

Dell PowerEdge Foundations v2 Exam

EMC D-PE-FN-01

Version Demo

Total Demo Questions: 8

Total Premium Questions: 82

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Topic Break Down

Topic	No. of Questions
Topic 1, PowerEdge Server Portfolio	10
Topic 2, PowerEdge Server Technologies	45
Topic 3, PowerEdge Server Management	23
Topic 4, Mix Questions	4
Total	82

QUESTION NO: 1

In a virtual environment, what is the host operating system 's role in managing network traffic when an external switch is used?

- A. Isolate the host completely from network traffic flow
- B. Manage only internal communication between virtual machines
- C. See the traffic and share the pNIC with VMs for external communication
- D. Delegate all traffic management directly to the external switch itself

ANSWER: C

Explanation:

“See the traffic and share the pNIC with VMs for external communication” is correct because an external virtual switch connects the virtual networking layer on the host to a physical network adapter (pNIC). This lets virtual machines use that physical adapter to send and receive traffic on the external network while the host retains network connectivity through the same adapter. The host’s virtualization networking component, such as a virtual switch, provides the logical forwarding path between virtual machine network adapters and the physical adapter. Consequently, traffic entering or leaving a virtual machine through this connection is handled through the host’s virtual networking stack and the shared physical NIC rather than bypassing the host entirely. This arrangement enables external connectivity while preserving the host’s ability to apply relevant virtual-switch functions, such as port connectivity, policy enforcement, and traffic forwarding. Microsoft’s Hyper-V documentation describes an external virtual switch as one that binds to a physical network adapter and enables communication between virtual machines, the host, and external networks. The same fundamental host-and-uplink model is used across mainstream server virtualization platforms. See [Microsoft Learn: Hyper-V Virtual Switch](#) and [Microsoft Learn: Create a virtual switch for Hyper-V virtual machines](#).

QUESTION NO: 2

An administrator needs a dedicated RAID solution for booting the server operating system, using fast NVMe drives and iDRAC management capabilities. Which Boot Optimized Storage Solution is a RAID card designed for booting server OS, using one or two M.2 NVMe drives and managed by iDRAC?

- A. NVDIMM
- B. PERC
- C. Intel Optane DC Persistent Memory
- D. BOSS

ANSWER: D

Explanation:

BOSS is correct because Dell’s Boot Optimized Storage Solution is purpose-built to provide a separate, reliable boot device for the server operating system. In current PowerEdge implementations, the NVMe-based BOSS-N1 controller supports one or two M.2 NVMe SSDs and can use RAID 1 to mirror the operating-system installation. This separation keeps the OS off the primary data-storage array, simplifying operating-system deployment and helping preserve the main storage configuration for application workloads. The controller is integrated with Dell management tooling: iDRAC can inventory the BOSS controller and installed drives, report health and status, and support lifecycle-oriented configuration and monitoring. A dedicated boot solution is especially useful where fast boot-media performance, redundancy, and remote hardware management are required without consuming front-accessible drive bays. Dell documents BOSS as a PowerEdge boot-storage subsystem and identifies BOSS-N1 as the M.2 NVMe variant; its PowerEdge technical documentation also describes iDRAC’s storage-management functions. See Dell’s [PowerEdge R660 Technical Guide](#) and the [iDRAC Storage Management documentation](#).

QUESTION NO: 3

A technician must update the firmware of a Dell PowerEdge server and wants to know if the iDRAC UI supports automated update processes Which iDRAC UI feature facilitates keeping server components up to date with the latest firmware revisions?

- A. Utilize Update services within the iDRAC interface
- B. Enable Automatic Certificate Enrollment for system updates
- C. Access Parts replacement section for firmware updates
- D. Employ Remote File Share for firmware updates

ANSWER: A

Explanation:

Utilize Update services within the iDRAC interface is correct because iDRAC provides integrated lifecycle-management and firmware-update capabilities for PowerEdge servers. Through the iDRAC web interface, an administrator can use the System Update functionality to inventory installed component versions, select applicable firmware packages, apply updates, and monitor update-job status. The update workflow can obtain catalog information and packages from Dell online repositories or from configured network repositories, enabling a controlled and repeatable process rather than requiring each component to be updated manually. iDRAC Lifecycle Controller also coordinates the update jobs across server components, including BIOS, storage controllers, network adapters, power supplies, and other supported devices. This helps ensure that component firmware is maintained at Dell-supported revisions and that update activity is recorded in the controller's job queue and logs. For environments with multiple systems, these iDRAC update capabilities can also be incorporated into broader Dell management workflows and repositories. Dell documents the System Update workflow and supported update sources in its [iDRAC9 User's Guide](#); Dell's [iDRAC9 Lifecycle Controller overview](#) also describes its embedded systems-management role.

QUESTION NO: 4

An expanding multimedia company requires a storage system to archive and retrieve large video files, prioritizing high-capacity, and secure digital media management What is the primary purpose of a storage solution in a server network environment (or organizations managing extensive digital media)?

- A. Optimize CPU processing for digital media applications
- B. Improve workstation performance when accessing network resources
- C. Enhance network bandwidth for faster data transmission
- D. Store, access, manage, and secure digital media effectively

ANSWER: D

Explanation:

Store, access, manage, and secure digital media effectively is correct because the central role of a storage solution is to provide persistent, scalable capacity for organizational data while making that data available to authorized systems and users. In a multimedia environment, large video assets must be reliably ingested, retained, organized, retrieved, and protected throughout their lifecycle. Storage platforms support these requirements through appropriate capacity and performance design, shared access methods, data-management capabilities, and protection features such as access controls, redundancy, snapshots, replication, and backup integration. A server network environment uses storage to separate durable data services from individual compute systems, enabling teams and applications to work with common media repositories rather than relying on isolated local disks. This is especially important as media libraries grow, because storage can be expanded and managed according to retention, availability, and security requirements. Dell describes PowerStore as delivering unified storage for block, file, and virtual volumes, illustrating the broad data-access role of modern enterprise storage. Dell's data-protection guidance also emphasizes protecting data availability and recoverability across its lifecycle. See [Dell PowerStore storage](#) and [Dell Data Protection](#).

QUESTION NO: 5

For VMs requiring independent and self-contained network operation that is isolated from both the host and any external networks, which virtual switch type should be chosen?

- A. Physical
- B. External
- C. Internal
- D. Private

ANSWER: D

Explanation:

Private is the appropriate virtual switch type because it creates a network that is available only to virtual machines connected to that same switch. The virtual machines can communicate with one another, supporting a self-contained workload or lab environment, but the virtual switch does not provide a connection to the Hyper-V host operating system or to an external physical network. This isolation is useful when workloads must be segregated, such as for testing, demonstrations, malware analysis environments, or application components that should exchange traffic only within a defined VM group. In Hyper-V terminology, a private virtual switch has no physical network adapter association and does not expose a host virtual network adapter. Its traffic remains within the virtualization host's virtual switching layer among the attached VMs. This directly meets the requirement for network operation that is independent of both host connectivity and external network access. Microsoft's Hyper-V virtual network documentation describes private switches as allowing communication only between VMs on the same host, while Dell PowerEdge server platforms support hypervisor deployments that use these virtual networking constructs. See [Microsoft Learn: Hyper-V Virtual Switch](#) and [Dell PowerEdge Servers](#).

QUESTION NO: 6

A new IT technician is learning about server hardware and asks why servers seem more complex than desktop PCs. What is the primary reason for the increased complexity in server hardware when compared to desktop systems?

- A. Simplify server management interfaces for users.
- B. Minimize power consumption for cost savings in large deployments.
- C. Enhance processing power and bandwidth for multiple users.
- D. Reduce the physical footprint for space efficiency.

ANSWER: C

Explanation:

Enhance processing power and bandwidth for multiple users. is correct because servers are built to deliver shared services and applications to many users, devices, or workloads at the same time. Unlike a typical desktop, which is generally optimized around an individual user's interactive workload, a server must sustain concurrent requests while maintaining predictable performance, availability, and data integrity. This need drives hardware designs with higher core-count processors, substantially larger and often error-correcting memory configurations, high-speed and multiple network interfaces, extensive storage connectivity, and expansion capacity for specialized adapters. Server platforms also commonly incorporate enterprise management and reliability capabilities so that they can continue providing services through demanding, continuous operation and can be serviced efficiently in a data-center environment. Greater compute capacity and I/O bandwidth are therefore central to the server's role: they enable the system to host virtual machines, databases, file services, web applications, and other shared workloads without treating each request as an isolated desktop task. Dell describes PowerEdge servers as infrastructure designed for demanding workloads and scalable IT environments, while its technical documentation details the processor, memory, storage, and networking resources available in these platforms. See [Dell PowerEdge Servers](#) and [Dell PowerEdge R760 Documentation](#).

QUESTION NO: 7

An engineer must locate the latest Dell Update Package for a specific PowerEdge server model running Windows Server 2022. Which initial step should the engineer take to begin this process?

- A. Access the iDRAC interface of the server and navigate to the update section.
- B. Contact Dell support to request the specific update package.
- C. Open the Dell Support website and go to the "Drivers & Downloads" page.
- D. Utilize OpenManage Enterprise to search for available updates for the server.

ANSWER: C

Explanation:

Open the Dell Support website and go to the "Drivers & Downloads" page. This is the appropriate starting point for locating the latest Dell Update Package (DUP) because Dell's support catalog provides downloads that are matched to a PowerEdge system by Service Tag, express service code, or server model. After identifying the server, the engineer can filter the available packages by operating system, including Windows Server 2022, and by component category such as BIOS, iDRAC, storage controller, network adapter, or chipset. The resulting package page provides the current version, release date, supported systems and operating systems, installation instructions, and release notes needed to validate that the DUP is suitable before downloading it. Using the Support site also ensures the update is obtained from Dell's authoritative repository rather than an unverified source. Dell documents the process of identifying a system and obtaining drivers through its Drivers & Downloads support area at [Dell Drivers & Downloads](#). Dell also describes Dell Update Packages and their role in updating PowerEdge firmware and drivers in its PowerEdge update guidance: [Dell EMC Server Update Utility](#).

QUESTION NO: 8

A company is selecting storage for several virtualization hosts. Each host must access the same storage volumes over a dedicated storage network, and the hypervisor must receive block devices rather than shared folders. Which storage architecture best meets this requirement?

- A. Direct Attached Storage
- B. Network Attached Storage
- C. Storage Area Network
- D. Local USB storage

ANSWER: C

Explanation:

A Storage Area Network (SAN) is correct because it provides block-level storage to servers across a dedicated storage network. The virtualization hosts can use the presented block devices as shared datastores, subject to the selected protocol and hypervisor configuration. Network Attached Storage primarily provides file-level access through file-sharing protocols, while Direct Attached Storage is generally connected to one host rather than shared across several hosts.