

# VMAX All Flash and VMAX3 Performance Workshop (MR-1CP-VMAXAF3PW)

**ID** MR-1CP-VMAXAF3PW **Price** US \$ 3,000.—(excl. VAT) **Duration** 3 days

## Who should attend

This course is intended for Dell EMC Personnel, Dell EMC Partners, and Dell EMC Customers who will be involved in implementing and managing the performance of VMAX All Flash and VMAX3 arrays.

## Prerequisites

- Architecture of VMAX All Flash and VMAX3 arrays
- VMAX3 Service Level based provisioning
- SRDF
- TimeFinder SnapVX
- Basic knowledge of Unisphere for VMAX

## Course Objectives

Upon successful completion of this course, participants should be able to:

- Describe the architecture of VMAX All Flash and VMAX3 arrays from a performance perspective
- Articulate the best practices for optimal performance of VMAX All Flash and VMAX3 arrays
- Use Unisphere for VMAX to monitor and analyze performance of the arrays
- Understand the correlation between workloads, Service Levels and the resulting performance
- Devise a strategy to analyze key metrics to investigate performance problems and possible remediation
- Use the analysis information for future provisioning of storage to applications

## Course Content

The content of this course is designed to support the course objectives.

### Module: VMAX All Flash and VMAX3 Architecture and Best Practices

- Lesson: VMAX All Flash and VMAX3 architecture from a performance perspective
- Lesson: Best practices for optimal performance

### Module: Performance Analysis – Methodology

- Lesson: Performance Analysis Methodology
- Lesson: Performance Metrics
- Lesson: Workload Profiles and Characterization
- Lesson: Little's Law and its impact on Response Time

### Module: Performance Analysis with Unisphere for VMAX

- Lesson: Performance related administrations tasks
- Lesson: Monitoring Performance
- Lesson: Performance Reports
- Lesson: Offline Performance Viewer

### Module: Performance Analysis of Frontend Directors

- Lesson: Relevant Metrics and Analysis Strategy
- Lesson: Correlating Workload, Service Level, Allocation for Storage Groups

### Module: Performance Analysis of Cache

- Lesson: Performance Analysis of Cache

### Module: Performance Analysis of Backend Directors

- Lesson: Relevant Metrics and Analysis Strategy
- Lesson: VMAX All Flash Array – Data Compression

### Module: End-to-end Analysis of Performance problems

- Lesson: End-to-end Analysis of Performance problems

### Module: Performance Considerations for SRDF and TimeFinder SnapVX

- Lesson: TimeFinder SnapVX Considerations
- Lesson: SRDF Considerations
- Lesson: SRDF Performance Analysis

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## Training Centres worldwide



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