

ONTAP MetroCluster Installation (MCCIIW)

Modality: Virtual Classroom

Duration: 2 Days

NATU: 24 Units

About this Course:

Technology has become pertinent for all businesses today and no industry can boast of success without incorporating modern technology. This has led to a constant rise in the demand for It experts. A Professional Service Implementation Engineer can earn up to an average of **\$85,893** per year.

Metro cluster is a software which serves as a high availability and a disaster recovery solution. This course is designed to teach participants how to cable and create a Metro Cluster environment. This course borrows the use of hands on exercises which will guide individuals to practice configuration and verification steps. Furthermore , this course will also focus on how to recognize failures of different components and the steps which should be taken for the recovery from said failures.

This is categorized as an advanced level course with a primary focus on the installation, configuration and administration features of Metro Cluster available in ONTAP 9

Course Objectives:

By the end of this course, the students should be have learnt the following skills and be able to;

- Describe the major architectural components of a MetroCluster environment
- Cable nodes, back-end FC switches and FibreBridge devices
- Set up bridges and back-end FC switches
- Configure the clusters at both sites in a MetroCluster environment
- Set up a MetroCluster configuration and serve data to clients
- Detect and recover from failures in a MetroCluster environment
- Install and configure Tiebreaker software

Audience:

This course is targeted towards the following audience;

- Employees of Net App
- Partner professional service implementation engineers
- Customers

Prerequisites:

These are the prerequisites which are an absolute requirement for attending this course.

- Either successful completion of ONTAP Cluster Administration (ONTAP 9.6) (ONTAP9ADM) and ONTAP Data Protection Administration (ONTAP 9.6) (DATAPROT9)
- A fundamental knowledge of SANS
- Successful completion of ONTAP PS Professional Compliance Program or an equivalent program

Course Outline:

Module 1: Overview of MetroCluster

- Introduction to MetroCluster software
- Supported configurations
- Implementation steps
- Configuration tools and documentation

Module 2: MetroCluster Cabling

- Disk requirements
- Cabling overview
- Controller cabling
- Switch cabling

Module 3: Bridge and Switch Configuration

- ATTO FibreBridge configuration
- Brocade FC switch configuration
- IOD and OOD delivery

Module 4: Cluster Configuration

- Disk assignment
- Cluster setup

Module 5: MetroCluster Configuration

- Setup
- Verification
- Monitoring
- SVM configuration

Module 6: Failure Scenarios

- Switchover
- Switchback
- Failure scenarios
- LIF placement

Module 7: TieBreaker Configuration

- Introduction to TieBreaker
- Installation
- Configuration

Appendix A: Advanced Administration

- Transitioning
- Reallocating free space
- Performance testing
- NDU in a MetroCluster environment
- Integrating with vSphere 6
- Comparing features
- Scaling out
- Controller upgrades
- NVRAM allocation

Appendix B: Basic MetroCluster Troubleshooting

Appendix C: Front-End FC Fabrics in a MetroCluster Environment

Appendix D: FlexPod in an AFF MetroCluster Environment

- FlexPod solution
- MetroCluster FlexPod architecture
- vMSC Validation: failure scenarios and behavior

Appendix E: The ProLion ClusterLion Solution

- ClusterLion: alternative to TieBreaker

Appendix F: Brocade Network Advisor

Labs:

- MetroCluster cabling
- Bridge and switch verification and configuration
- Cluster configuration
- MetroCluster configuration and verification
- Failover scenarios
- TieBreaker configuration