

EMC Information Storage and Management (ISM)

Length: Five Days

This course is suitable for many audiences, including:

- Experienced storage professionals who may not have exposure to all of the segments of modern storage infrastructure.
- Experienced IT professionals taking on the responsibility to manage storage infrastructure in both classic and virtualized environments.
- Students and IT professionals who want to build their career in the storage industry.
- Organization-wide IT teams who are directly or indirectly responsible for planning, designing, deploying, managing or leveraging information infrastructure.
- Individuals who are seeking EMC Information Storage Associate v2 (EMCISA) certification.

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

- Evaluate storage architectures and key data center elements in classic, virtualized and cloud environments
- Explain physical and logical components of a storage infrastructure including storage subsystems, RAID and intelligent storage systems
- Describe storage networking technologies such as FC-SAN, IP-SAN, FCoE, NAS and object-based, and unified storage
- Understand and articulate business continuity solutions – backup and replications, along with archive for managing fixed content
- Explain key characteristics, services, deployment models, and infrastructure components for a cloud computing
- Describe information security requirements and solutions, and identify parameters for managing and monitoring storage infrastructure in classic, virtualized and cloud environments

Recommended Pre-learning

- To understand the content and successfully complete this course, a participant must have a basic understanding of computer architecture, operating systems, networking, and databases. Participants with experience in specific segments of storage infrastructure would also be able to fully assimilate the course material.

Course Content

STORAGE SYSTEM

- Introduction to information storage, virtualization and cloud computing
- Key data center elements

- Compute, application, and storage virtualization
- Disk drive & flash drive components and performance
- RAID
- Intelligent storage system and storage provisioning (including virtual provisioning)

STORAGE NETWORKING TECHNOLOGIES AND VIRTUALIZATION

- Fibre Channel SAN components, FC protocol and operations
- Block level storage virtualization
- iSCSI and FCIP as an IP-SAN solutions
- Converged networking option – FcoE
- Network Attached Storage (NAS) - components, protocol and operations
- File level storage virtualization
- Object based storage and unified storage platform

BACKUP, ARCHIVE, AND REPLICATION

- Business continuity terminologies, planning and solutions
- Clustering and multipathing architecture to avoid single points of failure
- Backup and recovery - methods, targets and topologies
- Data deduplication and backup in virtualized environment
- Fixed content and data archive
- Local replication in classic and virtual environments

- Remote replication in classic and virtual environments
- Three-site remote replication and continuous data protection

CLOUD COMPUTING CHARACTERISTICS AND BENEFITS

- Services and deployment models
- Cloud infrastructure components
- Cloud migration considerations

SECURING AND MANAGING STORAGE INFRASTRUCTURE

- Security threats, and countermeasures in various domains
- Security solutions for FC-SAN, IP-SAN and NAS environments
- Security in virtualized and cloud environments
- Monitoring and managing various information infrastructure components in classic and virtual environments
- Information lifecycle management (ILM) and storage tiering