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## Cisco Unified Communications Architecture and Design

**Duration: 5 Days**    **Course Code: UCAD**

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### Overview:

Unified Communications Architecture and Design (UCAD) course provides an overview of all the components of a Cisco Unified Communications solution and demonstrates how to effectively engineer and design a Cisco Unified Communications call control solution.

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### Target Audience:

This course is designed for: Network architects who design converged networks System engineers who design customer and organization solutions Network engineers who wish to understand the high-level design process

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### Objectives:

- Upon completing this course, the learner will be able to meet these overall objectives:
  - Identify the components that comprise a complete Cisco Unified Communications solution and size and position products within the solution
  - Identify the products and features required in the LAN environment to support Cisco Unified Communications call control
  - Calculate the WAN bandwidth requirements to support VoIP calls
  - Size the voice gateway
  - Size and locate the media resources
  - Identify the issues and components that make up a Cisco Unified Communications call control solution
  - Size and locate Cisco Unified Communications call agents and Cisco Unified Communications Manager 8.x
  - Design a correct dial plan
  - Explain issues that impact E911 requirements
  - Secure the voice network components
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### Prerequisites:

The skills and knowledge required to attend this course are expressed below:

- TDM Telephony  
Delegates must have attended and passed the following courses, or have the equivalent experience in order to fully benefit from this course:
- Interconnecting Cisco Networking Devices Part 1 (ICND1)
- Interconnecting Cisco Networking Devices Part 2 (ICND2)
- Designing for Cisco Internetwork Solutions (DESGN)
- Implementing Cisco Voice Communications and QoS (CVOICE)
- Implementing Cisco Unified Communications Manager Part 1 (CIPT1)
- Implementing Cisco Unified Communications Manager Part 2 (CIPT2)
- Implementing Cisco Quality of Service (QoS)

### Testing and Certification

Recommended as preparation for :

- 642-416 - Unified Communications Architecture and Design
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## Content:

### Cisco Unified Communications Architecture Overview

- Cisco Unified Communications Features
- Cisco Unified Messaging Components
- Mobility and Presence Overview
- Conferencing Products Overview
- Contact Center Overview
- Management Tools
- Cisco Unified Communications Security

### Designing the LAN for Cisco Unified Communications Call Control

- Explaining Campus Evolution and Cisco Unified Communications
- Connecting IP Phones
- Designing High Availability at the Data Link and Network Layers
- Reviewing LAN QoS for Cisco Unified Communications
- Designing the LAN Access Layer for Cisco Unified Communications
- Designing the LAN Distribution Layer for Cisco Unified Communications
- Designing the LAN Core Layer for Cisco Unified Communications

### Designing the WAN for Cisco Unified Communications Call Control

- Provisioning Bandwidth
- Designing WAN QoS for Cisco Unified Communications

### Designing Cisco Unified Communications Call Control

- Sizing and Selecting Voice Gateways
- Designing Media Resources
- Sizing and Positioning Cisco Unified Communications Call Control
- Designing the Dial Plan
- Designing Emergency Services
- Designing a Secure Cisco Unified Communications Solution

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## Further Information:

For More information, or to book your course, please call us on +254 713 027 191

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