Cloud Infrastructure and Services (CC100)

40 Hours

Outline

The Cloud Infrastructure and Services (CIS) course educates participants about cloud deployment and service models, cloud infrastructure, and the key considerations in migrating to cloud computing. For all definitions of cloud computing, the course has resorted to the U.S. National Institute of Standards and Technology as a guide. The course covers technologies required to build classic (traditional), virtualized, and cloud data center environments. These technologies include compute, storage, networking, desktop and application virtualization. Additional areas of focus include backup/recovery, business continuity, security, and management. Students will learn about the key considerations and steps involved in transitioning from the current state of their data center to a cloud computing environment. Upon completing this course, participants will have the knowledge to make informed decisions about migrating to cloud infrastructure and choosing the best deployment model for their organization.

Target Audience

- Experienced IT professionals, who may not have had exposure to the emerging field of Cloud computing
- IT professionals responsible for architecting and managing IT infrastructure
- Industry-wide IT teams who are directly or indirectly responsible for transitioning their traditional IT infrastructure to the Cloud infrastructure
- Students and professionals who are looking to pursue career in Cloud computing
- Individuals who are seeking EMC Cloud Associate (EMCCLA) certification

Prerequisites

- Basic understanding of computer architecture, operating system, networking and database
- Experience in Compute system, storage and network infrastructure will be an added advantage

Contents

Module 1: Journey to the Cloud

Module 2: Classic Data Center (CDC)

- Application, DBMS, Compute and Storage
- Networking
- Object based and Unified storage technologies
- Business continuity overview and backup
- Replication technologies
- CDC Management

Module 3: Virtualized Data Center (VDC) – Compute

- Compute virtualization overview
- Compute virtualization techniques
- Virtual Machines
- Resource management techniques
- Physical to virtual conversion

Module 4: Virtualized Data Center (VDC) – Storage

- Storage virtualization overview
- Virtual Machine Storage
- Block level and File level virtualization
- Virtual provisioning and automated storage tiering

Module 5: Virtualized Data Center (VDC) – Networking

- VDC networking overview
- VDC networking components
- VLAN and VSAN technologies
- Network traffic management

Module 6: Virtualized Data Center (VDC) – Desktop and Application

- Desktop virtualization
- Application virtualization

Module 7: Business Continuity in VDC

- Backup in VDC
- Replication and migration in VDC

Module 8: Cloud Computing Primer

- Overview of Cloud Computing
- Cloud services and deployment models

Module 9: Cloud Infrastructure and management

- Cloud infrastructure and service creation
- Cloud service management

Module 10: Cloud Security

Security basics

- Cloud security concerns and threats
- Cloud security mechanisms
- Access control and identity management in Cloud

Module 11: Cloud Migration Considerations

- Migration Considerations
- Phases of migration to Cloud