

## CBT Nuggets - Cisco 642-456 CCVP CIPT2

If you want to reach the 'next level' of Cisco Unified Communication Manager(CUCM) expertise, this is the training for you. CIPT1 taught you how to manage CUCM at a single office. CIPT2 expands on that knowledge by showing you how to manage CUCM at multiple locations. By the time you've finished Jeremy's series, you'll know all about multisite dial-plans, extension mobility, unified mobility and device mobility. This training maps to Exam-Pack 642-456 Cisco CCVP CIPT2. **Note from Jeremy:** "Videos 10 - 13 all focus on the same concept -- optimizing the WAN -- but they present many different ways to do it. Cisco designed CIPT2 around multisite deployments (CIPT1 was single site), and they place a huge amount of focus on ensuring you optimize the WAN." **What You'll Learn**

**Video 1: Cisco Voice: Cisco Certification and Getting the Most from this Series** |21:27 Welcome to the CIPT2 video series! This opening video discusses the series objectives and their relation to the Cisco CCVP certification exam. You'll also see recent changes to the Cisco certification process that make real world training (which is the goal of CBT Nuggets) the best possible way to prepare.

**Video 2: Multisite CUCM: Understanding Problems and Finding Solutions**|24:43 Multisite CUCM deployments can pose many challenges from bandwidth concerns to WAN outages to security vulnerabilities. This nugget outlines the various problems you can encounter along with some CUCM-provided solutions to those problems. Think about this nugget as the Table of Contents for the entire CIPT2 series.

**Video 3: Multisite CUCM: Configuring Multisite Connections**|48:13 Before you can fully understand and configure multisite dial-plans in CUCM, you must first design the foundation: voice gateways. This nugget is dedicated to two principles: understanding and configuring the various voice protocols your gateways can use to communicate with CUCM.

**Video 4: Multisite CUCM: Dial-Plan Considerations and Implementation**|38:22 When you move your network to VoIP, the complexity of the voice network dial-plan can become overwhelming! Multiple paths, dialed digit transformations, caller-id transformations, and lightning fast failover are all elements you must consider. In this first nugget of Multisite dial-plan design and configuration, Jeremy walks through a review of partitions and calling search spaces (CSSs) along with the first dial-plan scenario: Overlapping extension numbers with distributed call processing.

**Video 5: Multisite CUCM: Dial-Plan Considerations and Implementation, Part 2**|43:14 Multisite dial-plan design and configuration continues as the focus changes to two more complex scenarios: Overlapping extension numbers with centralized call processing and Core PSTN access considerations.

**Video 6: Multisite CUCM: Dial-Plan Considerations and Implementation, Part 3**|27:13 In this final piece of CUCM multisite dial-plan design and configuration, Jeremy discusses Advanced PSTN access (multiple site PSTN connectivity), WAN and PSTN backup strategies, and Tail-End Hop Off (TEHO) implementation.

**Video 7: Multisite CUCM: MGCP Fallback and SRST**|38:57 Any time you are deploying a multisite CUCM design, failover is a major consideration. You want to make sure your phones keep running even if a critical WAN failure occurs. Don't worry - we've got you covered; this nugget is dedicated to failover solutions and will discuss the concepts and configuration of MGCP FallBack and Survivable Remote Site Telephony (SRST).

**Video 8: Multisite CUCM: MGCP Fallback and SRST, Part 2**|46:24 When SRST takes over, the branch office gateway takes on a huge responsibility. It must provide most of the CUCM functions for the phones without having an operating system as robust as CUCM! Nonetheless, Cisco has done well to make this possible. This nugget discusses adding a PSTN dial-plan, DNIS and ANI transformation, and Class of Restriction (COR) list implementation.

**Video 9: Multisite CUCM: MGCP Fallback and SRST, Part 3**|19:05 In this final nugget focused on MGCP Fallback and SRST, Jeremy explores the configuration of CallManager Express in SRST Mode to allow a more "feature-riffic" SRST deployment.

**Video 10: Multisite CUCM: Managing WAN Bandwidth** |46:33 WAN Bandwidth is liquid gold to your network environment. Conserving the use of it is one of the utmost priorities of every organization. In this nugget, Jeremy walks through the "Rules of the WAN" as it applies to Multisite CUCM deployments. Prepare for plenty of concepts and configuration!

**Video 11: Multisite CUCM: Managing WAN Bandwidth, Part 2**|23:03 WAN Bandwidth management continues! This nugget shows you how to configure transcending resources, which allow you to convert between CODECs. In addition, you'll learn how to configure local Music on Hold (MoH) resources at your branch offices so you don't have to stream music over your WAN links.

**Video 12: Multisite CUCM: Implementing Call Admission Control**|15:41 There's a big difference between Quality of Service (QoS) and Call Admission Control (CAC). QoS protects your voice traffic from data traffic; CAC protects your voice traffic from other voice traffic. There's another entire series dedicated for QoS, however, your CAC education starts here. This nugget is dedicated to explaining the concept of Location-based CAC in a centralized CUCM deployment.

**Video 13: Multisite CUCM: Implementing Call Admission Control, Part 2**|48:00 The Call Admission Control (CAC) discussion continues on as Jeremy explores a powerful new feature: RSVP-enabled CUCM Locations, along with Automated Alternate Routing (AAR) and CUCM Gatekeeper integration.

**Video 14: Features and Applications: TCL and VoiceXML Scripts**|26:48 Cisco allows you to expand the functionality of your voice gateway using custom scripts. These scripts can deliver capabilities such as auto-attendant (AA), automatic call distribution

(ACD), and many others. Thankfully, you don't need to be a scripting wizard to make these types of modifications. In this nugget, Jeremy discusses the difference between VoiceXML and the Toolkit Command Language (TCL) and walks through process of enabling TCL scripts on your voice gateway. **Video 15: Features and Applications: Device Mobility|33:38** One great feature many administrators realize when they move to VoIP is the ability to move IP Phones around in the network without any reconfiguration at all. However, after a little thought, this can turn into a very scary feature if the phone roams outside of a physical location; calls (even emergency calls) could end up routing out the wrong gateway! To address this, Cisco has created Device Mobility. Join Jeremy in this nugget as he walks through the complete concepts and configuration of Device Mobility...but be sure to bring your brain with you! This one can definitely bend it. **Video 16: Features and Applications: Extension Mobility|45:27** It's time to address "users on the move." Not so much those who bring their phone with them, but those who roam around and want to use another person's phone...but they want it to be their phone...even though it's not their phone. Is it possible? Yes! That's what Extension Mobility is all about. This nugget explores the concepts behind Extension Mobility as well as a complete configuration walk-through. **Video 17: Features and Applications: Unified Mobility|18:47** The final piece of the CUCM Mobility capabilities is called Unified Mobility. This feature is comprised of two different building blocks: Mobility Connect (MC) and Mobility Voice Access (MVA). In this nugget, Jeremy walks through the concepts related to each one of these topics. **Video 18: Features and Applications: Unified Mobility, Part 2|51:40** Unified Mobility Part 2 picks up right where part one leaves off: the transition between concepts and configuration. This nugget is dedicated to the configuration of both Mobility Connect (MC) and Mobility Voice Access (MVA). **Video 19: IPT Security: Foundations of Cryptography|42:57** The final piece of the CIPT2 CBTNuggets series focuses in on the security of VoIP. In this nugget, you will learn the initial foundations of cryptography necessary for the nuggets following this: the Public Key Infrastructure (PKI - Authentication), symmetric and asymmetric encryption, and MD5 / SHA1 hashing. **Video 20: IPT Security: Implementing CUCM Security|44:34** Now that you have the security concepts mastered, it's time to apply those concepts to your UCUM environment. In this nugget, Jeremy discusses the areas of security that need to be addressed in a Cisco VoIP environment, the methods used to address those areas, and the base configuration of CUCM security measures. Download [This hidden password content is only available for our VIP member. Become VIP Member NOW