

CBT Nuggets - Cisco CCNA Voice Exam Pack 640-460: IIUC

Imagine yourself walking into a small business and showing them how to set up their voice and data networks. And then doing the setup for them. This will be you -- once you've completed Jeremy Cioara's CCNA Voice video series. Jeremy Cioara's training provides you with everything you need to know about setting up a Voice over IP (VoIP) telephone network for businesses of up to 200 users. Jeremy knows how to make serious learning fun. Rather than just presenting information (generic syntax, tips, etc.), his series walks through a practical deployment of a VoIP network, step-by-step. Plus, his training is mapped to the 640-460 exam.

What You'll Learn Video 1: Welcome to VoIP: Cisco Certification and Getting the Most from This Series|26:25 With every new program, there is typically an included "Read Me First" text file. In the same sense, consider this nugget the "Watch Me First" of the series. This nugget presents the strategies you can use for getting the most from the series, changes to the Cisco certification program, and the ideal CCNA Voice lab environment. Video 2: Welcome to VoIP: Voice in a Packet...What's the Big Deal?|26:48

Before you can dive into the technical aspects of converting a network to Voice over IP (VoIP), you must first understand the "why" behind it all. In this nugget, you will get the big picture view of the reasons for moving to VoIP and the framework of a VoIP migration plan. Video 3: Historic Voice: Understanding Analog Connectivity|32:46

VoIP networks are the "new thing" of network technology...which implies that there is an "old thing" still in existence. That "old thing" is analog and digital communication technology. Since VoIP networks must integrate tightly with the legacy voice world, a good understanding of analog and digital is necessary. In this nugget, Jeremy explores the properties of analog connectivity and signaling.

Video 4: Historic Voice: Digital Connectivity|24:44 Moving on in the legacy voice realm, this nugget explains digital connections and the extremely important process of converting analog communication to digital. Video 5: Historic Voice: Digital Connectivity, Part 2|32:26

The digital voice discussion continues with technologies geared at sending multiple voice calls over a single line. The technologies discussed in this nugget include Time Division Multiplexing (TDM), T1 and E1 Channel Associated Signaling (CAS), and T1 and E1 Common Channel Signaling (CCS). Video 6: Historic Voice: Legacy Voice Components and Connectivity|13:09

This nugget wraps up the discussion of historic voice by putting all the pieces together into a big picture view. Topics include the Public Switched Telephone Network (PSTN), Private Branch eXchange (PBX) and Key Systems, and a discussion of PSTN numbering plans. Video 7: Cisco VoIP: Understanding the Pieces of a Cisco Voice Network|31:14

In this nugget, Jeremy begins discussing the new world of Cisco VoIP. Cisco has created a voice infrastructure model with four layers (infrastructure, call processing, endpoints, and applications) to describe how voice networks should be built. This nugget explores this model and specifically discusses the infrastructure, call processing, and application layers. Video 8: Cisco VoIP: Understanding the Pieces of a Cisco Voice Network, Part 2|33:21

The discussion of the Cisco voice infrastructure model continues in this nugget with a specific focus on the endpoints of the Cisco VoIP network. Video 9: Network Foundations: Preparing the Infrastructure for VoIP|44:25

A Cisco VoIP network is only as good as its foundation. In order to support reliable, high-quality voice traffic, the network infrastructure must support new, key features. This nugget specifically focuses on Power over Ethernet (PoE) and Voice VLAN concepts and configurations. Video 10: Network Foundations: Preparing the Infrastructure for VoIP, Part 2|39:48

This nugget continues the discussion of the network infrastructure by exploring the Cisco IP phone boot process, IP phone DHCP support, and the Network Time Protocol (NTP) implementation.

Video 11: Cisco CME: Hardware Requirements and Installation Process|23:51 Now that the necessary network infrastructure adjustments have been made, you can move into the installation of the Cisco IP Communication Manager Express (CME, aka CallManager Express) call processing equipment. In this nugget, Jeremy explores the CME licensing, design models, files, and installation process. Video 12: Cisco CME: Ephones and Ephone-DNs|33:14

Once you install the CME equipment, you can move into the configuration process. This nugget discusses preparing CME for IP phone registrations and the extremely important concept of ephones and ephone-dns. Video 13: Cisco CME: Ephones and Ephone-DNs, Part 2|26:10

The conversation about ephones and ephone-dns continues as Jeremy walks through the configuration of IP phones (ephones) and button association with ephone-dns. Video 14: Cisco CME: Ephones and Ephone-DNs, Part 3|42:09

In this nugget, Jeremy wraps up the discussion of ephones and ephone-dns by exploring unique ephone-dn configurations such as shared lines and button overlay.

Video 15: Cisco CME: Voice Productivity Features|43:15 It's time for feature madness! This nugget examines the configuration of a voice network directory, call forwarding, transfer, park, and pickup. Video 16: Cisco CME: Voice Productivity Features, Part 2|50:01

The feature madness continues as Jeremy configures intercom, paging, after hours call blocking, music on hold (MoH), and web-based graphic administration of CME. Video 17: Gateways and Trunks: Understanding Voice CODECs|41:09

Now that you have configured the CME for local communication, it's time to reach out to the outside world with our voice gateway and trunk configurations. This initial nugget focuses around a discussion of audio

coder/decoders (CODECs) and determining bandwidth requirements for VoIP communication. Video 18: Gateways and Trunks: Connecting CME to Other Voice Systems|35:43 CME can connect to two types of voice networks through gateways and trunks: legacy voice (analog and digital) and VoIP. This nugget discusses the methods and protocols you can use when configuring these connections. Video 19: Gateways and Trunks: Understanding and Configuring Dial Peers|43:59 It's the most important topic of the entire series: dial-peers. Dial-peers are used to define the "routing table for voice traffic." This nugget discusses the core concepts behind dial-peers (call legs) and the base configuration of Plain Old Telephone Service (POTS) and VoIP dial-peers. Video 20: Gateways and Trunks: Understanding and Configuring Dial Peers, Part 2|41:51 The dial-peer discussion continues as Jeremy explores common dial-peer wildcards and the process used by routers to match inbound and outbound dial-peers to correctly route calls. Video 21: Gateways and Trunks: Manipulating Dialed Digits|27:12 There are many times in the configuration of a voice network where you will need to modify dialed number information. That's the primary topic of this nugget: digit manipulation. In here, Jeremy presents multiple practical scenarios and the digit manipulation techniques you can use to meet customer requirements. Video 22: Cisco Unity Express: Hardware Requirements and Features|19:26 Chances are you've never seen a corporate telephony network that did not have some type of voicemail system. In order to meet this need, most CME deployments will also include a Cisco Unity Express (CUE) module. In this nugget, you will explore the CUE appliance models and features. Video 23: Cisco Unity Express: Installation and Configuration|50:23 Amazingly enough, CUE installs as a separate, Linux-based appliance inside of a Cisco router. In this nugget, Jeremy explores the methods used to connect from the Cisco IOS to the CUE appliance and the base configuration of CUE for the network. Video 24: Cisco UC500: The Ultimate All-in-One Data and Voice Device|20:36 Can you imagine a single device that does routing, firewalls, Virtual Private Networks (VPNs), CME, and CUE? Dream no longer - Cisco designed the Cisco Unified Communications 500 (UC500) to be the ultimate all-in-one solution for small businesses. In this nugget, Jeremy reviews the reasons why the UC500 is the best thing since sliced bread and walks through the GUI interface provided for UC500 configuration. Video 25: A Final Word to CCNA Voice Test Takers|04:05 In this final video, Jeremy gives some "final tips" for those preparing for the CCNA Voice (IUC) certification exam. Download; **[This hidden password content is only available for our VIP member. Become VIP Member NOW**