DELL Technologies

D-PE-FN-01

Dell PowerEdge Foundations v2 Exam

Certification Description

DELL Technologies

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Overview

This certification validates foundational knowledge of Dell PowerEdge servers and their associated technologies. Candidates will demonstrate understanding of server architecture, including components, form factors, and cooling technologies. The exam assesses knowledge of server networking principles, protocols, connectivity options, and network security. It also evaluates proficiency in essential server maintenance tasks, troubleshooting techniques, and best practices for server security, including data protection and access control. This exam is suitable for individuals seeking to demonstrate a foundational understanding of PowerEdge servers and their role in modern IT environments.

Certification Requirements

To successfully complete this certification, a candidate must:

1. Have a sufficient knowledgebase/skill set through hands-on product experience and/or by consuming the recommended training.

2. Pass the Dell PowerEdge Foundations v2 Exam.

Note: These details reflect certification requirements as of date March 28 2025

The Proven Professional Program periodically updates Certifications to reflect technical currency and relevance. Please check the Proven Professional website regularly for the latest information.

Dell PowerEdge Foundations v2 Exam

Exam Overview

Duration

- 90 minutes

Products

Products likely to be referred to on this exam include but are not limited to:

- PowerEdge servers

Exam Topics

Topics likely to be covered on this exam include:

Introduction to Servers (28%)

- Define the characteristics of a server
- Explain the function of various storage components commonly found in Dell PowerEdge servers, such as Hard Disk Drives (HDDs), Solid State Drives (SSDs), RAID controllers, BOSS and M.2, and storage enclosures.
- Describe the PowerEdge Server generations and series
- Identify a PowerEdge Server using its nomenclature
- Describe the components inside a PowerEdge Server
- Define the key storage components found in Dell PowerEdge servers, including Hard Disk Drives (HDDs), Solid State Drives (SSDs), RAID controllers (PERC), and backplanes.

Server Architecture and Roles (22%)

- Explain how different PowerEdge server models (e.g., rack servers, tower servers, blade servers) are better suited for specific roles.
- Interpret data flow through a server
- Compare and contrast different storage topologies relevant to Dell PowerEdge servers: Direct Attached Storage (DAS), Network Attached Storage (NAS), and Storage Area Networks (SAN).
- Explain Hypervisors and virtual machines
- Describe and position a PowerEdge server in a solution - Edge (ROBO), Cloud, Core, Use Case
- Describe and position PowerEdge server solutions for File Sharing, High-Performance Computing (HPC), and Generative AI workloads.

Server Management (14%)

- Explain the concepts of in-band and out-of-band management in the context of PowerEdge servers
- Compare the PowerEdge Servers management applications, utilities, and licensing
- Differentiate between the traditional BIOS and the Unified Extensible Firmware Interface (UEFI) boot processes on Dell PowerEdge servers
- Explain the concept of at-the-box management for Dell PowerEdge servers
- Discuss iDRAC, its features, and different versions (Basic, Express, Enterprise, and Data Center)
- Describe Dell OpenManage System Administrator Suite (OMSA)

Server Networking and Connectivity (6%)

- Define the types of network services
- Describe the cables and connections
- Compare the on-board network on a PowerEdge Server

Maintenance (18%)

- Describe the Memory and Expansion cards
- Explain the power distribution considerations
- Explain the hardware fault indicators in PowerEdge Servers
- Describe different methods of updating firmware and drivers in PowerEdge Servers
- Explain the cooling and thermal considerations in PowerEdge Servers (Direct Liquid Cooling,
- Immersion Cooling, Air Cooling)"
- Describe maintenance functions, shutdowns, reboots of a PowerEdge Server

Security (12%)

- Explain the security features of PowerEdge Servers
- Explain Hardware-enforced Security in PowerEdge Servers (Silicon Root of Trust (RoT), Secure Boot, Trusted Platform Module (TPM) 2.0, System Lockdown Mode, Hardware Intrusion Detection, Automated BIOS and OS Recovery)
- Describe the role of iDRAC in automated security management in a PowerEdge Server
- Discuss data protection in PowerEdge Servers (SEDs)
- Discuss features like Multifactor Authentication (MFA) and Role-Based Access Control (RBAC) restrict access to server management tools

The percentage after each topic above reflects the approximate distribution of the total question set across the exam.

Recommended Training
The following training is recommended for candidates preparing to take this achievement.

Course Title	Course Number	Mode
Dell PowerEdge Server Concepts	ESSVRD05641	OnDemand

Note: These exam description details reflect contents as of date March 28 2025