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HPE2-Z38

Creating HPE Software-defined Networks



Exam C

QUESTION 1

A company is using Microsoft soft phones and Microsoft Lync. The company wants to implement the HP Network Optimizer SDN application to improve the performance of this solution.

Which settings are required on the company's core switch?

- A. OpenFlow hybrid mode
- B. QoS settings to trust DSCP settings set at the access layer
- C. ACLs to select Lync traffic and apply appropriate QoS settings
- D. OpenFlow 1.3 group table

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 2

A network is configured to prioritize traffic based on port number. The company wants to implement Microsoft Lync.

Which advantage does the HP Network Optimizer SDN Application provide over prioritizing traffic based on port number?

- A. detects rogue clients that are prioritizing non-UC traffic
- B. decreases management overhead
- C. ensures Lync traffic is prioritized over the Internet
- D. eliminates the need to implement QoS at the core

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://www.compucom.com/sites/default/files/HP-Network-Optimizer-for-Microsoft-Lync.pdf>

QUESTION 3

A company has implemented a BYOD solution and Microsoft Lync. Users report that there are network performance issues. The network administrator is investigating traffic using traces, and has noticed a very large portion of the traffic doing to UDP port 53.

Which HP SDN application can help to solve the problem?

- A. HP Optimizer SDN Application
- B. HP Network Protector SDN Application
- C. HP Converged Control SDN Application
- D. HP Visualizer SDN Application

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 4 A company has multiple HP VAN SDN Controllers with one of these applications on each controller:

- HP Network Visualizer SDN Application
- HP Network Protector SDN Application

- HP Network Optimizer SDN Application

When a user attempts to browse to a web site, the browser displays a message indicating that the site is unavailable. The user reports this to the IT staff. Assume that one of the SDN applications is causing this behavior.

Where should the network administrator look for the explanation?

- A. HP Network Protector blacklists and TippingPoint database
- B. HP Network Visualizer capture destinations
- C. HP Network Optimizer edge marking policies
- D. HP Network Visualizer capture sessions

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 5

An organization is deploying an HP SDN solution in its legacy network. The network includes OpenFlow-enabled devices and legacy devices that do not support OpenFlow.

How does the HP VAN SDN Controller discover multi-hop links that cross non-OpenFlow enabled switches?

- A. The controller uses ARP to discover all devices on the network and then uses OpenFlow to determine whether each device is OpenFlow-enabled.
- B. The controller broadcasts LLDP packets to discover whether connected switches are OpenFlow-enabled and uses this information to create an OpenFlow topology.
- C. The controller instructs OpenFlow-enabled switches to broadcast BDDP packets that pass through legacy switches to OpenFlow-enabled switches, which send to the controller.
- D. The controller broadcasts BDDP packets that pass through legacy switches to OpenFlow-enabled switches, which send to the controller.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:



QUESTION 6 A switch is configured to support OpenFlow 1.0 and 1.1.

What happens when the switch sends an OpenFlow hello message to a standalone HP VAN SDN Controller 2.5?

- A. The controller responds with an error message because the controller does not support OpenFlow 1.1.
- B. The controller and switch will use OpenFlow 1.0.
- C. The controller requires all switches in the same VLAN to use OpenFlow 1.1.
- D. The controller uses OpenFlow 1.3, which is backwards compatible.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 7 A switch is running software that supports OpenFlow 1.0.

What is one reason the network administrator would want to upgrade the switch software to a version that supports OpenFlow 1.3?

- A. to support IPv4 DSCP matching
- B. to provide interoperability with traditional networking technologies

- C. to enable OpenFlow-only operation
- D. to support multiple OpenFlow tables

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Reference http://h17007.www1.hp.com/docs/interop/2013/37958_HP_N_SDN_Openflow_Brief_042913_lo.pdf

QUESTION 8

A single HP VAN SDN Controller is used to control OpenFlow-enabled switches that operate in virtualization mode. An internal application is installed on the controller that redirects classified traffic to a specific VLAN. The connection between the controller and the network is lost. The HP OpenFlow-enabled switches' connection interruption mode is set to standalone mode.

What is the forwarding behavior of the OpenFlow-enabled switches?

- A. All flow entries are removed, and traffic is forwarded using normal switch processing.
- B. Based on the timeout values, the flow entries age out, and only OpenFlow traffic is discarded.
- C. All flow entries are set not to age out, and the classified traffic is still redirected.
- D. Based on the timeout values, the flow entries are removed from the flow tables, and all traffic is discarded on the switches.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference <http://archive.openflow.org/documents/openflow-spec-v1.0.0.pdf>

QUESTION 9

A network environment consists of multiple switches. Some of the switches are configured for OpenFlow 1.0, and some of the switches are configured for OpenFlow 1.3. These switches are configured to communicate with an HP VAN SDN Controller team.

What is the result of the negotiation?

- A. All switches negotiate to use OpenFlow 1.0 as the highest common version.
- B. All OpenFlow switches successfully negotiate to use OpenFlow 1.3 with the controller, and OpenFlow 1.0 switches ignore OpenFlow 1.3 extensions.
- C. OpenFlow 1.3 switches negotiate to use OpenFlow 1.3, and OpenFlow 1.0 switches negotiate to use OpenFlow 1.0.
- D. OpenFlow 1.3 switches successfully negotiate to use OpenFlow 1.3 with the controller, and the OpenFlow 1.0 switches fail to connect.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 10

Refer to the exhibit.

Flows for Data Path ID: 00:1e:14:58:d0:f0:db:80						
					Summary	Ports
					Flows	Groups
Table ID	Priority	Packets	Bytes	Match	Actions/Instructions	Flow Class ID
▶ 0	0	0	0		goto_table: 100	com.hp.sdn.normal
▶ 100	60000	0	0	eth_type: bddp	apply_actions: output: CONTROLLER	com.hp.sdn.bddp.steal
▶ 100	31000	0	0	eth_type: arp	goto_table: 200	com.hp.sdn.arp.copy
▶ 100	31500	0	0	eth_type: ipv4 ip_proto: udp udp_src: 67 udp_dst: 68	goto_table: 200	com.hp.sdn.dhcp.copy
▶ 100	31500	0	0	eth_type: ipv4 ip_proto: udp udp_src: 68 udp_dst: 67	goto_table: 200	com.hp.sdn.dhcp.copy
▶ 100	50301	0	0	eth_type: ipv4 ip_proto: udp udp_dst: 53	apply_actions: output: 100664146	

The network administrator is troubleshooting the flow that is circled in the exhibit. The administrator accesses the CLI for the HP ProVision switch with these flows.

How can the administrator determine whether the switch has established a service insertion tunnel ID 100664146 to the controller?

- A. View OpenFlow controllers.
- B. View OpenFlow flows.
- C. View tunnel interfaces.
- D. View service policies.



Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference http://h22208.www2.hp.com/eginfo/lib/networking/docs/switches/K-KA-KB/15-18/5998_8148_sww_admin_guide/content/apd.html

QUESTION 11

Refer to the exhibit.


```

Configured OF Version : 1.3
Negotiated OF Version : 1.3
Instance Name : vlan30
Data-path Description :
Admin. Status : Enabled
Member List : VLAN 30
Pipeline Model : Standard Match
Listen Port : None
Oper. Status : Up
Oper. Status Reason : NA
Datapath ID : 001e1458d0f0db80
Mode : Active
Flow Location : Hardware and Software
No. of Hw Flows : 6
No. of Sw Flows : 4
Hw. Rate Limit : 0 kbps
Sw. Rate Limit : 100 pps
Conn. Interrupt Mode : Fail-Secure
Maximum Backoff Interval : 60 seconds
Probe Interval : 10 seconds
Hw. Table Miss Count : NA
No. of Sw Flow Tables : 1
Egress Only Ports : None
Table Model : Policy Engine and Software

```

Controller Id	Connection Status	Connection State	Secure	Role
1	Connected	Active	No	Equal



An HP ProVision switch is currently controlled by a single HP VAN SDN Controller. The network administrator is adding controllers and configuring them as a team. The administrator wants to ensure that the HP ProVision switch will be able to connect to all of the controllers in the team.

Which field in the exhibit should the administrator examine?

- A. Operational Status
- B. Mode
- C. Negotiated OF version
- D. Role

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 12

A company with a small IT staff needs to be able to deploy applications quickly.

How can software-defined networking (SDN) help this company?

- A. by allowing IT to deploy policies for both traditional and OpenFlow-enabled switches from a centralized-controller
- B. by providing a programmable network that simplifies network provisioning
- C. by providing a common set of APIs for all network switches that support open standard protocols
- D. by eliminating the need to upgrade switch software to support new applications

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 13

What is one trend that puts pressure on existing network infrastructures and drives the need for software-defined networking (SDN)?

- A. Companies are implementing private clouds, and network administrators must be able to respond to service requests quickly.
- B. Companies increasingly host fewer functions per hypervisor.
- C. Network infrastructures are allocating too much bandwidth to voice, video, and collaboration traffic, starving out other applications.
- D. Network administrators increasingly provision security to permit only company-owned assets to connect to the network.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference <http://www.unleashingit.com/docs/ACI/idc-making-sdn-real-for-enterprises.pdf>

QUESTION 14 An HP Comware switch is controlled by an HP VAN SDN Controller team. If the switch loses its connection to all controllers in the team, the network administrator wants the switch to forward all traffic using normal switching and routing.

How should the administrator configure this behavior?

- A. Configure the team as a whole in hybrid mode.
- B. Configure the team region to which the switch is assigned in hybrid mode.
- C. Set the switch OpenFlow instance fail-open mode to standalone.
- D. Set the switch OpenFlow instance connect mode to open.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 15 A network architect needs to enable OpenFlow in an HP ProVision switch environment. What are the options for configuring OpenFlow? (Choose two.)

- A. per VLAN
- B. per controller
- C. per switch
- D. per port
- E. per IP subnet

Correct Answer: AB

Section: (none)

Explanation

Explanation/Reference:

QUESTION 16

A customer wants to deploy an HP ProVision-based network with laptops daisy chained to physical IP phones using a voice VLAN. The customer does not want the phones to be within the OpenFlow domain and should use traditional QoS. The customer wants all unmatched traffic to be forwarded to the controller.

Which OpenFlow switch instance configuration option should the customer use?

- A. QoS passthrough
- B. Aggregate
- C. Passive
- D. Virtualization

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 17

Which services does HP IMC SDN Manager provide? (Choose two.)

- A. updating Topology Service discovery protocol
- B. managing OpenFlow enabled SDN resources
- C. creating and maintaining flow policies
- D. managing and maintaining application awareness
- E. managing switch listeners

Correct Answer: BC

Section: (none)

Explanation

Explanation/Reference:

Reference <https://www.hpe.com/h20195/v2/GetPDF.aspx/c04163725.pdf>

QUESTION 18

A company is deploying an HP Software-defined Networking (SDN) solution. The company wants a centralized solution for deploying and monitoring OpenFlow-enabled switches, visualizing traffic flow through the SDN domain, and backing up and restoring HP VAN SDN Controller configurations.

Which solution should the company use for this purpose?

- A. HP OneView
- B. HP OneView Network Mode Manager
- C. HP SDN Manager for IMC
- D. HP VAN SDN Controller team manager

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 19

Refer to the exhibit.

```
openflow instance 5
  controller 1 address ip 192.168.100.110
  controller 2 address ip 192.168.100.111
```




```
controller 3 address ip 192.168.100.112
active instance
```

The network administrator is setting up a controller team. The team address is 192.168.100.100, and the three controllers are using 192.168.100.110, 192.168.100.111, and 192.168.100.112. The administrator is configuring a switch with only basic IP connectivity that can reach the controller team. The administrator starts to configure a new OpenFlow instance by using the commands shown in the exhibit. The instance fails to activate.

How should the administrator change the configuration to enable it to activate?

- A. Add one or more VLANs to the OpenFlow instance.
- B. Change the iP address for all controllers to the team address.
- C. Change the default setting for controller mode from single to team.
- D. Move to the appropriate VLAN context and add the OpenFlow instance.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 20

Ho
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A.....	Error! Bookmark not defined.
B.....	16
C.....	16
D.....	16

Correct Answer:

:16

Section: (none)
Explanation

Explanation/Reference:

Reference <http://pakiti.com/openflow-configuration-hp-provision-switches-hp-van-sdn-controller/>

QUESTION 21

A company has an HP Network Protector SDN Application solution that controls HP 5406R z12 switches.

Why should the network administrator ensure that HP switches use service insertion tunnels, rather than OpenFlow, to send traffic to the HP VAN SDN Controller?

- A. because the service insertion tunnels provide per packet statistics
- B. because the service insertion tunnels provide a higher packet_in rate
- C. because the service insertion tunnels provide faster failover capabilities
- D. because the service insertion tunnels provide stronger security

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 22

A college is implementing HP Network Protector SDN Application to mitigate network attacks. To conserve bandwidth, the college wants to prevent students from accessing social media web sites while the students are connected to the college network. However, the college wants to give professors more flexibility, while still protecting the network.

Which configuration meets these requirements?

- A. Create a customized greylist for professors.
- B. Place all professors in one VLAN and exclude that VLAN from the flows defined for HP Network Protector SDN Application.
- C. Create different groups for students and professors, and defined a customized blacklist for the student group.
- D. Add the professors as exceptions to the college's blacklist.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 23 How does HP Network Optimizer SDN Application improve quality for Microsoft Lync traffic?

- A. It dynamically configures controlled switches to prioritize the voice and video traffic flows based on session information from the controller.
- B. It is pre-programmed with the correct sets of TCP and UDP ports for Lync traffic; it automatically deploys the correct QoS maps to controlled switches.
- C. It configures Lync clients to automatically prioritize their traffic correctly, and it configures switches to trust this prioritization.
- D. It uses deep packet inspection (DPI) analysis to identify voice and video traffic; it then dynamically configures switches to prioritize this traffic.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Reference <http://www.compucom.com/sites/default/files/HP-Network-Optimizer-for-Microsoft-Lync.pdf> (page 1)

QUESTION 24 Which feature of the HP Network Protector SDN Application prevents intensive DNS traffic from impacting application performance?

- A. Meters
- B. Rate limiting
- C. Inspection throttling
- D. QoS policies

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference <http://h17007.www1.hpe.com/docs/sdn/4AA5-1462ENW.pdf>

QUESTION 25 A network administrator needs to change the default user password on the HP VAN SDN Controller.

Which step must the administrator complete before entering the command to modify the default user or to create a new user?

- A. Verify that external authentication is disabled.
- B. Verify that SNMP is enabled.
- C. Verify that the HTTP/HTTPS proxy is disabled.
- D. Verify that the X-Auth token is still valid.

Correct Answer: D

Section: (none)

Explanation

**Explanation/Reference:**

QUESTION 26 A network administrator wants to deploy a new HP VAN SDN Controller team.

After installing the controllers, which step does the administrator perform?

- A. Access the REST API on a controller and call the REST function that will create the team on all controllers.
- B. Access the REST API on each controller, one at a time, and call the REST function to configure the team on each controller.
- C. Access the REST API on a controller, configure the controller as the team leader, and call the REST function to create the team.
- D. Access the REST API on a controller, call the REST function to configure team settings, and repeat the process on the remaining controllers.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:**QUESTION 27**

Refer to the exhibit.

File Edit View Go Capture Analyze Statistics Telephony Tools Internals Help

Filter: openflow_v4 Expression... Clear Apply Save

No.	Time	Source	Destination	Protocol	Length	Info
4474	156.718819	192.168.56.11	10.1.1.253	OpenFlow	130	Type: OFPT_FLOW_MOD
4475	156.719522	10.1.1.253	192.168.56.11	OpenFlow	130	Type: OFPT_FLOW_REMOVED
4477	156.720300	192.168.56.11	10.1.1.253	OpenFlow	74	Type: OFPT_BARRIER_REQUEST
4478	156.720742	10.1.1.253	192.168.56.11	OpenFlow	74	Type: OFPT_BARRIER_REPLY

+ Frame 4474: 130 bytes on wire (1040 bits), 130 bytes captured (1040 bits) on interface 0

+ Ethernet II, Src: Vmware_97:27:fd (00:50:56:97:27:fd), Dst: HewlettP_37:a4:97 (78:48:59:37:a4:97)

+ Internet Protocol version 4, Src: 192.168.56.11 (192.168.56.11), Dst: 10.1.1.253 (10.1.1.253)

+ Transmission Control Protocol, Src Port: 6633 (6633), Dst Port: 56325 (56325), Seq: 6897, Ack:1225, Len:64

OpenFlow 1.3

Version: 1.3 (0x04)

Type: OFPT_FLOW_MOD (14)

Length: 64

Transaction ID: 32496

Cookie: 0xabab014e635bac6a

Cookie mask: 0x0000000000000000

Table ID: 200

Command: OFPFC_DELETE_STRICT (4)

Idle timeout: 0

Hard timeout: 0

Priority: 100

Buffer ID: OFP_NO_BUFFER (0xffffffff)

Out port: OFPP_ANY (0xffffffff)

Out group: OFPG_ANY (0xffffffff)

+ Flags: 0x0000

Pad: 0000

Match:

Type: OFPMT_OXM (1)

Length: 14

OXM field

Class: OFPXM_OPENFLOW_BASIC (0x8000)

0000 100. - Field: OFPXM_OF_ETH_SRC (4)

.... 0 - Has mask: False

Length: 6

Value: aa:aa:bb:bb:cc:cc (aa:aa:bb:bb:cc:cc)

Pad: 0000



Which action will the switch take when it receives this message?

- A. Remove all flows that match source MAC address aa:aa:bb:bb:cc.
- B. Modify the out port in an existing flow in table 200.
- C. Delete all flows in table 200, effectively "flushing" the switch's table.
- D. Check its flow table and remove the flow that matches the request.

Correct Answer: D

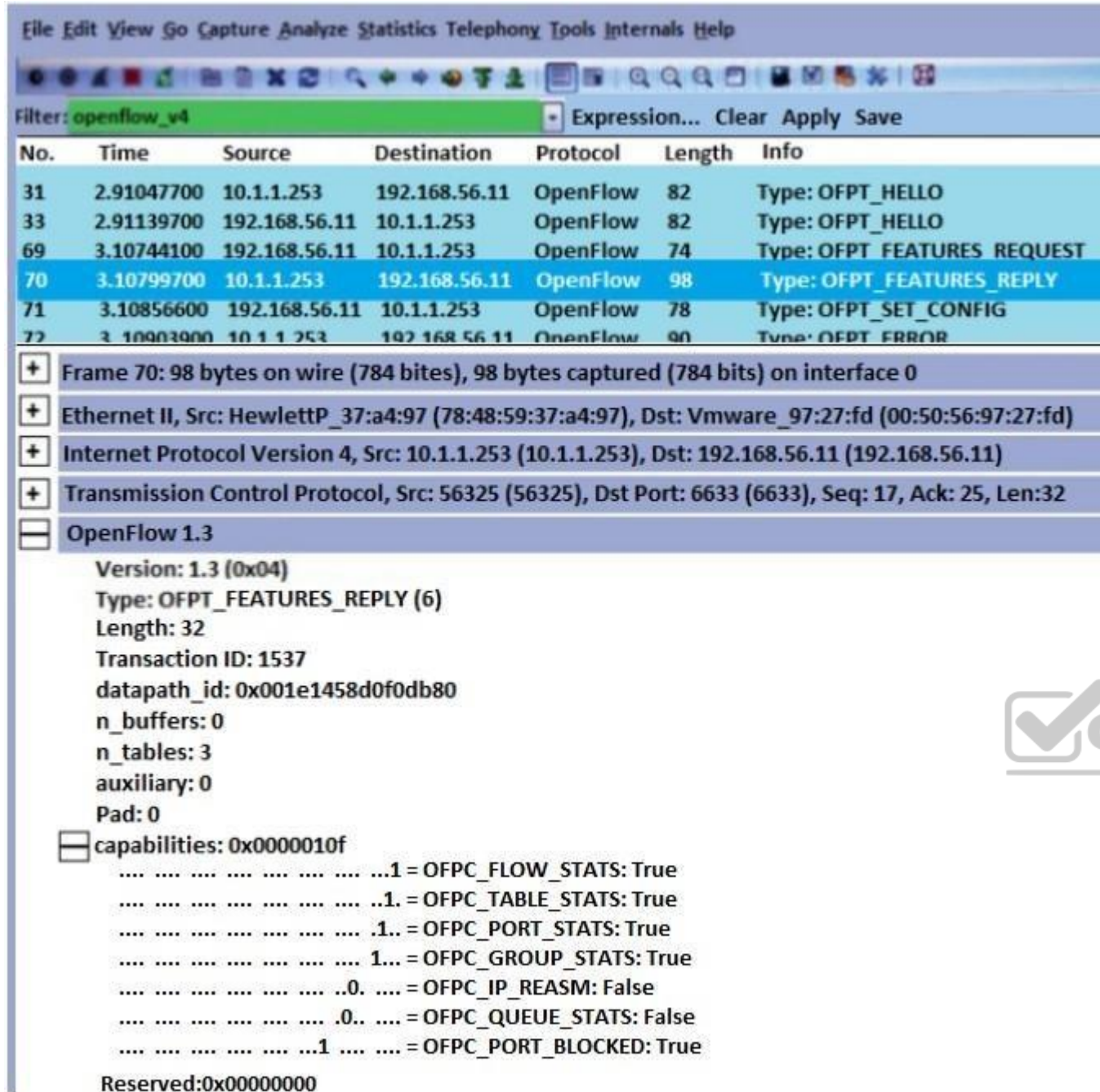
Section: (none)

Explanation

Explanation/Reference:

QUESTION 28

Refer to the exhibit.



No.	Time	Source	Destination	Protocol	Length	Info
31	2.91047700	10.1.1.253	192.168.56.11	OpenFlow	82	Type: OFPT_HELLO
33	2.91139700	192.168.56.11	10.1.1.253	OpenFlow	82	Type: OFPT_HELLO
69	3.10744100	192.168.56.11	10.1.1.253	OpenFlow	74	Type: OFPT_FEATURES_REQUEST
70	3.10799700	10.1.1.253	192.168.56.11	OpenFlow	98	Type: OFPT_FEATURES_REPLY
71	3.10856600	192.168.56.11	10.1.1.253	OpenFlow	78	Type: OFPT_SET_CONFIG
72	3.10903900	10.1.1.253	192.168.56.11	OpenFlow	80	Type: OFPT_ERROR

Frame 70: 98 bytes on wire (784 bites), 98 bytes captured (784 bites) on interface 0

- Ethernet II, Src: HewlettP_37:a4:97 (78:48:59:37:a4:97), Dst: Vmware_97:27:fd (00:50:56:97:27:fd)
- Internet Protocol Version 4, Src: 10.1.1.253 (10.1.1.253), Dst: 192.168.56.11 (192.168.56.11)
- Transmission Control Protocol, Src: 56325 (56325), Dst Port: 6633 (6633), Seq: 17, Ack: 25, Len: 32
- OpenFlow 1.3
 - Version: 1.3 (0x04)
 - Type: OFPT_FEATURES_REPLY (6)
 - Length: 32
 - Transaction ID: 1537
 - datapath_id: 0x001e1458d0f0db80
 - n_buffers: 0
 - n_tables: 3
 - auxiliary: 0
 - Pad: 0
 - capabilities: 0x0000010f
 - ...1 = OFPC_FLOW_STATS: True
 - ...1 = OFPC_TABLE_STATS: True
 - ...1 = OFPC_PORT_STATS: True
 - ...1 = OFPC_GROUP_STATS: True
 - ...0 = OFPC_IP_REASM: False
 - ...0 = OFPC_QUEUE_STATS: False
 - ...1 = OFPC_PORT_BLOCKED: True
 - Reserved: 0x00000000



What can you infer about the device with the IP address 10.1.1.253?

- A. It is acknowledging that it supports the minimum feature set the controller requires.
- B. It has a port that has been blocked by OpenFlow.
- C. It supports auxiliary 0, which indicates it supports an advanced OpenFlow feature set.
- D. It is using OpenFlow 1.3, indicating it has already negotiated the OpenFlow version with the controller.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 29

Refer to the exhibit.



A team of HP VAN SDN Controllers has been configured. The three members of the team are:

- 192.168.56.5
- 192.168.56.6
- 192.168.56.7

What is the state of controller 192.168.56.7 when both the other controllers fail?

- A. Suspend
- B. Team Leader
- C. Master
- D. Slave

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0174715>



QUESTION 30 How does an HP VAN SDN Controller team provide high availability for OpenFlow switches?

- A. by using the northbound controller interface tied to a region configuration
- B. by using the northbound controller interface with a secondary interface
- C. by using the southbound controller interface with a secondary interface
- D. by using the southbound controller interface tied to a region configuration

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 31 An HP ProVision switch loses its OpenFlow connection to the HP VAN SDN Controller.

How is traffic processed by default if no controller teaming is configured?

- A. Packets and messages destined to the controller are dropped. Flows continue to expire according to their time-outs. This is because the default setting on HP ProVision switches is fail-secure.
- B. Packets and messages of new flows behave as a legacy switch or router would. Existing flows of this OpenFlow instance are removed. This is because the default setting on HP ProVision switches is fail-secure.
- C. Packets and messages destined to the controller are dropped. Flows continue to expire according to their time-outs. This is because the default setting on HP ProVision switches is fail-standalone.
- D. Packets and messages of new flows behave as a legacy switch or router would. Existing flows of this OpenFlow instance are removed. This is because the default setting on HP ProVision switches is fail- standalone.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference <http://www.crc.nd.edu/~rich/OIN.10.2013/OpenFlow/c03512348.pdf> (p.21)

QUESTION 32 How do HP VAN SDN Controllers identify OpenFlow switches?

- A. with a 12-bit identifier B. with a 48-bit identifier
- C. with a 64-bit identifier
- D. with a 128-bit identifier

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference <http://pakiti.com/tag/hp-van-sdn-controller/>

QUESTION 33

Refer to the exhibit.

```
openflow instance 1    classification
vlan 10    controller 1 address ip
10.1.10.10
```

The exhibit shows the configuration of OpenFlow instance 1 on an HP Comware switch.

What must the network administrator do to allow the switch to connect to the HP VAN SDN Controller?

- A. Activate the OpenFlow instance.
- B. Assign a valid uplink port to the OpenFlow instance.
- C. Configure the OpenFlow version.
- D. Enable the controller at the system view.



Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:**QUESTION 34**

A company has an HP Network Visualizer SDN Application solution. The network administrator wants to send captured traffic to a server that is running its own local application for receiving that traffic.

How should the administrator configure the HP Network Visualizer SDN Application to send the traffic to the server?

- A. Add the server as a managed capture destination.
- B. Add the server as an unmanaged capture destination.
- C. Specify the server as the destination IP address for all user capture sessions.
- D. Specify the server as the destination IP address for all custom capture sessions.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 35 Which benefit does a greylist in the HP Network Protector SDN Application provide?

- A. It allows companies to test a potential blacklist; it logs access attempts to web sites but does not block them.
- B. It allows users to access potentially suspicious web sites after they have been redirected to a web server and consented to a disclaimer.
- C. It allows users to access potentially suspicious web sites but decreases the priority of the traffic.
- D. It allows companies to enforce business policies that prohibit accessing specific, non-harmful sites.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Reference https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=4&cad=rja&uact=8&ved=0ahUKEwiI5OKkstzUAhVLrl8KHTGMDvoQFggzMAM&url=http%3A%2F%2Fh20628.www2.hp.com%2Fkm-ext%2Fkmcsdirect%2Femr_na-c04647299-4.pdf&usq=AFQjCNHDxZMF5Q3jTPJSaBvPgyUFRqfeYA

QUESTION 36 What is an advantage of the hybrid OpenFlow deployment model?

- A. Traffic is processed primarily in hardware, rather than in software, improving performance.
- B. The controller makes intelligent forwarding decisions for all traffic.
- C. Network administrators have more insight into network traffic.
- D. Companies can leverage existing switch technologies.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:



QUESTION 37 With which overlay-based network virtualization controller does the HP VAN SDN Controller federate?

- A. VMware NSX
- B. Mininet
- C. OpenDaylight
- D. Ethane

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://searchsdn.techtarget.com/news/2240232625/New-HP-network-virtualization-overlay-is-based-on-Nuage-software>

QUESTION 38

Why would an architect require an application to be written as an internal application rather than as an external application?

- A. faster event-driven responses
- B. increased program language options
- C. greater flexibility of platform choices
- D. lower cost of development

Correct Answer: D


Section: (none)

Explanation


Explanation/Reference:

QUESTION 39

Refer to the exhibit.



The screenshot shows the HP Network Protector Console interface. At the top, it displays 'License Compliance: COMPLIANT' and 'Disable DNS Protector' with a flag icon and the number '0'. The user 'sdn' is logged in. The left sidebar has a 'Dashboard' menu with a dropdown arrow and a 'Home' button. The main content area is titled 'Device Status (Refresh Interval: 1 min)'. It features a tabbed interface with 'System Status', 'Device Status' (selected), and 'VLAN Status'. The 'Device Status' tab contains a table with the following columns: Data Path Id, IP Address, MAC Address, Manufacturer, Model, Firmware, SI Status, and Health Status. Two devices are listed in the table.

Data Path Id	IP Address	MAC Address	Manufacturer	Model	Firmware	SI Status	Health Status
00:1e:14:58:d0:...	10.1.1.253	14:58:d0:10:db:80	HP	3800-24G-2SFP+	KA.15.16.0006	Enabled	 VLANs Active:1/1 SNMP access: yes
00:28:14:58:d0:...	10.1.1.253	14:58:d0:10:bc:80	HP	3800-24G-2SFP+	KA.15.16.0006	Enabled	 VLANs Active:1/1 SNMP access: yes

What does the health status for the first device listed indicate?

- A. that the switch software version is supported
- B. that SNMPv2 is correctly configured on the switch
- C. that service insertion is working
- D. that the switch complies with the company's security policies

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 40

Refer to the exhibit.

Network Visualizer/Session Monitor

Refresh

Filter

Export All

Create

Delete

Activate

Deactivate

	Session Name	State	Session Type	Source Status	Destination Status
<input checked="" type="radio"/>	UserVM4	ACTIVE	UNSCHEDULED	✓	✓

Session Name: UserVM4

Overall Status: ✓

Bidirectional: Yes

File Name: /tmp/UserVM4-<TIMESTAMP>.pcap

Custom filter information

Source IP: 10.40.40.4

Destination IP: 192.168.56.51

Protocol: tcp

Destination

Name	IP Address	Status	Latest Capture
Jumphost	192.168.56.5	Unmanaged	View

Flow Entries

Device	Src IP/Port	Dst IP/Port	Src Mac	Dst Mac	Protocol	Status	Time
10.1.1.254	10.40.40.4/-	192.168.56.51/-	-	icp	✓	2015-07-02.00..	
10.1.1.254	192.168.56.51/-	10.40.40.4/-	-	icp	✓	2015-07-02.00..	



A network administrator is monitoring a capture session in the HP Network Visualizer SDN Application.

What does the administrator know about the Destination of the packet capture?

- A. The application will send the information required for the capture file to the destination.
- B. The traffic is encapsulated in TCP with source ip 10.40.40.1 and destination 192.168.56.51.
- C. The traffic mirroring is done on the device with ip 10.1.1.254.
- D. The traffic is sent to the switch agent connected to the endpoint to which captured traffic is destined.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 41 A network administrator wants to secure the connection between an HP ProVision and the HP VAN SDN Controller.

What is the recommended approach to securing the OpenFlow messages?

- A. Use an IPsec VPN between the HP ProVision switch and the HP VAN SDN Controller to secure OpenFlow messages.
- B. Use certificates to secure the traffic between the switch and controller.
- C. Use sessions to OpenFlow devices that is initiated by the controller.

D. Use OpenFlow message type 5 on the auxiliary channel to secure OpenFlow messages.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 42 A company has an HP VAN SDN Controller that runs the HP Network Optimizer SDN Application and the HP Network Protector SDN Application.

What should the network administrator understand about how these applications interact?

- A. The applications are installed on different members of a controller team.
- B. Both applications can set QoS values for traffic, so the administrator should check how policies overlap
- C. These applications are incompatible, so one must be deactivated or uninstalled.
- D. These applications require an addition license to interoperate and share information with each other.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 43

Refer to the exhibit.



```
<Switch1> display openflow instance 1 controller
Controller ID : 6
Controller IP address : 192.168.56.14
Controller port : 6633
Controller role : Master
Connect type : TCP
Connect state : Established
Packets sent : 583
Packets received : 577
SSL policy : --
VRF name : --
Controller ID : 8
Controller IP address : 192.168.56.15
Controller port : 6633
Controller role : Slave
Connect type : TCP
Connect state : Established
Packets sent : 315
Packets received : 317
SSL policy : --
VRF name : --
Controller ID : 5
Controller IP address : 192.168.56.16
Controller port : 6633
Controller role : Slave
Connect type : TCP
Connect state : Established
Packets sent : 315
```



A network administrator successfully creates a region on a controller team. Switch1 is part of this region. In the region, controllers are listed in this priority order: Controller 6, Controller 8, Controller 5.

The exhibit shows the controller information on Switch1.

The switch loses its connection to Controllers 6 and 8.

What happens?

- A. Controller 6 communicates with other controllers to determine which of them have connectivity with the switch. Controller 5 advertises itself as the master for this switch.
- B. Controller operations are suspended. Switch1 enters a failover mode, in which it continues to use existing flow entries but does not accept new ones, until it can reach at least two controllers.
- C. Switch1 selects Controller 8 as its new master. After a timeout period, Switch1 selects Controller 5 as its master.
- D. Switch1 temporarily enters a failover mode, in which it continues to use existing flow entries but does not accept new ones. After a timeout period, it contacts first Controller 8, and then Controller 5.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 44 A network administrator is setting up an HP VAN SDN Controller team.

How does the team select a leader and the master for each region?

- A. An internal algorithm selects the team leader. The administrator specifies the controller priority order when defining the region settings, and the highest priority controller becomes master.
- B. Internal algorithms automatically select a team leader and a master for each region. The algorithms never select the same controller to serve in both roles.
- C. The administrator assigns priorities to controllers to determine the team leader. The administrator specifies the controller priority order when defining the region settings, and the highest priority controller becomes master.
- D. The administrator assigns priorities to controllers to determine the team leader. The team leader automatically becomes the master for each region.

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

QUESTION 45

A network administrator is examining the OpenFlow Topology page in the HP VAN SDN Controller Web browser interface.

What does a multi-hop link between two switches indicate?

- A. These two OpenFlow switches connect over a Layer 3 WAN network.
- B. These two OpenFlow switches connect on ports that are in different subnets.
- C. These two OpenFlow switches connect on ports that do not have OpenFlow enabled on them.
- D. These two OpenFlow switches connect through one or more non-OpenFlow-enabled switches.



Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

QUESTION 46

Which protocol is used by the HP VAN SDN Controller for link discovery when OpenFlow switches are separated by a non-OpenFlow switch?

- A. BDDP
- B. OVSDB
- C. LLDP
- D. ARP

Correct Answer: C

Section: (none)

Explanation

Explanation/Reference:

Reference http://h17007.www1.hpe.com/docs/networking/solutions/sdn/devcenter/08_-_HP_SDN_Network_Services_Modules_TSG_v1_3013-10-01.pdf (page 4)

QUESTION 47

Refer to the exhibit.

General		Flows for Data Path ID: 00:0a:10:60:4b:38:df:c0					
		Summary		Ports	Flows	Groups	
Table ID	Priority	Packets	Bytes	Match	Actions/Instructions	Flow Class ID	
▶ 0	0	0	0		goto_table:100	com.hp.sdn.ip.normal	
▶ 100	60000	46	0	eth_type:bddp	apply_actions: output: CONTROLLER	com.hp.sdn.bddp.steal	
▶ 100	31000	374	0	eth_type:arp	goto_table:200	com.hp.sdn.arp.copy	
▶ 100	31500	0	0	eth_type:ipv4 ip_proto:udp udp_src:67 udp_dst:68	goto_table:200	com.hp.sdn.dhcp.copy	
▶ 100	31500	13	0	eth_type:ipv4 ip_proto: udp udp_src:68 udp_dst:67	goto_table:200	com.hp.sdn.dhcp.copy	
▶ 100	0	5119	141585586358...		apply_actions: output:NORMAL	com.hp.sdn.ip.normal	
▶ 100	35500	31	0	eth_type:ipv4 ipv4_src:10.10.10.10	apply_actions: output:NORMAL		
▶ 200	31000	374	23936	eth_type:arp	apply_actions: output:CONTROLLER output:NORMAL	com.hp.sdn.arp.copy	
▶ 200	31500	0	0	eth_type:ipv4 ip_proto:udp udp_src:67 udp_dst:68	apply_actions: output:CONTROLLER output:NORMAL	com.hp.sdn.dhcp.copy	
▶ 200	31500	14	4797	eth_type:ipv4 ip_proto:udp udp_src:68 udp_dst:67	apply_actions: output:CONTROLLER output:NORMAL	com.hp.sdn.dhcp.copy	
▶ 200	55500	0	0	eth_type:ipv4 ipv4_src:10.10.10.10			

Which switch can process the flows shown in the exhibit?

- A. Comware switch that supports OpenFlow 1.3 and operates in OpenFlow only mode.
- B. ProVision switch that supports OpenFlow 1.3 and operates in OpenFlow hybrid mode.
- C. Comware switch that supports OpenFlow 1.0 and operates in OpenFlow hybrid mode.
- D. ProVision switch that supports OpenFlow 1.0 and operates in OpenFlow only mode.

Correct Answer: B

Section: (none)

Explanation

Explanation/Reference:

QUESTION 48 Which benefit do HP VAN SDN Controller federation APIs provide?

- A. They help the controller to support multiple internal SDN applications at the same time.
- B. They help the controller to communicate with management software such as HP IMC and HP OneView.
- C. They help multiple controllers to interface on the southbound interface.
- D. They help the controller to integrate with VMWare NSX and deliver SDN applications across virtual networks.

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Reference https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwji_J2auNzUAhUEo48KHfNoAasQFggnMAA&url=https%3A%2F%2Fwww.hpe.com%2Fcontent%2Fdam%2Fhpe%2Fdownloads%2FPDF%2FGated%2F4AA5-7552ENW_Network-Virtualization_The-New-Imperative-in-the-Enterprise-Data-Center.pdf&usq=AFQjCNGDFjuZkgpWxJHqaNEzAJW108G5fA

QUESTION 49

A company uses VMware NSX in its datacenter. The company relies on a legacy computer system that requires a significant amount of throughput.

How can an HP VAN SDN Controller solution enhance this VMware NSX solution?

- A. It integrates VMware with HP OneView providing a single pane of glass for virtual infrastructure management.
- B. It enables the use of overlay tunnels, making the solution less complex and easier to manage.
- C. It provides a self-provisioning portal that makes it easier for administrators to provision Virtual Machines.
- D. It enables physical HP switches to act as hardware gateways to bridge the traditional and overlay networks.

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:



QUESTION 50

What can network administrators use to configure backup and restore options for an HP VAN SDN Controller?

- A. Intent
- B. REST
- C. SNMP
- D. Controller GUI

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

Reference: <http://h20564.www2.hpe.com/hpsc/doc/public/display?docId=c04003114&lang=en-us&cc=us>