

**Module Title** : **Cloud Technology Associate**

**Duration** : **3 days**

## Overview

**Certificate:** Cloud Technology Associate

**Accreditor:** Cloud Credential Council

**Duration:** 3 days

**Language:** English

**Course Delivery:** (Virtual) Classroom

**Credits:** None

Cloud computing is not just a technology, but also a new model for organizing, contracting and delivering information technology systems. This model has great potential for benefits but also new risks.

The Cloud Technology Associate (CTA) course defines cloud computing and virtualization, and explains the benefits and applications. Technology is explained in a vendor neutral way. A lab activity is included which enables participants to understand the cloud in a practical manner. Besides, the course is contemporary with the inclusion of latest cloud technologies and applications.

Subsequently, the risks of cloud computing are pointed out as well as ways of managing these risks. In the final part of the course the process of making choices in the adoption process of cloud is explained and cloud service management is broken down into details.

The course is an excellent way to prepare professionals who are considering cloud computing in their organizations.

## Audience

Primary audience:

- IT Managers and Solution Consultants
- IT Specialists (Analysts, Developers, Architects, Testing, etc.)
- IT Administrators (System, Database, etc.)
- IT Provisioning and Maintenance (Hardware, Network, Storage, etc.)

Secondary audience includes Sales, Purchase, Audit, and Legal professionals.

## Learning Objectives

At the end of this course, the participant will gain competencies in and be able to:

- Identify the fundamental concepts of cloud computing and virtualization including business benefits of cloud computing and technical aspects (high-level) of virtualization.
- Identify the technical challenges and the mitigation measures involved in cloud computing and virtualization.
- Identify the characteristics of cloud applications.
- List the steps to successfully adopt cloud services.
- Define cloud security and identify the risks involved in cloud computing as well as the risk mitigation measures.
- List the factors involved for implementation of different cloud models.

## Benefits of Taking This Course

The course allows IT professionals to operate effectively in a cloud environment as they can demonstrate an understanding of the key concepts and relevant terminology. It furthermore provides the foundation needed in order to successfully complete subsequent vendor-specific training/certification programs and also provides a baseline for the subsequent CCC Professional level certifications.

Participants report that this training allows them to better communicate with their peers on cloud benefits and risks, and that they are in a better position to evaluate vendor proposals for cloud computing.

## Prerequisites

There are no formal prerequisites; however, it is recommended that participants have:

- 6+ months of experience in Internet/web technologies,
- Some basic knowledge of storage and network technologies (preferred)

## Follow-on Courses

There are no formal follow-on courses but it would be effective if, participant go through some:

- Vendor specific product training, as well as more advanced security, technical, and architectural training.

## Course Materials

Participants receive a Participant Handbook.

## Examination

- Exam Format: Closed-book format.
- Questions: 40 multiple choice questions
- Passing Score: 65%
- Exam Duration: 60 minutes, 15 minutes extra for non-native English speakers
- Proctoring: Live/Webcam

## Technical Requirements

For eBooks:

- Internet is required only for downloading the eBook. The eBooks can be read offline.
- eBooks can be downloaded and read on the following devices Laptop, tablet, SmartPhone, eReader PDF Reader, recommended Adobe Reader.
- Instructions for download are available [here](#).

## Agenda

Day 1	Day 2	Day 3
1. Course Introduction	4. Overview of Cloud Technologies and Applications	7. Cloud Service Management (CSM)
2. Introduction to Cloud Services Model	5. Cloud Security, Risk, Compliance and Governance	
3. Introduction to Virtualization: The Backbone Technology of Cloud Computing	6. Preparing for Cloud Adoption	

## Course Outline

**Module 1: Course Introduction**

**Module 2: Introduction to Cloud Services Model**

- Review Traditional Computing Challenges and Concerns
- Cloud Computing Concepts, History, and Definitions (Characteristics, Service Models, and Deployment Models)
- Activity Time: Cloud Services Values
- Cloud Computing Benefits and Challenges, Best and Least Suited Application Profiles and APIs
- Activity Time: Case Study Assignment
- Cloud Reference Architecture and Common Terminologies
- Activity Time: Comparison of On-Premise and Cloud-Based Cost Analysis

### **Module 3: Introduction to Virtualization: The Backbone Technology of Cloud Computing**

- Virtualization: Definition, Concepts, History, and Relationship to Cloud Computing
- Virtualization: Benefits, Challenges, Risks, and Suitability to Organizations
- Hypervisor: Role and Purpose in Virtualization and the Various Types of Hypervisor
- Virtualization: Terminologies/Features
- Activity Time: High Availability Calculation
- Virtualization: Different Types of Virtualization
- Activity Time: Demo: Create, Manage, and Access Virtual Resources in the Cloud

### **Module 4: Overview of Cloud Technologies and Applications**

- Bring Your Own Device (BYOD) and MDM + EMM
- Software Defined Networking (SDN)
- Network Functions Virtualization (NFV)
- Big Data Analytics, NoSQL, NewSQL, and Internet of Things (IoT)
- Activity Time: Comparison of RDBMS, NoSQL, and NewSQL
- Activity Time: Case Study Assignment

### **Module 5: Cloud Security, Risk, Compliance and Governance**

- Security, Risk, Compliance and Governance Definitions
- Impact of Cloud Essential Characteristics
- Activity Time: Impact of Cloud Essential Characteristics
- Impact of Cloud Service Models
- Impact of Cloud Deployment Models
- Activity Time: Impact of Cloud Deployment Models
- Best Practices and General Cloud Security Recommendations

### **Module 6: Preparing for Cloud Adoption**

- Cloud Strategy and Roadmap Preparation

- Solution Architectures: For Various Services, Deployment Models, and Organizational Capabilities
- Cloud Service Provider, SLA, and Cloud Migration
- Activity Time: Cloud Adoption Strategy
- Activity Time: Case Study Assignment

#### **Module 7: Cloud Service Management**

- CSM Overview: Definition, Architecture, Lifecycle, Actors
- CSM: Business Support
- CSM: Provisioning and Configuration
- CSM: Portability and Interoperability
- Cloud Management Platforms
- Activity Time: Identify Cloud Service Management Features of an Organization
- Activity Time: Case Study Assignment