

## CI - UCAD

### Unified Communications Architecture and Design



#### Summary

##### Duration

5 Days

##### Vendor

Cisco

##### Category

Unified Communication / Collaboration

#### Introduction

Unified communications Architecture and Design (UCAD) vs.8.0 is a course for prospective designers of Cisco Unified Communications solutions. The course teaches you how to identify, Cisco Unified Communications components and how to design cisco Unified communications call control solutions. These solutions include enterprise network infrastructure , LAN, WAN. and quality of service (QoS). You will learn how to size and position voice gateways, and to design or redesign media resources such as music on hold (MoH) and digital signal processor (DSP) resources. You will also learn how to position and size Cisco Unified communications Manager Clusters for call control, to design the dial plan, to design E911 emergency services, and to secure the Cisco Unified Communications solution.

You will work in teams to resolve design issues that are encountered while practicing the lessons. The last day of the course is devoted to a design exercise for a multicampus. Multisite organization that is migrating from a circuit-switched telephony network to a packet switched telephony network. This final exercise focuses on the issues that are encountered for provisioning the interconnection between cisco unified communications Manager Clusters.

#### Prerequisites

The learner should have a working knowledge or equivalent to the following Cisco courses:

- CCNA ( ICND1 + ICND2)
- CVOICE
- CIPT1
- CIPT2
- QOS
- CCDA certification is required for the IP Telephony Design Specialist certification. Skill that are equivalent to the Cisco CCDA certification are recommended for this UCAD class

#### Course Objectives

Upon completing this course, the learner should be able to meet these overall objectives:

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- 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
- Based on existing telephony and data statistics, perform these tasks:

- 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

### **Associated Certification & Exams**

On successful completion of this course students will receive a Torque IT attendance certificate.

The 642-415 UCAD Unified Communications Architecture and Design exam is the exam associated with the Cisco IP Telephony Design Specialist certification. This exam tests a candidate's knowledge of technical issues surrounding the design of Voice over Data network and explains a methodology that brings order to approaching the problems faced by planners and designers, including assessment of the current network, Cisco methodology for implementing Voice over Data networks, and how to design sustainable and appropriate implementations.