



Cisco

Exam Questions 300-515

Implementing Cisco Service Provider VPN Services (SVPI)

NEW QUESTION 1

- (Exam Topic 1)

You are troubleshooting ARP connectivity issues for an Ethernet interface on an IOS XR network that runs IS-IS. You verify that the IGP protocol is running, but an ARP entry has not yet been created.

Which action should you take?

- A. debug ping packets
- B. debug ARP
- C. ping the connected neighbor
- D. verify the RIB table routes

Answer: C

NEW QUESTION 2

- (Exam Topic 1)

Which tool identifies the point of failure in a P2MP LSP from the ingress LSR?

- A. Jitter TLV
- B. SPAN
- C. P2MP traceroute
- D. P2MP ping

Answer: C

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k_r5-3/mpls/configuration/guide/b-mpls-cg53x-asr9k/b-mpls-cg53x-asr9k_chapter_01000.html

NEW QUESTION 3

- (Exam Topic 1)

An engineer is investigating an MPLS LDP issue. Which command should an engineer use on a Cisco IOS XE device to display the contents of the LFIB?

- A. show mpls forwarding-table
- B. show mpls ldp neighbors
- C. show mpls ldp labels
- D. show mpls ldp bindings

Answer: A

Explanation:

Reference: <https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mpls/command/mp-cr-book/mp-s2.html>

NEW QUESTION 4

- (Exam Topic 1)

In an Ethernet Virtual Circuit environment, which restriction do bridge domains have when STP is running?

- A. The STP mode must be RSTP or PVST+.
- B. Bridge domains must be mapped to a different VLAN.
- C. The STP mode must be MSTP.
- D. Bridge domains must belong to different MST instances.

Answer: C

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/routers/asr920/configuration/guide/ce/b_ce_xe-313s-asr920-book/b_ce_xe-313s-asr920-book_chapter_01.html#reference_770349446ED24E83821EF701DDC46BFD

NEW QUESTION 5

- (Exam Topic 1)

You try to configure MPLS VPN VRF Selection based on a source IP address on an interface that has VRF configured, but you receive an error.

Which action must you take to correct the problem?

- A. Change the source IP address.
- B. Add the IP address to the VRF table.
- C. Remove the VRF from the interface.
- D. Configure static routes for the VRF.

Answer: C

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/ios/12_0s/feature/guide/vrfselec.html

NEW QUESTION 6

- (Exam Topic 1)

An engineer is troubleshooting an ongoing network outage. Which command should he use that can display the live log files for a process or service running on a

network device?

- A. traceroute
- B. show run
- C. ping
- D. debug

Answer: D

NEW QUESTION 7

- (Exam Topic 2)

A network architect is troubleshooting the L2TPv3 tunneling security due to the untrusted nature of the underlying network. Which two L2TPv3 features does the architect deploy to address the ongoing issues? (Choose two.)

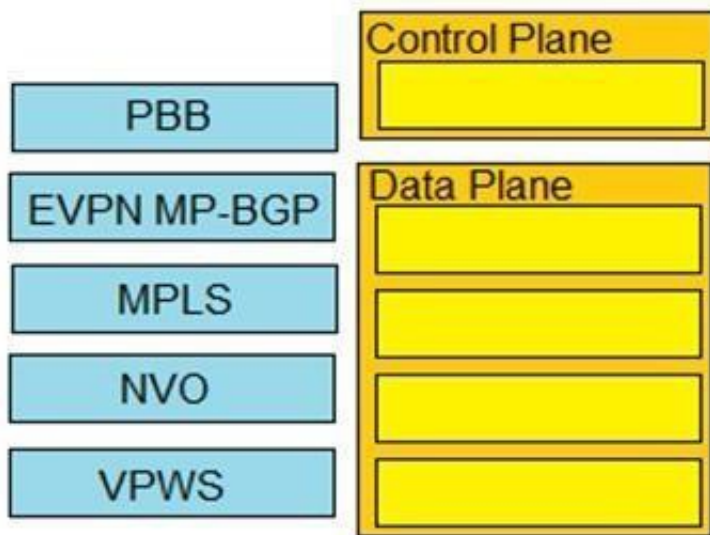
- A. TCP MD5 authentication
- B. control message hashing
- C. CHAP authentication
- D. control message rate limiting
- E. asymmetric mutual authentication with PSK

Answer: BC

NEW QUESTION 8

- (Exam Topic 2)

Drag and drop the EVPN components from the left onto the correct planes on the right.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Reference:

https://www.cisco.com/c/dam/m/en_us/network-intelligence/service-provider/digital-transformation/knowledge-network-webinars/pdfs/0420-eqn-ckn.pdf slide 8

NEW QUESTION 9

- (Exam Topic 2)

```
configure
router bgp 64520
 address-family 12vpn evpn
  neighbor 192.168.1.1

configure
12vpn
 xconnect group evpn-test
 p2p evpn12
 interface TenGigE0/1/0/1
  neighbor evpn evi 12 target 10 source 11
```

Which effect of this configuration is true?

- A. It configures VPWS multihomed.
- B. It configures VPWS single homed.
- C. It configures an IPv4 peering with 192.168.1.1
- D. It configures MPLS traffic engineering.

Answer: B

Explanation:

Reference: <https://www.ciscolive.com/c/dam/r/ciscolive/emea/docs/2019/pdf/BRKSPG-2798.pdf>

NEW QUESTION 10

- (Exam Topic 2)

What must match in the EVPN and L2VPN configuration mode when configuring EVPN native in a router?

- A. interface
- B. address family
- C. bridge domain
- D. EVI

Answer: D

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k-r6-2/lxvpn/configuration/guide/b-l2vpn-cg-asr9000-62x/b-l2vpn-cg-asr9000-62x_chapter_01011.html

NEW QUESTION 10

- (Exam Topic 2)

What do EVPN single-active and all-active have in common?

- A. They are default gateway redundancy options.
- B. They are multihoming mechanisms used for CE devices.
- C. They are used to provide single connection from a CE device to a service provider.
- D. They are both roles that a designated router can take when MPLS is used with EVPN.

Answer: D

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/routers/asr9000/software/asr9k-r6-2/lxvpn/configuration/guide/b-l2vpn-cg-asr9000-62x/b-l2vpn-cg-asr9000-62x_chapter_01011.html

NEW QUESTION 12

- (Exam Topic 2)

An engineer is troubleshooting an EoMPLS circuit on a Cisco IOS XR router interface that removes a VLAN

- A. interface GigabitEthernet 0/10.l2transport encapsulation dot1q 10rewrite ingress tag pop 1 symmetric l2vpnconnect group 103588p2p 103588interface GigabitEthernet 0/10.10 neighbor ipv4 10.10.10.2 pw-id 103588
- B. interface GigabitEthernet 0/10.10 encapsulation dot1q 10rewrite ingress tag pop 1 symmetric l2vpnconnect group 103588p2p 103588interface GigabitEthernet 0/10.10 neighbor ipv4 10.10.10.2 pw-id 103588
- C. interface GigabitEthernet 0/10.10 l2transport encapsulation dot1q 10l2vpnconnect group 103588p2p 103588interface GigabitEthernet 2/10.10 neighbor ipv4 10.10.10.2 pw-id 103588
- D. interface GigabitEthernet 0/10.10 l2transport encapsulation dot1q 10rewrite ingress tag translate 1-to-1 dot1ad 10 symmetricl2vpnconnect group 103588p2p 103588interface GigabitEthernet 0/10.10 neighbor ipv4 10.10.10.2 pw-id 103588

Answer: C

NEW QUESTION 17

- (Exam Topic 3)

In Layer 3 MPLS VPN implementations, if some of the VPNv4 routes on one PE router do not appear on another PE router, what could be the problem?

- A. RD mismatch between the PE routers
- B. RT export and import configuration errors
- C. VRF name mismatch between the PE routers
- D. RD export and import configuration errors

Answer: B

Explanation:

Reference:
<http://blog.initialdraft.com/archives/1537/>

NEW QUESTION 21

- (Exam Topic 3)

Refer to the exhibit.

```
mdt default mpls mldp 2.2.2.2
```

Which statement about this command is true?

- A. It must be configured on each PE router to enable the PE routers to receive multicast traffic for this particular MVRP.
- B. It is used to set the designated router on a link using PIM-SM.
- C. It must be configured on the PE and CE router to enable MP-BGP to send labels for CSC.
- D. It is used to set the router that will server as the root bridge for STP.

Answer: A

Explanation:

Reference: <https://www.cisco.com/c/en/us/td/docs/routers/asr1000/configuration/guide/chassis/asrswcfg/ismmldp.html>

NEW QUESTION 26

- (Exam Topic 3)

Refer to the exhibit.

```
CE Router

router bgp 65001
  address-family ipv4 unicast
    redistribute ospf 1
    allocate-label all
  neighbor 192.168.1.25
    remote-as 65012

PE Router

router bgp 65012
  vrf custrouter
    rd 65001:65012
    address-family ipv4 unicast
      allocate-label all
      redistribute static
    neighbor 192.168.1.24
      remote-as 65001
    address-family ipv4 labeled-unicast
```

The CE router has established a BGP peering with the PE router, and the CE will use the core infrastructure of the PE as a backbone carrier to support CSC. Which additional task can you perform to complete the configuration?

- A. Configure static routing on the CE router.
- B. Configure the address-family ipv4 labeled-unicast command under the neighbor configuration of the CE router for the PE.
- C. Change the rd value to 65001:65001 under the VRF section of the PE router.
- D. Configure OSPF on the PE router.

Answer: D

NEW QUESTION 29

- (Exam Topic 3)

```
ip vrf mvpn-extranet
  rd 12:1
  vpn id 12:1
  route-target import 12:2
  route-target export 12:3
  mdt default mpls mldp 192.168.1.2
  exit
ip multicast-routing vrf mvpn-extranet
```

What is the effect of this configuration?

- A. The mroute table is cleared.
- B. Router 1 accepts multicast routes with a tag of 12:1
- C. A Cisco MPLS TE tunnel is generated with 192.168.1.2 as the source IP address of router 1.
- D. An LSP virtual interface tunnel is created.

Answer: B

NEW QUESTION 31

- (Exam Topic 3)

Which kind of traffic is supported in an MVPN Extranet?

- A. PIM dense mode with Reverse Path Forwarding
- B. PIM dense mode
- C. PIM sparse mode
- D. Bidirectional PIM

Answer: C

Explanation:

Reference:

https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipmulti_mvpn/configuration/xr-16/imc-mvpn-xr-16-book/imc-mc-vpn-extranet.html

NEW QUESTION 34

- (Exam Topic 3)

With Layer 3 MPLS VPN implementations on Cisco IOS XR PE routers, an interface is assigned to a VRF using the vrf command in which configuration mode?

- A. RP/0/RP0/CPU0:PE(config-bgp)#
- B. RP/0/RP0/CPU0:PE(config-if)#
- C. RP/0/RP0/CPU0:PE(config-bgp-af)#
- D. RP/0/RP0/CPU0:PE(config-vrf)#

Answer: B

Explanation:

Reference:

https://www.cisco.com/c/en/us/td/docs/ios_xr_sw/iosxr_r3-7/mpls/configuration/guide/gc37v3.html

NEW QUESTION 38

- (Exam Topic 3)

Which is the primary function of a MPLS L3 VPN route target?

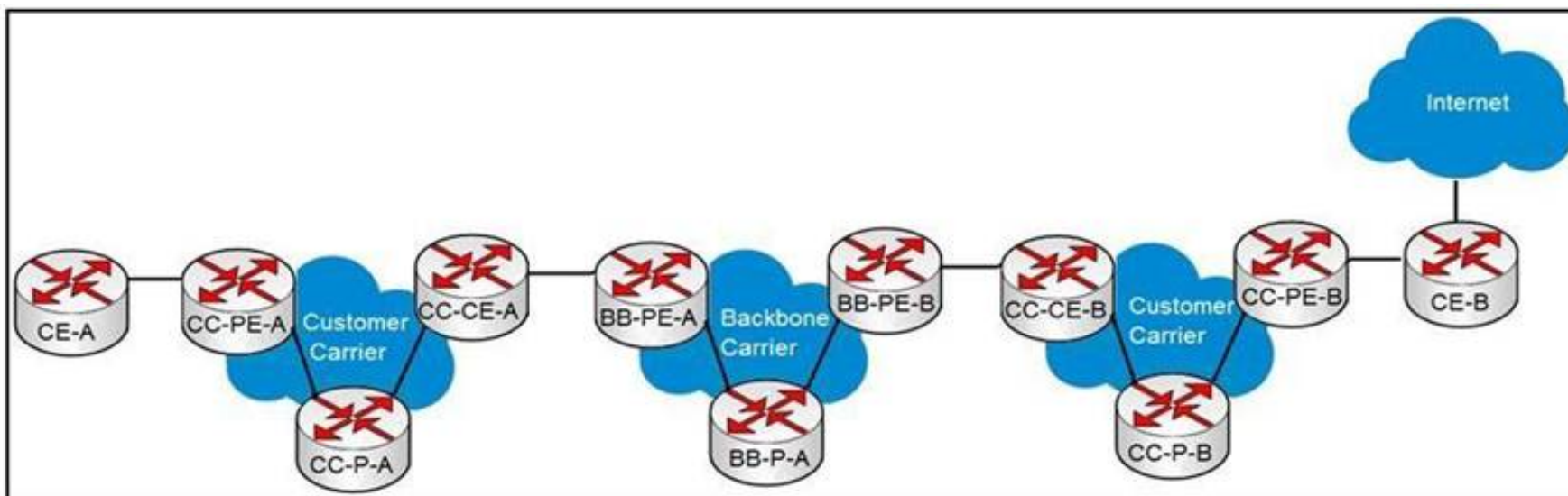
- A. It imports and exports identified routes into selected VRFs.
- B. It uniquely identifies NLRIs that have the same numeric value.
- C. It imports the external routes it identifies into VRFs that support Internet traffic
- D. It supports QoS by classifying traffic by file type when it applies MPLS EXP bits to each packet.

Answer: A

NEW QUESTION 39

- (Exam Topic 3)

Refer to the exhibit.



A customer carrier running MPLS VPN wants to utilize a backbone carrier to forward traffic and exchange VPNv4 prefixes between the two customer carriers networks depicted. Which two sets of routers must establish MP-iBGP sessions? (Choose two.)

- A. BB-PE-A and CC-PE-B
- B. CC-PE-A and CC-PE-B
- C. BB-PE-A and BB-PE-B
- D. CC-PE-A and BB-PE-A
- E. BB-PE-A and BB-P-A
- F. CC-PE-A and CC-P-A

Answer: BC

Explanation:

Reference: https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/mp_ias_and_csc/configuration/12-2sx/mp-ias-and-csc-12-2sx-book/mp-carrier-bgp.html

NEW QUESTION 41

- (Exam Topic 4)

Refer to the exhibit:

```
R1
interface FastEthernet0/0
ip address 10 1 12 1 255 255 255 0
duplex full
end
!
!
!
R1(config)#interface FastEthernet0/0
R1(config-if)#ospfv3 1 area 1 ipv4
% IPv6 routing not enabled
```

A network engineer is implementing an OSPF configuration Based on the output, which statement is true?

- A. In the ospfv3 1 area 1 ipv4 command, area 0 must be configured instead of area 1.
- B. OSPFv3 does not run for IPv4 on FastEthernet0/0 until IPv6 routing is enabled on the router and IPv6 is enabled on interface FastEthernet0/0
- C. OSPFv3 cannot be configured for IPv4; OSPFv3 works only for IPv6.
- D. IPv6 routing not enabled" is just an informational message and OSPFv3 runs for IPv4 on interface FastEthernet0/0 anyway

Answer: B

NEW QUESTION 45

- (Exam Topic 4)

Refer to the exhibit.

```
Router 1:

interface loopback0
192.168.10.1 255.255.255.0

router ospf 1
network 192.168.10.1 0.0.0.0 area 5
```

Refer to the exhibit Router 1 is a P router in the ISP MPLS core A connected P router cannot generate an MPLS label for the router 1 loopback0 interface Which action resolves this issue?

- A. The loopback0 interface must be in OSPF area 0.
- B. The network statement under the routing process must have a wildcard mask of 0 0.0 255.
- C. The OSPF network type must be changed on loopback0 to point-to-point
- D. A static route to null 0 must be added for the loopback interface and then static routes must be redistributed into OSPF

Answer: B

NEW QUESTION 48

- (Exam Topic 4)

How do Ethernet virtual circuits provide a way for service providers to maximize the use of VLAN tags'-1

- A. They add an additional tag to VLANs that allows up to two switch ports to use the same globally configured VLAN ID.
- B. They redefine the VLAN tag to include classification, forwarding, and QoS using MPLS labels and EXP bits
- C. They separate the classification and forwarding concepts for VLAN tagging which allows multiple switch ports to use the same VLAN ID without it being configured globally.
- D. They assign VLAN IDs to VTP domains so that the same VLAN ID are used more than once globally.

Answer: C

NEW QUESTION 52

- (Exam Topic 4)

What is a requirement to share VRF reachability information to all members of a VPN when using IPv6?

- A. PE and CE routers must be running BGP as the PE-CE routing protocol
- B. PE routers must have MPLS disabled and be running MP-BGP between all P and PE routers.
- C. PE routers must be running MP-BGP and bgp default ipv4-unicast must be disabled
- D. All PEs must have the same VRFs configured.

Answer: D

NEW QUESTION 56

- (Exam Topic 4)

Refer to the exhibit.

```
Router 1:

router bgp 65515
no bgp default ipv4-unicast
bgp router-id 192.168.0.1
neighbor 191.168.0.2 remote-as 65515

address-family ipv4
neighbor 191.168.0.2 route-reflector-client

address-family vpnv4
neighbor 191.168.0.2 activate
neighbor 100.1.3.3 send-community extended
```

Router 1 is a route reflector client within a service provider core PE1 cannot see VPNv4 routes received from the ASBR PE1 only has an iBGP relationship with Router 1. Which action resolves this issue?

- A. Activate PE1 as a neighbor under the IPv4 address family.
- B. Configure Router 1 as a route reflector for PE1 under the VPNv4 address family.

- C. Configure PE1 to have an eBGP relationship with Router 1.
- D. Enable BGP default ipv4-unicast

Answer: B

NEW QUESTION 57

- (Exam Topic 4)

How does Layer 3 VPN traffic traverse an ISP network?

- A. Devices on the network use MPLS labels to share VPN routes between P routers in the network.
- B. Devices on the network use LSAs to share routes between P routers in the network.
- C. Devices on the network use MPLS labels to move VPN traffic through the network.
- D. Devices on the network use GRE tunnels to move traffic between VRFs.

Answer: C

NEW QUESTION 60

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