



Cisco Community Meet The Author

CCIE Routing&Switching v5.0 Official Certification Guide Vol. 1

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Welcome to the new “Meet Authors event”

Learn from the IT expert that literally wrote the book
“CCIE Routing and Switching v5.0 Official Cert Guide Vol 1”



Meet
Author



Learn the
Story behind



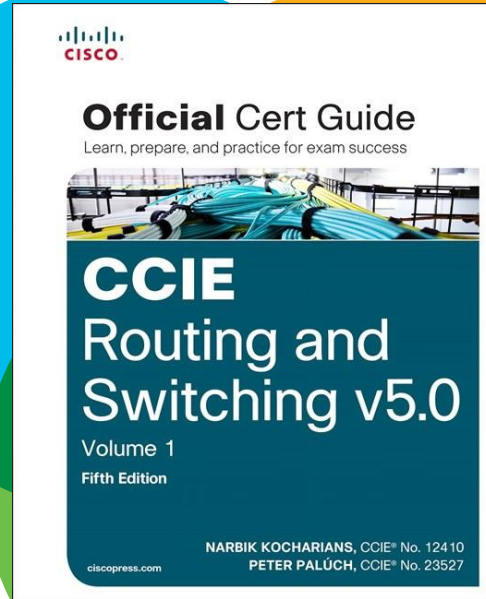
Key
Content



Clarify
Questions

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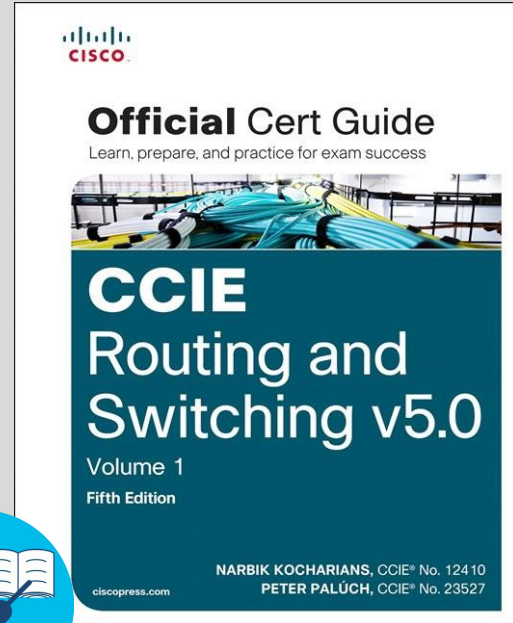


Meet the Author



Peter Paluch

Exam Program Manager & Hall of Fame
CCIE #23527



Co-author of

[CCIE R&S v5.0 Official Cert Guide, Vol 1](#)

It's Peter's time

Cisco Press Textbook Series

- Foundation Learning Guides
(<http://www.ciscopress.com/series/publisher.asp?st=44059>)
 - **Building** the **new** knowledge from ground up
 - Covering the foundations and even going beyond the blueprint
- Certification Guides
(<http://www.ciscopress.com/series/publisher.asp?st=44066>)
 - **Refreshing** and brushing-up the **existing** knowledge
 - Mid- to late-stage assessment, review, and exam practice

CCIE R&S V5.0 Vol 1 (and 2) OCG Placement

- The CCIE R&S V5.0 Volume 1 is an official certification guide co-authored by Narbik Kocharians and myself
- However, with Narbik, we did not feel confined by this definition
 - There has been no Foundation Learning Guide for CCIE R&S, only for lower-level exams
 - Many topics required in-depth explanations, clarifications, additional context, even busting frequent misconceptions
 - We both were thrilled to bring in what we believed to be, through our training experience, “the definitive” takes on many topics

CCIE R&S V5.0 OCG Vol 1 – Chapter 1

Ethernet Basics

- The chapter covers Ethernet L1 and L2 operations, switchport configuration, SPAN variants, and VSS
- For seasoned networkers, most of the content should be obvious
- **Look forward to**
 - Ethernet frame types (DIX, 802.3 + 802.2 LLC, 802 SNAP)
 - Addressing, especially the I/G and U/L bits
 - Virtual Switching System (VSS)

CCIE R&S V5.0 OCG Vol 1 – Chapter 2

Virtual LANs and VLAN Trunking

- The chapter focuses on VLANs, Q-in-Q, Private VLANs, 802.1Q/ISL, DTP, VTP, and PPPoE
- Experienced networkers should be familiar with much of the content
- **Look forward to**
 - In-depth discussion of PVLAN operations including PVLAN trunks
 - VTPv3 details

CCIE R&S V5.0 OCG Vol 1 – Chapter 3

Spanning Tree Protocol

- The chapter is
 - A **hardcore deep dive** into STP, RSTP, MSTP and Cisco's PVST+ and RPVST+ variants including their interoperation, protection mechanisms, and optimization features
 - A **gentle deep dive** into EtherChannel including LACP and PAgP
 - A **troubleshooting cookbook** for common L2 issues
- The description of STP variants and their interoperation is likely one of the most extensive and complete references available up to date

CCIE R&S V5.0 OCG Vol 1 – Chapter 4

IP Addressing

- The chapter covers intricacies of IPv4 addressing, subnetting and summarization, NAT, and touches on IPv6 specifics in this area
- For every networker, this chapter is a sum of knowledge to be able to quote even from one's sleep 😊
- **Look forward to**
 - Quick methods for network subnetting
 - Quick methods for network summarizing

CCIE R&S V5.0 OCG Vol 1 – Chapter 5

IP Services

- The chapter covers several supporting protocols and mechanisms including ARP, Proxy ARP, RARP, DHCP, FHRPs, NTP, SNMP, Syslog, WCCP, IP SLA, Object Tracking, NetFlow, RITE, EEM, RMON, (T)FTP, SCP, HTTP(S), Telnet, SSH
- Due to the extremely vast scope, some of these topics are reviewed only, not dissected in depth
 - All of these topics are well-known with solid documentation and other reference materials
- The chapter is an **excellent practical refresher** on these topics without too much fuss

CCIE R&S V5.0 OCG Vol 1 – Chapter 6

IP Forwarding (Routing)

- The chapter is a deep dive into the IP forwarding paths (process switching, fast switching, CEF), multilayer switching, PBR, and issues related to routing protocol migration
- To advanced networkers, the concepts are very likely known but the chapter adds much more context to the **WHY** aspect of these topics
- **Look forward to**
 - CEF dissection in detail
 - Discussion of routing protocol migration pitfalls

CCIE R&S V5.0 OCG Vol 1 – Chapter 7

RIPv2 and RIPv6

- The chapter is a deep dive into distance vector routing protocol theory and RIPv2 and RIPv6 (if there is ever such a thing 😊)
- **Look forward to**
 - Clarification of counting to infinity, split horizon (with/without poisoned reverse), route poisoning, triggered updates, holddown
 - Clarification of RIP timers in Cisco IOS

CCIE R&S V5.0 OCG Vol 1 – Chapter 8

EIGRP

- The chapter is a deep dive into EIGRP for IPv4 and IPv6
- Within the size constraints, probably the [most comprehensive and accurate resource on EIGRP](#) out there
 - Virtually every aspect of EIGRP analyzed and discussed in detail
 - Many misunderstandings set straight and myths debunked
 - Additional context provided

CCIE R&S V5.0 OCG Vol 1 – Chapter 9

OSPF

- The chapter is a deep dive into OSPFv2 and OSPFv3 operations
- To seasoned networkers, many facts will be known but the chapter will still bring in multiple clarifications and details put into context
- **Look forward to**
 - Additional OSPF features and extensions (GTSM, Graceful Shutdown, Stub Router, Prefix Suppression, Extended Cryptographic Authentication)
 - Performance Tuning

CCIE R&S V5.0 OCG Vol 1 – Chapter 10

IS-IS

- The chapter is a **fairly broad and deep dive into IS-IS** well beyond the blueprint requirements
 - Chapter written from scratch
 - Solid amount of space is spent on an introduction into ISO OSI networking where IS-IS comes from; this makes IS-IS much more understandable
 - No starting knowledge of ISO OSI networking and IS-IS assumed, using parallels and contrasts to OSPF where appropriate
 - IS-IS is often regarded as “weird” – one of the goals was to dispel this notion completely

CCIE R&S V5.0 OCG Vol 1 – Chapter 11

IGP Route Redistribution, Summarization, Default Routing, T-shooting

- The chapter covers route redistribution, route maps, prefix lists, administrative distance, advertising default routes, performing route summarization, PfR, and troubleshooting Layer3 issues
- The chapter is a **solid wrap-up and refresher** of topics common to all IGPs described in previous chapters

But CCIE R&S is due to retire...

- The CCIE Routing and Switching certification will be replaced by CCIE Enterprise Infrastructure on February 24th 2020
- The blueprints of CCIE R&S and CCIE Ent Infra exams are similar
 - **Simplified or removed** HDLC, PPP, PAgP, L2VPNs, CEF, RIP, IS-IS, EIGRP OTP, IGMP Proxy, PIM-DM, IPv6 transition technologies, standalone IPsec, GETVPN, PfR, VSS, Stackwise
 - **Added** PIMv6 Anycast RP, IOS-XE CPPr, Packet Trace, Conditional Debugger, VASI, **SD-WAN, SDA, Programmability/Automation**
- Core technologies remain

Is the CCIE R&S V5.0 OCG still relevant?

- Of course, as a one-stop-shop for CCIE Enterprise Infrastructure, this book is no longer sufficient
- However,
 - Core technologies are **unchanged** in the CCIE Ent Infra blueprint
 - Overlay technologies (SDA, SD-WAN) run **on top of underlays** comprised of – guess what – core technologies 😊
 - In many aspects, the CCIE R&S V5.0 OCG is more than just a certification guide – it is a **condensed and continuously relevant one-of-a-kind compendium** of some of most important networking technologies driving our current and future networks

Q&A with the Author!



Use the Q&A panel to submit your questions, our expert will respond

Extra Resources and References

Cisco Press News

The new study guide for the CCNP/CCIE Enterprise Core ENCOR 350-401 exam is under production. Will be available on Dec 27 2019 [[Learn more](#)]

CCIE R&S v5.0 Configuration Practice Labs:

<http://www.ciscopress.com/store/cisco-ccie-routing-and-switching-v5.0-configuration-9780133786316>

CCIE R&S v5.0 Troubleshooting Practice Labs:

<http://www.ciscopress.com/store/cisco-ccie-routing-and-switching-v5.0-troubleshooting-9780133786330>

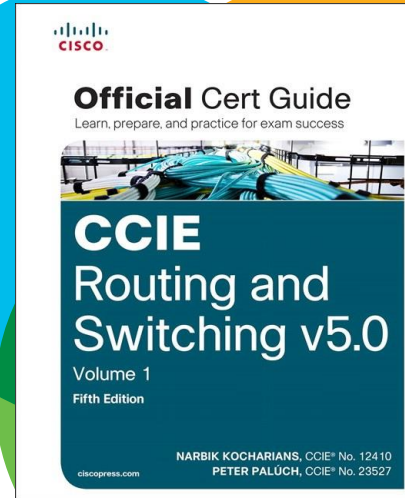
Other useful resources:

<http://www.ciscopress.com/store/ccie-routing-and-switching-v5.1-foundations-bridging-9781587144721>

<http://www.ciscopress.com/store/ccie-and-ccde-evolving-technologies-study-guide-9780789759726>

<http://www.ciscopress.com/store/ccie-wireless-v3-study-guide-9781587206207>

Congratulations
winners!



We'll contact you via email

Thank you for Your Time!

Please help to complete the survey

Your opinion is important and help us to improve



Thanks For Joining today!

