Exam Code: 4A0-104

Exam Name: Nokia Services Architecture

Vdumps

Exam A

QUESTION 1
Which of the following represents a SAP on a physical port configured with Q-in-Q encapsulation?

A. sap 1/1/1
B. sap 1/1/1:5
C. sap 1/1/1:5.5
D. sap 1/1/1:10.100

Correct Answer: D
Section:

QUESTION 2
In a VPLS service, the mesh-sdp vc-id is identical to the service id by default.

A. TRUE
B. FALSE

Correct Answer: A
Section:

QUESTION 3
How many SAPs can be configured on a port configured with NULL encapsulation?

A. 1
B. 4096
C. None. This encapsulation is not supported.
D. The number is limited only by the capacity of the router

Correct Answer: A
Section:

QUESTION 4
Customer 'A' has sites on 3 different Nokia PE routers. The routers are connected to each other through an IP/MPLS network in a full mesh fashion. Customer 'A' requires a VPLS service. Which of the following statements are TRUE? (Choose2)

A. Each router requires 1 VPLS service.
B. Each router requires 2 VPLS services.
C. Each router requires 1 SDP with 2 LSPs, one to each of the other 2 routers.
D. Each router requires 2 SDPs.
E. Each router requires 3 SDPs

Correct Answer: A, D

Section:

QUESTION 5
Which of the following statements best describes the flooding of traffic on a PE when traffic is received on a spoke SDP?

A. Traffic is flooded to all SAPs in the service.
B. Traffic is flooded to all SAPs and spoke SDPs in the service.
C. Traffic is flooded to all SAPs and mesh SDPs in the service.
D. Traffic is flooded to all SAPs, spoke SDPs, and mesh SDPs in the service
E. The traffic is not flooded.

Correct Answer: D
Section:

QUESTION 6
What does a PE do when a frame is received in a VPLS service with an unknown destination address by default?

A. Drop the frame.
B. Flood the frame to all PEs participating in the service.
C. Send a destination unreachable message back to the originating host.
D. Store the frame until the destination is known

Correct Answer: B
Section:

QUESTION 7
What is the default vc-type for an SDP on the Nokia 7750 SR?

A. vc-type null
B. vc-type ether
C. vc-type vlan
D. vc-type none

Correct Answer: B
Section:

QUESTION 8
Which of the following best completes the sentence: 'An Internet Enhanced Service is a_____ service where the CE communicates with a _____interface to send and receive traffic.

A. distributed/virtual
B. local/sub
C. routed/Layer 3
D. distributed/routed
E. Layer 2/loopback

Correct Answer: C
Section:

QUESTION 9
Which of the following statements is TRUE?

A. An OSPF adjacency can be established on an IES interface.
B. IES allows provider MP-BGP sessions to be extended to customers.
C. An IES service must use static routes in order to communicate with customer networks.
D. An IES interface supports OSPF and IS-IS in passive mode only.

Correct Answer: A
Section:

QUESTION 10
What are the two major differences between configuring an IES service and configuring VPWS or VPLS services? (Choose 2)

A. IES does not support QoS.
B. IES has a configurable IP-MTU
C. A virtual route table must be configured for an IES service.
D. An IES interface has an IP address assigned to it.

Correct Answer: B, D
Section:

QUESTION 11
An ES service can have both MAC and IP filters applied to it.

A. TRUE
B. FALSE

Correct Answer: B
Section:

QUESTION 12
What can the sdp-ping command be used for? (Choose 2)

A. To test the ability of reaching the far-end IP address of an SDP within the SDP encapsulation
B. To determine the path MTU to the far-end IP address over an SDP.
C. To determine the service MTU of the service using an SDP.
D. To determine the presence of hosts using the service

Correct Answer: A, B
Section:

QUESTION 13
Which of the following statements are TRUE regarding sdp-ping? (Choose 3)

A. Provides a mechanism to determine the hops an SDP traverses.
B. Provides in-band uni-directional connectivity tests.

C. Provides in-band round-trip connectivity tests.

D. Tests ability of reaching the far-end IP address of an SDP ID within the SDP encapsulation.

E. Provides information regarding the exact MTU supported between service ingress and service termination.

Correct Answer: B, C, D
Section:

QUESTION 14
Which OAM command can be used to verify the correct and consistent provisioning of a service between two service end points?

A. sdp-ping

B. lsp-ping

C. sap-ping

D. svc-ping

Correct Answer: D
Section:

QUESTION 15
Which of the following items can NOT be used as a mirror source?

A. A physical port.

B. ASAP.

C. Ingress MPLS frames with a specific label.

D. Entries that match an IP filter.

E. Entries that match a MAC filter.

F. All of the above can be used as a mirror source.

Correct Answer: F
Section:

QUESTION 16
A technician sitting in a Network Operations Center would like to set up a remote mirror on an Nokia 7750 Service Router to examine some data traffic ingressing a port at a remote site. Which of the following are required? (Choose 2)

A. A mirror destination on the local and remote Nokia Service Router,

B. A mirror source on the local and remote Nokia Service Router.

C. A mirror source with the remote source specified on the remote Nokia Service Router.

D. A mirror source with the remote source specified on the local Nokia Service Router.

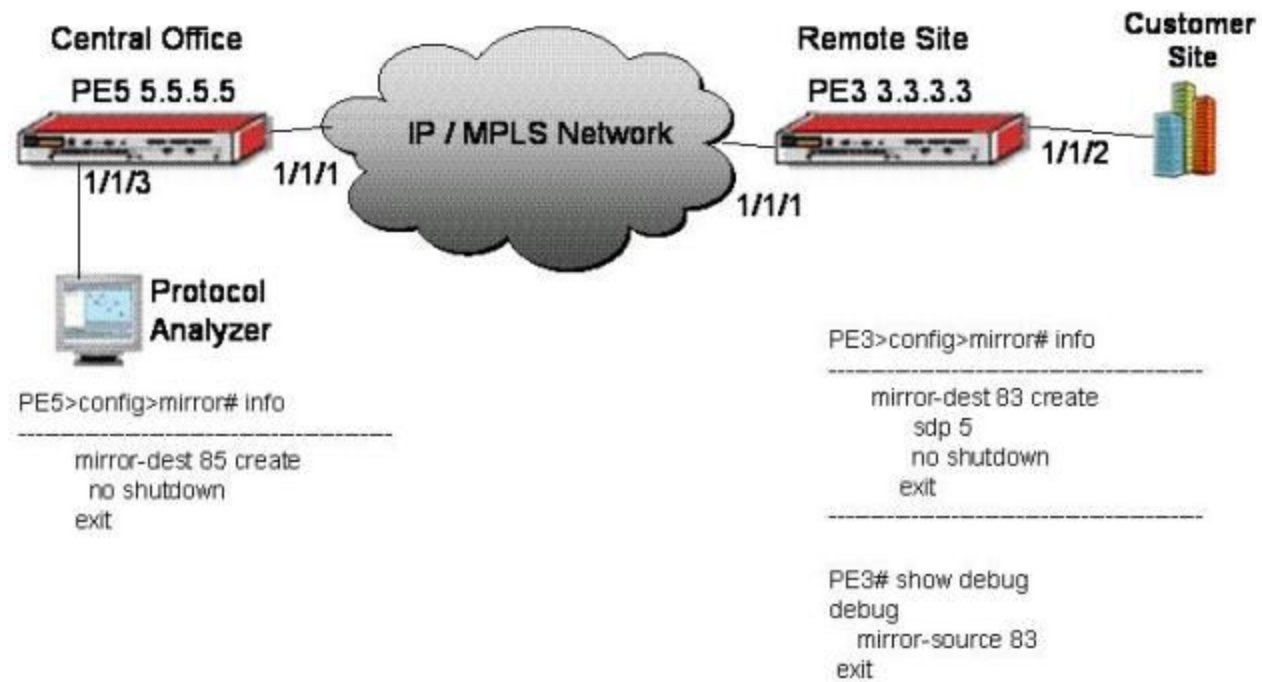E. An SDP between the local and remote Nokia Service Routers.

Correct Answer: A, E
Section:

QUESTION 17
Click on the exhibit button below.

Assuming the customer only needs to monitor traffic from PE3 to the customer site, what three items are missing from PE3's configuration? (Assume that the IP/MPLS network structure between the local and remote PEsis in place.)

A. The mirror destination configuration on PE5 is missing the 'remote-source' command,

B. The mirror destination on PE3 needs a 'remote-source' command.

C. The mirror service IDs on the local and remote destinations must match.

D. The mirror source on PE3 needs a 'remote-source' command.

E. The mirror source command on the remote PE3 needs a command that tells it to monitor port 1/1/2.

Correct Answer: A, C, E
Section:

QUESTION 18
When provisioning a spoke-SDP on an Epipe, what MUST match on both ends of the service?

A. Service ID

B. Customer ID

C. SAPID

D. VC-ID

E. SDPID

Correct Answer: D
Section:

QUESTION 19
Which of the following commands is used to configure a new MPLS SDP?

A. configure router sdp sdp-id

B. configure service sdp sdp-id create

C. configure service mpls sdp sdp-id create
D. configure service gre sdp sdp-id create
E. configure service sdp sdp-id mpls create

Correct Answer: E
Section:

QUESTION 20
Which of the following commands is used to create a new Epipe service?

A. configure epipe service-id customer customer-id create
B. configure service epipe service-id customer customer-id create
C. configure epipe service-id create
D. configure epipe service-id customer customer-id create
E. configure epipe service service-id customer customer-id create

Correct Answer: B
Section:

QUESTION 21
When configuring RSVP-TE for transport tunnels, which command enables RSVP by default?

A. configure router tunnel
B. configure router gre
C. configure router rsvp-te
D. configure router transport-tunnel
E. configure router mpls

Correct Answer: E
Section:

QUESTION 22
Which of the following conditions are necessary in order for service labels to be signaled between two PE routers? (Choose 3)

A. LDP must be enabled on both PE routers.
B. RSVP must be enabled on both PE routers.
C. Traffic engineering must be enabled in the IGP.
D. The VC-ID must match between the two PE routers in both directions.
E. The transport tunnel must be operationally up between the two PE routers in both directions.
F. The SDP ID must match between the two PE routers in both directions.

Correct Answer: A, D, E
Section:

QUESTION 23
A mesh SDP is used to create an Fpipe service.

A. TRUE
B. FALSE

Correct Answer: B
Section:

QUESTION 24
Which of the following statements are TRUE about configuring a distributed Epipe service? (Choose 2)

A. The vc-id on the spoke-sdp must be explicitly configured.
B. The vc-id on the mesh-sdp must be explicitly configured.
C. The vc-id on the spoke-sdp can be configured to match the service id.
D. The vc-id on the mesh-sdp can be configured to match the service id.
E. The vc-id on the spoke-sdp does not have to be explicitly configured and will use the service id.
F. The vc-id on the mesh-sdp does not have to be explicitly configured and will use the service id.

Correct Answer: A, C
Section:

QUESTION 25
In a Layer 2 encapsulation, using Martini, what does the first (top) label represent?

A. Tunnel Label
B. VC Label
C. Operational Control Word
D. UNI
E. NNI

Correct Answer: A
Section:

QUESTION 26
In a Layer 2 encapsulation, using Martini, what does the second (bottom) label represent?

A. Tunnel Label
B. VC Label
C. Operational Control Word
D. VPI
E. VCI

Correct Answer: B
Section:

QUESTION 27
Which of the following SAPs will forward tagged frames with an outer VLAN tag of 200? (Choose 3)

A. sap 1/1/1
B. sap 1/1/1:*
C. sap 1/1/1:*.0
D. sap 1/1/1:0*
E. sap 1/1/1:200.*
F. sap 1/1/1:300:200

Correct Answer: A, B, E
Section:

QUESTION 28
On which of the following is it NOT possible to configure a MTU?

A. Network port
B. Access port
C. LSP
D. SDP
E. Service

Correct Answer: C
Section:

QUESTION 29
Which of the following statements best describes an FDB used in a VPLS service?

A. A VPLS service does not use an FDB.
B. An FDB is maintained on the PE router to track MAC addresses learned from all traffic through the router.
C. An FDB is maintained on the PE router to track MAC addresses learned from all VPLS services on the router.
D. A separate FDB is maintained for each VPLS service to track MAC addresses learned from each service.
E. For each VPLS service, two FDBs are maintained to track MAC addresses; one for unicast traffic and one for multicast and broadcast traffic.

Correct Answer: D
Section:

QUESTION 30
A network consists of 4 PE routers. A customer requires a VPLS service and has sites connected to each PE. Each site must have direct connectivity with all other sites. How many SDPs must be configured on each PE?

A. 0
B. 2
C. 3
D. 4

Correct Answer: C
Section:

QUESTION 31

What is a key benefit of a VPLS service?

A. The customer maintains complete control over routing.
B. The adding of new sites is simplified; no re-configuration is required at existing sites.
C. The clear demarcation of functionality between service provider and customer makes troubleshooting easier.
D. All of the above.

Correct Answer: D
Section:

QUESTION 32
Which of the following defines a SAP that will select frames with an outer tag of '4' and ignore any inner lag on a Q-in-Q encapsulated port?

A. sap 1/1/1:0.*
B. sap 1/1/1
C. sap 1/1/1:*.4
D. sap 1/1/1:4.*

Correct Answer: D
Section:

QUESTION 33
Which protocol is used to signal the outer label for a VPN service?

A. RSVP
B. IPCP
C. TLDP
D. PPP
E. Either RSVP or LDP

Correct Answer: E
Section:

QUESTION 34
When configuring an IES spoke termination to a VPLS, what must be explicitly configured in order for the service to come up? (Choose 2)

A. MTU must match on both services,
B. Mesh-SDP with matching vc-id configured,
C. Spoke-SDP with matching vc-id configured.
D. Spoke-SDP.

Correct Answer: A, C
Section:

QUESTION 35
Which of the following are characteristics of an IES service? (Choose 2)

A. A virtual routing/forwarding table is created per IES service.

B. Only one IES service can be created for a single customer ID.

C. More than one IP interface can be created within a single IES service.

D. All IP interfaces created within the same IES service belong to the same customer

Correct Answer: C, D
Section:

QUESTION 36
Which of the following statements best describes the flooding of traffic on a PE when traffic is received on a mesh SDP?

A. Traffic is flooded to all SAPs in the service.

B. Traffic is flooded to all SAPs and spoke SDPs in the service.

C. Traffic is flooded to all SAPs and mesh SDPs in the service.

D. Traffic is flooded to all SAPs, spoke SDPs. and mesh SDPs in the service.

E. The traffic is not flooded.

Correct Answer: B
Section:

QUESTION 37
How many SAPs can be configured on a port configured with dot1q encapsulation?

A. 1

B. 4095

C. None. This encapsulation is not supported.

D. The number is limited only by the capacity of the router

Correct Answer: B
Section:

QUESTION 38
Choose the following components that are necessary for the configuration of a mirror service. (Choose 2)

A. A mirror destination to indicate which ports to monitor.

B. A mirror source to indicate which ports to monitor.

C. A mirror destination to indicate on which sap or sdp traffic should be replicated.

D. A mirror source to indicate on which sap or sdp traffic should be replicated

Correct Answer: B, C
Section:

QUESTION 39
What command syntax would be used to create a new routed interface on an existing IES service?

A. config>service>ies# interface 'to-CE' customer customer-id create

B. config>service>ies# interface to CE create

C. config>service>ies# interface to CE
D. config>service>ies# interface 'to-CE' create

Correct Answer: D
Section:

QUESTION 40
Which of the following best describes an SDP?

A. Acts as a logical way to direct traffic from one SAP to another on a single node.
B. Acts as a logical way to direct traffic from one service to another on a single node.
C. Acts as a logical way to direct traffic from one access port to another.
D. Acts as a logical way to direct traffic from services on one router to services on another.

Correct Answer: D
Section:

QUESTION 41
Which of the following commands would be used to configure a new VPLS service that will use a default vc-id of 5 and a customer id of 4?

A. configure service vpls 4 customer 4 vc-id 5 create
B. configure service vpls 5 customer 4 create
C. configure service vpls 100 customer 4 vc-id 4 create
D. configure service vpls vc-id 5 customer4 create

Correct Answer: B
Section:

QUESTION 42
Which of the following MUST be identical for a service between two PEs?

A. Customer ID
B. SDP ID
C. Service ID
D. VC ID

Correct Answer: D
Section:

QUESTION 43
Which of the following about transport tunnels used by services is FALSE?

A. A transport tunnel can carry many service tunnels.
B. The transport label is unchanged throughout the transport network.
C. A single network port can carry more than one transport tunnel.
D. Both MPLS and GRE transport tunnels use a service label.

Correct Answer: B
Section:

QUESTION 44
Which of the following about SDPs is FALSE?

A. All services bound to the same SDP must be the same service type.
B. All services bound to the same SDP will have the same transport encapsulation.
C. Any operation on an SDP will affect all services bound to that SDP.
D. An SDP is used to direct traffic for a service from one router to another.

Correct Answer: A
Section:

QUESTION 45
Which of the following about the components of a service on the Nokia 7750 SR is FALSE?

A. An SDP can be used by more than one service and customer.
B. A SAP can only be created on an access port.
C. A customer can have multiple services associated to it.
D. A customer is only created on one site of a distributed service.

Correct Answer: D
Section:

QUESTION 46
Which of the following SAP encapsulations does NOT support multiple services on a port?

A. Dot1q
B. Null
C. QinQ
D. ATM

Correct Answer: B
Section:

QUESTION 47
Click the exhibit.

```
R1>config>service# info
--------------------------------------------------
        customer 1 create
                description "Default customer"
        exit
        customer 100 create
                description "Cust 100"
        exit
        sdp 2 mpls create
                far-end 10.10.10.2
                ldp
                keep-alive
                        shutdown
                exit
                no shutdown
        exit
        epipe 12 customer 100 create
                sap 1/1/1:30 create
                exit
                spoke-sdp 2:44 create
                        no shutdown
                exit
                no shutdown
        exit
--------------------------------------------------
```

Based on the output shown, what is the value of the service's VC ID?

A. 2

B. 12

C. 30

D. 44

E. 100

F. The VC ID Cannot be determined from the output

Correct Answer: D
Section:

QUESTION 48
Which protocol is used to signal the service label for a Layer 3 VPRN service?

A. L-LDP

B. T-LDP

C. RSVP-TE

D. MP-BGP

Correct Answer: D
Section:

QUESTION 49
Which of the following commands is used to enable an E-pipe service?

A. config>service= epipe <service-id> enable

B. config>service~ vpws <service-id> enable

C. config>service= <service-id> no shutdown

D. config>port= no shutdown

E. config>service= epipe <service-id> no shutdown

Correct Answer: E
Section:

QUESTION 50
Which of the following can be used to detect the smallest path MTU in an RSVP signaled MPLS tunnel?

A. ADSPEC

B. CSPF

C. Service ping

D. LSP trace

Correct Answer: A
Section:

QUESTION 51
Consider an E-pipe service configured with SAP 1/1/1:5 and SAP 1/1/1:6. If the SAP 1/1/1:5 accepts an ingress frame, which of the following is TRUE?

A. The frame egresses from 1/1/1:6 with no VLAN tag.

B. The frame egresses from 1/1/1:6 with VLAN tag 5.

C. The frame egresses from 1/1/1:6 with VLAN tag 6.

D. The frame egresses from 1/1/1:6 with an inner VLAN tag of 5 and an outer VLAN tag of 6.

Correct Answer: C
Section:

QUESTION 52
The SAP 1/1/1:2.3 receives an untagged Ethernet frame. Which of the following is TRUE?

A. The frame is dropped.

B. VLAN tags 2 and 3 are added to the frame.

C. Only outer VLAN tag 2 is added.

D. Only inner VLAN tag 3 is added.

Correct Answer: A
Section:

QUESTION 53
A SAP configured in the form of 1/1/1:0/32 would be used for which type of VPWS?

A. A-pipe

B. C-pipe

C. E-pipe

D. F-pipe

Correct Answer: A
Section:

QUESTION 54
A customer requests that their Layer 2 Ethernet service be configured to forward frames up to 1500 bytes. The service provider is using MPLS encapsulation (without RSVP-TE fast-reroute) on their IP/MPLS network. What is the minimum MTU setting for the network ports?

A. 1512

B. 1522

C. 1536

D. 1542

Correct Answer: B
Section:

QUESTION 55
Which service type is needed to bridge an ATM-attached user and an Ethernet-attached user?

A. A-pipe

B. F-pipe

C. C-pipe

D. E-pipe

Correct Answer: D
Section:

QUESTION 56
An E-pipe is configured with a service MTU of 5000. What value will be derived for the VC-MTU?

A. 4078

B. 4986

C. 5014

D. 5022

Correct Answer: B
Section:

QUESTION 57
What must be configured before a SAP can be created on an E-pipe?

A. The Ethernet port must be set to network mode, and the service must have a spoke SDP.

B. The Ethernet port must be set to network mode.

C. The Ethernet port must be set to access mode.

D. The Ethernet port must be set to access mode, and the service must have a spoke SDP.

Correct Answer: C
Section:

QUESTION 58
A service has a null encapsulated SAP and a vc-type vlan' SDP. What happens when the SAP receives an untagged Ethernet frame?

A. The frame is dropped.
B. The service ID is added as the provider VLAN tag.
C. A VLAN tag of 0 is added as the provider VLAN tag.
D. The frame is forwarded with no provider VLAN tag.

Correct Answer: C
Section:

QUESTION 59
An E-pipe is configured with a service MTU of 5000. What MTU value should be set on the access port for a Q-in-Q encapsulated SAP?

A. 5000
B. 5004
C. 5008
D. 5018

Correct Answer: C
Section:

QUESTION 60
A service needs to accept frames that have the following: an outer VLAN tag of 200 with an inner VLAN tag of 33; and frames that have an outer VLAN tag of 250 with an inner VLAN tag of 33. What SAP(s) need to be configured?

A. 1/1/1:200.*
B. 1/1/1:*.33
C. 1/1/1:*.*
D. This requires two SAPs: 1/1/1:200.33 and 1/1/1:250.33

Correct Answer: D
Section:

QUESTION 61
Which of the following about SDPs is FALSE?

A. Spoke SDPs prevent loops in a VPLS.
B. Mesh SDPs and spoke SDPs can be used in the same VPLS.
C. A spoke SDP does not require the routers at both ends to be directly connected.
D. A mesh SDP is identical to a spoke SDP except for its flooding behavior.

Correct Answer: A
Section:

QUESTION 62
By default, what does an Nokia 7750 SR do to support VPLS services for different customers?

A. Dedicates a separate port for each customer.
B. Performs ARP look-ups for each service.
C. Maintains a different IP routing table for each service.
D. Maintains a different MAC Forwarding Database for each service.

Correct Answer: D
Section:

QUESTION 63
Consider a network that has four PE routers. If a customer wants a VPLS that has sites on only three of the PEs, how many mesh SDPs need to be configured for this service?

A. 3
B. 4
C. 6
D. 12

Correct Answer: C
Section:

QUESTION 64
Which of the following about an E-pipe terminating on a VPLS is FALSE?

A. The VC-IDs used between the E-pipe and VPLS must match.
B. The E-pipe must maintain a MAC FDB in order to connect to the VPLS.
C. The service ID of the E-pipe can be different from that of the VPLS.
D. The service MTU of the VPLS and E-pipe must match.

Correct Answer: B
Section:

QUESTION 65
Which of the following best describes how a MAC FDB is populated in a VPLS service?

A. A VPLS service does not use a MAC FDB.
B. The router reads the destination MAC address of frames passing through the service.
C. The router reads the source MAC address of frames passing through the service.
D. The router uses reverse ARP (RARP) to resolve the MAC addresses for unknown destinations.
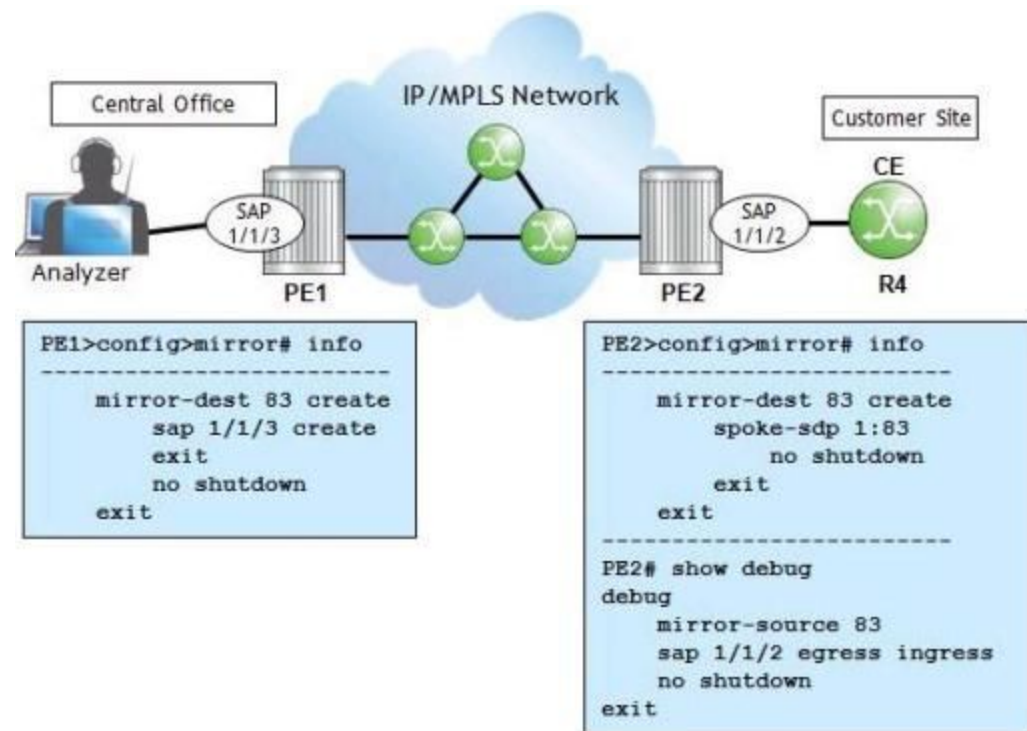E. The router is programmed with MAC addresses by the network administrator.

Correct Answer: C
Section:

QUESTION 66
Click the exhibit.

PE1 and PE2 are Nokia 7750 SRs. What needs to be added to PE1's configuration to mirror traffic between PE2 and the customer site?

A. A 'remote-source' needs to be added to the mirror destination on PEL
B. A mirror source needs to be added to PE1 with a 'remote-source'.
C. This is not possible since the protocol analyzer is located at the Central Office. It needs to be at the customer site.
D. A mirror source with SAP 1/1/2 needs to be added on PEL

Correct Answer: A
Section:

QUESTION 67
Click the exhibit.
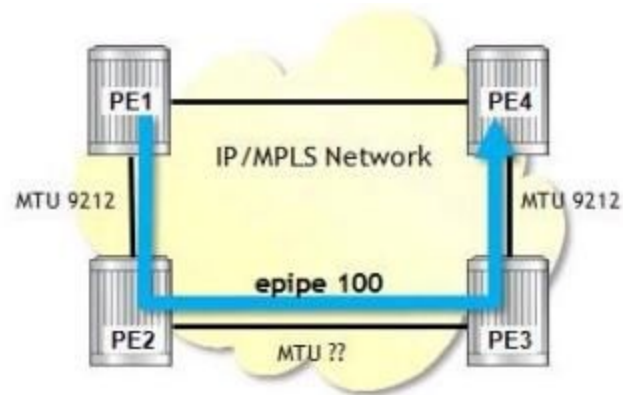
```
PE1# oam sdp-mtu 4 size-inc 1550 1570 step 1
Size    Sent    Response
----------------------------
1550    .       Success
1551    .       Success
1552    .       Success
1553    .       Success
1554    .       Success
1555    .       Success
1556    .       Success
1557    ...     Request Timeout

Maximum Response Size: 1556
```

E-pipe 100 is using an SDP with an LSP that uses the path shown (PE1-PE2-PE3-PE4). Based on the OAM command output, which of the following is FALSE?

A. The E-pipe can support a maximum MTU size of 1578.
B. The ports of the link PE2-PE3 have an MTU of 1578.
C. An svc-ping of the E-pipe will succeed.
D. If the step size was 2, the maximum response size would be the same.

Correct Answer: A
Section:

QUESTION 68
Which one of the following items CANNOT be used as a mirror source on an Nokia 7750 SR?

A. IP filter
B. MAC filter
C. Egress label
D. Ingress label

Correct Answer: C
Section:

QUESTION 69
Which of the following about the Nokia 7750 SR's sdp-ping utility is FALSE?

A. It tests uni-directional or round-trip in-band connectivity.
B. It tests the reachability of hosts that are using an SDP.
C. It tests the reachability of the far-end IP address of an SDP through its tunnel.

D. It can be used by specifying only an SDP ID.

Correct Answer: B
Section:

QUESTION 70
What is the minimum Ethernet physical network MTU required for a Layer 2 service on an MPLS encapsulated SDP with a service MTU of 1500?

A. 1500
B. 1508
C. 1514
D. 1522

Correct Answer: D
Section:

QUESTION 71
On an Nokia 7750 SR, the OAM command 'svc-ping' can be used with options bcal-sdp' and 'remote-sdp'. Which of the following is TRUE?

A. iocal-sdp' and 'remote-sdp' indicate that all services using these SDPs are pinged.
B. 'local-sdp' and remote-sdp' indicate that pings are initiated from both local and remote routers.
C. Both 'local-sdp' and 'remote-sdp' take parameters to specify which SDPs are used for the test.
D. 'local-sdp' indicates that the ping is sent in-band, and remote-sdp' indicates the return ping is in-band.

Correct Answer: D
Section:

QUESTION 72
Which of the following about the VPRN data plane is TRUE?

A. A packet receives a service label and a transport label at the ingress PE.
B. A packet has its service label swapped at each P router.
C. The egress PE pops the service label, and the transport label is forwarded.
D. The service label is popped by the remote CE.

Correct Answer: A
Section:

QUESTION 73
Which of the following about route distinguishes on the Nokia 7750 SR is TRUE?

A. Route distinguishes are used to ensure that VPRN IP prefixes are globally unique.
B. Route distinguishes are appended to IPv4 prefixes to form IPv6 prefixes.
C. Route distinguishes are used to determine which routes a VPRN should import.
D. CE routes use a route distinguisher to indicate which VPRN they are associated to.

Correct Answer: A

Section:

QUESTION 74
Click the exhibit.

```
R1# show router 100 fib 1

==================================================================
FIB Display
==================================================================
Prefix                                        Protocol
    NextHop
------------------------------------------------------------------
10.1.5.0/24
    10.1.5.0 (R1-R5)                          [        ]
10.6.4.0/24
    10.10.10.4 (VPRN Label:131065 Transport:LDP)  [        ]
10.10.10.5/32
    10.1.5.5 Indirect (R1-R5)                 [        ]
10.10.10.6/32
    10.10.10.4 (VPRN Label:131065 Transport:LDP)  [        ]
192.168.10.0/24
    10.1.5.5 Indirect (R1-R5)                 [   ?    ]
192.168.20.0/24
    10.10.10.4 (VPRN Label:131065 Transport:LDP)  [        ]
------------------------------------------------------------------
Total Entries : 6
```

Based on the output from PE router R1 about VPRN 100, by which protocol was 192.168.10.0/24 learned?

A. BGP
B. MP-BGP
C. LDP
D. MPLS

Correct Answer: A
Section:
Explanation:
Topic 4, Volume D

QUESTION 75
Which of the following about VPRN route targets is FALSE?

A. They are used to identify the VRF table for a prefix at the receiving PE.
B. They are used by VPRNs to control the distribution of VPN routing information.
C. They are distributed to all PEs and CEs that are part of the VPRN.
D. They are distributed to PEs to identify the VRF table that a VPN-IPv4 prefix is associated with.

Correct Answer: C
Section:

QUESTION 76
On an Nokia 7750 SR, which of the following about IES interfaces is FALSE?

A. An IES can only have one interface.
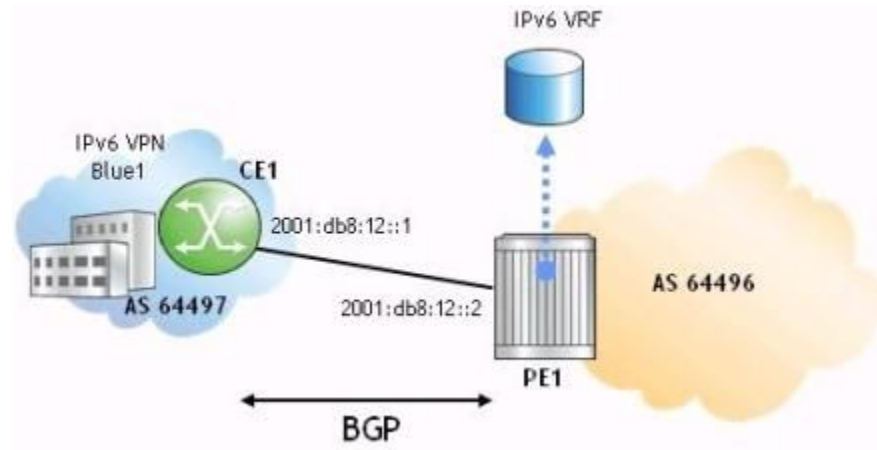B. An IES interface can have an SDP or a SAP.

C. An IES can perform fragmentation.

D. An IES must have an IP address assigned to it.

Correct Answer: A
Section:

QUESTION 77
Click the exhibit.

Part of a 6VPE deployment is shown in this exhibit. Which of the following is the correct configuration and context on PE1 for a BGP peering session with CE1?

A. PE1>config>service>vprn>bgp# info
----
    group "toCE1"
        family ipv6
        export "mbgp-bgp"
        neighbor 2001:db8:12::1
            peer-as **64497**
        exit
    exit

B. PE1>config>service>vprn>bgp# info
----
    group "toCE1"
        family ipv6
        export "mbgp-bgp"
        neighbor 2001:db8:12::1
            peer-as **64496**
        exit
    exit

C. PE1>config>router>bgp# info
----
    group "toCE1"
        family ipv6
        export "mbgp-bgp"
        neighbor 2001:db8:12::1
            peer-as **64497**
        exit
    exit

D. PE1>config>router>bgp# info
----
    group "toCE1"
        family ipv6
        export "mbgp-bgp"
        neighbor 2001:db8:12::1
            peer-as **64496**
        exit
    exit

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

Correct Answer: A
Section:

QUESTION 78

Click the exhibit.

```
Rtr>config>router>bgp# info
-------------------------------------------
                 local-as 64497
                 group "group"
                         family ipv6
                         neighbor 2001:DB8:11::1
                             export "direct-bgp"
                             peer-as 64496
                         exit
                 exit
                 no shutdown
-------------------------------------------
```

This output is from a router that is part of a 6VPE deployment using a VPRN. Which type of router would this configuration be found on?

A. A CE router.

B. A P router.

C. A PE router.

D. Both P and PE routers.

Correct Answer: A
Section:

QUESTION 79
On an Nokia 7750 SR, why must the MTU be explicitly set when configuring an IES spoke termination to a VPLS?

A. By default, a VPLS signals an MTU based on the network port.

B. By default, an IES sets its ip-mtu to the VC MTU of the VPLS.

C. By default, an IES uses an MTU value based on its SAP.

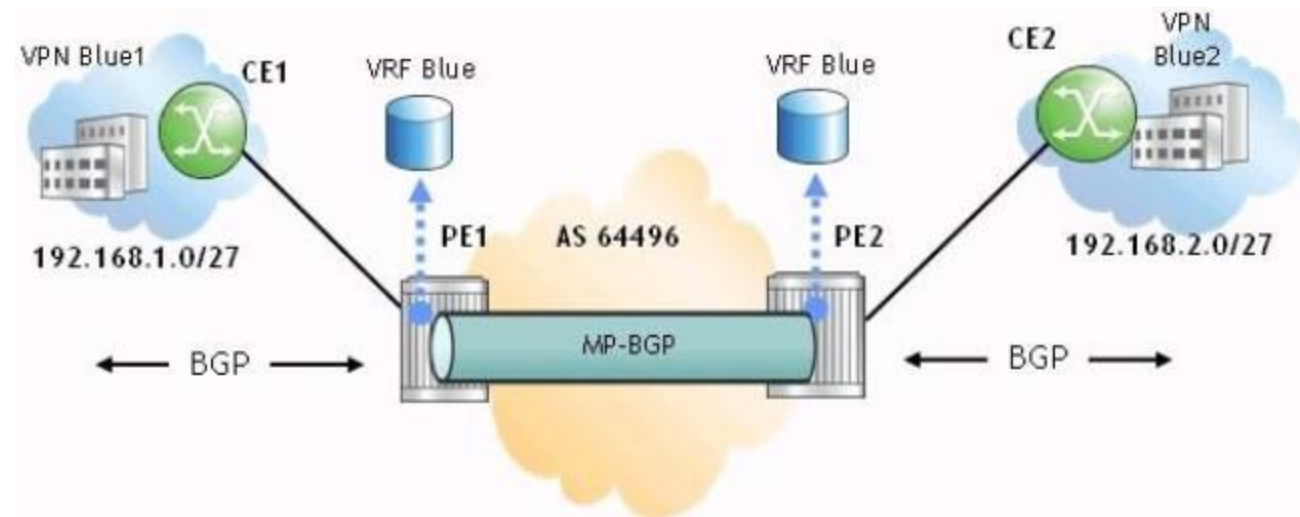D. By default, an IES uses an MTU based on the network port.

Correct Answer: D
Section:

QUESTION 80
Click the exhibit.

Assuming CE1 exports its system address using BGP, is a routing policy required on PE1 to advertise CE1's system address to PE2?

A. Yes, A routing policy is required to advertise routes between PE routers in a VPRN regardless of the CE-PE routing.
B. Yes, A routing policy is required in this case because BGP is used as the PE-CE routing protocol.
C. No, a routing policy is not required. By default, the Nokia 7750 SR will advertise all VPRN routes between PE routers.
D. No, a routing policy is not required on PE1, but an import policy is required on PE2.

Correct Answer: C
Section:

QUESTION 81
Which of the following about IES is FALSE?

A. An IES has a configurable VC MTU.
B. An IES interface has an IP address assigned to it.
C. IES supports QoS.
D. An IES requires a spoke SDP.

Correct Answer: D
Section:

QUESTION 82
When using MP-BGP for an IPv4 VPRN service, what address family needs to be used for a PE-CE BGP session?

A. The VPN-IPv4 address family.
B. The IPv4 address family.
C. Either IPv4 or VPN-IPv4 address families can be configured.
D. The same address family must be used for the provider network and the PE-CE.

Correct Answer: B
Section:

QUESTION 83
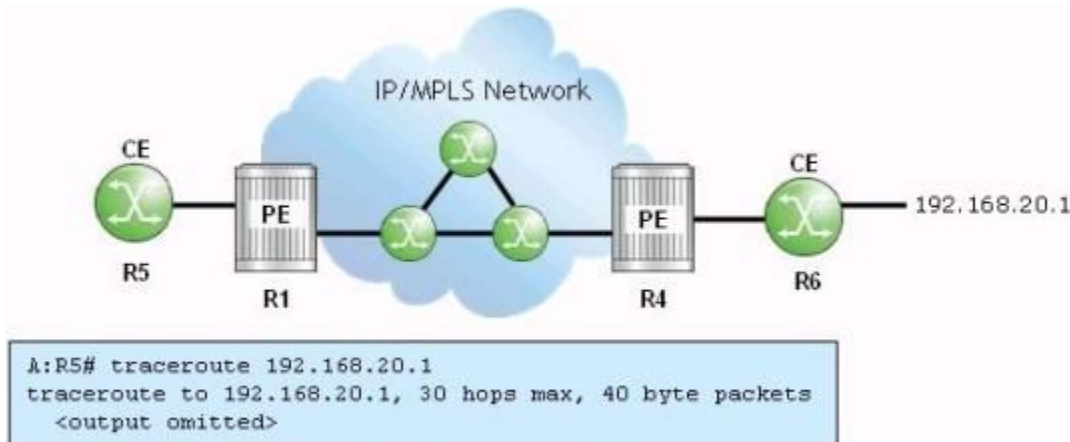On the Nokia 7750 SR, which of the following statements about MP-BGP used for a VPRN is TRUE?

A. Routes from different customers with the same IPv4 address prefix are treated as equivalent by MP-BGP.

B. MP-BGP will advertise routes to other BGP sessions on the same PE without the need of policies.

C. The multi-protocol nature of MP-BGP allows VPRN routes to be converted into IPv4 routes in the provider core network.

D. MP-BGP is an enhanced version of BGP that can carry customer route prefixes for multiple VPRNs.

Correct Answer: D
Section:

QUESTION 84
Click the exhibit.


```
A:R5# traceroute 192.168.20.1
traceroute to 192.168.20.1, 30 hops max, 40 byte packets
  <output omitted>
```

R1 and R4 are providing a VPRN for the CEs. Which of the following about the traceroute run on router R5 is TRUE?

A. The traceroute will only show one hop: R5-R6.

B. The traceroute will only show 2 hops; R5-R1 and R4-R6.

C. The traceroute will only show 3 hops: R5-R1, R1-R4 and R4-R6.

D. The traceroute will show one hop for each router in the provider core and one for each CE-PE hop.

Correct Answer: C
Section:

QUESTION 85
Which of the following about VPRN labels is FALSE?

A. The outer label allows traffic to transit across the MPLS network.

B. The inner label identifies the VPRN service.

C. MP-BGP is used to signal VPRN labels.

D. The VPRN service label contains the customer's IP address.

Correct Answer: D
Section:

QUESTION 86
Which of the following about VPRNs is FALSE?

A. A VPRN is a Layer 3 service.

B. A PE maintains a separate forwarding table for each VPRN.

C. The service provider manages the customers IP addressing.

D. Multiple VPRNs can be deployed over the same IP/MPLS network infrastructure.

Correct Answer: C
Section:

QUESTION 87
Click the exhibit.

```
R1# show router 100 fib 1

===============================================================
FIB Display
===============================================================
Prefix                                          Protocol
    NextHop
---------------------------------------------------------------
10.1.5.0/24                                      LOCAL
    10.1.5.0 (R1-R5)
10.6.4.0/24                                      BGP_VPN
    10.10.10.4 (VPRN Label:131065 Transport:LDP)
10.10.10.5/32                                    BGP
    10.1.5.5 Indirect (R1-R5)
10.10.10.6/32                                    BGP_VPN
    10.10.10.4 (VPRN Label:131065 Transport:LDP)
192.168.10.0/24                                  BGP
    10.1.5.5 Indirect (R1-R5)
192.168.20.0/24                                  BGP_VPN
    10.10.10.4 (VPRN Label:131065 Transport:LDP)
---------------------------------------------------------------
Total Entries : 6
```

The output is from PE router R1 about VPRN service 100. From which protocol did router R1 learn the prefix 192.168.20.0/24?

A. LDP

B. BGP

C. MP-BGP

D. MPLS

Correct Answer: C
Section:

QUESTION 88
Which of the following about 6VPE is FALSE?

A. To advertise VPN-IPv4 and VPN-IFV6 routes, two MP-BGP sessions are required.

B. PE routers must support both IPv4 and IPv6 addresses; customer routers can use either one.

C. MP-BGP is used to advertise IPv6 prefixes and the associated VPRN labels.

D. The provider core routers are IPv6-unaware.

Correct Answer: A
Section:

QUESTION 89
Which of the following about VPRN VRF tables is FALSE?

A. VRF information is advertised between PEs using MP-BGP.
B. VRF tables are used to forward traffic to CEs.
C. P routers use VRF tables to maintain customer-specific information.
D. VRF tables provide isolation between customers.

Correct Answer: C
Section:

QUESTION 90
Which protocol can be used to signal the outer label for a VPN service?

A. IPCP
B. LDP
C. PPP
D. TLDP

Correct Answer: B
Section:

QUESTION 91
Which of the following best describes a MAC FDB used by a VPLS service?

A. A VPLS service does not use a MAC FDB.
B. A single MAC FDB is shared by all VPLS services on a PE.
C. A separate MAC FDB is used on the PE for each VPLS service.
D. Each VPLS service uses a separate MAC FDBs for unicast and multicast traffic.

Correct Answer: C
Section:

QUESTION 92
Which of the following about the Nokia 7750 SR svc-ping, when used in-band, is FALSE?

A. It will show the hops taken between service endpoints.
B. It will test the delay across the service.
C. It will test the SDPs of a service in both directions.
D. It will test the round-trip connectivity of the service.

Correct Answer: A
Section:

QUESTION 93
Which of the following best describes the flooding of traffic on a PE when unknown traffic is received on a SAP of a VPLS?

A. Traffic is flooded to all SAPs in the service.
B. Traffic is flooded to all SAPs and spoke SDPs in the service.

C. Traffic is flooded to all SAPs and mesh SDPs in the service.

D. Traffic is flooded to all SAPs, spoke SDPs, and mesh SDPs in the service.

E. The traffic is not flooded.

Correct Answer: D
Section:

QUESTION 94
Click the exhibit.

```
R4# show service id 333 base
==============================================================================
Service Basic Information
==============================================================================
Service Id       : 333              Vpn Id          : 0
Service Type     : VPLS
     <..output omitted..>
Admin State      : Up               Oper State      : Up
MTU              : 1514             Def. Mesh VC Id : 333
SAP Count        : 0                SDP Bind Count  : 3
     <..output omitted..>
------------------------------------------------------------------------------
Service Access & Destination Points
------------------------------------------------------------------------------
Identifier                        Type      AdmMTU  OprMTU  Adm   Opr
------------------------------------------------------------------------------
sdp:1:333 M(10.10.10.1)           Mesh      0       1556    Up    Down
sdp:2:333 M(10.10.10.2)           Mesh      0       1556    Up    Up
sdp:3:333 M(10.10.10.3)           Mesh      0       1556    Up    Up
==============================================================================

R4# show router ldp bindings service-id 333
LDP Service FEC 128 Bindings
==============================================================================
Type   VCId    SvcId    SDPId   Peer           IngLbl  EgrLbl  LMTU RMTU
------------------------------------------------------------------------------
V-Eth  333     333      1       10.10.10.1     131061U 131061  1500 1386
V-Eth  333     333      2       10.10.10.2     131064U 131068  1500 1500
V-Eth  333     333      3       10.10.10.3     131063U 131063  1500 1500
------------------------------------------------------------------------------
```

Both clips of output are from router R4. The show service command indicates that an SDP is down. What might be the cause?

A. The mesh SDP on router R4 has been shutdown.

B. The mesh SDP on 10.10.10.1 has been shutdown.

C. The service MTU on 10.10.10.1 has been set to a different value.

D. The IngLbl and EgrLbl that router R4 has for 10.10.10.1 are identical.

Correct Answer: C
Section:

QUESTION 95
How many service labels must be signaled to bring up a fully-meshed VPLS among five PE routers?

A. 1

B. 5

C. 10

D. 20

Correct Answer: D
Section:

QUESTION 96
Click the exhibit.

```
A:R1# oam [    ?    ] "clockwise"
[         ] clockwise: 92 bytes MPLS payload
Seq=1, send from intf toR2, reply from 10.10.10.3
        udp-data-len=32 ttl=255 rtt=0.874ms rc=3 (EgressRtr)

---- [                ] Statistics ----
1 packets sent, 1 packets received, 0.00% packet loss
round-trip min = 0.874ms, avg = 0.874ms, max = 0.874ms, stddev =
0.000ms
A:R1#
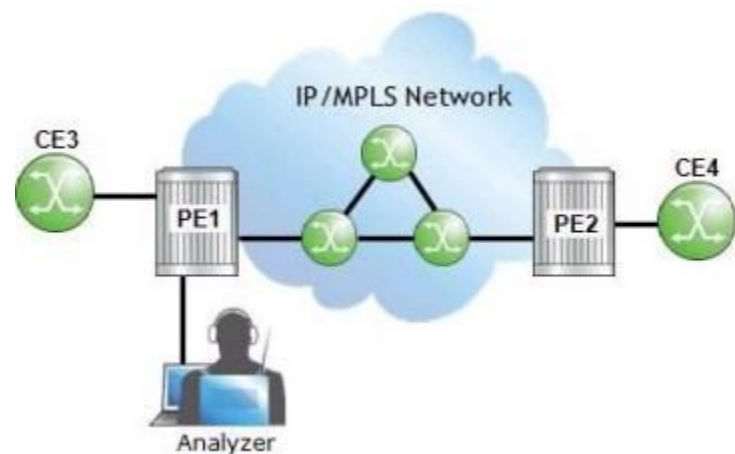```

Which tool produced this output?

A. ping
B. lsp-ping
C. traceroute
D. lsp-trace

**Correct Answer: B**
**Section:**

**QUESTION 97**
Click the exhibit.



The operator at PE1 wants to analyze the traffic between PE2 and CE4. On an Nokia 7750 SR, which of the following is required as part of the configuration?

A. PE2 needs a mirror source with the remote source specified.
B. PE1 needs a mirror destination with the remote source specified.
C. PE1 needs a mirror source with the remote source specified.
D. PE1 and PE2 need a mirror source specified.

**Correct Answer: B**
**Section:**

**QUESTION 98**

Click the exhibit.

```
A:R1# oam  [    ?    ]  "clockwise"
[                      ]0 hops min, 0 hops max, 116 byte packets
1   10.10.10.2  rtt=0.470ms rc=8(DSRtrMatchLabel)
2   10.10.10.4  rtt=0.784ms rc=8(DSRtrMatchLabel)
3   10.10.10.3  rtt=0.887ms rc=3(EgressRtr)
A:R1#
```

Which OAM tool produced this output?

A. vprn-ping

B. sdp-ping

C. traceroute

D. lsp-trace

Correct Answer: D
Section:

QUESTION 99

What is the minimum Ethernet physical network MTU required for a Layer 2 service on an MPLS encapsulated SDP with a service MTU of 1518?

A. 1520

B. 1540

C. 1548

D. 1556

Correct Answer: B
Section:

QUESTION 100

Which one of the following commands on an Nokia 7750 SR can take a FEC as a parameter to verify if a packet for that FEC reaches the appropriate LER?

A. ping

B. sdp-ping

C. svc-ping

D. lsp-ping

Correct Answer: D
Section:

QUESTION 101

Which of the following regarding 6VPE is FALSE?

A. 6VPE is a tunneling technology that makes use of MPLS tunnels to transport IPv6 prefixes over an IPv4 infrastructure.

B. Customers connected to 6VPE can run IPv6 or IPv4.

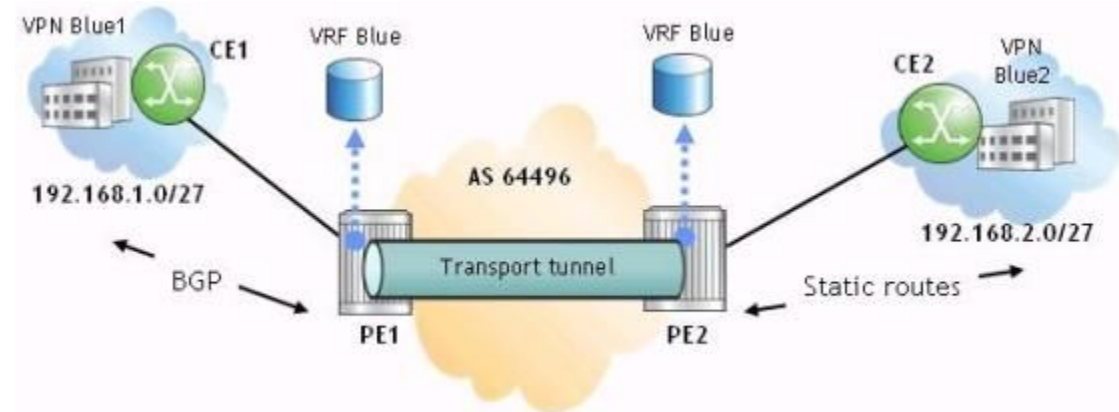C. On a PE router, if the MP-BGP next hop is an IPv4 address, a mapped IPv6-compliant address will be used.

D. 6VPE implements its own VPN-IPv6 address family and is a replacement for MP-BGP.

Correct Answer: D
Section:

QUESTION 102
Click the exhibit.

Routes are exchanged between CE1 and PE1 using BGP. CE2 and PE2 use static routes to forward traffic to and from the VPRN. Which of the following is FALSE?

A. An export policy is required on PE1 to advertise routes to CE1.
B. An export policy is required on CE1 to advertise local routes to PEL
C. An export policy is required to advertise routes between the PE routers.
D. No export policy is required on PE2 or CE2 due to the static routes.

Correct Answer: C
Section:

QUESTION 103
Which of the following about IES is TRUE?

A. An IES requires a spoke SDP.
B. A virtual route table must be configured for an IES service.
C. An IES service must use static routes to communicate with customer networks.
D. An IES must have at least one SAP defined.

Correct Answer: D
Section:

QUESTION 104
Which of the following about the BGP VPN-IPv4 address family is FALSE?

A. When a PE router receives an IPv4 prefix from its local CE, it creates a VPN-IFV4 prefix.
B. VPN-IPv4 allows BGP to distinguish between duplicate prefixes originating from different customers.
C. In a VPRN, data traffic is carried in packets that have VPN-IPv4 addresses.
D. VPN-IFV4 addresses are only present within the service provider network.

Correct Answer: C

Section:

QUESTION 105
On the Nokia 7750 SR, which one of the following steps is NOT required when enabling an MP-BGP session between PE routers in a VPRN?

A. Configuring an autonomous system number in the global context.
B. Configuring a BGP group and peer parameters.
C. Configuring a VPN-IPv4 address family.
D. Configuring an export policy to advertise routes between PEs.

Correct Answer: D
Section:
Explanation:
Topic 5, Volume E

QUESTION 106
A CE is connected to an IES interface. Which of the following is TRUE?

A. The IES's interface must be an IGP peer with the CE.
B. The IES must use an IP address that is different than the C.
C. The IES can only include one SAP for the CE.
D. The IES must include a network port.

Correct Answer: B
Section:

QUESTION 107
Which of the following about VPRN route targets is FALSE?

A. A route target is used to distinguish to which VRF table a prefix belongs.
B. A route target appended to an IPv4 prefix produces a VPN-IPv4 prefix.
C. Multiple route targets can be part of a single MP-BGP update.
D. Route targets must be configured for VPRNs.

Correct Answer: B
Section:

QUESTION 108
Which of the following about VPLS MAC learning is FALSE?

A. The PE routers of the service are responsible for learning MAC addresses.
B. Flooding ensures that all PEs in a fully-meshed VPLS will learn the source address of all traffic.
C. MAC learning reduces flooding of frames with previously learned addresses.
D. Multiple VPLSes on the same PE share the same MAC FDB.

Correct Answer: D
Section:

QUESTION 109
By default, how does a VPLS handle a tagged frame received at the ingress of a null SAP on an Nokia 7750 SR?

A. The FCS is verified and kept in the customer frame. The VLAN tag is kept and transported over the network.
B. The FCS is verified and kept in the customer frame. The VLAN tag is removed for transport over the network.
C. The FCS is verified and removed from the frame. The VLAN tag is kept and transported over the network.
D. The FCS is verified and removed from the frame. The VLAN tag is removed for transport over the network.

Correct Answer: C
Section:

QUESTION 110
Click the exhibit.

```
R4# show router ldp bindings
<…output omitted…>
===================================================================
LDP Service FEC 128 Bindings
===================================================================
Type   VCId       SvcId       SDPId    Peer          IngLbl    EgrLbl  LMTU  RMTU
-------------------------------------------------------------------
V-Eth  333        333         1        10.10.10.1    131061U   --      1500  0
V-Eth  333        333         2        10.10.10.2    131064U  131068   1500  1500
V-Eth  333        333         3        10.10.10.3    131063U  131063   1500  1500
-------------------------------------------------------------------
No. of VC Labels: 3
===================================================================
```

This is output from router R4. Service 333 is a VPLS. Why does peer 10.10.10.1 not have an EgrLbl?

A. The SDP to 10.10.10.1 on router R4 is shutdown.
B. Router R4 has not sent a label to router R1 (10.10.10.1) yet.
C. 10.10.10.1 has a different service MTU set.
D. 10.10.10.1 has not sent a label to router R4 yet.

Correct Answer: D
Section:

QUESTION 111
How many service labels must be signaled to bring up a fully-meshed VPLS among three PE routers?

A. 1
B. 3
C. 6
D. 12

Correct Answer: C
Section:

QUESTION 112
Which of the following is NOT a benefit of 'Hub and Spoke'' VPLS deployments?

A. They reduce the number of SDPs that need to be configured.
B. They can be used to work around physical topologies that prevent a fully meshed deployment.
C. They prevent loops that can be introduced by mesh deployments.
D. They can simplify the implementation of security policy enforcement and packet inspection.

Correct Answer: C
Section:

QUESTION 113
Which utility on the Nokia 7750 SR can be used to investigate an MPLS path?

A. Isp-trace
B. Idp-trace
C. Sdp-ping
D. Svc-ping
E. Ping

Correct Answer: A
Section:

QUESTION 114
If the Nokia 7750 SR is rebooted after an 'admin save'' has been performed, which of the following about mirror services is TRUE?

A. Only the mirror source must be re-configured.
B. Only the mirror destination must be re-configured.
C. Both the mirror destination and mirror source must be re-configured.
D. Neither the mirror destination nor the mirror source must be re-configured.

Correct Answer: A
Section: