HP0-S45.exam

Number: HP0-S45
Passing Score: 800
Time Limit: 120 min
File Version: 1.0

HP0-S45

Delta- Integrating HP ProLiant Server Solutions

Exam A

QUESTION 1
A customer is using a 3PAR StoreServ storage system attached directly to a BladeSystem Enclosure through Virtual Connect FlexFabric-20/40 F8 modules. The customer needs to simplify the process of creating and attaching volumes for server administrators.

Which tasks should the system integrator perform in HP OneView? (Select two.)

A. Import Fibre Channel networks from the 3PAR StoreServe storage system.
B. Create Fibre Channel networks and set the Fabric type to Direct Attach.
C. Add the storage administrator role to server administrators' user accounts.
D. Create a storage domain.
E. Add storage pools.

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Automated Storage Provisioning
HP OneView provides automated, policy-driven provisioning of storage resources. It is fully integrated with server profiles so that you can manage your new or existing HP 3PAR storage infrastructure. With HP OneView you can view and manage your storage system and storage pools. You add existing volumes and create new volumes, and you can create volume templates to provision multiple volumes with the same configuration.

Adding storage to the appliance is simple: First, add a storage system and storage pools to the appliance. Then, create or add volumes, associate them with networks, and attach them to server profiles.

References: http://h17007.www1.hp.com/docs/enterprise/servers/oneviewhelp/oneviewRESTAPI/content/s_cicug-intro-functions-provision-fusion.html

QUESTION 2
What should the integrator use to back up HP OneView?

A. hypervisor provided Fault Tolerance on the HP OneView appliance virtual machine
B. the HP OneView interface to generate and download a backup file
C. HP Data Protector to back up the HP OneView appliance configuration
D. hypervisor-provided capabilities to snapshot the HP OneView appliance virtual machine

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
HP OneView provides the ability to save your configuration settings and management data to a backup file and enables you to use that backup to restore a corrupted appliance in the event of a catastrophic failure.

The backup process involves creating a backup file and then downloading that file so that you can store it to a safe and secure (off-appliance) location for future use.

References: http://h17007.www1.hp.com/docs/enterprise/servers/oneviewhelp/cic/en/content/s_backup-about-atlas.html

QUESTION 3
A customer needs a Smart Array controller that will provide basic RAID protection, increased performance, and HP Secure Encryption in HP ProLiant Gen9 servers. Which Smart Array controller should the integrator choose?

A. HP Smart HBA H240ar Controller
B. HP Dynamic Smart Array B140i Controller
C. HP Smart Array P840 Controller
D. HP Smart Array P400i Controller

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The HP Smart Array P840 Controller is a full height, PCIe3 x8, 12Gb/s SAS RAID controller that provides enterprise-class storage performance, increased internal scalability, and data protection for HP ProLiant Gen9 rack and tower servers.
The HP Secure Encryption, available as an option, is a Smart Array controller-based data encryption solution for ProLiant Gen9 servers that protect sensitive, mission critical data

Incorrect Answers:
D: The HP Smart Array P400 Serial Attached SCSI (SAS) controller (SA-P400) provides new levels of performance and reliability for HP servers, through its support of the latest SCSI technology and advanced RAID capabilities. The SA P400 is a high-performance PCI Express (PCIe) RAID controller with 8 internal Serial Attached SCSI ports available in a low-profile form factor or embedded (SA-P400i).

References: QuickSpecs, HP Smart Array P840 Controller
http://www8.hp.com/h20195/v2/getpdf.aspx/c04346301.pdf?ver=1.0

QUESTION 4
An integrator needs to upgrade the BIOS and Smart Array controller firmware on an HP ProLiant Gen9 series server. The server has no operating system installed and the customer site has no Internet access. The integrator already downloaded the individual firmware components before going on

site.

Which statement accurately reflects the status of the integrator's task?

A. It can be completed as the HP ProLiant Gen9 series server provides the firmware update function in HP UEFI System Utilities.
B. It can be completed as the HP ProLiant Gen9 series server provides the intelligent Provisioning function in HP UEFI System Utilities.
C. It can be completed as the HP ProLiant Gen9 series server provides the firmware update function in HP RBSU System Utility.
D. It can be completed as the HP ProLiant Gen9 series server provides the   ntelligent Provisioning function in HP RBSU System Utility.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The Unified Extensible Firmware Interface (UEFI) includes the UEFI Shell, a command line interface (CLI) application that allows scripting, file manipulation, obtaining system information, and running other UEFI applications plus more than ten HP specific commands for easier configuration.
UEFI Shell is based on the UEFI Shell Specification 2.1, with improvements for server configuration, hardware inventory, firmware updates, deployment, and Secure Boot key management.

References: http://www8.hp.com/us/en/products/server-software/product-detail.html?oid=6935826

QUESTION 5
A server integrator needs to install the maximum amount of memory in a new BL460   Gen9 server. Which type of memory should the integrator install?

A. RDIMM Single-rank (128GB)
B. RDIMM Dual-rank (16GB)
C. LRDIMM Quad-rank (32GB) Non Ecc
D. LRDIMM Quad-rank (32GB)

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
There exists the HP 32GB (1x32GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory (LRDIMM) Kit 726722-B21, which can be used on the BL460   Gen9 server.

It supports the HP enhanced memory error protection.

Note: ProLiant BL400c Server Blades, HPE ProLiant BL460c Gen9 Server Blade

Maximum (LRDIMM) 2TB (16 x 128GB) up to 2400MT/s at 1.2V
Maximum (RDIMM) 512GB (16 x 32GB) up to 2133MT/s at 1.2V

Memory, maximum: 2 TB
Using 128 GB DIMMs, planned release in June 2016.

Incorrect Answers:
A: RDIMM does not support the 128GB memory type.
C: HP enhanced memory error protection with HP Advanced Memory Error Detection Technology.
This innovation monitors several memory parameters and seeks out specific defects that either cause performance degradation or significantly increase the probability of a non-recoverable memory condition. By improving the prediction of critical memory error conditions, this technology prevents unnecessary DIMM replacement and increases server uptime.

References: QuickSpecs, HP DDR4 SmartMemory
http://www8.hp.com/h20195/v2/getpdf.aspx/c04355083.pdf?ver=4
QuickSpecs HPE ProLiant BL460c Gen9 Server Blade, page 31
http://www8.hp.com/h20195/v2/GetPDF.aspx/c04380273.pdf

QUESTION 6
An integrator needs to update server software and firmware for more than 300 servers running Windows Server 2008 and Windows Server 2012 R2.

Which tool should the integrator use to update all of the servers?

A. iLO Federation Management
B. Intelligent Provisioning
C. OpenView
D. HP OneView for Microsoft System Center

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
HP OneView provide support for System Center Configuration Manager (SCCM).
HP OneView for Microsoft System Center provides quick and reliable Windows deployment to bare metal HP servers, including pre-deployment hardware and BIOS configuration, and post-OS HP driver and agent installation.
Verify consistency and improve uptime with simplified Windows driver and firmware updates using the HP ProLiant Updates Catalog.

References: http://www8.hp.com/us/en/products/server-software/product-detail.html?oid=5390822

QUESTION 7
A customer needs their HP ProLiant DL380 Gen9 server to automatically report hardware failures to the HP Support Center. Which tool should an integrator select to enable automatic reporting?

A. HP OneView
B. Intelligent Provisioning
C. UEFI
D. Insight Online

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Insight Online is a feature in the HP Support Center where you can view all your devices remotely monitored by HP anywhere, anytime. It provides a personalized dashboard for simplified tracking of IT operations and support information, including a mobile dashboard for monitoring while you are on the go

References: http://www8.hp.com/us/en/products/servers/solutions.html?compURI=1487547#tab=TAB1

QUESTION 8
An integrator needs to deploy an HP OneView appliance to the ESXi Server managed by the vCenter Server. Which tool can the integrator use to access the vCenter Server?

A. VNC Console
B. vSphere Management Assistant
C. vRealize Operations
D. Web Client

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
HPE OneView integration with VMware vRealize Operations Manager.
HPE OneView for vRealize Operations Manager maintains stability and reliability with online firmware inventory and deployment with HPE OneView for VMware vCenter.

References: https://www.hpe.com/h20195/v2/getpdf.aspx/4AA5-6803ENW.pdf?ver=1.0

QUESTION 9
While creating a baseline for the Gen9 blades in a new c7000 BladeSystem Enclosure in an active/active configuration, the integrator determines that one blade has an NIC teaming setting of fail over.

What will be the outcome of this setting in an active/active high availability configuration?

A. East/West bandwidth will be reduced for this server.
B. Network bandwidth will not be redundant for this server.
C. North/South bandwidth will be reduced for this server.
D. Downstream bandwidth will not be affected.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Server-to-server traffic (east/west) in the enclosure will be reduced.

Note: An active/active configuration is an Ethernet network configuration that allows active traffic on the same VLAN on multiple interconnect modules. The NICs on all the servers in the enclosure have their NICs connected to adjacent HP Virtual Connect modules. All uplinks are active to forward network traffic.

References: http://h17007.www1.hp.com/docs/enterprise/servers/oneviewhelp/cic/en/content/s_ls-active-active-standby-about-fusion.html

QUESTION 10
An integrator needs to install Windows Server 2012 R2 on 6 HP ProLiant BL460c Gen9 servers The servers will be part of an SQL cluster and must be configured identically. The integrator needs to use Intelligent Provisioning to complete this task.

What does Intelligent Provisioning use to allow the integrator to create deployment settings profiles to make this process more efficient?

A. iLO Federation Management
B. HP Smart Storage Administrator
C. HPSSACLI Utility
D. HP Insight Remote Support

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Two common tasks that enterprise data center administrators face is the ability to quickly deploy new bare-metal servers, and efficiently update firmware and software on these same servers. The amount of time required to perform these tasks, especially in large data centers, can be lengthy.
To help address customer challenges HP is introducing iLO Federation, a new enabling technology that will lead to significantly faster performance, greater scalability, and simpler operation across all facets of server management.

iLO Federation Management integrates with Intelligent Provisioning.

Incorrect Answers:
B: The HPE Smart Storage Administrator (HPE SSA) utilities provide high-availability configuration, management, and diagnostic capabilities for all Smart Array products. It:
▪ Supports online array capacity expansion, logical drive extension, assignment of online spares, and RAID or stripe size migration
▪ Suggests the optimum configuration for an unconfigured system
▪ Provides different operating modes, enabling faster configuration or greater control over the configuration options
▪ Displays on-screen tips for individual steps of a configuration procedure

D: Insight Remote Support (RS) is a software solution that enables reactive and proactive remote support to improve the availability of supported servers, storage systems, and other devices in your data center.

References:
http://h20195.www2.hp.com/v2/getpdf.aspx/4AA5-4727ENW.pdf?ver=2.0

QUESTION 11
A server integrator has selected Virtual Connect Flex-10/10D modules as interconnect modules for HP BladeSystem Enclosures. Blade servers will use Fibre Channel over Ethernet (FCoE) for their remote storage. The integrator is now discussing the upstream connectivity requirements with LAN and SAN administrators.

Which solution should the integrator choose to connect to the Virtual Connect modules?

A. SAN switches that support FCoE tunneling
B. Ethernet switches that support FCoE
C. SAN switches that support N-Port ID Virtualization (NPIV)
D. Ethernet switches that support 8 Gbps Ethernet

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Since VC 4.01, Virtual Connect provides the ability to pass FCoE to an external FCoE capable network switch.

http://h20628.www2.hp.com/km-ext/kmcsdirect/emr_na-c01702940-16.pdf

QUESTION 12
A company is upgrading its data center to HP ProLiant Gen9 servers. An integrator is investigating whether this upgrade will allow them to decrease cooling costs by operating IT Equipment inlet air temperature close to 104° F (40° C).

Under which circumstance should the integrator plan to keep the IT Equipment inlet air temperature below 95° F (35°)?

A. The company wants to use HP Intelligent Power Distribution Units (iPDUs) with the Gen9 servers.
B. The company is not upgrading all servers at once, and data center rooms will contain a mix of Gen9 and older servers.
C. The company needs the Gen9 servers to comply with American Society of Heating. Refrigeration and Air-Conditioning Engineers (ASHRAE) standards.
D. The company does not want to invest in the advanced licensing required to obtain the higher operating temperatures.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The ASHRAE guidelines for data center operation suggest thermal ranges of operation for IT equipment that are commonly accepted by many data center administrators and facility managers.

Table. 2011 ASHRAE thermal guidelines for data centers

Class	IT equipment type	Recommended operating range	Allowable operating range	Maximum dew point	Environmental control
A1	Enterprise servers, storage products	18° to 27° C [1]	15 to 32° C [2]	17° C	Tightly controlled
A2	Volume servers, storage products, personal computers, workstations	Same as above	10 to 35° C [2]	21° C	Some control
A3	Volume servers, storage products, personal computers, workstations	Same as above	5 to 40° C [3]	24° C	Some control
A4	Volume servers, storage products, personal computers, workstations	Same as above	5 to 45° C [4]	24° C	Some control

References: Applying 2011 ASHRAE data center guidelines to HP ProLiant-based facilities, page 3
http://h10032.www1.hp.com/ctg/Manual/c03499263.pdf

QUESTION 13
What is the maximum number of processor cores on an HP ProLiant Gen9 server?

A. 12
B. 14
C. 16
D. 18

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

Explanation:
HPE ProLiant DL580 Gen9 Server:

Number of processors: 4 or 3 or 2

Processor core available: 24 or 22 or 20 or 18 or 16 or 14 or 12 or 10 or 8 or 4

References: http://www8.hp.com/us/en/products/proliant-servers/product-detail.html?oid=8090149#!tab=specs

QUESTION 14
An integrator is installing HP ProLiant DL380 Gen9 rack-based servers into a customer's existing racks. The integrator verifies with the customer that the ambient temperature readings from the back of the racks vary from 107° F (42°   ) to 118° F (48° C).

What should the integrator do to accommodate the ProLiant Gen9 servers?

A. Ask the customer to add more airflow vents near each of the racks that will hold the ProLiant Gen9 servers.
B. Confirm that the additional ProLiant Gen9 servers can be accommodated on these racks, based on the temperature readings provided.
C. Inform the customer that the maximum inlet temperature of the ProLiant Gen9 servers should not exceed 113° F (45° C).
D. Confirm that the data center has the proper airflow vent supply behind the rear of each rack.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
System Inlet Temperature, Standard Operating Support: 10° to 35°C (50° to 95°F).

Extended Ambient Operating Support:
For approved hardware configurations, the supported system inlet range is extended to be: 5° to 10°C (41° to 50°F) and 35° to 40°C (95° to 104°F).
For approved hardware configurations, the supported system inlet range is extended to be: 40° to 45°C (104° to 113°F).

References: QuickSpecs HPE ProLiant DL380 Generation9 (Gen9), page 66
http://www8.hp.com/h20195/v2/getpdf.aspx/c04346247.pdf

QUESTION 15
A company needs a solution for monitoring and diagnosing issues with devices in its data center. The company has the following requirements for the solution:

▪ It monitors its HP ProLiant Gen8 and Gen9 servers.
▪ It monitors its HP storage and networking devices.
▪ It is simple to set up.

Why should the integrator choose HP Insight Online with HP Insight Remote Support rather than HP Insight Online alone as the solution?

A. it does not require the installation of a local hosting device
B. it is required to monitor Gen9 servers
C. it supports storage and networking devices
D. it is required for mixed Gen8 and Gen9 deployments

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Insight Remote Support software supports most HP servers, storage, network devices.

Incorrect Answers:
A: Insight Online direct connect does not require software installation or on-site console.

References: http://www8.hp.com/us/en/products/servers/solutions.html?compURI=1487547#.V2krRmh96Uk

QUESTION 16
Which resource can a server integrator use to verify whether VMware vSphere ESXi 5.5 U2 is supported on an HP BL460c Gen9 server?

A. HP Quickspecs Offline
B. VMware ESXi Hardware Requirements Guide
C. HP Support Agreement Manager Website
D. HP Servers Support and Certification Matrices

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
From the HPE Servers Support & Certification Matrices site:
"Welcome to HPE's interactive VMware Support and Certification webpage for ProLiant Servers.
Just click on the server to obtain driver downloads, certification and support information. HPE recommends that our customers update to the latest service packs and security releases from VMware.
HPE is committed to supporting all customers that install latest services packs and security releases released from VMware.
Click on the product to obtain product information, downloads, certifications, and documentation. "

References: http://www8.hp.com/us/en/products/servers/management/operating-environments/os-support-matrix.html

QUESTION 17
What is a benefit of advanced memory protection on HP ProLiant BL460c Gen9 servers?

A. It helps to eliminate unplanned downtime by using advanced error checking, demand scrubbing, and patrol scrubbing.
B. It helps to reduce latency for communications between a server and remote storage on the network.
C. It helps to ensure compliance with regulatory standards by using HP Smart Encryption to encrypt all data at rest.
D. It helps to prevent lost data during a power outage by backing up data to a non-volatile storage medium.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
HPE Advanced Memory Error Detection Technology
Uncorrectable memory errors can cause applications and operating systems to crash, so they are costly in terms of downtime and repairs. The best way to prevent unnecessary DIMM replacements is to filter out superfluous errors and identify critical errors that can lead to a shutdown.
You can no longer rely on simple error event counts on systems containing up to 14 trillion memory transistors. With HPE Advanced Memory Error Detection Technology, we re-invented a precision system that pinpoints errors that cause downtime. HPE Advanced Memory Error Detection Technology seeks out specific defects that either cause performance degradation or significantly increase the probability of an uncorrectable (non-recoverable) memory condition. By improving the prediction of non-recoverable memory events, this technology prevents unnecessary DIMM replacements and increases server uptime.

References: Technologies in HPE ProLiant Gen9 c-Class server blades, page 9
http://www8.hp.com/h20195/v2/getpdf.aspx/4AA5-4485ENW.pdf?ver=Rev%203

QUESTION 18
Which pre-boot environment allows an integrator to update firmware with a fwupdate command?

A. Rom Based Setup Utility (RBSU)
B. HP SSA CLI
C. HP Intelligent Provisioning
D. HP UEFI Embedded Shell

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

Explanation:
fwupdate invokes an HP UEFI Shell utility used to update System BIOS firmware.

References: http://h10032.www1.hp.com/ctg/Manual/c03886471
HP UEFI Shell User Guide for HP ProLiant DL580 Gen8 Servers, page 16

QUESTION 19
An integrator is installing an HP ProLiant BL460c Gen9 server into device bay 13 of an HP c7000 BladeSystem Enclosure. The integrator needs to access the UEFI System Utilities on the new server, but is unable to do so because the iLO4 Integrated Remote Console is not accessible.

Where can the integrator confirm the IP address of the iLO4 interface for this blade?

A. in Network Access in the Onboard Administrator
B. in the iLO4 Web interface using the BladeSystem 7000 Insight Display
C. in Enclosure Bay IP Addressing in the Onboard Administrator
D. in Enclosure TCP/IP Settings in the Onboard Administrator

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The command SHOW SERVER LIST is a blade management command.
▪ It displays a brief description of all server blades to which the current user has access
▪ It displays by default IPv4 information; to display IPv6 information, enter the IPV6 keyword

Example:

```
OA-0018FE27577F> SHOW SERVER LIST

Bay iLO Name                     iLO IP Address   Status    Power   UID
Partner
--- ---------------------------- ---------------- --------- ------- ---
--------
  1 [Absent]
      .
      .
      .
 10 ILOMXQ1281CDZ                 111.222.33.444   OK        On      Off
 11 [Absent]
      .
      .
      .
Totals: 1 server blades installed, 0 powered on.

OA-0018FE27577F> SHOW SERVER LIST IPV6

Bay iLO Name                     iLO IP Address
Type
```

References: HP BladeSystem Onboard Administrator Command Line Interface, User Guide Page 177
http://www.hp.com/ctg/Manual/c00702815.pdf

QUESTION 20
How should the server integrator use to standardize settings for HP BladeSystem Enclosure interconnect modules?

A. Define the settings in a logical interconnect group for an enclosure group.
B. Install Virtual Connect Manager (VCM) into HP OneView and copy the settings from VCM.
C. Create and deploy an HP OS build plan for the interconnect modules.
D. Use the Template view to create a template for the interconnect modules.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Before transitioning existing infrastructure from being managed by Virtual Connect Manager (VCM) to HP OneView management requires inventory and evaluating the current environment. Once the inventory has been completed, you can evaluate when and how the environment should transition to HP

OneView management.

References: Transitioning a Virtual Connect configuration to HP OneView
http://h20195.www2.hp.com/v2/getpdf.aspx/4AA5-0351ENW.pdf?ver=Rev%203

QUESTION 21
Under which circumstance will a server integrator need to access the HP Unified Extensible Firmware Interface (UEFI)?

A. to run reports on the health status and error conditions on multiple servers
B. to add a server to an iLO Federation management group
C. to download an HP Service Pack for ProLiant (SPP)
D. to configure PXE boot options

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The Unified Extensible Firmware Interface (UEFI) supports PXE boot for IPv6 networks allowing a unified network stack to PXE boot from any network controller while maintaining backward compatibility and continues to support IPv4 PXE.
New System Utilities BIOS/Platform Configuration (RBSU) IPv6 DHCP Unique Identifier menu that allows user to select how the UEFI BIOS will use the DHCP Unique Identifier (DUID) for IPv6 PXE Boot.

References: http://www8.hp.com/us/en/products/server-software/product-detail.html?oid=6935826

QUESTION 22
A customer with HP ProLiant DL360 Gen9 servers needs to combine Fibre Channel over Ethernet (FCoE) with their LAN traffic over a single 10GbE connection.

Which FlexFabric adapter meets the customer's needs?

A. HP FlexFabric 20GB 2-port 630FLB Adapter
B. HP FlexFabric 10GB 2-port 556FLR-SFP+ Adapter
C. HP FlexFabric 650M 2-port Adapter
D. HP FlexFabric 20GB 2-port 650FLB Adapter

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The 556FLR-SFP+ Adapter supports convergence of FCoE or RoCE with LAN traffic on a single 10 GbE Ethernet wire.

The HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter is the industry's first product to converge FCoE or RoCE with LAN traffic on a single Ethernet fabric, reducing the complexity for managing multiple traffic in the data center.

Incorrect Answers:
A: The HP FlexFabric 20Gb 2-port 630FLB Adapter for HP ProLiant Gen8 Blades servers gives you twice the bandwidth of 10 Gb adapters for virtualized and converged data centers. This new FlexibleLOM Adapter improves Ethernet, FCoE and iSCSI speed increasing workload performance and scalability.

Each FlexFabric 20Gb adapter replaces a 10Gb Nic and 8Gb FC HBA simplifying I/O hardware by 50% and reducing costs by 60%.

References: http://www8.hp.com/lamerica_nsc_carib/en/products/iss-adapters/product-detail.html?oid=7128598

QUESTION 23
A customer is planning where to locate their servers in the data center and how to manage and monitor power consumption. They have purchased HP iPDU units for the cabinets where HP ProLiant Gen9 servers will be installed.

Which guideline must the integrator follow when installing the new iPDUs?

A. HP Intelligent Series Racks are required to use HP Location Discovery Services.
B. HP Location Discovery Services is required for Remote Monitored PDUs.
C. The iPDU display must be mounted on the outside of the front cabinet door.
D. HP Flexible Slot Platinum Supplies must be installed to use HP Power Discovery Services.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
HP Power Discovery Services (PDS) combines the HP Intelligent Power Distribution Unit (iPDU) and HP Flex Slot Platinum Plus power supplies with HP Insight Control software to create an automated, energy-aware network between IT systems and facilities.

References: QuickSpecs HP Flexible Slot Power Supplies, page 3
http://www8.hp.com/h20195/v2/getpdf.aspx/c04346217.pdf?ver=1.0

QUESTION 24
Power was lost to an HP ProLiant DL380 Gen9 Server. The system ROM is now corrupted and the server can no longer boot.

What should the integrator do first to correct this problem?

A. Relocate the redundant ROM chip to the primary ROM chip.

B. Replace the system board.

C. Remove the system board battery for 60 seconds.

D. Set the system maintenance switch positions S1, S5, and S6 to on.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
If the system ROM on a HP ProLiant DL380 server is corrupted, the system automatically switches to the redundant ROM in most cases. If the system does not automatically switch to the redundant ROM, perform the following steps:
1. Power down the server.
2. Remove the server from the rack, if necessary.
3. Remove the access panel.
4. Change positions 1, 5, and 6 of the system maintenance switch to on.
5. Install the access panel.
6. Install the server into the rack.
7. Power up the server.
8. After the system beeps, repeat steps 1 through 3.
9. Change positions 1, 5, and 6 of system maintenance switch to off.
10. Repeat steps 5 and 6.
If both the current and backup versions of the ROM are corrupt, return the system board for a service
replacement.

References: http://community.hpe.com/t5/ProLiant-Servers-ML-DL-SL/Firmware-update-interupted-on-HP-DL380-G6-uh-oh/td-p/6247481

QUESTION 25
A customer has two HP   7000 BladeSystem Enclosures equipped with Virtual Connect FlexFabric 10Gb/24-Port interconnect modules and is managing this environment with HP OneView. Both enclosures are members of one enclosure group. The integrator needs to add a new enclosure to the Infrastructure and configure Virtual Connect modules identically to the current enclosures as follows:

▪ Identical uplink ports to carry Ethernet and Fibre Channel traffic
▪ Identical networks and VLAN IDs
▪ Identical IGMP settings
▪ The new enclosure will be equipped with Virtual Connect FlexFabric-20/40 F8 interconnected modules

Which approach should the integrator take?

A. Create a new logical interconnect group for the new enclosure and synchronize it with the current enclosure group.

B. Add a new enclosure group and a new logical interconnect group for the new enclosure, then configure uplinks and IGMP settings identically to the original logical interconnect group.
C. Add a new enclosure to the current enclosure group and update the logical interconnect configuration from the current logical interconnect group.
D. Add a new enclosure to the current enclosure group.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Note:

▪ An enclosure is a physical structure that can contain server blades, infrastructure hardware, and interconnects. The enclosure provides the hardware connections between the interconnect downlinks and the installed server blades.
▪ When you add an enclosure to be managed, you specify an enclosure group. Enclosure groups enable you to maintain configuration consistency among enclosures. Each enclosure group is associated with a logical interconnect group. The logical interconnect group enables creation and configuration of logical interconnects. Each enclosure is associated with a logical interconnect. That provides the configuration of all interconnects in the enclosure.

References: http://h17007.www1.hp.com/docs/enterprise/servers/oneview1.2/cic/en/content/s_enc-about-fusion.html

QUESTION 26
How do HP Intelligent Power Distribution Units (iPDUs) help server integrators?

A. They provide backup power for servers, helping to prevent costly network outages and unplanned downtime.
B. They integrate power with cooling components, based on American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) standards.
C. They dynamically distribute power to different servers in the rack based on policies defined by integrators.
D. They track power consumption with high accuracy and toward the data to HP OneView, where integrators can view it.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
HP OneView collects and reports processor utilization and power and temperature history for your data center hardware. The appliance monitors power, automatically detects and reports power delivery errors, and provides precise power requirement information for HP ProLiant Gen8 servers and HP BladeSystem enclosures that you can use for planning rack and power usage.

Power Discovery Services enable automatic discovery and visualization of the power delivery topology for your data center. HP iPDUs enable the appliance to map the rack power topology automatically. The appliance detects wiring errors—such as lack of redundancy—and updates electrical

inventory automatically when new servers are installed. The appliance also supports per-outlet power control for remote power cycling of each iPDU outlet.

References: http://h17007.www1.hp.com/docs/enterprise/servers/oneviewhelp/oneviewRESTAPI/content/s_cicug-intro-functions-respond-fusion.html

QUESTION 27
An integrator needs to deploy images to multiple HP ProLiant DL380 Gen9 servers at the same time with multicast PXE. Which feature should the integrator enable?

A. BIOS mode
B. UEFI mode
C. HP Intelligent Provisioning
D. HP Insight Online

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
UEFI allows a server to multicast a single boot image to multiple units simultaneously.

Note: The UEFI enhanced networking API allows for a rich network authentication (log-on) in a pre-boot environment. UEFI includes IPv4 and IPv6 networking stacks and provides PXE booting with the longer IPv6 addresses.

References: Technical white paper, UEFI, successor to legacy BIOS With HP ProLiant Gen9 Servers, page 3
http://www8.hp.com/h20195/V2/getpdf.aspx/4AA5-1111ENW.pdf?ver=2.0

QUESTION 28
A customer needs eight SAS drives installed in a RAID 10 configuration in their new HP ProLiant DL380 Gen9 server, using the Dynamic Smart Array B140i Controller embedded into the system. The drives are installed properly in the bays. When the integrator attempts to configure the array, the drives do not appear in the configuration utility.

What is the likely cause of the problem?

A. A maximum six SAS drives are supported.
B. SAS drives are not supported.
C. Only RAID 0, RAID 1 and RAID 5 are supported.
D. The smart Array firmware was not updated to support SAS drives.

Correct Answer: B

Section: (none)
Explanation

Explanation/Reference:
Explanation:
Up to 10 SATA drives is supported, but no SAS supported.

Incorrect Answers:
C: RAID 0, 1, 1+0, and RAID 5 are supported by the B140i.

References: QuickSpecs HP Dynamic Smart Array Controller, page 2
http://www8.hp.com/h20195/v2/GetPDF.aspx/c04390743.pdf

QUESTION 29
How does Secure Boot protect against unauthorized operating systems and malware attacks?

A. by validating the Challenge Handshake Authentication Protocol passphrase
B. by integrating with REST API callouts that perform bootloaders encryption
C. by validating that the system only runs digitally signed option ROMs and operating system boot loaders
D. by integrating with different authentication systems, including Kerberos and Active Directory

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Secure Boot Configuration is a new feature of the Unified Extensible Firmware Interface (UEFI) in BIOS 8 that helps a computer resist attacks and infection from malware. When your computer was manufactured, UEFI created a list of keys that identify trusted hardware, firmware, and operating system loader code. It also created a list of keys to identify known malware.
When Secure Boot is enabled, the computer blocks potential threats before they can attack or infect the computer.
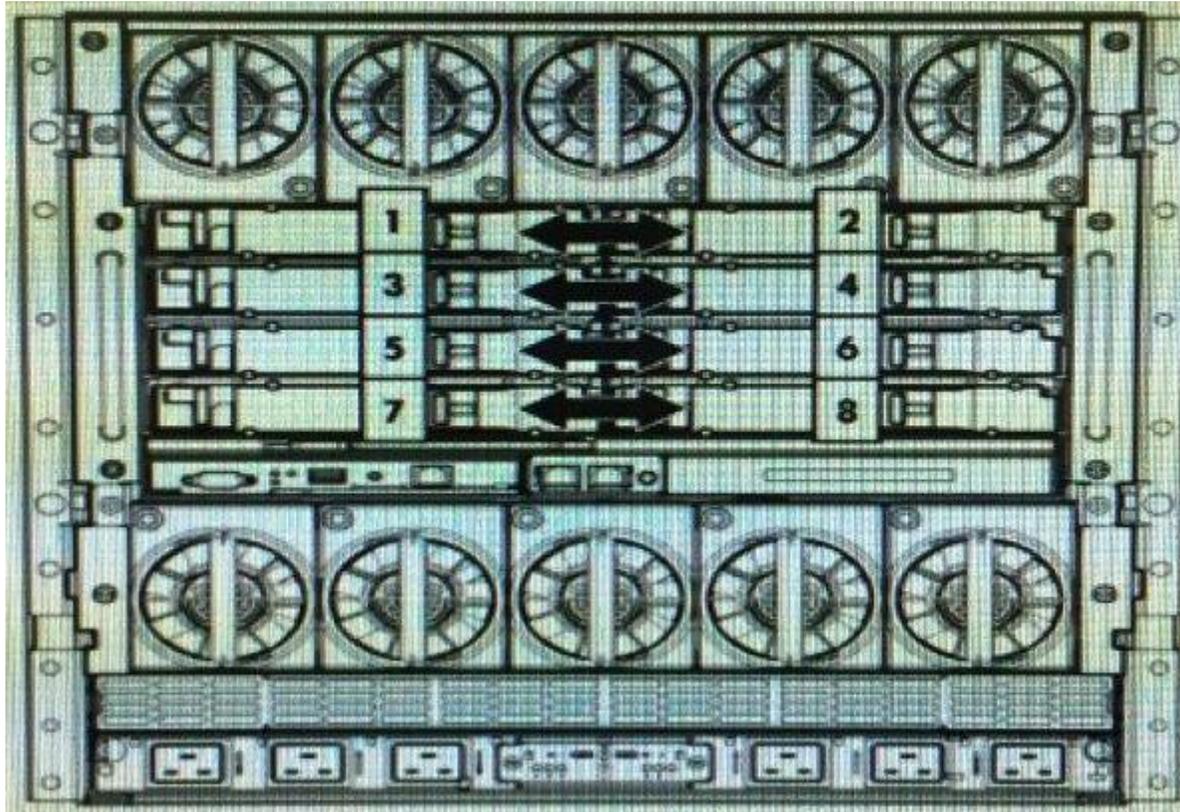
References: http://support.hp.com/us-en/document/c03653226
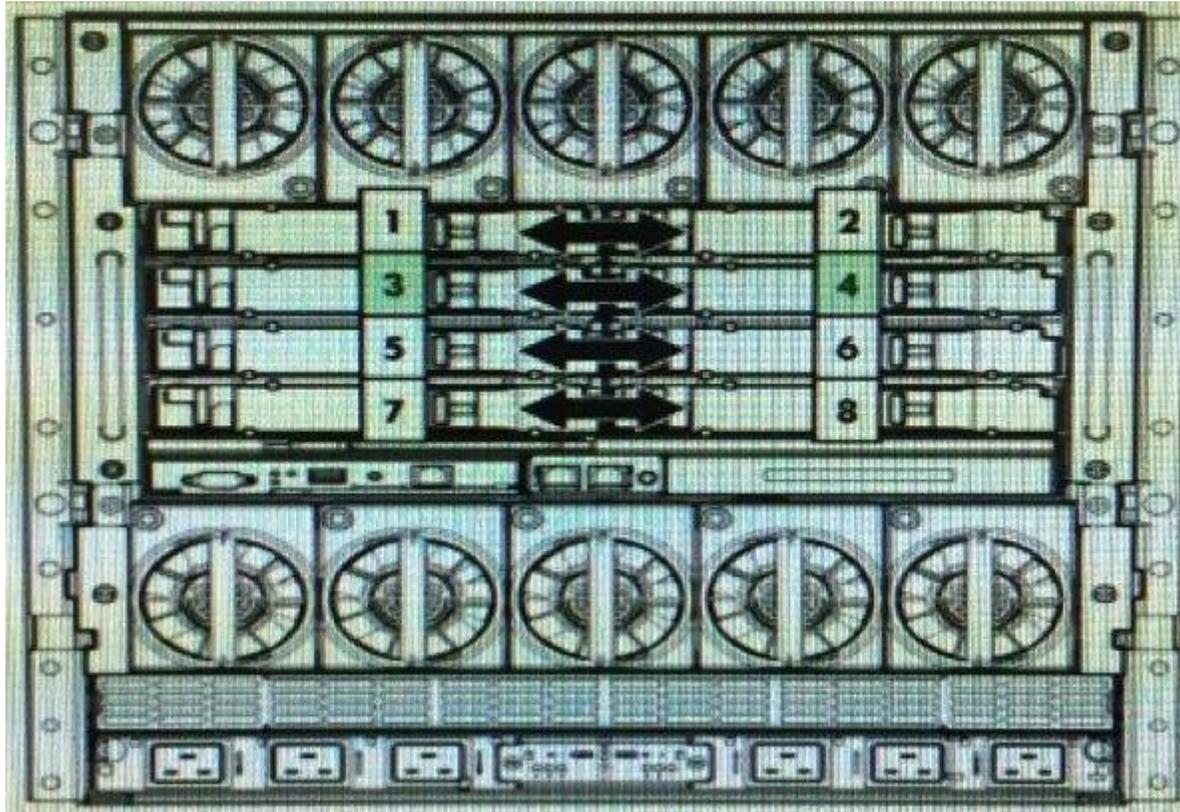
QUESTION 30
HOTSPOT
A server integrator has installed NICs in mezzanine 1 on HP ProLiant Gen9 BL servers in an HP c7000 BladeSystem Enclosure.
Next, the integrator needs to install interconnect modules for these new ports. Click the two bays in which the administrator should install the modules.
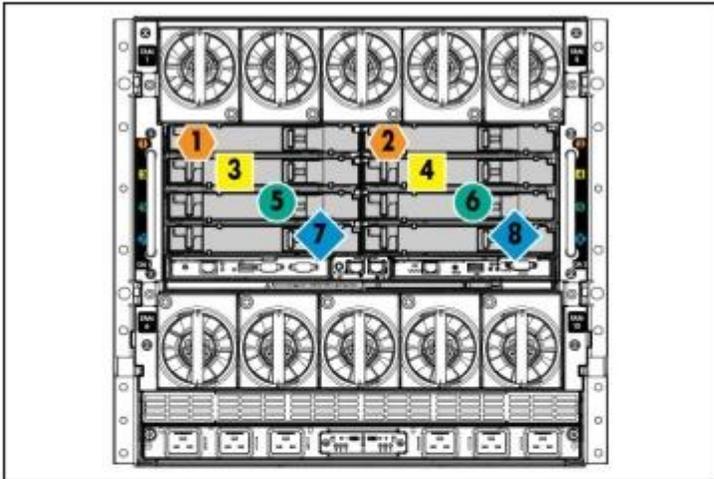
Hot Area:

Correct Answer:

Section: (none)
Explanation

Explanation/Reference:
Installing interconnect modules use interconnect bay number 3 and 4.

Server blade signal	Interconnect bay number	Interconnect bay label
NICs 1, 2, 3, and 4 (embedded)	1, 2	🔶
Mezzanine 1	3, 4	🟨
Mezzanine 2	5, 6 and then 7, 8	🟢 🔷
Mezzanine 3	7, 8 and then 5, 6	🔷 🟢

References: HPE BladeSystem c7000 Enclosure Quick Setup Instructions, page 11
http://www.hp.com/ctg/Manual/c00698534.pdf

QUESTION 31
HOTSPOT
A customer needs the integrator to add a network to HP OneView. The customer provides the integrator with the VLAN ID and uplink port number.

Click the menu option the integrator should select to configure the network uplink and allow the configuration to be reused on new enclosures.

Hot Area:

HP OneView ⌄

GENERAL	SERVERS	NETWORKING	STORAGE	FACILITIES
Dashboard	Server Profiles	Logical Interconnect Groups	Volumes	Data Centers
Activity	Enclosure Groups	Logical Interconnects	Volume Templates	Racks
Firmware Bundles	Enclosures	Interconnects	Storage Pools	Power Deliver
Reports	Server Hardware	Networks	Storage Systems	Unmanaged D
	Server Hardware Types	Network Sets		
		Switches		

Correct Answer:

HP OneView ⌄

GENERAL	SERVERS	NETWORKING	STORAGE	FACILITIES
Dashboard	Server Profiles	Logical Interconnect Groups	Volumes	Data Centers
Activity	Enclosure Groups	Logical Interconnects	Volume Templates	Racks
Firmware Bundles	Enclosures	Interconnects	Storage Pools	Power Deliver
Reports	Server Hardware	Networks	Storage Systems	Unmanaged D
	Server Hardware Types	Network Sets		
		Switches		

Section: (none)
Explanation

Explanation/Reference:
Explanation:
Creating Ethernet Networks

1. Select the Top Level Menu, and select Network

2. Once on the Networks screen, click the +Create Network button on the far left.
3. In the new window, provide the Name, select Ethernet as the Type, provide the VLAN ID, and bandwidth settings. Smart Link will automatically be selected by default. The Name is not case-sensitive. The name can contain spaces and special characters. Selecting Private Network will mimic PVLAN behavior in that all assigned Network Connections will all be in an isolated network.

Etc.

References: Technical Whitepaper, HP OneView Deployment and Management Guide, page 25
http://h20628.www2.hp.com/km-ext/kmcsdirect/emr_na-c04532272-3.pdf

QUESTION 32
Which HP software-defined platform automates management of HP servers, storage, and other HP Converged Infrastructure using RESTful API?

A. HP OneView
B. HP Virtual Connect Manager
C. HP Integrated Lights-Out (iLO4)
D. HP Smart Update Manager (SUM)

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
HP RESTful API is a management interface that server management tools can use to perform´configuration, inventory, and monitoring of an HP Gen9 server via HP iLO 4 v2.00.

References: Solution brief, Simple IT works better, HP RESTful Interface Tool
http://www8.hp.com/h20195/v2/getpdf.aspx/4AA5-4027ENW.pdf

QUESTION 33
DRAG DROP
Click and drag the HP tool to its matching description.

Select and Place:

HP Tool

Insight Diagnostics Online edition	HP Active Health System (AHS)

HP Overview

(empty boxes on right under HP Tool)

Correct Answer:

HP Tool

HP Overview

HP Active Health

Insight Diagnosti...

Section: (none)

Explanation

Explanation/Reference:
Explanation:
Box 1: HP OneView
HP OneView software provides management tools for converged infrastructure and are used by system administrators to provision, control, and manage software-defined data center components

Box 2: AHS
HP Active Health System provides the following features:
▪ Combined diagnostics tools/scanners
▪ Always on, continuous monitoring for increased stability and shorter downtimes
▪ Rich configuration history
▪ Health and service alerts
▪ Easy export and upload to Service and Support

The HP Active Health System monitors and records changes in the server hardware and system configuration. The Active Health System assists in diagnosing problems and delivering rapid resolution when server failures occur.

The Active Health System collects the following types of data:
▪ Server model
▪ Serial number
▪ Processor model and speed
▪ Storage capacity and speed
▪ Memory capacity and speed
▪ Firmware/BIOS

Box 3: HP Insight Diagnostics Online
HP Insight Diagnostics is a proactive server management tool, available in both Online and Offline
editions. Insight Diagnostics provides diagnostics and troubleshooting capabilities to assist IT
administrators who verify server installations, troubleshoot problems, and perform repair validation.

References:
http://h17007.www1.hp.com/docs/iss/DL360pGen8/tsg/advanced/Content/140573.htm
https://en.wikipedia.org/wiki/HP_OneView
http://www.hp.com/ctg/Manual/c00293061

QUESTION 34
An integrator needs to change the HP Smart Array P244br controller power mode to optimal settings based on a configuration with minimal performance impact on the server.

How should the integrator modify the power mode to perform the task?

A. to balanced in HP Smart Storage Administrator

B. to minimum power in HP Smart Storage Administrator

C. to optimized performance in HP Smart Storage Administrator

D. to maximum performance in HP Smart Storage Administrator

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Available Power Modes
HP currently offers three different power modes for Gen9 Storage controllers. You can set these power modes in the HPSSA.
▪ Balanced. The controller configures the static settings based on configuration of the arrays attached to the controller. During operation, it may also reduce power consumption based on the workload by changing those settings that are dynamically controllable.
▪ Max Performance. The controller configures the static settings for the highest possible performance and power consumption. This remains fixed, with no dynamic adjustments made during operation.
▪ Minimum Power. The controller configures the static settings for the lowest possible power consumption and may reduce dynamic settings based on workload.

References: Technical white paper, HP Smart Storage for HP ProLiant Gen9 servers, page 9
http://h20195.www2.hp.com/V2/getpdf.aspx/4AA5-4526ENW.pdf

QUESTION 35
A customer has added a storage blade to their current 7000 BladeSystem Enclosure, however the external storage is not visible from the adjacent HP ProLiant BL460c Gen9 server blade.

What should the integrator do in order for the ProLiant BL460c Gen9 server blade to recognize the adjacent storage?

A. Install the 12GB SAS Expander Card.

B. Reboot the BL460c Gen9 blade server.

C. Add an HP Smart Storage Battery to the existing array controller.

D. Upgrade the firmware on the Smart Array 244br.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
HP Smart Storage Battery provides a simple way to add additional controllers. Wired once, you can add up to 24 devices in a ML/DL Gen9 server and 3 devices in a BL460c Gen9 server with no need to route multiple cables.

Incorrect Answers:
A: The HP 12G SAS Expander Card provides internal storage expansion within the HP ProLiant Gen9 Server by allowing support for more than 8 internal hard disk drives when connected to a Gen9 supported Smart Array or Smart HBA controller.

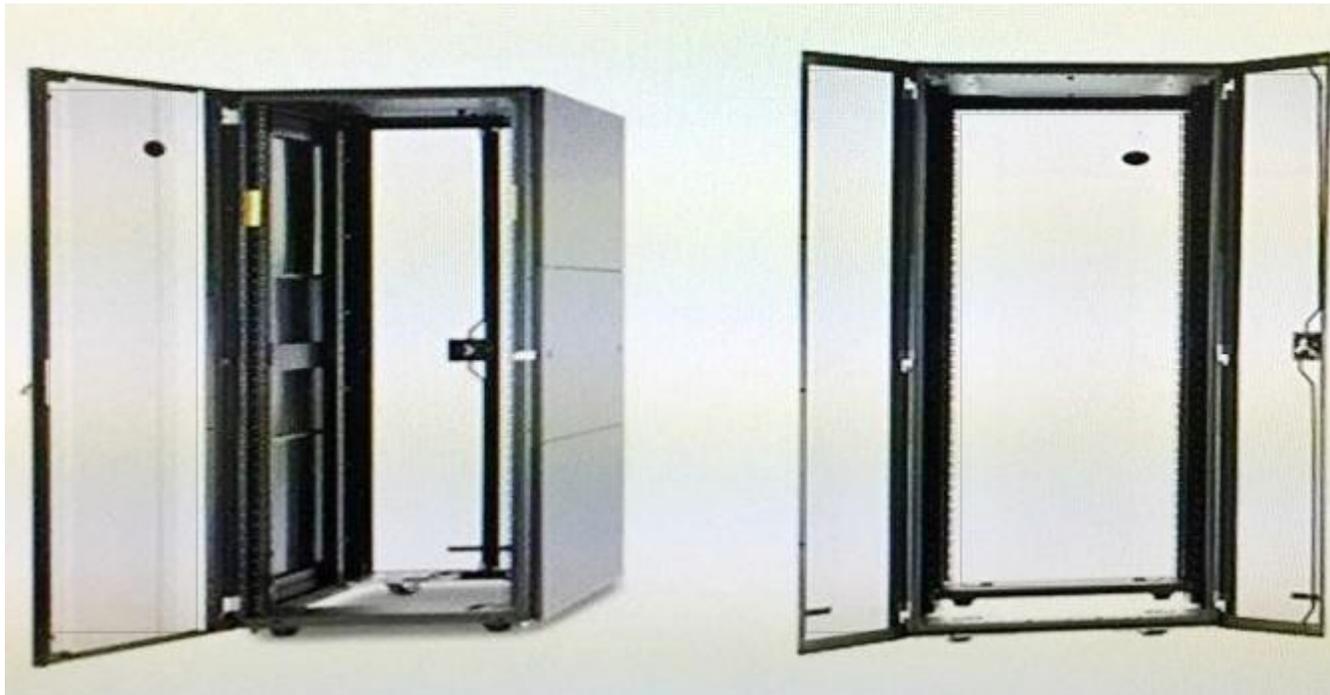References: HP Smart Storage for HP ProLiant Gen9, page 6
http://www.hp.com/hpinfo/newsroom/press_kits/2014/ComputeEra/HP_SmartStorage_ProLiantGen9_DataSheet.pdf

QUESTION 36
HOTSPOT
Click on one of the HP recommended locations where an integrator should mount the iPDU display on the cabinet.

**Hot Area:**

Correct Answer:

Section: (none)
Explanation

Explanation/Reference:
Explanation:
Installing the Display Module
1. Connect the serial cable to the PDU serial connector on the Display Module.
2. Install the Display Module on the inside of the rack door.
3. Attach the provided screws through the holes on the perforated door.
4. Connect the serial cable to the serial connector on the Core Unit.
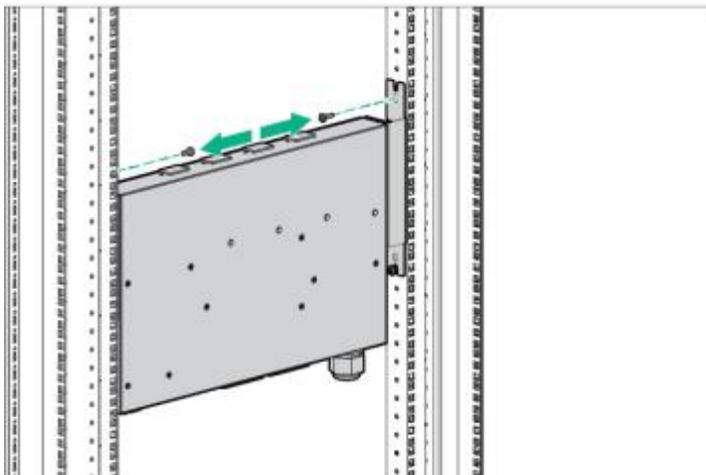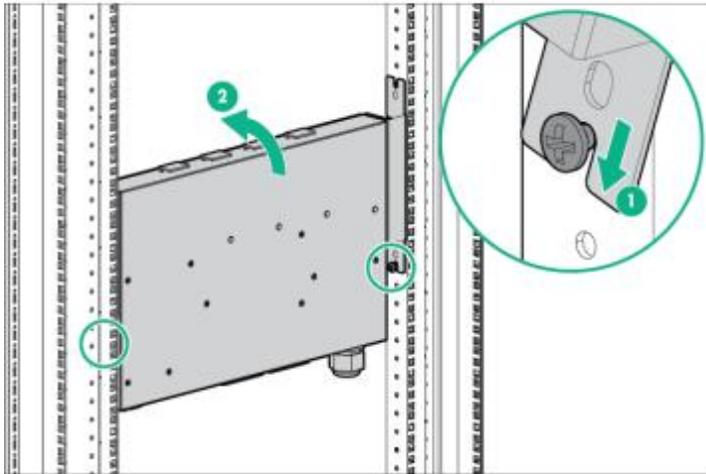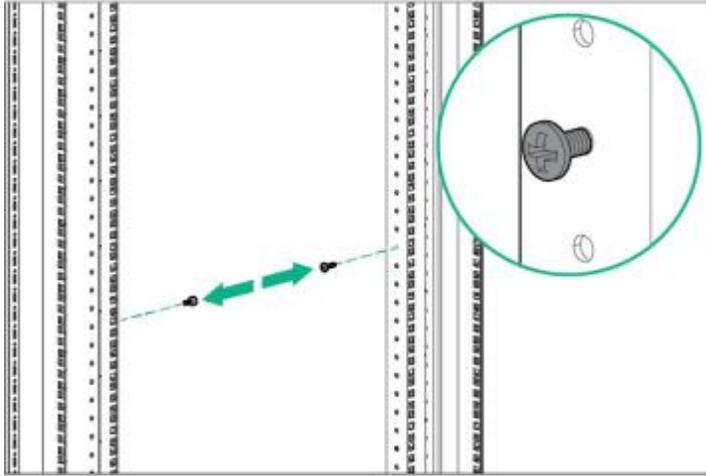
References: HPE Intelligent Power Distribution Unit, Installation Instructions, page 8
http://h20566.www2.hpe.com/hpsc/doc/public/display?sp4ts.oid=4206782&docId=emr_na-c02254829&docLocale=en_US

QUESTION 37
A customer has an HP ProLiant DL380 Gen9 server and needs to order a power supply (PSU) model to meet the following requirements:
▪ It must be a redundant PSU solution
▪ The PSU must be able to handle a total load of 650 Watt, even in the event of a utility failure to one of the two utility power feeds

Which PSU solutions should the integrator recommend to meet the customer's requirements? (Select two.)

A. two 1400 Watt Flexible Slot Platinum Plus Power Supply Units per HP ProLiant DL380 Gen9 server
B. two 800 Watt Flexible Slot Platinum Power Supply Units per HP ProLiant DL380 Gen9 server
C. two 750 Watt Common Slot Platinum Power Supply Units per HP ProLiant DL380 Gen9 server
D. two 1200 Watt Common Slot Platinum Power Supply Units per HP ProLiant DL380 Gen9 server
E. two 500 Watt Flexible Slot Platinum Power Supply Units per HP ProLiant DL380 Gen9 server

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 38
A customer needs to implement HP OneView to manage a data center based on Gen9 servers running Windows, OpenStack, and VMware.

Which other component can the integrator implement in this environment?

A. HP Helion CloudSystem for Windows and VMware deployment
B. Insight Control server provisioning for OpenStack virtual machine deployment
C. Microsoft System Center plugin for further integration
D. HP Virtual Connect Enterprise Manager for profile management

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
HPE Helion CloudSystem is a hybrid cloud solution that delivers automation, orchestration, and control.

Move traditional apps to the cloud and build cloud native apps with rapid infrastructure provisioning, management across multiple cloud providers, and tools for developers.

HPE Helion CloudSystem supports multi-hypervisor environments: Red Hat KVM, VMware, Hyper-V, Integrity VM

HP Helion CloudSystem support the latest releases of HPE OneView and ProLiant Gen9 servers.

HPE Helion CloudSystem Foundation supports Infrastructure as a Service (IaaS) based on OpenStack technology and Platform as a Service (PaaS) based on Cloud FoundryTM technology.

References: http://www8.hp.com/us/en/cloud/helion-cloudsystem.html

QUESTION 39
What is required to successfully move from HP SIM to HP OneView?

A. Data Migration Tool to migrate data from HP SIM to HP OneView
B. SQL database instance for HP OneView
C. ESXi server or Hyper-V host for HP OneView deployment
D. Server with CentOS 6.x for HP OneView deployment

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
HP OneView is a virtual appliance running on the following supported hypervisor hosts.
▪ VMware vSphere ESXi
▪ Microsoft Hyper-V

References: HP OneView 2.0 Installation Guide, page 5
http://h20565.www2.hpe.com/hpsc/doc/public/display?sp4ts.oid=5410258&docId=emr_na-c04764735&docLocale=en_US

QUESTION 40
An integrator needs to add an HP c7000 BladeSystem Enclosure to HP OneView. Which information should the integrator collect for this purpose?

A. iLO IP address and credentials for each blade server in the enclosure.
B. IP address and credentials for the Virtual Connect Enterprise Manager (VCEM) that currently manages the enclosure.
C. Onboard Administrator IP address and login credentials.
D. IP address and credentials for each virtual machine (VM) installed on each blade server in the enclosure.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The OneView Add enclosure screen includes:
▪ Onboard Administrator (OA): IP address or host name
▪ User name: The OA user name with administrative privileges, such as Administrator.
▪ Password: The OA password.

References: http://h17007.www1.hp.com/docs/enterprise/servers/oneview1.2/cic/en/content/s_enclosure-properties.html#s_enclosures-add-screen-details