HP - HP2-Z24

Selling HP Networking Solutions

QUESTION: 1
Companies should consider their networks to be segmented building blocks, and should design them to meet the needs of each segment: branch office, campus LAN, and data center. What can designers do as they segment the network in this way?

A. They must virtualize the technologies that underlie the various segments so that they can interoperate seamlessly
B. They must eliminate all proprietary protocols within each network segments.
C. They should implement open-standard technologies at the boundaries between segments.
D. They should select the best proprietary protocol to coordinate functions between network segments.

Answer: C

QUESTION: 2
Which HP IMC module can help your customers accelerate the delivery of applications using templates to provision and orchestrate networks?

A. HP IMC Application Performance Manager (APM)
B. HP IMC Virtual Application Networks (VAN) Manager
C. HP IMC Service Health Manager (SHM)
D. HP IMC Network Traffic Analyzer (NTA)

Answer: B
Reference: http://h17007.www1.hp.com/docs/van/van_brochure.pdf (page 5)

QUESTION: 3
Your mid-sized-business customer requires a critical-high-availability module switch for the core of three campus LANs. According to HP, which switch should you position?

A. HP 2910 al
B. HP 5400 zl
C. HP 8200 zl
D. HP t2508

Answer: C
Reference: http://h18000.www1.hp.com/products/quickspecs/12862_na/12862_na.pdf (page 7, flexibility, second bullet)

QUESTION: 4
Which statement is true regarding the HP virtual services modules (the HP Advance Services zl Module with Citrix XenServer and HP Advanced Services zl Module with VMware vSphere)

A. Each module can host at most one application
B. The module support custom application, including application that your customers develop internally.
C. The modules do not support core Linux services.
D. The modules are based on a custom hypervisor.

Answer: B

QUESTION: 5
HP IMC provides end-to-end fault and performance monitoring across which network segment?

A. branch offices
B. branch and campus LAN
C. data center
D. branch, campus LAN, and data center

Answer: D
Reference: http://h17007.www1.hp.com/us/en/networking/products/network-management/IMC_APM_Software/index.aspx

QUESTION: 6
Which switches best meet the needs at the data center network core for most mid-sized businesses? (Select two.)

A. HP 5820 Switch Series
B. HP 5920 Switch Series
C. HP 5900 Switch Series
D. HP 5800 Switch Series
E. HP 5830 Switch Series

Answer: B, C

Reference:
http://www.hp.com/hpinfo/newsroom/press_kits/2011/InteropNY2011/33495_HPN_5900.pdf (page 1, overview)

QUESTION: 7
A customer is planning to update the company's data center by implementing virtual machines (VMs) to deliver the services the company needs. What should you tell her about the way these VMs affect the network?

A. The north-to-south network traffic will increase so the customer may need to upgrade the distribution and core switches.
B. The east-to-west network traffic will increase so the customer should consider implementing a network architecture with fewer tiers.
C. The server-to-server traffic will actually decrease overall because VMs on the same server hardware will communicate internally through that hardware
D. The network traffic patterns will remain the same, but the customer may need to upgrade each server-to-switch link

Answer: B

QUESTION: 8
Most mid-sized businesses today are going to require which of these technologies at the edge?

A. 1/10-GbE server access
B. 10/40-GbE server access
C. InfiniBand
D. ultra-deep 40-GB packet buffers

Answer: A

QUESTION: 9
For which of your mid-sized-business customers might the HP 5820-14XG be a particularly good fit at the data center network edge? (Select three)

A. customers who require high 10-GbE port density at the edge
B. customers who require high 40-GbE port density at the edge
C. customers who require 40/100-GbE capability at the edge
D. customers who have Fibre Channel attached storage solutions
E. customers whose networks experience congestion caused by bursty multimedia traffic
F. customers whose applications are sensitive to the delay caused by deep packet buffers

Answer: A, D, F

QUESTION: 10
Which switch series would you recommend if your customer wanted to simplify branch management by converging network and server services in the company's datacenter?

A. HP 2520 Switch Series
B. HP 2620 Switch Series
C. HP 2910 al Switch Series
D. HP 5400 zl Switch Series

Answer: D

QUESTION: 11
How many types of devices can HP IMC manage?

A. more than 1,000
B. more than 3,000
C. more than 6.000
D. up to 10,000

Answer: D
Reference: http://h17007.www1.hp.com/docs/mark/4AA3-4496ENW.pdf (page 4, scales and expands with the network; second sentence)

QUESTION: 12
What can you access using the HP FlexNetwork Dropbox?

A. HP blogs
B. HP Networking Competitive Comparison Tool
C. EMEA Network Design Center
D. latest versions of HP FlexNetwork sales resources

Answer: B
Note: I am unable to find Flexnetwork dropbox

QUESTION: 13

Which statement is true regarding the HP virtual services modules (the HP Advanced Services zl Module with Citrix XenServer and HP advanced services zl module with VMware vsphere)

A. Each module can host at most one application.
B. The modules support custom applications, including applications that your customers develop internally.
C. The modules do not support core Linux services.
D. The modules are based on a custom hypervisor.

Answer: B

QUESTION: 14
HP IMC provides end-to-end fault and performance monitoring across which network segment?

A. branch offices
B. branch and campus LAN
C. data center
D. branch, campus LAN, and data center

Answer: D

QUESTION: 15
A customer is planning to update the company's data center by implementing virtual machines (VMs) to deliver the services the company What should you tell her about the way these VMs affect the network?

A. The north-to-south network traffic will increase so the customer may need to upgrade the distribution and core switches.
B. The east-to-west network traffic will increase so the customer should consider implementing a network architecture with fewer tiers.
C. The server-to-server traffic will actually decrease overall because VMs on the same server hardware will communicate internally through……
D. The network traffic patterns will remain the same, but the customer may need to upgrade each server-to-switch link.

Answer: B

QUESTION: 16
Many HP products come with a lifetime warranty that as long as the customer owns the product. Which products provide that lifetime warranty? (Select three.)

A. HP 2910
B. HP 5920
C. HP MSM460
D. HP MSM466
E. HP MSM760

Answer: A, C, D

QUESTION: 17
Many hp products come with a lifetime warranty that last as long as the customer owns the products. Which products provide the lifetime warranty? (Choose three)

A. hp 2910
B. hp 5920
C. hp msm400
D. hp msm 466
E. hp sms766

Answer: A, B, D

QUESTION: 18

More and more employees are using personally owned devices on computer networks. How does this trend affect the businesses? (Choose two)

A. They will need to implement identity based security
B. They will need some way of ensuring that these devices comply with security policy
C. They will need to additional protocols such as voice over IP and broader gateway protocol to secure access
D. They will need to implement separate network security methods for company and employee devices
E. They will need to implement virtualized network to host these applications in a private cloud

Answer: A, B

QUESTION: 19
Which LAN controller does HP recommend for customers who requires a local controller seat for less than 30 employees

A. hp msm710
B. hp msm720
C. hp msm760
D. hp msm765 zl

Answer: D

QUESTION: 20
How does the fact that the business model is shifting to a more centralized and virtualized data center impact branch office networks?

A. Because businesses are shifting away from dedicated application servers running in the branch, branch office network management is radically simplified.

B. Branch office networks have very little security and compliance concerns because all company data is stored and backed up at a centralized location with targeted security.

C. Branch office networks may be farther from productivity enhancing network resources than they used to be, creating delay when helping customers.

D. Because the data center is composed of high-performance network devices with next-generation traffic-prioritization capabilities, emerging voice and video applications will run with ease in today's branch offices.

Answer: A
The main benefits of virtualization in the branch office include:
* Lower infrastructure and operating costs
* Less application downtime and faster response time and failure recovery time
* Faster time to deployment for applications

In summary, branch-office server virtualization increases the speed of application deployment, improves application uptime and performance guarantees, and reduces equipment and operating costs.

In summary, the capability to copy and restore the entire state of a virtual server to a specific point in time improves the speed of recovery after a server failure, speeds up the migration process to new server hardware, and helps enable faster rollback to a fail-safe state in case of an unstable application.

Note: Branch-office infrastructure has always been a source of challenge for IT departments. Some of these are specific to the company's line of business, and others cut across all industries. The cost

of deploying new applications to remote locations, the impact of insufficient environmental controls on equipment, security and regulatory compliance constraints, the performance of centralized applications, and support for critical uptime requirements are just a few examples. Further, the challenges increase as the number of branch offices grows. According to a 2010 study by the Internet Research Group (IRG), in the past decade the number of branch offices in the United States has grown by 21 percent.2 Although no one product or technology can cure all of the current branch office headaches, server virtualization does address some of the most difficult issues.

Incorrect answers:
D: Emerging voice and video applications will require much more network bandwidth (not directly run with ease).

QUESTION: 21
A mid-sized business is seeking a networking solution, and the customer is concerned about how the components will work together from end to end now and in the future.
What message should the HP sales professional deliver?

A. The customer must use the same vendor from end to end to ensure interoperability; HP provides servers, storage, and networking components.
B. The customer should implement open standards wherever possible, and certainly at the boundaries of each network segment to enable the company to select the best solutions for each segment and have them interoperate
C. The customer should commit to a single open-standard vendor, which implements with proven, best-in-industry solutions.
D. The customer should select solutions based on which provide the best proprietary protocols for the company's highest priority business needs.

Answer: B
With an open, standards-based solution, enterprises can migrate their networks from legacy architectures to advanced architectures so they can meet contemporary business challenges, including cloud computing, federated applications, virtual machine mobility, high-performance mobile access, multimedia and video. Customers can choose best-in-class solutions that will meet their business needs. Using open, industry-standard protocol implementations mitigates the risk and cost of change when the network needs to adapt to new business requirements. And using open networks will make it simpler for enterprises move their applications to public and private cloud services.
Reference: FlexNetwork Architecture
http://h17007.www1.hp.com/docs/mark/FlexNetworkBrochure.pdf (page 4, first paragraph)

QUESTION: 22
What is a typical struggle for a company that has allowed its network management solution to grow

organically?

A. The IT staff must use a diverse set of management tools that do not integrate with each other.
B. The company has been locked into a costly management solution as part of a package with a single vendor.
C. The company has a single management solution, which does not fit the needs of some segments of the network.
D. The IT staff implements all configuration and management manually without the help of any management tools.

Answer: A
A large network might begin as a homogenous environment.
Switches, routers, servers, and wireless access points can all be from the same vendor and use the same network management software. But as the network expands, it can get equipment from a variety of manufacturers—each with its own set of network management tools. single manufacturer might even have multiple versions of its network management software. It's this increasing network management complexity that bogs down IT. A network manager may need to be proficient with several different management tools to keep the enterprise up and running reliably.

Reference: HP Intelligent Management Center Extended APIs (eAPIs), Business White Paper, Network management complexity

QUESTION: 23
For campus LANs, Gartner predicts that one factor will push network capacity by as much as 10 times current levels. What is this factor?

A. applications hosted in private clouds
B. video
C. Voice over IP traffic
D. SANs

Answer: B
New video applications will push network capacity needs by four to 10 times above current average levels.

Reference: Gartner, Inc., "Hype Cycle for Networking and Communications" August 2010.
Reference: FlexNetwork Architecture
http://h17007.www1.hp.com/docs/mark/FlexNetworkBrochure.pdf (page 2, 5th paragraph, last two lines)

QUESTION: 24

What is a primary disadvantage for companies that have committed to a single-vendor network?

A. The single-vendor network often fails to provide advanced solutions because proprietary technologies so often lag behind open-standard ones.
B. The components in the single-vendor network fail to interoperate with each other well because they use proprietary technologies.
C. The companies are limited in their future choice of services and solutions based on whether their choices work with that vendor's proprietary technologies.
D. The company cannot segment the network well, which makes it more difficult for network designers to implement an efficient, two-tier architecture.

Answer: D
Industry analysts predict that these trends—service-oriented architectures, server virtualization, video and collaboration, and widespread mobility—will bring a legacy network to a breaking point if proactive steps are not taken to prepare. According to
Gartner, businesses that don't segment their network infrastructure will suffer higher costs and increased vendor lock-in.

With this segmentation of functional building blocks, businesses can choose best-in-class solutions that fit their needs, rather than being locked into a one-size-fits-all solution. By using standard protocols at the boundaries, businesses can enable interoperability among the network segments and gain both agility and scale.

Reference: FlexNetwork Architecture
Reference: Gartner, Inc., "Clients That Don't Segment Their Network Infrastructure Will Have Higher Costs and Increased Vendor Lock-in," Tim Zimmerman, 15 March 2011.

QUESTION: 25
Which product feature contributes to the exceptional switching performance of the FlexFabric portfolio for the mid-sized business?

A. The products for the mid-sized business provide low port density to simplify the network.
B. The products for the mid-sized business provide efficient packet buffering.
C. The products for the mid-sized business provide support for up to 40GbE at the access layer.
D. The products for the mid-sized business provide support for up to 150GbE at the core

Answer: C
The HP 5900 Switch Series is a family of high-density 10 GbE ultra-low latency top-of-rack (ToR) switches. The 5900 series is part of the HP FlexFabric solution module of the HP FlexNetwork architecture. The 5900 switch is ideally suited for deployment at the server access layer of large enterprise data centers and is also designed for deployment at the data center core layer of medium-sized enterprises. With the increase in virtualized applications and server-to-server traffic,

customers now require ToR switch innovations that will meet their needs for higher-performance server connectivity, convergence of Ethernet and storage traffic, the capability to handle virtual environments, and ultra-low latency all in a single device.

Note: The HP 5900 Switch Series is a family of high-density 10GbE and ultra-low-latency top-of-rack (ToR) switches, ideally suited for deployment at the server access layer in large enterprise data centers.
Cut-through design for ultra-low 10 GbE latency
HP IRF for virtualization/two-tier architecture
High 10 GbE ToR port density with 40 GbE uplink
IPv6 support in ToR with full L2/L3 features
Convergence ready for DCB and FCoE

Reference: QuickSpecs, HP 5900 Switch Series
http://h18004.www1.hp.com/products/quickspecs/14252_div/14252_div.pdf

QUESTION: 26
Microsoft, Avaya, and Aastra provide what service through their HP AllianceONE partnership?

A. WAN acceleration for increased remote application performance
B. remote network management
C. reliable, unified communications
D. radio frequency (RF) vulnerability protection

Answer: C
AllianceONE partners
So far, we have been doing joint UC&C (unified communications and collaboration) development with Microsoft, Avaya and Aastra as part of our AllianceONE program. In the case of Microsoft and Avaya, we've developed unique products based on our zl services module.

We leave it to our resellers to chart the best course for their business. We then support them through interoperability, open standards and migration guides if that course takes them away from VCX over time. Our networking programs are currently deployed worldwide supporting VoIP & UC&C solutions from Mitel, Shortel, Aastra, Microsoft, Avaya, Alcatel Lucent and Cisco, to mention just a few.

Reference: Setting the record straight on VCX, VoIP and UC&C
http://h30507.www3.hp.com/t5/HP-Networking/Setting-the-record-straight-on-VCX-VoIP-and-UC-amp-C/ba-p/87309 (6th paragraph, UC&C means unified communications and collaboration)

QUESTION: 27
Your customer is concerned that adding an 802.11n-compliant access point will overload the

network infrastructure where the controller connects to the network. How would the HP optimized WLAN alleviate this concern?

A. The HP controllers support aggregated links, allowing you to increase bandwidth as needed to handle the added traffic generated by 802.11n wireless networks.
B. The HP controller can buffer the wireless traffic as needed so that it does not cause congestion on the wired network.
C. Each AP can forward traffic directly onto the wired network, so that the controller and its connection to the network do not become bottlenecks.
D. The HP controller supports quality of service (QoS) mechanisms, allowing you to prioritize delay-sensitive applications.

Answer: C
There is an expanding architecture available today that is equipped to take advantage of the speeds and capacity of 802.11n—the optimized WLAN architecture. This architecture delivers a scalable, efficient, high-performing wireless network, combining the advantages of central management while addressing the limitations of having a central wireless switch. It consists of intelligent APs and a WLAN controller. The APs forward traffic and enforce security and prioritization policies, while the WLAN controller centrally manages and controls all APs. In this model, the AP dispatches all traffic directly from source to destination without requiring a detour to the controller.
See figure below:

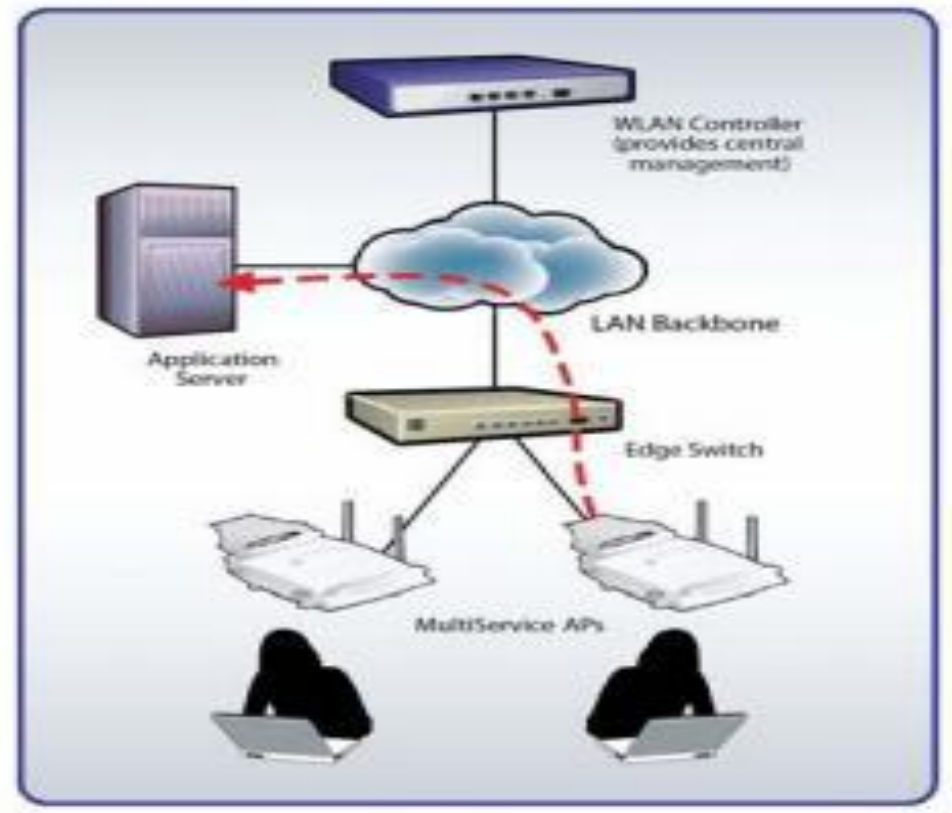


Figure 3: Next-gene ration WLAN—optimized VVLAN architecture
• Cost-effective migration to 802.11 n
• Efferent traffic forwarding
• No single point of failure or performance bottleneck
• Adds no superfluous traffic on LAN
• Cost-effective scalability
• Time-saving central management

Reference: 802.11n Drives an Architectural Evolution, HP White Paper
http://www.techdata.com/(S(bmutwnra1lla5maguh5gckmt))/techsolutions/wireless/files/HP%20Procurve%208021-11n%20Drives%20Architectural%20Evolution.pdf

QUESTION: 28
How many ports in a legacy three-tier network are typically used just to interconnect the switches?

A. one-quarter (1/4)
B. one-half (1/2)
C. two-thirds (2/3)
D. three-quarters (3/4)

Answer: B
HP estimates that more than $1 billion is spent annually on the aggregation layer of the data center network, and half the ports in a legacy three-tier network are used to interconnect switches.
Reference: Innovation over converged networks.
http://www.thefreelibrary.com/Innovation+over+converged+networks.-a0258819457

QUESTION: 29
The FlexNetwork architecture is tailored to the needs of which business size?

A. Small businesses
B. Small and mid-sized businesses
C. Mid-sized and large businesses
D. Small, mid-sized, and large businesses

Answer: D
The FlexNetwork architecture scales on three dimensions—functionality, connectivity, and capacity.

HP offers network solutions for organizations of any size that scale from the most basic functionality to the most feature-rich; from limited connectivity to multisite large-scale

connectivity, and from megabit to terabit capacity. This allows, for instance, operators of the largest networks to use basic functionality to lower costs for the volume of access switches they need, while the operators of smaller networks can use feature-rich functionality to create a competitive advantage.
However, businesses can continue to scale up in features, port count, and capacity without sacrificing performance or wasting capital along the way.
Reference: HP FlexNetwork Architecture, Change the rules of networking

QUESTION: 30
A customer wants to migrate a company's three-tier architecture to a two-tier architecture. Which technology would you recommend to flatten the network architecture?

A. Virtual Connect
B. Virtual Private LAN Service
C. Intelligent Resilient Framework
D. Service-Oriented Architecture

Answer: C
HP IRF (Intelligent Resilient Framework) is an innovative technology that lets you 'flatten' data center and campus networks, eliminating the need for a dedicated aggregation layer and providing more direct, higher capacity connections between users and network resources. And IRF helps customers achieve these goals in a cost-effective, easy-to-manage way

Note: Traditional three-tier networks—designed to support data-center-in/data-center-out traffic and built using legacy, poor-performing redundancy protocols—can't deliver the server-to-server capacity required for these types of workloads.
One HP innovation is Intelligent Resilient Framework (IRF), a technology that far outstrips ordinary protocols designed to improve the performance of network switches.

Incorrect answers:
A: Virtual connect is a unique networking technology to add, replace and recover server blades on the fly.
B: Virtual Private LAN Service (VPLS) is a way to provide Ethernet based multipoint to multipoint communication over IP/MPLS networks. It allows geographically dispersed sites to share an Ethernet broadcast domain by connecting sites through pseudo-wires.

Reference: Reducing network complexity, boosting performance with HP IRF technology, White paper

QUESTION: 31
Which statement about HP Intelligent Resilient Framework (IRF) is true?

A. IRF blocks all parallel paths except the one it has selected as active.
B. IRF offers sub-5-second failover.
C. Although it takes the same amount of time to configure IRF as it does to configure STP, IRF is much more resilient.
D. IRF enables both one-tier and two-tier networks.

Answer: B
If the primary switch fails, IRF instantly selects a new primary, preventing service interruption and helping to deliver network, application, and business continuity for business-critical applications. Should a network failure occur, IRF can deliver rapid recovery and network reconvergence in under 50 milliseconds—much faster than the several seconds required for STP.

Incorrect answers:
A: This is true for STP (Spanning Tree Protocol) only.
C: IRF is more resilient, see below.
However, IRF is takes less time to configure compared to STP.

Advantages in resiliency:
* Distributed high availability and resiliency: For high availability, the IRF fabric can be configured for full N+1 redundancy, while mission-critical virtualization capabilities such as live migration and application mobility are available across the IRF domain and extend across the Layer 2 WAN infrastructure.
* Geographic resiliency: Within an IRF domain, the geographic location of switches does not matter. Switches can be extended horizontally, and they continue to function as a single logical unit whether they are installed locally, distributed regionally, or even situated at distant sites. Moreover, employing IRF can enhance disaster recovery by linking installations up to 70 kilometers apart and giving them the same fast failover as if they were sitting side by side within the data center. Such location independence is extremely important to support the global on-demand application access and dynamic traffic flows of today's technology-oriented businesses.

Reference: Reducing network complexity, boosting performance with HP IRF technology, White paper

QUESTION: 32
If your mid-sized business customer is looking for just one product to deliver all the services the company needs in a branch, which HP solution would you suggest?

A. HP 6600 Router Series
B. HP 8800 Router Series
C. HP MSR20 Router Series
D. HP 5400 zl Switch Series

Answer: C
The HP MSR20 router series is a component of the FlexBranch architecture. It features a modular design that delivers unmatched flexibility for small branch offices and small to medium-sized businesses while reducing complexity, simplifying management, and increasing control. The MSR20 Series routers provide a full-featured, resilient routing platform, including IPv6 and MPLS, up to 180 Kpps forwarding capacity, and 100 Mbps encryption. These products offer lasting investment protection, and help reduce capital and operating expenses. These routers provide an agile, flexible network infrastructure that offers the ability to quickly adapt to changing business requirements while delivering integrated, concurrent services on a single, easy-to-manage platform.

Reference: http://h17007.www1.hp.com/us/en/products/routers/HP_MSR20_Series/index.aspx

Incorrect answers:
A: As the first service convergence routers based on a multi-core processor, the HP 6600 series routers dramatically enhance service processing capacity with HP FlexNetwork architecture. Distributed processing architecture, isolated routing, and service engines, as well as isolated control and service panels, provide higher reliability and continual services. Different software service engines can handle different services such as network address translation (NAT), Quality of Service (QoS), IPsec, and NetStream with no services modules needed. 6600 routers feature a modular design, embedded hardware encryption, and flexible deployment configurations, including High-speed Interface Modules (HIMs), Multi-function Interface Modules (MIMs), and Open Application Architecture (OAA)-enabled modules that provide network customization and investment protection. These routers provide carrier-class reliability at network, device, link, and service layers.
B: The 8800 routers are commonly deployed in IP backbone networks, IP metropolitan area networks (MANs), the core or convergence layers of large IP networks.
D: A router, not a switch is required.

QUESTION: 33
Which switch series are 10/100 alternatives to the 2910 all in the small branch? (Select two.)

A. HP 1810
B. HP 1905
C. HP 2510
D. HP 2620
E. HP 3500

Answer: A, C
A: HP 1810 switch series devices are basic smart managed fixed-configuration Gigabit Ethernet Layer 2 switches designed for small businesses looking for key features in an easy-to-administer solution. The series has three models: 8-, 24-, and 48-port 10/100/1000 switches.

C: Designed to provide essential solutions to small and medium businesses, the HP 2510 Switch Series consists of four Layer 2-managed switches that provide reliable 10/100 and 10/100/1000 connectivity.

Note: The HP 2910 al Switch Series consists of four switches: the HP 2910-24G al and 2910-24G-PoE+ al Switches with 24 10/100/1000 ports, and the HP 2910-48G al and 2910-48G-PoE+ al Switches with 48 10/100/1000 ports.
These switches can be deployed at enterprise edge and remote branch offices, converged networks, and data center top of rack.

Incorrect answers:
B: HP 1905 Switch Series devices are smart managed fixed-configuration Fast Ethernet Layer 2 switches designed for small businesses looking for key features in an easy-to-administer, low-cost solution. Fast Ethernet models include: 24- and 48-port non-PoE switches, 8- and 24-port PoE Fast Ethernet switches. Also available is a 10-port PoE Gigabit Ethernet switch.
D: The HP 2620 Switch Series consists of five switches with 10/100 connectivity.
Enterprise-class features.
E: The 3500 is primarily for the Medium or the Enterprise business.
Scalable 10/100/1000 PoE+ and 10/100 PoE.

QUESTION: 34
The HP MSM460 and MSM466 can automatically redirect 5 GHz–capable clients to the less congested 5 GHz frequency band. What is one advantage of operating a wireless access point in the 5 GHz frequency band?

A. Channel bonding (to increase bandwidth) is supported in the 5 GHz band only.
B. Beamforming (to improve coverage and reduce dead spots) is supported in the GHz band only.
C. The MSM460 and MSM466 can support more high-definition video conferencing sessions when deployed in the 5 GHz band.
D. The 5 GHz band is less congested than the 2.4 GHz band.

Answer: D
Advantages of 5GHz:
The 5GHz band is less likely to be congested. The 2.4GHz frequency range is much more prone to interference, as it is commonly used by other wireless networks in the area, as well as cordless phones, garage door openers and other home appliances and consumer products.

Reference: **Is 5GHz Wireless better than 2.4GHz?**
http://www.speedguide.net/faq_in_q.php?qid=340

QUESTION: 35

The 5400 zl and 8200 zl share which features? (Select three.)

A. support for HP AllianceONE solutions
B. support for the same interface modules
C. support for redundant, hot-swappable power supplies
D. support for dual, load-sharing fabric modules
E. support for dual management modules that support transparent active/standby switchover

Answer: A, C, E
A: Solution integration—5400 zl/8200 zl-hosted application/services deployment via HP AllianceONE Services zl Module

C: A power supply is hot-swappable provided at least one other power supply is operational. If the 5412 zl switch has only two power supplies and one of them fails, then only the upper six slots (slots A through F) will receive power.
8200 zl: Hot-swappable modules — interface, management, and fabric modules as well as mini-GBIC optics and power supplies can be removed, swapped, or added to the system without interrupting ongoing switch operations.

E: The high-availability design of the HP 8200 zl Switch Series, with its dual-management and fabric modules and HP Networking's auto-synchronizing capability, positions this switch perfectly as a distribution/aggregation switch, for medium-scale core applications, or for mission-critical access layer deployments. It shares the same software and hardware capabilities with the HP 5400 zl, 3500, and 6200 yl Switch Series.
The dual MM design allows either module to manage the system in an active/standby model.
On 5400 zl:

Rather than duplicate status information and control buttons on each of the dual management modules, the System Support Module creates a common location

Reference: HP 8200 zl, 5400 zl, 3500, and 6200 yl Switch Series, Technical White Paper
http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA0-5388ENW.pdf (page 5, 60)

QUESTION: 36
Many HP products come with a lifetime warranty that lasts as long as a customer owns the product. Which wireless products shown here provide that lifetime warranty? (Select three.)

A. MSM760
B. MSM765 zl
C. RF Manager
D. MSM460
E. MSM466

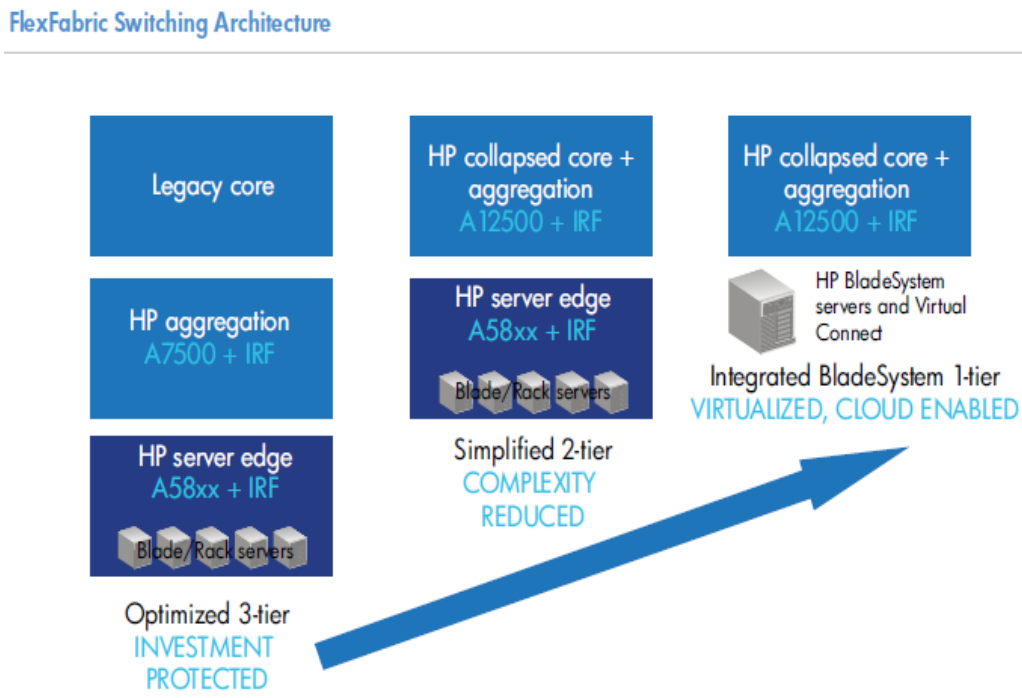
Answer: B, D, E
B: HP MSM765 zl Mobility Controller (J9370A) – Specifications
Warranty: Lifetime, advance replacement, next business day
D: HP MSM460 Dual Radio 802.11n Access Point (IL) (J9618A)-
Warranty: Lifetime, advance replacement, next business day
E: HP MSM466 Dual Radio 802.11n Access Point (AM) (J9621A) - specifications and warranty: Lifetime, advance replacement, next business day

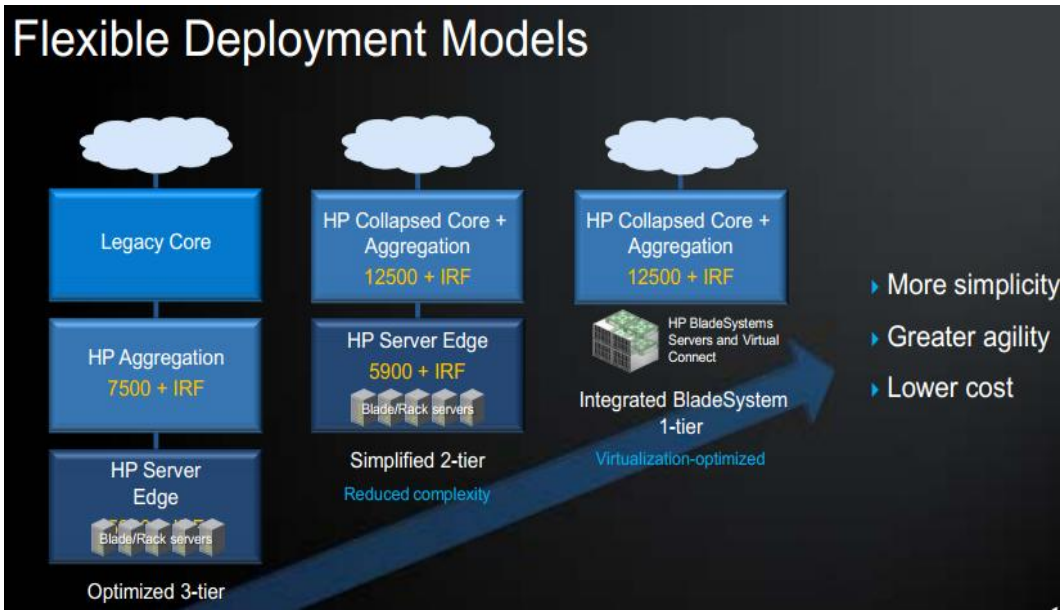
Incorrect answers:
A: MSM760: Warranty, 1 year, advance replacement, next business day
C: RF Manager
Warranty: 1 year, advance replacement, next business day

QUESTION: 37
Which HP products are positioned at the core of an HP FlexFabric solution for a mid-sized business customer? (Select two.)

A. 7500 Series switches
B. 5830 Series switches
C. 5820 Series switches
D. 12500 Series switches
E. 10500 Series switches

Answer: A, D
A: The HP 7500 Series of modular core switches is the new generation of multilayer switches that meet the evolving needs of integrated services networks.
D: The HP 12500 Switch series comprises an 8-slot and 18-slot modular next-generation switching platform that delivers the scalablity and performance needed in the data center.
Note 1: By deploying IRF in conjunction with highly-scalable 12500 switches in the core and 5830 GbE and 5820 10 GbE series switches in the access layer - IT can completely eliminate the requirement for a dedicated aggregation layer as they scale-out data centers, and enjoy the benefits of large Layer 2 domains with increased network uptime and simplified management.
Note 2:





Incorrect answers:
B: HP 5830 Switch Series is new generation deep buffer data center top of rack switch, delivering combination of high density GbE and 10 GbE Ethernet ports, and full Layer 2 and Layer 3 dual-stack IPv4 and IPv6 capabilities.
For: Lower OpEx and greener data centers
Note: 5830 switches are typically in the edge, not the core.
C: The HP 5820 Switch Series are advanced flex-chassis switches that deliver a unique combination of unmatched 10 Gigabit Ethernet port density, high-availability architecture, and full Layer 2 and

Layer 3 dual-stack IPv4 and IPv6 support.
For enterprise core, distribution, data center
Note: 5820 switches are typically in the edge, not the core.

E: The HP 10500 is designed to set a new benchmark for performance, low-latency, reliability and future-proof scalability to enable a video-ready campus network and provide an unmatched user experience with an advanced, simplified network architecture.

Reference: HP FLEX FABRIC NETWORKING, DATA CENTER SOLUTIONS
Reference: FlexNetwork Architecture

QUESTION: 38
With which HP product should a sales professional lead for the router at a branch with 30 seats?

A. MSR20 Series router
B. MSR30 Series router
C. MSR50 Series router
D. MSR900 Series router

Answer: A
A 30 seat branch would be a small office. The MSR20 series router would be adequate.

Note: The HP MSR20 router series is a component of the HP FlexBranch solution, which is part of the HP FlexNetwork architecture. It features a modular design that delivers unmatched flexibility for small branch offices and small to medium-sized businesses while reducing complexity, simplifying management, and increasing control.

Incorrect answers:
B (and by implication C,D, and E): The HP MSR30 router series is a component of the HP FlexBranch solution, which is part of the HP FlexNetwork architecture. MSR30 series routers are ideal for medium to large enterprise branch and regional offices.

Reference: HP MSR20 Series Data Sheet

QUESTION: 39
A mid-sized business delivers software as a service (SaaS) solutions to subscribers and is gaining business rapidly. The company requires a highly available FlexCampus solution that can also scale as the company expands. What is a benefit of the HP Intelligent Resilient Framework (IRF) technology for this customer?

A. The customer can save money by merging the storage and server networks while maintaining

lossless delivery.

B. IT staff can use a single-pane-of-glass solution to rapidly provision the network for new virtual servers.

C. The customer can continue to add up to nine 5820 switches at the core, and the devices will act as a single virtual device.

D. The HP switches' intelligent fabric transmits traffic over multiple, load-balancing paths, maintaining high availability as the network scales to 40/100G.

Answer: C
IRF creates one logical switch from two or more physical switches. The A5820 switch can support up to nine switches in one IRF domain.

Reference: Virtual Connect and HP A-Series switches IRF Integration Guide, White Paper
http://bizsupport1.austin.hp.com/bc/docs/support/SupportManual/c02843088/c02843088.pdf
(page 7)

QUESTION: 40
Virtual Connect Flex-10 technology can divide a single 10GbE port into how many individual network connections?

A. 2
B. 4
C. 5
D. 10

Answer: B
HP Virtual Connect (VC) Flex-10 technology is a hardware-based solution that lets you split a 10 Gb/s server network connection into four variable partitions.

Reference: HP Virtual Connect Flex-10 technology: Convergence with FlexFabric components
http://h20000.www2.hp.com/bc/docs/support/SupportManual/c01608922/c01608922.pdf
(page 2)

QUESTION: 41
Which statement is true of the MSM APs in the FlexNetwork portfolio for the mid-sized business?

A. The MSM460 and MSM466 APs can be managed by or deployed independent of a controller. The MSM430 is a managed AP only.

B. Like the MSM460 and MSM466, the MSM430 delivers near Gigabit Ethernet performance for the wireless network, but it supports just two WLAN profiles. The MSM460 and MSM466 support up to 16 profiles.
C. All three MSM APs support beamforming and band steering for RF optimization.
D. Only the MSM460 and MSM466 support concurrent 5 GHz operations.

Answer: C
HP E-Series Mobility E-MSM460, 466 & 430 Access Point
Features and benefits include:
* Beamforming:
– Better coverage area
– Better performance at distances from the AP

Bandsteering:
– Steers wireless clients to the 5 GHz band for outstanding performance

Incorrect answers:
D: Concurrent operation in the 5 GHz band:
provides ability to run both radios in the 5 GHz band for best performance (E-MSM466 Only)

Reference: HP E-802.11n Dual Radio Access Point Series, Data Sheet
http://h17007.www1.hp.com/docs/products/4AA3-2358ENW.pdf

QUESTION: 42
When should a sales professional recommend the HP 5500 EI Switch Series for an HP FlexBranch solution?

A. when the customer wants a consistent OS across the branch
B. for all typical branch deployments
C. when the customer requires Power over Ethernet (PoE) for devices such as IP phones
D. when the customer needs only basic Layer 3 capabilities

Answer: C
Power over Ethernet (PoE) and non-PoE HP 5500 EI models are available with optional GbE and 10 GbE expansion capability.

Note: Product overview
These Gigabit Ethernet switches deliver outstanding security, reliability, and multiservice support capabilities for robust switching at the edge or aggregation layer of large enterprise and campus networks, or in the core layer of SMB networks. The HP 5500 EI Switch Series is comprised of Layer 2/3 Gigabit Ethernet switches that can accommodate the most demanding applications and provide resilient and secure connectivity as well as the latest traffic prioritization technologies to enhance

applications on convergent networks. With complete IPv4/IPv6 dual-stack support, the series provides a migration path from IPv4 to IPv6 and has hardware support for IPv6. Designed for increased flexibility, these switches are available with 24 or 48 Gigabit Ethernet ports. Power over Ethernet (PoE) and non-PoE models are available with optional GbE and 10 GbE expansion capability. The all-fiber model with dual power supplies is ideal for applications that require the highest availability

Reference: HP 5500 EI Switch Series , QuickSpecs
http://h18000.www1.hp.com/products/quickspecs/13808_na/13808_na.PDF

QUESTION: 43
What is one key benefit that distinguishes the HP 2620 from the HP 2520?

A. The 2520 is a basic L2 switch, and the 2620 is a fully managed L2 switch.
B. The 2520 provides support for Power over Ethernet Plus (PoE+), but the 2620 offers both PoE+ and partial PoE+ models.
C. The 2620 supports PoE; all 2520 switches are non-PoE.
D. The 2620 supports Gigabit fiber uplinks.

Answer: D
HP 2620 Switch Series
Key features
Cost-effective access layer switches
Lite Layer 3 IPv4/IPv6 static and RIP routing
30 W PoE+ support on PoE models
Gigabit fiber uplinks (D)
Enterprise-class features

HP E2520 Switch Series
Key features
Fully managed Layer 2 switch in 8 or 24 ports (not A)
Choice of Fast Ethernet or Gigabit PoE models (not C)
Power over Ethernet for voice, video, and wireless
Energy-efficient design and quiet operation
Rack-mountable and compact form factors

Reference: QuickSpecs, HP 2620 Switch Series
http://h18004.www1.hp.com/products/quickspecs/14120_div/14120_div.pdf
HP E2520 Switch Series, DataSheet

QUESTION: 44
What are two ways that the HP products positioned at the core of mid-sized business HP

FlexCampus solutions, as well as the products positioned at the edge, promote environmental efficiency? (Select two.)

A. They can operate at a lower temperature than most competing products.
B. They support granular power management with Link Layer Discovery Protocol-Media Endpoint Discovery (LLDP-MED).
C. They have a centralized computing architecture.
D. They can operate at a higher temperature than most competing products.
E. They have a distributed computing architecture.

Answer: B, C
B: Media Endpoint Discovery is an enhancement of LLDP, known as LLDP-MED, that provides the following facilities:
* Extended and automated power management of Power over Ethernet (PoE) end points. (B)
* Auto-discovery of LAN policies (such as VLAN, Layer 2 Priority and Differentiated services (Diffserv) settings) enabling plug and play networking.
* Device location discovery to allow creation of location databases and, in the case of Voice over Internet Protocol (VoIP), Enhanced 911 services.
* Inventory management, allowing network administrators to track their network devices, and determine their characteristics (manufacturer, software and hardware versions, serial or asset number).
C: Endpoint energy management
Network based energy management for laptops, VDI, IP phones and other endpoints.

QUESTION: 45
Which technology provides Layer 2 (but not Layer 3) failover in 1 to 50 microseconds?

A. Multiple Spanning Tree Protocol (MSTP)
B. Intelligent, Resilient Framework (IRF)
C. Rapid Spanning Tree Protocol (RSTP)
D. Rapid Ring Protection Protocol (RRPP)

Answer: B
Should a network failure occur, IRF can deliver rapid recovery and network reconvergence in under 50 milliseconds—much faster than the several seconds required for STP.
IRF

Incorrect answers:
C: Better than the recovery time of STP (30 seconds) but not that fast: The new enhanced mechanisms allow RSTP to reduce failover and recovery times to just a few seconds.

Reference: Reducing network complexity, boosting performance with HP IRF technology, White

paper

QUESTION: 46
Which HP technology enables IT to add new server blades, replace failing blades, or move blades around in the chassis without having to reconfigure the network?

A. HP Intelligent Management Center (IMC)
B. HP Virtual Connect Manager (VCM)
C. HP TippingPoint Security Management System (SMS)
D. HP TippingPoint Virtual Management Center (vMC)

Answer: B
HP Virtual Connect
A new interconnect option between the server blades and external networks in c-Class BladeSystems (only) is through HP's new virtual I/O offering called Virtual Connect (VIRTUAL CONNECT)

This allows the BladeSystem administrator to add new blades, replace failing blades or move blades around within the chassis without having to reconfigure the network external to the c-Class BladeSystem chassis. The Virtual Connect interface to the outside world remains the same allowing the blades to be fungible. All management of connection changes is done through the Virtual Connect Manager, included with every module

Incorrect answers:
A: HP Intelligent Management Center (IMC) Enterprise Edition is a standalone, comprehensive management platform that delivers next-generation, integrated, modular network management capabilities that efficiently meet the needs of advanced, heterogeneous enterprise networks. IMC Enterprise Edition is designed on a service-oriented architecture (SOA) using a business application flow model as its core and featuring an on-demand, modularized structure.

C: The HP TippingPoint Security Management System (SMS) Appliance Series delivers enterprise-class security management capabilities to all HP TippingPoint security products. The HP TippingPoint SMS Appliance provides both global vision and security policy control for large-scale deployments of all HP TippingPoint products, including the HP Intrusion Prevention Systems (IPS), Core Controllers, and SSL Appliances. With features such as multi-tenency support, customizable log functionality, integration with the HP ArcSight SIEM, the HP TippingPoint SMS delivers robust management functionality, with flexible deployment options. Additional support for both IDS and IPS deployments, provides organizations an easy to use solution for monitoring, configuring, remediating and reporting, while reducing the costs associated with deploying, managing, and maintaining enterprise security solutions.

- Quarantine Protection: automated event response
- Advanced Security Policy Definition
- Automated security updates/Digital Vaccine

- Security device configuration and monitoring
- Enterprise security reporting and trend analysis

D: The HP TippingPoint Secure Virtualization Framework is designed to provide IT personnel a single consolidated, yet flexible solution for extending the HP TippingPoint IPS Series with its excellent threat protection into the virtualized data center. The solution currently includes two components:

• Virtual Controller (vController)
• Virtual Management Center (vMC)—both the vMC server and client are included with vController

Reference: HP Blades and Server Virtualization: The Ins and Outs of I/O
http://www.focusonsystems.com/English/Collaterals/Documents/CDW_WP_HPBladesVirtualization.pdf

QUESTION: 47
What architecture does HP recommend you lead with for the wireless solution at a branch of 20 to 50 employees?

A. HP MSM wireless products
B. HP MSR30 with its optional WLAN AP
C. HP MSR20 with its optional WLAN AP
D. HP MSR900 with its built-in WLAN AP

Answer: C
MSR20-1X routers are full-featured, economical routers designed for converged wired and wireless WAN and LAN environments at small remote branch offices and small to medium-sized businesses. The HP MSR20 router series is a component of the FlexBranch architecture. It features a modular design that delivers unmatched flexibility for small branch offices and small to medium-sized businesses while reducing complexity, simplifying management, and increasing control.

FlexBranch office with 20–50 employees. Can use HP A-MSR20 Router with built-in FW.

3G access support — provides 3G wireless access for primary or backup connectivity via a 3G SIC module certified on various cellular networks; optional carrier 3G USB modems available

Reference: HP MSR20-1x Series
http://h17007.www1.hp.com/us/en/products/routers/HP_MSR20-1x_Series/index.aspx

Reference: HP FlexBranch Office Solution: Transforming the
branch experience
http://h17007.www1.hp.com/docs/mark/4AA0-9231ENW.pdf (page 4)

QUESTION: 48
The MSM760 and MSM765 zl can manage how many wireless access points?

A. 50
B. 100
C. 150
D. 200

Answer: D
Capacity that scales from small office to large campus — efficiently deploy wireless LANs (WLANs) with the MSM710 controller, which controls up to 10 APs; the MSM720 controller, which supports 10 to 40 APs; and the MSM760 and MSM765 zl controllers, which control 40 to 200 APs.

Reference: HP MSM Controller Series, Features, Mobility

http://h17007.www1.hp.com/us/en/products/wireless/HP_E-series_MultiService_Controller_MSM/index.aspx

QUESTION: 49
Which HP AllianceONE partner solution provides simplified remote network management using a zl Services Module installed in the 5400 zl?

A. Microsoft Survivable Branch Communication
B. NetScout nGenius Integrated Agent
C. Aastra MX-ONE
D. Avaya Communication Manager

Answer: A
Software component of P Survivable Branch Communication zl Module powered by Microsoft

* Microsoft Lync Server 2010
* Survivable Branch
* Mediation Server
* PSTN media gateway
** Remote managementof

Note #1: HP Survivable Branch Communication zl Module (SBM) powered by Microsoft Lync provides survivable branch services, such as external phone call capability, while sustaining internal peer-to-peer communications when the data center cannot be reached.
SBM combines Microsoft Lync survivable branch application and software from HP, including a

public switched telephone network (PSTN) to Voice over Internet Protocol (VoIP) gateway, a graphical user interface (GUI), management interfaces, and an application programming interface (API) to the switch itself, all of which are integrated on a module that fits in the chassis of HP E8200 zl and E5400 zl Switch series products.

The HP Survivable Branch Communication zl Module delivers:

* Survivability: Branch offices can now better maintain network availability in a Communications Server "14" environment with a reliable distributed public switched telephone network backup in case of wide area network failure.

* Simplicity: Organizations can increase efficiency and scalability by rapidly installing, deploying and migrating from legacy PBX and key systems with centralized remote management, across branch offices for Microsoft Communications Server "14" environments.

* Cost efficiency: Organizations can reduce costs by eliminating specialized technology infrastructure, expertise and management tasks required at branch locations.

Incorrect answers:
B: Solution components of the HP AllianceONE Advanced Services zl Module for nGenius Integrated Agent
HP
* HP E8200 zl or E5400 zl series switches
* HP AllianceONE Advanced Services zl Module
NetScout
* nGenius Integrated Agent for HP (required)
* nGenius Performance Manager (required)

For organizations that need advanced support options, NetScout Technical Account Manager, Onsite Engineer, Remote Site Engineer, and comprehensive professional service programs are available.

C: The Aastra MX-ONE™ is a Open Standards based SIP-PBX, which will enable enterprises to build a state of the art IP telephony (ToIP) and Unified Communications (UC) solution in a cost effective and flexible manner. It offers a set of building blocks ranging from voice communications and UC applications to integrated mobility solutions that can be tailored to fit the needs of virtually any organization.
D: Avaya Aura Communication Manager is a key component of Avaya Aura, Avaya's architecture for next generation, people-centric collaboration. It delivers rich voice and video capabilities and provides for a resilient, distributed network of media gateways and analog, digital and IP-based communication devices. In addition, Communication Manager boasts robust PBX features, high reliability and scalability, and multi-protocol support.

Reference: HP Survivable Branch Communication zl Module powered
by Microsoft Lync, QuickSpecs, Product Overview
http://h20195.www2.hp.com/v2/GetPDF.aspx/c02811720.pdf

References: HP Networking > AllianceONE: Networking Specialization > Application,
HP Survivable Branch Communication zl Module powered by Microsoft Lync

QUESTION: 50
With the 5400 zl and 8200 zl switches deployed in the branch, your customers can achieve which benefits? (Select three.)

A. reduce device sprawl
B. avoid vendor lock-in
C. deliver industry-leading intrusion prevention
D. integrate, rather than overlay, a wireless LAN (WLAN) solution
E. enable 3G WAN backup
F. support up to 64 digital voice channels

Answer: B, C, D
B: Both the HP 5400 zl and 8200 zl Switch Series offer service modules to enable a wide range of networking applications and services.

C: The HP 8200 zl/5400 zl Switch Series supports a variety of services modules, providing customers with the ability to deploy integrated network applications and services for enhanced system security and functionality.

A variety of services modules are available for HP 8200 zl/5400 zl Switch Series including:
* J9156A HP Threat Management Services zl Module with 1-year intrusion detection/prevention system (IDS/IPS) subscription

Note: The HP 5400 zl and 8200 zl Switch Series offer the flexibility, in-chassis redundancy, and scalability in modular form factors.

D: The HP 5400 zl and 8200 zl Switch Series also provide a wide range of service modules to enable wireless management, security and threat management, and HP Services zl Module-enabled hosted applications and services.

Reference: HP 8200 zl, 5400 zl, 3500, and 6200 yl Switch Series, Technical white paper
http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA0-5388ENW.pdf

QUESTION: 51
What is the role of Rapid Ring Protection Protocol (RRPP) when deployed in a network?

A. It eliminates loops in a redundant topology by blocking ports.
B. It can interconnect as many as 15 switches, creating a group managed using a single IP address.

C. It prevents head-of-line (HOL) blocking during peak times.
D. It provides threat management for business assets and resources based on IT policies.

Answer: A
The Rapid Ring Protection Protocol (RRPP) is a link layer protocol designed for Ethernet rings. RRPP can prevent broadcast storms caused by data loops when an Ethernet ring is healthy, and rapidly restore the communication paths between the nodes in the event that a link is disconnected on the ring.
RRPP features fast topology convergence.

To prevent temporary loops, non-master nodes block them immediately (and permit only the packets from the control VLAN to pass through) when they find their ports accessing the ring are brought up again. The blocked ports are activated only when the nodes are sure that no loop will be generated by these ports.

Note: In a situation where broadcast storm suppression mechanism in case of SRPT failure in a multi-homed subring, to avoid generating a loop, the edge node will temporarily block the edge port. The blocked edge port is activated only when the edge node is sure that no loop will be generated when the edge port is activated.

Reference: RRPP Configuration
http://www.h3c.com/portal/Technical_Support___Documents/Technical_Documents/Switches/H3C_S12500_Series_Switches/Configuration/Operation_Manual/H3C_S12500_CG-Release1335-5W130/12/201108/722618_1285_0.htm

QUESTION: 52
What architecture does HP recommend you lead with for WAN acceleration at a large branch?

A. HP MSR50 with WAN acceleration feature
B. HP MSR30 with WAN acceleration feature
C. HP MSR20 with WAN acceleration feature
D. Riverbed Steelhead WAN acceleration

Answer: D
How HP ProCurve and Riverbed help you meet the challenge Using WAN optimization solutions from Riverbed, enterprises may experience a significant improvement in application performance. These dramatic results allow businesses to take advantage of their networks, infrastructure, and applications in ways they had never imagined possible. Riverbed helps enterprises across different verticals optimize their WAN networks for performance and utilization. Riverbed delivers a comprehensive solution for WAN optimization by addressing key factors that slow application performance over WANs: network, application, and storage limitations. Riverbed solutions allow companies to connect their data centers, remote offices, and mobile workers with higher network

speeds.

Reference: HP ProCurve and Riverbed Technology Alliance Riverbed WAN optimization
http://www.riverbed.com/us/assets/media/documents/briefs/SolutionBrief-Riverbed-HP.pdf

QUESTION: 53
Where should an HP 5830 Series switch operate in a FlexFabric solution for a mid-sized business?

A. Access Layer
B. either the aggregation layer or the network core
C. the network core
D. the aggregation layer

Answer: A
Flatten the network with IRF:
IRF overcomes the limitations of legacy spanning tree designs by providing rapid failover for delay-sensitive, mission-critical applications and dramatically improving network utilization and performance in the network core.

By deploying IRF in conjunction with highly-scalable 12500 switches in the core and 5830 GbE and 5820 10 GbE series switches in the access layer - IT can completely eliminate the requirement for a dedicated aggr egation layer as they scale-out data centers, and enjoy the benefits of large Layer 2 domains with increased network uptime and simplified management.

Reference: HP Converged Infrastructure Announcements, FlexFabric
http://h17007.www1.hp.com/us/en/whatsnew/august/230811-2.aspx

QUESTION: 54
A mid-sized business is seeking a solution for a data center that handles a high volume of traffic with virtualized servers that have two 10G connections each. How does the HP 12500 switch fabric support this customer need?

A. The centralized switching processors streamline traffic forwarding decisions and enhance efficiency.
B. The CLOS switch fabric provides multiple load-balancing paths, decreasing latency in high-bandwidth environments.
C. The distributed crossbar switch fabric reduces bottlenecks and improves performance in high-bandwidth environments.
D. The intelligent, resilient fabric consists of multiple modules, creating a fabric that easily scales as bandwidth requirements increase.

Answer: B
12500 performance:
13.32 Tbps (12518 switch) and 6.12 Tbps (12508 switch) fully nonblocking CLOS architecture — includes a high-performance switch design with a nonblocking architecture

Note: The distinguishing characteristic of an Ethernet fabric is its ability to utilize a non-blocking Clos topology across multiple paths on multiple switches. The Clos topology was created by Charles Clos in 1953 specifically to enable the design of circuit-switched networks where the total number of paths exceeded the capacity of the largest crossbar switch. Does this problem sound familiar?

Employing a Clos topology with cut-through Ethernet switching requires the ability to switch any traffic flow to any available alternate path -- on either the same or a separate switch chassis -- within a millisecond. A robust Ethernet fabric would also be able to detect and recover from a complete path failure in less than 10 milliseconds.

Reference: HP 12500 Switch Series, Features
http://h17007.www1.hp.com/us/en/products/switches/HP_12500_Switch_Series/index.aspx
Reference: Scaling Internet Datacenters for Web 2.0 Applications The Multi-path Ethernet Fabric
http://www.hpcinthecloud.com/hpccloud/2008-04-28/scaling_internet_datacenters_for_web_2_0_applications.html

QUESTION: 55
A customer is concerned about the environmental impact of the company's data center. What should a sales professional tell the customer about the HP FlexFabric solution?

A. HP was first to market with industry-standard Energy Efficient Ethernet (EEE), which reduces power consumption up to half without complicated configurations.
B. Although individual HP FlexFabric switches use a bit more power than most competitors' switches, they have a higher port density, making the complete solution more efficient.
C. Intelligent Resilient Framework (IRF) allows customers to deploy products with a low individual port density, making those products consume less power.
D. HP developed a proprietary protocol for managing switch power consumption and automatically turning off unused ports.

Answer: A
Energy-saving HP E-Series switches first to ship with new IEEE standard, accelerating client adoption
PALO ALTO, Calif., Dec. 8, 2010
HP today (Dec. 8, 2010) announced it is the first to ship products based on a new energy-efficient Ethernet standard it helped develop that enables clients to reduce the energy consumption and operational costs of their IT equipment.

The IEEE Energy Efficient Ethernet standard (IEEE 802.3az) reduces power consumption of IT devices by automatically adjusting energy use based on actual network traffic between switches and other networked devices in real time.

The new HP E-Series zl modules are the first IEEE Energy Efficient Ethernet-enabled switches to automatically enter "sleep mode" as will connected EEE-devices, when no traffic is being transmitted. Through HP's implementation of the standard, clients benefit from lower power consumption, both at the switch and the end-point device, reducing total cost of ownership by up to 51 percent.

During low activity, Energy Efficient Ethernet-enabled products enter a "sleep mode" that uses less energy than idling at full power, but allows the connected devices to instantly re-engage when data transmission occurs. This enables significant power savings over traditional switches, which offer limited correlation between energy consumption and actual traffic flow.

Reference: HP Plays Key Role in Development of New Energy Efficient Ethernet Standard
http://www.hp.com/hpinfo/newsroom/press/2010/101208a.html

QUESTION: 56
The 12500 Switch Series provides five-nines availability. What does this mean?

A. A 12500 switch should experience no more than 45 seconds of downtime a year.
B. A 12500 switch should experience no more than 5 minutes and 15 seconds of downtime a year.
C. A 12500 switch should experience no more than 45 minutes of downtime a year
D. A 12500 switch should experience no more than 59 minutes of downtime a year.

Answer: B
Availability %
99.999% ("five nines")
Downtime per year: 5.26 minutes (5 minutes and 15 seconds).
Reference: Wikipedia, High availability

QUESTION: 57
Which network management suite discovers HP AllianceONE modules and provides a wizard to assist users with the installation and activation of AllianceONE applications?

A. HP PCM+
B. HP Intelligent Management Center (IMC)
C. HP Network Node Manager i (NNMi)
D. HP Service Manager

Answer: A
Now (2010) available - No charge HP PCM+ Updates
The Update include:
HP AllianceONE module Management: Adds simplified deployment of network services with the discovery, monitoring, licensing and configuration of HP AllianceONE modules HP Mobility Manager v3.10

Note: HP is excited to announce the latest versions of HP PCM+ v3.20, HP Mobility Manager v3.10, and Network Immunity Manager v2.20 are available. Those who have owned PCM+ version 3 for less than a year are entitled to free updates, and licensed plug-ins installed on your PCM+ v3 server will be updated at no cost as well.

B: Intelligent Management Center
Platforms
IMC is a scalable solution that comes in two versions Enterprise and Standard; managing up to 10,000 nodes and has a modular design which enables comprehensive monitoring and management capabilities.

C: HP Network Node Manager i (NNMi) provides powerful capabilities to enable your network operations team to efficiently manage a network of any size, reduce the business risk of downtime, and increase network service levels. NNMI is the one solution for managing fault, availability, performance and advanced network services for your physical, virtualized, hybrid, and cloud network environments. The HP Network Node Manager i Smart Plug-ins (HP NNM iSPIs) extend the device and protocol support of HP NNMi to enable management of a wide range of network devices, services, and facilities. NNMi is one component of the HP Automated Network Management Suite which provides a holistic, automated approach across the network management domain of fault, availability, performance, and change, configuration, compliance and process automation.
D: HP Service Manager is scalable, robust software that's core to the HP IT Service Management (ITSM) solution with incident, change, and other management process standardization, quality service delivery and support, and enhanced agent and end-user support. Providing a single communication hub, Service Manger enables IT to work as a single organization governed by a consistent set of processes, scaling from medium-sized environments to the large enterprise. Its robust functionality is based upon built-in ITIL® best practices that enable self-service and provide controls for the cloud.

Reference: HP PCM Plus v4 Network Management Software Series

http://h17007.www1.hp.com/us/en/products/network-management/HP_PCM_Plus_Network_Management_Software_Series/index.aspx

QUESTION: 58

A sales professional is proposing a security solution to a customer with a virtualized data center that stores subscribers' proprietary data. The customer has expressed concerns about the difficulty of maintaining the solution particularly as administrators often deploy new virtual machines without consulting the IT security personnel.

How should the sales professional respond?

A. HP Threat Management Services zl Module features an easy-to-use GUI that enables administrators to quickly configure policies for internal data center security.
B. HP Intelligent Management Center (IMC)'s virtual server module integrates with the AllianceONE FortinetONE IPS to automatically deploy required security components to virtual servers.
C. The HP Secure Virtualization Framework (SVF) automates the enforcement of security policies for virtualized servers across HP AllianceONE security solutions.
D. HP TippingPoint virtual Management Center (vMC) can automatically discover VMs and deploy the required security components.

Answer: D
Dynamic security policy enforcement: The vMC is used to automatically discover every VM in the data center and deploy vController on each virtualized physical host. This enables appropriate security policies to be dynamically applied and enforced by
vController and the IPS platform for all deployed and discovered VMs.

Reference: HP TippingPoint Virtual Controller and Virtual Management Center,
Solution brief

http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-0597ENW.pdf (Page 3, Dynamic security policy enforcement)

QUESTION: 59
In the Secure Virtualization Framework, what is the role of the TippingPoint vController?

A. Routing traffic from virtual machines through a TippingPoint N-Platform appliance
B. Discovering, monitoring, configuring, and reporting on multiple TippingPoint systems
C. Managing multiple TippingPoint N-Platform appliances
D. Providing firewall services for each virtual machine installed on a physical server

Answer: D
The TippingPoint secure virtualization framework allows organizations to gain control of the virtual environment by introducing in-line security policy enforcement.
The TippingPoint Virtual Controller (vController) and Virtual IPS (vIPS) solutions are purpose-built to secure the virtual infrastructure, and enable organizations to gain visibility and control of virtual network traffic flows. They allow for the enforcement of trust zones and network segmentation

with IPS and virtual firewall.
TippingPoint solutions perform in-line inspection and automated threat blocking within the virtual servers and between trust zones. They provide the same policies and filters across both physical and virtual servers to simplify overall security management for the data center.

Reference: A comprehensive framework for securing virtualized data centers, Business white paper http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA1-9777ENW.pdf (page 5)

QUESTION: 60
A mid-sized business has a mission-critical data center that uses virtual servers to host services for subscribers. Security against a variety of threats ranks as a high priority for this customer.
Which type of product should the sales professional suggest to meet this customer's needs?

A. HP TippingPoint IPS N-Series
B. HP TippingPoint IPS S-Series
C. HP Threat Services zl Module
D. HP AllianceOne Module with SonicWall

Answer: A
The HP S Intrusion Prevention System (IPS) N Series achieves a new level of in-line, real-time protection, providing proactive network security for today's and tomorrow's real-world network traffic and data centers. The IPS platform's next-generation architecture adds significant capacity for deep packet traffic inspection, and its modular software design enables the addition of valuable network protection services to its proven intrusion prevention solution. This new best-of-breed IPS platform redefines intrusion prevention as a foundation for comprehensive network security.
Features include:
* Intrusion Prevention System (IPS): The IPS N Series achieves a new level of in-line, real-time protection, providing proactive network security for today's and tomorrow's real-world network traffic and data centers. Its architecture adds significant capacity for deep packet traffic inspection, and its modular software design enables the convergence of additional security services.

Incorrect answers:
C: The HP Threat Management Services (TMS) zl Module is a multifunction security system for the HP E5400 zl and E8200 zl Switch Series. It is comprised of a stateful firewall, an intrusion detection/prevention system (IDS/IPS), and a virtual private network (VPN) concentrator. It enables network administrators to compartmentalize department traffic, protect the network from malware, and provide secure remote access and site-to-site connectivity.

* Stateful firewall
* Intrusion detection/prevention system (IDS/IPS)
* Virtual private network (VPN)
* zl Module form factor
* Industry-leading warranty

Reference: HP S Intrusion Prevention System (IPS) N Series - Overview and Features
http://h10010.www1.hp.com/wwpc/ca/en/sm/WF05a/12883-12883-3542972-4172273-4172273-4176311.html (overview tab)

QUESTION: 61
When plugged in to PCM+, which management tool can dynamically apply security and performance settings based on user, device, location, time, and client system state?

A. Identity Driven Manager (IDM)
B. Network Immunity Manager (NIM)
C. User Access Management (UAM)
D. Endpoint Admission Defense (EAD)

Answer: A
Product overview
HP Identity Driven Manager (IDM), a plug-in to HP PCM+, dynamically provisions network security and performance settings based on user, device, location, time, and endpoint posture. Identity Driven Manager provides network administrators with the ability to centrally define and apply policy-based network access rights that allow the network to automatically adapt to the needs of users and devices as they connect, thereby enforcing network security while providing appropriate access to authorized network users and devices.
Reference: HP Identity Driven Manager Software Series
http://h17007.www1.hp.com/us/en/products/network-management/HP_Identity_Driven_Manager_Software_Series/index.aspx

QUESTION: 62
Which statement about TippingPoint IPSs is true?

A. They are deployed in an HP 5400 or 8200 zl switch and managed through HP Network Immunity Manager.
B. They receive updates from DVLabs, which identifies more vulnerabilities than all other security experts combined.
C. They provide flow inspection for Layers 1 through 5.
D. They are designed to provide network protection at the perimeter.

Answer: B
Another aspect of HP DVLabs that particularly impressed Mobinil (a HP customer) was the Zero Day Initiative program that DVLabs operates. ZDI is a so-called “vulnerability bounty program’” that pays researchers money to share their discovered vulnerabilities with HP. While the aim of the program is to promote responsible vulnerability disclosure, an important byproduct of the initiative is that we get protection in the TippingPoint IPS for zero day vulnerabilities way before

anyone else in the market. Industry research has shown that HP DVLabs finds 8-to-10 more vulnerabilities than other vendors. Having this level of protection in a security product is particularly impressive when looking at the ways that attackers are exploiting undisclosed vulnerabilities.

Note: Each week DVLabs, our internal research group, releases a new DV that provides customers with protection against the latest vulnerabilities and network exploits. We've always taken a Virtual Patch approach to writing these signatures, so rather than wait for the exploits, we proactively write the signature to protect the vulnerability that the exploit is using. This means that we offer protection very early on in the threat lifecycle, and don't need to release new or modified signatures every time a new exploit emerges

Note 2: The HP Digital Vaccine Labs (DVLabs) is a recognized leader in vulnerability discovery, analysis and protection. The team includes industry-recognized security researchers and developers who apply cutting-edge engineering, reverse engineering and analysis techniques to create comprehensive protection for enterprise business systems.

Incorrect answers:
D: . Its switchlike performance characteristics allow it to be placed in-line at the perimeter, on internal network segments, at the core, and at remote site locations.

Reference: Meeting enterprise security challenges: Mobinil chooses HP TippingPoint Intrusion Prevention System
http://h30507.www3.hp.com/t5/HP-Networking/Meeting-enterprise-security-challenges-Mobinil-chooses-HP/ba-p/101713

QUESTION: 63
Which security features do the HP 6600 and 8800 routers provide? (Select two.)

A. Unified threat management
B. Virtual private network (VPN) services
C. Web filtering
D. Virus throttling
E. Firewall services

Answer: B,C
B:HP 6600 router feature include:
* DVPN (Dynamic Virtual Private Network) — collects, maintains, and distributes dynamic public addresses through the VPN Address Management (VAM) protocol, making VPN establishment available between enterprise branches that use dynamic addresses to access the public network; compared to traditional VPN technologies, DVPN technology is more flexible and has richer features, such as NAT traversal of DVPN packets, AAA identity authentication, IPsec protection of

data packets, and multiple VPN domains

HP 8800 router features include:
* Multiprotocol Label Switching (MPLS) Layer 3 VPN — allows Layer 3 VPNs across a provider network; uses MP-BGP to establish private routes for increased security; supports RFC 2547bis multiple autonomous system VPNs for added flexibility
* Multiprotocol Label Switching (MPLS) Layer 2 VPN — establishes simple Layer 2 point-to-point VPNs across a provider network using only MPLS Label Distribution Protocol (LDP); requires no routing and therefore decreases complexity, increases performance, and allows VPNs of non-routable protocols; uses no routing information for increased security; supports Circuit Cross Connect (CCC), Static Virtual Circuits (SVCs), Martini draft, and Kompella-draft technologies
* Virtual Private LAN Service (VPLS) — establishes point-to-multipoint Layer 2 VPNs across a provider network

C:
8800 router features include: **Policy routing** — allows custom filters for increased performance and security; supports ACLs, IP prefix, AS paths, community lists, and aggregate policies
HP 6600 features includes: Access control list — supports powerful ACLs for both IPv4 and IPv6; ACLs are used for filtering traffic to prevent illegal users from accessing the network or for controlling network traffic flow; rules can either deny or permit traffic to be forwarded; rules can be based on a Layer 2 header or a Layer 3 protocol header; rules can also be set to operate on specific dates or times

Note:
HP 6600: Security
* Access control list — supports powerful ACLs for both IPv4 and IPv6; ACLs are used for filtering traffic to prevent illegal users from accessing the network or for controlling network traffic flow; rules can either deny or permit traffic to be forwarded; rules can be based on a Layer 2 header or a Layer 3 protocol header; rules can also be set to operate on specific dates or times
RADIUS — eases switch security access administration by using a password authentication server
TACACS+ — is an authentication tool using TCP with encryption of the full authentication request that provides additional security
Network address translation (NAT) — supports repeated multiplexing of a port and automatic 5-tuple collision detection, enabling NAPT to support unlimited connections; supports blacklist in NAT/NAPT/internal server, a limit on the number of connections, session log, and multi-instance
Secure Shell (SSHv2) — uses external servers to securely log in to a remote device; with authentication and encryption, it protects against IP spoofing and plain-text password interception; increases the security of Secure FTP (SFTP) transfers
Unicast Reverse Path Forwarding (URPF) — allows normal packets to be forwarded correctly, but discards the attaching packet due to lack of reverse path route or incorrect inbound interface; prevents source spoofing and distributed attacks; supports distributed URPF
* DVPN (Dynamic Virtual Private Network) — collects, maintains, and distributes dynamic public addresses through the VPN Address Management (VAM) protocol, making VPN establishment

available between enterprise branches that use dynamic addresses to access the public network; compared to traditional VPN technologies, DVPN technology is more flexible and has richer features, such as NAT traversal of DVPN packets, AAA identity authentication, IPsec protection of data packets, and multiple VPN domains

Reference: HP 6600 Router Series, Product Overview
Reference: HP 8800 Router Series

QUESTION: 64
Which is the Intelligent Management Center (IMC) software module that enables your mid-sized business customers to add wireless network management to their IMC wired network management system?

A. Mobility Manager
B. Wireless Edge Services zl Module (WESM)
C. Wireless Services Manager (WSM)
D. Connection Manager

Answer: C
HP Intelligent Management Center (IMC) Wireless Service Manager (WSM) provides unified management of wired and wireless networks, adding network management functions into existing wired network management systems. HP IMC WSM offers wireless LAN (WLAN) device configuration, topology, performance monitoring, RF heat mapping, WLAN intrusion detection and defense, and WLAN service reports. To help ensure network integrity, IMC WSM uses both wired and wireless network scans to identify and locate rogue access points (APs), including the detection of rogue APs that are not in range of your authorized APs or sensors. IMC WSM empowers your staff to take the necessary steps to counteract any threats by detecting wireless attacks and sending alerts about vulnerabilities. It facilitates centralized control over your wireless network, even if it is geographically dispersed. This reduces the time needed to deploy configuration changes and provides uniformity throughout your WLAN infrastructure.

Reference: HP Intelligent Management Center Wireless Services Manager Software

http://h17007.www1.hp.com/us/en/products/network-management/IMC_WSM_Software/index.aspx

QUESTION: 65
A company is concerned that the temporary workers at a branch office will introduce viruses and other malware into the internal network. The company also wants to provide network access for branch employees who telecommute. Which features make the HP Threat Management Services zl Module a possible security solution for this company's branch office? (Select two.)

A. Endpoint Admission Defense (EAD)
B. Web filtering
C. Virtual Private Network (VPN)
D. Intrusion Protection System (IPS)
E. User Access Management (UAM)

Answer: C, D
The HP Threat Management Services (TMS) zl Module is a multifunction security system for the HP E5400 zl and E8200 zl Switch Series. It is comprised of a stateful firewall, an intrusion detection/prevention system (IDS/IPS), and a virtual private network (VPN) concentrator. It enables network administrators to compartmentalize department traffic, protect the network from malware, and provide secure remote access and site-to-site connectivity.

Reference: HP Threat Management Services zl Module, QuickSpecs
http://h18000.www1.hp.com/products/quickspecs/13376_div/13376_div.PDF Page 1, Product Overview)

QUESTION: 66
Which is a benefit that distinguishes HP PCM+ from HP PCM?

A. Customers can monitor basic device health.
B. Customers can capture and browse Simple Network Management Protocol (SNMP) and syslog events.
C. Customers can map network devices.
D. Customers can manage their many remote sites.

Answer: D
HP PCM+ Network Management Software is a Microsoft Windows-based network management platform that enables mapping, network and device configuration, and monitoring. HP PCM+ provides security and extensibility for small to large networks with remote sites. Network-wide management control allows users to securely add, customize, and restrict network management access. With HP security and wireless solutions, as well as extended third-party support, HP PCM+ offers a single-pane management solution. With remote agent extensibility, the software can manage many remote sites with encrypted communications and firewall traversal. Customers will gain superior return on management, security, choice, and flexibility.

Reference: HP PCM Plus v4 Network Management Software Series
http://h17007.www1.hp.com/us/en/products/network-management/HP_PCM_Plus_Network_Management_Software_Series/index.aspx

QUESTION: 67
Your customer's network provides mission-critical services. The company has customers worldwide, so these services are being used all the time. The company cannot afford any downtime. Because the company's IT staff is relatively new and inexperienced, the customer wants both hardware replacement services and an HP support person onsite if a problem occurs. Which care pack would you recommend?

A. HP Support Plus
B. HP 24x7 Software Support with 4-hour Hardware Exchange
C. HP Support Plus 24
D. HP 4-hour Same Business Day

Answer: C
Support Plus 24
HP Support Plus 24 helps you increase performance and availability with comprehensive, consistent hardware and software services. Working with your IT team, HP Services engineers deliver onsite hardware support and over-the-phone software support around-the-clock 365 days per year. Service coverage encompasses HP products and selected multivendor hardware and software.

In addition, this convenient HP Care Pack packaged service makes software updates available to you at substantial savings.

Choose Support Plus 24 when you need to:
Improve uptime with responsive hardware and software services available anytime cost-effectively obtain expert 24x7 multivendor hardware and software support enjoy consistent service coverage across geographically dispersed sites update HP and selected third-party software at a predictable cost take advantage of subscription savings on software updates.
Service highlights

- **telephone software support** - An HP Response Center engineer provides problem-analysis and problem-resolution support within 2 hours after your call is logged. The Center also offers help with trouble-shooting problems and setting configuration parameters, as well as usage assistance for applications, operating systems, and utilities.
- **4-hour response onsite hardware support** - For issues that cannot be resolved remotely, HP Services delivers onsite technical support to return your covered hardware products to operational condition, repairing or replacing components or entire units as necessary. An HP authorized representative arrives at your site within 4 hours after your call is logged. Your coverage includes all required parts and materials.
- **24x7x365 coverage** - Onsite and remote services are available around the clock, including all holidays.
- **escalation management** - Established escalation procedures enlist specialized

expertise from HP and selected third-party hardware and software vendors.

- **software updates and licensing** - Complete HP and selected third-party software product and documentation updates are available to your system manager. You receive a license to use and copy the updates to all systems covered by your original software license. Subscription-based service gives you substantial savings vs. the cost of individual updates.
- **electronic support** - Access HP's electronic support facility for software patches, a symptom-solution database, product descriptions, specifications, technical literature, and more.

Incorrect answers:
A: Too little service:

Single-source hardware and software services - plus cost-saving software updates and more.
HP Support Plus helps you increase the performance and availability of your networking infrastructure with comprehensive, consistent hardware and software services. Working with your ITteam, HP Services engineers deliver onsite hardware support and over-the-phone software support 13 hours per day, 5 days per week.

B: There is a 4 hour 24x7 same business day hardware support, but there is no HP 24x7 Software Support with 4-hour Hardware Exchange.
D: HP 4-hour Same Business Day: only include hardware support.

Reference: HP Care Pack services for ProCurve Networking products
http://www.hp.com/rnd/services/care_packs/support_plus24.htm

QUESTION: 68
Your customer wants to ensure that any network hardware problems can be resolved within one business day. You recommend the HP 6-Hour Call to Repair Care Pack. Which factor affects the HP response time?

A. type of hardware failure because only some hardware components are covered
B. time of day because customers must report problems before 5 p.m. Mountain Time
C. networking products used because some have limited coverage
D. distance between the customer's office and the nearest HP office

Answer: D
6-hour repair-time commitment :HP commits to correcting hardware malfunctions in less than 6

hours from your initial call to the HP Response Center; available up to 50 miles (80km) from a primary HP support office (8-hour commitment for systems located within 51-100 miles (81-160km) of a primary HP support office).

Reference: HP Care Pack services for ProCurve Networking products
http://www.hp.com/rnd/services/care_packs/6-hour_call.htm (last paragraph in CAPS)

QUESTION: 69
A customer purchased the 24x7 Software Support with Hardware Exchange care packs and has been very satisfied with it. However, the customer shows you the IT objectives for the next year, which include performing a network audit to document devices and software versions and implementing a system health check. You see an opportunity to upsell the customer to another care pack. Which care pack would you suggest for this customer?

A. HP Support Plus
B. HP Proactive 24
C. HP 4-hour 24X7 same Day
D. HP Installation and Maintenance Service

Answer: B
HP Proactive 24 Service (P24) is an integrated hardware and software support solution that combines technical assistance with proactive account services to cover your IT infrastructure and to help you improve the stability, availability, and operational effectiveness of your IT environment.

Reference: HP Proactive 24 Service
http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA0-1614ENN.pdf

QUESTION: 70
Why does Gartner suggest that companies consider their networks as segmented building blocks rather than a homogenous entity?

A. Companies can then choose the best and most cost-effective vendor for meeting the business needs at each segment regardless of the needs of other segments
B. Companies can then update the network gradually, updating one area at a time white maintaining operations in other areas
C. Companies can then choose the best management software specialized for each segment without complicating the management of the network as e whole.
D. Companies can then introduce firewalls and more advanced security appliances between each network segment

Answer: A

Key Findings
* Enterprises segmenting their network infrastructure will understand the detailed business requirements within each functional building block and whether proprietary capabilities that will lock them into a specific vendor are defensible.
* Proprietary functionality is often used in the early stages of a market to solve a business problem, while employing innovation to create differentiation.
* The elimination of vendor-specific functionality from the segment boundaries and utilizing standards-based communication allows competitive bidding and typical savings of 10% to 15%.

Recommendations
* Segment the network infrastructure into hierarchical building blocks to provide clarity into functional requirements.
* Remove proprietary technology from the functional boundary when an industry standard is available.
* Competitively bid on the functionality of each network infrastructure building block

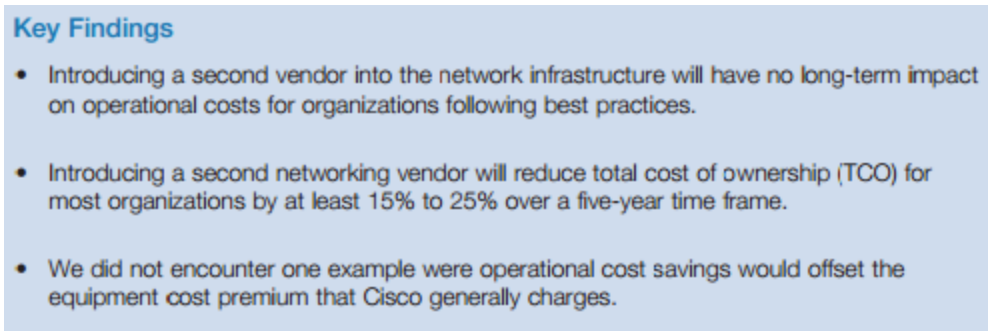
Reference: Clients That Don't Segment Their Network Infrastructure
Will Have Higher Costs and Increased Vendor Lock-in, Gartner Research

http://docs.media.bitpipe.com/io_25x/io_25581/item_412428/GARTNER%20REPORT-%20Clients%20That%20Don't%20Segment%20Their%20Network%20Infrastructure%20Will%20Have%20Higher%20Costs%20and%20Increased%20Vendor%20Lock-in.pdf (page 1)

QUESTION: 71
You are meeting with a customer that currently has a networking solution with only Cisco devices. The customer is concerned about adding non-Cisco devices to the solution. What can you tell the customer about Gartner's recent findings on this subject?

A. In addition to providing a lower total cost of ownership, the multi-vendor network can actually be less complex than a single-vendor one because it encourages standardization
B. As long as the company invests significantly in training the IT staff in the HP technologies, the transition should occur smoothly with the training costs soon offset by other savings.
C. Although the company will need to add a few IT staff members to deal with the added complexities of a multi-vendor environment, the cost savings of HP equipment offsets the management costs.
D. A multi-vendor network features a lower total cost of ownership, which offsets the fact that the architecture is typically a bit more complex due to competing proprietary technologies.

Answer: A



Reference: Debunking the Myth of the Single-Vendor Network
http://www.dell.com/downloads/global/products/pwcnt/en/Gartner-Debunking-the-Myth-of-the-Single-Vendor-Network-20101117-published.pdf

QUESTION: 72
Companies will increasingly support corporate applications on personal devices, which users will access from both wired and wireless connections. How will this trend affect mid-sized businesses? (Select two.)

A. They will need to ensure users have a seamless user experience no matter how they access the network
B. They will need to implement virtualized machines to host these applications in a private cloud or purchase these services from a public cloud provider.
C. They will need to encrypt communications between the personal devices end the network devices that provide either wired or wireless access.
D. They will need to Implement Identity-based security, rather than port-based security
E. They will need to support additional protocols such as Voice over IP and Border Gateway Protocol on their networks to enable this access

Answer: A, C
Connectivity at the edge of an enterprise network is more than just a wired or wireless LAN infrastructure. Enterprises must chose infrastructure vendors that support network services, including security and management, and can integrate wired and wireless networking products.

Reference: Magic Quadrant for the Wired and Wireless LAN Access Infrastructure, Gartner
http://www.gartner.com/technology/reprints.do?id=1-1AX5XXB&ct=120614&st=sb

QUESTION: 73
What is one way in which open standards are Integrated into the HP FlexNetwork architecture?

A. All HP switches are based on a consistent, open software platform, which simplifies network management

B. All HP switches and routers are based on a consistent, open software platform, which simplifies network management
C. The HP FlexNetwork architecture calls for industry-standard protocols at the boundaries of each FlexNetwork building block
D. To enable seamless operation and scalability the HP FlexNetwork architecture supports only those third-party solutions that are based on open architectures

Answer: C
By using standard protocols at the boundaries, businesses can enable interoperability among the network segments and gain both agility and scale.

Note: Industry analysts predict that these trends—service-oriented architectures, server virtualization, video and collaboration, and widespread mobility—will bring a legacy network to a breaking point if proactive steps are not taken to prepare. According to
Gartner, businesses that don't segment their network infrastructure will suffer higher costs and increased vendor lock-in.

No longer can the network exist as a single, homogenous entity.
There are simply too many variables to consider at any one time. Instead, networks must be designed to meet the unique requirements of the data center, corporate campus, and branch office. By segmenting their networks, enterprises will be able to more easily align business initiatives with the underlying network requirements. Instead, enterprises can create functional building blocks that will meet the requirements of the specific application or business service.
With this segmentation of functional building blocks, businesses can choose best-in-class solutions that fit their needs, rather than being locked into a one-size-fits-all solution. By using standard protocols at the boundaries, businesses can enable interoperability among the network segments and gain both agility and scale.

Reference: FlexNetwork Architecture, Brochure

QUESTION: 74
The FlexNetwork architecture is a core component of what larger strategy?

A. HP AllianceONE
B. HP Defense in Depth
C. HP Converged Infrastructure
D. HP Adaptive Edge Architecture

Answer: C
A core component of the HP Converged Infrastructure, the HP FlexNetwork architecture converges network silos by ensuring protocols are implemented consistently across all networked devices throughout an enterprise. As a result, clients are able to simplify and speed service delivery across

the data center, campus and branch, driving increased agility and innovation.

Note: FlexFabric, also a building block of the FlexNetwork architecture, converges and secures the data center network with compute and storage, which enables the HP Converged Infrastructure with shared pools of interoperable resources.

Reference: HP Readies Enterprises for the Future with FlexNetwork Architecture
http://www.hp.com/hpinfo/newsroom/press/2011/110509xa.html (second paragraph)
Reference: FlexNetwork Architecture, Brochure

QUESTION: 75
How do HP AllianceONE modules help to reduce power and cooling costs and promote environmentally friendly operations?

A. They enable HP 5400 and 8200 zl switches to implement Energy Efficient Ethernet (EEE) functions.
B. They allow HP 10500 switches to implement (EEE) functions
C. They host necessary applications in an existing chassis rather than separate appliances.
D. They enable switches to share buffer memory across the module reducing the power drawn for high-speed connections

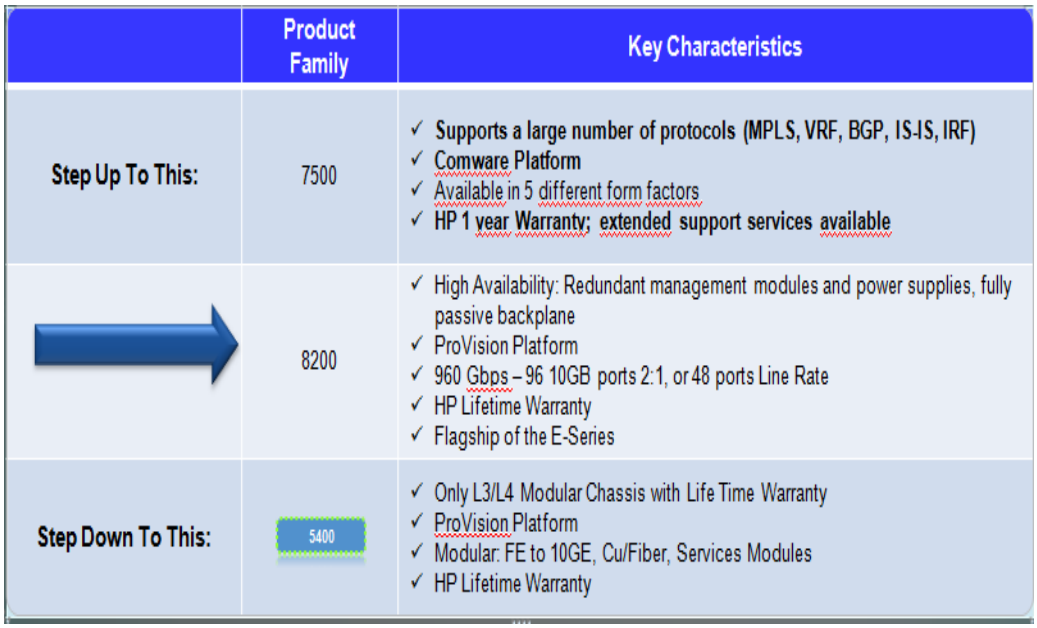
Answer: C
Note (example of an HP AllianceOne module): The HP AllianceONE Advanced Services zl Module is a platform designed for HP Networking zl chassis and allows networking applications integrated with the switch to offer optimized performance to customers. The HP AllianceONE Advanced Services zl Module is a x86-based server module that provides two 10-GbE network links into the switch backplane. Coupled with HP Networking-certified services and applications that can take advantage of a switch-targeted API for better performance, this module creates a virtual appliance within a zl switch slot to provide solutions for business needs, such as network security, UC&C, Mobility, Infrastructure, and more.

QUESTION: 76
When selling a solution for the campus LAN core, what reason might you have to recommend the HP 7500 Switch to your mid-sized business customer instead of the 5400 zl or 8200 zl?

A. The 5400 zl and 8200 zl are Lite Layer 3 switches, but your customer is seeking full Layer 3 capabilities
B. The 5400 zl and 8200 zl are warranted for one year, but because the IT staff is inexperienced and the budget is tight, your customer is more comfortable with the lifetime warranty offered for the 7500.
C. In addition to full Layer 3 routing capabilities, your customer is seeking specialized features,

including Multi-Protocol Label Switching (MPLS) for high-speed forwarding across network.
D. Your customer already has the 3500 yl deployed at the campus LAN edge, and the 7500 offers Comware OS alignment with the 3500 yl.

Answer: C



Incorrect answers:
B: 5400 and 8200 both have lifetime warranty, while 7500 has only one year warranty.
Reference: HP_Networks_SMB_Overview_1_October_2011_Euro_Version

QUESTION: 77
A mid-sized business customer needs a FlexCampus solution that reduces latency for the company's Unified Communications and Collaborations (UC&C) applications. What selling point of the HP 6400 zl and 8200 zl switches can you emphasize?

A. The switches share buffer memory across each v2 module, which enables them to provide up to 18 MB.
B. The switches' built-in ASIC delivers latency-reducing algorithms built into the hardware.
C. The switches, acting at the edge, provide the intelligence required to classify UC&C traffic and reduce its latency.
D. The switches implement advanced traffic policing techniques across a high density of 10G ports

Answer: C
Both 6400 cl and 8200 cl provides the feature:
Layer 2 to 4 and intelligent edge feature set

The 8200 cl provides the feature:

HP Unified Core-to-Edge hardware — HP ProVision family-common interface and service modules, Gigabit optics/10-GbE transceivers, and power supplies enable sparing simplicity

Note 1: HP 6400 cl Switch Series

Product overview
The HP 6400 cl Series consists of 6-port 10-GbE stackables with optional 10-GbE add-on modules. Loaded with full Layer 3 features, the 6400cl series switches offer low-cost 10-GbE for high-performance aggregation of clusters of Gigabit switches. Ideal for consolidating multiple wiring closets, the HP E6400 cl Series also provides fiber flexibility to connect remote campuses up to 40 km away.
Distribution layer
Layer 2 to Layer 4 feature set
High performance
Low-cost 10-GbE connectivity

Note 2: HP 8200 zl Switch Series

Product overview
The HP 8200 zl Switch Series offers high performance, scalability, and a wide range of features in a high-availability platform that dramatically reduces complexity and provides reduced cost of ownership. As part of a unified wired and wireless network infrastructure solution, the 8200 zl series provides platform technology, system software, system management, application integration, wired and wireless integration, network security, and support that are common across the HP's modular and fixed-port switches. Together, they deliver an agile, cost-effective, high-availability network solution. With key technologies to provide solution longevity, the 8200 zl switch series is built to deliver long-term investment protection without added complexity for network core, aggregation, and high-availability access layer deployments. It provides these capabilities while bringing to market the industry's first highly available switch with a lifetime warranty.
Core, distribution, mission-critical access layer
Advanced high-availability AllianceONE integrated
Layer 2 to 4 and intelligent edge feature set
Enterprise-class performance and security
Scalable 10/100/1000 and 10-GbE connectivity

QUESTION: 78
Using IRF, which switch series can be combined into a group of no more than two switches?

A. 5800
B. 5830
C. 7500
D. 12500

Answer: C
Maximum no. of switches allowed to stack:
9 switches in IRF virtual switch for A5500-EI
9 switches in IRF virtual switch for A5800/A5820
4 switches in IRF virtual switch for A5120-EI
2 switches in IRF virtual switch for A7500, A9500

Incorrect answers:
A, B:5800, 5830: Intelligent Resilient Framework (IRF) — creates virtual resilient switching fabrics, where two or more switches perform as a single Layer 2 switch and Layer 3 router; switches do not have to be co-located and can be part of a disaster-recovery system; servers or switches can be attached using standard LACP for automatic load balancing and high availability; simplifies network operation by eliminating the complexity of Spanning Tree Protocol, Equal-Cost Multipath (ECMP), or VRRP
D: 12500 feature: **Four-chassis IRF** — allows the building of large-scale nonblocking, loop-free, metro Layer 2 networks, providing more server access and ultrahigh reliability

QUESTION: 79
A mid-sized business customer is upgrading the campus LAN core. The company implements Open Shortest Path First (OSPF) routing and also wants to use Virtual Router Redundancy Protocol (VRRP) to enhance high availability
What solution should the sales professional suggest for the campus LAN core?

A. HP 7500 switches, which are required to provide the advanced routing features
B. HP 8200 zl switches, which offer built-in premium support for the advanced routing features
C. HP 8200 zl switches with the additional purchase of a premium license
D. HP 5400 zl switches, which will implement Routing Information Protocol as an alternative to OSPF

Answer: B
The 8200 zl includes the features:
* **OSPF** — provides OSPFv2 for IPv4 routing and OSPFv3 for IPv6 routing
* **Nonstop Routing** — enhances Layer 3 high availability; OSPFv2/v3 and VRRP will continue to operate and route network traffic during failover from an active to a standby management module

Note: Resiliency—Redundant power supplies, hot-swappable/hot-insertable modules, MSTP, switch meshing, VRRP, OSPF-ECMP, and redundant management and fabric modules (8200 zl series)

Reference: HP 8200 zl Switch Series
http://h17007.www1.hp.com/us/en/products/switches/HP_8200_zl_Switch_Series/index.aspx

Reference: HP 8200 zl, 5400 zl, 3500, and 6200 yl Switch Series
http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA0-5388ENW.pdf

QUESTION: 80
What architecture does HP recommend you lead with for the wireless solution at a branch of 30 seats?

A. HP MSM400 Series APs and an HP MSM765zl WLAN Controller installed in the branch 5400 zl switch
B. HP MSM400 Series APs and an HP MSM710 WLAN Controller
C. HP MSM413 or MSM423 standalone APs
D. HP MSM400 Series APs controlled by an MSM WLAN Controller in the campus LAN

Answer: A
The HP ProCurve Networking MSM765zl Mobility Controller (MSM765zl) is a Services zl Module-based WLAN controller which plugs in to either the 5400zl or 8212zl switches.

Note on HP MSM 4xx Series AP: HP MSM-802.11n Dual Radio Access Point Series
Product overview
This highest-performance family of access points improves productivity. HP is the first in the industry to offer three spatial stream MIMO technology to enterprise businesses. This brings IEEE 802.11n near Gigabit Ethernet performance to 900 Mbps and enhances coverage areas with beamforming technology. These APs deliver the highest performance in 802.11n AP technology with outstanding price and performance. Each dual radio 802.11n access point operates in the 2.4 GHz and 5 GHz bands, providing backward compatibility for IEEE 802.11a/b/g legacy client devices. These APs can operate with or without a wireless controller and support all the same enterprise features as the prior HP MSM wireless products, in addition to new features, such as beamforming, bandsteering, and concurrent 5 GHz operation.

Note on MSM 765zl:
E-MSM 765 zl Mobility Controller (J9370A)
With enhanced architecture scaling from IEEE 802.11b to 802.11n without requiring expensive controller upgrades, you're free to deliver a secure unified wired and wireless platform that provides a continuous high speed, fast roaming network access capability to your authenticated users. Connect official devices to the network as a priority, whilst allowing personal devices restricted access to services such as email or Internet browsing. It's your choice. Now you can truly increase productivity on the move.

Reference: Branch Office Consolidation solutions

QUESTION: 81
How would an HP sales professional position an HP 3500 yl Series switch in a FlexFabric solution?

A. at the core for a customer with under 300 seats
B. at the server edge for a customer with 100 to 499 seats
C. at the server edge for a customer that requires SAM/LAN convergence
D. at the distribution layer for a customer that uses HP BladeSystems at the edge

Answer: B
The HP 3500 Switch Series consists of the most advanced intelligent edge switches (not A, not D) in the HP networking product line.
This is a high performance switch. It provides Enterprise-class performance and security.

Reference: HP 3500 yl Switch Series
http://h17007.www1.hp.com/us/en/products/switches/HP_3500_yl_Switch_Series/index.aspx

QUESTION: 82
What is a key selling point for mid-market customers of the 10GBASE-T modules for the HP 6400 and 8200 zl switches?

A. The modules provide high speed links between duplicate data centers in a disaster recovery scenario
B. The modules provide the cheapest and most expensive means of establishing Intelligent Resilient Framework (IRF) links between the core switches.
C. The modules provide high-speed links at the server edge on switches that can connect directly to the SAN network.
D. The modules provide a cost-effective but high-performance solution for connecting campus core switches in the same building.

Answer: D
Note 10GBASE-T module: HP 8-port 10GBASE-T v2 zl Module (J9546A)

HP 8-port 10GBase-T v2 zl Module is for medum distance (upto 100m) 10G connectivity without the need for transceivers, using existing cabling infrastructure.

Compatible products:

* HP 5400 zl Switch Series

* HP 8200 zl Switch Series

Note on HP 6400: The HP 6400 cl Series consists of 6-port 10-GbE stackables with optional 10-GbE add-on modules. Loaded with full Layer 3 features, the 6400cl series switches offer low-cost 10-GbE for high-performance aggregation of clusters of Gigabit switches. Ideal for consolidating

multiple wiring closets, the HP E6400 cl Series also provides fiber flexibility to connect remote campuses up to 40 km away.

Note on 8200 zl: HP 8200 zl Switch Series:
Core, distribution, mission-critical access layer
Advanced high-availability AllianceONE integrated
Layer 2 to 4 and intelligent edge feature set
Enterprise-class performance and security
Scalable 10/100/1000 and 10-GbE connectivity

Reference:
http://h17007.www1.hp.com/us/en/products/switches/HP_8200_zl_Switch_Series/index.aspx

QUESTION: 83
Which feature is supported only on the latest version (v5.0) of HP Intelligent Management Center (IMC)?

A. the Network Immunity Manager (NIM) plug-in
B. visibility into HP Virtual Connect
C. integrated network device and user management
D. real-time bandwidth information and application visibility

Answer: B
In this version, IMC introduces new features to extend data center management, compliance capabilities, and enhanced support campus edge branch support. IT managers will certainly enjoy the new user experience enhancements, such as an IMC mobile app and new UI workflow tools.
* Data Center Management - Microsoft Hyper-V Support, Virtual Connect Support (B)
* Enhanced support for Campus, Edge and Branch devices
* Compliance Center - Allows IT administrators to run compliance checks
* IMC Extended API to enable 3rd party apps to interface with IMC (Enterprise Platform only)
* User Experience - Unified Task Management and Wizard Center, Google Maps support, Telnet/SHH Proxy
* IMC Mobile Application (iPhone and Android)

Note: QuickSpecs overview. New features include:
IMC software supports add/remove connections for Virtual Connect Manager and displays the connect information from the device detail page.
Reference: HP Intelligent Management Center Enterprise Software Platform

QUESTION: 84
Which security features do the HP 6600 and 8800 routers provide? (Select two.)

A. Unified threat management
B. Virtual private network (VPN) services
C. Web filtering
D. Virus throttling
E. Firewall services

Answer: B, C
B:HP 6600 router feature include:
* DVPN (Dynamic Virtual Private Network) — collects, maintains, and distributes dynamic public addresses through the VPN Address Management (VAM) protocol, making VPN establishment available between enterprise branches that use dynamic addresses to access the public network; compared to traditional VPN technologies, DVPN technology is more flexible and has richer features, such as NAT traversal of DVPN packets, AAA identity authentication, IPsec protection of data packets, and multiple VPN domains

HP 8800 router features include:
* Multiprotocol Label Switching (MPLS) Layer 3 VPN — allows Layer 3 VPNs across a provider network; uses MP-BGP to establish private routes for increased security; supports RFC 2547bis multiple autonomous system VPNs for added flexibility
* Multiprotocol Label Switching (MPLS) Layer 2 VPN — establishes simple Layer 2 point-to-point VPNs across a provider network using only MPLS Label Distribution Protocol (LDP); requires no routing and therefore decreases complexity, increases performance, and allows VPNs of non-routable protocols; uses no routing information for increased security; supports Circuit Cross Connect (CCC), Static Virtual Circuits (SVCs), Martini draft, and Kompella-draft technologies
* Virtual Private LAN Service (VPLS) — establishes point-to-multipoint Layer 2 VPNs across a provider network

C:
8800 router features include: **Policy routing** — allows custom filters for increased performance and security; supports ACLs, IP prefix, AS paths, community lists, and aggregate policies
HP 6600 features includes: Access control list — supports powerful ACLs for both IPv4 and IPv6; ACLs are used for filtering traffic to prevent illegal users from accessing the network or for controlling network traffic flow; rules can either deny or permit traffic to be forwarded; rules can be based on a Layer 2 header or a Layer 3 protocol header; rules can also be set to operate on specific dates or times

Note:
HP 6600: Security
* Access control list — supports powerful ACLs for both IPv4 and IPv6; ACLs are used for filtering traffic to prevent illegal users from accessing the network or for controlling network traffic flow; rules can either deny or permit traffic to be forwarded; rules can be based on a Layer 2 header or a Layer 3 protocol header; rules can also be set to operate on specific dates or times

RADIUS — eases switch security access administration by using a password authentication server
TACACS+ — is an authentication tool using TCP with encryption of the full authentication request that provides additional security
Network address translation (NAT) — supports repeated multiplexing of a port and automatic 5-tuple collision detection, enabling NAPT to support unlimited connections; supports blacklist in NAT/NAPT/internal server, a limit on the number of connections, session log, and multi-instance
Secure Shell (SSHv2) — uses external servers to securely log in to a remote device; with authentication and encryption, it protects against IP spoofing and plain-text password interception; increases the security of Secure FTP (SFTP) transfers
Unicast Reverse Path Forwarding (URPF) — allows normal packets to be forwarded correctly, but discards the attaching packet due to lack of reverse path route or incorrect inbound interface; prevents source spoofing and distributed attacks; supports distributed URPF
* DVPN (Dynamic Virtual Private Network) — collects, maintains, and distributes dynamic public addresses through the VPN Address Management (VAM) protocol, making VPN establishment available between enterprise branches that use dynamic addresses to access the public network; compared to traditional VPN technologies, DVPN technology is more flexible and has richer features, such as NAT traversal of DVPN packets, AAA identity authentication, IPsec protection of data packets, and multiple VPN domains
Note on relation between ACLs and web filtering:
After the URL address filtering function is enabled, the system denies all Web requests that use IP addresses by default.
* To enable users to access all websites using IP addresses, you can enable the support for IP addresses in URL address filtering, so that the system forwards all Web requests that use IP addresses for website access.
*To enable users to access specified websites using IP addresses, you can configure the support for IP addresses in URL address filtering to deny and configure ACL rules to specify the IP addresses of the websites.

Reference: HP 6600 Router Series, Product Overview
HP 8800 Router Series

QUESTION: 85
A mid-sized business has a data center that uses virtualization to host services for subscribers. An HP sales professional is proposing a solution for this data center, and the conversation has turned to security. The customer states that visualization already isolates OSs from each other and wonders why the data center would need a special solution to provide extra security
What should the sales professional explain about the particular security needs of virtualized environments? (Select two.)

A. Traffic between virtual server Instances might never cross the physical wire, making it difficult to filter the traffic with traditional solutions.
B. Virtual servers cannot be patched as easily and automatically as non-virtual servers so they make

a vulnerable target
C. Because the virtual services share a physical machine, when one is infected with a virus, all other instances on that machine are infected as well.
D. Hypervisors, which manage workloads for multiple virtual server instances, make a valuable and vulnerable target for hackers
E. Although virtual switches (vSwitches) support many of the same security features as traditional switches they require a management system to deploy them and activate the correct features dynamically

Answer: A, D
A: For efficiency in communications between virtual machines (VMs), most virtualization platforms include the ability to create software-based virtual networks and switches inside of the physical host to enable VMs to communicate directly. This traffic will not be visible to network-based security protection devices, such as network-based intrusion prevention systems.

Gartner recommends that at a minimum, organizations require the same type of monitoring they place on physical networks, so that they don't lose visibility and control when workloads and networks are virtualized.

D: Given the privileged level that the hypervisor/VMM holds in the stack, hackers have already begun targeting this layer to potentially compromise all the workloads hosted above it. From an IT security and management perspective, this layer must be patched, and configuration guidelines must be established.

Note: **Risk: Adequate controls on administrative access to the Hypervisor/VMM layer and to administrative tools are lacking**
Because of the critical support the hypervisor/VMM layer provides, administrative access to this layer must be tightly controlled, but this is complicated by the fact that most virtualization platforms provide multiple paths of administration for this layer.

Gartner recommends restricting access to the virtualization layer as with any sensitive OS and favoring virtualization platforms that support role-based access control of administrative responsibilities to further refine who can do what within the virtual environment. Where regulatory and/or compliance requirements dictate, organizations should evaluate the need for third-party tools to provide tight administrative control.

Reference: Six common virtualization security risks and how to combat them
http://www.net-security.org/secworld.php?id=9023

QUESTION: 86
According to InformationWeek, what percentage of any IT budget is spent on keeping the network up and running?

A. 50 percent
B. 60 percent
C. 70 percent
D. 80 percent

Answer: C
In fact, more than 70 percent of any IT budget is spent just keeping the lights on, leaving less than 30 percent to deliver business-critical innovation.

Reference: FlexManagement converges network management and orchestration
http://h17007.www1.hp.com/docs/mark/4AA3-4496ENW.pdf

QUESTION: 87
Network Traffic Analyzer (NTA) extends the capabilities of which HP management suite?

A. PCM+
B. Intelligent Management Center (IMC)
C. TippingPoint Security Management System (SMS)
D. TippingPoint Virtual Management Center (vMC)

Answer: B
HP IMC Network Traffic Analyzer (NTA) Software Module is a graphical network-monitoring tool that provides network administrators with real-time information about users and applications consuming network bandwidth.
Reference: HP Intelligent Management Center Network Traffic Analyzer Software
http://h17007.www1.hp.com/us/en/products/network-management/IMC_NTA_Software/index.aspx

QUESTION: 88
Which statements are true of HP Intelligent Management Center (IMC)? (Select two.)

A. It delivers Fault, Configuration, Accounting, Performance, and Security (FCAPS) functionality
B. It integrates management of resources, services, and users
C. It manages all products in the HP portfolio
D. It manages more than 4,000 third-party products.
E. It provides support for HP MultiService Mobility (MSM) access points (APs) and WLAN controllers using the Wireless Services Module (WSM)

Answer: A, B
A: HP IMC aligns with all areas of the ISO Telecommunications Management Network's highly

regarded FCAPS model (for Fault, Configuration, Accounting, Performance, and Security).

B: The architecture enables efficient implementation of end-to-end business management, and the modular design allows effective integration of traditionally separate management tools, providing complete management of resources, services, and users.

Reference: FlexManagement converges network management and orchestration
http://h17007.www1.hp.com/docs/mark/4AA3-4496ENW.pdf

QUESTION: 89
A customer has a multivendor network and wants a single point of contact for support. After talking to the customer, you think the customer would also be interested in a dedicated phone number for support cells and a guarantee that HP Support would respond immediately to problems that interrupt network services. Which care pack would you recommend for this custom or?

A. HP Proactive 24
B. HP Proactive Select
C. HP Support Plus 24
D. HP Critical Service

Answer: D
HP provides Critical Service (CS) customers with a dedicated phone support center. Using VIP number, customers do not have to wait after getting through to the response center. Critical business response center engineers will promptly respond to your calls, and quickly diagnose and handle problems, thereby shortening system restoration time and improving system availability.

Reference: HP Mission Critical Service
http://h20427.www2.hp.com/services/whitepaper/cn/zh/document/UF_CS_en_20060401.pdf

QUESTION: 90
A company with a single-vendor network is opening two new branches. What should the company consider when obtaining a networking solution for the branches in order to follow the best practices recommended by analysts such as Gartner? (Select two.)

A. the most cost-effective way to meet the specific business requirements of the branch
B. the open standard technologies at work between the branches and the other segments of the network
C. the specialized management tools already used in other areas and whether they will work with new products
D. the increased complexities and additional training expenses associated with multi-vendor environments.

E. the proprietary technologies and vendor solutions used in other areas of the network

Answer: A, B
Gartner recommendations:
* Network architects and CIOs must consider alternative network vendors to ensure that they deliver a functional network solution at an appropriate cost point. (A)

* Network operations teams should invest in multivendor-capable tools to help enable the organization to deal with a second vendor in their infrastructure, and to improve the operational capabilities with their incumbent solution.

B: With an open, standards-based solution, enterprises can migrate their networks from legacy architectures to advanced architectures so they can meet contemporary business challenges, including cloud computing, federated applications, virtual machine mobility, high-performance mobile access, multimedia and video. Customers can choose best-in-class solutions that will meet their business needs. Using open, industry-standard protocol implementations mitigates the risk and cost of change when the network needs to adapt to new business requirements. And using open networks will make it simpler for enterprises move their applications to public and private cloud services.
Reference: FlexNetwork Architecture

Reference: Debunking the Myth of the Single-Vendor Network
Reference: FlexNetwork Architecture

QUESTION: 91
Which component of the FlexNetwork architecture is responsible for controlling virtual sprawl in the data center?

A. HP TippingPoint Security Management System (SMS)
B. HP FlexManagement
C. HP Secure Virtualization Framework (SVF)
D. HP TippingPoint Virtual Management Center (vMC)

Answer: D
vMC gives IT security personnel complete visibility of the virtualized data center helping them control and secure the sprawl of VMs.

Note #1: VM sprawl: Virtualization features and benefits like high availability (HA), disaster recovery services (DRS) and resource optimization means that virtual machines (VMs) can be moved and spread across different hosts, clusters or data centers. This means that a highly critical aplication might share the same host as a less critical application.

Note #2:
The HP TippingPoint Secure Virtualization Framework (SVF) is a purpose-built software solution designed to enable the physical TippingPoint IPS platform to enforce full data center firewall segmentation and provide IPS inspection between trust zones for physical hosts, virtual machines (VMs), and even mobile VMs. The vController component intercepts all packets within the hypervisor and, based upon user-defined policies, permits traffic, blocks traffic, or tunnels packets to a TippingPoint IPS N-Series for inspection. SVF has been designed to work with VMware deployments. This fulfills the requirements around protecting the hypervisor, firewall segmentation and inspection and monitoring of sensitive data traffic that may include customer information.

In addition, the HP TippingPoint vController security solution is completely managed by our Virtual Management Center (VMC) that plugs into VMware's vCenter Management. vMC gives IT security personnel complete visibility of the virtualized data center helping them control and secure the sprawl of VMs. Virtualization makes it easy to create, copy, and roll-back VMs creating an environment where VMs can propagate without proper oversight and security controls. vMC working with vController gives IT security personnel the tools to properly control and secure these previously uncontrolled environments. So increase visibility and control are also addressed by SVF. This is a vital part of the PCI requirements in securing virtual and cloud environments.

As for VM sprawl, as touched upon in the PCI new standards, virtualization of data center infrastructure creates new challenges for security personnel due to the ease with which VMs can move from host to host and even data center to data center, regardless of criticality or sensitivity of data being accessed. However, SVF not only gives IT administrators the tools to easily maintain visibility into the location and state of every VM, but also can automatically apply the appropriate security policies are regardless of the VM state (on, off, or in motion).

Reference: How are you dealing with the new PCI standards covering virtualization and cloud security?
http://h30507.www3.hp.com/t5/HP-Networking/How-are-you-dealing-with-the-new-PCI-standards-covering/ba-p/102427

QUESTION: 92
When coupled with an HP c-Class enclosure server blade with a supporting Converged Network Adapter (CNA) and the optional CEE Upgrade License, which switch can be used to carry Fibre Channel over Ethernet (FCoE) traffic into a converged network?

A. 3500 yl
B. 5800
C. 5820
D. 6120XG

Answer: D
A Converged Enhanced Ethernet (CEE) License is required to enable Priority Flow Control and Data Center Bridging Exchange for the HP 6120XG switch. This allows the switch to interact with other CEE devices to run applications such as FCoE.

Reference: ProCurve Series 6120 Switches Management and Configuration Guide
http://bizsupport1.austin.hp.com/bc/docs/support/SupportManual/c02617338/c02617338.pdf

QUESTION: 93
Which switch series are based on a common system architecture founded on HP Provision ASIC technology? (Select three.)

A. 2910 al
B. 3500 yl
C. 5120 El
D. 5400 zl
E. 6120XG
F. 8200 zl

Answer: B, D, F
The ProVision application-specific integrated circuit (ASIC) architecture is used in the HP 8200 zl, 5400 zl, 3500, and 6200 yl Series. The ProVision ASIC architecture consists of multiple network chips interconnected by fabric chips providing a non-blocking crossbar fabric implementation. A network chip is implemented on each of the various line interface modules (also known as line cards).
Reference: HP 8200 zl, 5400 zl, 3500, and 6200 yl Switch Series, Technical white paper
http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA0-5388ENW.pdf (page 7, first paragraph)

QUESTION: 94
A customer data center features HP BladeSystem C7000s. Which HP switch best fits at the server edge of a FlexFabric solution for this customer?

A. 5830
B. 5820
C. 5800
D. 6120XG

Answer: D
HP 6120XG Blade Switch compability includes: HP BladeSystem c7000 Enclosure

Note:

Designed for the c-Class BladeSystem enclosure, the HP 6120XG Blade Switch provides sixteen 10Gb downlinks and eight 10G SFP+ uplinks (including a dual personality CX4 and SFP+ 10G uplink, and two 10Gb cross-connects). A robust set of industry standard enhanced Layer 2 switching functions, QOS metering, security and High Availability features round out this extremely capable switch. The 6120XG is perfectly suited for datacenters migrating to 10G high performance architectures. With support of dual speed on 10G uplinks and Converged Enhanced Ethernet (CEE) capability, the 6120XG provides future proofing and investment protection. The 6120XG blade switch provides consistency and interoperability across existing network investments to help reduce the complexity of network management through resilient core-to-edge connectivity and automated provisioning technologies. With a variety of connection interfaces, the 6120XG switch offers excellent investment protection, flexibility, and scalability, as well as ease of deployment and reduced operational expense.
Reference: http://h18000.www1.hp.com/products/quickspecs/13422_div/13422_div.pdf(first paragraph, page 1)

QUESTION: 95
Which HP AllianceONE partner solution provides simplified remote network management using a zl Services Module installed in the 5400 zl?

A. HP Survivable Branch Communication
B. NetScout nGenius Integrated Agent
C. Aastra MX-ONE
D. Avaya Communication Manager

Answer: A
Explanation/Reference:
HP Survivable Branch Communication zl Module (SBM) powered by HP Lync provides survivable branch services, such as external phone call capability, while sustaining internal peer-to-peer communications when the data center cannot be reached. SBM combines HP Lync survivable branch application and software from HP, including a public switched telephone network (PSTN) to Voice over Internet Protocol (VoIP) gateway, a graphical user interface (GUI), management interfaces, and an application programming interface (API) to the switch itself, all of which are integrated on a module that fits in the chassis of HP E8200 zl and E5400 zl Switch series products.

Reference:
HP Survivable Branch Communication zl Module powered by HP Lync, QuickSpecs, Product Overview
http://h20195.www2.hp.com/v2/GetPDF.aspx/c02811720.pdf