

# NCTA Cloud Architecture

## Course Specifications

### Course Number:

093019

### Course Length:

5 days

## Course Description

### Target Student:

This course is designed for system administrators who wish to plan, design, and implement cloud services for their organizations. This includes the ability understand cloud solution features, capabilities, and components offered by cloud providers at a deep level so as to design cloud and hybrid solutions for application deployment and infrastructure scenarios. Cloud architects must also evaluate, and plan for the appropriate compute, network, database, and security components to build a solution that meets the needs of their organization. In addition, they must secure, monitor, and optimize those solutions.

### Prerequisites:

To ensure your success in this course you should have experience with basic client and server deployment, configuration, and use. You should also be familiar with evaluating, implementing, accessing, administering cloud services, including Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS) solutions. You should also have experience deploying applications to and managing applications in cloud environments. You can obtain this level of skills and knowledge by taking the following Logical Operations courses:

NCTA Cloud Technologies

NCTA Cloud Operations

# Course Content

## Lesson 1: Planning a Cloud Solution Architecture

**Topic A:** Overview of Cloud Computing Technologies and Roles

**Topic B:** Determine the Type of Cloud Service Model

**Topic C:** Determine the Type of Cloud Implementation to Use

## Lesson 2: Evaluating Cloud Service Components

**Topic A:** Evaluate Cloud Computing Facility Components

**Topic B:** Evaluate Cloud Compute Components

**Topic C:** Evaluate Cloud Networking Components

**Topic D:** Evaluate Cloud Storage Components

**Topic E:** Evaluate Virtualization Software

**Topic F:** Evaluate Cloud Management and Platform Components

## Lesson 3: Selecting Amazon Web Services Building Blocks

**Topic A:** Select Availability and Management Building Blocks

**Topic B:** Select AWS Cross Cloud Service Features

**Topic C:** Select AWS Platform Building Blocks

## Lesson 4: Selecting AWS Infrastructure Components

**Topic A:** Select AWS Compute Components

**Topic B:** Select AWS Networking Components

**Topic C:** Select AWS Database Services

**Topic D:** Select AWS Storage and Content Delivery Components

**Topic E:** Monitor AWS Solutions with Analytics

## Lesson 5: Selecting Rackspace Cloud Features and Components

**Topic A:** Select Rackspace Cloud Compute and Network Components

**Topic B:** Select Rackspace Cloud Database Components

**Topic C:** Select Rackspace Cloud Storage

**Topic D:** Monitor Rackspace Solutions with Cloud Analytics

## **Lesson 6: Selecting Microsoft Azure Features and Components**

**Topic A:** Select Azure Compute and Network Services

**Topic B:** Select Azure Data Services

**Topic C:** Select Azure App Services

**Topic D:** Monitor Azure Solutions with Analytics

**Topic E:** Select a Cloud Provider to Meet Business Needs

## **Lesson 7: Managing Hardware Requirements and Constraints**

**Topic A:** Manage Compute Resources

**Topic B:** Manage Memory Usage for Cloud Solutions

**Topic C:** Manage Storage

**Topic D:** Manage Network Components

## **Lesson 8: Selecting Operating Systems for Cloud Solutions**

**Topic A:** Determine Operating System Requirements

**Topic B:** Select Operating Systems for Cloud Solutions

## **Lesson 9: Determining Database Support for Applications**

**Topic A:** Define Database Types

**Topic B:** Select a Database for a Cloud Solution

## **Lesson 10: Selecting Middleware to Meet Application Performance Requirements**

**Topic A:** Define Middleware Requirements

**Topic B:** Select an Application Package to Meet Requirements

## **Lesson 11: Determining Licensing Requirements for Cloud Services**

**Topic A:** Determining Cloud Licensing Models and Limitations

**Topic B:** Define Service Level Agreements (SLA)

## **Lesson 12: Protecting Business Continuity**

**Topic A:** Protect Data

**Topic B:** Ensure Business Continuity

**Topic C:** Plan for Disaster Recovery

**Topic D:** Implement Effective Data and Business Protection with Cloud Services

## **Lesson 13: Securing Data with Encryption**

**Topic A:** Use Encryption to Secure Data

**Topic B:** Manage Encryption Keys

## **Lesson 14: Securing Access to Cloud Services**

**Topic A:** Define Perimeter Security Requirements

**Topic B:** Define Authentication Requirements

## **Lesson 15: Securing Data in Transit and at Rest**

**Topic A:** Secure Data-in-Transit

**Topic B:** Secure Data-at-Rest

## **Lesson 16: Monitoring Security**

**Topic A:** Define Security Event Processes

**Topic B:** Monitor the Security of Cloud Solutions

## **Lesson 17: Managing Volume**

**Topic A:** Scale Up Cloud Solutions

**Topic B:** Scale Out Cloud Solutions

**Topic C:** Bolt On Solutions

**Topic D:** Update Interfaces in Cloud Solutions

## **Lesson 18: Managing the Application Experience**

**Topic A:** Address Technical Issues that Affect Application Experience

**Topic B:** Address User Experience Issues

**Topic C:** Manage Cloud Services to Meet Business Demands

## **Lesson 19: Managing Business Requirements for Cloud Solutions**

**Topic A:** Identify Business Requirements

**Topic B:** Manage Total Cost of Ownership (TCO) and Return on Investment (ROI)

### **Further Information:**

For More information, or to book your course, please Call/Email us on : - +254 713 027 191

KENYA - [training.kenya@clclearningafrica.com](mailto:training.kenya@clclearningafrica.com)

TANZANIA - [training.tanzania@clclearningafrica.com](mailto:training.tanzania@clclearningafrica.com)

UGANDA - [training.uganda@clclearningafrica.com](mailto:training.uganda@clclearningafrica.com)

RWANDA - [training.rwanda@clclearningafrica.com](mailto:training.rwanda@clclearningafrica.com)

BURUNDI - [training.burundi@clclearningafrica.com](mailto:training.burundi@clclearningafrica.com)

ETHIOPIA - [training.ethopia@clclearningafrica.com](mailto:training.ethopia@clclearningafrica.com)