



Announcing DES-1121 Specialist - Implementation Engineer, PowerMax and VMAX Family Solutions Exam Retirement

The Specialist - Implementation Engineer, PowerMax and VMAX Family Solutions certification DES-1121 will be retired on February 2, 2024 and a new certification offering will launch on February 3, 2024. The new certification is **Dell PowerMax and VMAX Family Solutions Operate 2023 (D-PVM-OE-23)**

This certification is focused on skill and outcome-based solutions certifications.

How will this impact you?

If you have already taken the aligned training or previously attempted the exam for the **Specialist - Implementation Engineer, PowerMax and VMAX Family Solutions** certification, plan to take the [Exam #] exam by **January 31, 2024**.

- [View the DES-1121 exam description and practice test »](#) Once achieved, your credential, Specialist - Implementation Engineer, PowerMax and VMAX Family Solutions will not expire.

If you're just beginning your credential journey after February 3, 2024, please choose this Assessment that aligns closest with the knowledge you're looking to develop.

Dell PowerMax and VMAX Family Solutions Operate 2023 (D-PVM-OE-23)

Specialist - Implementation Engineer, PowerMax and VMAX Family Solutions Version 1.0

Certification Description



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Dell Technologies
1 Dell Way
Round Rock Texas 78682

Certification Overview

This certification benefits any professional implementing and managing PowerMax and VMAX Family storage arrays in open systems environments. The certification focuses on configuration and business continuity administration of PowerMax and VMAX Family storage arrays. Non-disruptive migration (NDM) to PowerMax and VMAX Family arrays is also covered. Managing configuration changes, TimeFinder SnapVX, SRDF, and NDM using SYMCLI and Unisphere for PowerMax is assessed.

Certification Requirements

To complete the requirements for this certification you must:

1. Achieve one of the following Associate level certifications:
 - Associate - Information Storage and Management Version 2.0
 - Associate - Information Storage and Management Version 3.0
 - Associate - Information Storage and Management Version 4.0
 - Associate - Information Storage and Management Version 5.0
 - Specialist – Implementation Engineer, VMAX All Flash and VMAX3 Solutions Version 2.0
 - Specialist – Systems Administrator, VMAX All Flash and VMAX3 Solutions Version 2.0
2. Pass the following Specialist exam on or after April 26, 2019:
 - [DES-1121 Specialist – Implementation Engineer, PowerMax and VMAX Family Solutions Exam](#)

Note: These details reflect certification requirements as of April 26, 2019.

The Proven Professional Program periodically updates certification requirements. *Please check the [Proven Professional CertTracker](#) website regularly for the latest information and for other options to meet the Associate level requirement.

Dell Technologies Partners: Achieving a certification validates capability; however, it does not imply authorization to deliver services. Services Delivery 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 delivery competencies upon completing the specific requirements outlined in the [enablement matrix](#). Only partners that have met these requirements should be delivering their own services in lieu of Dell Technologies Services.

Other Certification Recommendations

Once you have achieved this Certification you may be interested in:

- [Expert – PowerMax and VMAX All Flash Solutions](#)

DES-1121 Implementation Engineer – Specialist, PowerMax and VMAX Family Solutions Exam

Exam Description



Overview

This exam is a qualifying exam for the **Specialist - Implementation Engineer, PowerMax and VMAX Family Solutions (DCS-IE)** track.

This exam focuses on configuration and business continuity administration of PowerMax and VMAX Family storage arrays in open systems environments. Non-disruptive migration (NDM) to PowerMax and VMAX Family arrays is also covered. Managing configuration changes, TimeFinder SnapVX, SRDF, and NDM using SYMCLI and Unisphere for PowerMax is assessed.

Dell Technologies provides free practice tests to assess your knowledge in preparation for the exam. Practice tests allow you to become familiar with the topics and question types you will find on the proctored exam. Your results on a practice test offer one indication of how prepared you are for the proctored exam and can highlight topics on which you need to study and train further. A passing score on the practice test does not guarantee a passing score on the certification exam.

Products

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

- PowerMax with PowerMaxOS 5978
- VMAX All Flash and VMAX3 with HYPERMAX OS 5977
- Solutions Enabler 9.0
- Unisphere for PowerMax 9.0
- SYMCLI
- TimeFinder SnapVX
- SRDF
- Open Replicator
- Non-disruptive Migration

Exam Topics

Topics likely to be covered on this exam include:

PowerMax and VMAX Family Local and Remote Replication (9%)

- Describe TimeFinder SnapVX architecture, features, capabilities, benefits, and management
- Describe SRDF architecture, features, capabilities, benefits, and management
- Describe Open Replicator architecture, features, capabilities, benefits, and management

Duration

90 Minutes
(~60 Questions)

Pass Score: 63%

Practice Test

Exam - [DES-1121](#)

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PowerMax and VMAX Family Business Continuity Administration (26%)

- Describe how TimeFinder SnapVX operations with SYMCLI and Unisphere for PowerMax in physical and virtual environments are performed
- Describe how SRDF operations with SYMCLI and Unisphere for PowerMax in physical and virtual environments are performed

Unisphere for PowerMax Implementation and Administration (8%)

- Explain Unisphere for PowerMax functionality, architecture, and how administration tasks are performed
- Describe how Unisphere for PowerMax is installed and how to navigate the Unisphere for PowerMax user interface

PowerMax and VMAX Family Configuration Administration (41%)

- Explain how PowerMax and VMAX Family arrays are configured and storage is provisioned
- Describe virtual provisioning, service levels, and VMAX3 FAST concepts
- Identify and describe PowerMax and VMAX Family device creation and port management
- Explain how storage is allocated using autoprovisioning groups and how SL-based provisioning with Unisphere for PowerMax and SYMCLI is performed
- Identify and describe how Storage Resource Pools, Storage Group compliance, and Compression are monitored
- Explain how Workload Planning with Unisphere for PowerMax is performed
- Explain storage management in a virtualized environment for PowerMax and VMAX Family arrays

Solutions Enabler Implementation (7%)

- Describe the functions of commonly used Solutions Enabler daemons, Solutions Enabler Virtual Appliance usage, and how Solutions Enabler is installed
- Explain Gatekeeper management, option files usage, and environment variables

Non-Disruptive Migration to PowerMax and VMAX Family (9%)

- Describe Non-Disruptive Migrations to PowerMax and VMAX Family arrays
- Identify and describe how Non-Disruptive Migrations using Unisphere for PowerMax and Non-Disruptive Migrations using SYMCLI are performed

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

Recommended Training

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

Please complete all the following eLearning courses

Course Title	Course Number	Mode	Available
PowerMax Concepts and Features	ES131STG00363	On-Demand Course	July 2018
Solutions Enabler Implementation	ES132STG00365	On-Demand Course	July 2018
Unisphere for PowerMax Implementation and Administration	ES132STG00366	On-Demand Course	July 2018
PowerMax and VMAX Family Local Replication Concepts	ES132STG00367	On-Demand Course	September 2018
PowerMax and VMAX Family Remote Replication Concepts	ES132STG00368	On-Demand Course	September 2018
Non-Disruptive Migration to PowerMax and VMAX Family	ES132STG00364	On-Demand Course	November 2018

Please complete one of the following courses:

Course Title	Course Number	Mode	Available
PowerMax and VMAX Family Configuration and Business Continuity Administration	ES122STG00644	Classroom/ Virtual Classroom	April 2019
PowerMax and VMAX Family Configuration and Business Continuity Administration – On Demand Stream	ES132STG00371	On-Demand Video	May 2019

Note: These exam description details reflect contents as of April 26, 2019.

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

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