

# Huawei All Flash Storage Array (OceanStor Dorado 8000 V6) Administration

## Course Overview

This course is designed to provide participants with the knowledge and skills required to effectively manage, configure, and maintain the Huawei OceanStor Dorado 8000 V6 All-Flash Storage System. The training covers system architecture, performance optimization, advanced features, and disaster recovery, along with hands-on labs to give participants practical experience in administering the OceanStor Dorado 8000 V6.

## Course Duration

- 5 Days

## Target Audience

- Storage Administrators
- System Engineers
- Data Center Engineers
- IT Professionals responsible for storage administration and optimization

## Prerequisites

- Basic understanding of storage concepts
- Experience with SAN and NAS storage systems
- Familiarity with network and storage protocols

## Day 1: Introduction to Huawei OceanStor Dorado 8000 V6

- **Module 1: Overview of All-Flash Storage Arrays**
  - Introduction to the Huawei OceanStor Dorado Series
  - Key features and benefits of the OceanStor Dorado 8000 V6
  - Comparison with traditional storage arrays
  - Architecture and key components of the OceanStor Dorado 8000 V6
  - Advantages of NVMe-based all-flash storage
- **Module 2: Hardware Architecture and Components**
  - Controllers, SSDs, and enclosures
  - PCIe architecture and NVMe protocol
  - Fault tolerance and high availability mechanisms
- **Module 3: Initial Setup and Configuration**
  - Physical installation and cabling
  - Initial system configuration via DeviceManager
  - Accessing the web-based management interface
  - Basic configuration settings

## Practical Lab:

- Initial hardware setup, connecting components, and accessing the management interface

## Day 2: Storage Management and Configuration

- **Module 4: Storage Pools and LUN Management**
  - Creating and managing storage pools in all-flash environments
  - Configuring thin provisioning and data compression
  - Creating and managing LUNs
  - LUN mapping and multi-pathing

- **Module 5: Data Protection Features**

- Snapshots: creation, management, and recovery
- Cloning: when and how to use cloning for data replication
- Using HyperSnap for instantaneous backups

- **Module 6: RAID and Storage Efficiency**

- RAID types in all-flash arrays (RAID 5, 6, etc.)
- Configuring RAID groups and performance optimization
- Deduplication and compression benefits for all-flash storage

**Practical Lab:**

- Creating and configuring storage pools, LUNs, and snapshots

**Day 3: Advanced Features and Performance Optimization**

- **Module 7: Quality of Service (QoS)**

- Introduction to QoS policies in OceanStor Dorado 8000 V6
- Configuring QoS rules for performance isolation
- Monitoring and adjusting QoS parameters

- **Module 8: Smart Technologies**

- SmartTier: automatic data tiering for optimal performance
- SmartMigration: data migration techniques
- SmartQoS and SmartThin for efficient resource utilization

- **Module 9: Performance Tuning and Monitoring**

- Monitoring system performance metrics using DeviceManager
- Identifying and troubleshooting performance bottlenecks
- Optimizing the system for different workloads

**Practical Lab:**

- Configuring QoS, enabling smart technologies, and monitoring performance

**Day 4: Data Protection and Disaster Recovery**

- **Module 10: Backup and Recovery Strategies**

- Implementing backup strategies with HyperSnap
- Restoring data from snapshots and clones
- Best practices for data protection and backup

- **Module 11: Disaster Recovery Solutions**

- HyperMetro for active-active disaster recovery
- HyperReplication for asynchronous replication across sites
- Configuring disaster recovery with cross-site replication

- **Module 12: Security and Multi-Tenancy**

- Secure storage management for multi-tenant environments
- Implementing role-based access control (RBAC)
- Data encryption for secure storage

**Practical Lab:**

- Configuring disaster recovery and implementing data protection features

**Day 5: System Monitoring, Troubleshooting, and Maintenance**

- **Module 13: System Monitoring and Alerts**

- Configuring and using DeviceManager for system monitoring
- Setting up performance monitoring and alert notifications
- Creating performance reports and analyzing system health
- **Module 14: Troubleshooting and Diagnostics**
  - Analyzing system logs and identifying hardware issues
  - Troubleshooting common configuration and performance issues
  - Using diagnostic tools to resolve system errors
- **Module 15: Firmware and System Maintenance**
  - Firmware upgrade procedures and best practices
  - Performing system maintenance tasks
  - Ensuring high availability and reliability of the system

#### **Practical Lab:**

- Firmware upgrades, system monitoring, and troubleshooting exercises

#### **Final Assessment and Q&A**

- Review key concepts and best practices
- Hands-on assessment of administrative tasks
- Q&A session to address participant queries