

Dell PowerScale Design 2023

Certification Description



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Certification Overview

This certification benefits any professional who needs to demonstrate their ability to design and size a PowerScale solution. This includes planning and architecting PowerScale solutions given business and environment requirements.

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 PowerScale Design 2023 Exam.

Note: These details reflect certification requirements as of February 6, 2023.

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 Technologies Partners: Achieving a certification validates capability; however, it does not imply authorization to deliver services. Services Competencies provide partners with the ability to deliver services under their own brand or co-deliver with Dell Technologies. Tiered partners are eligible to obtain Services Competencies upon completing the specific requirements outlined in the [Services Competencies Matrix](#). Only partners that have met these requirements should be delivering their own services in lieu of Dell Technologies Services.

Exam Overview

This exam focuses on architectural and design principles that facilitate providing a solution that meets customer requirements. This exam covers the technical components of the PowerScale Scale-Out NAS storage system and its operating system, OneFS. The exam also covers basic sizing techniques and tools when building a PowerScale Solution in real world applications.

Products

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

- OneFS v9.4.0
- Isilon Generation 6 (Gen 6)
- PowerScale Gen 6
- PowerScale All-Flash Hardware

Exam Topics

Topics likely to be covered on this exam include:

PowerScale Infrastructure (25%)

- Identify the nature and use of PowerScale nodes, node architecture, node compatibilities, and networking architecture.
- Describe the nature of PowerScale networking, groupnets, IP address pools, access zones, and use of SmartConnect.
- Establish the information requirements for designing a PowerScale solution, including determining hardware and software capacity, switch requirements, file server consolidation, file size considerations, performance sizing impact, data types, integration considerations, and I/O characteristics.

PowerScale Management, Identity Management, and Advanced Applications (49%)

- Detail the function and use cases for SnapshotIQ and SmartLock
- Account for the function and use cases for Storage pools, SmartPools, file pools, and CloudPools
- Differentiate the client access permissions, client authentication and client protocol access on the PowerScale cluster.
- Describe the nature and use of user identity mapping, RBAC and ZRBAC
- Explain journaling, file striping, data protection, antivirus and caching.
- Identify the use cases for replication and recovery using SyncIQ and SmartSync

Sizing Considerations (18%)

- Determine how data availability and protection are implemented and measured on a PowerScale cluster.
- Detail the recommended directory structure and how disk space is utilized for small and large files and its effects on protection overhead.
- Differentiate how data access patterns impact workflows on the PowerScale cluster.
- Identify the challenges and considerations for configuring NDMP backup and archive workflows.
- Describe the function and use cases for file filtering, SmartQuotas, SmartDedupe and inline data reduction.

Workload Management and Monitoring Tools (8%)

- Explain cluster monitoring with InsightIQ, HealthCheck and isi statistics.
- Differentiate the nature and appropriate use of workflow analysis tools: iostat, netstat, iperf, tcpdump, Wireshark, lozone, lometer, Live Optics
- Show the nature and use of events, alerts, SNMP, SRS, Logs, Auditing and Job Engine

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

Duration

90 minutes

Recommended Training

The following training is recommended for candidates preparing to take this exam.

Option 1: Please complete the following courses.

Course Title	Course Number	Mode	Available
PowerScale Concepts	ES131STG01028	On Demand	8/22/2022

Option 2: Please complete the following courses.

Course Title	Course Number	Mode	Available
PowerScale Solution Design: Platform Architecture	ES532STG01056	On Demand	8/22/2022
PowerScale Solution Design: Data Protection	ES502STG01256	On Demand	8/22/2022
PowerScale Solution Design: Networking	ES502STG01279	On Demand	8/22/2022
PowerScale Solution Design: Pools and Tiers	ES502STG01280	On Demand	8/22/2022
PowerScale Solution Design: Preservation	ES502STG01281	On Demand	8/22/2022
PowerScale Solution Design: Cluster Access	ES502STG01282	On Demand	8/22/2022
PowerScale Solution Design: Monitoring	ES502STG01283	On Demand	8/22/2022
PowerScale Solution Design: Verticals	ES502STG01284	On Demand	8/22/2022
PowerScale Solution Design: Capacity Management	ES502STG01932	On Demand	8/22/2022

Note: These exam description details reflect contents as of February 6, 2023.

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