

**Course Description:** CCVP3 Boot Camp v2.0 runs at an accelerated pace, with extended hours, 8:00 AM to 8:00 PM each day, covering material from the GWGK v2.0 course and the TUC v1.0 course.

CCVP3 v2.0 provides students with information and practice activities to prepare them to install, configure, monitor and troubleshoot Cisco voice gateways and gatekeepers in Enterprise installations, in accord with the recommendations of Cisco's Solution Reference Network Design for IP Telephony guides.

CCVP3 v2.0 is also designed to equip network professionals with the knowledge and skills required to troubleshoot Unified Communications systems & solutions in Enterprise, Mid-Market, and Commercial deployments. The course teaches troubleshooting methodology, triage, resources, tools and fixes at the integrated system or solution level, and for components such as Cisco Unified Call Manager, Cisco Unity, videoconferencing, and infrastructure.

**Who Should Attend:** This course is for Network administrators, Network engineers, System engineers, and Network managers.

**Prerequisites:** Students must have CCNA certification status or equivalent knowledge working with Cisco IOS routers, CVOICE 5.0 or equivalent knowledge working with voice technologies in routers, Call Agent (Cisco Unified CallManager) skills and knowledge: Cisco IP Telephony Part 1 and Part 2 (CIPT1 and CIPT2), and an understanding of factors that affect voice and video quality: Implementing Cisco Quality of Service (QOS).

**Benefits of Attendance:** Upon completion of this course, students will be able to:

- Implement the appropriate interconnections.
- Implement a dial plan.
- Implement media resources, call applications and fax on gateways.
- Implement basic and advanced gatekeeper functionality and gatekeeper redundancy on IOS routers.
- Identify and describe the different IP-IP Gateway deployment models and explain the features supported for enterprise customers.
- Use a systematic methodology to troubleshoot Cisco Unified Communication systems by using knowledge of tools and reports that help isolate Cisco Unified Communication system problems.
- Isolate the specific problem, propose a solution, and, where appropriate, implement the solution
- Diagnose a call setup issue and resolve the issues.
- Troubleshoot the quality of both voice and video streams.
- Isolate the specific problem, propose a solution, and, where appropriate, implement the solution.

### Course Outline:

#### Gateway Deployments

Introducing Gateways  
Implementing H.323 Gateways  
Implementing MGCP Gateways  
Implementing SIP Gateways  
Implementing SRST Gateways

#### CiscIP Communications

PSTN and PBX Integrations  
Introducing PSTN and PBX Trunks  
Implementing Analog Trunks  
Implementing CAS Trunks  
Implementing BRI and PRI Trunks  
Implementing QSIG Trunks

#### Dial Plans on IOS Gateways

Dial Plan Overview  
Implementing PSTN Dial Plans on IOS Gateways  
Implementing Multi Site Dial Plans on IOS Gateways  
Implementing Calling Privileges on IOS Gateways  
Implementing RSVP Based CAC

#### Advanced Gateway Features

Implementing Media Resources using IOS Gateway DSPs  
Implementing FAX Support on IOS Gateways  
Call Applications on IOS Gateways

#### Gatekeeper Deployments

Introducing Deployments  
Implementing Basic Gatekeeper Functionality  
Implementing Gatekeeper Call Admission Control  
Implementing Advanced Gatekeeper Functionality  
Implementing Gatekeeper Redundancy

#### IP-IP Gateway

IP-IP Gateway Overview  
Implementing IP-IP Gateways

#### A Methodology and Tools for Troubleshooting CiscUnified Communications Systems

Introducing CiscUnified Communications Systems Troubleshooting  
Understanding Troubleshooting Methodology in CiscUnified Communications Systems  
Gathering Information for Troubleshooting

#### Troubleshoot CiscUnified CallManager-Related Issues

Troubleshooting Common Endpoint Registration Issues  
Troubleshooting CiscUnified CallManager Availability Issues  
Troubleshooting CiscUnified CallManager Security Issues  
Troubleshooting Database Replication Issues  
Troubleshooting LDAP Replication Issues  
Troubleshooting Common Gateway Registration Issues

#### Troubleshoot Call Setup Issues

Introducing Call Setup Issues and Causes  
Troubleshooting On-Premises Single-Site Calling Issues  
Troubleshooting Offsite Call Issues  
Troubleshooting Intercluster Dial Plan Issues  
Troubleshooting Gatekeepers in a CiscUnified Communications System

#### Troubleshoot Voice and VideQuality Issues

Defining Common Voice and VideQuality Issues  
Troubleshooting VoIP Quality Problems  
Troubleshooting Echo  
Troubleshooting Quality Problems of CiscUnified VideAdvantage

#### Application Integration and Media Resource Issues

Troubleshooting Common CiscUnity Integration Issues  
Troubleshooting CTI Issues  
Troubleshooting Media Resources