



# Cloud Infrastructure Planning and Design

## Overview

This course provides technical professionals with the knowledge and skills to successfully design a cloud infrastructure that supports multiple types of services. It uses an open approach to planning and design, focusing on core concepts and practices and citing examples from multiple vendors, products, and cloud technologies. This course highlights the benefits, challenges, and considerations of design choices and emphasizes the importance of proper requirements gathering in the design process. Additionally, students are provided with an opportunity to practice these new skills during a collaborative cloud design project. This course aligns with the specialist level of the EMC Cloud Architect Certification.

## Who Should Attend?

This course is intended for architects, designers, and consultants who are involved in the planning and design of cloud infrastructure components.

## Course Outcome

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

- Understand cloud computing, its deployment, service models, cloud computing reference model and the key considerations to build a cloud infrastructure
- Understand on technologies key components and processes required for the physical, virtual, control, and service layers of a cloud infrastructure
- Understand service orchestration, business continuity, security, and service management functions for a cloud infrastructure

## Duration

5 days

## Certificate

Specialist - Cloud Architect, Cloud Infrastructure (DECS-CA)

## Certification Body

Dell Technologies, US

## Course Outline

The content of this course is designed to support the course objectives.

### Module 1: Introduction to Cloud Design

- Describe the concepts and terminology associated with cloud characteristics, deployment models, services and infrastructure
- Apply key processes such as structured assessment, requirements gathering, and goal definition to a cloud design project
- Articulate the importance of governance, risk, and compliance requirements within the assessment process
- Produce logical and physical designs and explain the appropriate uses for each

### Module 2: Cloud Management

- Communicate the benefits, challenges and considerations of implementing various cloud management platforms and the underlying technologies.
- Align business requirements when selecting cloud management technologies.
- Develop a design and plan for deploying components that will support cloud management and operations.

### Module 3: Compute Resources

- Communicate the benefits, challenges and considerations of implementing various compute technologies for consumers in a cloud infrastructure.
- Align business requirements when selecting technologies that support compute resources in a cloud infrastructure.
- Develop a design and plan for deploying consumer compute resources in a cloud infrastructure.

### Module 4: Storage Resources

- Communicate the benefits, challenges and considerations of implementing various storage technologies for consumers in a cloud infrastructure.
- Align business requirements when selecting technologies that support storage resources in a cloud infrastructure.
- Develop a design and plan for deploying consumer storage resources in a cloud infrastructure.

### Module 5: Network Resources

- Communicate the benefits, challenges and considerations of implementing various network technologies for consumers in a cloud infrastructure.
- Align business requirements when selecting technologies that support network resources in a cloud infrastructure.
- Develop a design and plan for deploying consumer network resources in a cloud infrastructure.

### Module 6: Elasticity & Metering

- Communicate the benefits, challenges and considerations of implementing technologies that support elasticity in a cloud infrastructure.
- Communicate the benefits, challenges and considerations of implementing monitoring and metering technologies in a cloud infrastructure.

- Align business requirements when designing infrastructure to support these capabilities.
- Develop a design and plan for these capabilities in a cloud infrastructure.

#### Module 7: Hybrid Cloud Capabilities

- Communicate the benefits, challenges and considerations of implementing a hybrid cloud infrastructure.
- Align business requirements when selecting technologies to support hybrid cloud capabilities.
- Develop a design and plan for a hybrid cloud infrastructure.

#### Module 8: Disaster Recovery

- Communicate the benefits, challenges and considerations of implementing technologies that support disaster recovery in a cloud infrastructure.
- Align business requirements when designing disaster recovery capabilities.
- Develop a design and plan for disaster recovery capabilities in a cloud infrastructure.

#### Module 9: Planning and Design Review

- Develop a cloud design and present this to the audience.
- Demonstrate how the cloud design meets the business requirements and constraints that were identified during the assessment process.