

Cloud Infrastructure and Services

Course Description

Course Duration

Instructor Led Training
(ILT): 5 days (40 hours)
Video ILT: 30 hours



This course material supports the
EMC Proven Professional Program

Overview

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.

Audience

This course is intended for:

- 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

Prerequisite Knowledge/Skills

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

Course Objectives

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

- Explain the phases of transition from classic data center to virtual data center and then to the Cloud
- Describe virtualization technology at compute, storage, network, desktop, and application layers of IT infrastructure
- Describe business continuity solutions in a VDC environment
- Explain the key characteristics, services, and deployment models of Cloud
- Describe the Cloud infrastructure components and service management processes
- Describe the Cloud security concerns and solutions
- List the key considerations for migration to the Cloud

Email Questions to:
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Course Outline

The content of this course are designed to support the course objectives. The following focus areas are included in this course:

- **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
- Governance, risk, and compliance

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- Security best practices for Cloud
- **Module 11: Cloud Migration Considerations**
- Migration Considerations
- Phases of migration to Cloud

Course Delivery Options

This course is currently available in the following formats:



MR-1CP-CIS: Instructor-led – Includes exercises and concepts in practice that reinforce the concepts covered in lectures.



MR-1VP-CIS1: Video ILT – DVD video provides a recording of an instructor-delivered course along with the online quizzes and additional content.

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