CBT Nuggets - Cisco CCNP 642-902 ROUTE: Implementing Cisco IP Routing

Cisco's approach to its ROUTE exam is entirely real-world, and Jeremy's video series really prepares you for the exam with GNS3 (an open-source Cisco emulator) labs. By the time you're done watching you'll be ready to Configure EIGRP, OSPF, and BGP at a master level; grasp the big-picture of worldwide Cisco network design; fill in plenty of ?knowledge gaps? left by the CCNA on routing protocols; and confidently sit for the exam. * Video 1: Cisco ROUTE: Cisco Certification and Getting the Most from this Series |22:44 Welcome to the Cisco ROUTE video series! This opening nugget discusses the series objectives and their relation to the Cisco CCNP certification path. You'll also see recent changes to the Cisco certification process that make real world training (which is the goal of CBTNuggets) the best possible way to prepare. * Video 2: Lab Foundations: GNS3 Overview and Operation|37:37 GNS3 is a fantastic, open source utility that allows you to emulate (not simulate) Cisco devices and create lifelike working scenarios to learn and demonstrate Cisco concepts. We will be using this utility extensively during this series and know that you might want to use it for yourself. In this nugget, Jeremy walks through the general setup of GNS3 along with some time and frustration-saving tips to get you learning Cisco technology as fast as possible. * Video 3: Lab Foundations: Network Design and Documentation|22:00 Cisco realized that the prior CCNP version was creating "configuration wizards" who knew very little about properly planning and documentation. In the modern CCNP, Cisco focuses heavily on proper planning and design in every network concept. This nugget gets you familiar with some of the "planning best practices" to throughout this series and in your own network environment. * Video 4: EIGRP Routing: Concepts and Planning|29:35 Even though Cisco designed EIGRP to be a simple protocol, there are a few concepts you'll want to be aware of before you move forward with implementation. This nugget walks through the key tables, terms, and calculations you'll need to get started with using EIGRP. * Video 5: EIGRP Routing: Implementing Basic EIGRP|44:58 Buckle your seat belts for the first EIGRP lab walkthrough. In "Configuring Basic EIGRP," Jeremy implements core EIGRP routing features, demonstrates methods to advertise a default route into the EIGRP process, performs summarization, and configures passive interfaces. * Video 6: EIGRP Routing: Implementing Advanced EIGRP|19:59 NBMA Networks add complexity to ANY routing protocol simply because NBMA networks themselves can be quite complex. This nugget walks through the concepts of NBMA networks (including point-to-point and multipoint configurations) as it relates to EIGRP. * Video 7: EIGRP Routing: Implementing Advanced EIGRP, Part 2|31:38 It's time to take the NBMA concepts out for a drive! In this nugget, Jeremy walks through a GNS3 lab implementing EIGRP over NBMA networks incorporating MD5-based authentication. * Video 8: EIGRP Routing: Best Practices and Design Options|25:20 EIGRP's simplicity is one of its best features as well as one of its biggest drawbacks. Many administrators see EIGRP as a blanket routing protocol - just throw it at any situation with minimal configuration and it will work. While this may be true, it won't work well. Query messages can eat your network alive causing slow convergence at best and complete outages at worst. This video walks through the design options and best practices when setting up an EIGRP-based network. * Video 9: OSPF Routing: Foundation Concepts, Part 1|42:35 Welcome to OSPF, the most popular routing protocol in the world, but also one of the most complex interior gateway protocols one can deploy. Before a single line of syntax is typed, many concepts must be discussed. This video covers the benefits of link-state routing protocols, OSPF area terminology and concepts, and the forming of OSPF neighbor relationships. * Video 10: OSPF Routing: Foundation Concepts, Part 2|23:53 We'd pack all the OSPF concepts in a single video if we could! There's just too much to talk about. This video picks up where the last one leaves off and discusses the OSPF cost (metric), the concepts behind the Designated Router (DR) and Backup Designated Router (BDR), and the flurry of OSPF packet types you will encounter on your network. * Video 11: OSPF Routing: Implementing Basic OSPF|46:58 Let the OSPF configuration begin! In this nugget, Jeremy walks through the initial OSPF configuration lab illustrating the concepts discussed thus far. * Video 12: OSPF Routing: Implementing OSPF over NBMA|25:53 Understanding OSPF over NBMA is one of the main topics that divides the CCNA-level understanding of OSPF from the CCNP. This first nugget walks through the concepts of varying OSPF networks and presents the five different modes of operation OSPF can support over NBMA-style networks. * Video 13: OSPF Routing: Implementing OSPF over NBMA, Part 2|32:34 It's all configuration now! Join Jeremy as he walks through the configuration of OSPF over NBMA networks in an advanced GNS3 lab. * Video 14: OSPF Routing: Area Types and Options|33:26 Understanding the OSPF area types is definitely one of Jeremy's favorite OSPF topics! Just the names of the area types alone speak volumes: stub areas, totally stubby areas, not-so-stubby areas? It's not often you get to deal with technical terms that sound like this. Each one of these area types offer their own, unique features. Find out all about them (along with your standard dose of configuration) in this video! * Video 15: OSPF Routing: Area Types and Options, Part 2|43:57 Now that you've seen the OSPF special area concepts, are you ready to try it yourself? This advanced OSPF GNS3 lab walks through the configuration of the OSPF special area types and virtual links. Good luck! * Video 16: IPv4 Redistribution: Controlling Routing Updates|22:14 Redistribution is a "necessary evil" in many network environments which can lead to complex

scenarios involving multiple routing protocols. This nugget creates the framework for the reasons for redistribution, the process of redistribution, and potential "network explosion" issues you could encounter. * Video 17: IPv4 Redistribution: Implementing Simple Redistribution|34:22 The title describes it all! In this nugget, you'll walk through basic, single point redistribution involving route filtering using distribute lists and prefix lists. * Video 18: IPv4 Redistribution: Implementing Advanced Redistribution|46:56 Unfortunately, no one can be told exactly what redistribution is...you must experience it for yourself." - Morpheus. Get ready to take the red pill and join Jeremy in an advanced redistribution lab that explores multipoint redistribution using route-maps, filters, and tags. * Video 19: BGP Routing: Foundation Concepts and Planning|23:58 Take a step into the largest routing protocol in the world: the Border Gateway Protocol (BGP). This video walks through the foundation concepts of BGP: what it is, where you would use it, and facts to consider before deploying it. * Video 20: BGP Routing: Implementing Basic BGP|33:43 Let the BGP configuration begin! Because BGP is so complex, we had to divide this configuration topic into three separate videos. This initial video walks through the difference between IBGP and EBGP, the setup of BGP neighbor relationships, and implementing minor tuning of BGP through the use of the "update-source" and "ebgp-multihop" commands. * Video 21: BGP Routing: Implementing Basic BGP, Part 2|33:31 The BGP configuration fun continues as Jeremy walks through the process of advertising networks into BGP and disabling BGP auto-summary (you REALLY don't want this feature). In addition, special time is given to the BGP next-hop behavior and BGP synchronization, which can traditionally be very confusing topics. * Video 22: BGP Routing: Tuning Attributes|29:37 Now that the foundation BGP configuration has been deployed, you'll need to begin your custom modifications to help BGP find the best path through the Internet. Without proper modification of BGP attributes, the protocol behaves like an advanced version of RIP (which you DON'T want!). Join Jeremy as he discusses the concepts around these BGP attributes and how you can modify them effectively. * Video 23: BGP Routing: Tuning Attributes, Part 2|49:39 More BGP attribute fun! Because the BGP metric is so complex, we needed to split the attribute discussion into two videos. In this video, Jeremy continues through the live demonstration of BGP attribute modification. * Video 24: Path Control: Configuring Path Control|49:34 If you love coding, you'll love this one! And if you despise coding, we think you'll like this one anyway. Policy routing allows you to implement "scripting" on your router that gives you complete control of packet routing. This goes beyond your standard routing table granting you complete control over the packet handling process. Jeremy uses a "do-and-learn" structure to implement policy routing through a GNS3 lab. * Video 25: IPv6 Routing: Understanding and Implementing IPv6 Addressing|35:30 "IPv6...It's going to change the world!!!" Will it really? Most definitely. When? Not sure. Why? Come find out in this nugget! Jeremy walks through the goals behind IPv6, the new format of IPv6 addresses, headers, and subnet masks. * Video 26: IPv6 Routing: Implementing IPv6 Routing and Routing Protocols|31:21 We just wanted Jeremy to show us a ping with IPv6...before long, we had a complete nugget describing manual configuration of IPv6 addresses, local link addresses, the ICMP Neighbor Discovery process, IPv6 multicasting, and of course...a ping! * Video 27: IPv6 Routing: Implementing IPv6 Routing and Routing Protocols, Part 2|31:31 Here's the good news: when you move to IPv6, all the routing and routing protocol knowledge you had from IPv4 comes right along with you. This nugget is focused on implementing IPv6 routing through static routes, RIPng, and OSPF. You'll find not too much has changed (other than the hip, new RIP "next generation" name!). * Video 28: IPv6 Routing: Transitioning to IPv6 and Certification Review|16:28 In this final nugget of the series, Jeremy touches on three IPv6 transition techniques: dual-stack, tunneling, and NAT-PT. He then follows this up with a snapshot view of his experience of the Cisco ROUTE exam (642-902). Download | **Size:** 1.26 GB **[This hidden password content is only available for our VIP member. Become VIP Member NOW**