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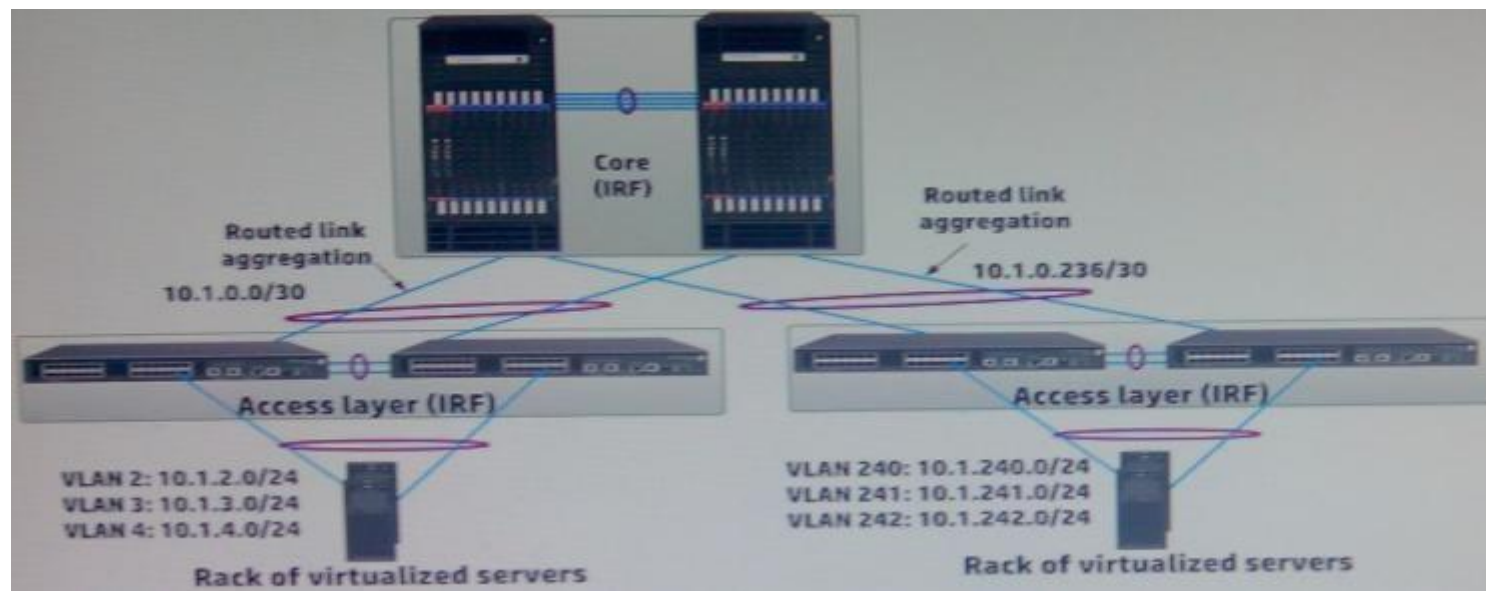
**Exam Name: Architecting HP FlexNetwork Solutions**



## Exam A

### QUESTION 1

Refer to the exhibit.



The exhibit shows a proposed design for a data center network infrastructure. The exhibit shows two racks for simplicity. The data center will actually include more racks.

The customer has these key requirements:

- The customer can scale any application and easily install new hardware that supports that application
- The network supports vMotion for live migration of virtual machine (VMs)

How should the network architect change the proposed design to meet the customer requirements?

- A. Replace the rack servers with blade enclosures
- B. Add more links between the servers and the access layer
- C. Remove routing from the access layer and extend VLANs to multiple racks
- D. Add a distribution layer between the access layer and the core

**Correct Answer:** D

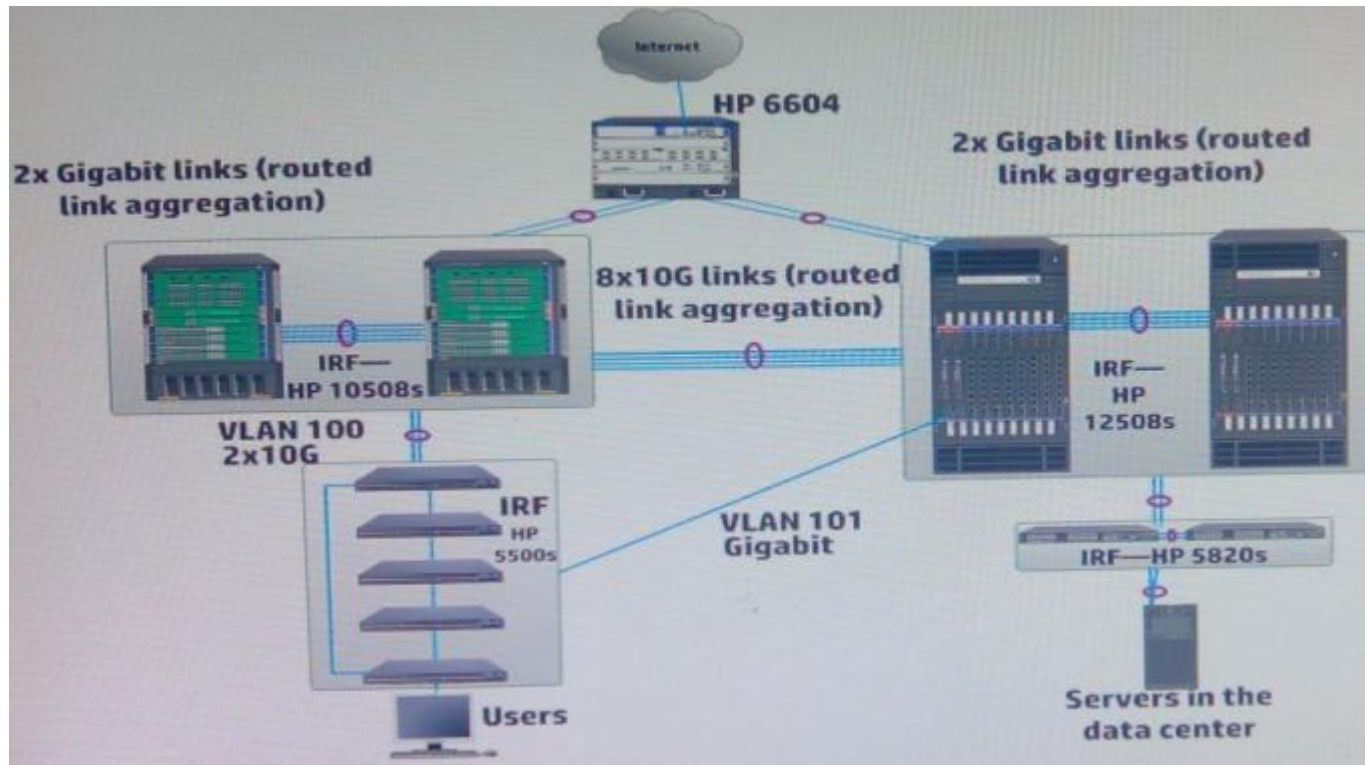
**Section:** (none)

**Explanation**

Explanation/Reference:

## QUESTION 2

Refer to the exhibit.



The exhibit shows the topology for an enterprise LAN with an on-site data center. The intelligent Resilient Framework (IRF) group of HP 5500 Series switches supports a group of computers that require very high availability to the data center. Therefore, the customer has requested a backup gigabit fiber link implement Open Shortest Path First (OSPF) in a single area.

Which tasks should the network architect complete to ensure that the HP 5500 IRF group selects the correct path to the data center during normal operation?

- A. Change the reference bandwidth on the VLAN 100 interfaces to 20000
- B. Set the cost on the VLAN 100 interfaces to 2 Set the cost for the VLAN 101 interfaces to 80

- C. Change the reference bandwidth on the VLAN 101 interfaces to 1000
- D. Change the VLAN 101 interfaces as silent interfaces
- E. Change the reference bandwidth to 80000 on all routing devices

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 3

A customer has Voice IP (VoIP) phones that support Link Layer Discovery Protocol Media Endpoint Discovery (LLDP-MED). The phone needs to receive their VLAN ID using this protocol. The network architect is proposing HP 5500-48G-PoE+EI switches. Each user computer connects to the phone, which then connects to the Ethernet jack. LLDP is enabled on the switch. Each Edge port is a trunk port that permits VLAN 10 (the user VLAN) and VLAN 20 (the voice VLAN).

Which other setting is recommended on the edge port?

- A. The voice VLAN is enabled
- B. The PVID is set to VLAN 20
- C. LLDP Cisco Discovery Protocol (CDP) compliance enabled
- D. The LLDP voice VLAN ID is set to 20

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 4

A customer wants a simple solution for deploying virtual services at a branch. Which devices support modules running a VMware ESXi hypervisor? (Select two)

- A. HP 2920 Switch Series
- B. HP MSR30 Router Series
- C. HP 5400 zl Switch Series
- D. HP 7500 Switch Series
- E. HP VSR1000 Virtual Services Routers

**Correct Answer:** BC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 5**

What correctly describes one trend that is changing how network architects must design the data center network infrastructure?

- A. Applications are drawing on more and more locally stored data, which causes customers to favor blade servers and blade enclosures
- B. Applications are considering on single, highly available mainframes, driving the need for 10G connections to the server edge
- C. Applications are increasingly virtualized, which requires architects to implement routing at the access layer to segment each rack into its own VLAN
- D. Applications are scaling out across multiple servers, increasing communications between servers distributed across the data center

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 6**

A network architect is planning an intelligent Resilient Framework (IRF) group. What should the network architect implement to protect against a split IRF group?

- A. Distributed Trunking (DT)
- B. Virtual Router Redundancy Protocol (VRRP)
- C. Multi-Active Detections (MAD)
- D. Rapid Ring Protection Protocol (RRPP)

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference:

[http://h20566.www2.hp.com/portal/site/hpsc/template.BINARYPORTLET/public/kb/docDisplay/resource.process/?javax.portlet.begCacheTok=com.vignette.cachetoken&javax.portlet.endCacheTok=com.vignette.cachetoken&javax.portlet.rid\\_ba847bafb2a2d782fcb0710b053ce01=docDisplayResURL&java](http://h20566.www2.hp.com/portal/site/hpsc/template.BINARYPORTLET/public/kb/docDisplay/resource.process/?javax.portlet.begCacheTok=com.vignette.cachetoken&javax.portlet.endCacheTok=com.vignette.cachetoken&javax.portlet.rid_ba847bafb2a2d782fcb0710b053ce01=docDisplayResURL&java)

x.portlet.rst\_ba847bafb2a2d782fcbb0710b053ce01=wsrp-resourceState%3DdocId %253Demr\_na-c03187005-4%257CdocLocale %253D&javax.portlet.tpst=ba847bafb2a2d782fcbb0710b053ce01\_ws\_BI&ac.admitted=140916 3882217.876444892.199480143 (page 8)

#### QUESTION 7

What is the preferred time for completing racking and labeling of equipment for a new implementation?

- A. After the scheduled outage has begun and initial tests have indicated success
- B. Before the scheduled outage
- C. At any time between the beginning of the scheduled outage and the point of no return
- D. At the beginning of the scheduled outage

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 8

A network architect has collected data on link utilization. When analyzing link utilization, what is the general guideline?

- A. You upgrade a link that is often used at more than 50 percent utilization
- B. You upgrade a link when it reaches 100 percent utilization
- C. You upgrade a link if it sometimes peaks at more than 50 percent utilization
- D. You upgrade a link when it reaches 25 to 30 percent utilization

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 9

What are information technology Service Management (ITSM) framework, such as the infrastructure Technology Infrastructure Library (ITILv3) and The Open Group Architecture Framework (TOGAF)?

- A. They are Internet Engineering Task Force (IETF) standards that provide evolving guidelines and best practices for IT design and management
- B. They are high-level approaches that provide recommendations and best practices for IT design management
- C. They are industry-wide standards that provide guidelines for enterprise design and management

D. They are Internet Engineering Task Force (IETF) standards that define proper network design

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference: [http://en.wikipedia.org/wiki/Information\\_Technology\\_Infrastructure\\_Library](http://en.wikipedia.org/wiki/Information_Technology_Infrastructure_Library)

#### QUESTION 10

If a network architect is planning a secure device management policy, why would administrators need to generate SSH keys on network infrastructure devices?

- A. To authenticate managers with a more secure method than passwords
- B. To encrypt management traffic and also authenticate managers with asymmetric
- C. To authenticate managers and assign them privileges according to their identity
- D. To encrypt management traffic related to the CLI

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 11

A network architect is planning an update of the server access layer in a data center. Currently, the access layer switches have 10G links to distribution layer switches. In the new solution, HP 5930 Switches act as top of rack (ToR) switches with 40G links to core switches.

Which factor must the network architect consider when designing solution?

- A. Whether the data center cabling provides enough fiber strands to the racks to support the 40G links
- B. Whether the new switches 40G transceivers are on the chassis front or back, the transceivers must be on the same side as servers air outtakes
- C. Whether the servers connecting to the new switches use Ethernet Virtual Bridging (EVB)/Virtual Ethernet Port Aggregate (VEPA), which is not compatible with 40G
- D. Whether the servers connecting to the new switches have NICs that support Converged Enhanced Ethernet (CEE)

**Correct Answer:** A

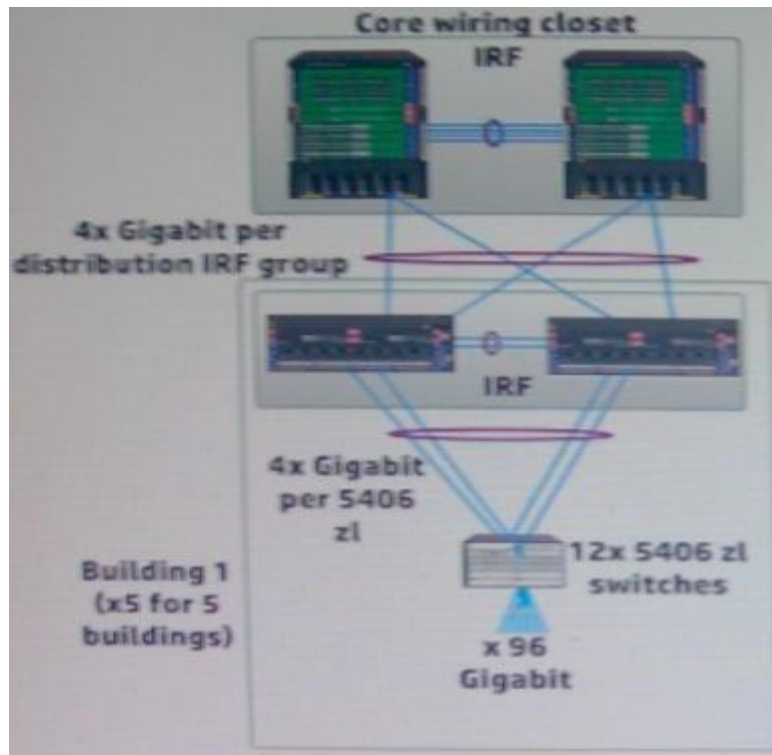
**Section:** (none)

**Explanation**

Explanation/Reference:

### QUESTION 12

Refer to the exhibit.



A network architect has designed the topology shown in the exhibit. The Gigabit links between distribution layer and the core uses OM3 grade multi-mode fiber between 100m and 150m long.

The solution is for an enterprise customer whose employees use mostly HTTP-based applications and have medium utilization needs.

What should the network architect do to resolve a potential issue?

- A. Add more bandwidth between each pair of distribution layer switches
- B. Add more links between each modular switch at the access layer and its distribution layer switch
- C. Replace the modular switches at the access layer with switches that support stacked meshing



D. Remove the distribution layer since it is not needed in this environment

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 13

A customer requires high availability, so the network architect is planning two area border (ABRs) for each non-backbone area in the Open Shortest Path First (OSPF) solution. What ensures a loop-free routing environment that meets the customer needs?

- A. All ABRs have at least one interface in area 0, and that interface has an IP address that is outside of the range of any summaries for area 0
- B. Each ABR in an area advertises the same summary routes for the area, and each ABR has a null route that matches those summaries
- C. Only one ABR advertise a summary route for each area. For areas with multiple ABRs, each area can include two summaries ranges, and each ABR is configured with one of those ranges
- D. All ABRs in an area apply consistent path costs for their summary routes

**Correct Answer:** A

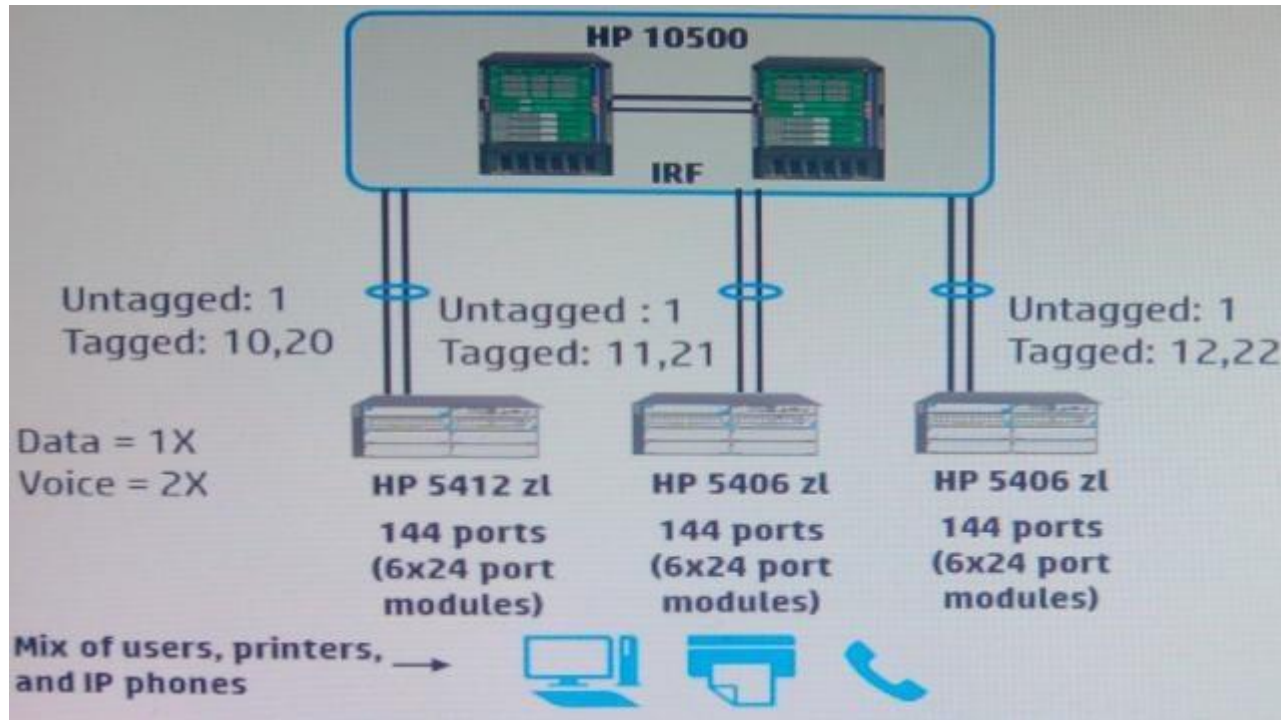
**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 14

Refer to the exhibit.



The network architect is planning network addresses for the VLANs shown. The company is using the private 10.0.0.0/8 space. Which guidelines should the network architect follow?

- A. Use a /22 subnet for each VLAN to ensure enough IP addresses for each large modular switch
- B. Implement the port isolation feature and apply several /30 subnets to each VLAN
- C. Use a /25 subnet for each VLAN to conserve the limited IP addressing space
- D. Use a /24 subnet for each VLAN for simplicity and scalability

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 15

A company is upgrading a data center network solution in phases. The first phase involves updating the top of rack (ToR) switches in one rack. Other

switches will be updated in their phases.

What is one benefit of this approach?

- A. It allows the through testing of the solution in real-world circumstances
- B. It ensures that the network can be updated without any scheduled downtime
- C. It removes the need to conduct connectivity and failover tests during the implementation
- D. It removes the need for working with customer change management processes

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### QUESTION 16

Refer to the exhibit.



The exhibit shows how two NICs on a physical server connect to two HP 5820 switches. The server supports eight virtual machines (VMs) with VMware version 5.1. The VMware standard virtual switch is bound to NIC1 and NIC2. This switch implements source MAC load balancing for the NIC team.

What is the proper configuration for ports 1/0/1 and 2/0/1?

- A. Place the ports in a bridge aggregation group that does not use LACP
- B. Place the ports in a bridge aggregation group that uses LACP
- C. Enable LACP on the individual ports
- D. Do not place the ports in a bridge aggregation group

Correct Answer: A

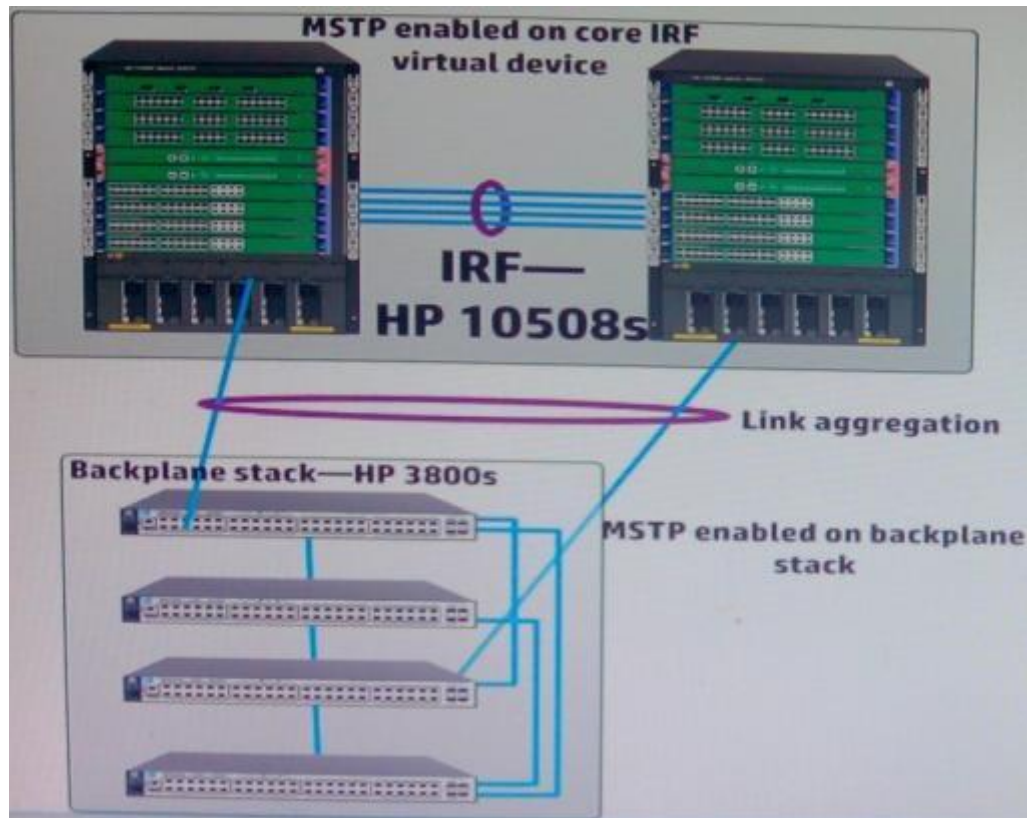
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Explanation

Explanation/Reference:

#### QUESTION 17

Refer to the exhibit.



A network architect is proposing this solution to a customer. The customer network manager has a preference for Cisco VLAN Spanning Tree Plus (PVST+) because this protocol provides for fast convergence when a link fails and also provides per-VLAN load-sharing over links.

How would the network architect explain why the solution fits these requirements?

- A. The MSTP component of the solution fulfills the same needs as PVST+ MSTP simply balances traffic per instance rather than per-VLAN
- B. The redundant links between the switches are protected by MSTP and the built-in loop guard on HP-3800 switches. MSTP provides load-sharing and loop guard provides resiliency
- C. The solution as shown provides the same load-sharing benefits as PVST+. To achieve the same resiliency benefits, the architect can add smart link to the meshed stack
- D. The link aggregation between tiers provide even better resiliency and load-sharing than PVST+ while MSTP protects against accidental loops

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 18**

A network architect is explaining the differences between deploying two switches in an HP Intelligent Resiliency Framework (IRF) virtual switch and deploying two switches that implement standard Virtual Routing Redundancy Protocol (VRRP). Which statement correctly describes an advantage of IRF?

- A. IRF failover occurs in 3 to 4 seconds, whereas VRRP failover occurs in 10 or more seconds
- B. Unlike VRRP, which requires at least two addresses to be listed. Dynamic Host Configuration Protocol (DHCP) scopes list a single IP address for the default gateway
- C. The IRF virtual switch runs a separate routing in each member, which enhances the redundancy and reliability of the overall solution
- D. Multiple IRF members can actively route traffic for the same subnet and use the same IP address and routing control plane

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 19**

Which data center characteristics should specifically make the architect consider switches that support Shortest Path Bridging (SPB) or Transparent Interconnection of Lots of Links (TRILL)?

- A. The customer requires redundancy and resiliency for the two data center routing switches
- B. The customer requires high-speed routing between front-end servers and database servers in different subnets
- C. The virtualized data center supports several thousand virtual machines (VMs) with a two-tier networking infrastructure topology
- D. The data center requires many redundant links and must scale the tens of thousands of virtual (VMs)

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 20**

A network architect is planning a complete access layer and core upgrade for customer's campus LAN. The campus has four large buildings, each requiring between 1000 and 3000 edge ports. Which factor will play a primary role in determining whether the network architect needs to plan a two-tier or three-tier topology for the campus LAN?

- A. The number of fiber links between each building and the building where the core switches reside
- B. Whether the customer requires a wireless solution
- C. The high number of edge ports that the solution requires
- D. Whether the customer can afford core switches that support intelligent Resilient Framework (IRF)

**Correct Answer:** A

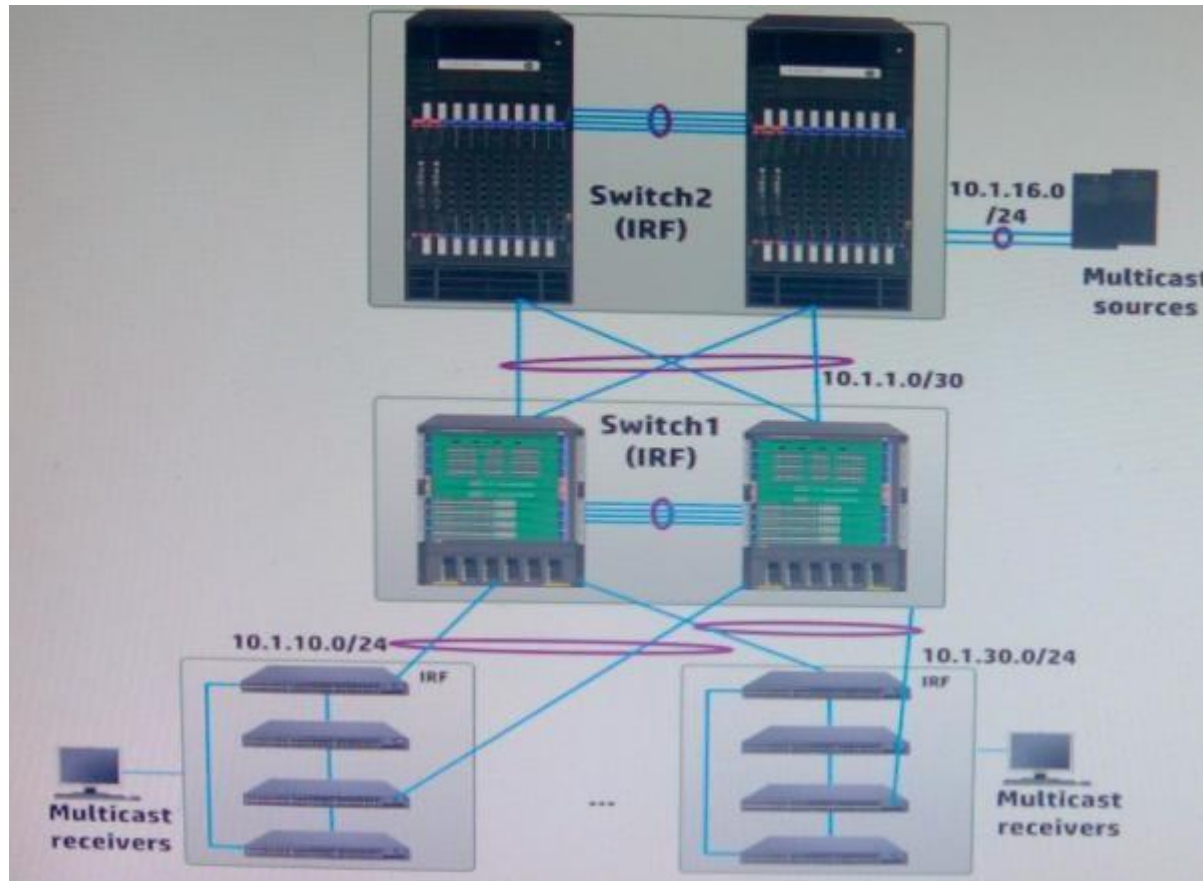
**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 21**

Refer to the exhibit.



All connections between switches are 10 Gbps. Switch is an Intelligent Resilient Framework (IRF) group with two member. Switch2 is an IRF group with two members. Switch1 and Switch2 route all traffic.

A network architect is designing a solution for a finance company. One of the primary applications is a multicast application that delivers stock information to IP video screens across the site. The network architect is seeking a multicast solution that meets these needs:

- Simple configuration that the customer's IT staff can manage and troubleshoot
  - No single point of failure for the multicast traffic
- What is the best solution for this environment and these needs?
- A. Protocol Independent Multicast (PIM) Dense Mode (DM).
  - B. Protocol Independent Multicast (PIM) Sparse Mode (SM) with switch 1 and switch 2 configured as candidate Rendezvous Points (C-RPs), and switch1 and Switch2 also configured as Bootstrap Router (BSRs).
  - C. Protocol Independent Multicast (PIM) Dense Mode (DM) with Switch1 and Switch2 set as the DM Master Router. Switch1 has a higher MR priority for



an address associated with the multicast application.

- D. Protocol independent Multicast (PIM) Sparse Mode (SM) with switch1 and Switch2 set as the static Rendezvous Points (RPs). Switch1 has a higher RP priority for an address associated with the multicast application.

**Correct Answer:** D

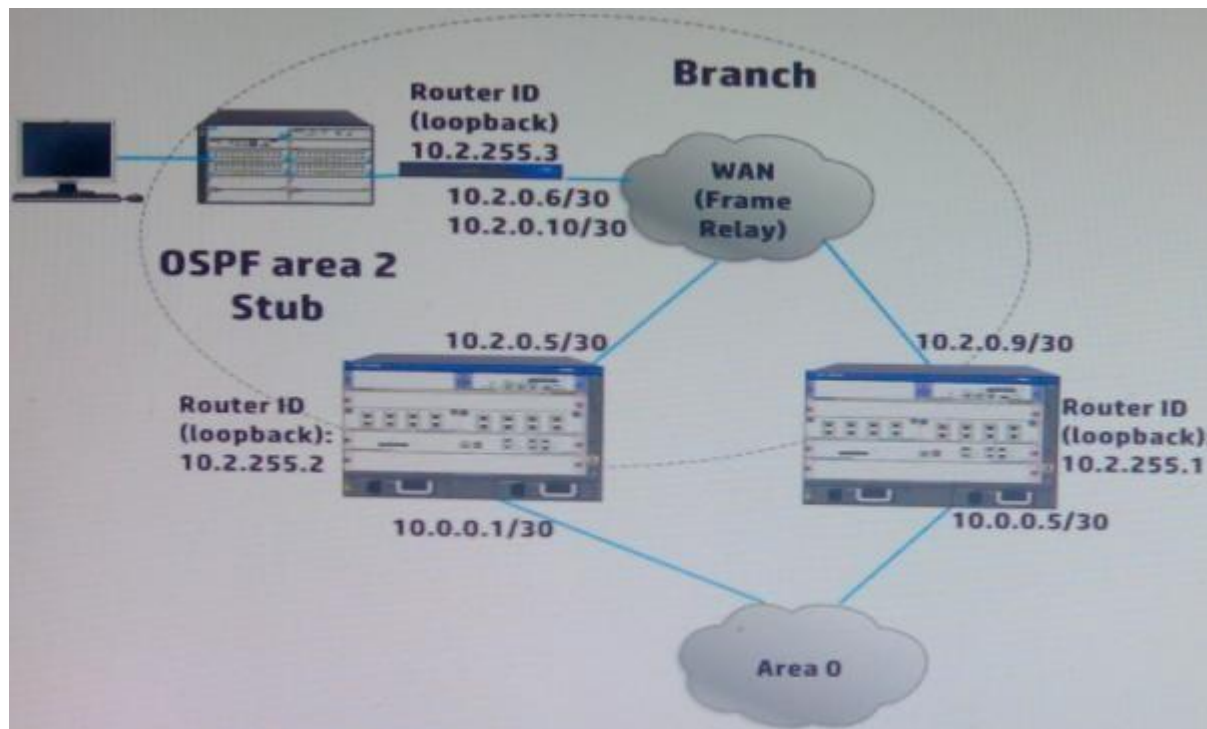
**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 22

Refer to the exhibit.



The branch routers have E1 lines into the Frame Relay Service provider network. The exhibit shows just one branch, but the network actually has 30 branches. The HP 6600 Series routers, which are the area border routers (ABRs), have E2 lines into the Frame Relay network.



The routers in the exhibit Open Shortest Path First (OSPF). The enable OSPF on network follows:

- In area 2, OSPF is enabled on network 10.2.0.0/16
- In area 0, OSPF is enabled on network 10.0.0.0/16

The customer requires resilience at the WAN core. Which design change best supports that requirement?

- A. Add additional links from the HP 6600 Series routers to the WAN
- B. On each branch router, add a floating static route to one of the ABRs in case the OSPF solution fails
- C. Add a Gigabit link between the HP 6600 Series router with a network in area 0 and area 2.
- D. At each branch, add a redundant link between the switch and the router

**Correct Answer:** D

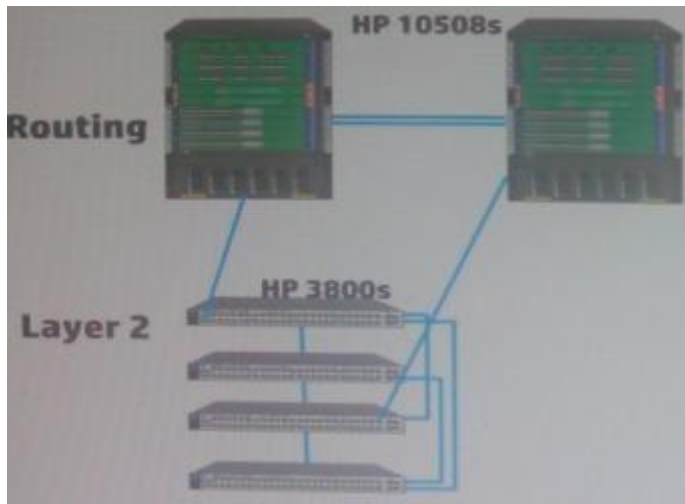
**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 23

Refer to the exhibit.



A network architect has planned redundant links as shown in the exhibit. What should the network architect do to ensure that the redundant link design is truly resilient?

- A. Implement the features such as link aggregation, backplane stacking, and intelligent Resilient Framework (IRF)
- B. Add another link between the Layer 2 switches and the core so that up to the two links can fail
- C. Implement a feature such as bidirectional forwarding detection (BFD) on each redundant link
- D. Make sure that each HP 10508 switch is configured as a root in one Multiple Spanning Tree Protocol (MSTP) instance

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 24**

A network architect is compiling information about the total cost ownership (TCO) for a proposal. Which factors play a role in TCO?

- A. Cost of remediation due to a future security breach
- B. Cost of regulatory fines associated with non-compliance
- C. Cost of upgrading modules for the proposal
- D. Cost of powering the solution

**Correct Answer:** D

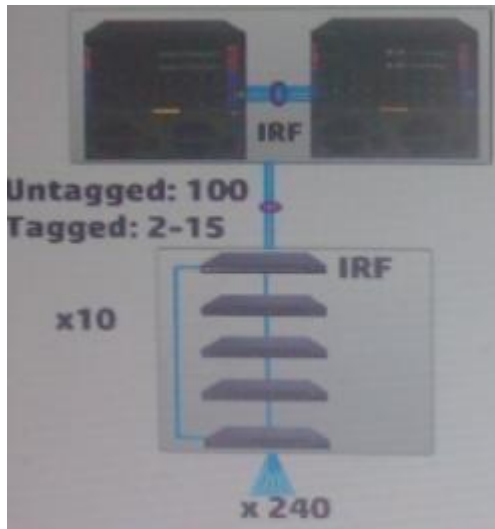
**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 25**

Refer to the exhibit.



A network architect is designing the logical topology for a campus LAN networking solution. The customer requires support for 2400 edge ports, which is provided by 10 intelligent Resilient Framework (IRF) groups at the access layer. This customer does not have a wireless network nor anticipates adding one in the next two years. However, the customer does want to authenticate users with 802.1X and use the network RADIUS server to divide users from different groups into different VLANs. The customer has three user groups, each of which includes between 600 and 900 users.

Additionally, the customer understands that the RADIUS server will require several policies but wants to keep these policies as simple and easy to maintain as possible.

How can the network architect ensure that the solution meets the customer needs and also follows best practice?

- A. Assign a /23 subnet to each VLAN so that the VLAN can accommodate the required number of users, even if users connect multiple devices
- B. Plan a different VLAN ID and subnet address for each user group on each access layer IRF group. Either core or access layer routing will work for this solution
- C. Use access layer routing. Assign a different subnet to VLAN2 on one access layer IRF group then the VLAN2 on the another access layer group
- D. Plan a solution for designing dissolvable agents to the endpoints so that they can complete 802.1X authentication seamlessly

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 26

An architect is planning an HP Wired-WLAN solution for a customer with Voice over WLAN (VoWLAN) devices, which support 5 GHz and 2.4 GHz, and the laptops. What is a potential advantage of dual-radio 802.1n APs for this environment?

- A. They can load balance a single phone's traffic between the two radios
- B. They can use 802.1n band steering to shift only the laptops to the 2.4 GHz radio
- C. They can support a single VLAN for phones and laptops, but use load balancing to move all phones to one radio
- D. They can support a voice WLAN on one RADIO and an employee WLAN on the other radio

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 27

A network architect has created a quality of service (QoS) for an HP 5900 Series switch that uses four traffic classes. Class of Service (CoS) 5 for voice traffic. CoS 4 for Video traffic. And CoS 0 for everything else. The switch ports implement strict priority (SP) queuing.

What would be an advantage of enabling weighted fair queuing (WFQ) instead of SP?

- A. When congestion occurs, the port will randomly drop traffic in the CoS 3 and CoS 0 queues, preventing TCP synchronization that increase congestion
- B. The architect can ensure that voice traffic is always forwarded before bandwidth intensive video traffic
- C. The architect can guarantee specific bandwidth to each class but prevent video and SAP applications from starving out other applications entirely
- D. When congestion occurs, the port will buffer traffic in lower priority queues rather than drop it immediately as it does with SP queuing

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 28

A customer is deploying a mobility solution. The IT staff is not experienced in troubleshooting issues with interference and radio frequency (RF) design, and the customer is worried that the wireless connections will not be stable or will not perform well.

Which feature of HP unified Wired-WLAN solutions addresses this customer concern?

- A. Hot access controller (AC) backup

- B. Wi-Fi Clear Connect integrated intrusion prevention system (IPS)
- C. Remote-AP capabilities for branch offices
- D. Wi-Fi Clear Connect radio resource management (RPM)

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference: <http://www8.hp.com/h20195/v2/GetPDF.aspx/c04148608.pdf> (page 1, wi-fi clear connect)

### QUESTION 29

A network architect is working with a customer to implement a new network design. The network architect has learned that the company has a legacy application hosted on a number of legacy servers. The legacy application must remain intact and after the new network implementation. As the company plans to continue using it indefinitely. With which stakeholder should the network architect discuss the technical detail of the legacy system and any challenges or specifics about maintaining interoperability?

- A. Chief Executive officer (CEO)
- B. Network Architect or Planning Engineer
- C. Chief Information Officer (CIO) or Voice President (VP)/ Director of IT
- D. Chief Financial Officer (CFO) or Voice President (VP)/ Director of Finance

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 30

A customer is seeking an upgrade for their campus LAN network. Currently, the customer has access layer switches that support 48.10/100/1000 Mbps ports and one Gigabit uplink. The customer wants better performance in the upgrade but also wants to minimize costs.

The network architect has used the Network Traffic Analyzer (NTA) for Intelligent Management Center (IMC) to collect information about the access layer uplinks. These are the results:

- For switches on Floor1, the peak utilization is 650 Mbps on a Gigabit uplink. On most days, the utilization peaks at about 400 Mbps. Peaks usually occur briefly.
- For switches on Floor2, the peak utilization is 800 Mbps on a Gigabit Uplink. During active periods, the utilization often remain near 800.

What is most appropriate plan for oversubscription in the new access layer? (For this question, think only about oversubscription and not customer needs for redundancy)

- A. 48 1 on floor 1 and 24 1 on floor 2
- B. 24.1 on floor 1 and 4.1 on floor 2
- C. 48 1 in all locations
- D. 24 1 in all locations

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 31

A customer requires high availability for wireless services at branches. The customer also wants to centralize management and traffic distribution as much as possible. What should the architect suggest?

- A. Controlling branch APs with one or more HP 7500/10500 20G Wired-WLAN at the main office and enabling remote-AP features
- B. Controlling branch APs with a cluster of HP 830 Unified Wired-WLAN switches, one of which is deployed at the main office and one of which is deployed at the branch
- C. Deploying the APs without a controller but managing them with HP Intelligent Management Center (IMC) Wireless Services Manager (WSM)
- D. Controlling Branch APs with two HP 830 Unified Wired-WLAN switches, which are deployed at the main office

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 32

An employer takes the company laptops offsite and connects it to an insecure network. A hacker is able to deploy a malware application to the laptop. The employer takes the laptop back to the office, where the malware uses the credentials of the employee to eavesdrop and to implement denial of service (DoS) attacks.

Which security solution would help prevent this type of attack?

- A. MAC lockdown
- B. A dynamic VPN (DVPN)
- C. Port-based security with 802.1X

D. Endpoint integrity

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference: [http://www.hp.com/rnd/pdfs/IDM\\_plus\\_EI\\_Technical\\_Overview.pdf](http://www.hp.com/rnd/pdfs/IDM_plus_EI_Technical_Overview.pdf) (page 2, endpoint integrity defined)

### QUESTION 33

A network architect is designing a redundancy solution for a customer and has learned that there is a single link between two critical network components. During the past 4000 hours of operation, the link has failed twice. The customer estimates that each failure has taken two hours to resolve.

Given this information, what is the availability that this link currently provides?

- A. Less than 99.99%
- B. 99.9%
- C. 99.99%
- D. 99.999%

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 34

An architect is planning an HP Wired-WLAN solution for an office with approximately 4000 users who will use the wireless network rather heavily and also need to roam seamlessly. The solution will have 256 MSM 460 access points (APs). What is one reason for using two Hp Wired-WLAN controllers for this solution?

- A. Each Wired-WLAN controller can only support 128 APs
- B. The customer needs fast roaming, which requires a mobility solution between two controllers
- C. Each Wired-WLAN controller can only support 2000 users
- D. The controller can be licensed and configured to provide redundancy for each other

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 35**

When would a network architect recommend an HP HSR6800 Router for a campus LAN? (Select two)

- A. The HP HSR6800 Router provides routing features at a more attractive price point than a routing switch
- B. The company wants to implement a Dynamic Virtual Private Network (DVPN)
- C. The HP HSR6800 Router Supports Border Gateway Protocol (BGP), which is unavailable on routing switches
- D. The company needs a routing device that supports extremely large tables
- E. The company requires a large number of 10G connections

**Correct Answer:** BD

**Section:** (none)

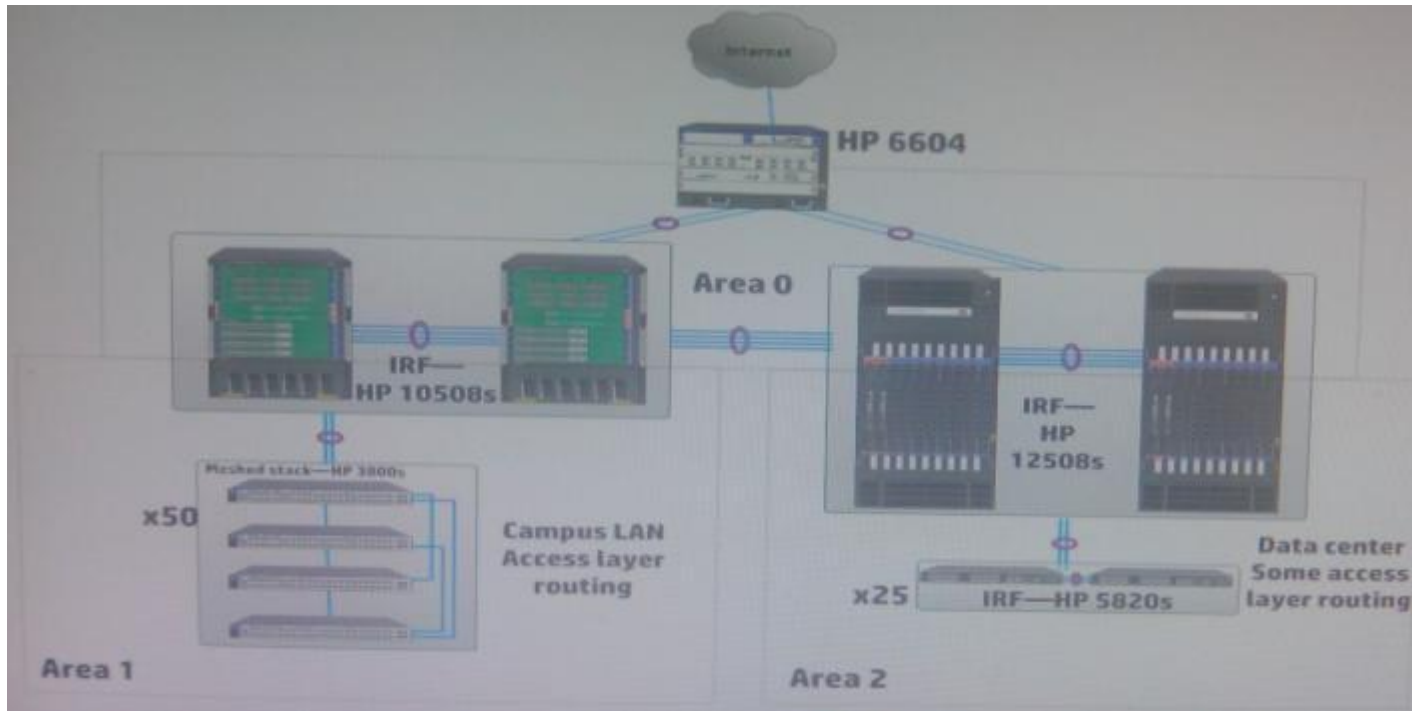
**Explanation**

**Explanation/Reference:**

**QUESTION 36**

Refer to the exhibit.





A network architect is proposing an HP 6600 series router at the core of this enterprise customer network. The router runs Border Gateway Protocol (BGP) and announces the customer networks to the internet service provider (ISP). The router also runs Open Shortest Path First (OSPF) to communicate with the rest of the customer network.

What is an appropriate method for the HP 6604 router to advertise routes to the internet to the other routing switches?

- A. The router should redistribute BGP routes OSPF. Areas 1 and 2 should be configured as stub areas to filter out the external routes
- B. The router should advertise BGP routes into OSPF but filter out all routes except the private network that belongs to the customer
- C. The router should redistribute BGP routes into OSPF. The Area Border Routes (ABRs) should summarize those routes for advertisement in areas 1 and 2
- D. The router should advertise a default route as an Autonomous System Router (ASBR) summary to the other routing devices in area 0

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 37**

A network architect is choosing fabric module for an HP 10500 Series Switch. Which factors affect the choice?

- A. The environment in which the switch will be installed and the direction of the airflow
- B. The number of IPv4 and IPv6 routes that the switch must support in its routing table
- C. The type of I/O modules and whether full bandwidth must be supported on all ports at the same time
- D. The type of management modules and whether these modules operate in hot-standby mode

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 38**

A customer has a virtualized data center that uses Microsoft Hyper-V Windows Server 2012. The customer has provided this information about the hosts for the VMs:

- Each host has a network (Hyper-V virtual switch) that supports VM production traffic and own two server 10G NICs
- Each host has a network (Hyper-V virtual switch) that supports management traffic to the parent partition and owns two server Gigabit NICs

In each rack, the network architect plans to deploy two HP 5920 Series switches, acting as an Intelligent Resilient Framework (IRF) switch.

Which additional information does the architect need in order to plan the connection to each host?

- A. Whether the virtual switches use Virtual Ethernet Port Aggregate (VEPA) VLAN tagging
- B. Whether the virtual switches use sFlow or NetStream to load balance traffic over the server NICs
- C. Whether the virtual switches support standard Spanning Tree Protocol (STP) or Cisco Per- VLAN Spanning Tree Protocol Plus (PVST+)
- D. Whether the virtual switches use generic or dynamic NIC teaming (Link Aggregation Control Protocol[LACP]) and their hashing method

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 39**

Refer to the exhibits.

Exhibit 1

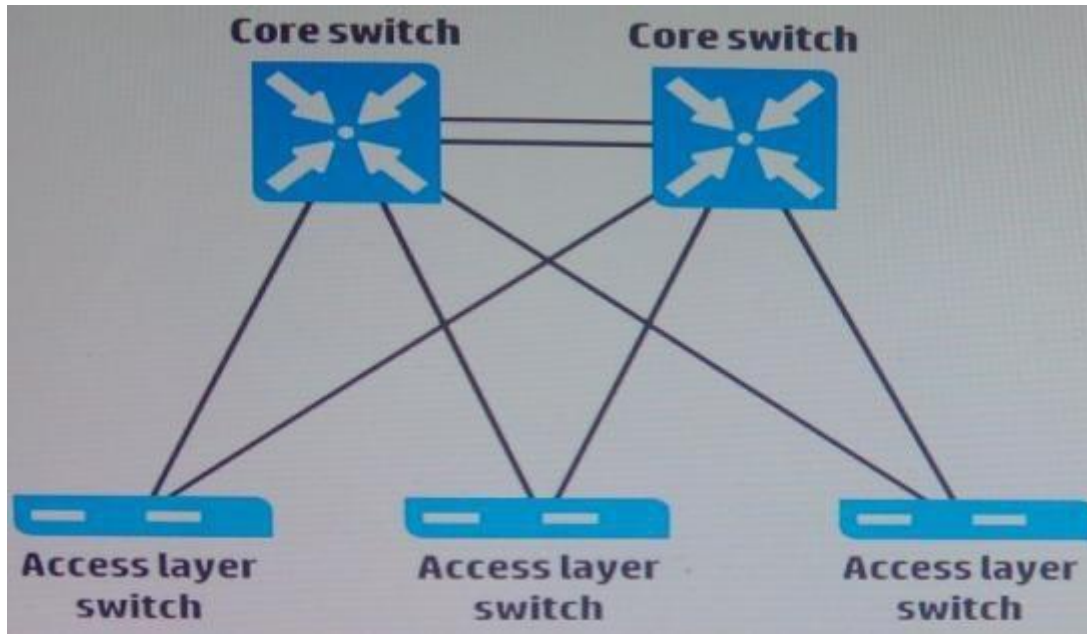
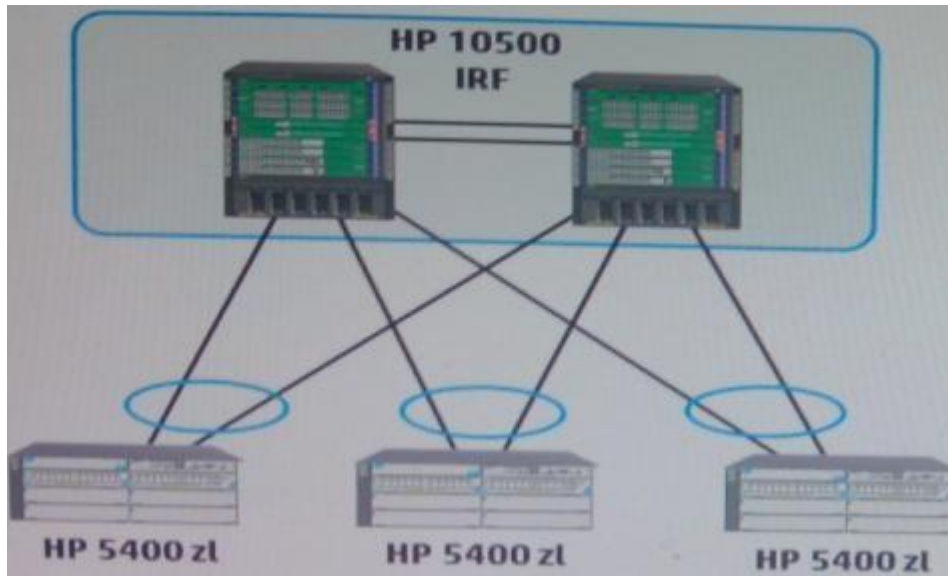


Exhibit 2



A customer has a existing solution, which is shown in Exhibit 1. (The solution actually includes more access layer switches than shown) in the existing solution, each access layer switch routes traffic.

A network architect is proposing the HP FlexCampus solution shown in exhibit 2 in this proposed solution, the core intelligent Resilient Framework (IRF) virtual switch routes traffic, but the access layer switches do not.

The customer likes that in the existing solution STP does not block either access layer uplink. The customer also likes that the existing solution does not require Virtual Router Redundancy Protocol (VRRP).

What should the architect tell the customer about the benefits of the proposed solution?

- A. Although the IRF core must implement VRRP, STP does not block either access layer uplink, letting failover occur more quickly
- B. STP does not block either access layer uplink, and routing redundancy is provided without VRRP
- C. Although the IRF core must implement VRRP, VRRP is easier to set up than a dynamic routing protocol on all the switches
- D. STP will block one uplink on each access layer switch, but IRF enables failover to occur much more quickly

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 40**

A service must be available 24x7. It also requires 99.999% availability. How much total downtime can the service tolerate in one year?

- A. About 5 seconds
- B. About 5 minutes
- C. About 50 minutes
- D. About 5 hours

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 41**

A company recently experienced a data breach when an unauthorized user accessed the network. Which questions should the network architect ask to identify an effective access solution to prevent unauthorized access in the future? (Select two)

- A. Do users have legacy device that do not support 802.1X?
- B. Does the company have the resources required to train users on remediation services?
- C. Does the company's firewall support access control lists (ACL)?
- D. Does the company have an existing RADIUS server?
- E. Do users devices support Secure Shell (SSH)?

**Correct Answer:** AD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 42**

A customer plans to connect 40 Voice over IP (VoIP) phones and 8 security cameras to a switch:

- The VoIP phones are Class 2 PoE devices and require a maximum of 45W (draw a maximum of 5w)
- The security cameras are Class 4 PoE+ devices and require a maximum of 17W (draw a maximum of 20 W)
- The network architect is proposing an HP 5500-48G-PoE switch, which supports PoE and PoE+ and has a PoE power budget of 370W
- The customer and architect agree on the class form of power allocation

What else does the solution require?

- A. A management module that is PoE+ capable
- B. A redundant power supply for the switch that enhances the PoE/PoE+ budget
- C. A power converter that enables the switch to provide PoE and PoE+ power at the same time
- D. A 208-220V input power service

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 43**

A network architect is planning the top of the Rack (ToR) switches for a data center solution. The customer has a hot aisle/cool aisle configuration.

Which characteristic of the switch relates to this plan?

- A. The great dissipation (as measured in Watts)
- B. The voltage as related to maximum power consumption
- C. The number of power supplies by the switch, including redundant ones
- D. The location of the air intake and output and whether the airflow is reversible

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 44**

Which two requirements of a modern data center make Spanning Tree Protocol (STP) and other traditional loop elimination protocols for that environment?

- A. Requirement to implement routing clustering virtual machines
- B. Need to consolidate traffic on a single path thorough the network
- C. Greater reliance on direct attached storage
- D. Need for faster convergence times
- E. Need to support delay-sensitive applications

**Correct Answer:** BE

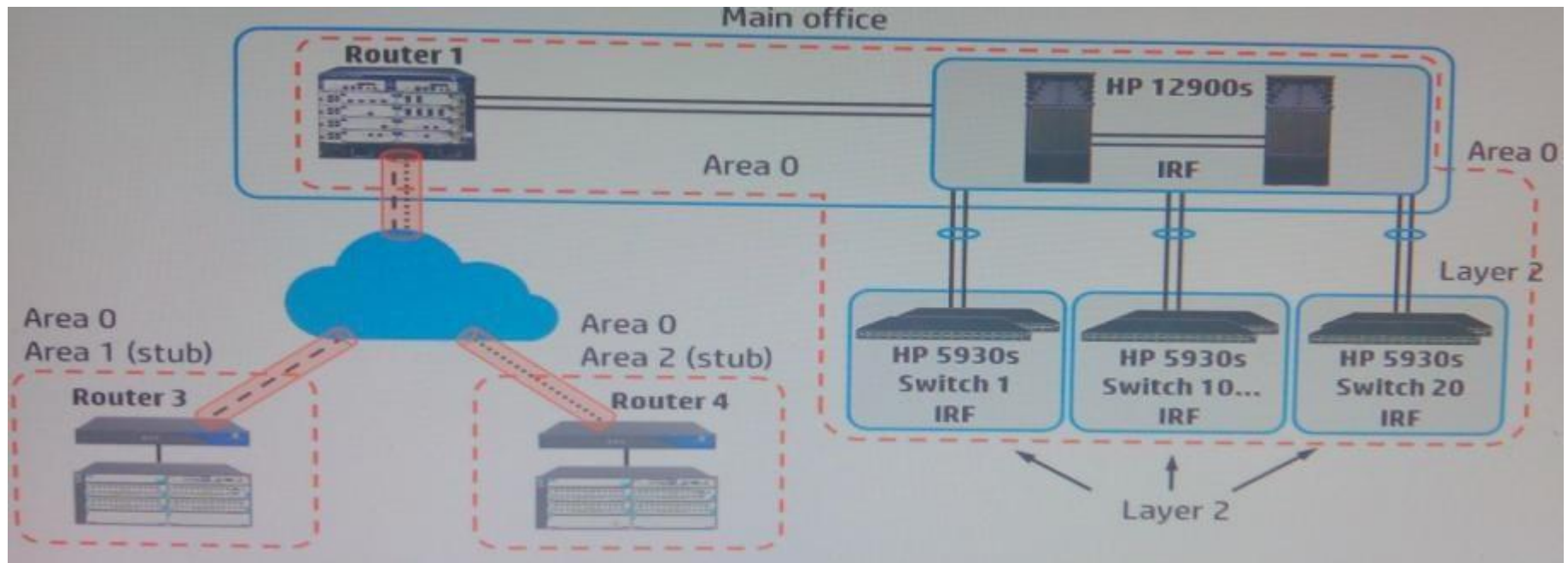
**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 45

Refer to the exhibit.



The exhibit is a plan for Open Shortest Path First (OSPF) areas. What should the network architect do to improve the OSPF network design?

- A. Add a redundant link in area 0 between each branch router and the data center core Intelligent Resilient Framework (IRF)
- B. Change area 1 and area 2 to not so stubby areas (NSSAs) or normal areas
- C. Move the boundary between area 1 and area 0 to Router 1 make the same change to area 2
- D. Implement routing on the 5930 switches. Make Switch 10 an area border router (ABR) between area 0 and a new area

**Correct Answer:** A

**Section:** (none)



## Explanation

## Explanation/Reference:

### QUESTION 46

Which description best characterizes current trends in deploying services for an enterprise solution?

- A. Companies are transforming their campus LAN and data centers into one large Layer 2 network.
- B. Companies are connecting multiple sites together but distributing services to each site to increase resiliency and responsiveness
- C. Companies are moving services out of the private cloud into more responsive pods that are distributed throughout the campus LAN
- D. Companies are centralizing servers in a consolidated data center or even a highly scalable private cloud

**Correct Answer:** D

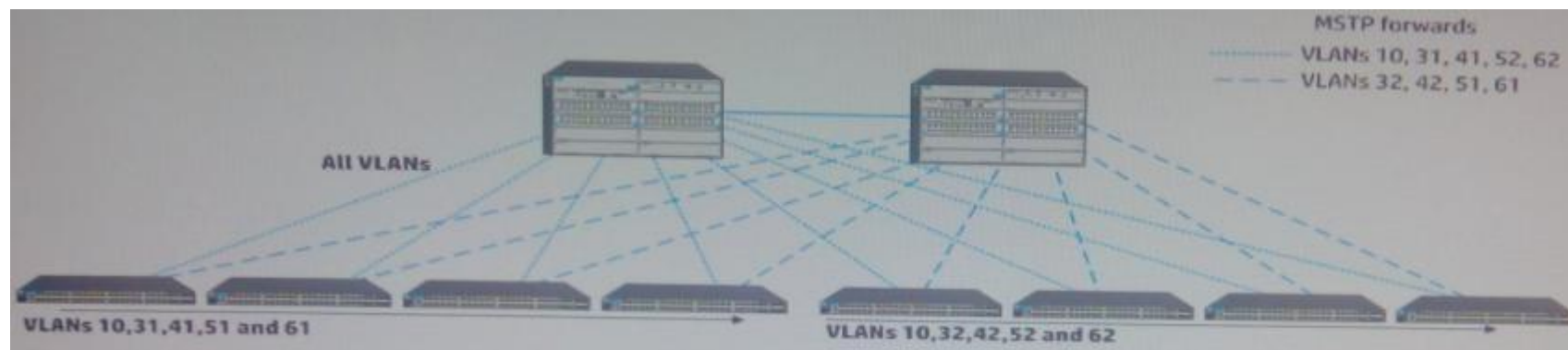
**Section:** (none)

## Explanation

## Explanation/Reference:

### QUESTION 47

Refer to the exhibit.



The exhibit shows a network with HP 3500 yl Series switches at the access layer and HP 8206 zl switches at the core. The customer with this solution has logged several support calls, which were eventually tracked down to spanning tree issues. How can a network architect adjust the solution to prevent the issue in the future?

- A. Implement BPDU filters on the switch-to-switch links and loop protection edge ports



- B. Connect three or four 3500 y1 switches together in a group. Establish a distributed trunk between two switches in each group and the core switches
- C. Implement BPDU guard and broadcast suppression on all the switch-to-switch links
- D. Configure distributed Trunking on the two 8200 zl switches at the core. Create a distributed trunk between the core switches and each 3500 yl switch

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 48**

A network architect is planning a guest solution for a group of ports in a conference room. Guests should have access to the Internet only. The company wants a simple solution and prefers not to burden visitors with login requests.

Which solution would best meet the company's requirements for a guest network?

- A. Place the ports in a black-hole VLAN that is not carried on Switch-to-Switch links. Apply a dynamic VLAN for guests who pass web authentication to a server that allows MAC registration
- B. Place the guest ports that is allowed access only to the internet. Optionally configure port isolation.
- C. Apply MAC lockdown to the guest ports. Configure switches to place unknown MAC addresses in a VLAN with access only to the internet
- D. Apply web authentication to the guest ports. Use the built-in guest accounts for HP switches to authenticate the users

**Correct Answer:** A

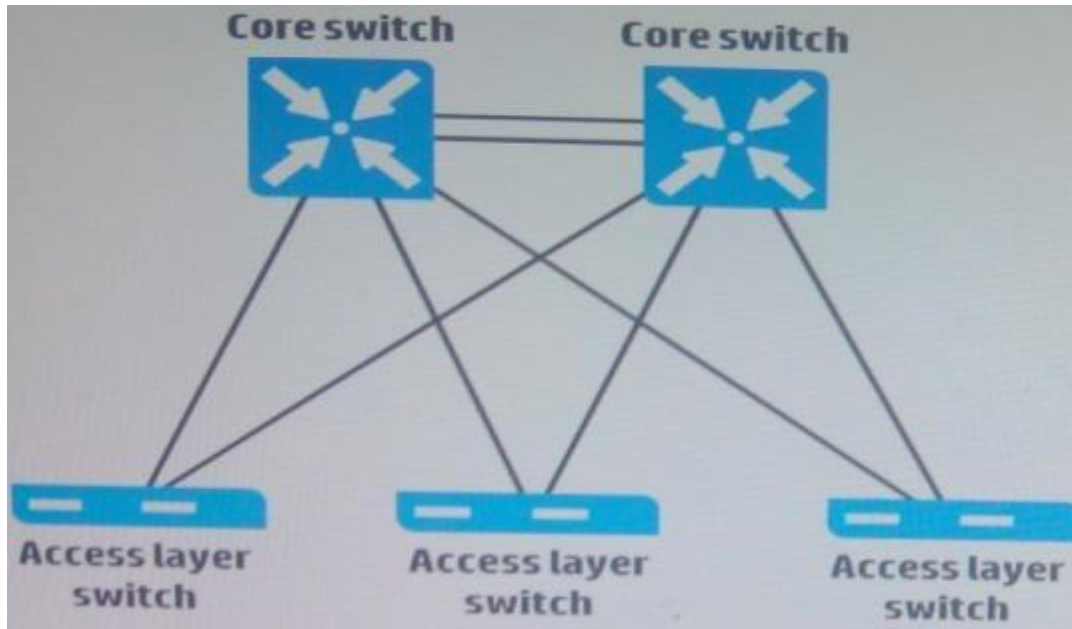
**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 49**

Refer to the exhibit.



A customer has the solution in the exhibit, which includes more access layer switches than are shown. Members of the customer network team mention they are considering access layer routing for a new solution to eliminate Spanning Tree Protocol (STP) and Virtual Router Redundancy protocol (VRRP). However they are concerned about meaning the routing solution. The network architect proposes a solution that eliminates STP and VRRP without requiring routing at the access layer, although the solution can use access layer routing.

Which solution fits that description?

- A. Two HP 10500 Series, using intelligent Resilient Framework (IRF) at the core, HP S400 zl Series switches at the access layer
- B. Two HP 10500 Series switches, using Hot Standby Router Protocol (HSRP), at the core. HP 2600 Series switch at the access layer
- C. Two HP 8200 zl Series switches, using distributed Trunking, at the core. HP 5400 zl Series switches at the access layer
- D. Two HP zl Series switches, using backplane stacking, at the core. HP 5400 zl Series switches, using the backbone stacking at the access layer

**Correct Answer: C**

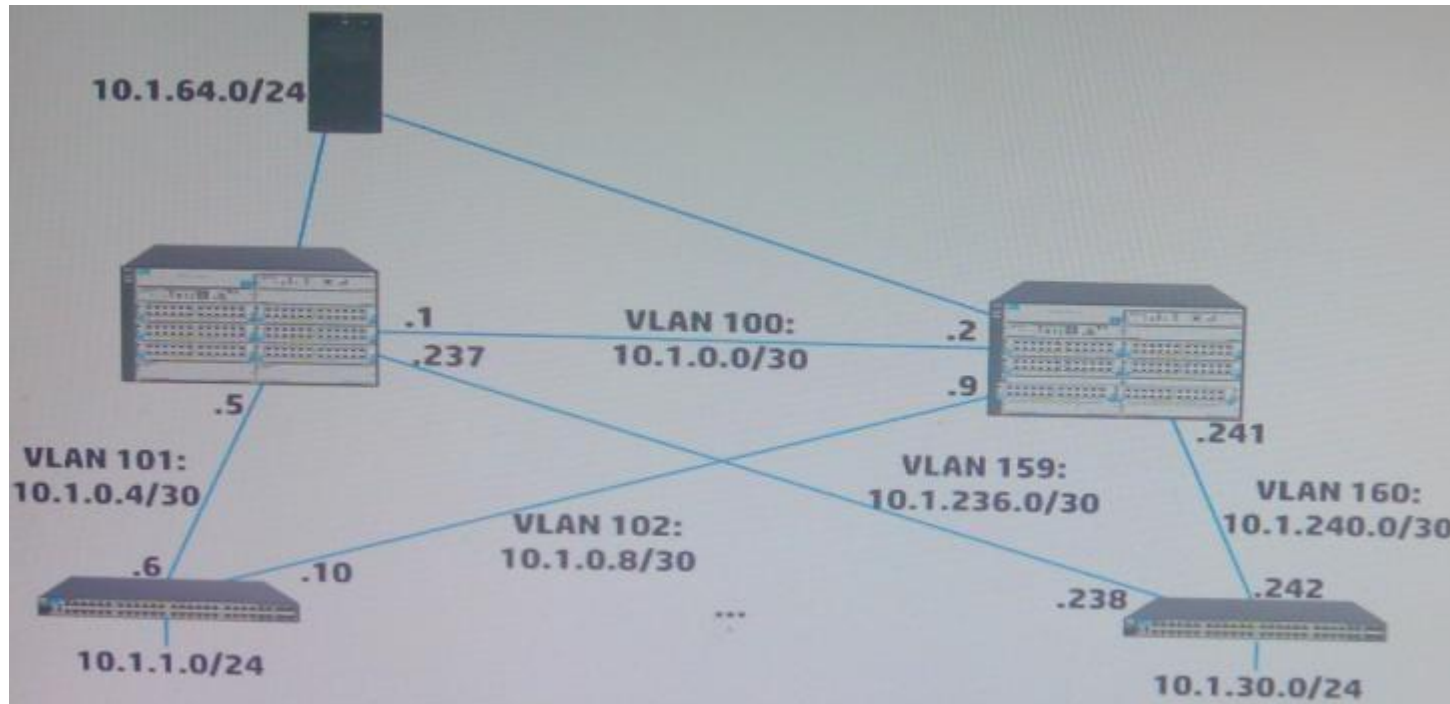
**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 50**

Refer to the exhibit.



The exhibit shows the topology for a network with 30 access layer switches (only two are shown). Every switch-to-switch link is a Gigabit link. Every virtual local area network (VLAN) interface runs Open Shortest Path First (OSPF) and has the IP address shown in the exhibit. The interface settings are at the defaults.

The access layer switches support more VLANs not shown in the exhibit and also run Multiple Spanning Tree Protocol (MSTP) as a protection against loops.

What is one recommendation for enhancing convergence time and resiliency for this solution?

- A. Add a BPDU filter to the VLAN interfaces shown in the exhibit
- B. Lower the cost of the VLAN interfaces to reflect the high speed of the links
- C. Place all the switch-to-switch links in the same VLAN
- D. Raise the OSPF timers on the VLAN interfaces

**Correct Answer: D**

**Section: (none)**

## Explanation

### Explanation/Reference:

#### QUESTION 51

A network architect is designing a solution with HP products. A customer has the following requirements for controlling the management access for administrators:

- Administrators are assigned privileges when they log in based on their identity
- Security policies related to password complexity and password rotation, like the company's Windows domain policies, are enforced for administrator credentials
- The company can easily revoke the access of administrator how have the company method
- Administrator have a backdoor into the management interface in case network connectivity fails in any way

Which option meets the company's requirements?

- A. Authentication to a RADIUS server with local authentication as a secondary method
- B. Authentication with a password that meets the complexity requirements and is stored locally on each device
- C. Authentication to local user accounts with TACACS+ authenticates as a secondary method
- D. Authentication to a TACACS+ server

**Correct Answer:** A

**Section:** (none)

**Explanation**

### Explanation/Reference:

#### QUESTION 52

A network architect has planned several validation tests and user acceptance tests (UATs) for a new HP solution. In order to ensure meaningful results, what is one step that the network should complete before implementing the new solution?

- A. Talk with key authentication to determine valid maintenance windows for the UATs
- B. Plan how long it will take to rollback the new solution of the tests indicate poor results
- C. Schedule a point of no return, after which results will not be accepted
- D. Run the same tests on the existing network solution

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 53**

A network architect is choosing core switches for an enterprise data center. One potential model has a CLOS hardware architecture, and the other model has a cross-bar architecture. Which customer requirement would cause the network architect to select switches with CLOS architecture?

- A. The customer has a multi-tenant data center, which needs to use Virtual Routing and Forwarding (VRF) to segment the network
- B. The customer needs a highly-available core, which is best delivered with Intelligent Resilient Framework (IRF)
- C. The customer has relatively small data center and does not have the budget to invest in high performance
- D. The customer is planning to scale bandwidth up to 40G/100G in the next several years

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 54**

A customer has a virtualized data center with hosts that are managed by VMware vCenter. The network architect has proposed the HP Virtual Application Networks (VAN) Connection Manager (CM) and Resource Automation Manager (RAM) modules for HP Intelligent Management Center (IMC). The architect also proposed the HP 5900v switches and the proper server access layer products.

Which technology must the access layer switches that connect to the virtualized servers support?

- A. Transparent Interconnection of Lots of Links (TRILL)
- B. Intelligent Resilient Framework (IRF)
- C. Ethernet Virtual Bridging (EVB)/Virtual Ethernet Port Aggregator (VEPA)
- D. Fiber Channel over Ethernet (FCoE)

**Correct Answer: C**

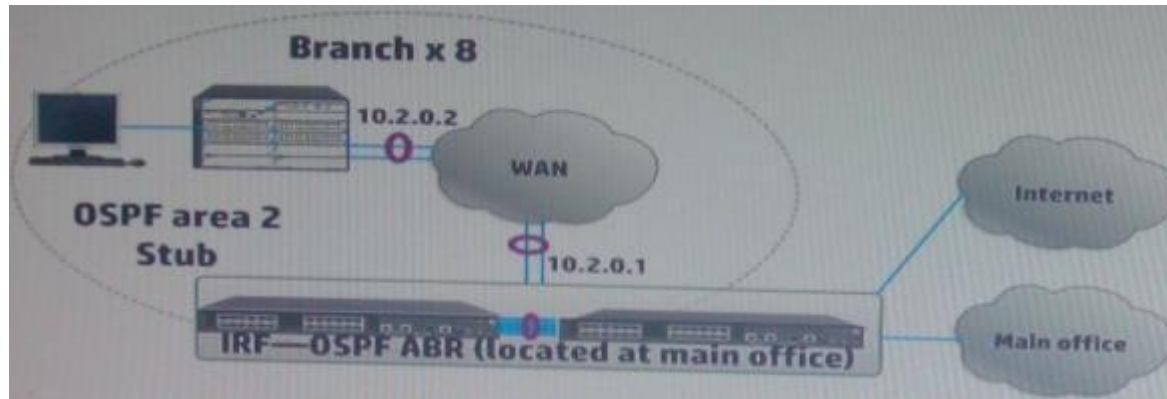
**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 55**

Refer to the exhibit.



The customer requirements include resilience for branch communications. If anyone link fails, a branch can still reach the main office servers. In addition either one of the 5920 switches at the core of the WAN should be able to fail with branches still maintaining their connections.

What should the network architect include in the design to meet this requirement?

- A. A connection directly to an ISP to each branch router, which also requires the OSPF area to become a not so stubby area (NSSA)
- B. Virtual Router Redundancy Protocol (VRRP) enabled and configured in the switches in the 5920 IRF group
- C. Graceful restart on the 5920 IRF group in standard IETF mode
- D. A floating static route on the branch switches to the 5920 IRF group in case the OSPF solution fails

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 56

A network architect has designed a two-tier topology for the campus LAN and is planning to implement routing at the core. Which requirement might cause the network architect to consider implementing routing at the access layer?

- A. Employees in different VLANs need to use collaboration applications to share high-resolution graphic files
- B. The solution must support an isolated VLAN for wired guest devices
- C. Employees need to be placed in dynamic VLANs, assigned by a RADIUS server in identity, so that network managers can manage the solution more easily
- D. The customer has an HP Unified Wired-WLAN solution, and wireless users need to roam seamlessly across the site

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 57

A data center has a traditional three-tier network design with routing at the distribution layer. The customer is virtualizing its servers and adding technologies such as live migration of virtual machines (VMs).

How well does the architecture (topology) meet the needs of the customer's changing environment?

- A. This topology is not ideal in supporting the low-latency Layer 2 communications that this environment requires
- B. This topology is ideal because it enforces consolidation of virtualized server domains
- C. This topology is not ideal because it enforces consolidation of virtualized server domains
- D. This topology is not ideal for supporting the Secure Virtualization Framework (SVF) required to protect the virtual servers

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 58

An architect needs to plan a solution that meets customer authentication requirements. Match each authentication method to the appropriate description.

**Allows companies to authenticate legacy devices that do not support a supplicant**

**Require users to authenticate to the network by using a browser**

**Requires users to authenticate to the network by using a supplicant**

**Hot Area:**

Allows companies to authenticate legacy devices that do not support a supplicant

	▼
MAC Auth	
802.1X	
Web-Auth	

Require users to authenticate to the network by using a browser

	▼
MAC Auth	
802.1X	
Web-Auth	

Requires users to authenticate to the network by using a supplicant

	▼
MAC Auth	
802.1X	
Web-Auth	

Correct Answer:



Allows companies to authenticate legacy devices that do not support a supplicant

MAC Auth
802.1X
Web-Auth

Require users to authenticate to the network by using a browser

MAC Auth
802.1X
Web-Auth

Requires users to authenticate to the network by using a supplicant

MAC Auth
802.1X
Web-Auth

Section: (none)

Explanation

Explanation/Reference:

#### QUESTION 59

A network is choosing transceivers for switch-to-switch fiber links. Which factor affects the architect's choice?

The need for redundancy

The type of fiber between switches

The number of available strands

The desired speed for the link

Hot Area:

The need for redundancy

	▼
affects	
does not affect	

The type of fiber between switches

	▼
affects	
does not affect	

The number of available strands

	▼
affects	
does not affect	

The desired speed for the link

	▼
affects	
does not affect	

Correct Answer:

The need for redundancy

	▼
affects	
does not affect	

The type of fiber between switches

	▼
affects	
does not affect	

The number of available strands

	▼
affects	
does not affect	

The desired speed for the link

	▼
affects	
does not affect	

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 60**

Match the customer need with the HP FlexFabric technology that meets the need.

sight into VM-to-VM traffic and control over VM connectivity  In

ayer 2 connectivity between a data center and a disaster recovery data center  Le  
re

omplete isolation between department or tenants  C

Hot Area:

Insight into VM-to-VM traffic and control over VM connectivity

HP Ethernet Virtual Interconnect (EVI)

HP Multi-Device Context (MDC)

Edge Virtual Bridging (EVB)/Virtual Ethernet Port Aggregation (VEPA)

Layer 2 connectivity between a data center and a disaster recovery data center

HP Ethernet Virtual Interconnect (EVI)

HP Multi-Device Context (MDC)

Edge Virtual Bridging (EVB)/Virtual Ethernet Port Aggregation (VEPA)

Complete isolation between department or tenants

HP Ethernet Virtual Interconnect (EVI)

HP Multi-Device Context (MDC)

Edge Virtual Bridging (EVB)/Virtual Ethernet Port Aggregation (VEPA)

Correct Answer:

Insight into VM-to-VM traffic and control over VM connectivity

HP Ethernet Virtual Interconnect (EVI)

HP Multi-Device Context (MDC)

Edge Virtual Bridging (EVB)/Virtual Ethernet Port Aggregation (VEPA)

Layer 2 connectivity between a data center and a disaster recovery data center

HP Ethernet Virtual Interconnect (EVI)

HP Multi-Device Context (MDC)

Edge Virtual Bridging (EVB)/Virtual Ethernet Port Aggregation (VEPA)

Complete isolation between department or tenants

HP Ethernet Virtual Interconnect (EVI)

HP Multi-Device Context (MDC)

Edge Virtual Bridging (EVB)/Virtual Ethernet Port Aggregation (VEPA)

Section: (none)

Explanation

Explanation/Reference:

QUESTION 61

An implementation plan should include an agreed-on time for the final rollback decision. When should this decision be scheduled?

- A. After the cutover to the new solution and the first set of validation tests and just before the user acceptance tests (UATs)
- B. after the first steps of the rollback plan have been implemented, about ten minutes before the end of the maintenance window
- C. just before the point of no return, which is calculated by subtracting the rollback time from the end of the maintenance window
- D. ten minutes before the end of the maintenance window or one hour into the implementation, whichever occur first

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 62**

A customer has an existing solution, which is shown in Exhibit 1. (The solution actually includes more access layer switches than shown). In the existing solution, each access layer switch routes traffic.

A network architect is proposing the HP FlexCampus solution shown in Exhibit 2. In this proposed solution, the core Intelligent Resilient Framework (IRF) virtual switch routes traffic but the access layer switches do not.

The customer likes that in the existing solution if an access layer uplink fail, failover occurs in less than a second. The customer also likes that the existing solution does not require Virtual Redundancy Protocol (VRRP).

What should the architect tell the customer about the benefits of the proposed solution?

**Case Study Title (Case Study):**

Exhibit 1

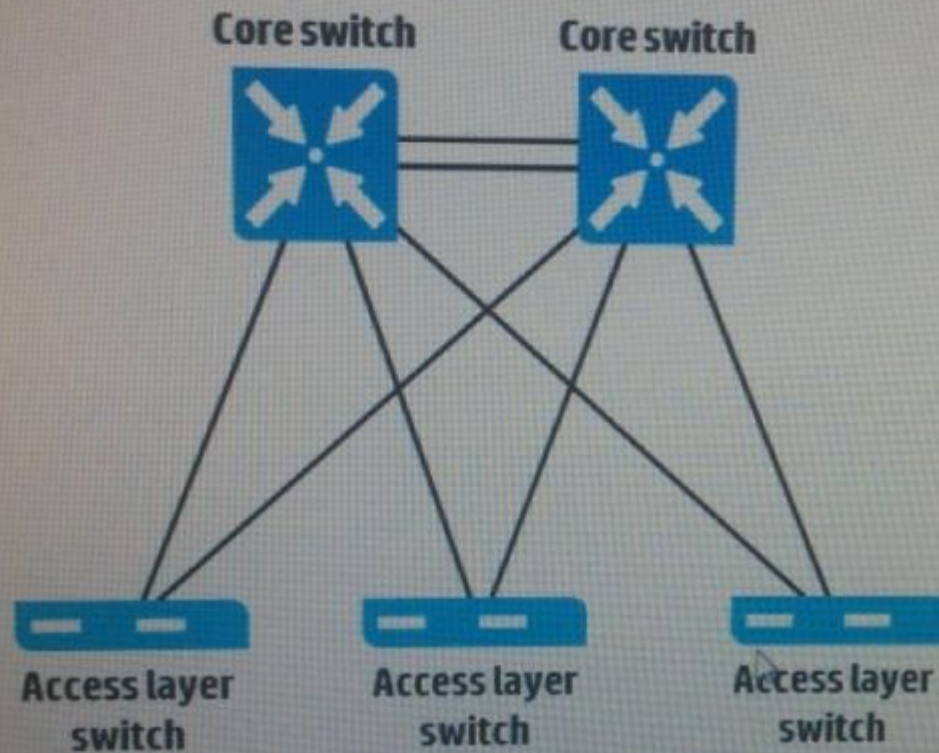
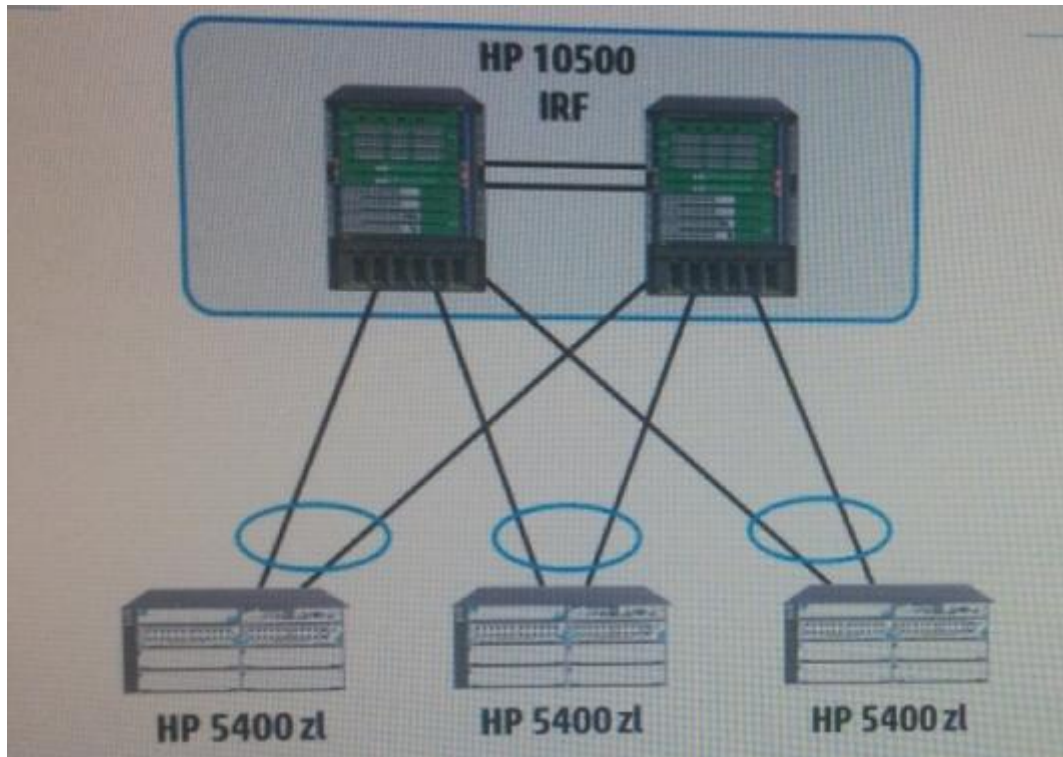


Exhibit 2





- A. IRF handles loop elimination and link failover, which lets VRRP handle router redundancy more efficiently.
- B. STP eliminates the loops on the access layer uplink and handles failover for them, which speeds convergence.
- C. Although the solution offers slower failover for the access layer uplink, it is simpler and eliminates VRRP.
- D. Failover for an access layer uplink occurs in milliseconds, and router redundancy does not require VRRP.

**Correct Answer:** D

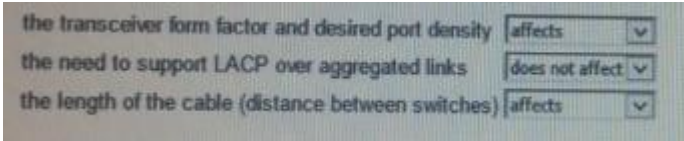
**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 63**

A network architect is choosing transceivers for switch-to-switch fiber links. Which factors affect the architect's choice?

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

**Correct Answer:**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

## Exam B

### QUESTION 1

A company recently experienced a data breach when an unauthorized user accessed the network. Which questions should the architect ask to identify an effective access control solution to prevent unauthorized access in the future? (select two.)

- A. Do users have legacy device that do not support 802.1X?
- B. Does the company's firewall support access control lists (ACLs)?
- C. Does the company have an existing RADIUS server?
- D. Does the company have the resources required to train users on remediation services?
- E. Do users' devices support Secure Shell (SSH)?

**Correct Answer:** AC

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 2

A network architect has planned several validation tests and user acceptance tests (UATs) for a new HP solution. In order to ensure meaningful results, what is one step that the network architect should complete before implementing the new solution?

- A. Run the same tests on the existing network solution.
- B. Plan how long it will take to rollback the new solution if the tests indicate poor results.
- C. Schedule a point of no return, after which results will not be accepted.
- D. Talk with key stakeholders to determine valid maintenance windows for the UATs.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 3

A customer has a virtualized data center. The virtual hosts use virtual distributed switches with multiple redundant uplinks, and these uplinks use Link Aggregation Control Protocol (LACP). Which technology, available in HP switches, enhances high availability in this environment?

- A. Fibre Channel over Ethernet (FCoE) allows the virtual host to send storage traffic over the server Ethernet uplinks if the FC connection fails.

- B. Intelligent Resilient Framework (IRF) allows redundant server links to connect to different physical switches.
- C. Virtual Ethernet Port Aggregator (VEPA) combines redundant server links into a single high-bandwidth trunk.
- D. NetStream and sFlow technologies provide the built-in capability to optimize bandwidth flows dynamically.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 4**

A customer plans to connect 40 Voice over IP (VoIP) phones and 8 security cameras to a switch.

- The VoIP phones are Class 2 devices and require a maximum of 4.5W (draw 5W).
- The security cameras are Class 4 devices and require a maximum of 17W (draw 20W).
- The network architect is proposing a switch that supports PoE and PoE+ and has a PoE power budget of 370W.

The architect proposes the usage form of power allocation. What are the advantages and disadvantages of this proposal?

- A. It allows the switch to run at a lower temperature, saving power and cooling costs, but it decreases the performance for the phones and cameras.
- B. It allows the switch to connect to the PoE and PoE+ devices on cheaper copper cable, but it limits the distance between the devices and the switch.
- C. It allows the switch to support PoE and PoE+ devices at the same time, but the customer must purchase a redundant power supply.
- D. It allows the switch to support the PoE requirements without a redundant power supply, but power might be oversubscribed if conditions change.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 5**

A hospital CIO tells the network architect that the current network solution is not performing well. The hospital has access layer switches that support 48 10/100/1000 Mbps ports and one Gigabit uplink. The hospital is seeking an upgrade to provide better performance and redundancy. The CIO cannot provide the network architect more detailed information about traffic patterns and utilization but does not want the network architect to install Intelligent Management Center (IMC) and analyze traffic.

The CIO does indicate that these applications are important:

- Voice over IP (VoIP)
- scheduling and billing applications

- patient data logging
- medical imaging

The network architect needs to plan an appropriate oversubscription ratio for access layer uplinks.

That is one piece of information that the architect should collect for this task?

- A. whether the billing applications and patient data require encryption
- B. how much bandwidth the medical imaging applications require
- C. which 802.1p value the VoIP applications use to mark their traffic
- D. whether the VoIP traffic must be forwarded at Layer 2 or whether it can be routed

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 6

A customer wants a simple solution for deploying virtual services at a branch. Which devices support modules running a VMware ESXi hypervisor? (Select two).

- A. HP 7500 Switch Series
- B. HP MSR30 Router Series
- C. HP 2920 Switch Series
- D. HP 5400 zl Switch Series
- E. HP VSR1000 Virtual Services Routers

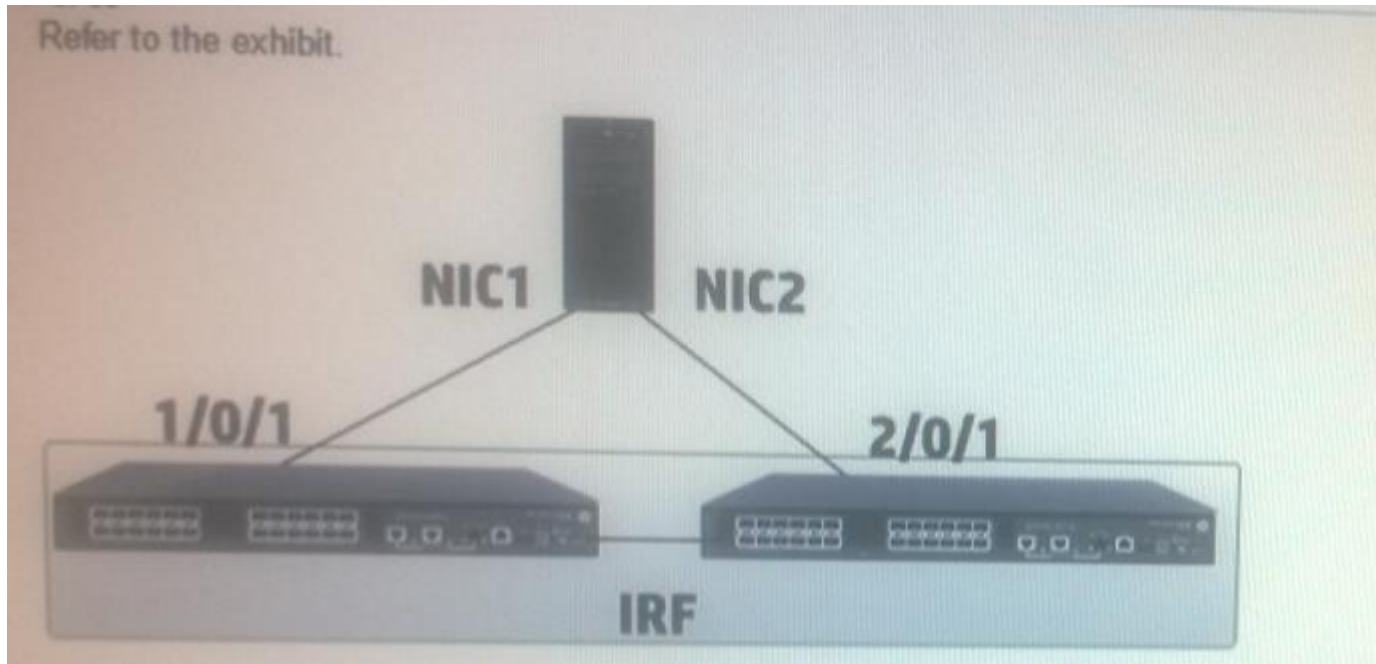
**Correct Answer:** BD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 7



The exhibit shows how two NICs on a physical server connect to two HP 5820 switches. The server support eight virtual machines (VMs) with VMware version 5.1. The VMware standard virtual switch is bound to NIC1 and NIC2. This switch implements source MAC load balancing for the NIC team.

What is the proper configuration for ports 1/0/1 and 2/0/1?

- A. Do not place the ports in a bridge aggregation group.
- B. Place the ports in a bridge aggregation group that uses LACP.
- C. Enable LACP on individual ports.
- D. Place the ports in a bridge aggregation group that do not uses LACP.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 8

A customer plans to connect 40 Voice over IP (VoIP) phones and 8 security cameras to a switch.

- The VoIP phones are Class 2 PoE devices and require a maximum of 4.5W (draw a maximum of 5W).
- The security cameras are Class 4 PoE+ devices and require a maximum of 17W (draw a maximum of 20W).
- The network architect is proposing an HP 5500-48G-PoE+ switch, which supports PoE and PoE+ and has a PoE power budget of 370W.
- The customer and architect agree on the class form of power allocation.

What else does the solution require?

- A. a redundant power supply for the switch that enhances the PoE/PoE+ budget
- B. a management module that is PoE+ capable
- C. a power converter that enables the switch to provide PoE and PoE+ power at the same time
- D. a 208-220V input power source

**Correct Answer: D**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### **QUESTION 9**

A network architect has created a Quality of Service (QoS) plan for an HP 5900 Series switch that uses four traffic classes, Class of Service (CoS) 5 for voice traffic, CoS 4 for video traffic, CoS 3 for SAP traffic, and CoS 0 for everything else. The switch ports implement strict priority (SP) queuing.

What could be an advantage of enabling weighted fair queuing (WFQ) instead of SP?

- A. The architect can ensure that voice traffic is always forwarded before bandwidth-intensive video traffic.
- B. When congestion occurs, the port will randomly drop traffic in the CoS 3 and CoS 0 queues, preventing TCP synchronization that increases congestion.
- C. The architect can guarantee specific bandwidth to each class but prevent video and SAP applications from starving out other applications entirely
- D. When congestion occurs, the port will buffer traffic in lower priority queues rather than drop it immediately as it does with SP queuing.

**Correct Answer: C**

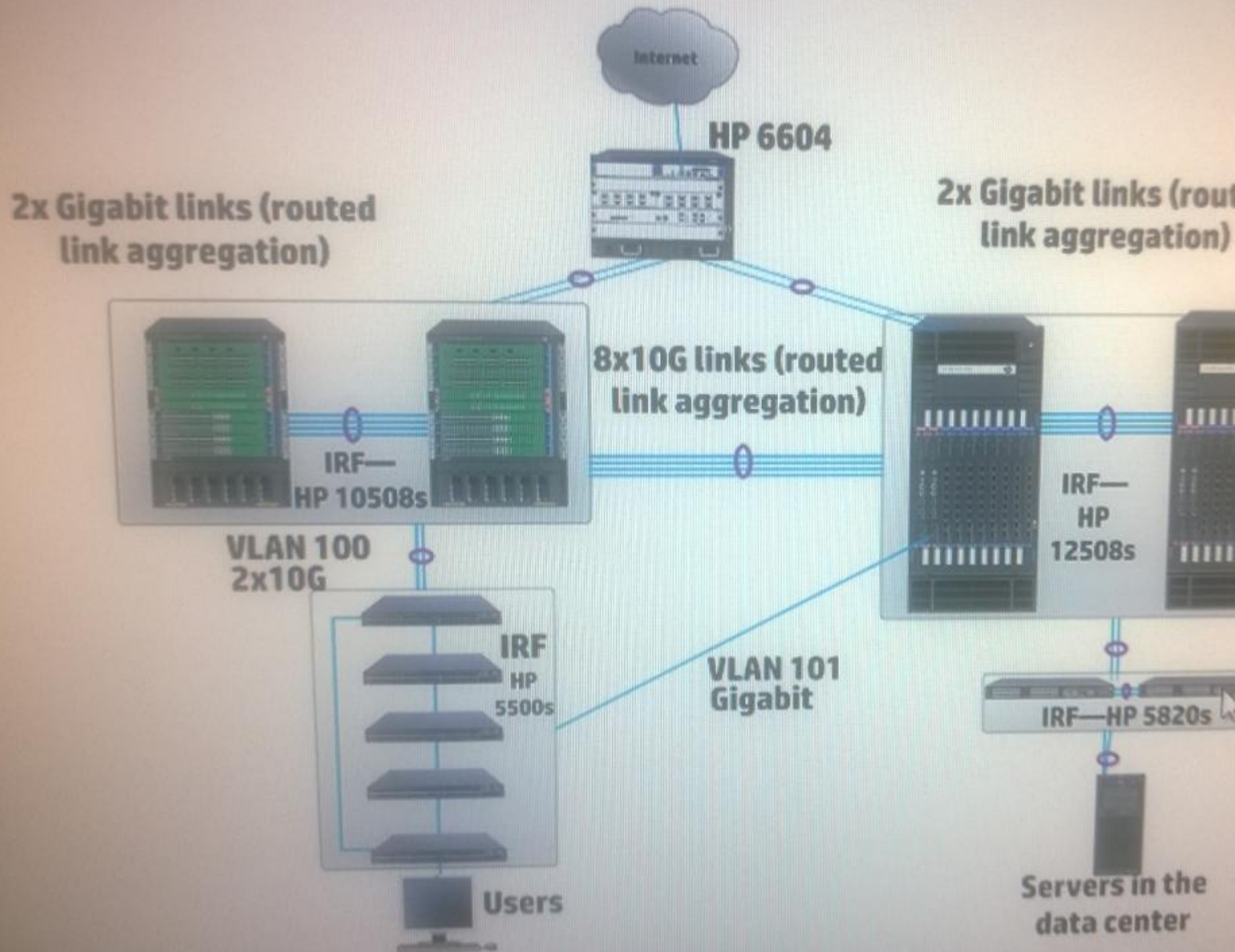
**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### **QUESTION 10**







The exhibit shows the topology for an enterprise customer LAN with an on-site data center. The Intelligent Resilient Framework (IRF) group of HP 5500 Series switches supports a group of computers that require very high availability to the datacenter. Therefore, the customer has requested a backup Gigabit fiber link that extends directly between the IRF group and the data center core. All of the VLAN interfaces and routed link aggregations that are shown in the exhibit implement Open Shortest Path First (OSPF) in a single area.

Which tasks should the network architect complete to ensure that the HP 5500 IRF group selects the correct path to the data center during normal operation?

(Select two.)

- A. Configure the VLAN 101 interfaces as silent interfaces.
- B. Change the reference bandwidth on the VLAN 101 interfaces to 1000.
- C. Change the reference bandwidth to 80000 on all routing devices.
- D. Change the reference bandwidth on the VLAN 100 interfaces to 20000
- E. Set the cost on the VLAN 100 interfaces to 2. Set the cost for the VLAN 101 interfaces to 80.

**Correct Answer:** BD

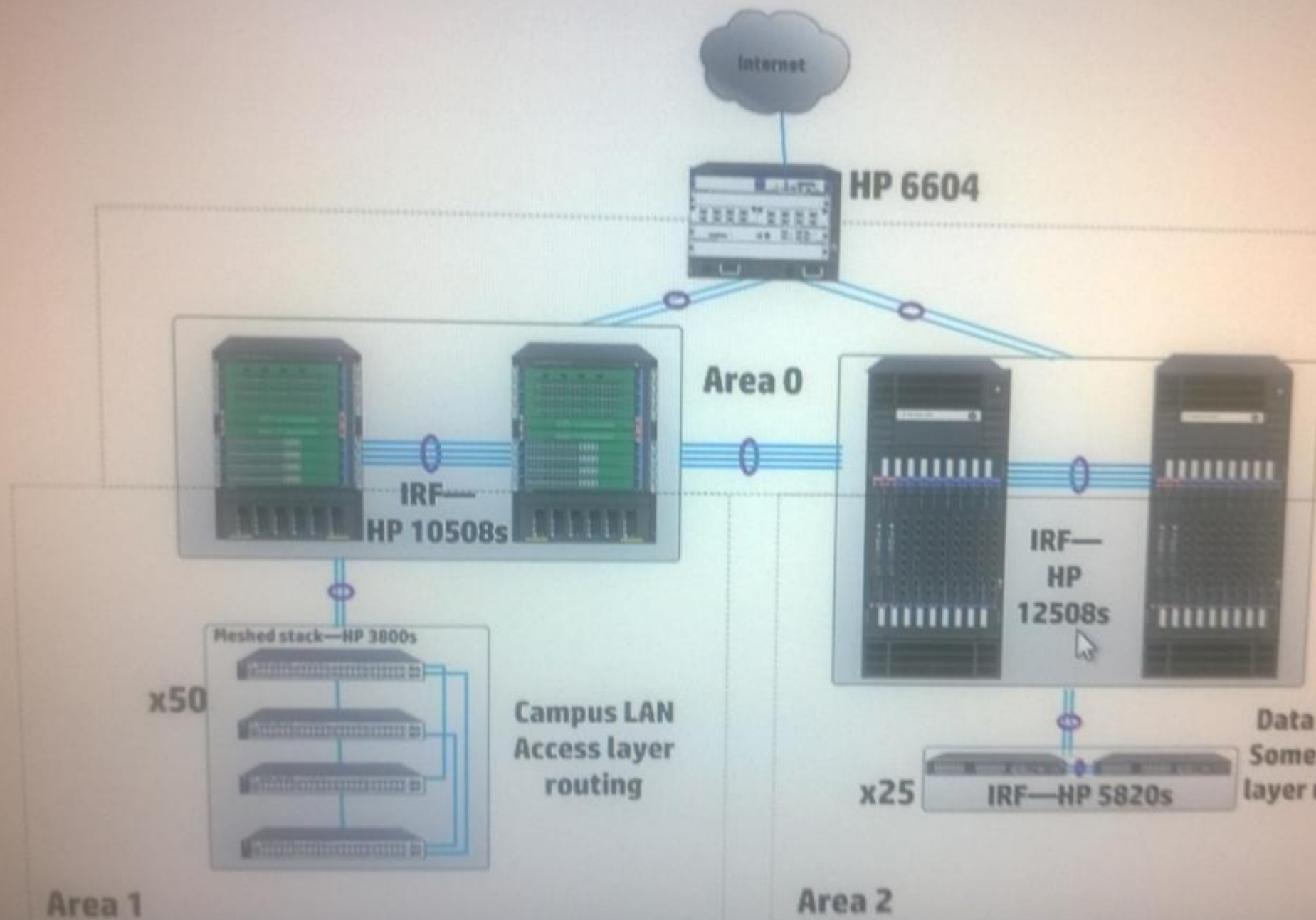
**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 11**

Refer to the exhibit.



A network architect is proposing an HP 6600 Series router at the core of this enterprise customer network. The router runs Border Gateway Protocol (BGP) and announces the customer networks to the Internet service provider (ISP). The router also runs Open Shortest Path First (OSPF) to communicate with the rest of the customer network.

What is an appropriate method for the HP 6604 router to advertise routes to the internet to the other routing switches?

- A. The router should redistribute BGP routes into OSPF. The Area Border Routers (ABRs) should summarize those routers for advertisement in areas 1 and 2
- B. The router should redistribute BGP routes into OSPF. Areas 1 and 2 should be configured as stub areas to filter out the external routes.
- C. The router should redistribute BGP routes into OSPF but filter out all routes except the private network that belongs to the customer.
- D. The router should advertise a default route as an Autonomous System Border Router (ASBR) summary to other routing devices in area 0.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 12

A data center includes servers within the same VLAN and subnet that communicate with each other using multicast applications. Why should the network architect enable Internet Group Management Protocol (IGMP) on this VLAN on the data center switches?

- A. to ensure that different applications do not use overlapping multicast addresses.
- B. to eliminate multicast traffic on server ports that have not requested the multicasts.
- C. to enable the servers to hear each other's multicast transmissions
- D. to enforce security boundaries between servers assigned to different multicast groups.

**Correct Answer:** B

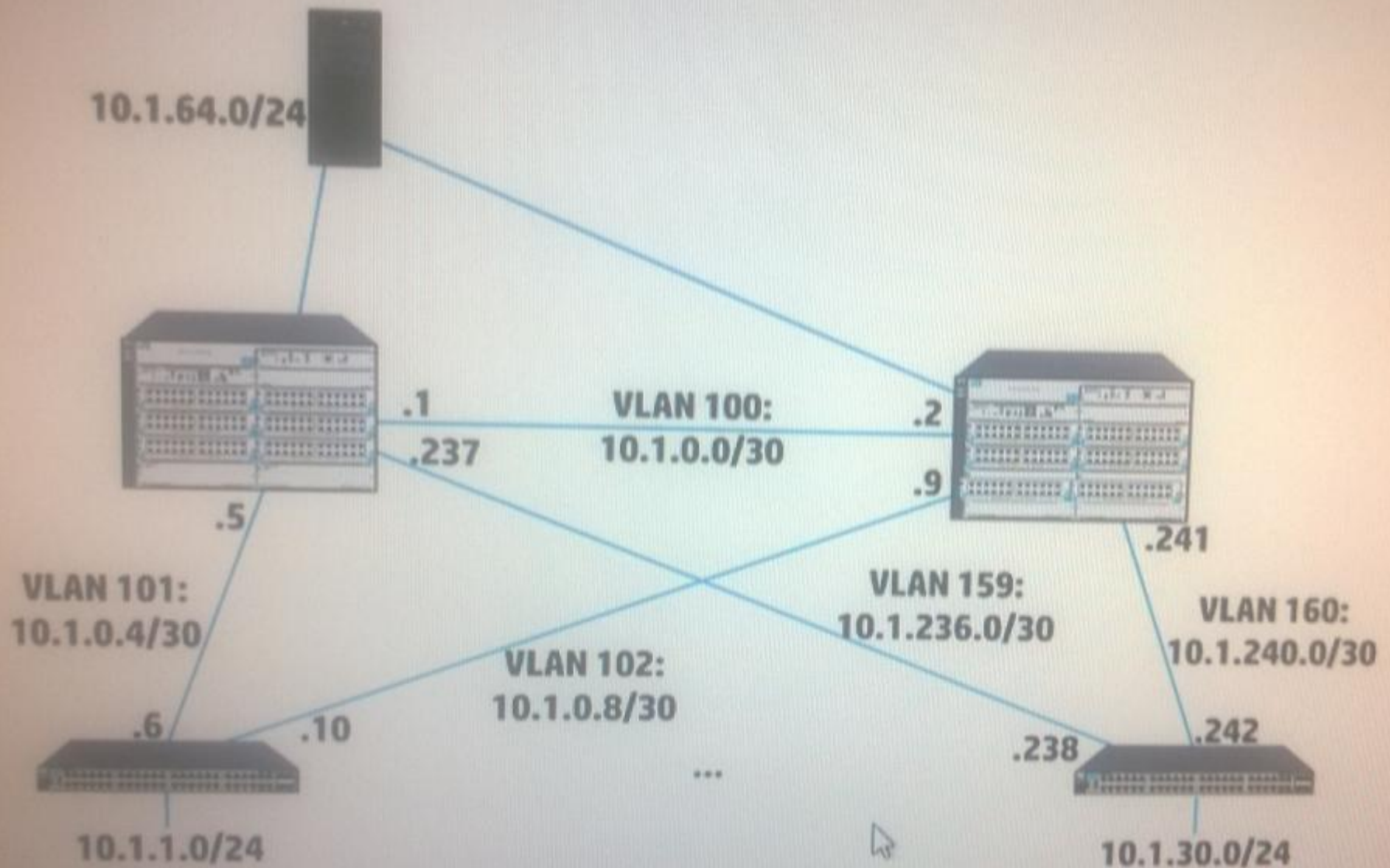
**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 13

Refer to the exhibit.



The exhibit shows the topology for a network with 30 access layer switches (only two are shown). Every switch-to-switch link is a Gigabit link. Every virtual local area network (VLAN) interface runs Open Shortest Path First (OSPF) and has the IP address shown in the exhibit. The other interface settings are at the defaults.

The access layer switches support several more VLANs not shown in the exhibit and also run Multiple Spanning Tree Protocol (MSTP) as a protection against loops.

What is one recommendation for enhancing convergence time and resiliency for this solution?

- A. Place all of the switch-to-switch links in the same VLAN.
- B. Lower the cost of the VLAN interfaces to reflect the high speed of the links,
- C. Add a BPDU filter to the VLAN interfaces shown in the exhibit.
- D. Raise the OSPF timers on the VLAN interfaces.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 14

When does an architect need to plan fast roaming for the wireless solution?

- A. when wireless devices use voice and real-time applications, and their WLAN enforces Wi-Fi Protected Access (WPA) with 802.1x authentication
- B. when wireless devices use 802.11n, and their WLAN enforces WEP or WPA encryption
- C. when wireless devices use 801.11n and associate with APs that support both 2.4Ghz and 5GHz with band steering
- D. when wireless devices use voice and real-time applications, and their WLAN enforces WEP or WPA encryption

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 15

A customer has Voice over IP (VoIP) phones that support Link Layer Discovery Protocol Media Endpoint Discovery (LLDP-MED). The phones need to receive their VLAN ID using this protocol. The network architect is proposing HP 5500-48G-PoE+ EI switches. Each user computer connects to the phone, which then connects to the Ethernet jack. LLDP is enable on the switch. Each edge port is a trunk port that permits VLAN10 (the User VLAN) and VLAN 20 (the voice VLAN).

Which other setting is recommended on the edge port?

- A. The voice VLAN is enabled.
- B. The LLDP voice VLAN ID is set to 20.
- C. LLDP Cisco Discovery Protocol (CDP) compliance is enabled.
- D. The PVID is set to VLAN 20.

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### **QUESTION 16**

A network architect is designing a solution for a customer who wants better security on edge ports. Recently, an unauthorized individual was able to connect a snooping device to an open port (in other words, to a switch port that is active but not connected to a customer device). The customer wants to prevent this from happening again. However, the customer wants to avoid implementing 802.1X on ports because the IT staff is not prepared to deploy and manage such a solution.

What is the simplest way to minimize the risks of another unauthorized connection without adding a lot of management overhead?

- A. Implement MAC lockdown (as opposed to MAC authentication) on all open ports.
- B. Place open ports in a VLAN that is not carried on uplinks.
- C. Apply dynamic port access control lists (ACLs) to open ports.
- D. Apply MAC authentication to the open ports and allow only known MAC addresses.

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### **QUESTION 17**

A customer is deploying a mobility solution. The IT staff is not experienced in troubleshooting issues with interference and radio frequency (RF) design, and the customer is worried that the wireless connections will not be stable or will not perform well.

Which feature of HP Unified Wired-WLAN solutions addresses this customer concern?

- A. remote-AP capabilities for branch offices
- B. hot access controller (AC) backup
- C. Wi-Fi Clear Connect radio resource management (RRM)
- D. Wi-Fi Clear Connect integrated intrusion prevention system (IPS)

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 18**

A network architect is designing as a Multiple Spanning Tree Protocol (MSTP) solution for a network. The network architect plans to create two MSTP instances for 10 VLANs. The network architect also wants to ensure that the best paths are selected when interoperating with other spanning tree regions.

Which guidelines aids in ensuring best paths between regions?

- A. Calculate the traffic load for each VLAN and then distribute them accordingly between each MSTP instance.
- B. Set up the correct priority on the switch that you want to be root in instance 0.
- C. Place five VLANs in one MSTP instance and five in the other instance.
- D. Use the appropriate cost settings for links as specified in the IEEE 802.1t standard.

**Correct Answer:** A

**Section:** (none)

**Explanation**

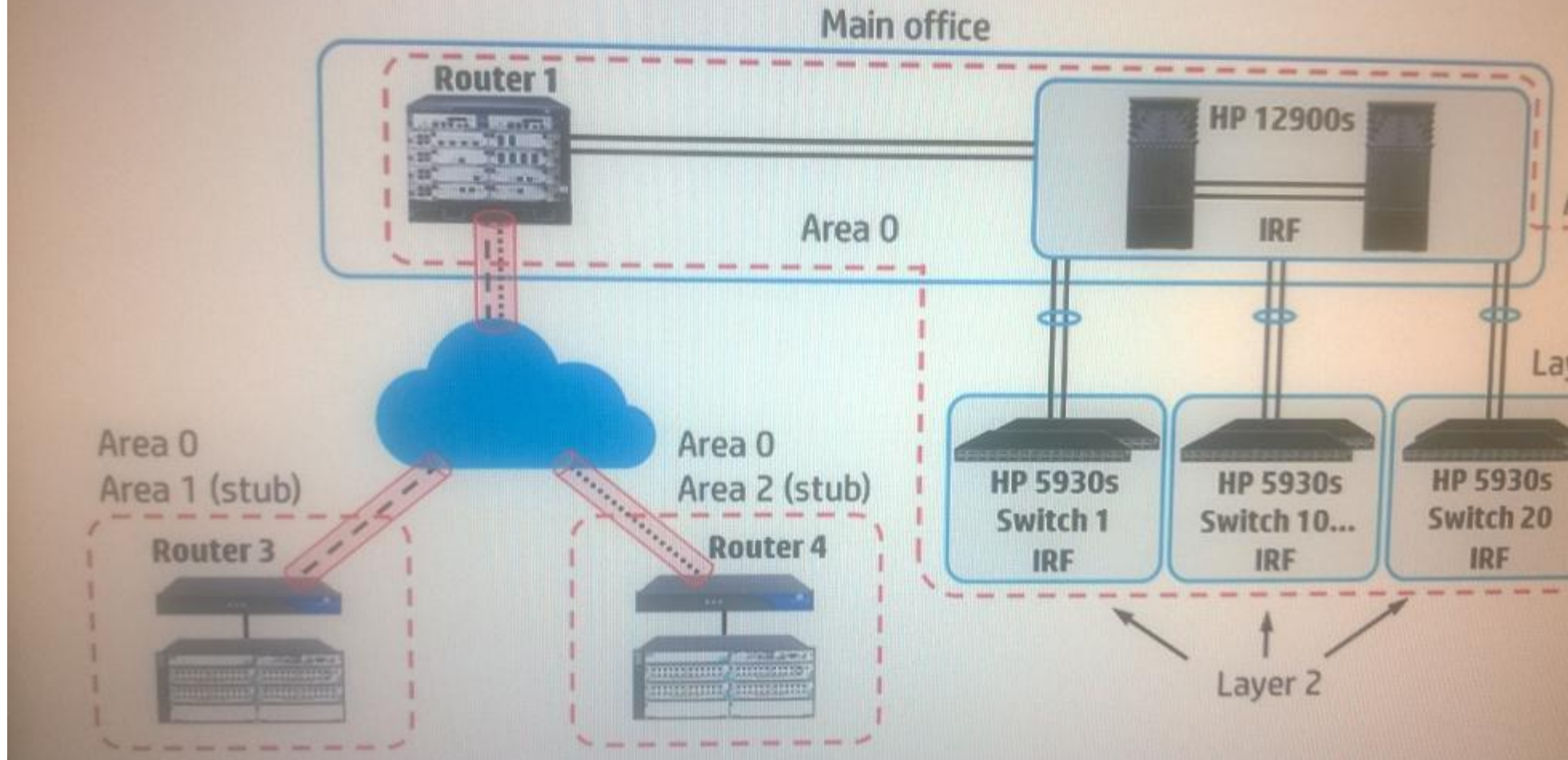
**Explanation/Reference:**

#### **QUESTION 19**



20 of 60

Refer to the exhibit.



The exhibit is a plan for Open Shortest Path First (OSPF) areas. What should the network architect do to improve the OSPF network design?

- A. Move the boundary between area 1 and area 0 to Router 1; make the same change to area 2.
- B. Implement routing on the 5930 switches. Make Switch 10 an area border router (ABR) between area 0 and a new area.
- C. Change area 1 and area 2 to not so stubby areas (NSSAs) or normal areas.



D. Add a redundant link in area 0 between each branch router and the data center core Intelligent Resilient Framework (IRF).

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 20**

A network architect is using the Network Traffic Analyzer (NTA) module for HP Intelligent Management Center (IMC) to evaluate traffic patterns in a campus LAN environment. The network architect hopes to use this information to determine whether the current oversubscription is working well or whether the new plan needs to have less oversubscription.

What will provide the most useful information for this decision?

- A. the average utilization on uplinks
- B. the peak utilization on uplinks
- C. the sum of the average utilization on user edge ports
- D. the peak utilization on randomly-selected user edge ports

**Correct Answer:** B

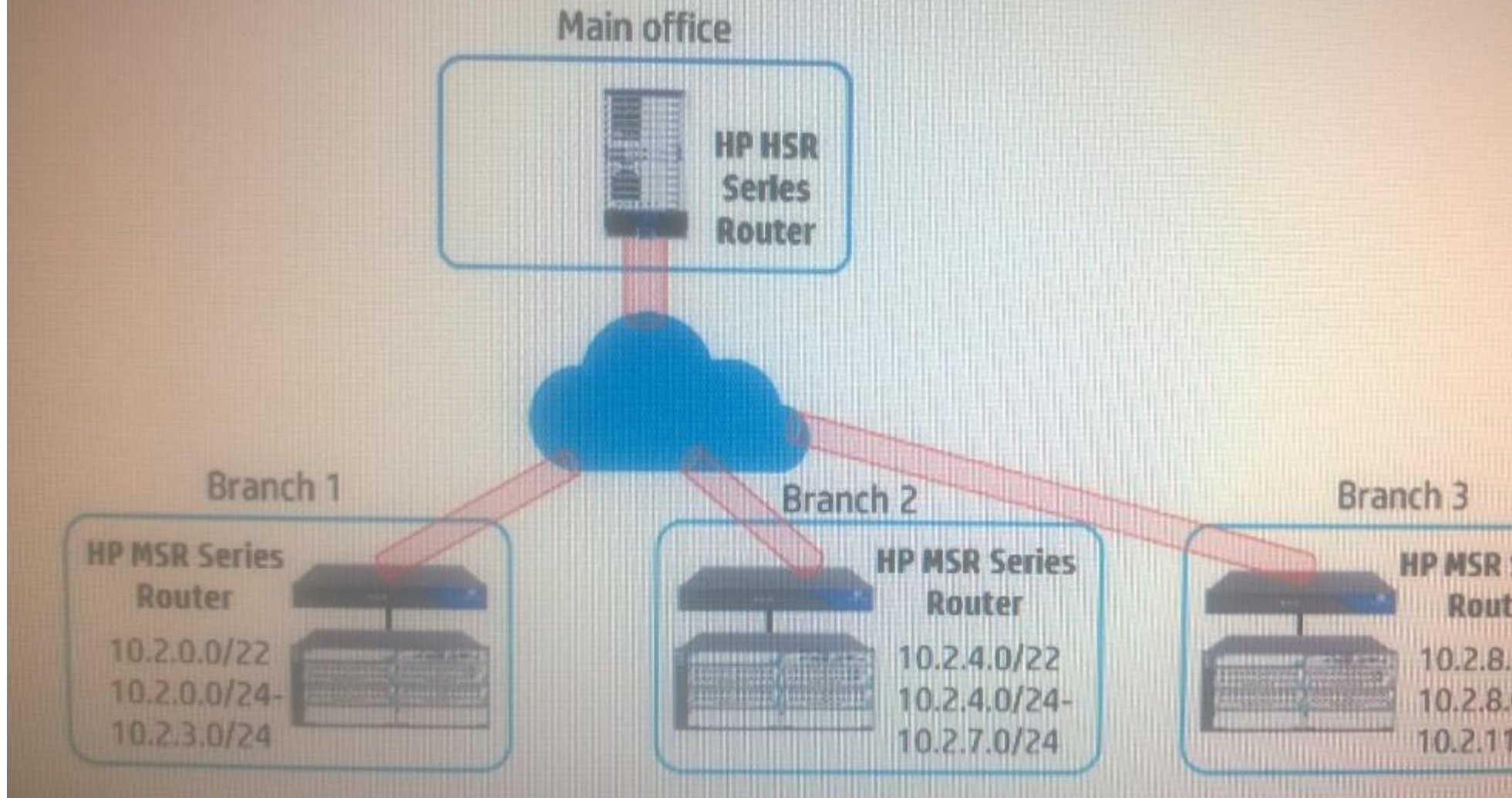
**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 21**

Refer to the exhibit.



A company has several branch offices, each of which has four VLANs; one for employees, one for guests, one for network infrastructure devices, and one for local services. At each office, a VLAN has a maximum of 200 endpoints. Each branch office represents one Open Shortest Path First (OSPF) area. The network architect has created the plan shown in the exhibit for IP addressing.

What is a potential disadvantage of this design?

- A. The scheme uses private network addressing space, which is not permitted for use with OSPF.
- B. The subnets are large enough to accommodate fewer endpoints, but not large enough to accommodate 200 endpoints
- C. The address blocks do not provide enough IP addresses for the devices currently at each branch.
- D. It makes it more complicated for the company to add subnets to branches in the future.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 22

After analyzing a hospital's applications, the network architect identifies two life-critical applications. What is the availability requirement for a life-critical application?

- A. 99%
- B. 99.9%
- C. 99.99%
- D. 99.999%

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 23

24 of 60 Block 3 of 3 Time remaining

A network architect is planning the implementation of a solution. For each role, choose whether or not the architect should notify these people and involve the plan.

employees who run applications affected by the implementation	<input type="text" value="Do not involve"/>
system administrators responsible for applications affected by the implementation	<input type="text" value="Involve"/>
compliance teams responsible for ensuring the customer's network solution meets regulatory standards	<input type="text" value="Involve"/>

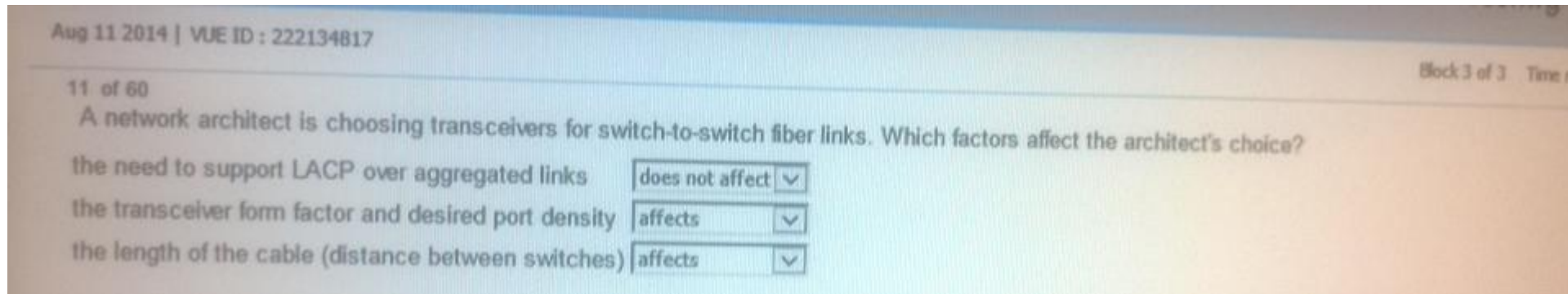
**Correct Answer:**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### QUESTION 24



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Block 3 of 3 Time re

A network architect is choosing transceivers for switch-to-switch fiber links. Which factors affect the architect's choice?

the need to support LACP over aggregated links	does not affect	▼
the transceiver form factor and desired port density	affects	▼
the length of the cable (distance between switches)	affects	▼

**Correct Answer:**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### QUESTION 25

A customer prefers fixed-port switches at the campus access layer. The network architect wants to propose access layer. The network architect wants to propose access layer switches that support technologies for simplifying architecture and network management.

Which technologies should the network architect consider? (Select two.)

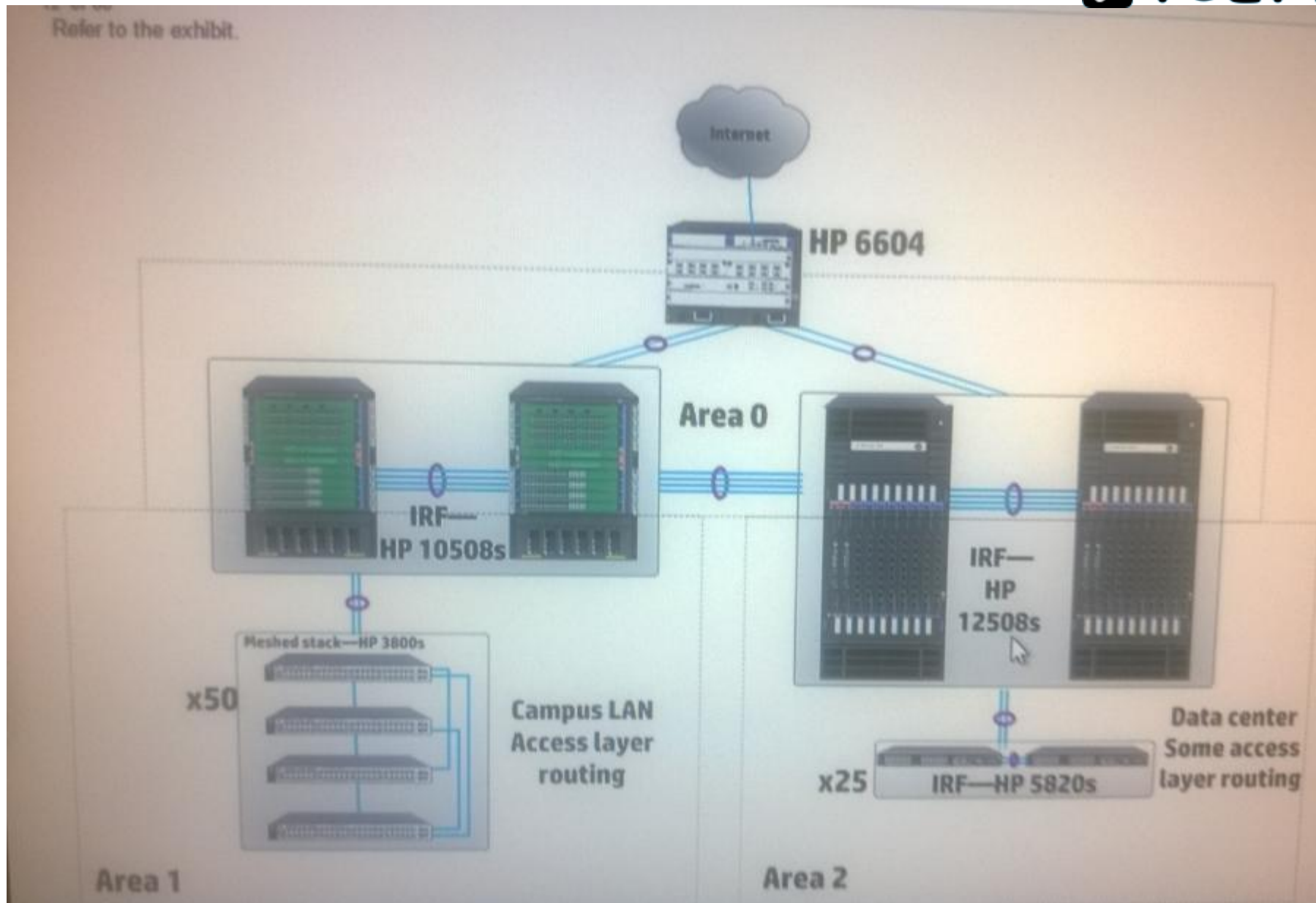
- A. NetStream
- B. Intelligent Resilient Framework (IRF)
- C. Backplane stacking
- D. Virtual Routing and Forwarding (VRF)
- E. Multiple Protocol Label Switching (MPLS)

**Correct Answer:** BC

**Section: (none)**  
**Explanation**

**Explanation/Reference:**

**QUESTION 26**



All connections between switches are 10Gbps. Switch1 is an Intelligent Resilient Framework (IRF) group with two members. Switch2 is an IRF group



with two members. Switch 1 and Switch2 route all traffic.

A network architect is designing a solution for a finance company. One of the primary applications is a multicast application that delivers stock information to IP video screens across the site. The network architect is seeking a multicast solution that meets these needs:

- simple configuration that the customer's IT staff can manage and troubleshoot
- no single point of failure for the multicast traffic

What is the best solution for this environment and these needs?

- A. Protocol Independent Multicast (PIM) Dense Mode (DM) with Switch1 and Switch2 set as the DM Master Routers. Switch1 has a higher MR priority for an address associated with the multicast application.
- B. Protocol Independent Multicast (PIM) Sparse Mode (SM) with Switch1 and Switch2 set as the static Rendezvous Points (RPs). Switch1 has a higher RP priority for an address associated with the multicast application.
- C. Protocol Independent Multicast (PIM) Dense Mode (DM)
- D. Protocol Independent Multicast (PIM) Sparse Mode (SM) with Switch1 and Switch2 configured as candidate Rendezvous Points (C-RPs), and Switch1 and Switch2 also configured as Bootstrap Routers (BSRs).

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 27

A network architect is choosing core switches for an enterprise data center. One potential model has a CLOS hardware architecture, and the other model has a cross-bar architecture. Which customer requirement would cause the network architect to select switches with a CLOS architecture?

- A. The customer has a multi-tenant data center, which needs to use Virtual Routing and Forwarding (VRF) to segment the network.
- B. The customer is planning to scale bandwidth up to 40G/100G in the next several years
- C. The customer needs a highly-available core, which is best delivered with Intelligent Resilient Framework (IRF).
- D. The customer has a relatively small data center and does not have the budget to invest in high performance.

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 28**

A customer has a virtualized data center that uses Microsoft Hyper-V for Windows Server 2012. The customer has provided this information about the hosts for the VMs:

- Each host has a network (Hyper-V virtual switch) that supports VM production traffic and owns two server 10G NICs.
- Each host has a network (Hyper-V virtual switch) that supports management traffic to the parent partition and owns two server Gigabit NICs.

In each rack, the network architect plans to deploy two HP 5920 Series switches, acting as Intelligent Resilient Framework (IRF) switch.

Which additional information does the architect need in order to plan the connections to each host?

- A. whether the virtual switches use generic or dynamic NIC teaming (Link Aggregation Control Protocol [LACP]) and their hashing method
- B. whether the virtual switches use sFlow or NetStream to load balance traffic over the server NICs
- C. whether the virtual switches use Virtual Ethernet Port Aggregator (VEPA) VLAN tagging
- D. whether the virtual switches support standard Spanning Tree Protocol (STP) or Cisco Per-VLAN Spanning Tree Protocol Plus (PVST+)

**Correct Answer: C**

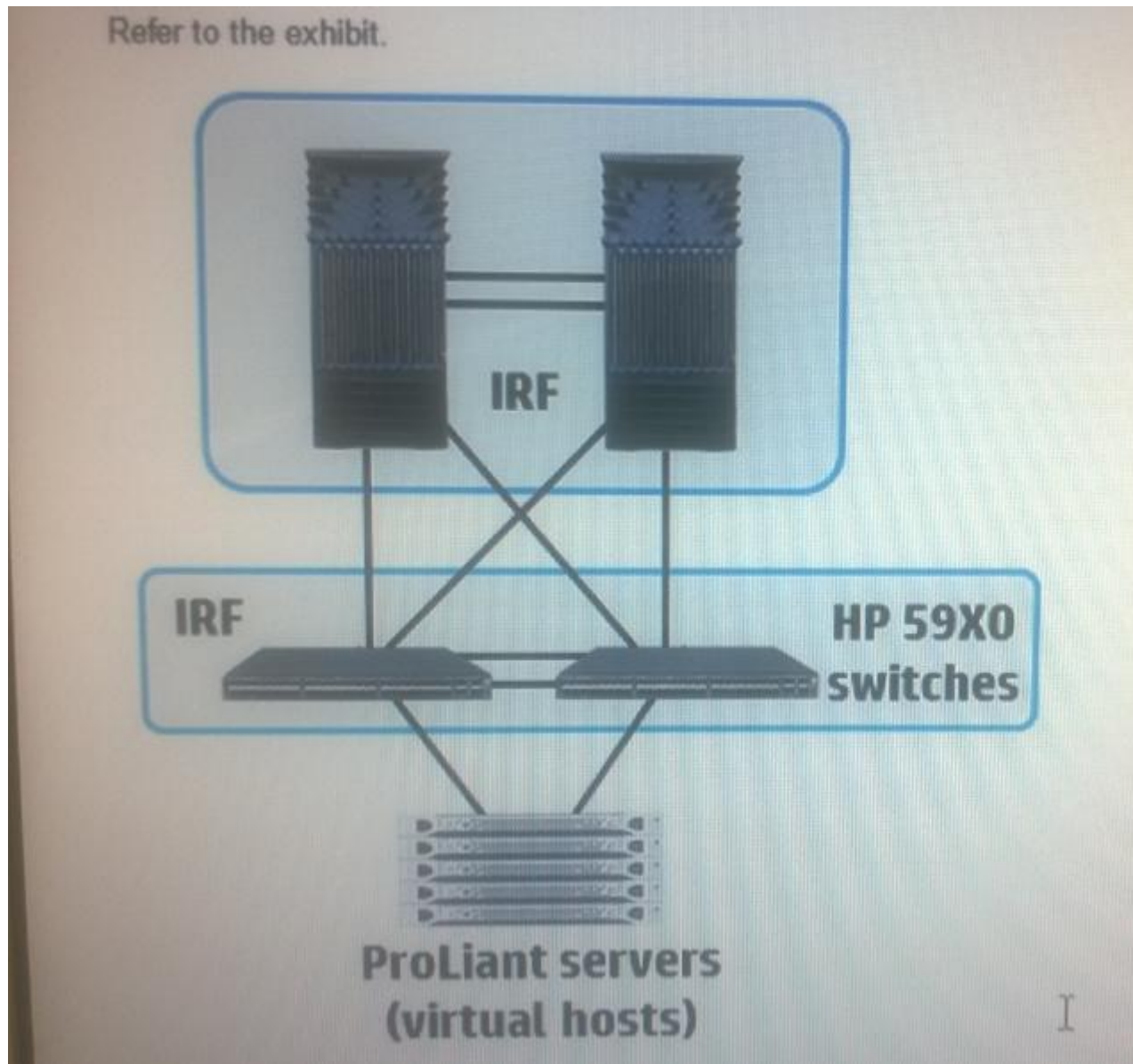
**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 29**





How does this design benefit a virtualized data center?

- A. The access layer and core switches use several layers of redundancy protocols, including Multiple Spanning Tree Protocol (MSTP) at Layer 2, Virtual Router Redundancy Protocol (VRRP) at Layer 3, and Intelligent Resilient Framework (IRF) at Layer 4.
- B. The access layer and core switches can connect on link aggregation groups. VLANs can extend across these aggregations, but they are more stable and highly-available than redundant Layer 2 links that use spanning tree.
- C. The access layer switches can integrate their Intelligent Resilient Framework (IRF) capabilities with those on the core switches to create a single CLOS fabric.
- D. The core switches can implement Virtual Ethernet Port Aggregator (VEPA) to extend tunnels for virtualized traffic across the data center backbone.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 30

An implementation plan should include an agreed-on time for the final rollback decision. When should this decision be scheduled?

- A. after the cutover to the new solution and the first set of validation tests and just before the user acceptance tests (UATs)
- B. just before the point of no return, which is calculated by subtracting the rollback time from the end of the maintenance window
- C. after the first steps of the rollback plan have been implemented, about ten minutes before the end of the maintenance window
- D. ten minutes before the end of the maintenance window or one hour into the implementation, whichever occurs first

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 31

A network architect has designed a two-tier topology for the campus LAN and is planning to implement routing at the core. Which requirement might cause the network architect to consider implementing routing at the access layer?

- A. Employees need to be placed in dynamic VLANs, assigned by a RADIUS server based on identity, so that network managers can manage the solution more easily.
- B. The solution must support an isolated VLAN for wired guest devices.
- C. The customer has an HP Unified Wired-WLAN solution, and wireless users need to roam seamlessly across the site.
- D. Employees in different VLANs need to use collaboration applications to share high-resolution graphic files.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 32

A network architect is recommending that a customer move from a three-tier campus LAN topology to a two-tier topology that routes traffic at the core. The existing distribution layer provides firewall services and STP root guard. As a best practice, where should firewall services and STP root guard be implemented in the two-tier topology?

- A. These security features should be implemented at both the network access layer and the core.
- B. Firewall services should be implemented at the core, and STP root guard should be implemented at the access layer.
- C. These security features should be implemented at the network access layer.
- D. These security features should be implemented at the core.

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 33

A network architect is choosing the fabric module for an HP 10500 Series switch. Which factors affect the choice?

- A. the type of management modules and whether these modules operate in hot-standby mode
- B. the number of IPv4 and IPv6 routes that the switch must support in its routing table
- C. the type of I/O modules and whether full bandwidth must be supported on all ports at the same time
- D. the environment in which the switch will be installed and the direction of the airflow

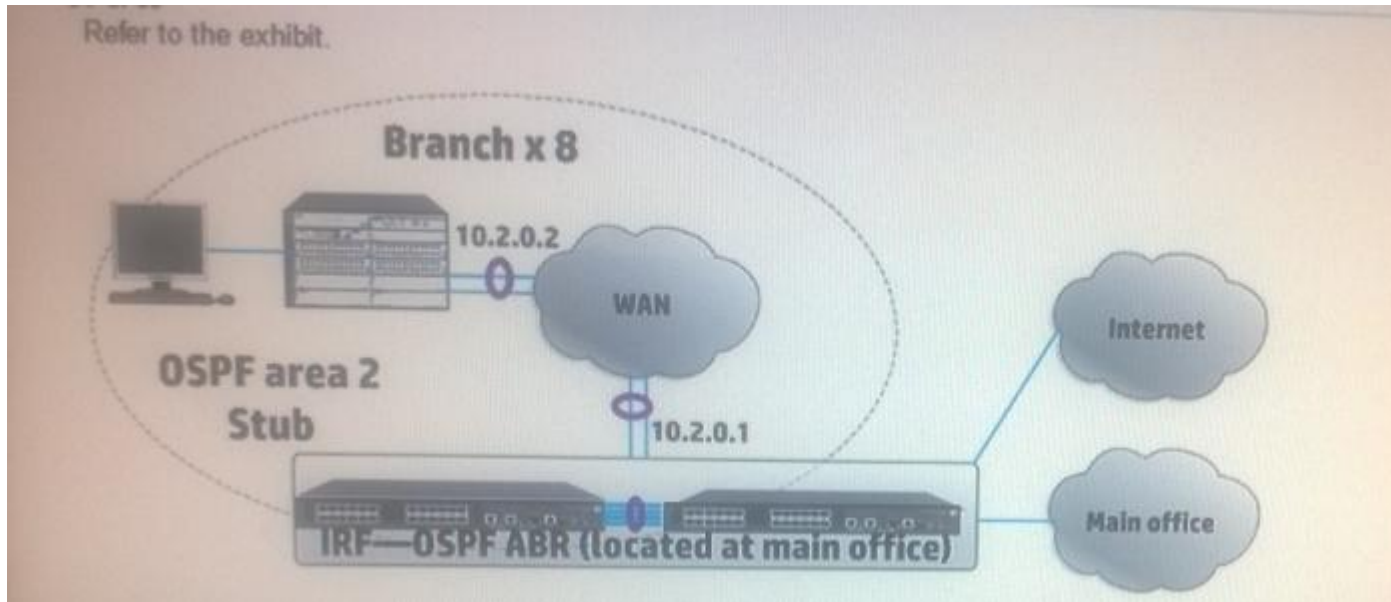
**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 34



The customer requirements include resilience for branch communications. If any one link fails, a branch can still reach the main office services. In addition, either one of the 5920 switches at the core of the WAN should be able to fail with branches still maintaining their connections.

What should the network architect include in the design to meet this requirement?

- A. a connection directly to an ISP to each branch router, which also requires the OSPF area to become a not so stubby area (NSSA)
- B. graceful restart on the 5920 IRF group in standard IETF mode
- C. Virtual Router Redundancy Protocol (VRRP) enabled and configured on the switches in the 5920 IRF group
- D. a floating static route on the branch switches to the 5920 IRF group in case the OSPF solution fails

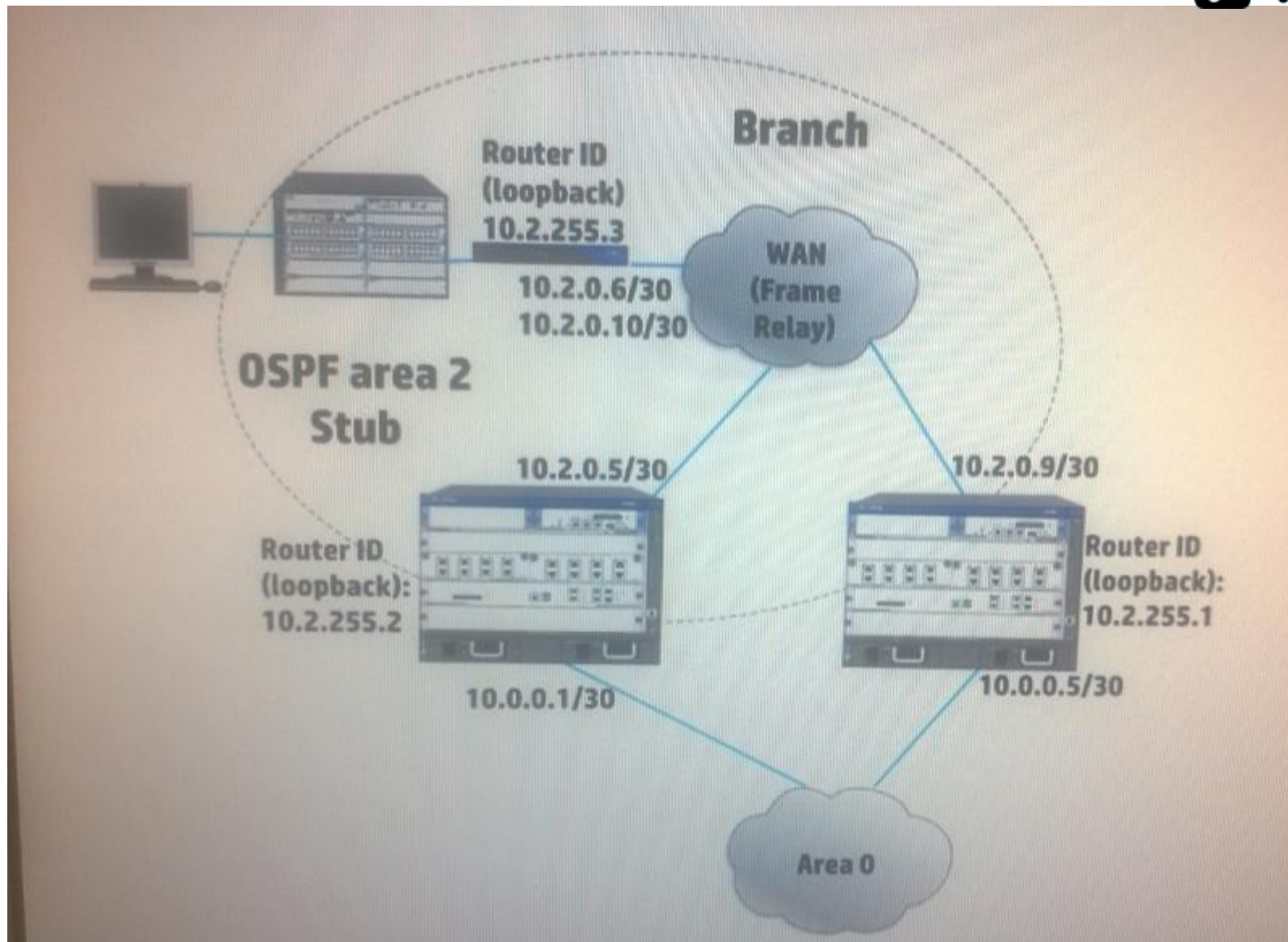
**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

## QUESTION 35



The branch routers have E1 lines into the Frame Relay service provider network. The exhibit shows just one branch, but the network actually has 30 branches. The HP 6600 Series routers, which are the area border routers (ABRs), have E3 lines into the Frame Relay network.

The routers in the exhibit implement Open Shortest Path First (OSPF). They enable OSPF on networks as follows:

- In area 2, OSPF is enabled on network 10.2.0.0/16;
- In area 0, OSPF is enabled on network 10.0.0.0/16.

The customer requires resilience at the WAN core. Which design change best supports that requirement?

- A. At each branch, add a redundant link between the switch and the router
- B. Add additional links from the HP 6600 Series routers to the WAN
- C. Add a Gigabit link between the HP 6600 Series routers with a network in area 0 and area 2
- D. On each branch router, add a floating static route to one of the ABRs in case the OSPF solution fails.

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### QUESTION 36

A customer has a virtualized data center with hosts that are managed by VMware vCenter. The network architect has proposed the HP Virtual Application Networks (VAN) Connection Manager (CM) and Resource Automation Manager (RAM) modules for HP Intelligent Management Center (IMC). The architect also proposed the HP 5900v switches and the proper server access layer products.

Which technology must the access layer switches that connect to the virtualized servers support?

- A. Intelligent Resilient Framework (IRF)
- B. Transparent Interconnection of Lots of Links (TRILL)
- C. Ethernet Virtual Bridging (EVB) / Virtual Ethernet Port Aggregator (VEPA)
- D. Fibre Channel over Ethernet (FCoE)

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

### QUESTION 37

The data center access layer can use top of rack (ToR) switches or End of Row (EoR) / Middle of Row (MoR) switches. Select the switch design

associated with each advantage.

**Correct Answer:**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 38**

A network architect is planning a backplane stack with four HP 3800 switches. Which topology provides the highest level of redundancy?

- A. mesh
- B. star
- C. chain
- D. ring

**Correct Answer: A**

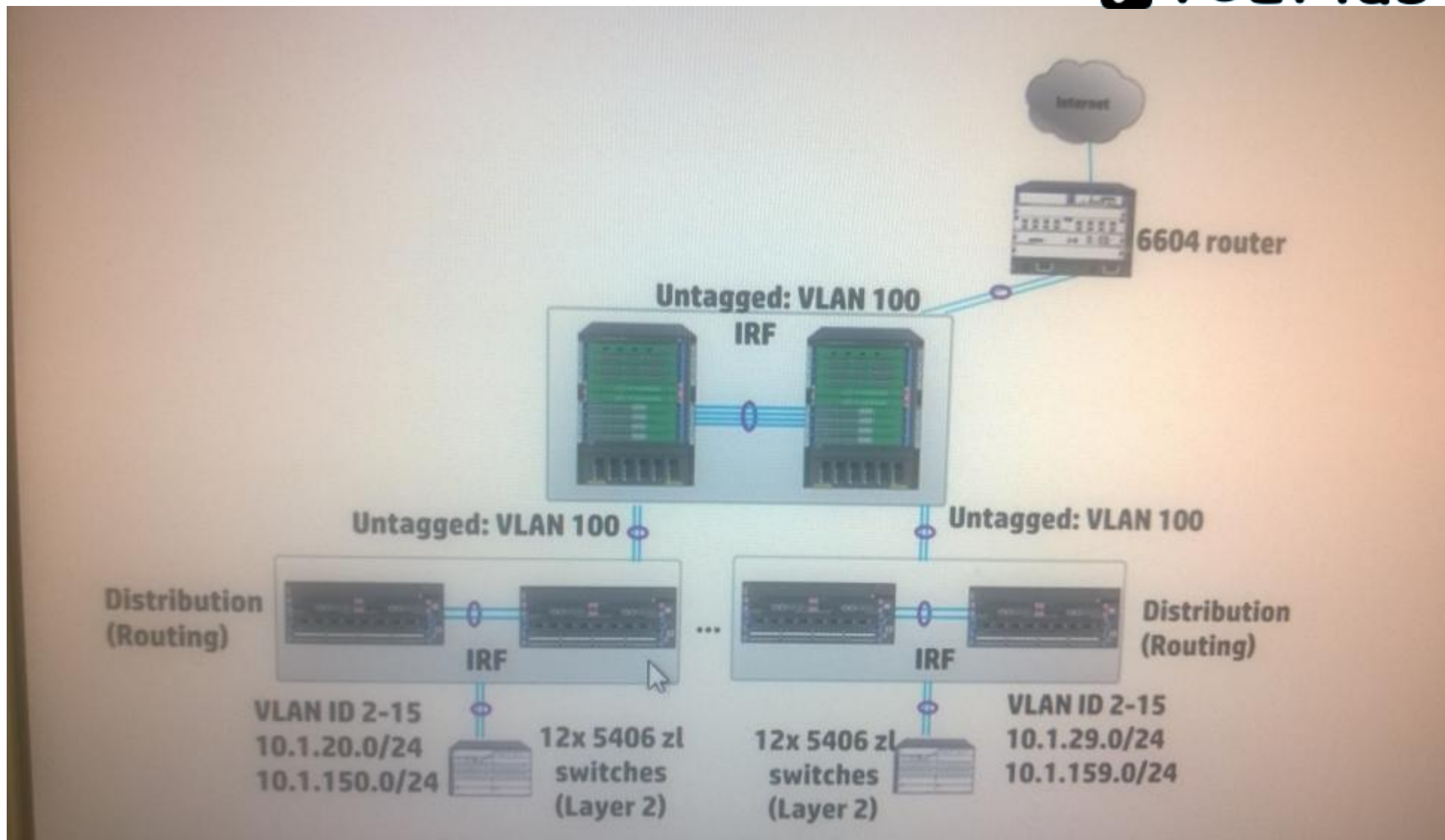
**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 39**





Correct Answer:

Section: (none)

Explanation



**Explanation/Reference:**

**QUESTION 40**

A network architect is planning the products that will interconnect a main site campus LAN, branches, and data center (located at a different site from the main campus). Which customer requirement would cause the network architect to choose HP enterprise-class modular routers as opposed to deep-buffer 10G routing switches for this solution?

- A. the need for a fully redundant solution with two devices working as a team
- B. the need for thousands of routes in the routing table
- C. the need for WAN connections that use T3/E3/J3
- D. the need for high-speed routing

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 41**

What are Information Technology Service Management (ITSM) frameworks, such as the infrastructure Technology Infrastructure Library (ITILv3) and The Open Group Architecture Framework (TOGAF)?

- A. They are Internet Engineering Task Force (IETF) standards that provide evolving guidelines and best practices for IT design and management.
- B. They are high-level approaches that provide recommendations and best practices for IT design and management.
- C. They are industry-wide standards that provide guidelines for enterprise network design and management.
- D. They are Internet Engineering Task Force (IETF) standards that define proper network design.

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 42**

Which benefit does In-Service Software Upgrades (ISSU) provide?

- A. upgrades all members of the IRF virtual switch simultaneously to ensure all members use the same software version
- B. schedules and performs switch upgrades through HP Intelligent Management Center (IMC)

- C. automatically checks for software updates on the HP Website, downloads the new software, and upgrades the switches during non-peak hours
- D. upgrades members of an IRF virtual switch one at a time to avoid service disruption

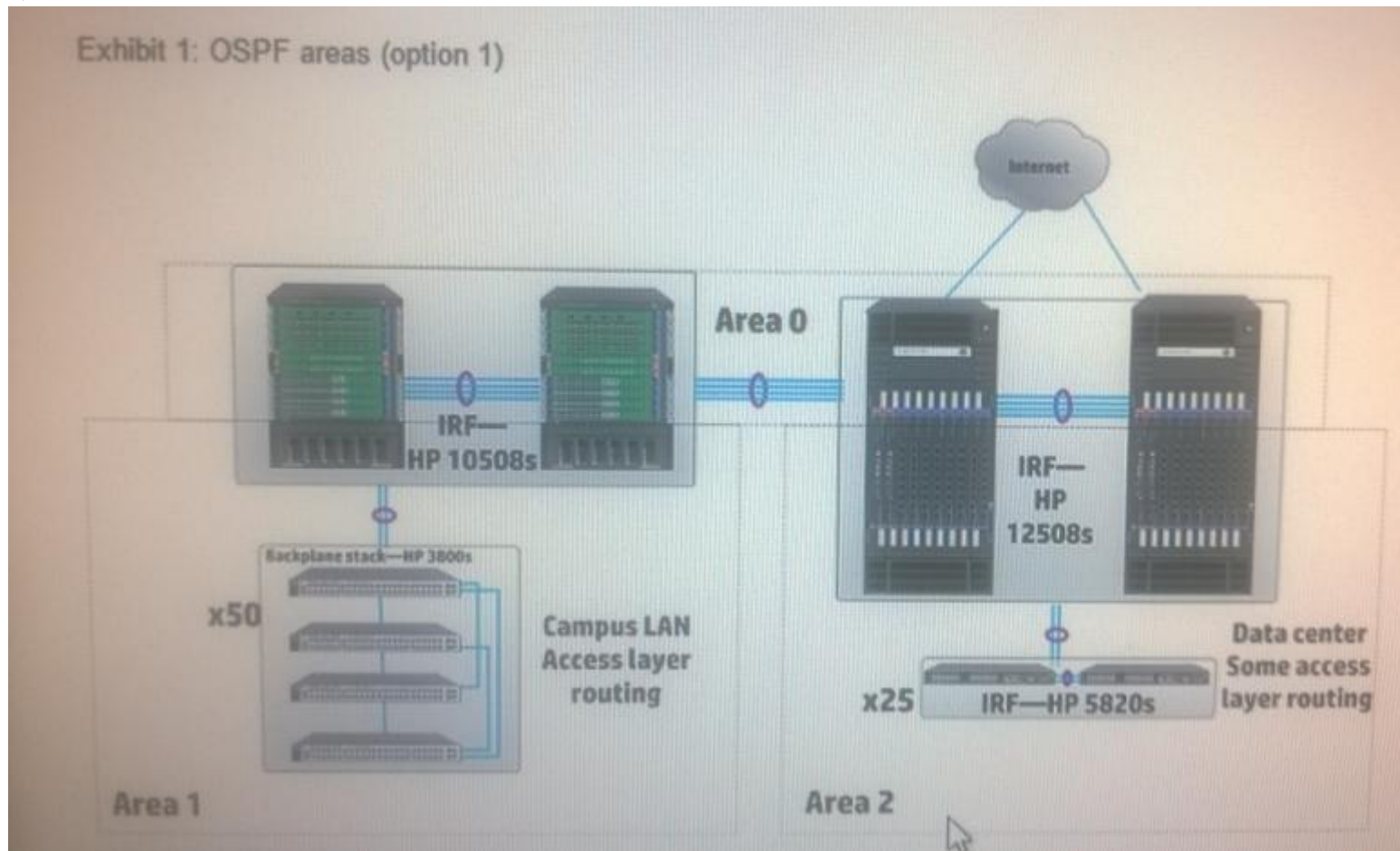
**Correct Answer:** D

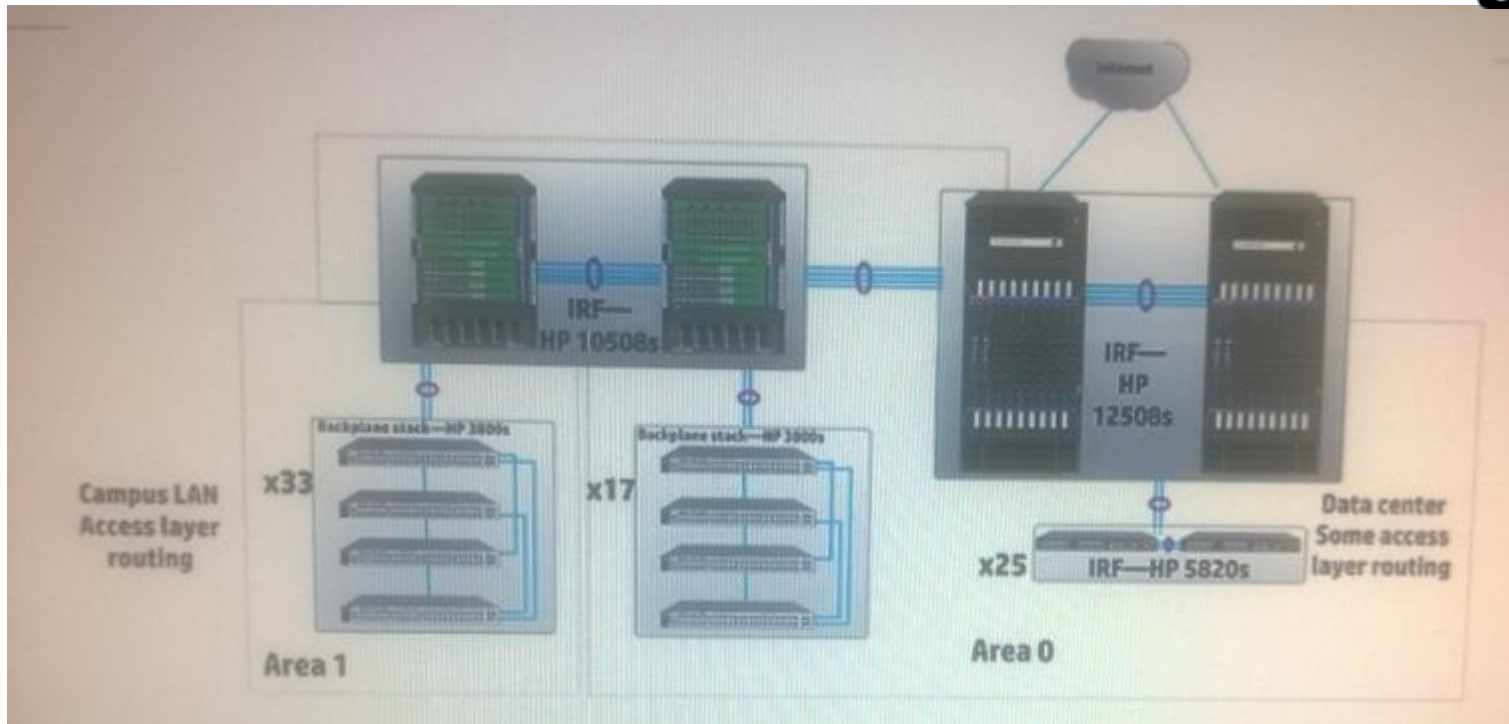
**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 43





Which exhibit shows the better Open Shortest First (OSPF) area scheme and for which reason?

- A. Exhibit 1 because it allows the application of access control lists (ACLs) between users and the data center
- B. Exhibit 1 because the campus and data center are separate areas
- C. Exhibit 2 because every area has fewer than 35 routers
- D. Exhibit 2 because every area has similar numbers of routers
- E. Exhibit 1 because every area has fewer than 50 routers

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 44**

A customer has a policy of using open standard protocols to maintain the flexibility to use multiple vendors. Which protocols are open standard protocols? (Select three.)

- A. PVST+
- B. MSTP
- C. CDP
- D. OSPF
- E. IGRP
- F. LLDP

**Correct Answer:** BDF

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 45

Which description best characterizes current trends in deploying services for an enterprise solution?

- A. Companies are moving services out of the private cloud into more responsive pods that are distributed throughout the campus LAN.
- B. Companies are connecting multiple sites together but distributing services to each site to increase resiliency and responsiveness.
- C. Companies are centralizing services in a consolidated data center or even a highly scalable private cloud.
- D. Companies are transforming their campus LAN and data centers into one large Layer 2 network.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 46

An architect is planning an HP Wired-WLAN solution for an office with approximately 4000 users. The solution will have 256 MSM460 APs and HP Unified Wired-VLAN controllers. Users must be able to roam seamlessly around the site.

Which strategy meets these needs?

- A. Assign users to different VLANs based on the APs to which they connect, and distribute traffic locally at the AP.
- B. Assign all users to the same VLAN, and distribute traffic locally at the AP.

- C. Assign users to different VLANs based on the APs to which they connect, and distribute traffic centrally at the controller.
- D. Assign all users to the same VLAN and distribute traffic centrally at the controller.

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 47**

A company experienced a denial of service attack when an infected employee device connected to the company network. Which security measure detects infected devices and prevents them from accessing the network?

- A. Endpoint Based anomaly Detection (NBAD)
- B. Endpoint Integrity solution
- C. Data security solution
- D. Authentication solution

**Correct Answer:** B

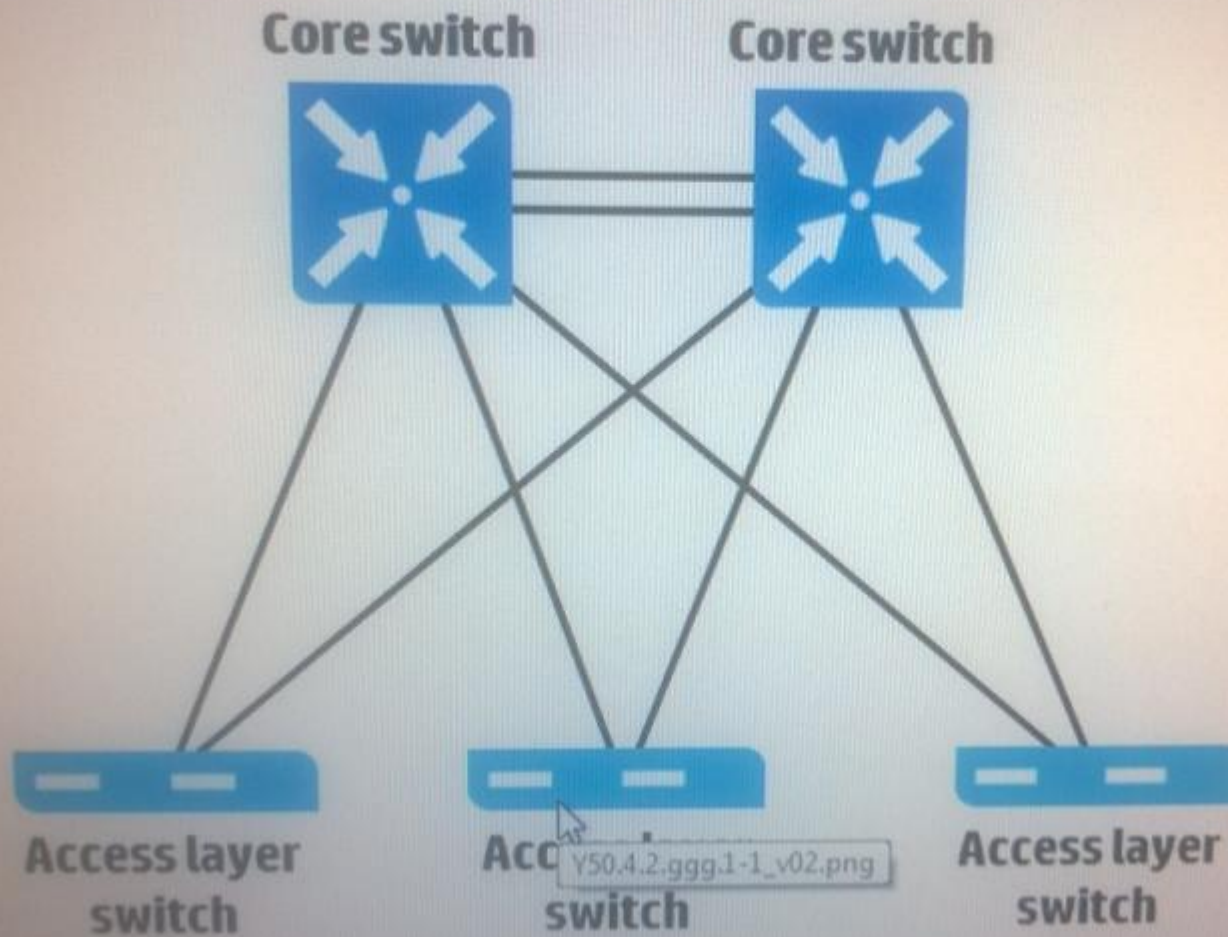
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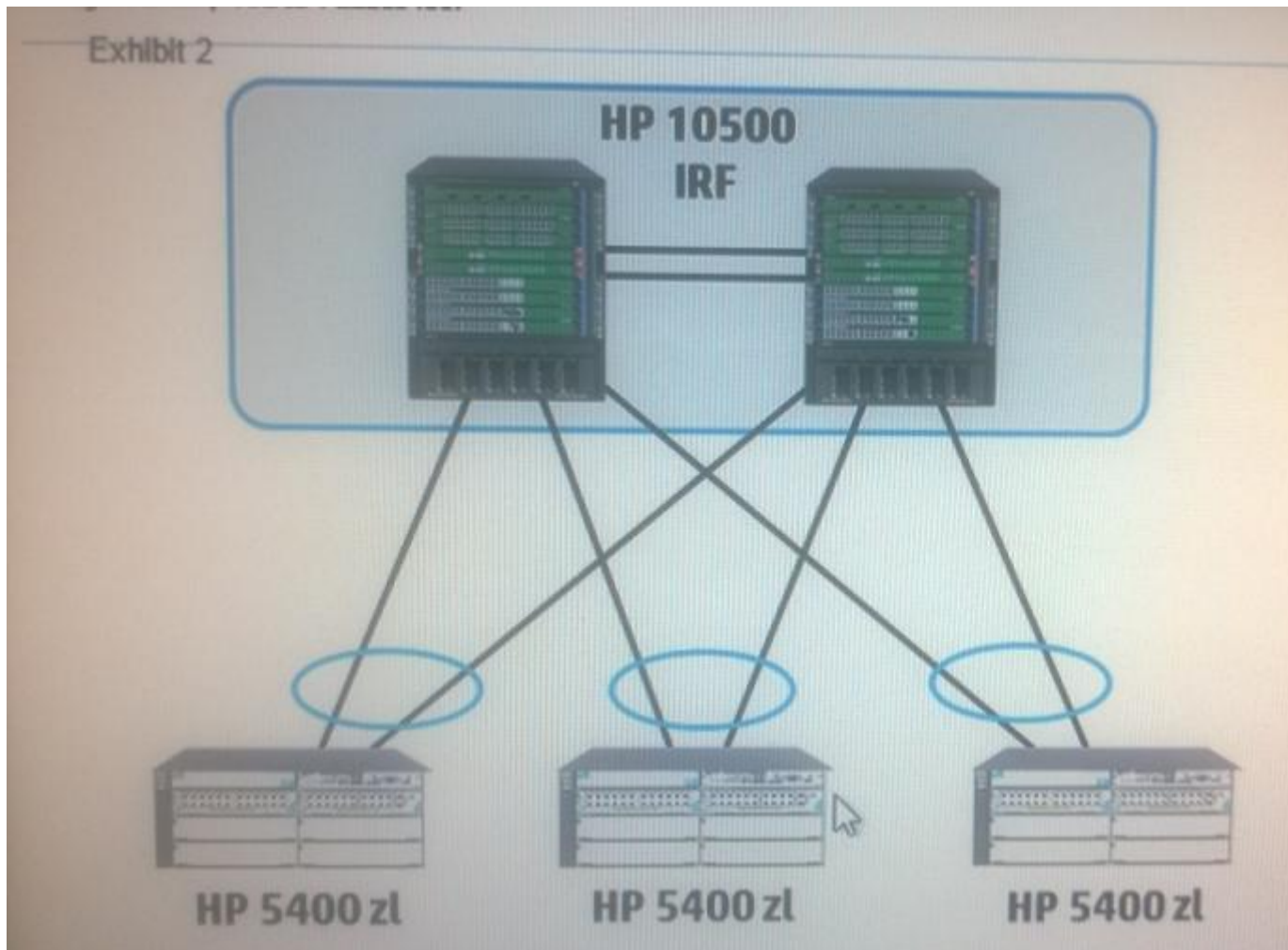
**Explanation**

**Explanation/Reference:**

#### **QUESTION 48**

Exhibit 1





A customer has an existing solution, which is shown in Exhibit 1. (The solution actually includes more access layer switches than shown.) In the existing solution, each access layer switch routes traffic.

A network architect is proposing the HP FlexCampus solution shown in Exhibit 2. In this proposed solution, the core Intelligent Resilient Framework (IRF) virtual switch routes traffic but the access layer switches do not. The customer links that in the existing solution if an access layer uplink fails, failover occurs in less than a second. The customer also likes that the existing solution does not require Virtual Router Redundancy Protocol (VRRP).

What should the architect tell the customer about the benefits of the proposed solution?



- A. Although the solution offers slower failover for the access layer uplinks, it is simpler and eliminates VRRP.
- B. STP eliminates the loops on the access layer uplinks and handles failover for them, which speeds convergence.
- C. Failover for an access layer uplink occurs in milliseconds, and router redundancy does not require VRRP.
- D. IRF handles loop elimination and link failover, which lets VRRP handle router redundancy more efficiently.

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 49**

A network architect is designing a solution with HP products. A customer has the following requirements for controlling the management access for administrators:

- Administrators are assigned privileges when they log in based on their identity.
- Security policies related to password complexity and password rotation, like the company's Windows domain policies, are enforced for administrator credentials.
- The company can easily revoke the access of administrators who leave the company.
- Administrators have a backdoor into the management interface in case network connectivity fails in any way.

Which option meets the company's requirements?

- A. authentication to a TACACS+ sever
- B. authentication with a password that meets the complexity requirements and is stored locally on each device
- C. authentication to local user accounts with TACACS+ authentication as a secondary method
- D. authentication to a RADIUS server with local authentication as a secondary method

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### **QUESTION 50**

A customer requires high availability, so the network architect is planning two area border routers (ABRs) for each non-backbone area in the Open Shortest Path First (OSPF) solution. What ensures a loop-free routing environment that meets the customer needs?



- A. All ABRs have at least one interface in area 0, and that interface has an IP address that is outside of the range of any summaries for area 0.
- B. Only one ABR advertises a summary route for each area. For areas with multiple ABRs, each area can include two summary ranges, and each ABR is configured with one of those ranges.
- C. All ABRs in an area apply consistent path costs for their summary routes.
- D. Each ABR in an area advertises the same summary routes for that area, and each ABR has a null route that matches those summaries.

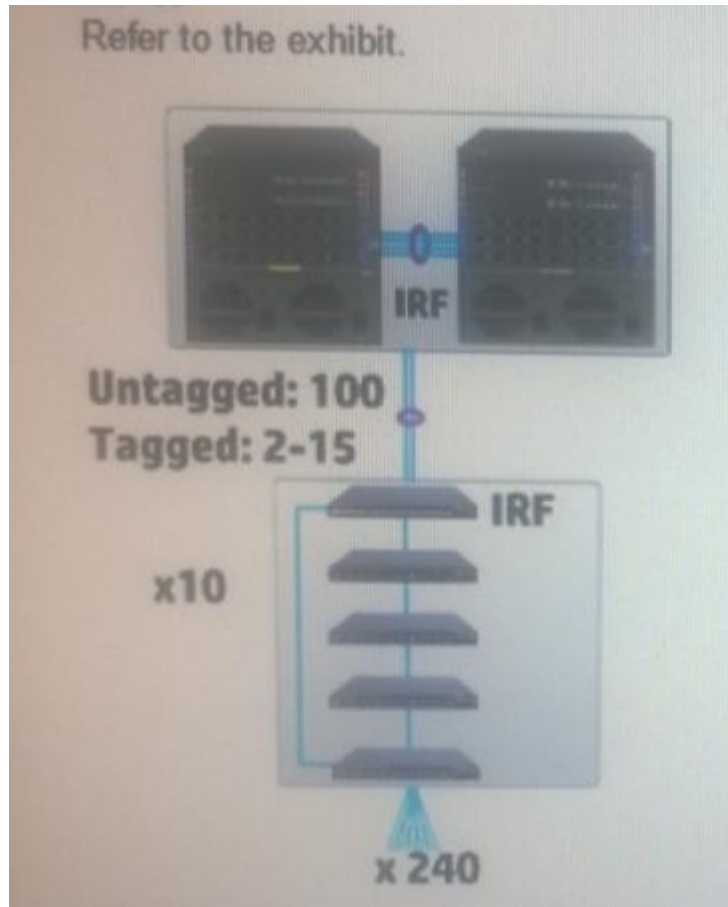
**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 51**



A network architect is designing the logical topology for a campus LAN networking solution. The customer requires support for 2400 edge ports, which is provided by 10 Intelligent Resilient Framework (IRF) groups at the access layer. This customer does not have a wireless network nor anticipates adding one in the next two years. However, the customer does want to authenticate users with 802.1x and use the network RADIUS server to divide users from different groups into different VLANs. The customer has three user groups, each of which includes between 600 and 900 users.

Additionally, the customer understands that the RADIUS server will require several policies but wants to keep these policies as simple and easy to maintain as possible.

How can the network architect ensure that the solution meets the customer needs and also follows best practices?

- A. Use access layer routing. Assign a different subnet to VLAN 2 on one access layer IRF group than to VLAN 2 on another access layer group.
- B. Plan a different VLAN ID and subnet address for each user group on each access layer IRF group. Either core or access layer routing will work for

this solution.

- C. Plan a solution for deploying dissolvable agents to the endpoints so that they can complete 802.1X authentication seamlessly.
- D. Assign a /23 subnet to each VLAN so that the VLAN can accommodate the required number of users, even if users connect multiple devices.

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 52

An architect is planning an HP Wired-WLAN solution for an office with approximately 4000 users who will use the wireless network rather heavily and who need to roam seamlessly. The solution will have 256 MSM 460 APs. What is one reason for using two HP Wired-WLAN controllers for this solution?

- A. Each Wired-WLAN controller can only support 2000 users.
- B. The customer needs fast roaming, which requires a mobility solution between two controllers.
- C. Forwarding traffic through two controllers can prevent a bottleneck due to heavy usage.
- D. Each Wired-WLAN controller can only support 128 APs.

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 53

What best characterizes the current trend in branch office IT and networking solutions?

- A. moving away from Ethernet-based WAN links toward dedicated T1/E1/J1 lines
- B. consolidation of traditional resources within the data center
- C. increased reliance on wireless services to fill the bandwidth deficiency provided by traditional WAN links
- D. assignment of designated IT staff to branch offices

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 54**

When would a network architect recommend an HP HSR6800 Router for a campus LAN? (Select two)

- A. The HP HSR6800 Router supports Border Gateway Protocol (BGP), which is unavailable on routing switches.
- B. The company wants to implement a Dynamic Virtual Private Network (DVPN).
- C. The company requires a large number of 10G connections.
- D. The company needs a routing device that supports extremely large routing tables.
- E. The HP HSR6800 Router provides routing features at a more attractive price point than a routing switch.

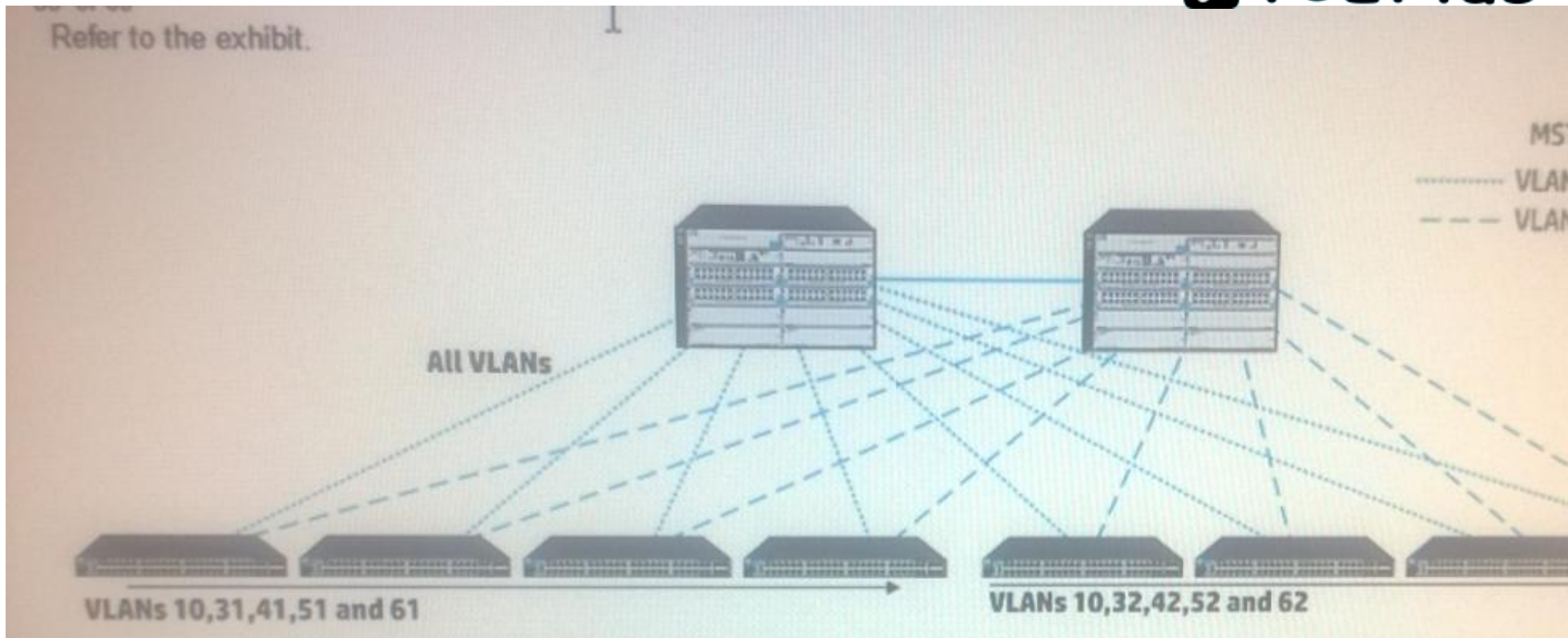
**Correct Answer:** BD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 55**



The exhibit shows a network with HP 3500 yl Series switches at the access layer and HP 8206 zl switches at the core. The customer with this solution has logged several support calls, which were eventually tracked down to spanning tree issues. How can a network architect adjust this solution to prevent this issue in the future?

- A. Implement BPDU guard and broadcast suppression on all of the switch-to-switch links.
- B. Implement BPDU filters on the switch-to-switch links and loop protection on the edge ports.
- C. Configure distributed trunking on the two 8200 zl switches at the core. Create a distributed trunk between the core switches and each 3500 yl switch
- D. Connect three or four 3500 yl switches together in a group. Establish a distributed trunk two switches in each group and the core switches.

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

**QUESTION 56**

Which application might drive a company to invest in a campus LAN topology that offers lower latency for east/west traffic flow?

- A. external customer-facing rich-media web application
- B. enterprise-wide VoIP solution
- C. enterprise-wide collaboration using video and messaging
- D. centralized database servers hosting a rich-media client-server application

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 57**

A customer is seeking an upgrade for their campus LAN network. Currently, the customer has access layer switches that support 48 10/100/1000 Mbps ports and one Gigabit uplink. The customer wants better performance in the upgrade but also wants to minimize costs.

The network architect has used the Network Traffic Analyzer (NTA) for Intelligent Management Center (IMC) to collect information about the access layer uplinks.

These are the results:

- For switches on floor 1, the peak utilization is 650 Mbps on a Gigabit uplink. On most days, the utilization peaks at about 400 Mbps. Peaks usually occur briefly.
- For switches on floor 2, the peak utilization is 800 Mbps on a Gigabit uplink. During active periods, the utilization often remains near 800.

What is the most appropriate plan for oversubscription in the new access layer? (For this question, think only about oversubscription and not customer needs for redundancy.)

- A. 24:1 in all locations
- B. 24:1 on floor 1 and 4:1 on floor 2
- C. 48:1 on floor 1 and 24:1 on floor 2
- D. 48:1 in all locations

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 58**

A customer requires high availability for wireless services at branches. The customer also wants to centralize management and traffic distribution as much as possible. What should the architect suggest?

- A. controlling branch APs with two HP 830 Unified Wired-WLAN switches, which are deployed at the main office
- B. controlling branch APs with a cluster of HP 830 Unified Wired-WLAN switches, one of which is deployed at the main office and one of which is deployed at the branch
- C. deploying the APs without a controller but managing them with HP Intelligent Management Center (IMC) Wireless Services Manager (WSM)
- D. controlling branch APs with one or more HP 7500/10500 20G Unified Wired-WLAN Modules at the main office and enabling remote-AP features

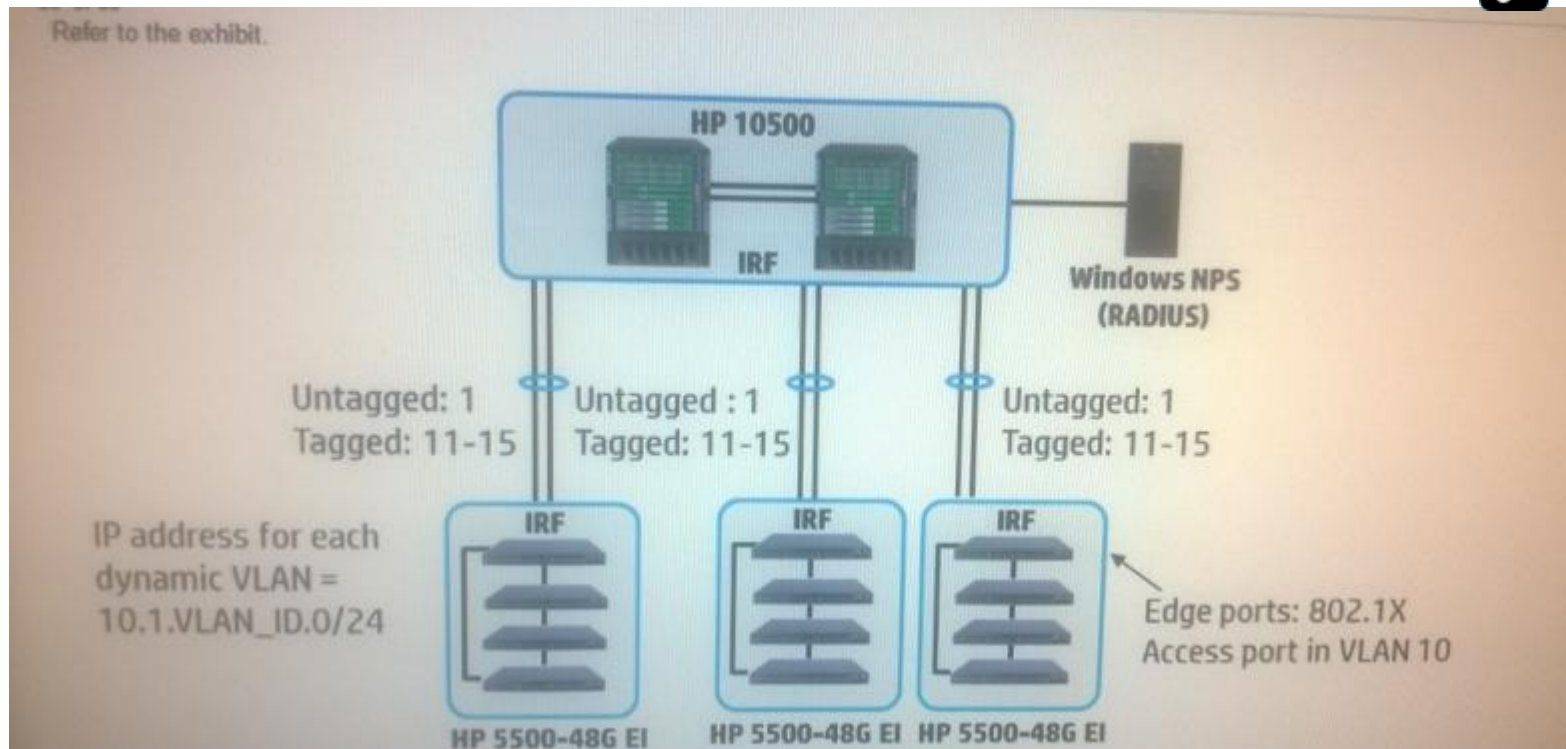
**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 59**



The customer wants to assign users to VLANs dynamically based on their Windows group. The company Windows Network Policy Server (NPS) RADIUS server will provide the assignments. Each of the Windows groups includes between 100 to 600 users.

Which issue does the architect need to resolve?

- A. The plan for the edge ports is incorrect; they should be trunk ports that support multiple VLANs.
- B. The switch-to-switch links should not carry so many VLANs.
- C. The proposed dynamic VLANs have too many potential users for the proposed subnets.
- D. The proposed switches do not accept dynamic VLAN assignments from Windows NPS servers.

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**



**QUESTION 60**

60 of 60

Match the modules for HP Intelligent Management Center (IMC) to the profile of the customer who needs that solution.

HP Network Traffic Analyzer (NTA) and HP User Behavior Auditor (UBA)	The customer network administrators want to understand the root causes of congestion.
HP User Access Manager, HP Wireless Services Manager (WSM), and HP Endpoint Admission Defense (EAD)	The customer wants a Bring Your Own Device (BYOD) solution.
HP Virtual Application Networks (VANs) Connection Manager (CM) and Resource Automation Manager (RAM)	The customer network administrators struggle to keep up with network provisioning requests from

**Correct Answer:**

**Section: (none)**

**Explanation**

**Explanation/Reference:**