



TRAINING OFFERING

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ONTAP Performance Analysis (ONTAP 9.6)

CODE:	LENGTH:	PRICE:
NEP_OT-CLU-PA9.6	3 day(s)	£2,475.00

Description

This course enables you to collect and analyze system performance data from NetApp® storage systems that run NetApp ONTAP® 9 software. You learn how to interpret data and how to identify and implement changes that improve system efficiency. You also learn how to use system commands and features to monitor and enhance storage system performance. You learn from hands-on exercises, case studies, and technical discussions.

Objectives

This course focuses on enabling you to do the following:

- Describe how to use NetApp tools for performance measurement
- Describe the layers within the ONTAP architecture
- Diagram the flow of read and write requests through the network and data layers of ONTAP software
- Discuss how storage quality of service (QoS) operates in an ONTAP cluster
- Explain how to monitor and manage workload performance
- Use the performance analysis tools to identify NAS and SAN performance obstacles

Audience

Professionals who manage NetApp storage systems and would like a deeper understanding of Clustered Data ONTAP system performance

Prerequisites

Hands-on experience with ONTAP software (6 months to 12 months) is required in addition to the OT-CLU-DPA instructor led class..
OT-CLU-DPA - ONTAP Cluster Administration & Data Protection

Programme

Basic Concepts of Performance

Module 1: Performance Analysis Fundamentals	Performance Monitoring Methodology	Module 2: Performance Analysis Tools
Performance terminology		FAS and AFF Architecture
Using Active IQ Unified Manager	Module 3: Storage System Architecture and Data Flow	Data Flow
	WAFS Functions	NVRAM Functionality
	WAFS Readahead	Identifying CPU Performance Bottlenecks
Module 4: WAFS Resolving WAFS issues	Module 5: CPU and Memory	Resolving CPU Performance Bottlenecks
	Disk Subsystem Hardware	Identifying Memory Performance Bottlenecks
	Analyzing and Isolating Disk Subsystem Bottlenecks	Resolving Memory Performance Bottlenecks
	Analyzing Disk Subsystem Bottlenecks with Statit	
Module 6: Disk Subsystem	Resolving Disk Subsystem Bottlenecks	Module 7: Cache Subsystem

Cache Subsystem Overview

Flash Cache Feature

Flash Pool Feature

Flash Cache Policies and Flash Pool Policies

Storage Pool

Cache Sizing

Module 8: Storage Quality of Service Managing System Performance with QoS

SAN Overview

SAN Multipathing

SAN load balancing

SAN I/O Misalignment

NAS functions

Identifying NAS Bottlenecks

Module 9: NAS Subsystem Resolving NAS Bottlenecks **Module 10: SAN Subsystem** Queue depth **Labs:**

Identifying cluster components

Analyzing performance statistics

OnCommand performance manager thresholds, events and alerts

Identifying and resolving storage controller performance issues

WAFI performance monitoring and analysis

Identifying and resolving disk I/O bottlenecks

Exploring cache performance

Cluster interconnect performance

Workload management with storage QoS

NAS performance

SAN protocol performance

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
23 Jan 2023	Virtual Classroom	GMT	English	Instructor Led Online		£2,475.00
27 Mar 2023	Virtual Classroom	BST	English	Instructor Led Online		£2,475.00
22 May 2023	Virtual Classroom	BST	English	Instructor Led Online		£2,475.00
05 Jun 2023	Virtual Classroom	BST	English	Instructor Led Online		£2,475.00
24 Jul 2023	Virtual Classroom	BST	English	Instructor Led Online		£2,475.00

Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)