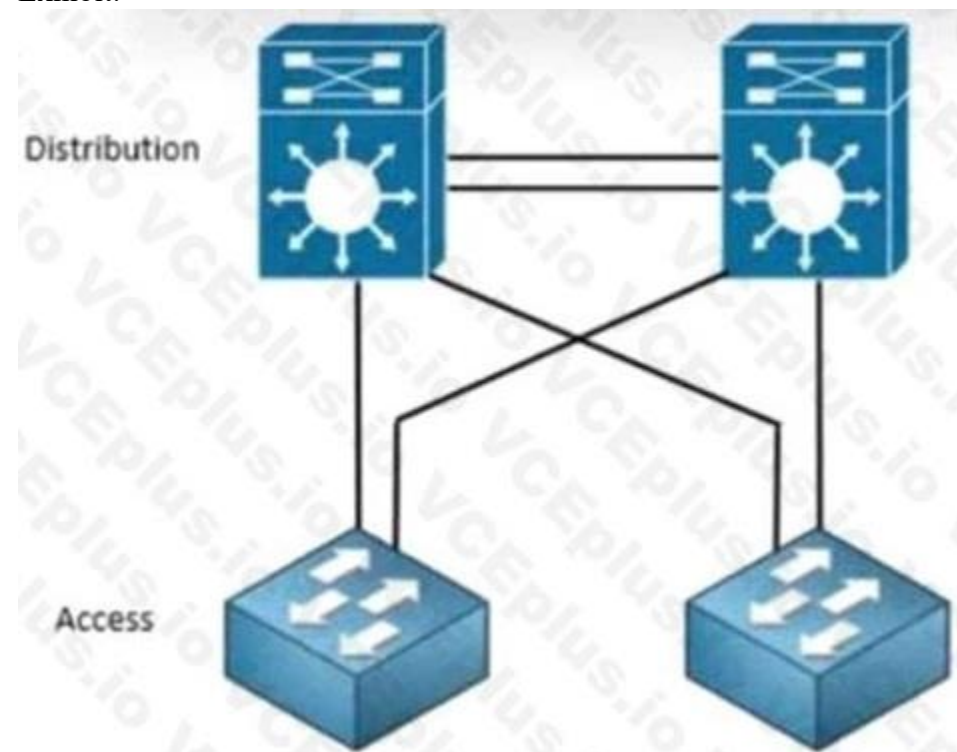
Section:

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-A1AE9DC39C21MSDP 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 89

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?

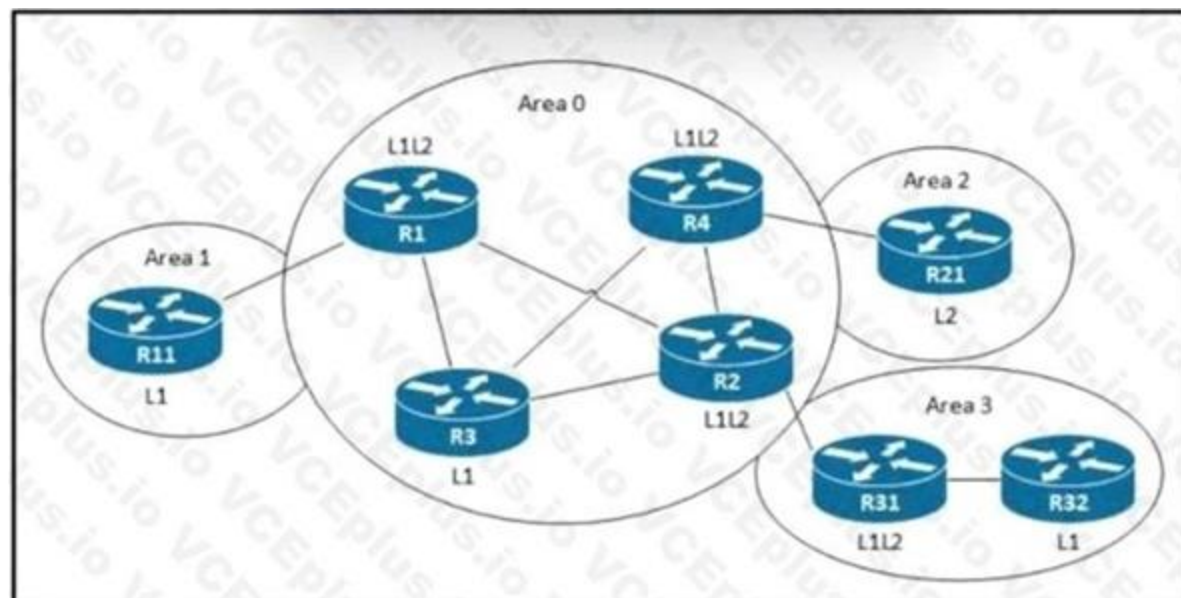
- A. EtherChannel
- B. MEC
- C. RSTP
- D. ECMP

Correct Answer: B

Section:

QUESTION 90

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.

Correct Answer: A

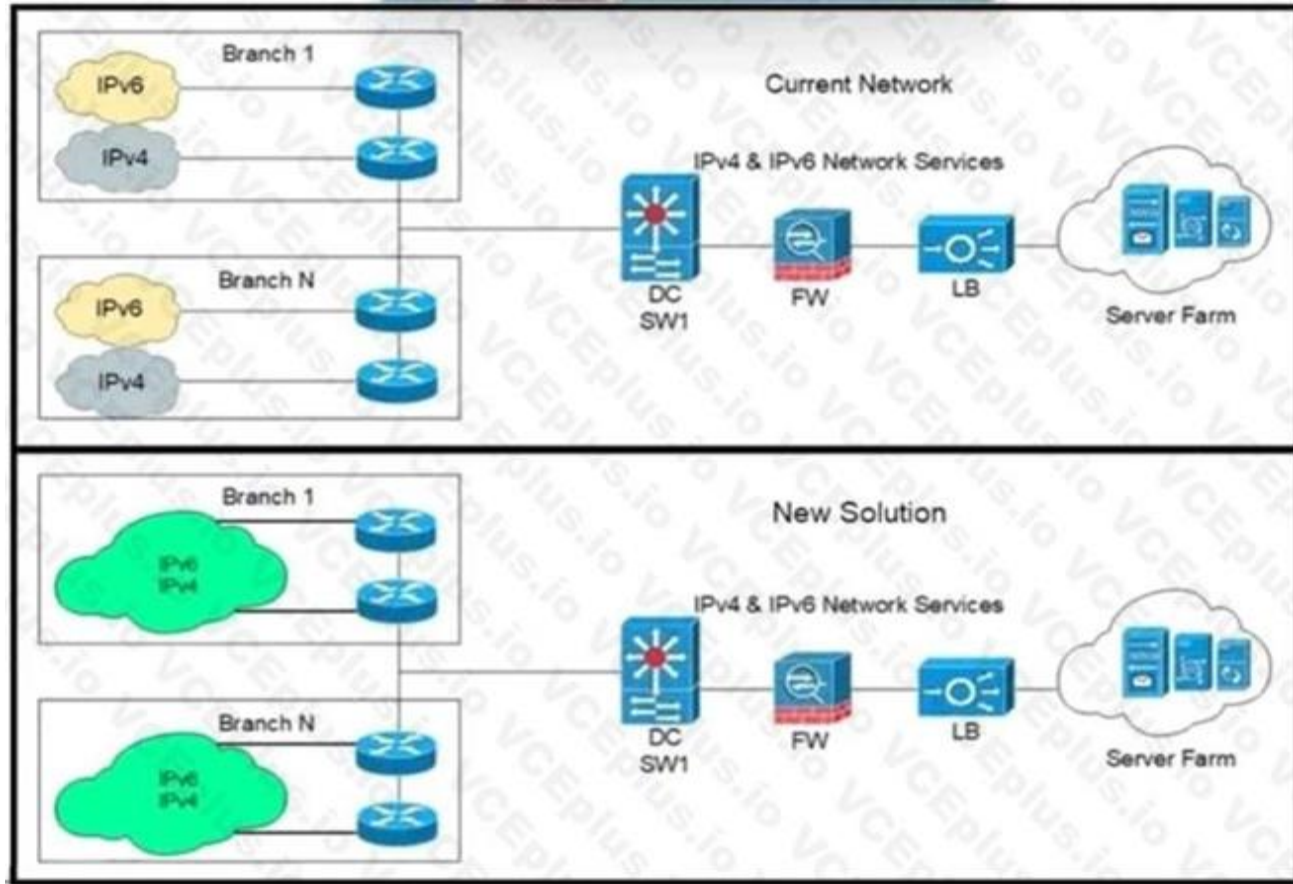
Section:

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 91

 **vdumps**



 **vdumps**

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

Correct Answer: A

Section:

Explanation:

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

QUESTION 92

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

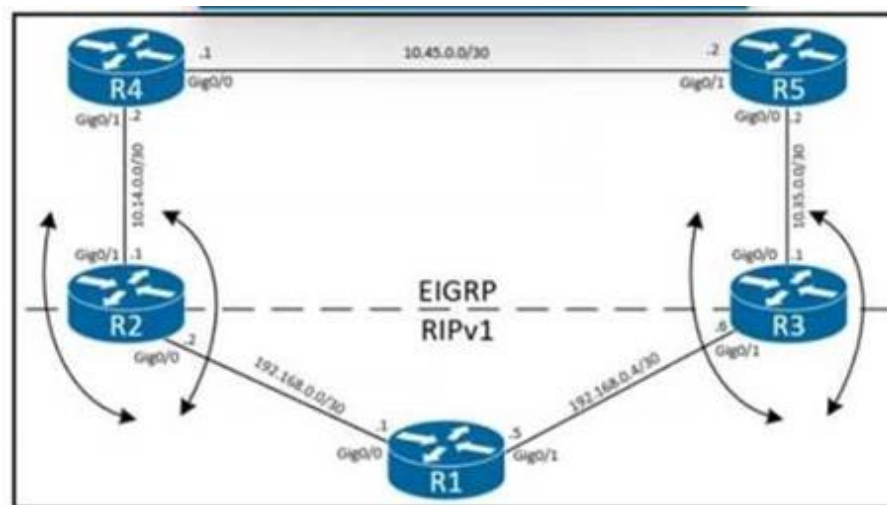
Correct Answer: C

Section:



QUESTION 93

Refer to 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

Correct Answer: C

Section:

QUESTION 94

Refer to 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 all 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.

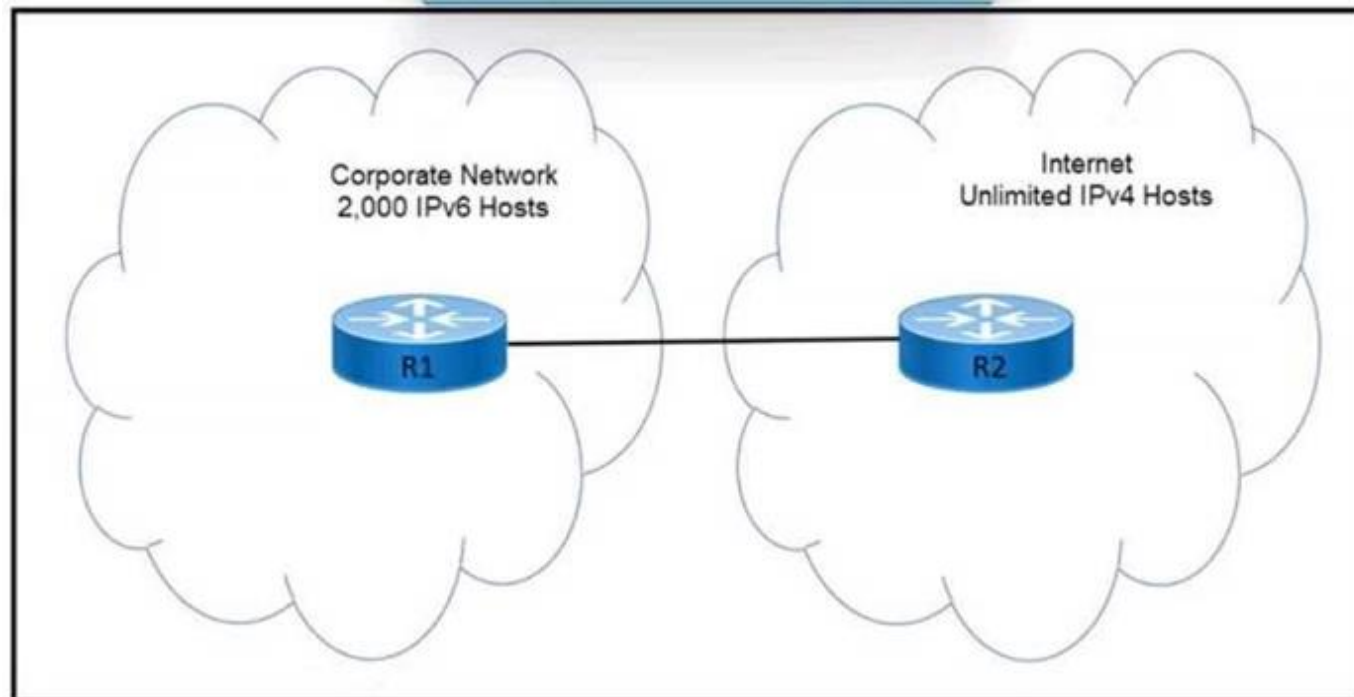
Correct Answer: A, C

Section:



QUESTION 95

Refer to 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

Correct Answer: A
Section:

QUESTION 96

DRAG DROP

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

Select and Place:

Correct Answer:

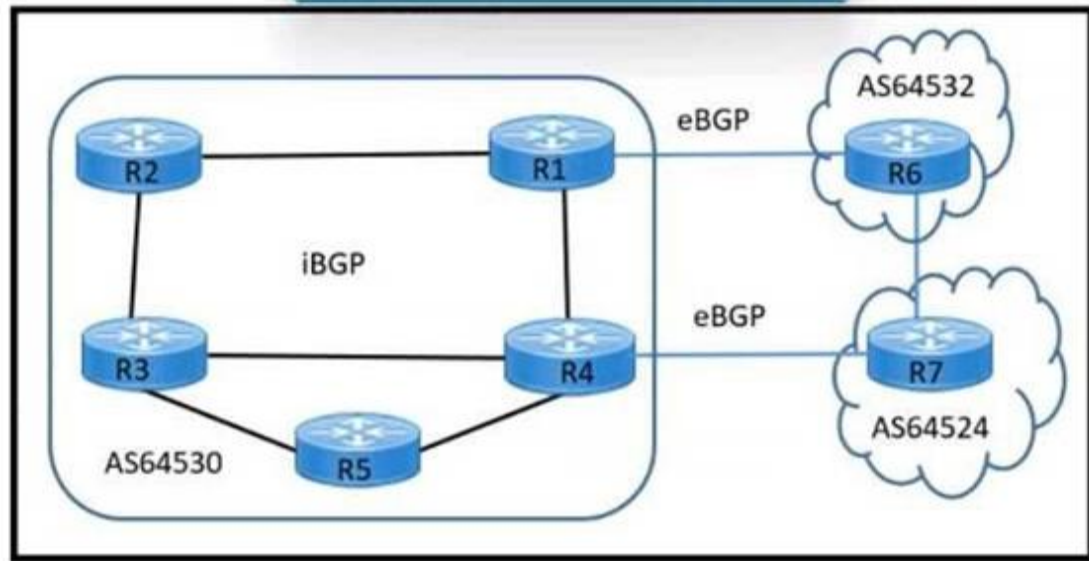


Section:

Explanation:

QUESTION 97

Refer to 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 R1 to be a client of R2 and R4.
- B. Configure R2 to be a client of R1 and R4.
- C. Configure R3 to be a client of R2 and R4.
- D. Configure R4 to be a client of R1 and R3.
- E. Configure R5 to be a client of R3 and R4.

Correct Answer: B, E

Section:

QUESTION 98

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.

Correct Answer: B

Section:

QUESTION 99

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

- A. intermediate
- B. edge
- C. control plane
- D. border



Answer: D

Correct Answer: D

Section:

Explanation:

QUESTION 100

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

- A. GBAC
- B. LISP
- C. CEF
- D. VXLAN

Correct Answer: B

Section:

QUESTION 101

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

- A. control-connections
- B. controlWirection
- C. color
- D. affinity

Correct Answer: D

Section:

QUESTION 102

How do IETF, OpenConfig and Cisco native YANG models differ when used to configure 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.

Correct Answer: A

Section:

QUESTION 103

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

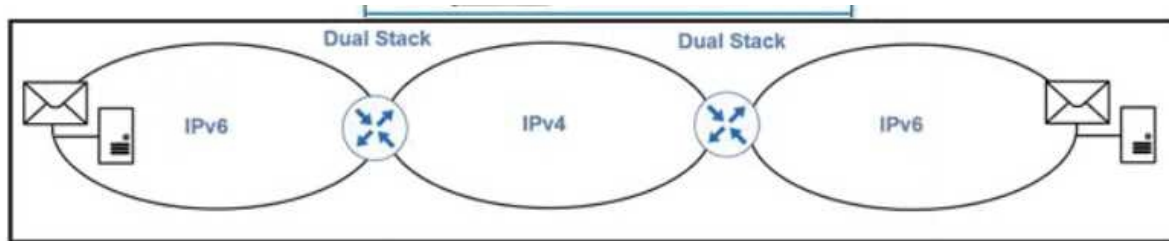


Correct Answer: A

Section:

QUESTION 104

Refer to the exhibit.



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

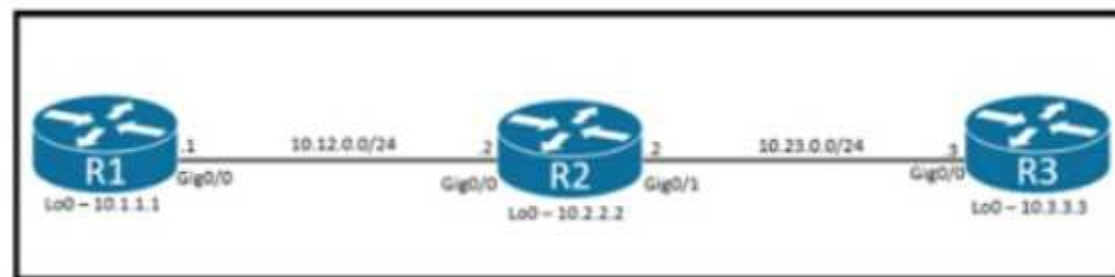
- A. ISATAP
- B. 6to4
- C. IPv4 compaliDie
- D. 6rd

Correct Answer: C

Section:

QUESTION 105

Refer to the exhibit.



vdumps

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

Correct Answer: B

Section:

QUESTION 106

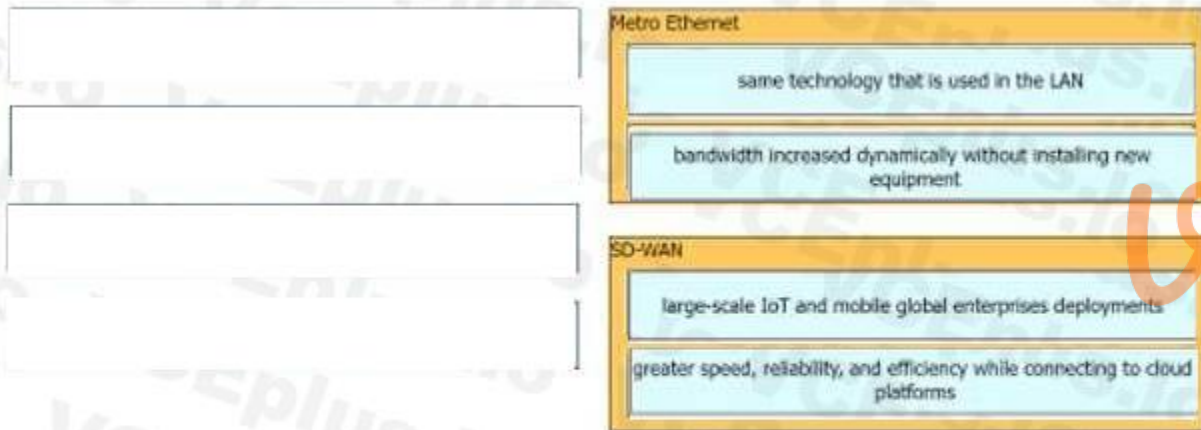
DRAG DROP

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

Select and Place:



Correct Answer:



Section:

Explanation:

QUESTION 107

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?

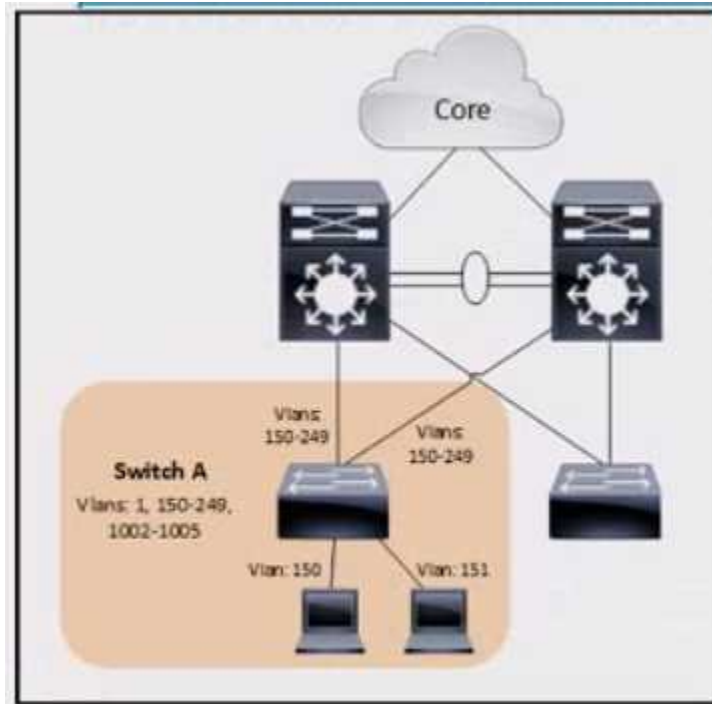
- A. iSPF
- B. BFD
- C. SPF
- D. PRC

Correct Answer: B

Section:

QUESTION 108

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

Correct Answer: C

Section:

QUESTION 109

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 filters 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

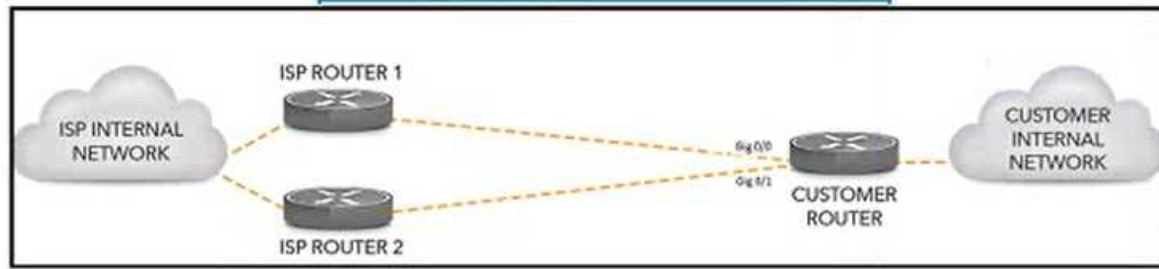
Correct Answer: C

Section:

QUESTION 110

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.

Correct Answer: A

Section:

QUESTION 111

An engineer is designing a campus network with Cisco Catalyst 9500 switches in the aggregation 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 vein contain 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



Correct Answer: B

Section:

Explanation:

QUESTION 112

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 interfaces 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.

Correct Answer: A, D

Section:

QUESTION 113

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?

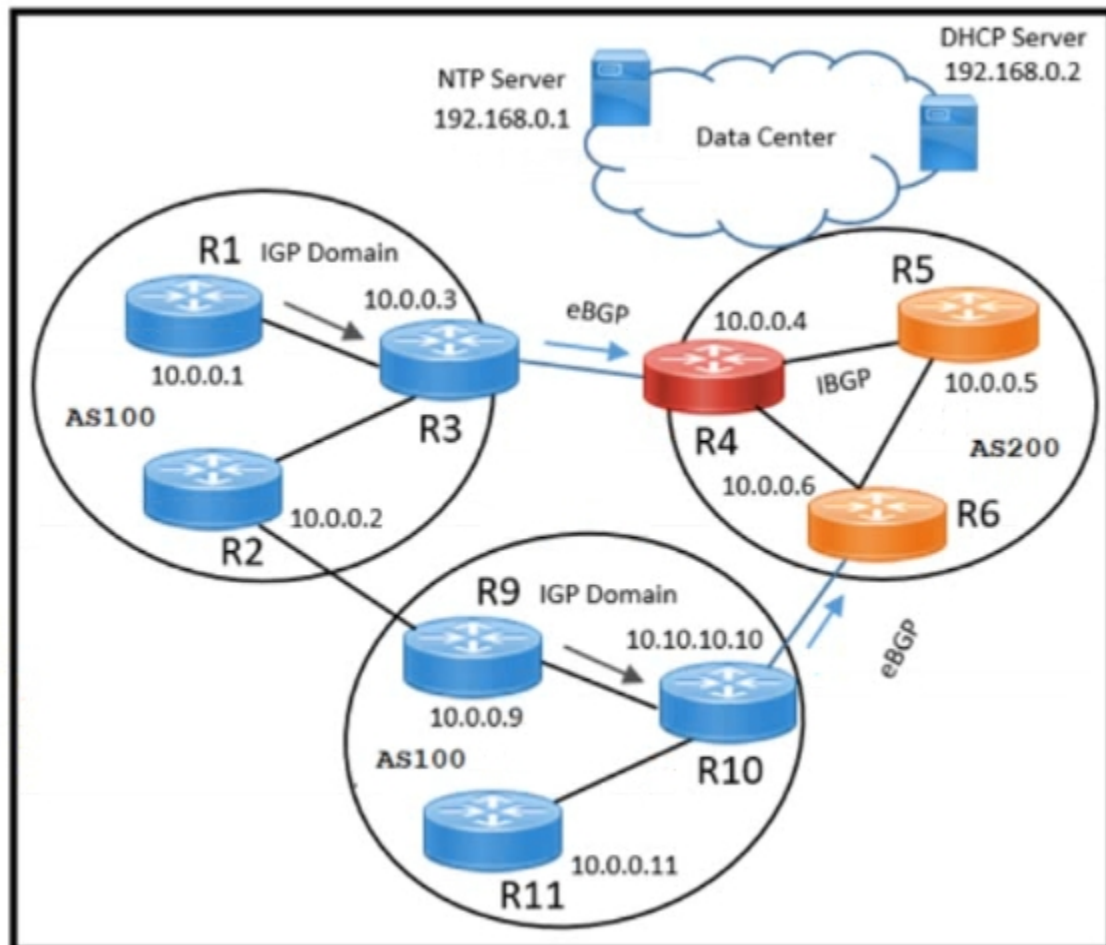
- A. L2VPN
- B. GET VPN
- C. IPsec
- D. GRE

Correct Answer: A

Section:

QUESTION 114

Refer to the exhibit.



dumps

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?

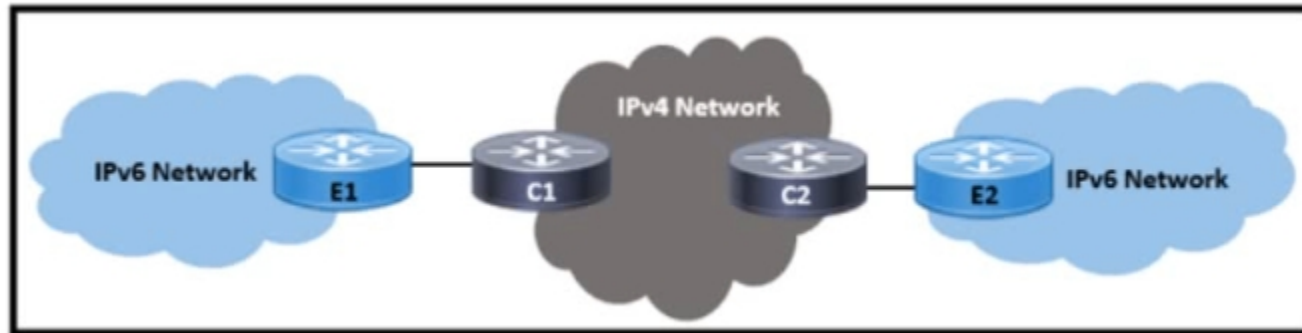
- A. Routers R3 and R10 advertise an IGP metric into BGP during redistribution in both directions.
- B. Router R6 influences the paths of R9 and R11 to the DC with a higher AS-PATH value.
- C. Routers R3 and R10 advertise a lower local preference for outgoing traffic and a higher AS-PATH value for incoming traffic.
- D. Router R3 applies a local preference of 200 for R1, R2, R9, and R11 routers to reach the data center.

Correct Answer: D

Section:

QUESTION 115

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

Correct Answer: C, E

Section:



QUESTION 116

Which two LISP components are required in the Cisco SD-Access fabric control plane node? (Choose two.)

- A. Egress Tunnel Router
- B. Ingress Tunnel Router
- C. Map-Resolver
- D. Map-Server Proxy
- E. ETR

Correct Answer: C, D

Section:

QUESTION 117

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.)

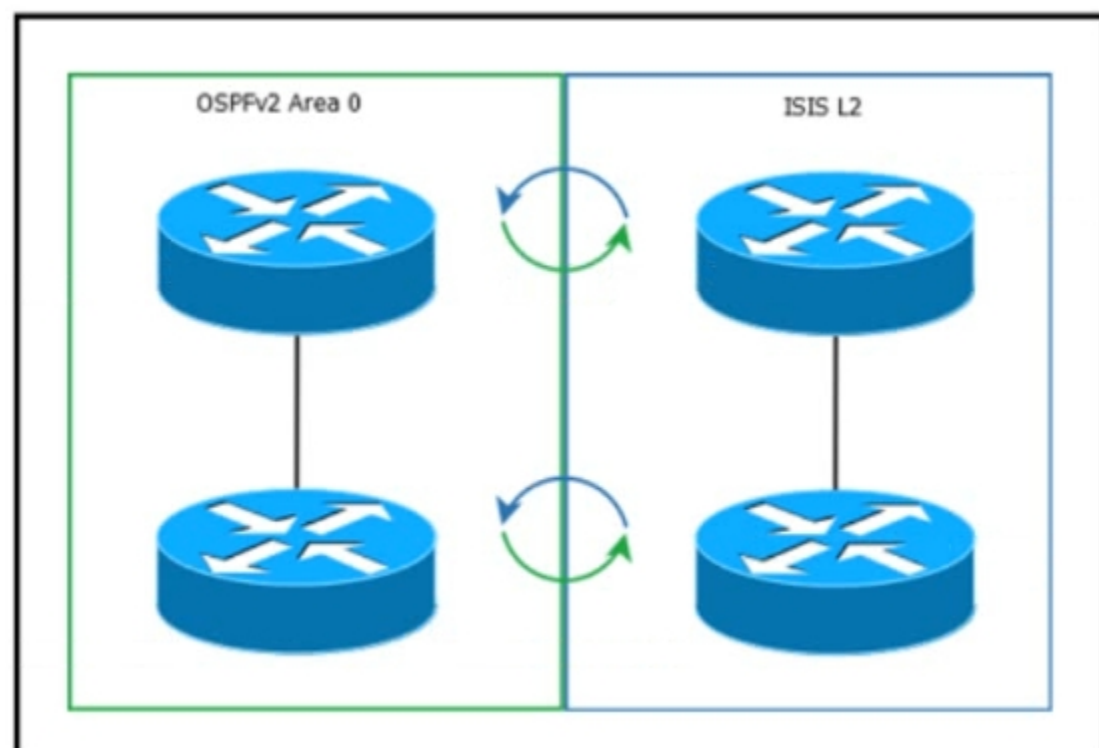
- A. Create a shaping policy to drop excessive traffic and a strict queue for real-time traffic.
- B. Apply queuing on the distribution to core links
- C. Create a policing policy to drop excessive traffic and a strict queue for real-time traffic.
- D. Create a scavenger queue for excessive traffic and a strict queue for real-time traffic
- E. Apply queuing on the access to distribution links.

Correct Answer: C, E

Section:

QUESTION 118

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?

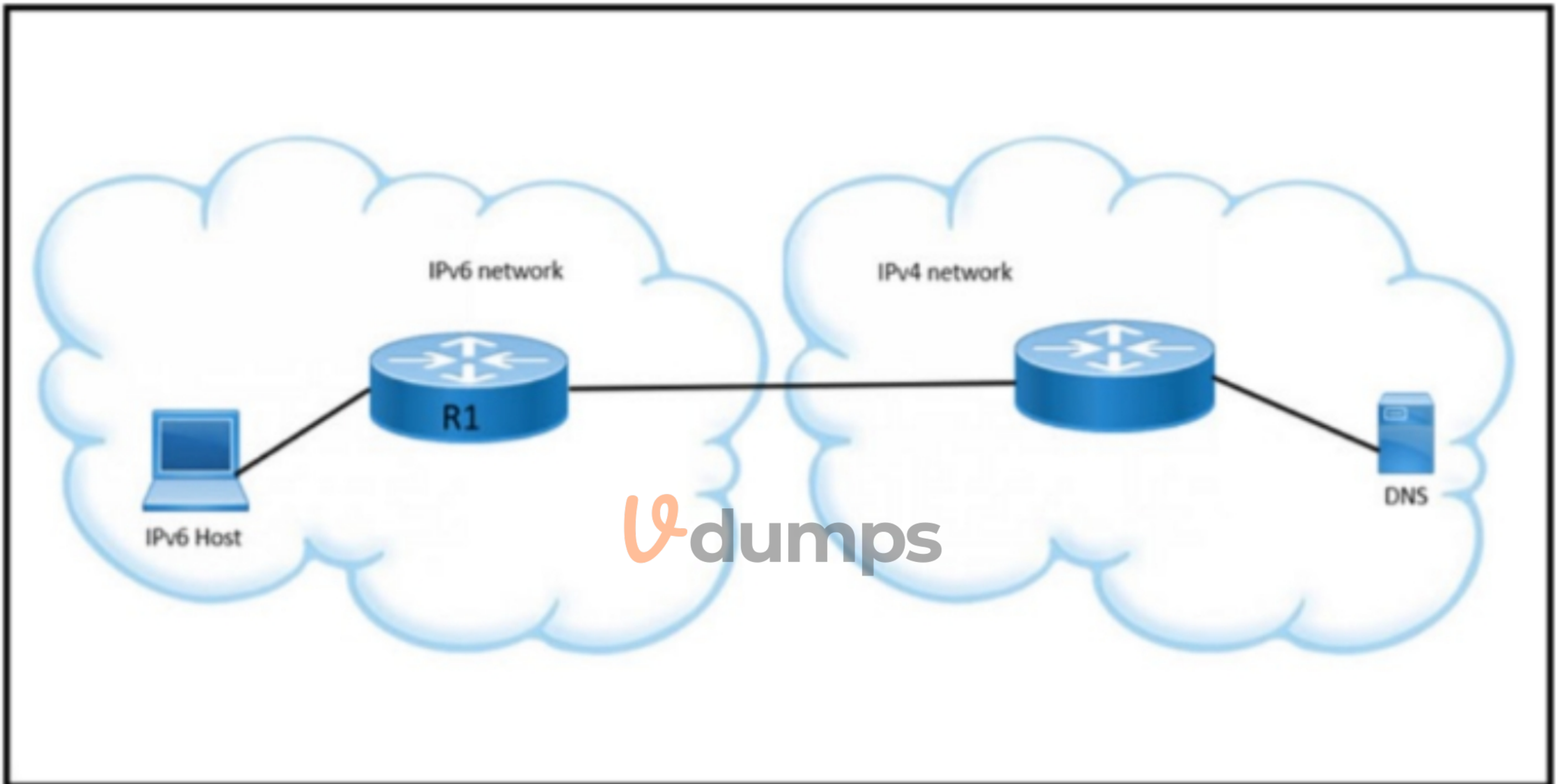
- A. Change the IS-IS administrative distance to 105.
- B. Change the OSPF area to a nonbackbone stub area
- C. Use route filtering with an ACL or prefix list.
- D. Use route tagging with a route map.

Correct Answer: D

Section:

QUESTION 119

Refer to the exhibit.

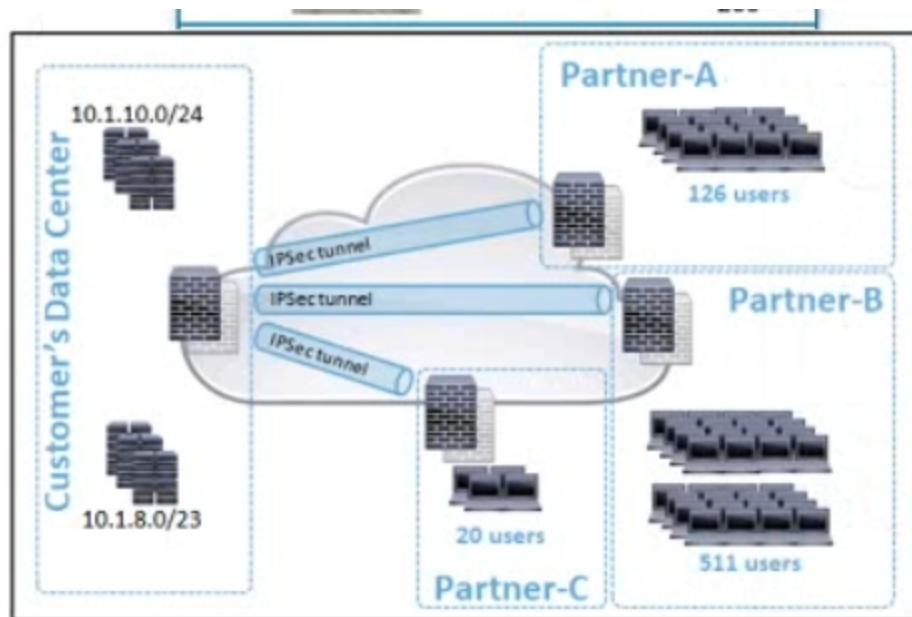


Refer to the exhibit. An engineer must connect the IPv6 island to the IPv4-only network to provide IPv6 hosts access to file servers and DNS services in the IPv4 network. Which NAT should the engineer choose?

- A. stateless NAT66
- B. stateful NAT66
- C. static NAT-PT
- D. dynamic NAT-PT

Correct Answer: D
Section:

QUESTION 120
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. How must the subnets be divided to meet these requirements?

A)

Partner-A: 10.1.11.0/25
 Partner-B: 10.1.12.0/22
 Partner-C: 10.1.11.128/27

B)

Partner-A: 10.1.11.0/24
 Partner-B: 10.1.13.0/23
 Partner-C: 10.1.12.128/26

C)

Partner-A: 10.1.11.0/25
 Partner-B: 10.1.13.0/23
 Partner-C: 10.1.11.128/27

D)

Partner-A: 10.1.12.0/25
 Partner-B: 10.1.13.0/22
 Partner-C: 10.1.12.128/26

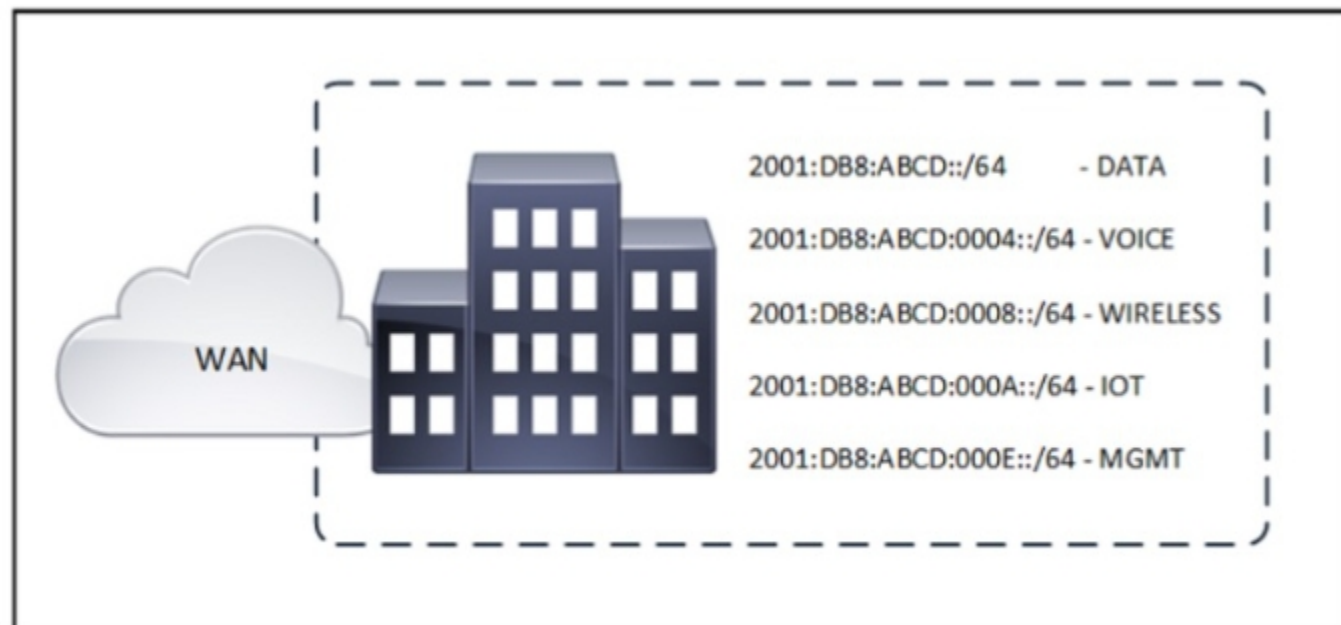
- A. Option A
- B. Option B
- C. Option C
- D. Option D

Correct Answer: B
Section:

QUESTION 121



Refer to the exhibit.



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

Correct Answer: C
Section:



QUESTION 122

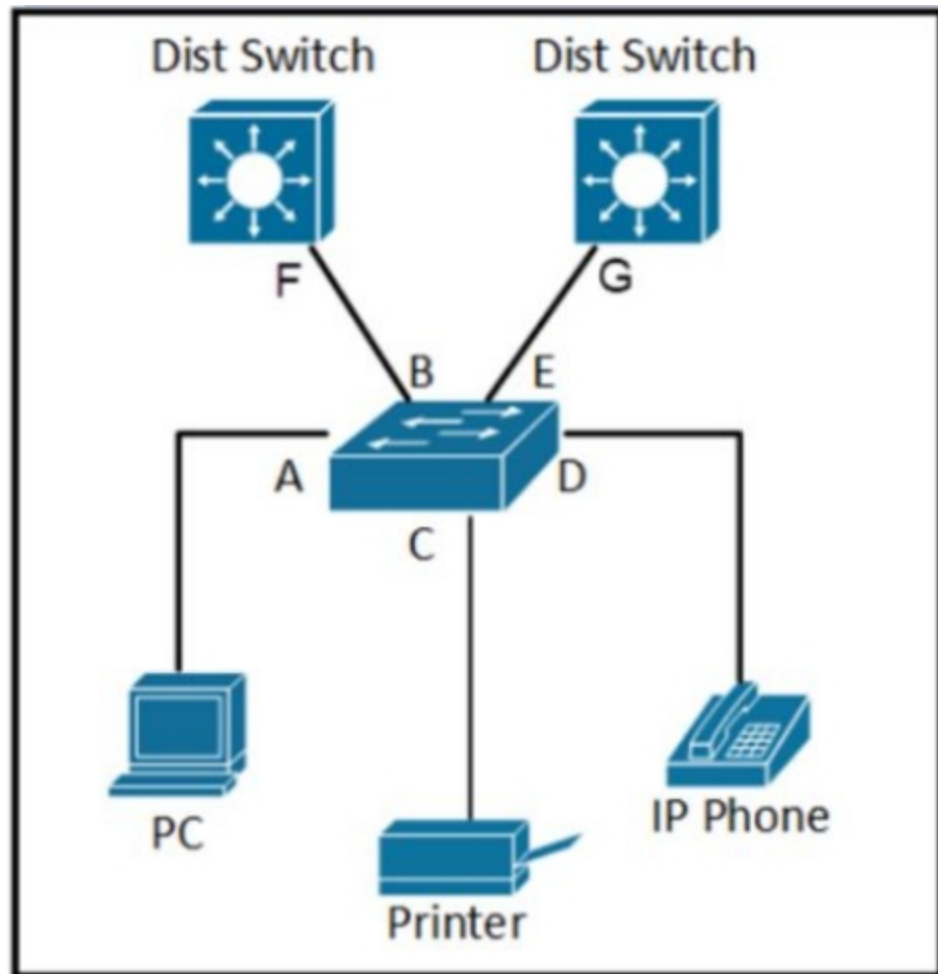
An engineer is designing a BGP solution supporting a VXLAN environment over a Layer 3 IPv4 network fabric with these requirements provide Layer 2 adjacency allow VM migration of workloads between sites IGP is OSPF
Which BGP address family must the engineer choose?

- A. VPNv4
- B. IPv4 unicast
- C. L2VPN VPLS-VPWS
- D. L2VPNEVPN

Correct Answer: D
Section:

QUESTION 123

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

Correct Answer: A

Section:

QUESTION 124

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.)

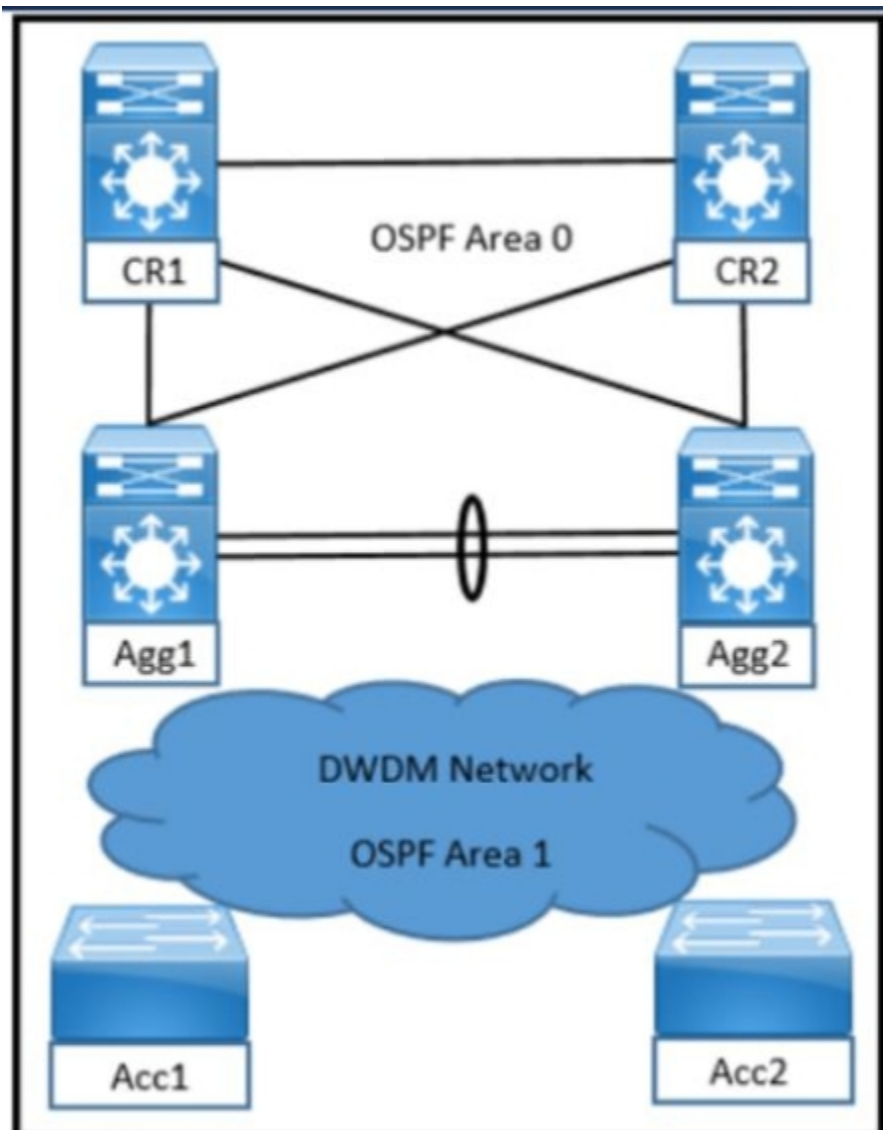
- A. Exchange all routes between locations
- B. Summarize the routes between the hubs.
- C. Make each spoke site router a stub router
- D. Summarize the routes from spokes to the hubs.
- E. Split the network into two separate ASs

Correct Answer: A, C

Section:

QUESTION 125

Refer to the exhibit.



The logo for 'Vdumps' features a stylized orange 'V' followed by the word 'dumps' in a grey, sans-serif font.

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?

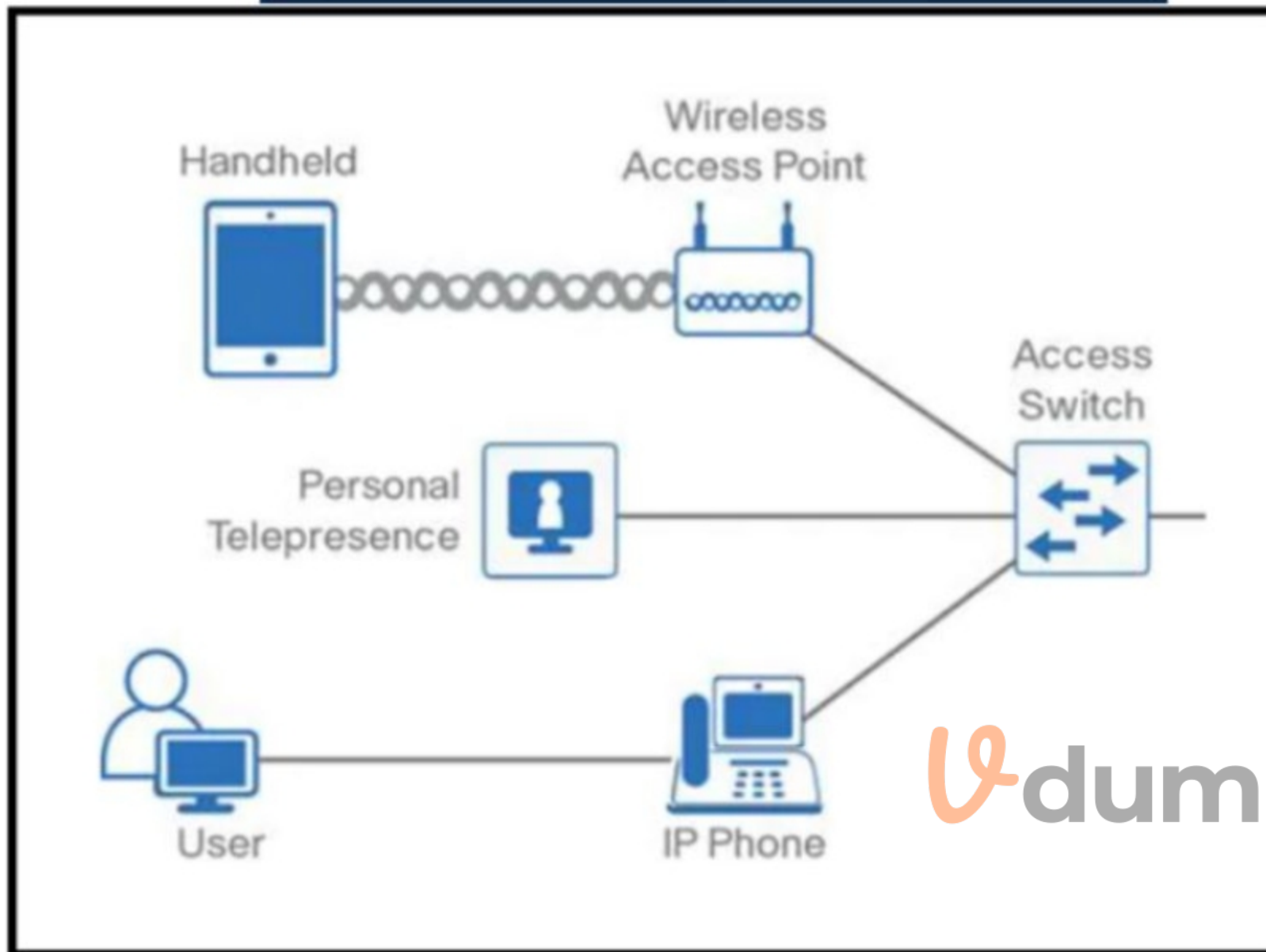
- A. Utilize BFD and tune the BFD timers to 100 ms.
- B. Tune the SPF delay and the OSPF LSA interval timers to 100 ms.
- C. Enable IP SLA tracking for each OSPF peer.
- D. Decrease SPF timers to 100 ms.

Correct Answer: A

Section:

QUESTION 126

Refer to the exhibit.



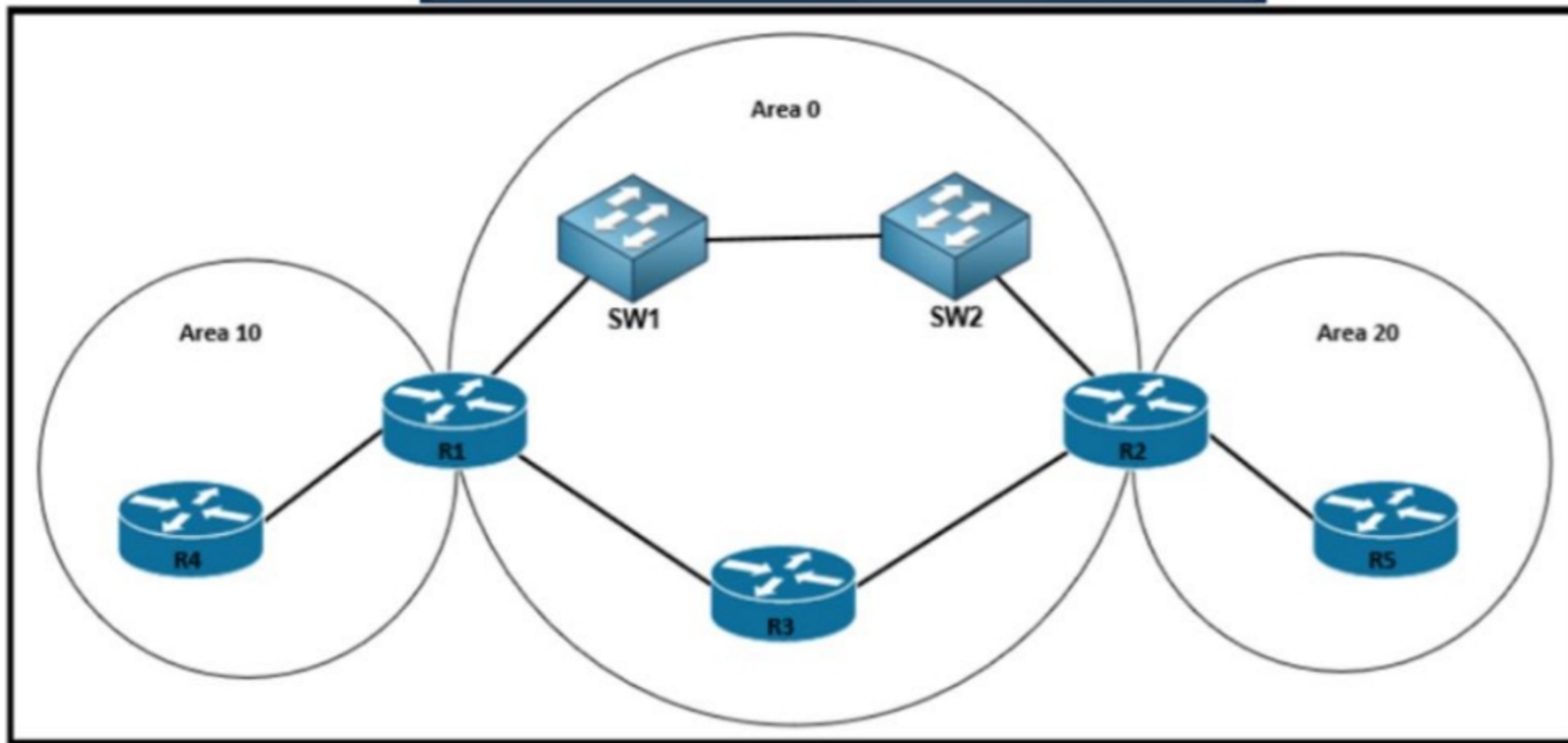
Refer to the exhibit. An architect with an employee ID: 4542:60:170 is designing a campus Layer 2 infrastructure. The design requires a PoE power budget that varies from 30-60 W. In addition, power must be provided continuously to some endpoints and must be supported even during the reloading of edge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

- A. PoE Plus
- B. Fast PoE
- C. Universal PoE
- D. Perpetual PoE

Correct Answer: C
Section:

QUESTION 127

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

Correct Answer: B

Section:

QUESTION 128

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

Correct Answer: A

Section:

QUESTION 129

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?

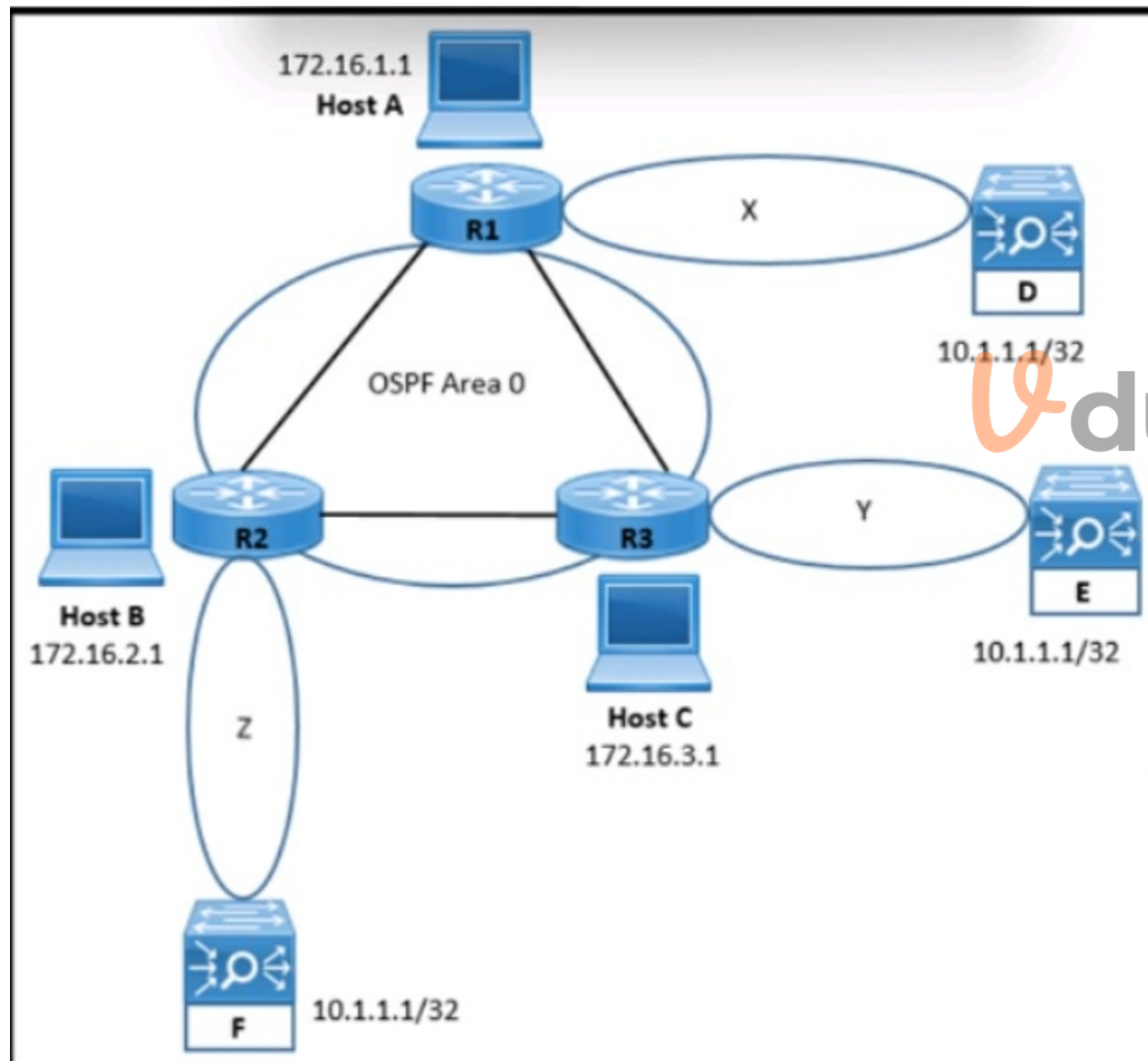
- A. hybrid ISATAP tunnel model
- B. hybrid manual tunnel model
- C. service block model
- D. dual-stack model

Correct Answer: D

Section:

QUESTION 130

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

Correct Answer: A

Section:

QUESTION 131

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

Correct Answer: A

Section:

QUESTION 132

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

Correct Answer: B

Section:

QUESTION 133

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

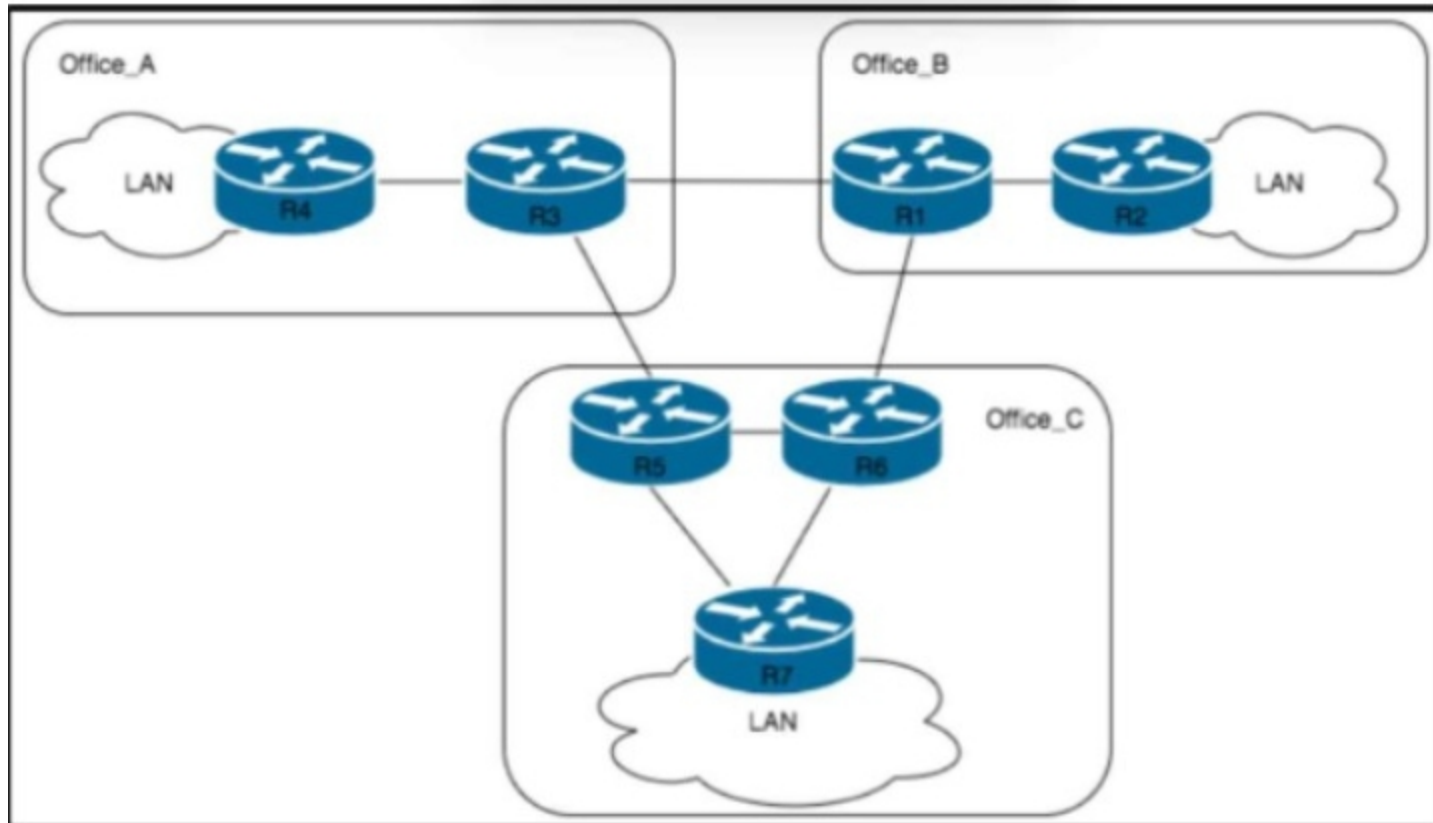
Correct Answer: C

Section:

QUESTION 134

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.

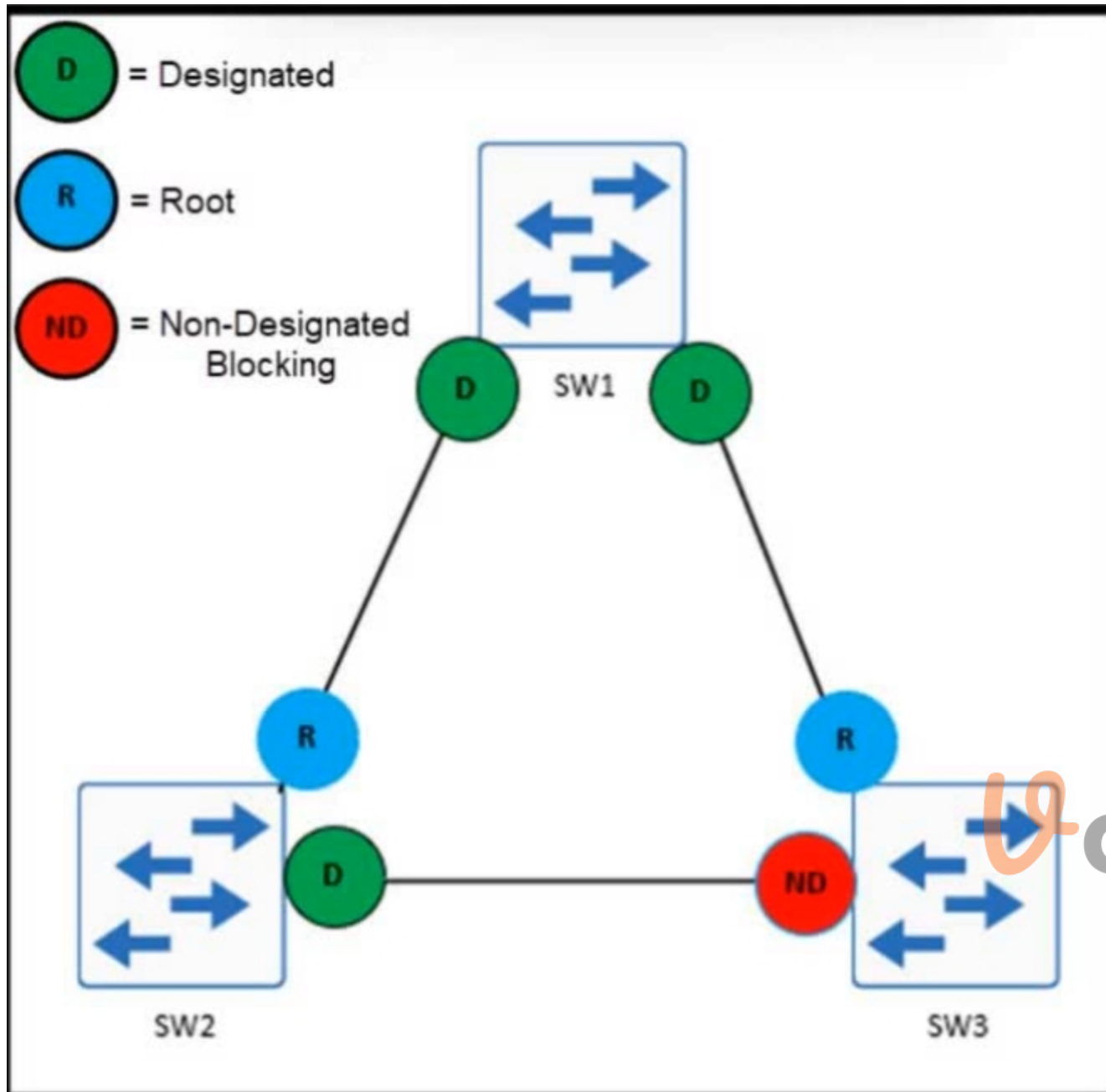
Correct Answer: B

Section:

QUESTION 135

Refer to the exhibit.



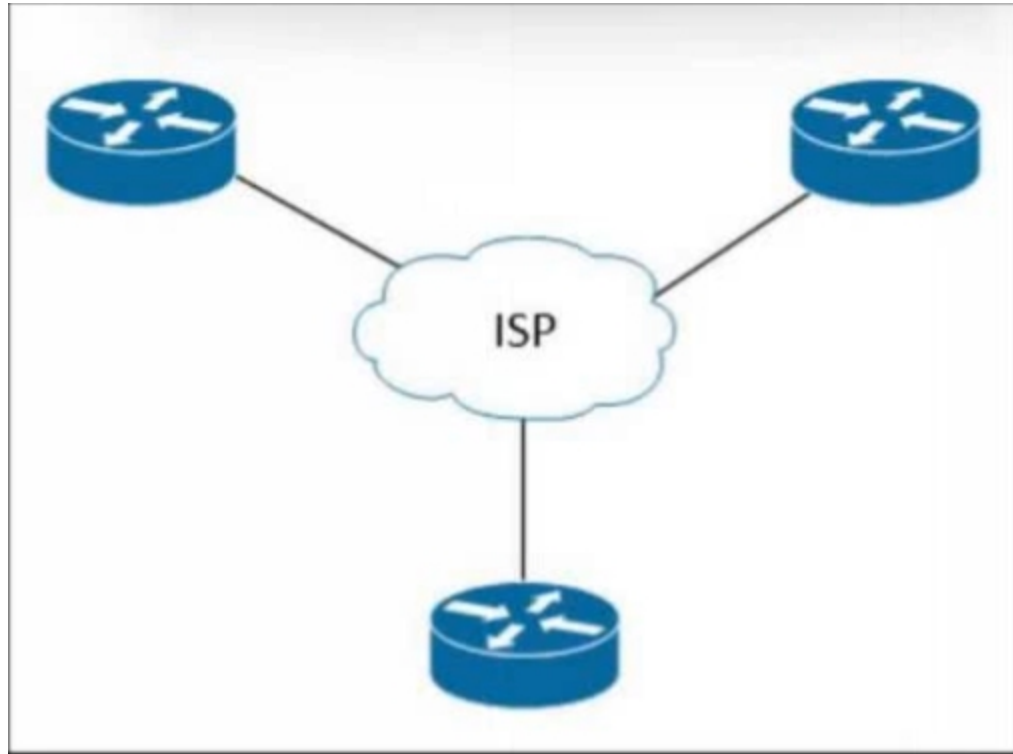


Refer to the exhibit. An architect is designing a Layer 2 network for a customer. The network will use the spanning-tree protocol. During a link failure between SW1 and SW2, the fastest possible convergence time is desired. Which solution must the architect select?

- A. Loop Guard
- B. UplinkFast
- C. PortFast
- D. BackboneFast

Correct Answer: B
Section:

QUESTION 136
 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

Correct Answer: B

Section:

QUESTION 137

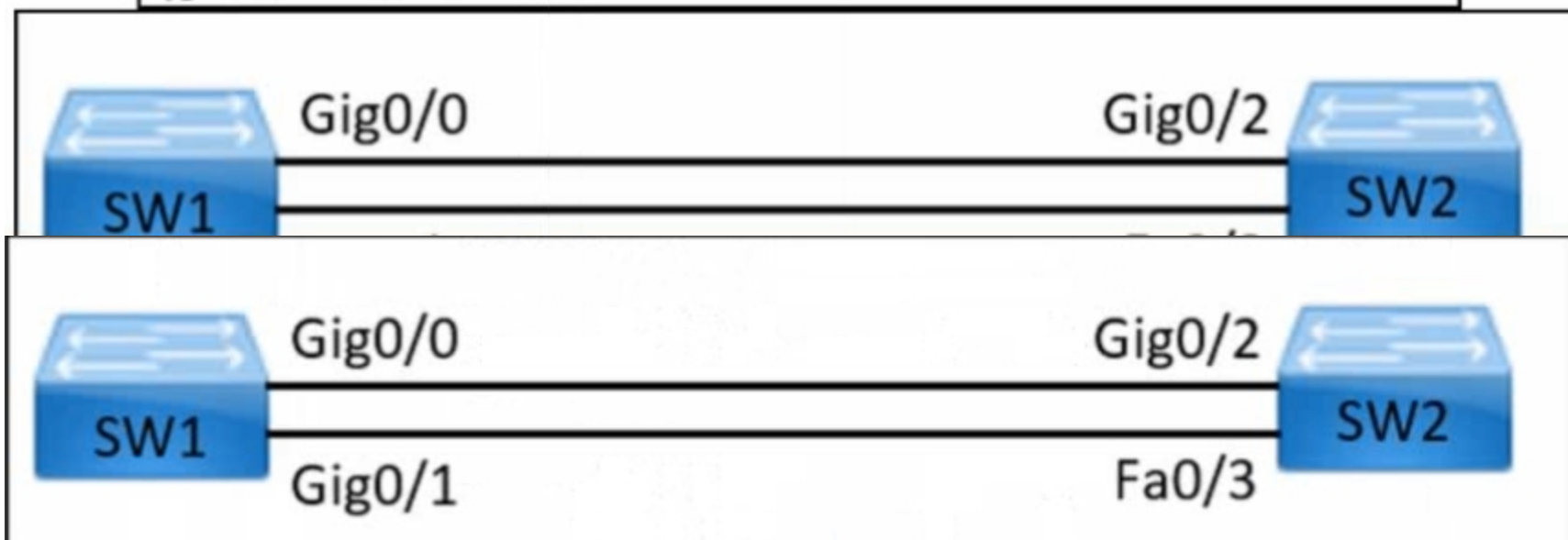
Refer to the exhibit.



```

1 SW2#show spanning-tree vlan 1
2
3 VLAN0001
4 Spanning tree enabled protocol ieee
5 Root ID Priority 24577
6 Address 0011.0022.0033
7 Cost 4
8 Port 3 (FastEthernet0/3)
9 Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
10
11 Bridge ID Priority 32769 (priority 32768 sys-id-ext 1)
12 Address 0011.00bb.00cc
13 Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
14 Aging Time 15
15
16 Interface Role Sts Cost Prio.Nbr Type
17 -----
18 Fa0/3 Root FWD 4 128.3 P2p
19 Gig0/2 Altn BLK 4 128.4 P2p
20
21 SW2#show run interface Gig0/2
22 Building configuration...
23 !
24 Interface GigabitEthernet0/2
25 switchport mode dynamic desirable
26
27 SW2#show run interface Fa0/3
28 Building configuration...
29
30 Current configuration : 102 bytes
31 !
32 Interface FastEthernet0/3
33 switchport mode dynamic desirable
34 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

Correct Answer: C, D

Section:

QUESTION 138

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.

Correct Answer: B

Section:

QUESTION 139

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.

Correct Answer: A

Section:

QUESTION 140

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

Correct Answer: D

Section:

QUESTION 141

What is the purpose of the fabric management plane in a Cisco SD-Access architecture?

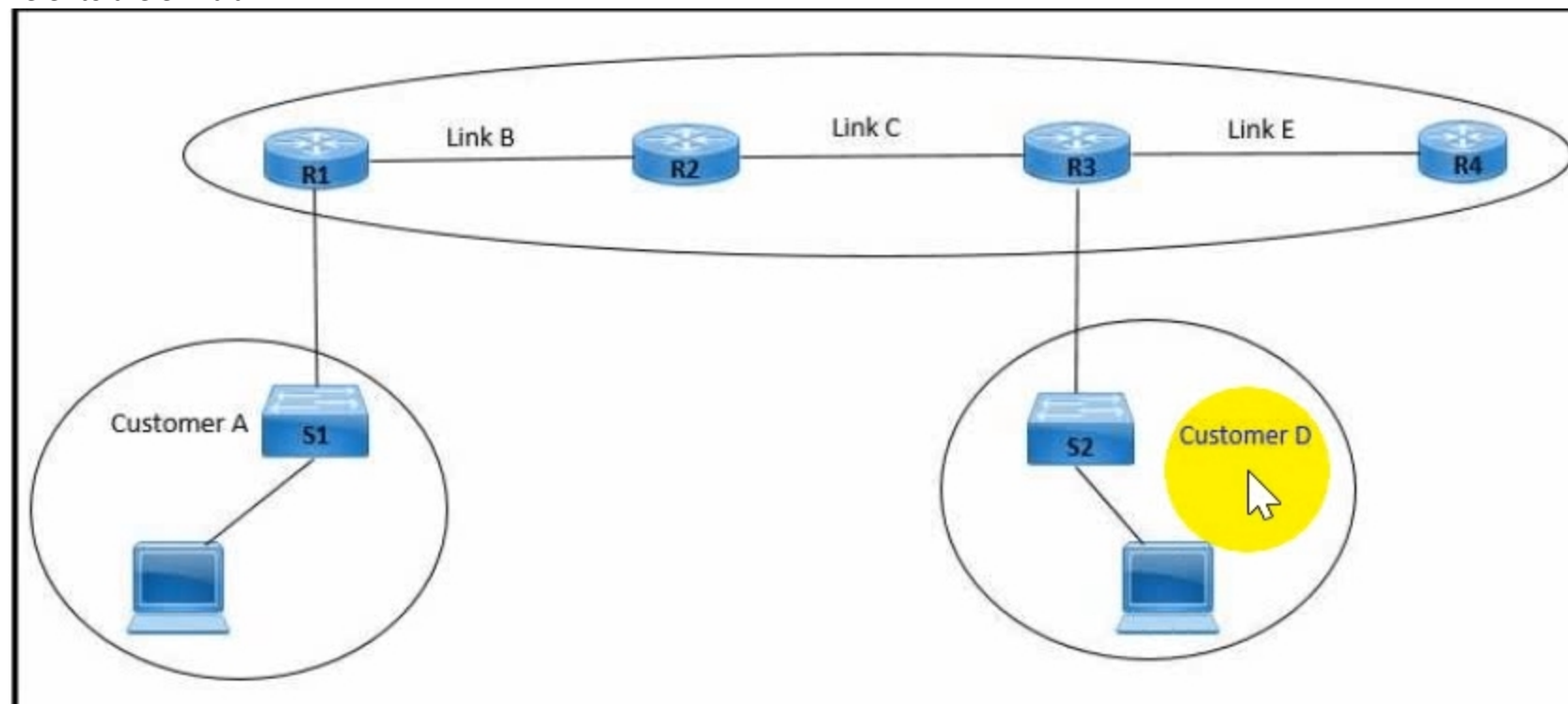
- A. create LISP-based EID for the end-to-end solution that is offered by SD-Access
- B. enable EID-to-RLOC mapping that is based on the BGP protocol
- C. create an underlay network that is based on the IS-IS routing protocol
- D. enable automation techniques for device deployments and configurations

Correct Answer: A

Section:

QUESTION 142

Refer to the exhibit.



 **vdumps**

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

Correct Answer: A, C

Section:

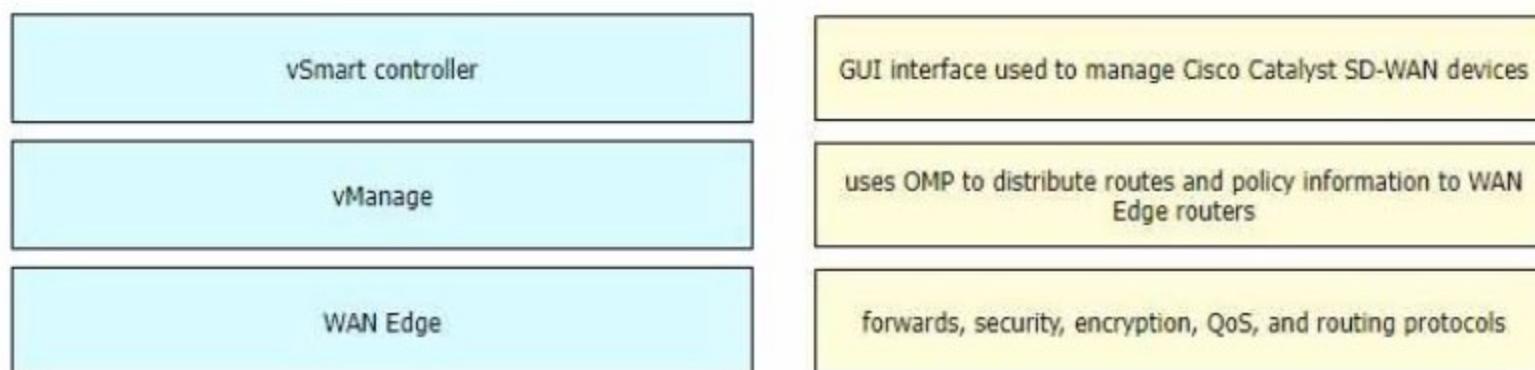
QUESTION 143

DRAG DROP

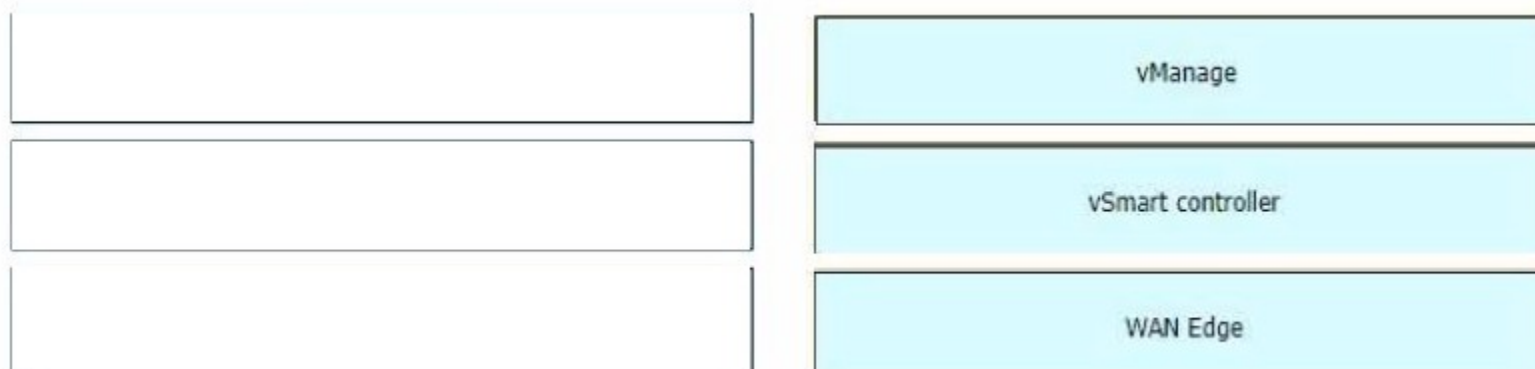
Drag and drop the Cisco Catalyst SD-WAN components from the left to their definitions on the right

Select and Place:





Correct Answer:



Section:

Explanation:

QUESTION 144

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

Correct Answer: D

Section:

QUESTION 145

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

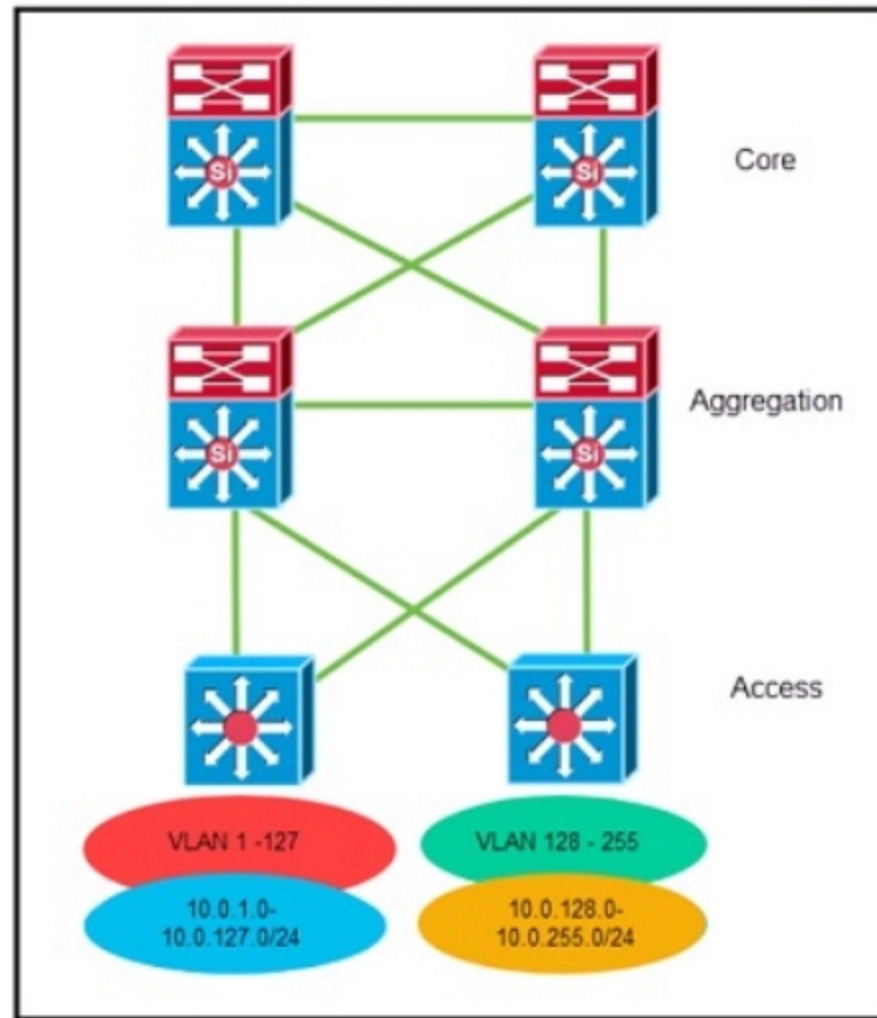
Correct Answer: B

Section:

QUESTION 146

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 10.0.0.0/16 at the aggregation layer and advertised to the access layer

Correct Answer: C

Section:

QUESTION 147

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

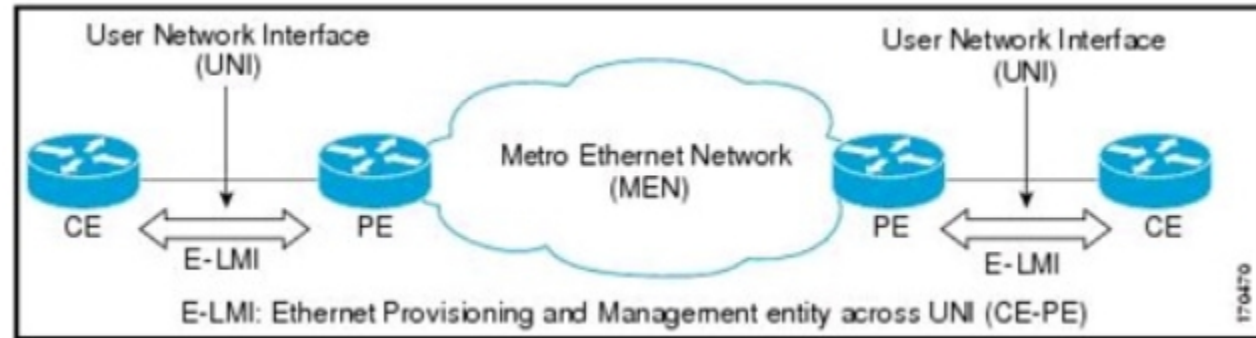
- A. Improved application experience
- B. Easier deployment
- C. Optimized cloud connectivity
- D. Proactive network management
- E. Consistent connectivity

Correct Answer: A, C

Section:

QUESTION 148

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

Correct Answer: B

Section:

