ONTAP Performance Analysis (PERFCDOT)

ID PERFCDOT **Prix** CHF 3 510,– (Hors Taxe) **Durée** 3 jours

A qui s'adresse cette formation

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

Pré-requis

- ONTAP Cluster Administration and Data Protection Bundle (CDOTDP9)

Objectifs

- Describe how data flows through the network and protocol layers of clustered Data ONTAP
- Define performance-related terms and describe basic methodologies
- Identify the methods that can be used to monitor and analyze storage system performance
- Explain how methods and tools can be used to collect performance data
- Use command output to analyze system performance
- Use command output from case studies to identify performance bottlenecks
- Implement configuration for recommended practices for resiliency and performance
- Locate resources and information that help you maximize system performance

Contenu

For those students who are looking for more in-depth knowledge on managing performance on Clustered Data ONTAP after completing DCADM should consider PERFCDOT. This course will teach students to use available tools such as system commands and NetApp OnCommand to collect and monitor performance data. Students will learn to use this data to identify and implement system changes that improve the efficiency of the system. Hands-on labs, case-studies, and technical discussions will take place throughout this 2-day course.

Module 1: How a NetApp Storage System Works

- Describe the layers within the Data ONTAP architecture
- List the advantages that are provided by the ability of WAFL to optimize writes
- Explain the purpose of NVRAM
- Diagram the flow of read and write requests through the network and protocol layers of Data ONTAP
- Describe the benefits that RAID provides

Module 2: Performance Overview

- Define performance-related terms, such as "baseline," "bottleneck," "Little's law," and "latency"
- Describe baseline performance guidelines and methodologies as they relate to NetApp storage systems

Module 3: Clustered Storage System Workloads and Bottlenecks

- Gather information about the workload of an existing storage system
- Identify the storage system components that can affect performance—become bottlenecks

Module 4: Cluster Performance Monitoring and Analysis

- Describe the performance analysis tools and commands that are commonly used for cluster health checks
- Identify the key performance commands and describe the command output that they produce
- Explain how to use NetApp tools for performance measurement
- Describe the benefits of using the AutoSupport support tool for performance analysis

Module 5: OnCommand Management Tools

- List the three categories of performance tools
- Explain the features and functions of Insight Perform
- Explain the features and functions of OnCommand Balance
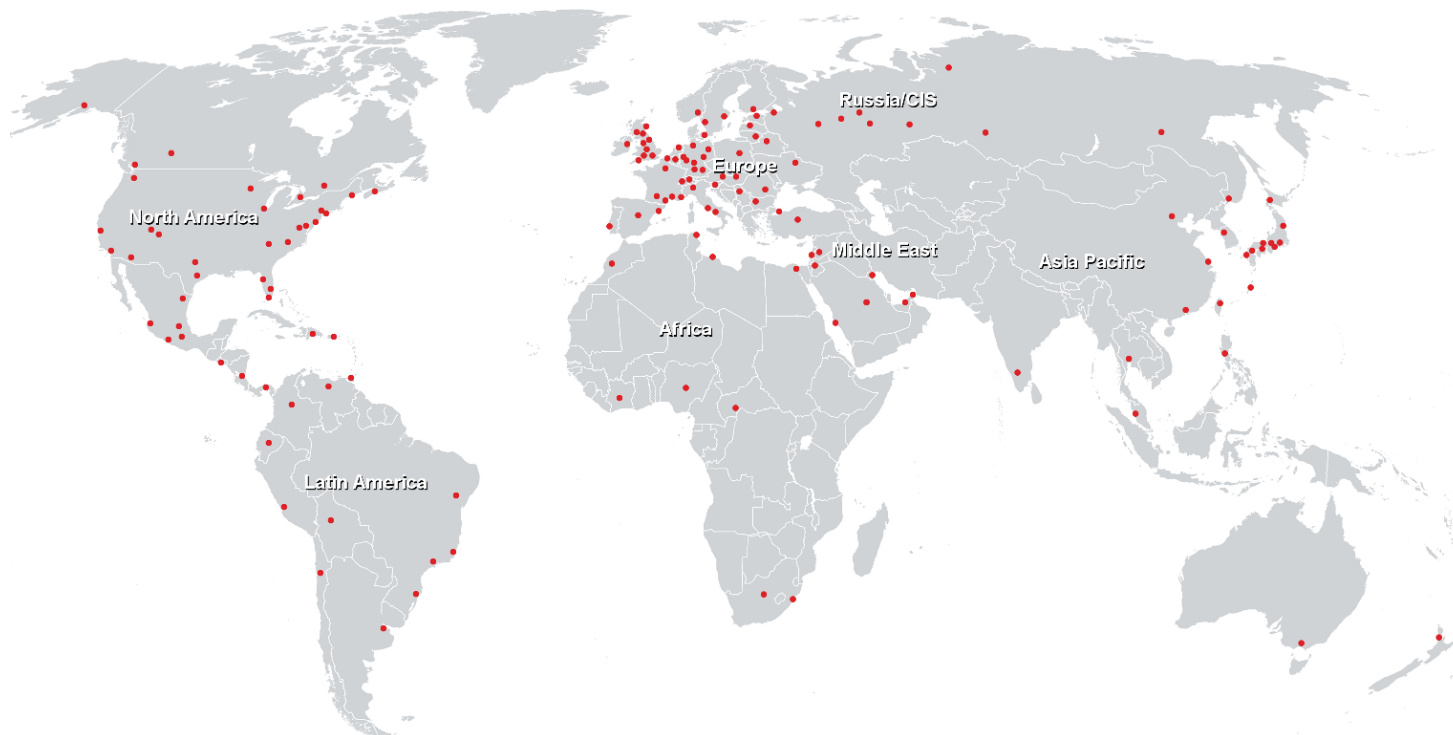- Use OnCommand management tools to view performance data

Module 6: Storage QoS

- Discuss how the Storage Quality of Service (QoS) feature works in a clustered Data ONTAP environment
- Identify the commands that are used to manage policy groups
- Monitor workload performance

Labs

- Identify the exercise environment
- Log in to the exercise environment
- Add a cluster to OnCommand System Manager
- Configure SNMP public community name
- Identify clustered Data ONTAP components
- Set the clustered Data ONTAP command line system timeout value (optional)
- Examine the statistics catalog commands
- Examine the statistics start and statistics show commands
- Defining workload characteristics
- Perform initial health checks on the cluster
- Baseline performance monitoring from the cluster shell
- Performance monitoring from the cluster shell
- Unlock diag userid
- Using the performance and statistics collector (Perfstat)
- Reactively limit thoughput to a workload by associating the workload with QoS policy group
- Proactively monitor workload performance by associating a workload with a QoS policy group
- Isolate a tenant workload by associating the workload with a QoS policy group

Centres de formation dans le monde entier

Fast Lane Institute for Knowledge Transfer GmbH

Husacherstrasse 3
CH-8304 Wallisellen
Tel. +41 44 832 50 80

info@flane.ch, https://www.flane.ch